UNITED STATES DEPARTMENT OF THE INTERIOR

SURFACE WATER SUPPLY *of the* UNITED STATES 1941

PART 7

LOWER MISSISSIPPI RIVER BASIN

Prepared in cooperation with the States of
ARKANSAS, COLORADO, KANSAS, KENTUCKY, LOUISIANA, MISSISSIPPI
MISSOURI, NEW MEXICO, OKLAHOMA, TENNESSEE, AND TEXAS
and other agencies

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 927

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

Water-Supply Paper 927

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1941

PART 7

LOWER MISSISSIPPI RIVER BASIN

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In cooperation with the States of
ARKANSAS, COLORADO, KANSAS, KENTUCKY, LOUISIANA
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SURFACE WATER SUPPLY OF LOWER MISSISSIPPI RIVER BASIN, 1941

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes and reservoirs in the United States during the water year ending September 30, 1941. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,120 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1941, 4,850 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 11.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" ie an abbreviation for "cubic feet per eecond." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"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 runoff is distributed uniformly both as regards time and area.

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

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

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Stage-discharge relation" is an abbreviation for the term "relation between (gage height) and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial etructure.

EXPLANATION OF DATA

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

measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown on plate 1.

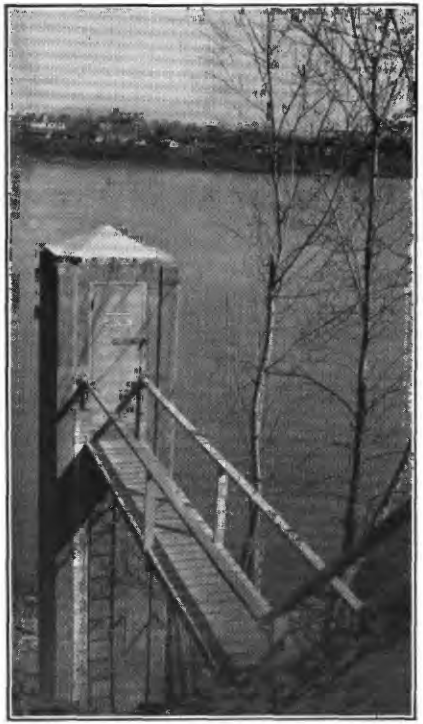
Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements are used in applying the gage heights to the rating tables.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method" in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage, and for them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes.

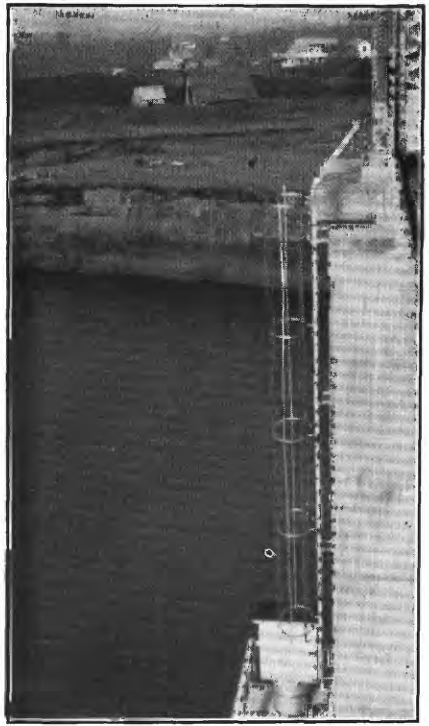
For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage



A. ARKANSAS RIVER AT LITTLE ROCK, ARK.

B. RED RIVER NEAR COLBERT, OKLA.



C. RED RIVER AT GARLAND, ARK.
Note safety basket on ladder approach to gage shelter.

GAGING-STATION STRUCTURES.

recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given below the table of monthly discharge for some stations. This supplementary information is generally omitted for stations having drainage areas of less than 10 square miles or more than 10,000 square miles or if the peak discharges usually exceed the corresponding mean discharges for the day by less than 10 percent.

For stations equipped with nonrecording gages, the table of daily discharge gives the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing as an essential element a curve representing the stage-discharge relation at the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For a few of the more important lakes and reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless

satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

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

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

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

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained 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:

East of the Mississippi River:
Albany, N. Y., 526 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 5 North Rhodes Center.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 945 Post Office Building.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., Engineering Building, University of Maryland.
Columbia, S. C., 119 United States Courthouse.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 225 Capitol Building, 410 Asylum Street.
Indianapolis, Ind., 511 Board of Trade Building.
Jackson, Miss., 208 Millsaps Building.

Louisville, Ky., 652 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
Ocala, Fla., 302 Post Office Building.
St. Paul, Minn., 808 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.

West of the Mississippi River:
Austin, Tex., 302 West 15th Street.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 230 Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 1404 Statehouse.
Los Angeles, Calif., G-31 United States Post Office and Courthouse.
Oklahoma City, Okla., 303 Capitol Office Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 926 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 1100 Washington Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

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

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information...	1884 to Sept. 1890
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)..	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries.	
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries.	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.

Note.- Reports containing records for years after 1901 are given in table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1941. The data for any particular station will, in general, be found in the reports covering the years during

Numbers of water-supply papers containing results of stream measurements, 1899-1941

(For basins included see p. 4)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	ul77, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River.
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 503, which contain records for the Ohio River Basin for those years.

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

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 6), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	Year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, southern, Surface water supply of Pacific slope of.
597-E	1927	California, Surface water supply of Sacramento River Basin.
636-D	1927	California, Surface water supply of San Joaquin River Basin.
636-E	1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
850	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
870	1935	Washington, Summary of records of surface waters of.
469	1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1927	Colorado River, upper (Colo., Utah), and its utilization.
517	1920	Great Salt Lake Basin, Water powers of.
618	1926	Green River (Utah, Wyo.) and its utilization.
198	1906	Kennebec River Basin (Maine), Water resources of.
491	1917	Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (N. C., Va., W. Va.), Surface Water Supply of.
279	1909	Penobscot River Basin (Maine), Water resources of.
192	1906	Potomac River Basin (D. C., Md., W. Va.)
358	1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of.
109	1904	Susquehanna River Basin (Pa., Md.,), Hydrography of.

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The table on following page contains a list of these reports.

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama.....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1928	Stream-gaging Report 1.....	Arkansas Geological Survey.
Connecticut.	1926	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1933[a]	6th biennial report.....	Connecticut State Water Commission.
Georgia.....	1906	Bull. 16, Water powers of Georgia....	Geological Survey of Georgia.
Do.....	1920[b]	Bull. 38, Water powers of Georgia....	Do.
Illinois....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1934	Stream-flow data of Illinois.....	Division of Waterways.
Indiana.....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1930[c]	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1924[d]	....do.....	Do.
Do.....	1928[e]	....do.....	Kansas State Board of Agriculture.
Do.....	1935[f]	Stream-flow data of Kansas.....	Do.
Do.....	1939[g]	....do.....	Do.
Kentucky....	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Maryland....	1937	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota...	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1939[h]	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Nebraska....	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1928[i]	2d hydrographic report.....	Do.
New Jersey..	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1934[j]	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1925	Surface water supply of New Mexico...	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	1936[k]	Bull. 39, Discharge records of North Carolina streams.	Do.
North Dakota	1920	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1927[l]	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1921[m]	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1939[n]	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1924[o]	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1930[p]	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1936[q]	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1932[r]	Stream-flow records of Pennsylvania..	Department of Forests and Waters.
Tennessee...	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1930[s]	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th biennial report, State Engineer..	Office of the State Engineer.
Do.....	1910	7th biennial report, State Engineer..	Do.
Do.....	1916	10th biennial report, State Engineer.	Do.
Virginia....	1927	Bull. 31, Water resources of Virginia.	Conservation Commission.
Washington..	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1923[t]	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

a Includes records of monthly discharge in second-feet per square mile for years 1912-33.
b Includes records for years 1907-18.
c Includes records for years 1927-30.
d Includes records for years 1919-24.
e Includes records for years 1924-28.
f Includes records for years 1928-35.
g Includes records for years 1935-39.
h Includes records for years 1927-39.
i Includes records for years 1914-28.
j Includes records for years 1928-34.
k Includes records for years 1889-1936; records of daily and monthly discharge are not included.
l Includes records for years 1882-1937.
m Includes all available records prior to 1921.
n Includes records for years 1902-39.
o Includes records for years 1914-24.
p Includes records for years 1924-30.
q Includes records for years 1930-36.
r Includes records for years 1928-32.
s Includes average weekly discharge for years 1920-30.
t Includes records for years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Nevada, Washington, and Wyoming.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, Part 1, New England Rivers.
799	The floods of March 1936, Part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, Part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the year ending September 30, 1941, by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of daily discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Remarks
Arkansas River, Salt Fork of.	Cherokee, Okla.	1941	Unpublished.
Atchafalaya River	Simmesport, La.	1851, 1858, 1873, 1880-1941†	Published in reports of Mississippi River Commission.
Bayou Bartholomew	McGehee, Ark.	1939-41	Unpublished.
Bayou Boeuf	Above Bayou Robert, La.	1939-41	Do.
Do.	Above Middle Bayou	1939-41	Do.
Do.	Near Lyles, La.	1939-41	Do.
Bayou Courtableau	Washington, La.	1932-41†	Do.
Bayou DeView	Morton, Ark.	1937-41	Do.
Bayou du Lac	Three Prong Lake	1939-41†	Do.
Bayou Rapides	Alexandria, La.	1939-41	Do.
Bear Tail Creek	East of Coldwater, Miss.	1940-41	Do.
Big Black River	Kilmichael, Miss.	1936-41	Do.
Do.	Ragin, Miss.	1936-41	Do.
Do.	West, Miss.	1936-41	Do.
Black Bayou	Rodessa, La.	1939-41	Do.
Black Lake Bayou	Coushatta-Ashland highway, La.	1939-41	Do.
Cache River	Patterson, Ark.	1937-41	Do.
Caddo River	Alpine-Bismark, Ark.	1939-41	Do.
Cane Creek	West of Love, Miss.	1940-41	Do.
Camp Creek	West of Lewisburg, Miss.	1940-41	Do.
Cimarron River	Englewood, Kans.	1936-41	Do.
Coldwater River	South of Lewisburg, Miss.	1940-41	Do.

† Fragmentary records.

Records of daily discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Remarks
Hatchie River	Rialto, Tenn.	1939-41	Unpublished.
Horse Creek	Sugar City, Colo.	1940-41	Do.
Hurricane Creek	Frees Corner, Miss.	1940-41	Do.
Hurricane Creek, East Fork of.	South of Nesbitt, Miss.	1940-41	Do.
Hurricane Creek, North Fork of.	West of Nesbitt, Miss.	1940-41	Do.
Hurricane overbank	Frees Corner, Miss.	1940-41	Do.
Intracoastal Canal	At Black Bayou Ferry, La.	1941†	Do.
Do	At Eilender's Ferry, La.	1941†	Do.
Little Missouri River	Boughton, Ark.	1938-41†	Do.
Do	Daisy-New Hope highway, Ark.	1941†	Do.
Little Tallahatchie River.	West of Batesville, Miss.	1940-41†	Do.
Do	North of Abbeville, Miss.	1940-41†	Do.
Loosahatchee River	Brunswick, Tenn.	1939-41	Do.
Mississippi River	Arkansas City, Ark.	1884-1941†	Published in reports of Mississippi River Commission.
Do	Baptiste Collette	1922-23, 1927, 1937, 1941†	Unpublished.
Do	Baton Rouge, La.	1929, 1938-41	Published in reports of Mississippi River Commission.
Do	Carrollton, La.	1851, 1852, 1879-1941†	Do.
Do	Columbus, Ky.	1857-1941	Do.
Do	Cubit Gap-Brant Pass, La.	1922-23, 1927, 1937, 1941†	Unpublished.
Do	Cubit Gap-Main Pass, La.	1922-23, 1927, 1937, 1941	Do.
Do	Cubit Gap-Octave Pass, La.	1922-23, 1927, 1937, 1941	Do.
Do	Cubit Gap-Raphael Pass, La.	1922-23, 1927, 1937, 1941	Do.
Do	Mayersville, Miss.	1883-95, 1933-41	Published in reports of Mississippi River Commission.
Do	Natchez, Miss. (Ferry Range).	1858, 1890-92, 1927, 1934-41†	Do.
Do	Pass a Loutre, La.	1877-81, 1894, 1896, 1898, 1909, 1913-15, 1917-41	Do.
Do	Pass a Loutre Crevasse, La.	1941†	Unpublished.
Do	Red River Landing, La.	1851, 1881-1941†	Published in reports of Mississippi River Commission.
Do	South Pass, La.	1877-80, 1894, 1896, 1898, 1905, 1909, 1914-15 1917-41†	Do.
Do	Southeast Pass, La.	1941†	Unpublished.
Do	Southwest Pass, La.	1877-81, 1894, 1896, 1898, 1905, 1909, 1914-15, 1917-41†	Published in reports of Mississippi River Commission.
Do	Tarbert Landing, Miss.	1911-13, 1928-29, 1932-41†	Do.
Do	The Jump, La.	1922-23, 1927, 1937, 1941†	Unpublished.
Muddy Fork	North of Murfreesboro, Ark.	1940-41	Do.
Do	South of Muddy Fork, Ark.	1940-41	Do.
North Sulphur River	South of Paris, Tex.	1938-41	Do.
Old River	Near Torras, La., below Texas & Pacific Railway bridge.	1851, 1858, 1888-1941†	Published in reports of Mississippi River Commission.
Ouachita River	Arkadelphia, Ark.	1929-41	Unpublished.
Do	Camden, Ark.	1929-41	Do.
Do	Cold Spring Bar, Ark.	1928-41	Do.
Panther Creek	Frees Corner, Miss.	1940-41	Do.
Pigeon Roost Creek	South of Lewisburg, Miss.	1940-41	Do.
Quiver River	Doddsville, Miss.	1938-41	Do.
Red River	Fulton, Ark.	1938-41	Do.
Rush Creek	Purdy, Okla.	1940-41	Do.
St. Francis Bay	Riverfront, Ark.	1928-41	Published in reports of Mississippi River Commission.
St. Francis River	Lake City, Ark.	1933-41†	Unpublished.
Do	Parkin, Ark.	1928-41	Published in reports of Mississippi River Commission.
Do	St. Francis, Ark.	1933-41†	Unpublished.
Do	Wappapello, Mo.	1920-41†	Published since 1938 in reports of Mississippi River Commission.
Saline Bayou	Calvin-Goldanna highway, La.	1939-41	Unpublished.

† Fragmentary records.

Records of daily discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Remarks
Saline River	Benton, Ark.	1939-41	Unpublished.
Do	Warren, Ark.	1930-31, 1938-40	Do.
South Sulphur River	South of Charleston, Tex.	1938-41	Do.
Sulphur River	Below Ringo Crossing, Tex.	1939-41	Do.
Do	South of Texarkana, Tex.	1939-41	Do.
Tillatoba Creek	West of Charleston, Miss.	1941†	Do.
Washita River	Cheyenne, Okla.	1938-41	Do.
West Beaver Creek	Near Victor, Colo.	1905-41	Do.
White Oak Creek	South of Talco, Tex.	1938-41	Do.
White River	Clarendon, Ark.	1879-41†	Published in reports of Mississippi River Commission.
Wolf River	Raleigh, Tenn.	1936-41	Unpublished.
Yacona River	West of Water Valley, Miss.	1940-41	Do.

† Fragmentary records.

Note.- All the gaging stations listed in the above table were operated by the Corps of Engineers, U. S. Army, except that on West Beaver Creek near Beaver, Colo., which was operated by the Southern Colorado Power Co.

The Soil Conservation Service began in 1931 to collect records of run-off from 11 areas of less than 40 acres each in the vicinity of Guthrie, Okla. and in 1938 of run-off from 6 areas of less than 25 acres each in the vicinity of Bentonville, Ark., 4 areas of less than 40 acres each in the vicinity of Falcon, Colo., 4 areas of less than 65 acres each in the vicinity of Muskogee, Okla., and 3 areas of less than 130 acres each in the vicinity of Vega, Tex. These records are not published but are available in the files of that organization.

COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below.

Arkansas: State Highway Commission, W. W. Mitchell, director; Arkansas Geological Survey, George C. Branner, State geologist.

Colorado: Office of the State engineer, M. C. Hinderlider, State engineer.

Kansas: Water-resources division of the Kansas State Board of Agriculture, George S. Knapp, chief engineer.

Kentucky: Department of Highways, T. H. Cutler, chief engineer.

Louisiana: Louisiana Department of Conservation, W. H. Hodges and J. L. McHugh, Jr., commissioners; Louisiana State University and Agricultural and Mechanical College, L. J. Lassalle, dean, College of Engineering.

Mississippi: Mississippi Geological Survey, W. C. Morse, director.

Missouri: Missouri Geological Survey and Water Resources, H. A. Buehler, State geologist; Missouri Highway Department, C. W. Brown, chief engineer.

New Mexico: Office of the State engineer, T. M. McClure, State engineer,

Oklahoma: Oklahoma Planning and Resources Board, Division of Water Resources, Don McBride, chief engineer; Oklahoma City Water Department, M. B. Cunningham, superintendent; Grand River Dam Authority, Ray McNaughton, chairman of the board of directors.

Tennessee: Tennessee Department of Conservation, J. C. Poe, commissioner, through the Division of Geology, W. F. Pond, State geologist.

Texas: Texas State Board of Water Engineers, C. S. Clark, chairman, A. H. Dunlap, and J. W. Pritchett.

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of 157 gaging stations, of which 25 were in Arkansas, 5 in Colorado, 1 in Illinois, 16 in Kansas, 16 in Louisiana, 15 in Mississippi, 19 in Missouri, 3 in New Mexico, 46 in Oklahoma, 1 in Tennessee, and 10 in Texas.

Financial assistance was also furnished by the Weather Bureau, United States Department

of Commerce, and the Flood Control Coordinating Committee, United States Department of Agriculture.

Assistance in collecting records was rendered also by the following organizations and corporations:

Arkansas: Arkansas Power & Light Co., White River Power Co.

Mississippi: Vicksburg Bridge Co.

Missouri: Little River Drainage District; Empire District Electric Co.; Missouri Park Department.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey, Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The data for the stations in the several States were collected and prepared for publication under supervision of district engineers as follows: In Arkansas (except for White River at Beaver), in Oklahoma (except for Red River near Terral), and for Mississippi River at Memphis, Tenn., Elk River near Tiff City, Mo., and Red River at Arthur City and near Gainesville, Tex.--J. L. Saunders; in Colorado--Robert Follansbee, the work being done in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in Kansas--J. B. Spiegel; in Kentucky--J. V. B. Wells; in Louisiana and Mississippi--D. H. Barber and acting district engineers H. C. Bolon and E. B. Rice; in Missouri (except for Elk River at Tiff City) and for White River at Beaver, Ark.--H. C. Beckman; in New Mexico--Berkeley Johnson; in Tennessee (except for Mississippi River at Memphis)--C. E. McCashin (until Sept. 2, 1941) succeeded by F. M. Bell; in Texas (except for Red River at Arthur City and near Gainesville) and for Red River near Terral, Okla.--C. E. Ellsworth.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, in charge, and M. C. Boyer, associate engineer, section of reports.

MISSISSIPPI RIVER MAIN STEM

Mississippi River at St. Louis, Mo.

Location.- Water-stage recorder, lat. 38°37'44", long. 90°10'54", at foot of Washington Avenue, just downstream from west pier of Eads Bridge, St. Louis, and 15 miles downstream from Missouri River. Datum of gage is 379.94 feet above mean sea level (general adjustment of 1929) or 379.80 feet above mean Gulf level.

Drainage area.- 701,000 square miles (authority, Mississippi River Commission).

Records available.- Discharge: March 1933 to September 1941 in reports of Geological Survey. Since 1866 (occasional discharge measurements) in reports of Mississippi River Commission.

Gage heights: March 1933 to September 1941 in reports of Geological Survey. Since January 1861 in reports of Mississippi River Commission. Since January 1890 in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, (result of discharge measurement), 451,000 second-feet Apr. 22 (gage height, 26.15 feet); maximum gage height, 26.42 feet Apr. 23; minimum daily discharge, 46,500 second-feet Oct. 29.

1933-41: Maximum discharge, 649,000 second-feet June 7, 1935; maximum gage height, 33.52 feet June 9, 1935; minimum discharge, 27,600 second-feet Dec. 12, 1937; minimum gage height, -6.11 feet Jan. 16, 1940.

Maximum stage known, 41.39 feet June 28, 1844.

Remarks.- Records excellent. Fifty-two discharge measurements were made during the year.

Gage height, at 8:00 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-2.13	-2.36	0.71	1.06	5.15	2.11	8.20	18.16	4.98	11.67	1.43	0.22
2	-2.17	-2.18	.23	1.25	4.86	1.57	8.05	17.20	6.00	12.72	.87	2.23
3	-2.24	-2.20	-.16	2.80	5.25	1.44	7.85	16.26	7.66	13.70	.79	5.36
4	-2.38	-2.21	-.56	4.29	4.65	.70	8.28	15.47	10.27	13.53	1.12	5.91
5	-2.24	-2.15	-1.06	4.90	5.03	.13	8.84	14.62	11.14	13.24	.39	6.22
6	-2.29	-2.19	-1.10	4.22	5.43	.18	9.14	14.33	11.25	11.25	.01	6.84
7	-2.13	-2.19	-1.08	2.90	5.39	.71	9.72	14.36	11.62	10.39	-.18	5.87
8	-2.18	-2.18	-.94	2.03	4.43	1.03	10.78	14.36	13.12	9.85	.20	4.84
9	-2.02	-2.13	-.76	1.47	3.06	1.00	11.35	13.86	14.52	8.33	.40	6.78
10	-1.74	-1.97	-.65	1.38	2.42	.99	11.37	13.17	14.64	7.56	.36	8.25
11	-1.61	-1.52	-.44	1.25	2.19	1.90	11.27	12.59	15.22	9.76	.11	8.93
12	-1.78	-1.60	.32	1.10	1.96	2.49	11.33	11.88	17.62	9.89	-.32	12.92
13	-2.06	-1.15	.78	1.31	1.35	2.71	11.44	10.84	19.59	9.85	-.23	14.90
14	-2.25	-.94	.75	1.10	2.55	2.87	11.50	9.82	20.71	9.40	-.33	15.02
15	-2.39	-.73	.76	1.07	2.10	2.87	11.60	9.00	21.39	8.32	-.23	14.50
16	-2.39	-.60	1.08	1.44	1.95	2.98	12.06	6.90	21.46	5.87	-.17	14.25
17	-2.39	-.74	1.07	1.97	2.79	3.60	13.20	5.66	21.60	4.14	-.34	14.27
18	-2.40	-.84	.89	2.68	6.41	5.55	16.21	8.48	21.99	3.68	-.44	14.41
19	-2.40	-1.51	.62	4.08	7.02	6.21	18.00	8.10	22.43	3.21	-.23	14.27
20	-2.36	-1.90	.99	4.15	6.87	6.30	21.55	7.80	22.35	2.52	-.37	14.00
21	-2.40	-1.78	1.93	3.98	5.76	6.12	25.00	6.30	21.68	3.45	-.62	15.43
22	-2.39	-.41	2.36	4.36	4.56	6.05	26.00	5.27	20.09	3.59	-.74	16.55
23	-2.33	.86	2.18	4.80	4.50	6.72	26.34	4.90	18.43	3.16	-.96	15.98
24	-2.35	1.02	1.85	6.23	4.64	8.05	26.15	4.82	16.84	2.73	-.90	15.13
25	-2.45	.77	1.60	5.58	5.10	10.10	25.72	4.60	15.44	2.80	-.55	14.68
26	-2.52	.75	1.40	4.95	4.65	10.64	24.83	4.43	14.83	2.96	-.25	14.78
27	-2.48	1.13	1.32	5.35	4.06	10.38	22.76	4.35	14.49	3.04	.76	14.13
28	-2.61	1.86	1.37	6.88	3.13	9.84	20.71	4.30	13.47	2.72	-.33	12.85
29	-2.71	1.59	1.27	7.50	-	9.74	19.51	4.44	12.61	2.12	-.60	11.48
30	-2.50	1.18	1.05	6.93	-	9.37	18.80	4.56	12.02	1.93	-.60	10.29
31	-2.38	-	.92	5.88	-	8.82	-	4.77	-	1.80	-.42	-

Discharge, in second-feet, of Mississippi River at St. Louis, Mo., 1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49,500	49,000	69,000	71,400	107,000	79,400	137,000	253,000	106,000	168,000	71,400	66,700
2	49,300	50,000	65,300	76,200	105,000	75,400	135,000	239,000	115,000	180,000	67,400	85,800
3	48,900	49,900	62,900	87,400	104,000	73,800	133,000	224,000	131,000	190,000	67,400	110,000
4	48,500	50,100	59,600	101,000	97,000	66,700	137,000	214,000	156,000	188,000	68,200	116,000
5	49,100	50,600	57,200	105,000	99,600	62,500	142,000	204,000	164,000	179,000	64,600	122,000
6	50,000	50,500	57,500	97,000	102,000	63,000	145,000	201,000	165,000	160,000	61,800	124,000
7	50,200	50,500	57,600	87,400	100,000	67,400	151,000	202,000	170,000	152,000	61,400	110,000
8	50,000	50,800	59,100	80,200	92,200	70,600	161,000	201,000	189,000	146,000	63,900	102,000
9	51,600	51,700	60,700	76,200	83,400	72,200	167,000	194,000	202,000	131,000	65,300	120,000
10	53,300	52,800	61,000	75,400	80,200	74,600	167,000	185,000	204,000	126,000	65,300	135,000
11	53,900	55,600	63,400	73,800	79,400	79,400	166,000	177,000	216,000	146,000	63,400	149,000
12	52,300	55,900	68,200	73,000	77,800	81,000	167,000	167,000	253,000	147,000	61,000	192,000
13	51,100	59,000	70,600	74,600	76,200	82,600	165,000	164,000	282,000	146,000	61,400	216,000
14	49,500	60,100	70,600	73,000	85,000	83,400	169,000	142,000	302,000	141,000	61,100	214,000
15	48,400	61,900	71,400	73,800	81,800	83,400	171,000	136,000	312,000	126,000	62,000	208,000
16	48,800	62,400	73,000	77,000	82,600	85,800	179,000	136,000	314,000	106,000	61,600	204,000
17	49,000	61,500	72,200	81,800	97,800	92,200	201,000	135,000	316,000	93,000	60,400	204,000
18	49,200	60,000	69,800	88,200	122,000	110,000	247,000	135,000	323,000	89,000	60,400	204,000
19	49,600	55,600	68,200	98,700	126,000	115,000	288,000	132,000	329,000	83,400	61,400	201,000
20	50,100	52,800	71,400	97,800	122,000	117,000	369,000	127,000	326,000	81,000	60,300	200,000
21	50,400	54,700	78,600	97,800	112,000	115,000	439,000	114,000	308,000	87,400	59,100	217,000
22	50,200	64,600	81,000	101,000	103,000	117,000	451,000	106,000	279,000	88,200	58,000	224,000
23	50,300	72,200	78,600	108,000	102,000	123,000	449,000	102,000	248,000	84,200	57,100	216,000
24	49,800	72,200	76,200	118,000	104,000	141,000	436,000	101,000	226,000	81,800	58,200	205,000
25	48,800	69,800	74,600	111,000	107,000	157,000	419,000	99,600	208,000	82,600	60,400	200,000
26	48,400	69,800	73,000	108,000	101,000	164,000	389,000	98,700	201,000	84,200	66,700	201,000
27	48,200	73,800	73,000	115,000	96,200	158,000	339,000	97,800	196,000	84,200	68,200	192,000
28	47,200	78,600	73,800	127,000	87,400	154,000	298,000	97,800	184,000	81,800	60,500	176,000
29	46,500	76,200	72,200	132,000	-	152,000	279,000	98,700	176,000	77,800	58,900	161,000
30	47,900	72,200	71,400	125,000	-	148,000	267,000	100,000	169,000	76,200	59,200	150,000
31	48,700	-	70,600	115,000	-	142,000	-	101,000	-	75,400	60,700	-

Note.- Daily discharge computed from daily mean gage heights, not from 8 a.m. readings given on preceding page.

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1940	1,538,700	53,900	46,500	49,640	3,052,000
November	1,794,800	78,600	49,000	59,830	3,560,000
December	2,131,700	81,000	57,200	68,760	4,228,000
Calendar year 1940	30,018,000	184,000	28,000	82,020	59,538,000
January 1941	2,926,700	132,000	71,400	94,410	5,805,000
February	2,733,600	126,000	76,200	97,630	5,422,000
March	3,206,400	164,000	62,500	103,400	6,360,000
April	7,366,000	451,000	133,000	245,500	14,610,000
May	4,674,600	253,000	97,800	150,800	9,272,000
June	6,769,000	329,000	106,000	225,600	13,430,000
July	3,682,200	190,000	75,400	118,800	7,304,000
August	1,936,700	71,400	57,100	62,470	3,841,000
September	5,025,500	224,000	66,700	167,500	9,968,000
Water year 1940-41	43,785,900	451,000	46,500	120,000	86,852,000

Mississippi River at Cape Girardeau, Mo.

Location.- Water-stage recorder, lat. 37°18'06", long. 89°31'05", at downstream end of concrete retaining wall, 400 feet below St. Louis-San Francisco Ry. station at Cape Girardeau and 52 miles upstream from Ohio River. Datum of gage is 304.65 feet above mean sea level (general adjustment of 1929) or 304.43 feet above mean Gulf level. Auxiliary staff gages at Moccasin Springs, 14 miles upstream, and Gray's Point, 6 miles downstream, used to determine slope. Discharge record discontinued Apr. 5, 1941, being supplanted by discharge record for newly established station on Mississippi River at Thebes, Ill., 8.4 miles downstream.

Drainage area.- 716,000 square miles (authority, Mississippi River Commission).

Records available.- Discharge: March 1933 to February 1938 and October 1939 to April 1941 (discontinued) in reports of Geological Survey. Since 1903 (occasional discharge measurements at Thebes, 6 miles downstream, referred to Cape Girardeau gage), in reports of Mississippi River Commission. Gage heights: March 1933 to February 1938 and October 1939 to September 1941 in reports of Geological Survey. Since May 1896 in reports of Mississippi River Commission. February 1891 to February 1894 and since December 1904 in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during period, 161,000 second-feet Mar. 28 (gage height, 16.27 feet); minimum, 48,700 second-feet Oct. 31 (gage height, 6.21 feet).

1933-38, 1939: Maximum discharge, 623,000 second-feet June 10, 1935; maximum gage height, 36.26 feet June 11, 1935; minimum discharge, 23,400 second-feet Dec. 13, 1937; minimum gage height, 2.88 feet Jan. 21, 1940.

Maximum stage known, 42.53 feet July 4, 1844.

Remarks.- Records excellent. Twenty-seven discharge measurements were made during the year. Stage-discharge relation occasionally affected by backwater from Ohio River. Discharge determined on basis of slope computed from auxiliary staff gages of the Corps of Engineers, U. S. Army, who furnished gage heights.

Gage height, at 8 a.m., in feet, October 1940 to April 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1	6.87	6.37	9.73	9.35	13.76	11.26	15.23	16	6.70	7.68	9.31	9.29	10.16	10.41	-
2	6.86	6.47	9.26	9.99	13.02	10.50	14.70	17	6.56	7.85	9.76	9.40	9.98	10.43	-
3	6.82	6.52	8.91	10.02	12.52	9.85	14.35	18	6.54	7.86	9.64	9.80	9.95	10.59	-
4	6.76	6.63	8.50	10.36	12.45	9.52	14.47	19	6.51	7.77	9.71	10.22	11.59	11.25	-
5	6.71	6.68	8.25	11.37	12.43	9.18	-	20	6.54	7.56	9.53	10.88	13.13	12.48	-
6	6.66	6.66	7.80	12.36	12.15	8.63	-	21	6.53	7.13	9.36	11.71	13.58	12.90	-
7	6.76	6.67	7.54	12.45	12.41	8.29	-	22	6.53	6.92	9.59	11.75	13.27	12.95	-
8	6.88	6.67	7.44	11.74	12.58	8.38	-	23	6.54	7.27	10.14	11.83	12.48	12.87	-
9	6.84	6.65	7.44	10.90	12.23	8.72	-	24	6.53	8.28	10.31	12.83	11.89	12.99	-
10	6.75	6.69	7.58	10.15	11.46	8.89	-	25	6.54	8.97	10.15	13.05	11.82	13.52	-
11	6.93	6.88	7.69	9.76	10.74	8.95	-	26	6.52	9.07	9.87	13.35	11.99	14.87	-
12	7.11	7.15	7.89	9.53	10.27	9.09	-	27	6.44	9.19	9.68	12.92	12.12	15.87	-
13	7.17	7.17	8.24	9.41	10.10	9.63	-	28	6.39	9.20	9.58	12.72	11.77	16.25	-
14	7.01	7.26	8.67	9.36	9.91	10.08	-	29	6.37	9.52	9.55	13.34	-	15.93	-
15	6.93	7.55	8.95	9.43	9.74	10.27	-	30	6.28	9.91	9.51	14.17	-	15.72	-
								31	6.22	-	9.35	14.36	-	15.53	-

Discharge, in second-feet, October 1940 to April 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52,600	50,600	78,600	77,900	119,000	94,100	144,000					
2	52,600	51,100	73,400	80,900	111,000	86,000	139,000					
3	52,600	51,100	71,000	81,200	108,000	80,700	138,000					
4	52,500	51,900	67,200	88,400	108,000	77,500	142,000					
5	51,700	52,600	65,000	101,000	106,000	73,700	-					
6	51,900	52,600	62,100	111,000	105,000	69,500	-					
7	53,000	53,000	60,100	109,000	108,000	67,800	-					
8	54,500	52,600	59,300	99,300	108,000	69,900	-					
9	53,400	51,900	59,300	90,700	103,000	73,200	-					
10	53,400	53,000	61,300	83,500	93,800	73,900	-					
11	54,500	54,500	61,800	80,500	87,100	74,400	-					
12	55,400	55,900	63,900	78,600	82,600	77,000	-					
13	55,100	56,700	66,900	77,900	82,900	82,200	-					
14	53,400	57,900	70,100	77,900	79,300	85,500	-					
15	52,600	60,500	72,800	77,900	80,500	86,500	-					
16	50,200	61,300	76,000	76,700	83,400	87,300	-					
17	50,200	62,700	78,200	78,400	82,900	87,300	-					
18	49,500	62,500	77,900	82,400	85,500	90,800	-					
19	50,300	62,100	78,200	86,800	107,000	101,000	-					
20	50,300	59,400	76,300	92,600	121,000	114,000	-					
21	51,100	56,600	76,000	101,000	123,000	115,000	-					
22	51,100	55,100	79,300	101,000	117,000	115,000	-					
23	51,100	60,200	84,300	102,000	108,000	114,000	-					
24	51,100	68,800	84,500	106,000	103,000	118,000	-					
25	51,100	73,800	82,400	114,000	104,000	127,000	-					
26	51,100	74,500	79,600	117,000	106,000	145,000	-					
27	50,300	74,800	78,600	111,000	106,000	157,000	-					
28	50,600	75,100	77,900	109,000	100,000	159,000	-					
29	50,600	79,500	77,000	119,000	-	155,000	-					
30	49,800	82,200	76,700	128,000	-	152,000	-					
31	48,700	-	75,300	130,000	-	150,000	-					

Note.- Daily discharge computed from daily mean gage height, not from 8 a.m. gage readings given above.

Monthly discharge, in second-feet, October 1940 to April 1941

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1940	1,606,300	55,400	48,700	51,820	3,186,000
November	1,814,500	82,200	50,600	60,480	3,599,000
December	2,251,000	84,500	59,300	72,610	4,465,000
Calendar year 1940	31,722,000	199,000	24,800	86,670	62,922,000
January 1941	2,970,600	130,000	76,700	95,830	5,892,000
February	2,829,000	123,000	79,300	101,000	5,611,000
March	3,159,300	159,000	67,800	101,900	6,266,000
April 1-4	563,000	-	-	-	1,117,000
The period	-	-	-	-	30,136,000

Mississippi River at Thebes, Ill.

Location.- Wire-weight gage, lat. 37°13'00", long. 89°27'50", in NW¼ sec. 17, T. 15 S., R. 3 W., (3rd principal meridian), on the Missouri Pacific (and joint companies) R. R. bridge at Thebes, 8.4 miles downstream from Cape Girardeau, Mo. Discharge record supplants that for former station on Mississippi River at Cape Girardeau, Mo. Datum of gage is 299.93 feet above mean sea level, approximate datum of 1929.

Drainage area.- 717,200 square miles.

Records available.- April 5 to Sept. 30, 1941. Results of discharge measurements at Thebes made intermittently since 1903 by Corps of Engineers, U. S. Army, and Mississippi River Commission and referred to Cape Girardeau gage are contained in reports of those organizations.

Extremes.- Maximum discharge observed during period, 469,000 second-feet Apr. 24 (gage height, 29.11 feet); minimum, 60,700 second-feet Aug. 25 (gage height, 6.60 feet).

Maximum stage known at Grays Point (2.6 miles above station), 345.18 feet above mean sea level, datum of 1929, July 4, 1844 (from reports of the Corps of Engineers, U. S. Army).

Remarks.- Records excellent. Thirty discharge measurements were made during the period.

Gage height, at 8 a.m., in feet, April to September 1941

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-	22.28	10.76	16.74	8.80	6.76	16	16.10	14.48	23.88	14.12	7.10	18.04
2	-	21.62	10.90	16.33	8.74	6.90	17	16.54	14.18	24.22	13.09	7.22	17.76
3	-	20.84	11.30	16.50	8.34	7.64	18	17.30	14.02	24.28	11.80	7.14	17.72
4	-	20.00	11.90	17.22	8.00	9.24	19	19.56	13.80	24.40	10.74	7.32	17.80
5	13.55	19.32	13.22	17.36	7.94	11.16	20	22.00	13.64	24.65	10.22	7.30	17.74
6	13.64	18.78	14.66	17.22	7.96	12.10	21	24.54	13.42	24.70	9.73	7.10	17.58
7	14.00	18.20	15.36	16.52	7.66	12.40	22	27.38	12.94	24.32	9.58	6.96	17.92
8	14.46	18.12	15.64	15.56	7.36	12.30	23	28.54	11.96	23.38	9.94	6.80	18.98
9	15.30	18.08	16.26	15.04	7.22	11.60	24	29.08	11.30	22.08	10.02	6.64	19.26
10	16.06	17.90	17.52	14.44	7.34	11.42	25	28.96	11.06	20.80	9.76	6.60	18.78
11	16.28	17.48	18.18	13.64	7.52	12.38	26	28.54	10.94	19.61	9.54	6.64	18.36
12	16.22	17.04	18.38	13.58	7.50	13.38	27	27.91	10.76	18.76	9.46	6.88	18.14
13	16.16	16.60	19.58	14.44	7.48	14.84	28	26.48	10.68	18.39	9.56	7.48	18.02
14	16.12	15.90	21.56	14.70	7.20	17.30	29	24.68	10.60	17.74	9.58	7.68	17.46
15	16.20	15.20	23.04	14.56	7.08	18.12	30	23.20	10.56	17.16	9.30	7.08	16.40
							31	-	10.64	-	8.98	6.82	-

Note.- Add 299.93 feet to obtain elevation above mean sea level.

Discharge, in second-feet, April to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	277,000	104,000	183,000	82,000	62,400
2							-	266,000	106,000	178,000	81,000	64,200
3							-	252,000	111,000	185,000	77,000	74,000
4							-	236,000	119,000	193,000	74,000	91,100
5							137,000	226,000	140,000	194,000	73,000	110,000
6							140,000	216,000	157,000	191,000	73,000	119,000
7							146,000	209,000	164,000	178,000	70,000	123,000
8							152,000	207,000	169,000	164,000	67,000	120,000
9							164,000	206,000	182,000	157,000	66,000	112,000
10							175,000	202,000	202,000	147,000	68,000	113,000
11							178,000	196,000	209,000	138,000	69,000	126,000
12							177,000	190,000	216,000	141,000	69,000	140,000
13							175,000	182,000	239,000	151,000	68,000	163,000
14							175,000	170,000	274,000	154,000	66,000	198,000
15							177,000	158,000	299,000	151,000	65,100	207,000
16							177,000	150,000	317,000	143,000	65,100	206,000
17							185,000	146,000	321,000	128,000	66,000	201,000
18							201,000	144,000	324,000	112,000	66,000	202,000
19							239,000	141,000	329,000	101,000	67,000	202,000
20							283,000	136,000	334,000	95,500	66,000	201,000
21							342,000	134,000	331,000	91,100	65,100	199,000
22							417,000	128,000	321,000	91,100	63,300	207,000
23							454,000	116,000	297,000	94,400	62,400	222,000
24							465,000	110,000	272,000	94,400	60,700	226,000
25							462,000	106,000	248,000	91,100	60,700	217,000
26							444,000	105,000	229,000	89,000	61,500	211,000
27							420,000	104,000	217,000	89,000	64,200	209,000
28							372,000	102,000	209,000	90,000	69,000	204,000
29							326,000	101,000	199,000	89,000	69,000	193,000
30							297,000	101,000	190,000	86,000	64,200	177,000
31							-	102,000	-	83,000	62,400	-

Note.- Daily discharge computed from daily mean gage heights, not from 8 a.m. readings given above.

Monthly discharge, in second-feet, April to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 5-30	6,880,000	465,000	137,000	264,600	13,650,000
May	5,121,000	277,000	101,000	165,200	10,160,000
June	6,829,000	334,000	104,000	227,600	13,550,000
July	4,072,600	194,000	83,000	131,400	8,078,000
August	2,100,700	82,000	60,700	67,760	4,167,000
September	4,899,700	226,000	62,400	163,300	9,718,000
The period	-	-	-	-	59,320,000

Mississippi River at Memphis, Tenn.

Location.- Water-stage recorder, lat. 35°07'37", long. 90°04'25", at Memphis, 50 feet downstream from Harahan Bridge, 1¼ miles downstream from Wolf River, 1.3 miles downstream from Beale Street gage, 70 miles upstream from St. Francis River, 164 miles upstream from White River, and 171 miles upstream from Arkansas River. Datum of gage is 183.91 feet above mean sea level (datum of 1929), 184.21 feet above mean Gulf level (1912 Mississippi River Commission), or 190.86 feet on Memphis datum (1881 Mississippi River Commission).

Drainage area.- 932,800 square miles (authority, Mississippi River Commission).

Records available.- Discharge: April 1934 to September 1941 in reports of Geological Survey. In reports of Mississippi River Commission as follows: 1882-1904, results of 43 discharge measurements; 1931, results of 4 discharge measurements; 1932, results of 39 discharge measurements; and since January 1933, records of daily discharge and results of numerous discharge measurements.

Gage heights: Since November 1871, at Beale Street gage, in reports of Mississippi River Commission. December 1890 to August 1932 at Beale Street gage, September 1932 to December 1934 at staff gage 1,000 feet downstream, and since December 1934 at water-stage recorder at present site, in reports of U. S. Weather Bureau.

To adjust gage heights obtained at present site to those obtained at site at Beale Street, add 0.3 foot for each 10-foot increment of stage.

Extremes.- Maximum discharge during year, 595,000 second-feet Apr. 28 (gage height, 20.64 feet); minimum, 91,000 second-feet Oct. 27 (gage height, -1.15 feet).

1934-41: Maximum discharge, 1,980,000 second-feet Feb. 8, 1937; maximum gage height, 48.69 feet Feb. 10, 1937; minimum discharge, 79,200 second-feet Aug. 25, 1936; minimum gage height, that of Oct. 27, 1940.

Maximum stage known previous to 1937, 46.55 feet at Beale Street gage or about 45.2 feet at present site, Apr. 9, 1913.

Remarks.- Records excellent. During the year 49 discharge measurements were made by the Geological Survey.

Cooperation.- Results of 82 discharge measurements furnished by Corps of Engineers, U. S. Army. Gage-height record collected in cooperation with U. S. Weather Bureau.

Gage height at 8 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.33	-0.52	3.31	7.75	12.38	4.77	9.70	19.22	g3.0	g9.4	g4.4	g3.15
2	1.75	g-.86	3.83	6.74	13.47	4.79	9.79	18.14	g2.9	g8.7	g4.1	g3.53
3	1.97	g-.90	4.54	6.70	14.30	4.73	10.26	17.04	g2.8	g8.3	g3.8	g3.48
4	1.81	g-.50	5.13	7.43	14.52	4.45	10.50	g15.85	g3.0	g8.1	g4.1	g3.20
5	1.21	.04	5.37	7.98	14.39	3.96	10.32	g14.50	g3.5	g7.6	g4.5	g3.12
6	.76	.66	5.32	8.70	13.99	3.61	10.14	13.39	g4.30	g8.2	g4.5	g2.99
7	.60	1.55	5.46	10.01	13.47	3.35	10.13	12.62	g6.57	g9.4	3.6	g2.72
8	.08	2.12	5.69	11.87	12.71	3.35	10.33	g11.88	g6.90	g10.6	2.9	g3.19
9	-.32	2.41	5.63	13.36	11.86	3.43	10.96	g11.20	8.20	g11.6	2.63	4.09
10	-.15	2.33	4.87	14.09	11.00	3.59	12.18	g10.70	9.40	g12.4	2.12	4.79
11	-.23	2.26	3.60	14.20	10.10	3.96	13.64	g10.1	10.56	g12.5	1.38	5.11
12	-.40	1.59	3.15	13.80	8.84	3.60	15.07	g9.8	11.43	g12.6	1.03	4.89
13	-.35	1.26	3.29	13.18	7.49	5.15	16.10	g9.6	g12.3	g12.6	.77	4.57
14	-.36	1.50	3.33	12.35	6.40	6.05	16.68	g9.5	g13.9	g12.8	.51	4.63
15	-.39	1.80	3.62	11.51	5.69	7.06	16.98	g9.2	g15.7	g13.2	.27	4.73
16	-.49	1.96	4.71	10.61	5.35	7.78	17.12	g8.7	g17.53	g13.4	.35	5.50
17	-.55	1.72	5.29	9.69	4.78	8.55	17.19	g8.25	g19.00	g13.6	g.8	7.11
18	-.61	1.58	5.43	8.14	4.52	9.28	17.07	g7.7	g19.9	g13.6	g.7	8.20
19	-.62	1.72	5.63	6.13	5.07	10.05	16.75	g6.85	g20.05	g13.3	g1.3	8.24
20	-.66	2.01	5.98	4.83	5.60	10.91	16.56	g6.45	19.78	g11.6	g2.2	8.01
21	-.56	1.97	6.42	4.77	5.78	11.72	16.25	g6.65	19.27	g9.5	g2.5	7.65
22	-.68	2.03	7.24	5.45	g6.19	12.35	16.41	g7.1	18.82	g9.0	g3.0	7.34
23	-.74	1.74	7.60	6.23	g6.86	12.5	17.28	g7.4	18.56	g9.2	g3.1	7.23
24	-.65	1.61	7.62	7.21	g7.60	12.4	18.30	g7.45	18.36	g8.9	g2.6	7.23
25	-.78	1.43	7.89	8.40	8.00	12.0	19.09	g6.75	17.99	g8.9	g2.4	7.52
26	-.98	1.33	8.43	8.85	7.76	11.5	19.88	g5.76	17.32	g9.1	g2.2	7.92
27	-1.14	1.70	8.93	9.19	6.51	g10.9	20.34	g4.65	16.40	g9.4	g1.7	8.08
28	-1.04	2.34	9.16	9.84	5.27	g10.0	20.58	g4.15	15.14	g9.5	g1.2	7.96
29	-.85	2.63	9.10	10.58	-	g9.3	20.53	g3.9	g13.14	g8.2	g.9	7.62
30	-.97	2.90	8.93	11.07	-	g9.2	20.08	g3.5	g11.0	g6.0	g1.1	7.31
31	-.80	-	8.65	11.57	-	g9.5	-	g3.1	-	g4.8	g1.9	-

g From graph based on twice-daily readings of staff gage at Beale Street, furnished by Corps of Engineers, U. S. Army, and on twice daily readings of telephonic gage in recorder well, furnished by U. S. Weather Bureau.

Discharge, in thousands of second-feet, of Mississippi River at Memphis, Tenn., water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	98.5	168	241	362	194	288	545	g157	g275	g180	g169
2	131	g94.0	177	225	390	192	291	510	g155	g260	g173	g173
3	136	g97.0	192	231	409	188	297	473	g155	g256	g169	g171
4	131	g104	199	248	415	180	300	g438	g162	g250	g177	g168
5	122	112	201	260	404	171	293	g401	g173	g246	g182	g166
6	116	123	199	277	390	168	286	375	g190	g260	g180	g162
7	112	136	203	309	375	168	286	354	g213	g286	166	g159
8	104	143	207	352	357	171	293	g335	g241	g313	153	g171
9	100	146	203	385	335	173	323	g320	269	g337	152	188
10	103	145	188	399	313	177	362	g311	295	g352	145	199
11	100	141	166	396	293	182	401	g300	320	g354	136	203
12	98.5	133	160	385	264	194	438	g293	342	g357	131	199
13	100	130	162	364	237	203	461	g293	g367	g360	126	194
14	98.5	133	164	344	217	221	476	g288	g418	g364	123	196
15	98.5	140	171	323	205	239	482	g280	g470	g372	120	199
16	97.0	141	190	300	201	254	485	g266	g520	g380	122	217
17	97.0	138	199	275	192	269	482	g258	g562	g383	g126	250
18	95.5	136	203	239	190	284	476	g243	g585	g383	g123	266
19	95.5	140	207	209	201	300	467	g227	g582	g367	g135	264
20	95.5	143	213	192	209	318	461	g223	568	g323	g150	260
21	95.5	143	223	194	213	332	455	g227	549	g286	g157	250
22	94.0	143	237	207	g223	347	461	g235	532	g280	g168	243
23	94.0	138	241	223	g237	350	491	g241	520	g280	g169	241
24	95.5	136	241	243	g248	344	523	g239	510	g275	g162	241
25	94.0	133	250	266	252	335	549	g225	498	g275	g159	248
26	92.5	133	260	275	246	320	575	g203	476	g280	g155	254
27	91.0	140	271	286	223	g306	589	g184	446	g286	g146	258
28	92.5	150	273	300	203	g288	595	g178	407	g280	g138	254
29	94.0	156	273	316	-	g273	592	g173	g354	g250	g136	248
30	92.5	159	269	328	-	g273	575	g166	g306	g207	g140	239
31	97.0	-	260	340	-	g282	-	g160	-	g188	g153	-

Monthly discharge, 1940-41

Month	Thousands of second-foot-days	Discharge in thousands of second-feet			Run-off in thousands of acre-feet
		Maximum	Minimum	Mean	
October	3,185.5	136	91.0	102.8	6,318
November	4,003.5	159	94.0	133.4	7,941
December	6,570	273	160	211.9	13,030
Calendar year 1940	106,415.9	962	85.2	290.8	211,060
January	8,932	399	192	288.1	17,720
February	7,804	415	190	278.7	15,480
March	7,696	350	168	248.3	15,260
April	13,053	595	286	435.1	25,890
May	8,964	545	160	289.2	17,780
June	11,342	585	155	378.1	22,500
July	9,365	383	188	302.1	18,580
August	4,652	182	120	150.1	9,227
September	6,450	266	159	215.0	12,790
Water year 1940-41	92,017.0	595	91.0	252.1	182,516

g Computed from graph based on twice-daily readings of staff gage at Beale Street, furnished by Corps of Engineers, U. S. Army, and on twice-daily readings of telephonic gage in recorder well, furnished by U. S. Weather Bureau.

Mississippi River near Vicksburg, Miss.

Location.- Water-stage recorder, lat. 32°18'45", long. 90°54'25", in T. 16 N., R. 3 E., at combined highway and railway bridge of Vicksburg Bridge Co., 1½ miles downstream from Yazoo River and 3 miles southwest of Vicksburg. Datum of gage is 46.225 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark) or 46.16 feet above Mean Gulf Level.

Drainage area.- 1,144,500 square miles (authority, Mississippi River Commission).

Records available.- Discharge: July 1931 to September 1941 in reports of Geological Survey. 1858 and 1884 to December 1927 (discharge measurements only) and since January 1928 (daily and monthly discharge and discharge measurements) in reports of Mississippi River Commission.

Gage heights: April 1930 to June 1931 in reports of Geological Survey. December 1871 to September 1929, daily readings at Kleinston gage (at mouth of Yazoo diversion canal), 1½ miles above present site, and since October 1929, daily readings at gage on Yazoo diversion canal (1,600 feet above Kleinston gage), in reports of Mississippi River Commission. December 1871 to October 1919, at gage half a mile above present site, November 1919 to November 1922, at Kleinston gage, December 1922 to August 1934 at gage on Yazoo diversion canal, and since September 1934, at present site, in reports of U. S. Weather Bureau.

All gages set to same datum but readings differ because of slope of water surface between them.

Average discharge.- 10 years, 501,300 second-feet.

Extremes.- Maximum discharge during year, 814,000 second-feet Apr. 29, 30; maximum gage height, 24.11 feet Apr. 30; minimum discharge, 118,000 second-feet Oct. 31 (gage height, -6.81 feet).

1930-41: Maximum discharge, 2,080,000 second-feet Feb. 17, 1937; maximum gage height, 53.2 feet Feb. 21, 1937; minimum discharge, 99,400 second-feet Nov. 1, 1939; minimum gage height, -7.02 feet Feb. 3, 1940, ice jam above.

Maximum gage height recorded (Corps of Engineers, U. S. Army), 58.4 feet (Yazoo canal gage), approximately 56.0 feet on Geological Survey gage, May 4, 1927.

Remarks.- Records excellent. Computation of records based on 262 discharge measurements made during year, results of 112 of which were furnished by Corps of Engineers, U. S. Army.

Gage height, at 8:00 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-4.45	-6.65	-1.27	6.88	9.91	6.64	7.21	23.99	2.47	14.37	4.59	-3.34
2	-4.45	-6.56	-.03	6.91	10.37	6.44	6.61	23.52	2.12	12.78	3.70	-3.54
3	-4.31	-6.58	1.28	6.80	10.91	5.77	6.32	22.93	1.80	10.92	2.49	-3.42
4	-4.16	-6.51	2.26	6.34	11.54	5.07	6.23	22.13	1.33	9.04	1.40	-2.68
5	-4.03	-6.37	2.71	5.86	12.35	4.38	6.29	21.16	.74	7.41	.83	-1.55
6	-3.80	-6.41	2.78	6.06	13.24	3.92	6.45	20.18	.37	6.05	.57	-.84
7	-3.60	-6.46	3.03	7.43	13.99	3.72	6.75	19.25	.28	5.26	.32	-.65
8	-3.60	-6.32	3.16	8.48	14.51	3.48	6.98	18.00	.34	4.84	.16	-.85
9	-3.88	-5.99	3.10	9.04	14.97	3.11	7.14	16.72	.70	4.62	.04	-1.18
10	-4.29	-5.31	2.99	9.61	15.02	2.78	7.20	15.40	1.79	4.65	-.27	-1.37
11	-4.66	-4.33	2.89	10.37	14.65	2.40	7.27	14.36	3.33	5.53	-.84	-1.52
12	-5.07	-3.66	2.78	11.47	13.68	2.15	7.49	13.97	4.60	6.54	-1.42	-1.17
13	-5.44	-3.24	2.54	12.25	12.92	2.07	8.12	13.78	6.24	7.52	-1.94	-.14
14	-5.61	-3.08	2.10	12.63	11.88	1.99	9.21	13.39	7.84	8.14	-2.48	.74
15	-5.72	-3.09	1.43	12.59	10.51	2.10	10.58	12.60	9.38	8.65	-3.02	1.22
16	-5.86	-3.33	1.17	12.21	9.12	2.47	12.00	11.71	11.74	8.92	-3.47	2.30
17	-5.95	-3.53	1.04	11.56	7.80	2.89	12.97	10.71	13.92	9.10	-3.84	3.43
18	-6.02	-3.49	1.16	10.62	6.51	3.37	13.65	9.96	15.92	9.28	-4.12	3.76
19	-6.08	-3.30	1.69	9.78	5.46	4.02	14.02	9.19	17.67	9.47	-4.29	3.82
20	-6.17	-3.18	2.41	8.89	4.74	4.68	14.39	8.41	19.14	9.67	-4.26	4.18
21	-6.26	-3.24	3.11	7.83	4.12	5.69	14.45	7.55	20.08	9.77	-4.14	4.79
22	-6.35	-3.32	3.86	6.69	3.70	6.43	15.07	6.59	20.47	9.65	-3.93	5.09
23	-6.40	-3.34	4.55	5.52	3.55	7.13	16.43	5.66	20.47	9.00	-3.46	5.00
24	-6.43	-2.55	5.10	4.83	3.59	7.89	18.03	4.85	20.15	7.89	-2.92	4.64
25	-6.43	-2.19	5.55	4.39	3.86	8.65	19.54	4.38	19.64	6.73	-2.48	4.35
26	-6.48	-2.15	5.81	4.41	4.51	9.19	20.74	4.15	19.04	5.84	2.14	3.97
27	-6.53	-2.29	6.12	5.01	5.54	9.45	21.96	4.03	18.37	5.38	2.07	3.62
28	-6.55	-2.43	6.29	6.41	6.31	9.39	23.10	3.73	17.59	5.21	2.22	3.33
29	-6.63	-2.48	6.41	7.85	-	9.04	23.85	3.20	16.67	5.05	2.41	3.28
30	-6.71	-2.24	6.62	8.82	-	8.47	24.11	2.80	15.64	5.02	2.60	3.38
31	-6.77	-	6.79	9.46	-	7.86	-	2.71	-	4.98	2.94	-

Discharge, in thousands of second-feet, of Mississippi River near Vicksburg, Miss., 1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	122	205	355	433	357	353	800	268	498	300	162
2	148	122	230	353	444	346	342	775	262	463	279	163
3	160	120	254	346	456	332	338	747	254	422	252	170
4	152	122	268	332	470	314	340	713	243	380	241	187
5	154	123	272	324	491	302	346	674	230	350	236	207
6	157	123	273	342	510	294	350	641	225	328	232	212
7	160	122	279	372	525	290	357	615	227	316	229	212
8	160	126	279	389	538	265	363	585	232	310	227	207
9	152	131	277	402	548	279	363	552	243	310	223	202
10	146	142	275	417	542	273	363	525	270	320	216	198
11	142	156	273	440	525	266	365	506	300	336	207	198
12	136	167	268	470	501	264	372	498	326	357	198	209
13	131	171	262	489	482	262	389	494	367	376	190	229
14	131	171	251	496	456	262	415	484	402	389	180	243
15	131	170	238	489	426	266	444	467	438	397	171	252
16	129	163	236	472	395	273	467	449	496	404	165	275
17	128	163	236	449	367	281	462	426	552	406	160	296
18	125	168	243	426	340	292	494	413	608	411	156	300
19	124	168	256	408	318	304	503	393	653	416	154	302
20	123	170	272	386	306	318	513	376	692	417	157	308
21	123	168	285	361	296	338	520	359	719	417	159	320
22	122	168	298	336	292	355	545	342	713	406	162	322
23	122	170	306	314	292	369	585	324	696	386	170	316
24	120	186	314	306	296	384	641	310	677	361	180	308
25	120	187	320	304	306	397	680	302	653	342	187	302
26	119	187	328	312	324	406	719	296	626	326	192	294
27	119	183	330	328	344	413	761	296	602	320	190	269
28	119	182	328	361	363	408	800	287	578	318	183	283
29	119	182	328	393	-	400	814	279	552	316	178	285
30	119	188	346	413	-	384	814	275	525	316	173	287
31	118	-	355	424	-	369	-	272	-	314	165	-

Note.- Daily discharge computed from daily mean gage heights, not from published 8 a.m. gage readings.

Monthly discharge, 1940-41

Month	Thousands of second-foot-days	Discharge in thousands of second-feet			Run-off in thousands of acre-feet
		Maximum	Minimum	Mean	
October 1940	4,147	160	118	133.8	8,225
November	4,719	188	120	157.3	9,360
December	8,685	355	205	280.2	17,230
Calendar year 1940	128,181	1,075	110	350.2	254,300
January 1941	12,011	496	304	387.5	23,820
February	11,576	548	292	413.4	22,960
March	10,085	413	262	325.3	20,000
April	14,838	814	338	494.6	29,430
May	14,479	800	272	467.1	28,720
June	13,630	719	225	454.3	27,030
July	11,427	498	310	368.6	22,670
August	6,112	300	154	197.2	12,120
September	7,538	322	162	251.3	14,950
Water year 1940-41	119,247	814	118	326.7	236,500

Mississippi River near Baton Rouge, La.

Location (revised).- Water-stage recorder, lat. 30°30'25", long. 91°11'55", in T. 6 S., R. 12 E., Louisiana meridian, 4 miles north of Baton Rouge, 67 miles downstream from Old River, 233 miles upstream from Head of Passes, and 253 miles upstream from mouth. Datum of gage is 0.14 foot below mean Gulf level, datum of Corps of Engineers, U. S. Army (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,243,500 square miles (authority, Mississippi River Commission).

Records available.- Discharge: Since 1931 in reports of Mississippi River Commission (1931-38, daily discharge only, computed on basis of data obtained at several ranges between mouth of Old River and New Orleans and published under heading, "Mississippi River below Baton Rouge, La.").

Gage heights: June 1940 to September 1941 in reports of U. S. Geological Survey. 1828-71 occasional readings, and since January 1872, daily gage heights, at gage of Corps of Engineers, U. S. Army, 4 miles (revised) downstream from present site, in reports of Mississippi River Commission.

Extremes.- Maximum gage height during year, 23.62 feet May 3; minimum, 1.81 feet Oct. 20. Maximum gage height observed, 47.80 feet May 15, 1927; minimum observed, 0.45 foot Nov. 14, 1894. Both maximum and minimum observations were made at site 4 miles (revised) downstream on gage of Corps of Engineers, U. S. Army, with datum 0.42 foot below mean Gulf level (datum of Corps of Engineers, U. S. Army).

Remarks.- Gage heights affected by tides at low stages. Flow diverted at times through Atchafalaya River.

Gage height at 8:00 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.12	3.28	5.81	11.67	11.62	9.78	11.98	23.38	9.71	18.34	7.66	3.58
2	3.13	3.05	5.81	11.86	12.14	10.17	11.77	23.53	9.48	17.43	7.54	3.21
3	2.97	3.00	6.15	11.82	12.62	10.54	11.51	23.57	9.10	16.43	7.44	3.02
4	3.12	3.19	6.54	11.83	12.94	10.60	11.16	23.39	8.64	15.35	7.03	3.03
5	3.34	2.97	7.04	11.83	13.30	10.34	10.82	23.20	8.24	14.19	6.29	3.10
6	3.41	2.66	7.50	11.83	13.74	10.13	10.51	23.05	7.68	12.92	5.74	3.39
7	3.31	2.79	7.83	11.77	14.51	10.92	10.45	22.58	7.12	11.70	5.06	3.88
8	3.22	2.59	8.10	11.92	15.14	10.32	10.56	22.04	6.75	10.52	4.86	4.25
9	3.20	2.58	8.22	12.38	15.73	9.96	10.55	21.18	6.56	9.60	4.67	4.59
10	3.22	3.15	8.28	12.82	16.23	9.63	10.60	20.35	6.53	8.88	4.61	4.57
11	2.97	3.57	8.22	13.13	16.57	9.27	10.61	19.57	6.80	8.48	4.66	4.79
12	2.97	3.41	8.19	13.43	16.58	9.02	10.59	18.84	7.34	8.46	4.51	5.86
13	2.79	3.71	8.89	13.89	16.38	9.04	10.57	18.28	8.12	8.80	4.09	5.64
14	2.72	3.41	9.04	14.40	15.80	8.71	10.70	18.01	8.91	9.11	3.86	5.52
15	2.67	3.20	8.99	14.98	14.97	8.61	10.98	17.71	9.79	9.53	3.40	5.06
16	2.43	3.06	9.58	15.23	14.15	8.65	11.54	17.41	10.68	9.96	2.95	5.10
17	2.77	3.09	9.00	15.31	13.29	8.59	12.31	16.97	12.09	10.27	2.65	5.38
18	2.72	2.99	8.72	14.90	12.42	8.77	13.07	16.48	13.68	10.40	2.44	5.96
19	2.61	3.21	8.50	14.30	11.54	8.98	13.77	16.01	15.42	10.48	2.35	6.09
20	2.58	3.30	8.54	13.68	10.83	9.36	14.36	15.45	16.94	10.62	2.25	6.16
21	2.54	3.63	8.65	13.13	10.30	10.18	14.58	14.89	18.29	10.79	2.19	6.53
22	2.62	3.58	8.93	12.61	9.74	11.03	15.16	14.33	19.35	11.00	2.30	7.02
23	2.78	3.67	9.36	12.02	9.36	11.36	15.80	13.70	20.03	11.14	2.43	7.35
24	2.71	3.59	9.98	11.43	9.31	11.38	16.79	12.93	20.40	11.08	2.74	7.05
25	2.84	3.90	10.32	10.87	9.16	11.57	17.79	12.13	20.51	10.54	2.98	6.75
26	2.64	5.26	10.59	10.44	9.10	11.90	19.11	11.39	20.42	9.98	3.24	6.43
27	2.42	5.13	11.38	10.19	9.18	12.18	20.19	10.83	20.25	9.35	3.38	6.13
28	2.56	5.36	11.97	10.03	9.38	12.36	21.30	10.41	20.00	8.83	3.52	5.97
29	2.63	5.45	12.28	10.13	-	12.38	22.31	10.09	19.58	8.33	3.51	5.67
30	2.80	5.50	11.95	10.57	-	12.26	23.06	9.80	19.06	8.03	3.60	5.64
31	2.87	-	11.70	11.15	-	12.17	-	10.13	-	7.81	3.80	-

Mississippi River near New Orleans, La.

Location.- Water-stage recorder, lat. 29°57', long. 90°10', in T. 13 S., R. 10 E., St. Helena meridian, at Huey P. Long Bridge, 5 miles west of New Orleans, 106 miles upstream from Head of Passes, and 126 miles upstream from mouth. Datum of gage is at mean sea level, datum of 1929, or 0.15 foot below mean Gulf level, datum of Corps of Engineers, U. S. Army (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,243,600 square miles (authority, Mississippi River Commission).

Records available.- Discharge: 1851, 1852, and scattered periods since 1879 in reports of Mississippi River Commission.

Gage heights: November 1934 to September 1941 in reports of U. S. Geological Survey. Since 1871, at gage of Corps of Engineers, U. S. Army, 2⅛ miles downstream from present site, in reports of Mississippi River Commission. May 1873 to December 1922, at gage of Weather Bureau at foot of Canal Street, 11 miles downstream from present site, and since January 1923, at gage of Corps of Engineers, in reports of U. S. Weather Bureau.

Extremes.- Maximum gage height during year, 10.00 feet May 5; minimum, 0.27 foot Nov. 16.
1934-41: Maximum gage height, 19.28 feet Mar. 1, 1937; minimum, -0.65 foot Jan. 25, 1940.

Maximum gage height observed, 21.3 feet Apr. 25, 1922; minimum observed, -1.6 feet Dec. 27, 1872. Both maximum and minimum observations were made at site 2⅛ miles downstream, on gage of Corps of Engineers, U. S. Army, with datum 0.13 foot below mean Gulf level (datum of Corps of Engineers, U. S. Army). This gage reads practically the same below 19.0 feet as does the gage of the Geological Survey, but above 19.0 feet it reads lower, the difference increasing to a maximum of 0.10 foot.

Remarks.- Gage heights affected by tides. Flow diverted at times through Atchafalaya River.

Gage height at 8:00 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.56	1.45	2.04	3.74	3.28	2.46	3.46	8.70	2.81	6.70	2.81	2.51
2	1.54	1.70	1.90	3.77	3.67	2.56	3.45	8.82	2.63	6.36	2.91	2.21
3	1.67	1.72	2.15	3.70	3.80	2.94	3.50	8.86	2.56	6.13	2.86	2.03
4	1.88	2.01	2.18	3.61	3.76	2.91	3.28	8.89	2.52	5.70	2.76	1.88
5	2.29	1.94	2.27	3.54	3.80	2.82	3.02	9.00	2.43	5.37	2.50	1.61
6	2.38	1.88	2.30	3.81	4.10	2.82	2.79	9.08	2.51	4.92	2.20	1.66
7	2.43	1.95	2.56	3.64	4.73	3.28	2.80	8.85	2.48	4.30	1.78	1.89
8	2.52	1.86	2.48	3.48	4.77	2.85	2.94	8.57	2.58	3.69	1.67	2.10
9	2.27	1.53	2.22	3.52	5.03	2.52	2.90	8.27	2.35	3.17	1.63	2.35
10	2.14	1.90	2.27	3.62	5.17	2.44	3.00	7.86	2.30	2.80	1.54	2.43
11	1.87	2.12	2.14	3.71	5.40	2.11	3.04	7.51	2.25	2.72	1.72	2.93
12	1.84	1.78	2.21	3.83	5.60	2.15	3.17	7.09	2.25	2.70	1.67	4.57
13	1.62	1.73	2.30	4.12	5.72	2.36	3.06	6.70	2.30	2.79	1.59	4.20
14	1.45	1.40	2.66	4.50	5.39	2.11	3.03	6.55	2.46	2.73	1.69	3.64
15	1.37	.76	2.53	5.12	5.00	2.22	3.07	6.31	2.70	2.82	1.72	3.22
16	1.14	.68	2.82	5.35	4.59	2.22	3.02	6.20	2.90	3.08	1.61	3.27
17	1.47	.83	2.73	5.37	4.20	1.94	3.32	6.06	3.50	3.23	1.59	3.41
18	1.36	.91	2.74	4.96	3.71	2.37	3.63	5.92	3.97	3.24	1.60	3.47
19	1.36	1.28	2.76	4.43	3.26	1.99	4.10	5.77	4.52	3.52	1.51	3.11
20	1.26	1.58	2.82	4.04	3.00	2.30	4.46	5.60	5.11	3.28	1.43	2.97
21	1.38	2.03	2.81	3.62	2.92	2.68	4.44	5.38	5.77	3.20	1.42	3.53
22	1.63	1.90	2.75	3.68	2.60	2.92	4.70	5.11	6.30	3.22	1.32	3.97
23	1.89	1.98	2.91	3.46	2.41	3.02	5.13	4.80	6.80	3.18	1.30	3.34
24	1.99	1.81	3.36	3.36	2.79	2.99	5.43	4.36	7.11	3.21	1.50	3.29
25	2.11	1.66	3.00	3.19	2.64	3.16	5.80	4.12	7.28	3.01	1.47	2.89
26	1.96	2.42	3.40	3.09	2.68	3.46	6.27	3.75	7.19	2.93	1.68	2.84
27	1.58	1.29	3.78	2.96	2.70	3.51	6.83	3.49	7.18	2.73	1.77	2.82
28	1.58	1.47	3.75	2.85	2.48	3.50	7.53	3.32	7.12	2.41	2.09	2.83
29	1.36	1.35	3.73	2.90	-	3.50	8.12	3.01	6.97	2.49	2.18	2.53
30	1.27	1.60	3.56	3.06	-	3.46	8.46	2.88	6.80	2.55	2.56	2.79
31	1.27	-	3.69	3.15	-	3.53	-	2.95	-	2.76	2.74	-

Meramec River near Steelville, Mo.

Location.- Water-stage recorder, lat. 37°59'55", long. 91°21'35", in NE¼ sec. 21, T. 38 N., R. 4 W., at county highway bridge, 400 feet downstream from St. Louis and San Francisco Ry. bridge, 0.7 mile upstream from Whittenburg Creek, and 2½ miles north of Steelville. Datum of gage is 680.26 feet above mean sea level, datum of 1929.
Drainage area.- 830 square miles.
Records available.- December 1922 to September 1941.
Average discharge.- 18 years (1923-41), 562 second-feet.
Extremes.- Maximum discharge during year, 22,600 second-feet Apr. 20 (gage height, 16.92 feet); minimum, 79 second-feet Aug. 17 (gage height, 0.69 foot).
1922-41: Maximum discharge, 47,800 second-feet June 26, 1935 (gage height, 23.39 feet); minimum, 74 second-feet July 22, 1934 (gage height, 0.35 foot).
Maximum stage known, 26.5 feet, Aug. 20, 1915 (discharge, 60,000 second-feet, by slope-area method).
Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 18 to Apr. 15)

Oct. 1 to Apr. 20						Apr. 21 to Sept. 30			
0.7	92	2.0	555	5.0	2,630	0.7	81	2.0	520
.9	142	2.5	820	7.0	4,640	1.0	153	3.0	1,080
1.2	232	3.0	1,120	10.0	8,200	1.3	235	3.8	1,640
1.6	379	4.0	1,790	12.8	12,700	1.6	340		

Note.- Same as preceding table above 3.8 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	116	249	242	395	145	145	373	169	138	116	109
2	119	116	222	1,140	360	142	142	348	171	130	123	104
3	116	116	206	1,180	336	139	159	332	171	128	123	102
4	119	121	194	738	306	139	194	321	169	126	130	106
5	119	124	182	532	284	139	508	302	163	126	130	104
6	121	119	170	437	273	142	400	360	161	123	126	106
7	126	126	162	375	256	139	329	697	158	121	121	104
8	129	126	159	332	239	137	288	680	171	123	111	123
9	132	129	150	291	226	139	252	500	182	123	104	179
10	129	134	145	266	219	145	232	416	254	128	104	153
11	124	153	153	249	210	148	219	373	284	128	99	130
12	121	142	170	232	206	142	203	340	229	138	97	123
13	119	137	206	232	194	142	188	317	220	136	95	109
14	121	139	291	229	188	142	176	302	201	121	92	104
15	124	134	291	226	179	145	206	298	187	116	92	102
16	121	126	508	229	176	145	3,770	292	171	114	90	102
17	121	124	995	263	173	142	5,930	313	166	106	86	114
18	129	121	655	356	164	142	4,760	302	158	104	90	111
19	129	121	486	360	159	139	12,200	264	150	102	99	206
20	126	126	408	306	156	142	12,700	248	146	95	95	190
21	124	124	340	280	153	142	2,820	241	143	95	92	153
22	121	119	298	266	153	145	1,750	232	138	99	90	128
23	119	134	266	256	150	148	1,280	226	136	97	90	118
24	116	215	246	249	153	148	1,020	773	138	106	95	130
25	116	550	229	259	148	148	840	365	133	270	123	f1,820
26	121	387	216	450	150	145	697	264	136	235	121	f2,420
27	116	522	206	585	150	142	590	223	133	150	106	525
28	116	459	200	490	148	142	510	201	466	140	106	306
29	114	344	194	437	-	139	452	187	241	126	114	229
30	116	291	188	404	-	145	407	176	156	121	114	215
31	116	-	197	400	-	142	-	169	-	116	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,759	132	114	121	0.146	0.17	7,460
November	5,695	550	116	190	.229	.26	11,300
December	8,582	995	145	277	.334	.39	17,020
Calendar year 1940	132,655	4,840	109	362	.436	5.95	263,100
January	12,291	1,180	226	396	.477	.55	24,380
February	5,904	395	148	211	.254	.26	11,710
March	4,421	148	137	143	.172	.20	8,770
April	53,417	12,700	142	1,781	2.15	2.40	106,000
May	10,435	773	169	337	.406	.47	20,700
June	5,501	466	133	183	.220	.25	10,910
July	3,981	270	95	128	.154	.18	7,900
August	3,283	130	86	106	.128	.15	6,510
September	8,525	2,420	102	284	.342	.38	16,910
Water year 1940-41	125,794	12,700	86	345	.416	5.66	249,600

Peak discharge.- Apr. 17 (9 a.m.) 7,550 sec.-ft.; Apr. 18 (9 a.m.) 6,580 sec.-ft.; Apr. 19 (7:30 a.m.) 11,100 sec.-ft.; Apr. 20 (12:30 a.m.) 22,600 sec.-ft.
f Computed on basis of partly estimated gage-height record.

Meramec River at Robertsville, Mo.

Location.- Water-stage recorder, lat. 38°25'40", long. 90°49'35", in SW¼NW¼ sec. 32, T. 43 N., R. 2 E., at county highway bridge, 1 mile northwest of Robertsville and 1¾ miles upstream from Calvey Creek. Datum of gage is 448.24 feet above mean sea level, datum of 1929.

Drainage area.- 2,720 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 39,400 second-feet Apr. 22 (gage height, 25.20 feet); minimum, 256 second-feet Aug. 23, 24 (gage height, 2.47 feet).

1939-41: Maximum discharge, that of Apr. 22, 1941; minimum, that of Aug. 23, 24, 1941.

Maximum stage known, about 34 feet in August 1915; from information furnished by local residents.

Remarks.- Records excellent.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

2.4	228	5.0	1,730	16.0	17,200
2.6	309	6.0	2,630	20.0	25,200
3.0	491	8.0	4,850	23.5	34,400
3.5	752	10.0	7,470		
4.0	1,040	12.0	10,400		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	280	322	925	780	1,480	496	443	1,510	560	525	330	411
2	280	330	807	1,180	1,370	491	443	1,400	545	434	309	833
3	288	330	724	2,430	1,300	486	462	1,300	560	516	305	2,430
4	293	330	658	3,470	1,210	481	675	1,240	550	472	313	925
5	297	330	611	2,530	1,140	467	1,340	1,180	535	434	335	611
6	318	330	575	1,810	1,040	462	1,930	1,180	511	406	343	516
7	343	330	545	1,480	985	462	1,930	1,180	496	388	356	457
8	335	330	525	1,270	925	462	1,580	1,580	477	374	402	420
9	330	335	491	1,110	865	457	1,440	2,150	506	366	462	402
10	348	348	477	1,020	g807	467	1,370	1,730	1,140	356	402	392
11	352	467	496	895	g780	467	1,300	1,440	1,370	379	352	397
12	343	411	626	836	g752	467	1,180	1,270	1,180	384	348	392
13	335	411	692	807	724	467	1,040	1,140	985	379	348	366
14	335	434	836	780	697	467	955	1,080	836	361	335	343
15	348	434	985	752	658	477	925	1,240	752	370	366	326
16	361	415	1,540	780	642	477	2,040	1,140	658	352	313	343
17	361	406	2,340	1,040	632	472	7,470	1,240	600	335	288	339
18	370	397	2,630	1,180	616	472	14,900	1,180	550	322	272	313
19	356	384	2,100	1,690	590	467	21,300	1,110	565	313	276	361
20	348	384	1,730	1,850	570	467	29,400	1,020	530	301	288	865
21	343	384	1,400	g1,540	560	462	34,400	895	453	297	272	616
22	339	384	1,210	g1,300	540	462	34,100	836	434	293	268	560
23	335	388	1,040	g1,180	525	457	8,730	780	545	280	264	477
24	326	402	955	g1,080	525	457	4,490	697	486	301	434	467
25	322	985	865	g1,080	520	462	3,580	697	448	397	813	2,010
26	322	1,510	807	1,240	520	462	2,830	955	420	392	675	3,920
27	318	1,300	752	1,730	516	457	2,380	780	406	425	565	6,110
28	318	1,660	697	3,690	506	448	2,060	680	420	477	501	2,430
29	318	1,370	670	2,730	-	443	1,850	626	448	429	472	1,510
30	318	1,110	637	1,980	-	438	1,620	606	550	388	415	1,210
31	318	-	621	1,660	-	443	-	575	-	356	388	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	10,198	370	280	329	0.121	0.14	20,230
November	16,951	1,660	322	565	.208	.23	33,620
December	29,967	2,630	477	967	.356	.41	59,440
Calendar year 1940	414,869	10,400	280	1,134	.417	5.66	822,900
January	46,900	3,690	752	1,513	.556	.64	93,020
February	21,995	1,480	506	786	.289	.30	43,630
March	14,422	496	438	465	.171	.20	28,610
April	188,163	34,400	443	6,272	2.31	2.58	373,200
May	34,437	2,150	576	1,111	.408	.47	68,300
June	18,516	1,370	406	617	.227	.25	36,730
July	11,802	525	280	381	.140	.16	23,410
August	11,610	813	264	381	.140	.16	23,420
September	30,752	6,110	313	1,025	.377	.42	61,000
Water year 1940-41	435,913	34,400	264	1,194	.439	5.96	864,600

Peak discharge.- Apr. 18 (8 p.m.) 16,100 sec.-ft.; Apr. 22 (3:30 a.m.) 39,400 sec.-ft.

g Computed from graph based on gage readings.

Meramec River near Eureka, Mo.

Location.- Water-stage recorder, lat. 38°30'20", long. 90°35'30", in SE¼ sec. 32, T. 44 N., R. 4 E., at bridge on U. S. Highway 66, 2 miles east of Eureka and 3 miles downstream from Big River. Datum of gage is 406.18 feet above mean sea level, datum of 1929.

Drainage area.- 3,800 square miles.

Records available.- August 1903 to July 1906, October 1921 to September 1941.

Average discharge.- 20 years (1921-41), 2,882 second-feet.

Extremes.- Maximum discharge during year, 38,000 second-feet Apr. 22 (gage height, 22.07 feet); minimum, 323 second-feet July 23, Aug. 24 (gage height, 1.16 feet).
1921-41: Maximum discharge observed, 64,000 second-feet Apr. 3, 1927 (gage height, 29.47 feet, site and datum then in use); maximum gage height, 30.89 feet Mar. 14, 1935; minimum discharge, 196 second-feet Aug. 27, 31, Sept. 1, 1936; minimum gage height, 0.33 foot Oct. 2, 3, 1932, site and datum then in use.
Maximum stage known, 40.2 feet from floodmarks, present site and datum, Aug. 22, 1915 (discharge, 175,000 second-feet, by slope-area method).

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.1	290	2.0	955	4.0	3,290	15.0	21,500
1.3	405	2.5	1,440	6.0	6,000	20.0	32,300
1.5	540	3.0	2,010	10.0	12,400	21.3	35,800

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	361	405	1,440	1,200	2,250	720	655	2,320	806	720	548	457
2	381	405	1,260	3,220	2,070	712	671	2,130	772	592	444	512
3	375	393	1,110	4,460	1,890	720	720	1,950	788	623	418	2,040
4	375	393	1,010	4,590	1,770	687	1,090	1,830	901	973	367	1,640
5	381	431	937	3,940	1,660	679	2,320	1,770	814	772	387	892
6	393	424	865	2,900	1,550	671	3,420	1,770	754	647	399	695
7	424	418	814	2,320	1,440	663	3,160	1,770	729	570	424	576
8	424	431	780	1,950	1,340	663	2,580	1,690	679	526	438	512
9	470	438	729	1,720	1,260	663	2,190	2,580	663	498	470	498
10	533	450	679	1,500	1,170	679	2,250	2,580	1,270	491	498	484
11	519	592	687	1,390	1,120	679	2,190	2,070	1,600	457	436	444
12	491	746	822	1,260	1,080	679	1,950	1,770	1,660	457	381	450
13	457	1,110	1,070	1,240	1,020	687	1,660	1,600	1,330	450	387	438
14	450	848	1,340	1,200	1,000	679	1,500	1,500	1,130	444	565	424
15	464	729	1,500	1,170	973	687	1,390	1,500	991	438	631	399
16	450	655	3,220	1,170	928	695	2,510	1,600	901	438	540	412
17	457	608	5,710	1,770	919	687	6,750	1,770	840	412	505	431
18	491	578	4,590	1,950	892	679	15,400	1,600	772	405	444	424
19	498	548	3,420	2,130	856	679	24,100	1,550	712	393	399	663
20	477	526	2,700	2,580	822	679	29,200	1,440	655	369	357	991
21	457	519	2,250	2,250	806	671	30,600	1,290	639	363	340	1,000
22	450	505	1,890	1,890	772	671	35,800	1,180	592	345	357	806
23	444	505	1,600	1,660	746	671	26,200	1,110	615	328	357	687
24	438	519	1,440	1,550	738	655	6,600	1,040	655	405	412	592
25	424	1,080	1,300	1,500	738	639	4,730	973	600	444	1,440	2,840
26	412	2,440	1,200	1,950	738	639	3,940	1,120	562	450	892	6,000
27	393	2,580	1,110	2,640	738	639	3,420	1,120	526	464	738	7,820
28	393	3,100	1,070	3,940	729	631	3,100	991	526	562	623	4,200
29	418	2,320	1,020	4,070	-	623	2,770	910	540	592	562	2,250
30	405	1,770	1,040	3,100	-	623	2,510	865	570	519	526	1,720
31	405	-	1,020	2,580	-	647	-	822	-	540	470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	13,530	533	375	436	0.115	0.13	26,840
November	26,466	3,100	393	882	.232	.26	52,490
December	49,623	5,710	679	1,601	.421	.49	98,430
Calendar year 1940	588,346	12,600	360	1,608	.423	5.76	1,167,000
January	70,790	4,590	1,170	2,284	.601	.69	140,400
February	32,015	2,250	729	1,143	.301	.31	63,500
March	20,796	720	623	671	.177	.20	41,250
April	225,376	35,600	655	7,513	1.98	2.21	447,000
May	48,411	2,580	822	1,562	.411	.47	96,020
June	24,592	1,660	526	820	.216	.24	48,780
July	15,687	973	328	506	.133	.15	31,110
August	15,797	1,440	340	510	.134	.15	31,330
September	41,299	7,620	399	1,377	.362	.40	81,920
Water year 1940-41	564,382	35,600	328	1,601	.421	5.70	1,159,000

Peak discharge.- Apr. 22 (8 p.m.) 38,000 sec.-ft.; Sept. 27 (2 a.m.) 8,620 sec.-ft.

Bourbeuse River at Union, Mo.

Location.- Wire-weight gage, lat. 38°26'45", long. 90°59'30", in SW¼ sec. 26, T. 43 N., R. 1 W., at bridge on U. S. Highway 50, 800 feet upstream from Flat Creek, half a mile east of Union, and 7 miles upstream from Birch Creek. Datum of gage is 491.58 feet above mean sea level, datum of 1929.

Drainage area.- 767 square miles.

Records available.- June 1921 to September 1941.

Average discharge.- 20 years, 617 second-feet.

Extremes.- Maximum discharge during year, 18,700 second-feet Apr. 21 (gage height, 17.09 feet); minimum, 20 second-feet Oct. 26, 27; minimum gage height, 0.46 foot Oct. 2.
1921-41: Maximum discharge, 28,200 second-feet June 13, 1938 (gage height, 20.23 feet); minimum, 14 second-feet Aug. 31, Sept. 1, 1936 (gage height, 0.22 foot).
Maximum stage known, 25.5 feet from floodmarks, Aug. 22, 1915 (discharge, about 50,000 second-feet, determined from extension of rating curve for main channel based on measurements made since 1921 and study of overflow areas in vicinity of gaging station).

Remarks.- Records poor. Gage read once daily below 7 feet and twice daily above.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	26	35	134	438	67	57	335	52	50	29	63
2	22	25	34	127	355	63	55	296	50	75	36	100
3	24	25	33	438	355	63	57	276	49	223	54	1,990
4	23	24	33	975	315	61	98	257	49	151	31	663
5	24	25	32	548	276	61	276	227	43	115	49	417
6	25	24	37	376	238	63	663	231	40	90	55	296
7	29	24	39	315	220	63	593	276	40	73	78	227
8	29	23	37	212	194	61	438	616	38	61	121	172
9	28	23	35	148	169	61	460	760	46	54	227	127
10	25	25	33	134	158	61	417	525	311	54	80	100
11	24	32	32	112	144	65	451	417	810	78	54	75
12	25	30	50	100	127	63	376	335	616	67	67	59
13	32	29	40	90	118	63	296	257	417	54	52	49
14	35	27	48	88	109	61	257	223	355	49	52	43
15	35	b27	43	82	100	66	220	205	276	55	90	38
16	34	b27	95	88	95	67	883	190	212	49	43	36
17	32	b27	98	176	90	65	3,980	276	169	44	34	35
18	28	b28	109	257	85	63	5,540	223	140	43	30	33
19	26	28	212	810	85	63	7,260	276	115	42	29	29
20	24	29	276	760	80	65	10,400	194	98	38	29	593
21	29	29	197	481	75	63	16,100	140	80	35	26	335
22	28	30	144	355	73	61	10,400	118	75	34	24	227
23	26	32	115	276	69	63	1,440	103	67	31	23	154
24	23	32	98	238	67	61	975	90	67	31	23	109
25	21	31	78	220	65	61	760	80	57	54	140	865
26	20	39	69	355	65	61	593	73	54	37	106	3,700
27	20	36	63	1,180	69	59	503	69	52	33	208	2,560
28	22	34	61	1,990	65	59	438	63	59	32	223	760
29	22	34	57	975	-	57	376	63	78	32	165	570
30	23	33	50	663	-	55	376	59	50	33	109	525
31	26	-	49	525	-	57	-	55	-	31	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	807	35	20	26.0	0.034	0.04	1,600
November	858	39	23	28.6	.037	.04	1,700
December	2,332	276	32	75.2	.098	.11	4,630
Calendar year 1940	75,281	3,280	20	206	.269	3.63	149,300
January	13,228	1,990	82	427	.557	.64	26,240
February	4,299	438	65	154	.201	.21	8,530
March	1,921	67	55	62.0	.081	.09	3,810
April	64,768	16,100	55	2,159	2.81	3.14	128,500
May	7,308	760	55	236	.308	.36	14,500
June	4,565	810	38	152	.198	.22	9,050
July	1,848	223	31	59.6	.078	.09	3,670
August	2,372	227	23	76.5	.100	.12	4,700
September	14,950	3,700	29	498	.649	.72	29,650
Water year 1940-41	119,256	16,100	20	327	.426	5.78	236,600

b Stage-discharge relation affected by ice.

Big River at Byrnesville, Mo.

Location.- Water-stage recorder, lat. 38°21'45", long. 90°39'05", in SE¼ sec. 12, T. 42 N., R. 3 E., at county highway bridge at Byrnesville, 4 miles upstream from Head Creek. Datum of gage is 433.69 feet above mean sea level, datum of 1929.
Drainage area.- 892 square miles.
Records available.- May 1922 to September 1941.
Average discharge.- 19 years, 776 second-feet.
Extremes.- Maximum discharge during year, 9,150 second-feet Apr. 19 (gage height, 16.15 feet); minimum, 56 second-feet Sept. 12 (gage height, 1.80 feet).
1922-41: Maximum discharge, 31,700 second-feet Mar. 12, 1935 (gage height, 24.65 feet), from rating curve extended above 25,000 second-feet; minimum, 25 second-feet Aug. 30, 1936; minimum gage height, 1.50 feet Aug. 14, 1934.
Maximum stage known, 30.2 feet from floodmarks, in August 1915 (discharge, 80,000 second-feet, by slope-area method).
Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Oct. 8)

Oct. 1 to Oct. 8, Dec. 17 to Sept. 30

1.8	56	3.9	429	11.0	4,370
2.0	73	4.5	615	13.0	5,860
2.4	117	5.5	1,010	14.9	7,590
2.7	160	6.5	1,510		
3.2	257	9.0	3,020		

Oct. 9 to Dec. 16

2.2	75	3.1	229
2.4	100	3.5	325
2.7	149	3.9	429

Note.- Same as preceding table above 3.9 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101	100	429	618	564	209	167	376	124	88	140	86
2	95	86	363	2,890	532	213	172	351	124	82	113	94
3	84	99	320	2,450	501	215	199	326	168	316	106	88
4	76	112	283	1,320	457	215	472	326	246	364	98	79
5	77	112	257	944	416	213	1,420	302	172	242	94	105
6	92	104	234	742	389	201	1,350	314	167	174	102	109
7	112	103	214	598	364	195	840	338	146	140	98	100
8	121	115	202	516	351	199	650	338	131	124	88	93
9	231	114	189	457	326	197	548	326	131	115	82	88
10	200	118	179	416	302	203	723	314	389	98	74	85
11	157	195	189	389	314	209	650	281	268	75	69	74
12	125	557	259	364	302	219	516	261	199	79	63	57
13	112	668	548	351	288	213	443	255	167	79	71	77
14	112	376	704	351	284	209	402	253	149	77	351	80
15	112	271	687	351	279	205	416	240	134	72	240	78
16	104	214	2,450	389	277	205	1,110	333	125	68	209	75
17	126	185	4,020	686	264	205	3,280	295	121	74	186	80
18	128	172	1,680	742	257	199	5,020	281	115	90	144	112
19	115	158	1,010	650	253	201	7,590	297	111	63	118	527
20	109	158	800	516	236	190	5,060	259	112	61	87	338
21	108	153	668	457	228	188	2,580	223	107	59	97	209
22	102	145	564	416	219	186	1,570	199	98	58	100	155
23	100	151	486	389	219	182	1,120	184	96	59	103	129
24	102	172	443	389	219	182	902	174	84	68	165	134
25	103	1,070	402	501	223	179	761	160	113	77	172	1,510
26	97	881	376	840	221	181	650	157	106	81	143	4,020
27	99	1,680	351	1,240	213	175	564	149	98	98	126	1,440
28	112	1,400	338	1,080	211	170	501	144	90	140	113	598
29	117	723	376	820	-	168	457	140	91	126	95	443
30	109	532	416	686	-	163	416	133	92	122	68	351
31	104	-	402	598	-	167	-	127	-	197	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,542	231	76	114	0.128	0.15	7,030
November	10,924	1,680	86	364	.408	.46	21,670
December	19,839	4,020	179	640	.717	.83	39,350
Calendar year 1940	171,046	6,800	49	467	.524	7.12	339,300
January	23,156	2,890	351	747	.837	.96	45,930
February	8,709	564	211	311	.349	.36	17,270
March	6,056	219	163	195	.219	.25	12,010
April	40,549	7,590	167	1,352	1.52	1.70	80,430
May	7,856	376	127	253	.284	.33	15,580
June	4,274	389	84	142	.159	.18	8,480
July	3,566	364	58	115	.129	.15	7,070
August	3,788	351	63	122	.137	.16	7,510
September	11,414	4,020	57	380	.426	.48	22,640
Water year 1940-41	143,673	7,590	57	394	.442	6.01	285,000

Peak discharge.- Dec. 17 (9 a.m.) 4,510 sec.-ft.; Apr. 18 (7 p.m.) 5,240 sec.-ft.; Apr. 19 (10:30 a.m.) 9,150 sec.-ft.; Sept. 26 (6 p.m.) 4,510 sec.-ft.

Mayfield Creek at Lovelaceville, Ky.

Location.- Water-stage recorder, lat. 36°57', long. 88°49', at bridge on U. S. Highway 62, on line between Ballard and Carlisle Counties, 0.8 mile south of Lovelaceville and 3 miles upstream from Wilson Creek.

Drainage area.- 211 square miles (revised).

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge during year, 2,060 second-feet Jan. 24 (gage height, 11.29 feet); minimum, 6.9 second-feet Sept. 18-23; minimum gage height, 2.58 feet Oct. 1, 2, 23-25.

1938-41: Maximum discharge, 7,860 second-feet Aug. 1, 1938 (gage height, 17.9 feet, from graph based on gage readings); minimum, that of Sept. 18-23, 1941; minimum gage height observed, 2.49 feet Sept. 10, 1938.

Maximum stage known, 21.1 feet, from floodmarks, in January 1937 (discharge, 19,800 second-feet, by slope-area method).

Remarks.- Records good except those below 200 second-feet, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.4	12	21	35	30	12	14	11	11	10	10	16
2	9.4	8.8	21	29	30	13	15	12	42	12	10	14
3	9.4	s.8	21	23	30	15	16	11	80	452	10	14
4	9.4	s.8	20	20	27	13	18	11	19	479	10	f14
5	9.4	11	20	17	25	12	16	11	13	58	9.2	f13
6	9.4	12	21	15	23	12	15	14	12	24	10	f26
7	11	11	21	15	21	12	15	51	12	16	11	29
8	9.4	s.8	23	15	18	12	14	26	11	15	11	f16
9	10	8.8	22	15	17	12	14	13	11	14	10	f12
10	10	9.4	21	15	17	12	14	11	12	13	11	f11
11	9.4	470	19	15	16	12	14	11	13	14	16	f10
12	9.4	f122	16	15	17	12	14	11	13	282	12	f8.7
13	9.4	d74	34	15	117	13	14	11	12	299	10	8.7
14	9.4	d45	27	15	110	13	14	10	12	51	10	8.2
15	9.4	d26	55	19	47	13	14	11	11	21	10	8.2
16	9.4	d21	113	26	31	13	14	10	11	16	10	7.7
17	9.4	d19	85	38	25	12	14	16	11	14	10	7.3
18	9.4	d19	48	25	18	12	14	13	11	12	f10	6.9
19	8.8	d19	32	26	15	12	12	11	11	12	a65	8.7
20	8.8	d20	28	26	14	12	91	11	11	11	f30	7.7
21	8.8	d22	27	25	13	12	112	24	11	11	f12	7.3
22	8.8	d35	26	a30	13	13	28	22	12	11	11	6.9
23	8.2	52	27	f45	13	14	16	f13	13	9.2	a44	6.9
24	8.2	50	28	1,470	12	14	11	f11	12	10	f48	7.3
25	8.2	37	f28	310	12	14	11	f11	12	51	a22	8.2
26	8.8	30	f28	114	12	13	12	f11	12	16	a14	8.2
27	8.8	28	f218	82	13	13	12	f11	12	12	a19	8.2
28	8.8	26	377	58	13	13	12	f11	16	10	a25	9.2
29	10	23	170	41	-	13	11	f11	14	10	20	10
30	9.4	22	66	35	-	13	12	11	11	9.2	53	9.2
31	10	-	40	33	-	14	-	11	-	9.2	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	287.6	11	8.2	9.28	0.044	0.05
November	1,259.4	470	8.8	42.0	.199	.22
December	1,703	377	16	54.9	.260	.30
Calendar year 1940	67,018.2	4,000	8.2	183	†.867	†11.80
January	2,662	1,470	15	85.9	.407	.47
February	749	117	12	26.8	.127	.13
March	395	15	12	12.7	.060	.07
April	603	112	11	20.1	.095	.11
May	433	51	10	14.0	.066	.08
June	464	80	11	15.5	.073	.08
July	1,983.6	479	9.2	64.0	.303	.35
August	573.2	65	9.2	18.5	.088	.10
September	328.5	29	6.9	11.0	.052	.06
Water year 1940-41	11,441.3	1,470	6.9	31.3	.148	2.02

† Computed on basis of revised figure for drainage area.

a No gage-height record; discharge computed on basis of weather records and record for Bayou de Chien near Clinton.

d Doubtful gage-height record; discharge computed on basis of weather records and record for Bayou de Chien near Clinton.

f Computed on basis of partly estimated gage-height record.

Bayou de Chien near Clinton, Ky.

Location.- Wire-weight gage, lat. 36°38', long. 88°58', at bridge on U. S. Highway 51, 1.1 miles upstream from Cane Creek, 2.8 miles southeast of Clinton, Hickman County, and 15.4 miles upstream from mouth.

Drainage area.- 68.5 square miles.

Records available.- December 1939 to September 1941.

Extremes.- Maximum discharge during year, 1,010 second-feet Jan. 24 (gage height, 10.1 feet, from graph based on gage readings); minimum observed, 7.1 second-feet Sept. 19-21; minimum gage height observed, 1.70 feet July 27 to Aug. 18.
1939-41: Maximum discharge, 2,550 second-feet Mar. 13, 1940 (gage height, 13.4 feet, from graph based on gage readings); minimum observed, 6.2 second-feet June 22, 25, 27, 1940.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	20	12	14	24	12	19	9.9	13	11	8.7	9.9
2	11	15	12	14	27	12	15	9.9	26	14	8.7	9.9
3	11	15	12	14	24	13	21	9.9	14	117	8.7	9.9
4	11	15	12	14	21	56	23	8.7	12	108	8.7	9.9
5	11	44	12	14	19	15	21	8.1	12	26	8.7	9.9
6	11	13	12	14	19	12	16	16	12	16	e.7	9.9
7	14	9.9	64	12	19	12	14	24	11	11	8.7	9.9
8	13	9.9	20	11	16	11	14	12	12	9.9	9.9	9.9
9	12	9.9	14	11	15	11	20	8.7	13	9.9	8.7	9.9
10	11	13	12	11	13	12	16	8.7	13	9.3	8.7	9.9
11	13	78	12	11	13	12	14	9.9	13	12	8.7	9.9
12	13	21	14	11	13	11	12	9.3	12	245	8.7	9.3
13	13	9.9	24	11	24	15	12	8.7	12	32	8.7	8.7
14	13	8.7	12	11	24	12	11	8.7	12	13	8.7	8.7
15	17	8.7	20	23	18	13	12	8.7	12	12	8.7	8.7
16	14	8.7	46	54	15	16	13	8.7	12	11	8.7	8.7
17	14	9.9	16	32	15	12	12	8.7	11	11	8.7	8.7
18	14	9.9	12	15	13	12	12	8.7	11	9.9	8.7	8.1
19	15	9.9	12	12	13	12	12	8.7	11	9.9	46	7.1
20	15	9.9	11	9.3	12	12	250	8.7	11	9.9	11	7.1
21	15	9.9	11	9.3	12	12	34	12	11	9.9	8.7	7.1
22	15	26	11	31	12	11	19	73	11	9.9	8.7	a7.1
23	15	53	11	83	12	16	20	20	11	9.9	8.7	a7.1
24	15	14	11	543	12	16	19	14	11	9.3	8.7	a7.1
25	15	12	11	78	12	14	16	13	11	14	8.7	a8.1
26	15	42	11	51	13	13	12	13	11	11	8.7	ae.1
27	15	15	248	40	13	12	9.9	13	11	8.7	15	a8.1
28	15	12	75	27	12	12	9.9	13	11	8.7	19	8.1
29	15	12	27	24	-	12	9.9	12	11	8.7	41	a8.7
30	15	12	18	26	-	11	9.9	13	11	8.7	9.9	a8.7
31	15	-	16	30	-	15	-	13	-	e.7	9.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	422	17	11	13.6	0.199	0.23
November	547.2	78	6.7	18.2	.266	.30
December	611	248	11	26.2	.382	.44
Calendar year 1940	22,431.8	1,510	6.2	61.3	.895	12.19
January	1,260.6	543	9.3	40.7	.594	.68
February	455	27	12	16.2	.236	.25
March	439	56	11	14.2	.207	.24
April	698.6	250	9.9	23.3	.340	.38
May	413.7	73	8.1	13.3	.194	.22
June	365	26	11	12.2	.178	.20
July	805.3	245	8.7	26.0	.380	.44
August	361.8	46	8.7	11.7	.171	.20
September	262.2	9.9	7.1	8.74	.128	.14
Water year 1940-41	6,641.4	543	7.1	18.7	.273	3.72

a No gage-height record; discharge computed on basis of records for station on Mayfield Creek at Lovelaceville.

Castor River at Zalma, Mo.

Location.- Wire-weight gage, lat. 37°08'45", long. 90°04'30", in SE¼ sec. 29, T. 29 N., R. 9 E., at bridge on State Highway 51 in Zalma, 2½ miles downstream from Perkins Creek. Datum of gage is 350.38 feet above mean sea level, datum of 1929.

Drainage area.- 395 square miles.

Records available.- September 1921 to September 1941.

Average discharge.- 20 years, 480 second-feet.

Extremes.- Maximum discharge during year, 2,480 second-feet Jan. 2 (gage height, 12.3 feet, from graph based on gage readings); minimum, 28 second-feet Aug. 10-12, 15. 1921-41: Maximum discharge, 40,400 second-feet Jan. 14, 1937, from rating curve extended above 25,000 second-feet; maximum gage height, 28.20 feet Mar. 11, 1935; minimum discharge, 16 second-feet Aug. 31, 1936 (gage height, 0.81 foot).

Remarks.- Records good. Gage read once daily below 8 feet and twice daily above.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-28 and May 14 to July 12)

1.1	26	2.5	162	8.0	1,220
1.3	37	3.0	231	10.0	1,710
1.6	63	3.5	310	12.0	2,360
2.0	105	4.0	400		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	47	132	947	440	132	78	168	68	39	36	45
2	46	46	127	2,320	400	132	73	162	73	35	35	42
3	45	46	116	1,480	327	127	94	150	73	34	32	37
4	43	46	110	926	327	122	202	144	100	34	32	41
5	42	51	100	680	293	116	231	132	78	34	30	46
6	42	57	100	540	277	116	105	132	73	33	29	94
7	42	56	94	460	261	116	100	162	68	33	30	327
8	43	57	88	400	246	110	94	216	63	34	30	261
9	47	56	88	344	231	110	293	216	63	34	30	116
10	43	56	83	310	216	105	310	202	61	36	28	94
11	48	83	78	277	202	110	293	188	63	36	28	78
12	47	94	105	261	188	105	261	175	63	38	28	68
13	44	116	105	246	202	100	246	162	58	43	29	63
14	46	94	116	231	261	100	231	156	57	52	30	57
15	44	88	105	216	231	94	216	150	55	46	28	55
16	44	78	231	202	231	100	216	138	52	41	29	51
17	43	73	327	231	216	94	500	150	50	37	32	49
18	43	68	293	231	202	94	720	162	50	36	31	45
19	44	68	277	202	202	94	640	150	47	36	50	41
20	42	58	246	202	188	88	520	138	45	35	68	39
21	42	58	231	188	175	88	420	122	43	33	55	41
22	49	61	202	188	175	83	380	122	43	31	54	39
23	44	94	202	188	168	83	344	122	42	30	52	37
24	47	122	188	680	162	83	310	110	49	30	53	36
25	43	127	175	926	150	83	277	100	43	36	47	38
26	43	175	168	926	150	78	261	94	42	53	50	39
27	45	168	162	884	144	78	231	88	43	62	49	39
28	44	188	231	740	144	78	216	83	40	52	68	41
29	43	162	261	600	-	73	188	83	39	42	55	40
30	43	162	246	540	-	73	175	78	38	41	51	41
31	45	-	246	520	-	73	-	78	-	36	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,372	49	42	44.3	0.112	0.13	2,720
November	2,655	188	46	88.5	.224	.25	5,270
December	5,233	327	78	169	.428	.49	10,380
Calendar year 1940	99,175	7,410	41	271	.686	9.35	196,700
January	17,086	2,320	188	551	1.39	1.60	33,890
February	6,409	440	144	229	.580	.60	12,710
March	3,038	132	73	98.0	.248	.29	6,030
April	8,225	720	73	274	.694	.77	16,310
May	4,333	216	78	140	.354	.41	8,590
June	1,682	100	38	56.1	.142	.16	3,340
July	1,182	53	30	38.1	.096	.11	2,340
August	1,248	68	28	40.3	.102	.12	2,480
September	2,040	327	36	68.0	.172	.19	4,050
Water year 1940-41	54,503	2,320	28	149	.377	5.12	108,100

South Fork of Obion River near Greenfield, Tenn.

Location.- Water-stage recorder, lat. 36°07'15", long. 88°48'40", 150 feet downstream from bridge on U. S. Highway 45E, 200 feet downstream from Coats Branch, 2½ miles south of Greenfield, Weakley County, and 10 miles upstream from confluence with Middle Fork of Obion River. Datum of gage is 300.37 feet above mean sea level, datum of 1929.

Drainage area.- 431 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 501 second-feet.

Extremes.- Maximum discharge during year, 1,220 second-feet Apr. 20 (gage height, 11.40 feet); minimum, 76 second-feet Sept. 20, 21; minimum gage height, 3.43 feet Oct. 5. 1929-41: Maximum discharge, 25,600 second-feet Jan. 21-22, 1937 (gage height, 17.82 feet, from floodmarks), from rating curve extended above 15,000 second-feet; minimum, that of Sept. 20, 21, 1941; minimum gage height observed, 1.5 feet several days in August and September 1930.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 12, Apr. 4 to 19, July 15 to Sept. 30)

3.4	77	4.5	190	8.0	598
3.6	95	5.0	245	9.3	792
4.0	135	6.0	355		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	105	118	135	162	132	125	113	96	87	94	120
2	92	115	115	146	157	133	122	110	105	87	174	105
3	92	100	113	139	168	134	121	108	107	198	101	118
4	91	98	113	133	146	162	184	105	106	a600	89	103
5	91	105	114	127	144	146	196	103	97	a170	87	93
6	90	126	113	120	143	135	157	118	95	103	87	90
7	92	107	179	121	139	135	142	a210	94	95	86	89
8	96	104	166	124	135	139	137	a170	98	93	85	87
9	94	105	129	125	130	131	134	a125	97	91	83	84
10	92	113	121	124	131	a130	131	a113	105	164	82	82
11	91	495	116	124	130	a130	127	111	138	199	82	82
12	92	292	116	123	129	a128	125	111	105	156	96	82
13	91	126	138	122	140	a128	124	110	96	283	99	81
14	91	113	152	122	272	a133	120	108	95	434	96	80
15	95	109	157	124	184	a131	119	106	94	135	228	80
16	107	109	562	128	157	a145	119	104	93	103	128	79
17	99	117	297	146	152	a138	120	105	92	95	95	79
18	96	115	162	139	142	a132	118	118	91	91	90	80
19	95	110	146	125	134	a130	476	104	90	89	240	79
20	95	108	137	122	131	126	769	101	90	88	162	78
21	95	108	133	122	137	126	363	100	91	87	102	78
22	95	125	129	123	134	124	184	179	95	87	96	78
23	95	138	127	130	130	126	218	264	142	87	102	78
24	95	137	125	715	128	145	311	120	157	87	206	79
25	95	143	125	466	134	138	190	107	98	169	127	79
26	95	157	126	245	136	128	152	104	93	148	94	81
27	95	184	174	218	146	126	135	102	90	97	238	82
28	95	128	289	179	140	128	128	99	91	97	640	82
29	96	120	212	162	-	123	121	98	91	163	355	82
30	102	118	162	157	-	119	116	98	89	90	278	84
31	100	-	142	174	-	120	-	98	-	127	174	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,932	107	90	94.6	0.219	0.25
November	4,130	495	98	138	.320	.36
December	5,010	562	113	162	.376	.43
Calendar year	111,601	2,180	89	305	.708	9.63
January	5,260	715	120	170	.394	.45
February	4,111	272	128	147	.341	.35
March	4,101	162	119	132	.306	.35
April	5,604	789	116	187	.434	.48
May	3,722	264	98	120	.278	.32
June	3,021	157	89	101	.234	.26
July	4,600	600	87	148	.343	.40
August	4,696	640	82	151	.350	.41
September	2,574	120	78	85.8	.199	.22
Water year 1940-41	49,761	789	78	136	.316	4.28

a No gage-height record; discharge computed on basis of records for stations on Rutherford Fork of Obion River near Bradford and North Fork of Obion River near Union City.

Obion River at Obion, Tenn.

Location.- Water-stage recorder, lat. 36°15'10", long. 89°11'45", at toll bridge on U. S. Highway 51, half a mile south of Obion, Obion County, and 14½ miles downstream from confluence of North and South Forks of Obion River. Datum of gage is 261.23 feet above mean Gulf level.

Drainage area.- 1,880 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 2,238 second-feet.

Extremes.- Maximum discharge during year, 2,370 second-feet July 14 (gage height, 9.84 feet); minimum, 253 second-feet July 2; minimum gage height, 0.29 foot Sept. 25.
1929-41: Maximum discharge, 99,500 second-feet Jan. 24, 1937 (gage height, 25.4 feet, from floodmarks); minimum observed, 232 second-feet (under conditions of no backwater) Sept. 1, 1936 (gage height, -0.04 foot); during period of backwater from Mississippi River a minimum daily discharge of 15 second-feet occurred on Feb. 4, 1937; reversed flow of 57 second-feet was measured by current meter on that date.

Remarks.- Records fair.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 13 to Dec. 15, Apr. 20, Apr. 25 to July 3, Sept. 2-30)

Oct. 1 to Apr. 20				Apr. 21 to Sept. 30			
1.0	296	6.0	1,290	0.45	253	6.0	1,460
2.0	480	8.0	1,760	1.0	358	8.0	1,940
4.0	864	9.6	2,160	2.0	565	9.8	2,370
				4.0	1,000		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	350	461	765	727	480	442	460	308	271	328	978
2	305	366	423	670	689	480	442	439	336	253	398	824
3	296	386	395	594	670	460	442	418	388	890	450	607
4	296	377	386	556	651	1,220	470	398	418	2,010	348	470
5	296	386	377	518	613	1,760	765	368	502	2,280	308	426
6	296	452	377	499	594	1,430	727	378	398	1,960	299	378
7	305	452	556	470	556	1,030	651	649	366	1,270	280	358
8	314	423	824	452	537	864	594	1,040	328	692	290	328
9	314	404	670	452	518	727	537	956	308	460	280	318
10	305	404	575	452	499	632	499	846	318	388	262	299
11	305	579	518	452	480	556	470	736	388	1,080	262	290
12	305	1,450	480	452	480	518	452	586	481	2,160	262	280
13	305	1,030	480	452	480	499	432	470	358	2,350	262	280
14	305	727	518	442	518	499	414	418	318	2,370	262	280
15	314	594	556	461	613	499	404	388	299	2,180	271	280
16	314	461	1,290	499	632	518	395	368	290	1,650	378	280
17	314	386	1,610	594	632	556	395	388	280	1,070	348	271
18	314	368	1,250	669	575	537	395	428	271	649	338	271
19	323	359	1,030	594	537	499	386	428	271	470	428	271
20	323	350	884	518	499	480	1,130	418	271	388	586	271
21	323	359	708	499	480	480	1,770	398	271	338	439	271
22	323	377	613	480	461	461	1,440	398	280	318	388	262
23	323	470	556	518	461	461	1,220	692	338	299	358	262
24	323	594	518	1,590	461	480	1,180	692	348	290	408	262
25	323	556	499	2,160	452	518	1,070	544	398	290	586	271
26	332	613	518	2,110	461	518	868	470	368	318	607	271
27	332	844	784	1,860	461	499	736	398	338	481	534	262
28	332	670	1,760	1,590	480	470	607	358	308	368	736	262
29	332	556	1,610	1,310	-	452	534	328	290	439	640	280
30	341	499	1,200	1,010	-	442	481	318	280	418	1,750	290
31	341	-	946	784	-	432	-	308	-	328	1,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,779	341	296	315	0.168	0.19
November	15,844	1,450	350	528	.281	.31
December	23,372	1,760	377	754	.401	.46
Calendar year 1940	533,262	10,800	296	1,457	.775	10.55
January	24,492	2,160	442	790	.420	.48
February	15,217	727	452	543	.289	.30
March	19,477	1,760	432	628	.334	.39
April	20,348	1,770	386	678	.361	.40
May	15,504	1,040	308	500	.266	.31
June	10,110	502	271	337	.179	.20
July	28,728	2,370	253	927	.493	.57
August	14,426	1,750	262	465	.247	.29
September	10,455	978	262	348	.185	.21
Water year 1940-41	207,752	2,370	253	569	.303	4.11

Rutherford Fork of Obion River near Bradford, Tenn.

Location.- Water-stage recorder, lat. 36°03'00", long. 88°52'40", at bridge on State Highway 54, 4 miles southwest of Bradford, Gibson County, and 17½ miles upstream from mouth. Datum of gage is 316.54 feet above mean sea level, datum of 1929.

Drainage area.- 203 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 218 second-feet.

Extremes.- Maximum discharge during year, 1,190 second-feet Apr. 20 (gage height, 8.73 feet); minimum, 15 second-feet Sept. 20 (gage height, 1.63 feet).
1929-41: Maximum discharge observed, 9,730 second-feet Jan. 22, 1937 (gage height, 20.06 feet, site and datum then in use), from rating curve extended above 5,000 second-feet; minimum observed, 13 second-feet several days during October 1931 and August 1934; minimum gage height observed, 0.68 foot July 16, 1937, site and datum then in use.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	28	24	32	43	35	32	31	27	19	18	19
2	20	30	24	33	41	34	30	30	60	19	34	18
3	19	24	24	33	44	36	30	28	31	144	26	22
4	19	24	24	31	41	56	57	27	25	412	18	23
5	19	27	24	30	40	32	41	26	22	f40	17	19
6	19	28	24	29	39	31	37	49	22	f26	16	18
7	21	26	97	28	39	36	33	201	20	f22	19	19
8	21	25	40	29	37	38	32	63	22	f21	16	18
9	22	25	30	29	36	33	32	37	22	f20	16	18
10	22	29	27	29	33	32	30	30	35	30	17	18
11	22	171	24	30	32	32	30	30	48	126	17	18
12	22	53	25	29	31	30	30	28	23	144	17	18
13	21	25	35	29	41	31	29	28	21	74	17	18
14	21	24	39	29	80	32	27	26	21	f50	22	17
15	23	23	106	30	52	31	27	26	21	f34	106	17
16	23	22	338	29	42	40	28	24	21	f28	29	16
17	22	22	65	33	40	40	28	25	21	f24	20	16
18	22	22	45	34	37	36	26	26	21	f22	19	17
19	22	21	38	31	34	33	30	25	21	f20	111	16
20	22	21	34	28	32	32	f522	25	21	f20	30	16
21	22	21	32	29	31	32	f108	24	36	19	22	16
22	22	25	31	29	31	31	49	41	20	19	21	16
23	22	28	31	40	30	32	105	276	26	18	115	16
24	22	27	30	406	31	36	112	35	66	18	73	17
25	22	28	30	129	33	37	56	26	22	33	36	17
26	22	57	30	78	36	33	41	25	22	40	22	17
27	22	36	61	60	42	33	38	25	20	21	109	18
28	22	25	78	46	40	32	36	25	30	25	40	47
29	23	24	50	42	-	30	34	23	22	51	27	26
30	24	23	39	41	-	30	31	23	19	18	22	18
31	24	-	33	44	-	31	-	24	-	20	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	668	24	19	21.5	0.106	0.12
November	966	171	21	32.2	.159	.18
December	1,552	338	24	50.1	.247	.28
Calendar year 1940	38,679	1,910	19	106	.522	7.12
January	1,549	406	28	50.0	.246	.28
February	1,088	80	30	38.9	.192	.20
March	1,057	56	30	34.1	.168	.19
April	1,791	522	26	59.7	.294	.33
May	1,332	276	23	43.0	.212	.24
June	808	66	19	26.9	.133	.15
July	1,577	412	18	50.9	.251	.29
August	1,094	115	16	35.3	.174	.20
September	569	47	16	19.0	.094	.10
Water year 1940-41	14,051	522	16	38.5	.190	2.56

f Computed on basis of partly estimated gage-height record.

North Fork of Obion River near Union City, Tenn.

Location.- Water-stage recorder, lat. 36°24'00", long. 88°59'45", at bridge on State Highway 22, 4 miles southeast of Union City, Obion County 4⅝ miles upstream from Hoosier Creek and 11 miles upstream from mouth. Datum of gage is 286.88 feet above mean sea level, datum of 1929.

Drainage area.- 490 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 583 second-feet.

Extremes.- Maximum discharge during year, 2,720 second-feet July 4 (gage height, 15.00 feet, from recorded range of stage); minimum, 83 second-feet Sept. 27; minimum gage height, 5.66 feet July 2.
1929-41: Maximum discharge, 49,200 second-feet Jan. 22, 1937 (gage height, 22.0 feet, from floodmarks); minimum, that of Sept. 27, 1941; minimum gage height observed, 3.38 feet July 27, 1929.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 15 to Aug. 22, Aug. 24 to Sept. 30)

5.5	80	7.0	240	12.0	1,430
5.8	105	8.0	375	13.2	1,840
6.0	124	9.0	595		
6.5	180	10.0	845		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	108	118	146	168	140	140	117	103	94	131	108
2	100	113	116	146	162	140	135	116	105	108	180	102
3	100	106	114	140	162	314	135	114	110	a895	118	101
4	100	105	114	133	152	1,830	228	113	198	a1,250	101	112
5	100	120	115	128	152	749	240	114	140	a265	98	102
6	99	125	117	124	146	294	168	135	109	f168	97	99
7	101	113	204	123	146	216	146	288	104	135	97	95
8	103	108	180	125	140	186	146	234	103	122	97	93
9	101	108	135	130	140	168	146	135	102	116	96	90
10	100	112	125	131	135	157	d142	123	113	154	94	89
11	100	713	122	128	140	157	d140	117	198	1,190	95	88
12	100	375	125	127	140	152	d138	115	127	1,820	94	88
13	100	152	146	126	140	152	d136	114	107	1,740	93	90
14	99	126	157	127	174	162	d134	112	103	898	92	90
15	100	120	a170	135	157	157	d132	111	101	270	107	90
16	100	118	a700	146	146	174	d130	110	100	168	100	89
17	99	118	a350	228	146	162	d130	127	100	f135	93	88
18	99	120	a230	180	140	146	d130	119	98	f121	92	88
19	100	118	a160	140	135	146	d130	110	98	f111	152	88
20	100	117	h135	132	134	140	944	108	98	f106	135	86
21	100	118	a131	133	134	140	347	110	98	f102	105	86
22	100	124	a128	135	134	135	198	180	138	101	101	86
23	100	152	f126	152	133	140	f192	124	122	101	105	86
24	100	146	125	1,630	133	157	h180	110	112	99	186	86
25	100	132	125	750	135	146	f162	105	110	98	276	87
26	100	180	126	288	135	140	f152	104	103	152	162	84
27	100	162	694	228	140	140	f140	103	100	105	192	86
28	101	132	745	192	140	135	f133	102	98	98	216	87
29	102	122	317	174	-	135	f126	101	98	119	f674	86
30	103	121	186	168	-	135	f120	102	96	97	f356	85
31	103	-	157	174	-	135	-	103	-	103	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,110	103	99	100	0.204	0.24
November	4,584	713	105	153	.312	.35
December	6,493	745	114	209	.427	.49
Calendar year 1940	163,241	5,820	98	446	.910	12.39
January	6,819	1,630	123	220	.449	.52
February	4,039	174	133	144	.294	.31
March	7,280	1,830	135	235	.480	.55
April	5,520	944	120	184	.376	.42
May	3,876	288	101	125	.255	.29
June	3,392	198	96	113	.231	.26
July	11,041	1,820	94	356	.727	.84
August	4,667	674	92	151	.308	.35
September	2,735	112	84	91.2	.186	.21
Water year 1940-41	63,556	1,830	84	174	.355	4.83

a No gage-height record; discharge computed on basis of records for Rutherford Fork of Obion River near Bradford and recorded range of stage.
d Doubtful gage-height record; discharge computed on basis of records for South Fork of Obion River near Greenfield.
f Computed on basis of partly estimated gage-height record.
h Computed from staff-gage reading.

South Fork of Forked Deer River at Jackson, Tenn.

Location.- Water-stage recorder, lat. 35°36', long. 88°49', at bridge on U. S. Highway 45, 75 feet downstream from Meridian Creek and 1 mile south of Jackson, Madison County. Datum of gage is 331.14 feet above mean Gulf level.

Drainage area.- 574 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 689 second-feet.

Extremes.- Maximum discharge during year, 2,440 second-feet Dec. 16 (gage height, 11.63 feet); minimum, 68 second-feet Sept. 21, 22; minimum gage height, 3.55 feet June 18. 1929-41: Maximum discharge observed, 35,800 second-feet Jan. 21, 1935 (gage height, 22.66 feet), from rating curve extended above 15,000 second-feet; minimum discharge, that of Sept. 21, 22, 1941; minimum gage height observed, 1.58 feet July 9, 1929.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	230	213	256	256	192	191	136	96	88	118	91
2	96	188	179	442	282	197	184	129	118	102	199	90
3	96	131	159	350	274	197	186	124	110	105	157	98
4	94	123	150	265	240	702	259	119	114	635	106	97
5	91	140	150	240	231	406	259	118	100	243	97	92
6	91	167	143	222	231	288	204	132	92	130	94	88
7	99	131	561	222	222	306	190	297	91	118	92	111
8	102	125	418	222	214	316	186	206	91	105	91	86
9	97	125	213	222	206	278	226	148	90	98	86	82
10	99	158	181	212	202	250	191	129	91	154	84	80
11	100	662	163	212	202	236	179	122	102	525	91	82
12	102	780	176	206	200	217	172	121	97	220	94	76
13	100	282	537	204	240	215	164	118	90	177	88	78
14	97	179	468	206	310	209	157	116	84	353	88	74
15	129	154	366	211	240	213	152	111	84	137	129	76
16	141	147	2,040	214	214	306	152	106	84	161	105	76
17	108	150	1,000	248	214	259	148	116	82	106	86	76
18	107	145	532	222	199	218	145	122	80	96	82	79
19	107	140	360	195	190	209	141	113	80	96	533	76
20	105	134	320	195	187	208	455	106	82	94	182	72
21	104	140	291	195	183	206	268	105	82	88	113	70
22	105	154	274	209	183	199	184	137	82	85	105	72
23	105	152	256	256	182	202	382	191	106	84	572	72
24	107	197	248	1,430	185	229	504	129	97	84	336	73
25	108	201	248	855	197	208	268	106	84	85	126	76
26	107	423	248	520	206	195	206	100	106	92	105	74
27	107	320	401	458	231	190	181	96	91	105	102	73
28	108	181	770	330	209	186	166	94	124	96	110	74
29	125	165	432	291	-	177	152	94	97	114	98	74
30	161	161	310	274	-	173	143	96	96	98	97	73
31	125	-	265	274	-	182	-	96	-	111	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,317	161	91	107	0.186	0.21
November	6,385	780	123	213	.371	.41
December	12,072	2,040	143	389	.678	.78
Calendar year 1940	151,581	4,280	91	414	.721	9.81
January	9,858	1,430	195	318	.554	.64
February	6,130	310	182	219	.382	.40
March	7,569	702	173	244	.425	.49
April	6,395	504	141	213	.371	.41
May	3,933	297	94	127	.221	.25
June	2,823	124	80	94.1	.164	.18
July	4,785	635	84	154	.268	.31
August	4,458	572	82	144	.251	.29
September	2,411	111	70	80.4	.140	.16
Water year 1940-41	70,136	2,040	70	192	.334	4.53

South Fork of Forked Deer River at Chestnut Bluff, Tenn.

Location.- Water-stage recorder, lat. 35°52', long. 89°21', at highway bridge, 1 mile west of Chestnut Bluff, Crockett County, 1 mile downstream from Black Creek, and 12 miles upstream from confluence with North Fork of Forked Deer River. Datum of gage is 256.71 feet above mean Gulf level.

Drainage area.- 1,080 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 1,236 second feet.

Extremes.- Maximum discharge during year, 1,530 second-feet Jan. 26 (gage height, 13.80 feet); minimum observed, 119 second feet Aug. 11; minimum gage height, 8.08 feet Sept. 21-24.

1929-41: Maximum discharge, 33,300 second-feet Jan. 22, 1935 (gage height, 22.3 feet, from floodmarks), from rating curve extended above 20,000 second-feet; minimum observed, 108 second-feet, Sept. 11, 1934; minimum gage height observed, 3.2 feet Aug. 5-13, 1930.

Remarks.- Records fair except those for periods of no gage-height records, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	195	a370	462	484	315	243	309	203	177	185	g189
2	140	255	a310	429	451	305	249	281	210	165	452	g177
3	139	265	a285	529	473	305	247	263	237	185	348	g173
4	139	201	f265	495	451	325	253	237	228	682	f254	f198
5	139	197	255	418	408	671	315	228	228	830	a195	217
6	137	f197	255	376	386	484	325	228	212	454	a160	174
7	142	a250	397	345	376	397	275	392	201	290	a140	165
8	142	a205	564	335	366	397	265	622	195	228	a130	166
9	151	a197	529	335	345	397	255	454	187	200	a125	166
10	144	f203	376	325	325	366	255	368	167	182	a122	159
11	142	345	335	315	315	335	255	318	187	255	h119	155
12	142	599	315	315	315	315	241	300	192	700	a125	148
13	142	721	315	305	315	295	227	290	192	443	q122	145
14	142	440	529	305	366	285	212	272	185	488	g125	142
15	149	305	599	315	429	275	201	263	a175	454	g198	139
16	171	f255	970	315	376	285	a196	254	a165	290	g443	138
17	197	f241	1,320	325	355	355	a195	254	a160	272	g237	134
18	164	f241	1,370	345	345	325	a194	254	160	217	g218	132
19	156	233	905	325	325	285	a193	263	162	198	g560	130
20	155	231	647	295	305	275	a210	246	160	185	g882	128
21	156	227	540	295	295	275	1,110	237	159	174	g421	126
22	153	233	473	295	295	275	990	238	160	164	g272	f126
23	153	255	418	315	285	265	830	272	162	152	g281	f126
24	155	255	386	877	285	275	1,050	309	246	148	g700	f126
25	155	285	376	1,320	285	295	1,050	263	200	143	g512	138
26	156	315	366	1,420	305	285	804	228	179	142	g300	145
27	160	484	518	1,000	315	265	584	220	195	143	g290	143
28	160	f440	696	824	335	265	465	212	197	148	g399	142
29	167	a300	877	647	-	251	388	208	208	201	g300	143
30	180	a270	696	552	-	241	338	203	192	228	g246	143
31	212	-	540	506	-	237	-	203	-	187	g210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,780	212	137	154	0.143	0.16
November	8,540	721	195	295	.273	.30
December	16,797	1,370	255	542	.502	.58
Calendar year 1940	243,648	3,850	137	666	.617	8.38
January	15,260	1,420	295	492	.456	.53
February	9,911	484	285	354	.328	.34
March	9,921	671	237	320	.296	.34
April	12,445	1,110	193	415	.384	.43
May	8,669	622	203	280	.259	.30
June	5,724	246	159	191	.177	.20
July	8,725	830	142	281	.260	.30
August	9,071	882	119	293	.271	.31
September	4,533	217	126	151	.140	.16
Water year 1940-41	114,696	1,420	119	314	.291	3.95

a No gage-height record; discharge computed on basis of records for station at Jackson.
f Computed on basis of partly estimated gage-height record.
g Computed from graph based on gage readings.
h Computed from staff-gage reading.

Middle Fork of Forked Deer River near Alamo, Tenn.

Location.- Water-stage recorder, lat. 35°52', long 89°04', at bridge on State Highway 54, 3 miles upstream from Buck Creek, 5 miles north of Alamo, Crockett County, and 13 miles upstream from mouth. Datum of gage is 288.34 feet above mean sea level, datum of 1929.

Drainage area.- 410 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 481 second-feet.

Extremes.- Maximum discharge during year, 1,530 second-feet Apr. 20 (gage height, 8.56 feet); minimum daily, 80 second-feet July 22-24; minimum gage height recorded 1.95 feet Aug. 9, 10, 13, 14, Sept. 15, 16.

1929-41: Maximum discharge observed, 19,500 second-feet Jan. 21, 1935 (gage height, 15.46 feet), from rating curve extended above 10,000 second-feet; minimum observed, 68 second-feet June 30, July 1, 1936; minimum gage height observed, 1.26 feet July 1, 11, 17, 1931.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Nov. 11 to Dec. 15, and Apr. 24 to May 6)

Oct. 1 to Apr. 19						Apr. 20 to Sept. 30					
2.0	88	2.7	212	4.5	622	1.95	82	2.5	152	4.0	405
2.1	103	3.0	277	5.0	740	2.1	100	3.0	224	5.0	615
2.3	136	3.5	392	5.4	841	2.3	126	3.5	309	5.8	807
2.5	173	4.0	507								

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	103	106	128	141	136	121	108	85	86	191	88
2	88	109	108	128	141	129	119	105	85	84	518	88
3	88	103	106	126	143	128	119	104	85	89	118	90
4	88	100	106	122	138	124	136	103	85	326	98	120
5	87	102	105	119	134	122	133	101	86	f146	92	99
6	87	103	103	119	131	121	128	109	86	a115	88	93
7	86	103	f296	117	131	121	119	354	86	a100	86	93
8	88	103	f192	117	129	122	117	170	86	a155	85	92
9	88	103	f131	117	124	122	116	125	87	a520	84	89
10	88	108	113	117	121	121	113	114	87	a230	84	88
11	88	357	108	117	119	119	108	104	94	a150	95	88
12	88	196	108	117	119	116	105	101	100	h98	e6	87
13	88	128	128	117	149	117	103	96	94	a98	84	86
14	88	108	138	116	196	119	102	94	89	f200	84	86
15	92	103	147	119	167	119	100	93	87	a390	398	84
16	97	98	841	121	145	129	100	92	86	a250	117	84
17	94	96	358	128	136	133	100	89	86	a120	93	84
18	92	96	188	136	131	124	98	89	86	a90	86	85
19	92	96	149	129	124	121	189	88	85	h86	263	86
20	91	94	134	121	122	119	813	86	85	a86	113	86
21	91	94	126	119	121	119	248	86	85	a82	90	86
22	91	103	121	121	121	119	152	90	85	a80	86	87
23	91	114	119	136	121	119	327	186	345	a80	325	88
24	92	114	117	668	121	134	248	90	266	a80	240	89
25	92	114	117	392	124	138	187	87	104	a82	131	89
26	92	194	119	264	131	131	138	86	90	h86	101	88
27	92	156	184	216	141	126	125	86	86	a96	122	88
28	92	126	227	173	141	122	117	85	179	a90	110	89
29	97	111	182	154	-	121	113	84	100	f98	96	89
30	100	105	150	145	-	119	109	84	89	92	100	88
31	100	-	134	143	-	119	-	85	-	90	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,818	100	87	90.9	0.222	0.26
November	3,640	357	94	121	.295	.33
December	5,261	841	103	170	.415	.48
Calendar year 1940	91,871	2,740	85	251	.612	8.33
January	4,962	668	116	160	.390	.45
February	3,762	196	119	134	.327	.34
March	3,829	138	116	124	.302	.35
April	4,803	813	98	160	.390	.44
May	3,374	354	84	109	.266	.31
June	3,179	345	85	106	.259	.29
July	4,375	520	80	141	.344	.40
August	4,352	518	84	140	.341	.39
September	2,676	120	84	89.2	.218	.24
Water year 1940-41	47,031	841	80	129	.315	4.28

a No gage-height record; discharge computed on basis of records for station on Rutherford Fork of Obion River near Bradford.

Hatchie River at Bolivar, Tenn.

Location.- Water-stage recorder, lat. 35°16'40", long. 88°58'30", at bridge on State Highway 18, 250 feet upstream from Illinois Central R.R. bridge, 2,000 feet downstream from Spring Creek, and 1½ miles northeast of Bolivar, Hardeman County. Datum of gage is 323.86 feet above mean Gulf level.

Drainage area.- 1,430 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 2,191 second-feet.

Extremes.- Maximum discharge during year, 4,340 second-feet Dec. 23 (gage height, 12.76 feet); minimum, 127 second-feet Sept. 26 (gage height, 1.07 feet).
1929-41: Maximum discharge, 43,400 second-feet Jan. 20, 1935 (gage height, 20.00 feet); minimum observed, 114 second-feet Sept. 1, 1936; minimum gage height, that of Sept. 26, 1941.

Remarks.- Records excellent.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 23						Dec. 24 to Sept. 30					
1.55	154	4.0	578	12.0	3,610	1.1	130	5.0	775	12.0	3,610
2.0	220	6.0	1,080	12.7	4,240	1.5	182	7.0	1,260	12.6	4,140
2.5	303	8.0	1,670			2.0	255	9.0	1,930		
3.0	393	10.0	2,410			3.0	405	11.0	2,890		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	714	762	2,710	3,370	925	615	1,300	210	278	322	2,350
2	164	762	812	2,950	3,160	815	635	835	210	524	382	1,790
3	161	1,240	1,100	3,230	2,450	755	695	655	210	422	405	1,100
4	158	1,450	1,100	3,530	1,970	975	695	558	203	575	490	1,000
5	153	1,080	890	3,780	2,010	1,080	835	507	255	1,420	490	795
6	150	714	714	3,960	1,860	1,240	1,320	473	507	2,090	330	575
7	155	558	838	4,050	1,510	1,120	1,650	595	439	2,500	232	439
8	161	483	997	4,140	1,240	1,050	1,620	950	308	2,650	182	360
9	161	429	1,510	3,960	1,050	1,380	1,540	1,510	240	2,550	165	322
10	161	384	1,730	3,300	925	1,860	1,510	1,320	210	1,610	174	278
11	161	520	1,540	2,210	835	2,010	1,300	950	210	1,100	189	255
12	161	1,190	1,190	1,420	795	1,720	1,000	695	210	615	171	225
13	161	1,830	1,130	1,100	775	1,240	795	524	196	490	240	210
14	158	2,120	1,570	950	795	975	675	439	189	473	338	196
15	169	2,240	2,160	875	855	835	615	398	174	406	390	179
16	184	2,160	3,030	855	975	855	558	360	165	473	795	168
17	190	1,630	3,370	855	875	1,020	524	352	189	575	925	160
18	198	1,050	3,690	855	775	1,320	507	330	182	558	595	156
19	205	714	3,870	815	735	1,200	490	308	163	524	382	155
20	190	578	3,870	755	675	975	541	292	155	390	315	150
21	182	520	4,050	695	655	835	715	285	145	300	456	147
22	178	483	4,240	675	675	795	1,100	278	142	255	439	142
23	178	483	4,240	695	715	775	1,150	406	140	240	322	137
24	175	578	4,140	1,020	715	795	1,620	675	150	240	248	132
25	175	600	3,610	1,540	695	975	2,300	675	160	210	203	128
26	178	738	3,020	2,220	735	1,150	2,770	473	179	196	210	128
27	181	890	1,720	2,770	875	1,020	3,020	338	196	210	345	128
28	184	1,240	1,790	3,090	950	855	3,090	270	196	225	473	135
29	190	1,220	2,220	3,300	-	755	2,950	248	179	196	1,370	137
30	212	943	2,550	3,370	-	695	2,240	232	171	182	1,970	135
31	375	-	2,710	3,450	-	635	-	225	-	285	2,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,576	375	150	180	0.216	0.15
November	29,541	2,240	384	985	.689	.77
December	70,163	4,240	714	2,263	1.58	1.82
Calendar year 1940	523,389	7,340	150	1,430	1.00	13.62
January	69,125	4,140	675	2,230	1.56	1.80
February	33,650	3,370	655	1,202	.841	.88
March	32,635	2,010	635	1,053	.736	.85
April	39,075	3,090	490	1,302	.910	1.02
May	17,456	1,510	225	563	.394	.45
June	6,283	507	140	209	.146	.16
July	22,762	2,650	182	734	.513	.59
August	15,906	2,260	165	510	.357	.41
September	12,214	2,350	128	407	.285	.32
Water year 1940-41	354,288	4,240	128	971	.679	9.22

Hatchie River near Stanton, Tenn.

Location.- Water-stage recorder, lat. 35°31'25", long. 89°21'05", at bridge on U. S. Highway 70, 3 miles downstream from Nashville, Chattanooga & St. Louis Ry. bridge, 5 miles northeast of Stanton, Haywood County, and 7 miles upstream from Big Muddy Creek. Datum of gage is 267.34 feet above mean Gulf level.

Drainage area.- 1,940 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 2,770 second-feet.

Extremes.- Maximum discharge during year, 3,220 second-feet Dec. 30 (gage height, 12.86 feet); minimum, 278 second-feet Sept. 29 (gage height, 1.59 feet).
1929-41: Maximum discharge observed, 59,000 second-feet Jan. 22, 1935 (gage height, 20.35 feet); minimum, 278 second-feet, Sept. 1, 1936, Sept. 29, 1941; minimum gage height, that of Sept. 29, 1941.

Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 2, Jan. 17-31, and Aug. 19-31)

Oct. 1 to Feb. 6						Feb. 7 to Sept. 30					
2.1	298	5.0	848	12.0	2,840	1.7	288	5.0	848	11.0	2,470
2.5	366	6.0	1,060	12.8	3,180	2.2	348	6.0	1,060	11.9	2,800
3.0	458	8.0	1,550			3.0	470	8.0	1,580		
4.0	648	10.0	2,110			4.0	648	10.0	2,150		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	315	349	1,200	2,920	2,460	1,080	972	2,340	422	320	355	1,230
2	306	439	1,160	2,720	2,560	1,160	928	2,410	406	314	383	1,420
3	298	648	1,040	2,600	2,640	1,160	888	2,370	390	376	422	1,550
4	290	788	994	2,560	2,760	1,180	908	1,950	390	540	470	1,640
5	290	972	1,080	2,560	2,800	1,230	928	1,310	383	688	504	1,610
6	290	1,110	1,160	2,600	2,840	1,310	950	994	376	848	540	1,420
7	290	1,110	1,080	2,640	2,800	1,360	1,040	1,020	406	1,060	558	1,280
8	282	950	1,020	2,720	2,640	1,420	1,260	1,530	540	1,260	470	928
9	282	788	1,060	2,800	2,410	1,420	1,440	1,470	540	1,420	390	708
10	282	688	1,160	2,920	2,120	1,390	1,610	1,340	470	1,580	348	594
11	282	668	1,300	3,000	1,800	1,440	1,690	1,420	422	1,750	320	504
12	282	648	1,450	3,080	1,530	1,580	1,720	1,440	390	1,920	320	470
13	282	748	1,500	3,130	1,340	1,750	1,640	1,310	369	1,980	327	422
14	282	994	1,470	3,180	1,230	1,830	1,440	1,040	362	1,720	334	390
15	290	1,250	1,420	3,080	1,180	1,780	1,180	848	355	1,280	648	389
16	290	1,420	1,520	2,640	1,160	1,550	1,020	728	341	908	486	355
17	298	1,550	1,710	1,880	1,180	1,340	908	668	334	728	504	341
18	306	1,660	1,880	1,710	1,210	1,230	848	630	327	668	708	327
19	306	1,710	2,050	1,250	1,180	1,280	808	594	320	728	1,060	320
20	315	1,580	2,210	1,180	1,110	1,360	868	558	327	708	972	308
21	315	1,230	2,320	1,110	1,040	1,420	972	522	320	668	688	303
22	315	950	2,420	1,040	994	1,310	994	504	308	576	576	298
23	306	828	2,520	994	950	1,210	1,110	486	303	486	688	293
24	306	768	2,640	1,130	950	1,110	1,440	470	298	438	788	293
25	298	728	2,760	1,320	972	1,080	1,550	558	298	406	648	288
26	298	768	2,880	1,500	972	1,080	1,640	728	303	390	558	288
27	298	828	3,000	1,660	972	1,160	1,750	748	303	376	504	283
28	306	908	3,080	1,790	994	1,260	1,920	648	314	369	576	278
29	315	994	3,180	1,990	-	1,260	2,090	540	327	362	522	278
30	315	1,130	3,180	2,140	-	1,160	2,210	470	334	383	668	278
31	324	-	3,080	2,320	-	1,040	-	438	-	369	994	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,254	324	282	299	0.154	0.18
November	29,202	1,710	349	973	.502	.56
December	58,524	3,180	994	1,888	.973	1.12
Calendar year 1940	565,972	8,500	282	1,546	.797	10.85
January	68,164	3,180	994	2,199	1.13	1.31
February	46,794	2,840	950	1,671	.861	.90
March	40,940	1,830	1,040	1,321	.681	.78
April	38,722	2,210	808	1,291	.665	.74
May	32,082	2,410	438	1,035	.534	.62
June	10,978	540	298	366	1.89	.21
July	25,619	1,980	314	826	.426	.49
August	17,329	1,060	320	559	.288	.33
September	19,066	1,640	278	636	.328	.37
Water year 1940-41	396,674	3,180	278	1,087	.560	7.61

Wolf River at Rossville, Tenn.

Location.- Water-stage recorder, lat. 35°03'10", long. 89°32'30", at county highway bridge, 0.4 mile upstream from Hurricane Creek, half a mile north of Rossville, Fayette County, and 3⅛ miles downstream from Grissum Creek. Datum of gage is 300.88 feet above mean sea level, datum of 1929.

Drainage area.- 531 square miles.

Records available.- July 1929 to September 1941.

Average discharge.- 12 years, 635 second-feet.

Extremes.- Maximum discharge during year, 1,740 second-feet Aug. 29 (gage height, 8.58 feet); minimum, 120 second-feet Aug. 11, 12 (gage height, 3.43 feet).
1929-41: Maximum discharge, 31,000 second-feet Jan. 20, 1935 (gage height, 13.75 feet, from floodmarks), from rating curve extended above 7,500 second-feet; minimum, that of Aug. 11, 12, 1941; minimum gage height observed, 2.24 feet Aug. 12-14, 1930.

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 25 to Mar. 27, May 12 to Aug. 27)

3.55	120	5.0	276	8.0	1,040
3.7	133	6.0	405	8.5	1,600
4.0	161	7.0	585		
4.5	216	7.5	730		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	176	270	356	340	294	216	222	146	138	128	880
2	138	198	252	585	308	282	210	204	f151	153	128	712
3	138	193	240	598	308	270	216	193	146	151	138	f382
4	138	198	258	552	308	314	234	182	151	146	161	f353
5	133	216	270	610	334	301	222	176	f151	156	156	f334
6	133	216	246	805	366	294	228	176	f146	f166	133	f294
7	138	198	344	915	366	308	228	650	f146	f210	124	f276
8	138	188	334	565	320	301	216	880	146	246	f124	f240
9	138	182	301	340	288	294	240	730	142	198	f124	204
10	138	198	314	288	270	308	252	610	142	156	120	176
11	138	228	327	264	252	327	264	552	142	176	120	166
12	138	258	301	258	246	320	240	433	142	294	124	f176
13	138	264	379	252	258	282	204	276	142	353	f166	f204
14	138	308	433	246	314	252	188	222	142	294	f353	166
15	142	334	450	246	288	f246	176	193	142	234	f405	151
16	146	340	635	240	276	f282	171	188	138	240	353	146
17	146	276	712	240	276	f276	171	176	138	222	353	f142
18	146	228	770	234	258	294	166	171	138	210	340	f138
19	146	204	820	228	246	308	171	166	133	222	499	138
20	146	198	1,240	222	246	276	433	166	133	f308	449	138
21	142	198	1,350	216	252	246	301	166	133	f246	340	133
22	142	198	815	216	258	240	258	171	128	f166	301	f133
23	142	204	422	228	264	276	510	216	133	f151	216	f133
24	142	210	320	393	270	327	770	198	161	142	f171	f128
25	146	222	288	419	282	314	665	171	171	138	176	133
26	146	240	276	487	288	327	519	161	142	133	161	133
27	146	264	276	585	294	340	541	156	151	133	468	133
28	146	270	314	563	301	288	574	151	146	133	f770	133
29	161	276	327	541	-	246	426	151	151	133	f1,470	133
30	166	282	314	519	-	222	264	151	146	128	f1,600	133
31	166	-	327	433	-	216	-	151	-	142	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,439	166	133	143	0.269	0.31
November	6,965	340	176	232	.437	.49
December	13,925	1,350	240	449	.846	.98
Calendar year 1940	118,212	1,900	133	323	.608	8.28
January	12,644	915	216	408	.768	.89
February	8,077	366	246	288	.542	.57
March	8,871	340	216	286	.539	.62
April	9,274	770	166	309	.582	.65
May	8,409	880	151	271	.510	.59
June	4,319	171	128	144	.271	.30
July	5,918	353	128	191	.360	.41
August	11,411	1,600	120	368	.693	.80
September	6,741	880	128	225	.424	.47
Water year 1940-41	100,993	1,600	120	277	.522	7.08

f Computed on basis of partly estimated gage-height record.

St. Francis River near Patterson, Mo.

Location.- Water-stage recorder, lat. 37°11'40", long. 90°30'10", in NE¼ sec. 16, T. 29 N., R. 5 E., at bridge on State Highway 34, 1 mile upstream from Clark Creek and 3 miles east of Patterson. Datum of gage is 370.45 feet above mean sea level, datum of 1929.
Drainage area.- 956 square miles.
Records available.- June 1921 to September 1941.
Average discharge.- 20 years, 1,063 second-feet.
Extremes.- Maximum discharge during year, 12,600 second-feet Jan. 2 (gage height, 14.40 feet); minimum, 20 second-feet Aug. 14-16; minimum gage height, 1.32 feet Aug. 16.
1921-41: Maximum discharge, 79,200 second-feet Mar. 11, 1935 (gage height, 30.70 feet, present datum), from rating curve extended above 55,000 second-feet; minimum, 8 second-feet Aug. 30 to Sept. 1, 1936.
Maximum stage known, 33.8 feet (present datum) in August 1915, from floodmarks, (discharge, 100,000 second-feet, from rating curve extended above 55,000 second-feet).
Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 1

1.5	22	3.0	221	8.0	2,800
1.7	35	3.5	349	9.0	3,750
1.9	52	4.0	505	10.0	4,900
2.1	75	4.5	701	12.0	7,800
2.3	100	5.0	929	13.1	9,810
2.5	128	6.0	1,431		
2.8	179	7.0	2,025		

Jan. 2 to Sept. 30

1.3	19	2.5	135	6.0	1,477
1.4	22	3.0	227	7.0	2,055
1.6	30	3.5	357	8.1	2,890
1.8	45	4.0	532		
2.0	68	5.0	980		

Note.- Same as preceding table above 8.1 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	35	298	5,740	933	229	150	337	79	39	36	34
2	23	35	251	9,700	863	223	148	306	122	35	39	32
3	22	36	217	3,550	772	212	227	284	148	32	50	30
4	22	36	195	2,060	704	205	616	257	128	32	46	30
5	23	42	175	1,480	616	199	1,370	238	146	30	35	39
6	24	43	161	1,120	573	195	1,370	297	135	43	31	167
7	29	43	149	910	512	193	1,080	363	116	55	28	162
8	29	43	138	772	474	187	886	638	103	45	28	96
9	29	44	128	682	428	180	840	694	291	40	26	86
10	29	48	120	594	388	180	863	486	169	36	25	96
11	29	91	116	532	357	181	840	411	146	35	24	81
12	29	116	156	478	334	176	726	360	123	33	23	66
13	28	108	217	438	357	178	638	317	106	79	22	53
14	27	118	327	401	408	172	552	287	94	80	20	44
15	30	131	377	376	486	174	493	264	84	60	20	39
16	37	113	1,910	363	463	176	532	252	80	47	26	39
17	41	101	3,070	388	435	171	933	279	70	38	62	36
18	40	91	1,540	408	414	172	1,860	354	64	33	58	40
19	39	83	1,020	486	388	176	1,690	348	57	29	64	48
20	38	81	789	452	363	178	1,640	269	54	28	63	86
21	37	79	659	391	340	174	1,580	225	48	26	176	89
22	37	80	560	372	314	172	1,170	195	45	25	144	85
23	37	109	487	428	297	171	956	180	48	25	106	70
24	37	144	437	1,100	282	169	817	157	58	32	86	58
25	37	149	391	1,990	264	167	704	141	53	34	75	61
26	37	329	352	1,920	255	164	616	126	47	28	61	94
27	37	469	355	1,990	248	157	532	114	44	26	58	109
28	36	523	391	1,580	238	153	474	107	73	25	54	209
29	37	453	453	1,270	-	150	418	102	55	24	47	150
30	35	363	505	1,100	-	147	369	94	46	35	44	120
31	35	-	639	1,000	-	150	-	88	-	45	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	992	41	22	32.0	0.033	0.04	1,970
November	4,136	523	35	138	.144	.16	8,200
December	16,583	3,070	116	535	.560	.65	32,890
Calendar year 1940	221,662	14,800	22	606	.634	8.63	439,700
January	44,071	9,700	363	1,422	1.49	1.72	87,410
February	12,506	933	238	447	.468	.49	24,810
March	5,531	229	147	178	.186	.21	10,970
April	25,090	1,860	148	836	.874	.98	49,770
May	8,470	638	88	273	.286	.33	16,800
June	2,832	291	44	94.4	.099	.11	5,620
July	1,174	80	24	37.9	.040	.05	2,330
August	1,614	176	20	52.1	.054	.06	3,200
September	2,349	209	30	78.3	.082	.09	4,660
Water year 1940-41	125,348	9,700	20	343	.359	4.89	248,600

St. Francis River at Fisk, Mo.

Location.- Wire-weight gage, lat. 36°46'50", long. 90°12'10", in SW¼ sec. 28, T. 25 N., R. 8 E., at bridge on U. S. Highway 60 at Fisk, 6 miles upstream from Mingo ditch 15 and 14⅛ miles downstream from Wappapello Dam. Datum of gage is 307.46 feet above mean sea level, datum of 1929.

Drainage area.- 1,370 square miles (excluding that of Mingo Creek, drainage from which is diverted by ditches that empty into St. Francis River 6 miles below Fisk).

Records available.- October 1927 to September 1941 (discontinued).

Average discharge.- 14 years, 1,310 second-feet.

Extremes.- 1939-40: Maximum discharge during water year, 9,480 second-feet Apr. 22 (gage height, 23.37 feet); minimum observed, 5 second-feet (regulated) July 26 (gage height, 0.29 foot), from rating curve extended below 114 second-feet.

1940-41 (regulated): Maximum discharge observed during water year, 2,890 second-feet Jan. 5 (gage height, 16.68 feet); minimum observed, 78 second-feet July 5 (gage height, 1.25 feet).

1927-41: Maximum discharge, about 50,000 second-feet as measured by Corps of Engineers, U. S. Army (discharge in river channel at Fisk plus overflow between Fisk and Dudley, including drainage of an additional local area of about 186 square miles) sometime during flood of March 1935, when levee on left bank broke in many places between Wappapello and Fisk; maximum gage height, 26.89 feet, May 15, 1933, from floodmark; minimum discharge (revised), that of July 26, 1940.

Remarks.- Records for water year 1939-40 fair except those for period of ice effect and those below 60 second-feet, which are poor. Records for water year 1940-41 poor. Gage read once daily Oct. 1, 1939 to Jan. 25, 1940, twice daily thereafter. After July 10, 1940, flow was regulated by Wappapello Reservoir (capacity 625,000 acre-feet).

Revisions.- Revised figures of discharge for the water year 1940, superseding those published in Water-Supply Paper 897, are given herein.

Discharge, in second-feet, 1939-41

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	225	295	305	b355	659	1,390	2,410	335	375	127	187
2	153	225	275	305	b345	854	1,390	3,020	325	485	169	178
3	153	215	275	295	b335	873	1,320	4,430	315	465	169	169
4	147	205	265	b285	b325	818	990	4,160	305	405	151	160
5	147	196	275	b285	325	718	1,030	3,330	295	355	135	151
6	147	196	265	b285	315	659	911	2,740	285	305	127	151
7	217	187	265	b275	315	606	836	2,310	275	265	127	143
8	868	187	255	b275	315	569	836	2,030	265	245	127	135
9	873	187	245	b275	315	558	930	1,760	265	225	135	135
10	593	196	245	b275	325	536	1,100	1,610	255	215	160	135
11	405	196	245	285	325	593	1,340	1,440	255	205	196	143
12	305	205	235	325	325	1,830	3,520	1,250	245	205	225	135
13	245	205	235	395	315	3,900	6,160	1,070	245	245	245	135
14	225	216	225	505	315	5,750	8,000	930	245	87	245	127
15	215	215	225	892	315	6,160	7,080	818	255	35	235	119
16	205	205	225	1,560	315	4,560	4,560	750	255	25	245	119
17	196	205	215	1,830	305	3,570	3,430	673	245	21	245	119
18	187	205	215	1,680	560	2,930	3,970	632	245	18	245	119
19	187	225	215	1,230	1,300	2,520	5,520	581	265	16	255	119
20	178	225	215	1,070	1,560	2,550	7,660	558	255	14	255	119
21	169	295	215	911	1,390	2,520	8,700	525	245	18	265	119
22	169	345	215	818	1,160	2,260	9,480	505	225	25	255	119
23	169	375	215	*718	950	1,960	8,700	505	225	19	245	111
24	160	385	215	b620	836	1,700	6,360	505	215	13	235	111
25	160	385	235	b545	750	1,490	4,210	475	205	8	225	119
26	160	375	265	b475	703	1,320	3,460	455	196	14	215	119
27	205	355	285	*b435	659	1,200	2,930	435	196	71	215	119
28	295	335	295	b405	645	1,120	2,600	415	205	103	215	111
29	265	315	285	b385	558	1,070	2,340	385	325	119	225	111
30	245	305	305	b375	-	1,140	2,230	375	305	119	215	111
31	235	-	305	b365	-	1,250	-	355	-	119	205	-

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Discharge, in second-feet, of St. Francis River at Fisk, Mo., 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	139	495	729	1,920	426	268	596	298	153	94	126
2	112	139	485	1,520	1,770	415	208	583	288	153	94	126
3	112	139	465	2,260	1,670	404	117	570	288	153	99	126
4	112	139	425	2,670	1,500	393	268	546	278	153	94	117
5	112	139	395	2,890	1,370	382	328	534	268	82	94	117
6	112	139	365	2,840	1,240	371	349	522	258	126	90	117
7	116	148	345	2,810	1,090	360	415	522	238	126	108	117
8	116	148	325	2,690	968	360	534	534	238	126	117	126
9	116	148	315	2,540	888	349	609	534	248	126	112	135
10	121	148	295	2,370	798	338	583	546	238	117	90	135
11	121	175	275	2,210	728	338	415	546	218	112	82	135
12	121	184	285	1,950	661	328	258	558	228	117	82	135
13	121	193	295	1,700	622	328	144	546	228	126	99	126
14	121	211	315	1,460	622	328	99	534	238	112	99	126
15	121	211	335	1,220	635	318	86	486	278	99	99	126
16	121	220	547	1,040	635	318	86	338	288	90	99	126
17	121	220	849	904	635	318	82	180	268	94	99	117
18	121	229	1,180	826	635	308	90	278	258	112	104	108
19	121	229	1,600	770	622	308	104	486	238	108	126	104
20	130	229	1,640	728	596	298	112	534	238	104	126	108
21	130	220	1,550	687	583	298	126	534	228	99	117	108
22	130	220	1,410	661	558	298	208	534	218	94	112	112
23	139	220	1,200	635	522	298	338	498	208	94	112	112
24	139	247	1,040	904	510	298	426	474	198	94	108	112
25	139	256	882	1,370	498	298	498	438	198	94	126	117
26	139	285	771	1,620	474	288	570	415	189	99	126	112
27	139	325	687	1,840	462	288	596	393	180	108	126	117
28	139	375	715	2,000	438	288	622	371	171	104	135	117
29	139	435	701	2,080	-	278	622	349	162	104	135	112
30	139	485	673	2,080	-	278	609	338	162	104	135	112
31	139	-	659	2,000	-	278	-	318	-	99	126	-

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October 1939	8,025	873	147	259	0.189	0.22	15,920
November	7,590	385	187	253	.185	.21	15,050
December	7,735	305	215	250	.182	.21	15,340
Calendar year 1939	536,543	15,000	136	1,470	1.07	14.56	1,064,000
January 1940	18,684	1,830	275	603	.440	.51	37,060
February	16,556	1,560	305	571	.417	.45	32,840
March	58,243	6,160	536	1,879	1.37	1.58	115,500
April	112,983	9,480	836	3,766	2.75	3.07	224,100
May	41,437	4,430	355	1,337	.976	1.13	82,190
June	7,772	335	196	259	.189	.21	15,420
July	4,859	485	8	156	-	-	9,600
August	6,333	265	127	204	-	-	12,560
September	3,948	187	111	132	-	-	7,830
Water year 1939-40	294,145	9,480	8	804	-	-	583,400
October 1940	3,871	139	112	125	-	-	7,680
November	6,595	485	139	220	-	-	13,080
December	21,519	1,640	275	694	-	-	42,680
Calendar year 1940	302,780	9,480	8	827	-	-	600,500
January 1941	52,004	2,890	635	1,678	-	-	103,100
February	23,650	1,920	438	845	-	-	46,910
March	10,176	426	278	328	-	-	20,180
April	9,770	622	82	326	-	-	19,380
May	14,635	596	180	472	-	-	29,030
June	7,034	298	162	234	-	-	13,950
July	3,482	153	82	112	-	-	6,910
August	3,365	135	82	109	-	-	6,670
September	3,584	135	104	119	-	-	7,110
Water year 1940-41	159,685	2,890	82	437	-	-	316,700

St. Francis River at Marked Tree, Ark.

Location.- Water-stage recorder, lat. 35°31'58", long. 90°25'25", in NW¼SW¼ sec. 35, T. 11 N., R. 6 E., at Marked Tree, 4.8 miles downstream from Little River and 7 miles downstream from dam of Poinsett County Drainage District 7. Auxiliary water-stage recorder, lat. 35°32'18", long. 90°25'30", near center of NW¼ sec. 35, 3 miles upstream from main gage; prior to Feb. 19, 1941, wire-weight gage at same site and datum. Datum of gages is 196.44 feet above mean sea level, datum of 1929.

Records available.- February 1918 and September 1927 to May 1931 (miscellaneous measurements only), July 1934 to September 1941. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 2,950 second-feet Feb. 6; maximum gage height, 7.46 feet Jan. 26, Feb. 6; minimum discharge observed, 65 second-feet Sept. 28.
1934-41: Maximum discharge, 7,120 second-feet Feb. 6, 7, 1937; minimum, that of Sept. 28, 1941.

Remarks.- Records good. Discharge computed by using fall as determined from auxiliary gages as a factor. Flood flows diverted through St. Francis River floodway at dam of Poinsett County Drainage District 7, 7 miles above station and bypassed to the vicinity of Parkin, Ark. Flow regulated at times by siphons at dam. Auxiliary gage read twice daily, prior to Feb. 19, 1941.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	569	524	1,120	2,520	2,470	2,200	2,040	2,380	1,220	735	589	528
2	223	504	1,200	2,560	2,520	2,180	1,940	2,260	1,120	700	628	541
3	350	404	1,190	2,560	2,520	2,130	1,800	2,150	1,010	632	685	528
4	918	413	1,040	2,590	2,640	2,150	1,510	2,060	1,510	734	715	514
5	772	434	838	2,660	2,880	2,220	1,860	1,980	1,130	743	708	320
6	294	401	772	2,640	2,900	2,380	1,720	1,900	1,120	758	653	a102
7	802	363	1,180	2,660	2,750	2,380	1,920	1,880	1,100	750	583	a86
8	438	649	1,210	2,640	2,590	2,220	1,450	1,780	1,100	726	445	a84
9	640	406	1,200	2,640	2,380	2,060	1,240	1,760	1,060	700	344	a78
10	414	626	1,090	2,640	2,450	2,060	1,410	1,720	1,100	700	561	163
11	700	256	1,120	1,570	2,500	2,040	1,370	1,720	1,060	717	258	880
12	389	192	1,070	956	2,500	1,800	1,550	1,680	1,060	742	488	836
13	564	143	840	2,050	2,420	1,510	1,740	1,680	985	742	a111	400
14	358	140	1,150	2,520	2,540	1,470	1,520	1,610	985	781	a102	a99
15	751	140	1,220	2,660	2,340	1,490	1,250	1,610	842	840	269	307
16	220	252	1,400	2,680	2,430	1,490	1,470	1,560	477	907	738	628
17	430	1,070	1,580	2,710	2,330	1,450	1,410	1,530	1,030	940	298	137
18	863	1,150	1,380	2,680	2,330	1,450	1,480	1,490	1,060	930	391	a78
19	665	1,140	1,790	2,680	2,330	1,450	1,940	1,490	860	889	120	a72
20	354	1,110	2,000	2,400	2,310	1,450	1,510	1,460	280	855	285	a70
21	586	1,020	2,190	1,450	2,310	1,450	1,230	1,410	556	798	396	a69
22	386	554	2,220	2,580	2,290	1,450	1,180	1,290	1,060	700	654	221
23	582	1,060	2,240	2,590	2,240	1,450	1,280	1,290	1,070	685	a142	874
24	464	1,050	2,260	2,780	2,240	1,450	1,250	1,490	1,040	670	243	640
25	356	1,000	2,310	2,770	2,240	1,270	1,180	1,450	1,010	635	812	160
26	563	750	2,360	2,790	2,220	1,220	964	1,370	930	599	605	a75
27	346	222	2,330	2,790	2,240	1,450	480	1,330	836	583	a211	a68
28	544	445	2,380	2,840	2,180	1,450	607	1,290	773	569	705	138
29	364	790	2,360	2,840	-	1,450	1,330	1,290	773	563	575	677
30	642	470	2,400	2,870	-	1,450	2,400	1,290	758	555	595	163
31	402	-	2,450	2,550	-	1,660	-	1,250	-	575	561	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,949	918	220	514	31,630
November	17,678	1,150	140	589	35,060
December	49,890	2,450	772	1,609	98,960
Calendar year 1940	542,954	3,240	120	1,480	1,076,900
January	77,866	2,870	956	2,512	154,400
February	68,090	2,900	2,180	2,432	135,100
March	53,330	2,380	1,220	1,720	105,800
April	44,031	2,400	480	1,468	87,330
May	50,450	2,380	1,250	1,627	100,100
June	28,915	1,510	280	964	57,350
July	22,453	940	555	724	44,530
August	14,470	812	102	467	28,700
September	9,536	880	68	318	18,910
Water year 1940-41	452,658	2,900	68	1,240	897,900

a No gage-height record for main gage; discharge computed on basis of gage height and rating curve for auxiliary gage.

St. Francis River floodway near Marked Tree, Ark.

Location.- Staff gage, 35°36', long. 90°27', in SE¼ sec. 10, T. 11 N., R. 6 E., at dam of Poinsett County Drainage District 7, 3 miles north of Marked Tree. Datum of gage is 198.71 feet above Memphis datum or 192.08 feet above mean sea level (Morgan Engineering Co. bench mark).

Records available.- September 1927 to September 1931, July 1934 to September 1941.

Extremes.- Maximum discharge during year, 2,190 second-feet Feb. 10 (gage height, 20.9 feet); no flow at times.
1927-31, 1934-41: Maximum discharge, 48,300 second-feet Jan. 26-28, 1937; no flow at times during 1934-37, 1939-41.

Remarks.- Records fair except those below 500 second-feet, which are poor. Flow represents water diverted from St. Francis River and bypassing Marked Tree; water returned to St. Francis River immediately below Parkin. Gage read twice daily.

Cooperation.- Gage-height record furnished by Poinsett County Drainage District 7.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0	370	1,750	275	12	12				
2		0	0	585	1,970	275	12	0				
3		0	0	585	1,970	195	0	0				
4		0	0	700	1,970	195	45	0				
5		0	0	700	1,970	130	12	0				
6		0	0	700	1,970	12	45	0				
7		0	0	700	2,080	0	45	0				
8		0	0	700	2,080	0	130	0				
9		0	0	700	2,080	12	370	0				
10		0	0	585	2,190	12	370	0				
11		0	0	820	2,080	12	370	0				
12		0	0	1,520	2,080	12	370	0				
13		0	0	1,300	1,970	130	195	0				
14		0	0	1,060	1,860	275	130	0				
15		12	0	275	1,860	275	370	0				
16		60	0	820	1,750	370	370	0				
17		0	0	1,060	1,640	370	370	0				
18		0	0	1,060	1,410	370	275	0				
19		0	0	1,060	1,300	370	130	0				
20		0	0	1,060	1,180	370	475	0				
21		0	0	1,640	940	370	700	0				
22		0	0	1,300	940	275	820	0				
23		0	0	1,750	820	275	940	0				
24		0	0	1,300	700	275	940	0				
25		0	12	1,060	585	475	940	0				
26		0	12	1,060	475	475	1,060	0				
27		0	25	940	475	370	1,180	0				
28		0	45	1,060	370	275	1,410	0				
29		0	45	1,300	-	195	940	0				
30		0	80	1,520	-	195	195	0				
31		-	130	1,750	-	130	-	0				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	92	60	0	3.1	182
December	349	130	0	11.3	692
Calendar year 1940	545,891	12,200	0	1,492	1,083,000
January	31,040	1,750	275	1,001	61,570
February	42,465	2,190	370	1,517	84,230
March	6,970	475	0	225	13,820
April	13,221	1,410	0	441	26,220
May	12	12	0	.4	24
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1940-41	94,149	2,190	0	258	186,700

Little River ditch 81 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'55", in NE¼ sec. 4, T. 18 N., R. 10 E., at bridge on State Highway 84, about 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Records available.- October 1926 to September 1941.

Average discharge.- 15 years, 226 second-feet.

Extremes.- Maximum discharge observed during year, 330 second-feet Jan. 25 (gage height, 4.57 feet); minimum discharge, 24 second-feet Sept. 22-24, 30.
1926-41: Maximum discharge, 2,760 second-feet (included some overflow from levee breaks on St. Francis River) Apr. 21, 1927 (gage height, 15.1 feet, from graph based on gage readings); minimum, that of Sept. 22-24, 30, 1941.

Remarks.- Records good. Gage read once daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	39	62	155	173	107	84	71	59	43	43	48
2	52	38	58	196	173	107	84	66	66	41	43	45
3	50	38	61	198	161	107	84	64	71	84	41	44
4	49	38	61	173	161	107	90	62	71	66	40	44
5	49	45	59	161	155	101	90	61	68	60	40	41
6	47	41	56	149	161	101	84	67	64	61	42	40
7	52	39	67	143	149	101	84	69	62	56	35	37
8	47	39	65	137	143	101	84	65	64	53	33	38
9	46	40	65	131	137	96	79	59	67	60	34	36
10	46	44	64	125	137	96	79	60	66	62	35	36
11	47	113	59	125	131	96	79	60	70	55	34	33
12	47	75	66	119	131	96	72	61	66	53	34	33
13	45	71	71	119	131	96	75	60	64	76	31	33
14	45	60	78	113	137	90	75	57	64	74	31	31
15	49	58	78	113	149	90	77	61	62	66	35	30
16	46	57	243	113	137	96	78	64	60	60	31	30
17	42	55	294	131	137	90	77	64	58	57	30	28
18	42	53	198	143	131	90	76	72	56	56	29	32
19	42	53	161	137	125	90	67	69	55	55	35	28
20	43	50	149	131	119	90	90	64	55	52	31	27
21	43	48	137	131	119	90	101	65	55	50	42	26
22	41	52	125	131	119	84	90	67	53	50	34	24
23	42	57	119	119	119	90	84	65	54	49	34	24
24	39	69	113	198	113	90	79	60	49	48	33	24
25	39	76	113	330	113	84	78	61	47	48	31	26
26	38	79	107	259	113	84	74	61	47	47	32	28
27	39	74	125	243	113	84	74	64	45	46	53	25
28	38	74	212	212	113	84	72	66	44	46	57	25
29	39	69	227	198	-	84	70	64	46	46	53	25
30	39	64	185	185	-	79	69	62	44	45	52	24
31	38	-	161	173	-	90	-	58	-	44	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,374	53	38	44.3	2,730
November	1,710	113	38	57.0	3,390
December	3,639	294	56	117	7,220
Calendar year 1940	44,069	837	38	120	87,420
January	4,993	330	113	161	9,900
February	3,800	173	113	136	7,540
March	2,891	107	79	93.3	5,730
April	2,399	101	67	80.0	4,760
May	1,969	72	58	63.5	3,910
June	1,752	71	44	58.4	3,480
July	1,709	84	41	55.1	3,390
August	1,180	57	29	38.1	2,340
September	967	48	24	32.2	1,920
Water year 1940-41	28,383	330	24	77.8	56,310

Little River ditch 1 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'50", in NE¼ sec. 4, T. 18 N., R. 10 E., at bridge on State Highway 84, about 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Records available.- October 1926 to September 1941.

Average discharge.- 15 years, 428 second-feet.

Extremes.- Maximum discharge during year, 582 second-feet Jan. 25 (gage height, 3.7 feet, from graph based on gage readings); minimum, 20 second-feet Sept. 28, 29.
1926-41: Maximum discharge, 7,520 second-feet (included some overflow from levee breaks on St. Francis River) Apr. 25, 1927; maximum gage height observed, 16.80 feet Jan. 25, 1937; minimum discharge, 8 second-feet Sept. 13-18, 1932.

Remarks.- Records fair. Gage read once daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	39	56	195	280	136	95	88	67	52	35	39
2	49	38	48	208	280	136	90	84	66	50	36	38
3	48	36	54	310	265	145	91	84	72	66	32	35
4	46	38	48	310	250	140	93	82	82	121	32	35
5	49	46	49	250	236	123	95	82	79	90	30	31
6	45	42	43	208	236	123	95	88	71	77	26	31
7	55	38	58	182	236	128	90	81	74	72	26	30
8	48	39	54	170	222	121	93	79	69	69	24	29
9	45	38	54	170	208	119	93	84	71	63	26	26
10	43	39	55	154	195	113	95	79	81	64	23	29
11	45	97	52	154	182	119	90	75	86	61	23	31
12	45	74	52	143	182	115	90	71	88	63	22	26
13	46	63	64	138	170	111	91	74	91	75	23	25
14	42	52	64	136	208	109	84	74	82	74	23	26
15	50	49	66	136	195	107	82	66	66	71	28	26
16	45	43	268	132	195	109	81	67	61	69	24	24
17	45	43	358	138	195	107	86	77	66	64	21	21
18	40	45	295	182	182	107	86	90	64	58	21	23
19	42	45	208	182	182	103	74	93	64	60	29	22
20	43	42	158	182	158	101	101	90	60	55	25	23
21	40	43	143	170	158	103	105	84	60	46	23	21
22	42	46	123	158	158	99	105	90	61	48	23	23
23	38	46	119	158	156	97	111	77	60	48	23	22
24	39	60	111	208	149	95	107	81	60	45	23	22
25	39	63	105	484	149	97	103	69	56	45	23	22
26	39	63	105	542	145	95	97	71	58	43	23	21
27	38	56	117	465	140	95	93	74	55	42	49	21
28	38	54	304	392	147	95	88	69	55	40	48	20
29	40	54	342	342	-	95	90	67	60	38	45	20
30	36	50	280	310	-	86	88	64	54	36	52	23
31	38	-	222	295	-	101	-	66	-	36	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,347	55	36	43.5	2,670
November	1,481	97	36	49.4	2,940
December	4,075	358	43	131	8,080
Calendar year 1940	71,756	2,310	15	196	142,300
January	7,204	542	132	232	14,290
February	5,459	280	140	195	10,830
March	3,430	145	86	111	6,800
April	2,782	111	74	92.7	5,520
May	2,420	93	64	78.1	4,800
June	2,039	91	54	68.0	4,040
July	1,841	121	36	59.4	3,650
August	903	52	21	29.1	1,790
September	785	39	20	26.2	1,560
Water year 1940-41	33,766	542	20	92.5	66,970

Little River ditch 66 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'45", in NE¼ sec. 4, T. 18 N., R. 10 E., at bridge on State Highway 84, about 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Records available.- October 1926 to September 1941.

Average discharge.- 15 years, 362 second-feet.

Extremes.- Maximum discharge during year, 723 second-feet Jan. 26 (gage height, 7.1 feet, from graph based on gage readings); minimum, 0.9 second-foot Sept. 25, 26. 1926-41: Maximum discharge, 4,350 second-feet Jan. 24, 25, 1937 (gage height, 18.15 feet); minimum, that of Sept. 25, 26, 1941.

Remarks.- Records fair. Gage read once daily. An auxiliary ditch, Little River ditch 66-A, receives part of the flow through cut-offs above stage 6.4 feet. Above stage 13 feet the low, narrow bank between the main and auxiliary ditches is submerged, and the two unite to form one stream in the vicinity of the gage. To segregate the discharge of each ditch, the division line between the two is taken as the top of the bank that separates them at low stages.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	e	22	118	189	73	48	46	22	10	4.4	11
2	11	8	20	124	176	68	41	45	28	8	5	13
3	11	8	19	281	176	73	42	41	29	29	2.7	10
4	11	7	18	333	163	76	47	39	40	20	2.4	7
5	11	10	16	248	151	68	49	38	39	18	2.4	5
6	10	10	18	189	140	64	64	39	32	25	2.4	4.0
7	10	10	21	151	140	64	73	43	30	54	2.0	3.8
8	11	9	21	129	129	59	68	42	29	40	1.8	2.5
9	10	9	20	113	129	59	59	39	34	28	1.8	18
10	10	10	21	103	124	58	54	35	32	51	1.7	15
11	10	20	20	98	113	58	57	32	38	53	1.6	10
12	10	29	20	93	98	58	73	32	35	44	1.2	21
13	10	24	22	88	108	56	68	29	32	52	1.2	28
14	9	19	26	83	108	54	64	28	30	54	1.6	18
15	9	17	37	83	113	51	55	35	32	45	2.0	13
16	10	17	68	78	108	56	51	33	21	34	1.5	10
17	9	13	176	83	108	54	52	32	22	27	1.6	6
18	8	15	281	98	108	51	46	50	20	22	1.7	4.4
19	9	14	232	108	103	49	47	56	19	19	2.0	2.9
20	9	13	163	108	98	49	55	48	18	16	1.8	2.3
21	9	13	118	108	98	47	93	47	18	14	2.0	1.8
22	9	13	93	108	93	44	108	45	16	12	8	1.6
23	8	16	93	98	88	46	83	38	16	11	7	1.4
24	8	18	73	108	83	46	73	33	14	10	4.2	1.0
25	8	21	64	426	83	46	64	28	14	9	3.2	.9
26	8	25	59	723	83	46	59	27	16	8	3.0	.9
27	8	30	64	612	83	45	54	29	12	8	10	1.0
28	8	24	129	485	78	43	51	27	11	6	11	1.0
29	8	22	163	369	-	42	46	25	13	6	8	1.0
30	7	22	151	264	-	41	46	23	10	6	14	1.0
31	7	-	129	217	-	46	-	20	-	4.4	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	288	12	7	9.3	571
November	474	30	7	15.8	940
December	2,377	281	16	76.7	4,710
Calendar year 1940	61,305	2,340	7	168	121,600
January	6,227	723	78	201	12,350
February	3,271	189	78	117	6,490
March	1,692	78	41	54.6	3,360
April	1,790	108	41	59.7	3,550
May	1,124	56	20	36.3	2,230
June	722	40	10	24.1	1,430
July	743.4	54	4.4	24.0	1,470
August	129.2	16	1.2	4.17	256
September	216.4	28	.9	7.21	429
Water year 1940-41	19,054.0	723	.9	52.2	37,790

Little River ditch 66-A near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'45", in NE¼ sec. 4, T. 18 N., R. 10 E., at bridge on State Highway 84, about 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark). Prior to Oct. 1, 1940, chain gage at same site and datum.

Records available.- January 1927 to September 1941.

Average discharge.- 14 years, 51.4 second-feet.

Extremes.- Maximum discharge observed during year, 10 second-feet Jan. 26 (gage height, 6.78 feet); no flow on many days.
1927-41: Maximum discharge, 2,340 second-feet (included some overflow from levee breaks on Mississippi River) Apr. 25, 1927 (gage height, 17.6 feet, from graph based on gage readings); no flow on many days.

Remarks.- Records poor. Gage read once daily. See page 48 for relation of this ditch to Little River ditch 66.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0								
2				0								
3				0								
4				0								
5				0								
6				0								
7				0								
8				0								
9				0								
10				0								
11				0								
12				0								
13				0								
14				0								
15				0								
16				0								
17				0								
18				0								
19				0								
20				0								
21				0								
22				0								
23				0								
24				0								
25				0								
26				10								
27				2								
28				0								
29				0								
30				0								
31				0								

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	4,275	855	0	11.7	8,480
January	12	10	0	.4	24
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1940-41	12	10	0	.03	24

Little River ditch 251 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'40", in NW¼ sec. 3, T. 18 N., R. 10 E., at bridge on State Highway 84, 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Records available.- November 1926 to September 1941.

Average discharge.- 14 years (1927-41), 661 second-feet.

Extremes.- Maximum discharge observed during year, 1,510 second-feet Jan. 26 (gage height, 7.75 feet); minimum observed, 94 second-feet Sept. 28.
1926-41: Maximum discharge, 6,730 second-feet Jan. 24-26, 1937; maximum gage height, 18.20 feet Jan. 25, 1937; minimum discharge, 52 second-feet Sept. 5-8, 1930.

Remarks.- Records fair. Gage read once daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	106	170	483	690	354	256	269	206	163	138	172
2	134	106	160	483	660	326	229	269	215	154	138	172
3	134	106	160	783	630	340	229	269	286	215	130	154
4	134	106	142	910	600	368	242	269	251	215	130	146
5	134	112	151	783	570	326	256	251	251	197	130	138
6	126	119	151	660	512	312	312	251	233	215	122	130
7	126	112	160	541	541	312	354	269	233	269	122	130
8	126	112	160	483	512	312	340	269	224	251	122	115
9	126	112	160	454	541	298	312	251	233	224	122	197
10	119	119	160	425	483	284	284	251	233	269	115	180
11	119	181	160	425	454	298	298	233	233	269	108	154
12	119	192	160	396	425	298	354	233	233	251	108	197
13	119	192	170	368	454	284	340	233	224	269	115	206
14	112	170	181	368	454	284	312	224	224	288	108	172
15	126	151	204	354	454	270	284	251	224	288	115	163
16	126	134	284	354	454	284	256	251	206	251	108	146
17	119	142	600	368	454	284	284	251	206	224	115	130
18	119	142	878	425	454	270	242	288	197	206	108	130
19	119	134	721	425	425	270	229	288	188	197	122	122
20	112	134	570	425	425	270	298	288	188	188	115	115
21	112	126	454	425	396	256	425	269	188	180	130	108
22	112	134	396	425	396	242	454	269	180	172	146	108
23	112	142	354	396	396	242	373	251	180	163	138	108
24	112	160	326	454	368	256	349	251	180	163	130	108
25	112	170	312	910	368	356	327	224	180	154	122	108
26	106	181	298	1,510	368	256	307	224	180	154	122	108
27	106	181	298	1,380	368	242	288	224	172	154	163	108
28	106	170	541	1,170	368	242	286	215	163	146	172	94
29	106	170	690	975	-	242	288	215	172	146	154	101
30	106	160	600	814	-	216	269	215	163	146	180	101
31	106	-	541	752	-	256	-	206	-	146	180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,679	134	106	119	7,300
November	4,276	192	106	143	8,480
December	10,312	878	142	333	20,450
Calendar year 1940	158,473	3,630	106	433	314,300
January	19,124	1,510	354	617	37,930
February	13,220	690	368	472	26,220
March	8,750	368	216	282	17,360
April	9,079	454	229	303	18,010
May	7,721	288	206	249	15,310
June	6,248	288	163	208	12,390
July	6,327	288	146	204	12,550
August	4,028	180	108	130	7,990
September	4,121	206	94	137	8,170
Water year 1940-41	96,885	1,510	94	265	192,200

Little River ditch 259 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'35", in NW¼ sec. 3, T. 18 N., R. 10 E., at bridge on State Highway 84, about 4 miles east of Kennett. Datum of gage is 241.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Records available.- November 1926 to September 1941.

Average discharge.- 14 years (1927-41), 99.9 second-feet.

Extremes.- Maximum discharge during year, 355 second-feet Jan. 24 (gage height, 4.3 feet, from graph based on gage readings); minimum, 0.2 second-foot Sept. 22-30.
1926-41: Maximum discharge, 4,140 second-feet (including some overflow from levee breaks on Mississippi River) Apr. 29, 1927 (gage height, 15.57 feet, from graph based on gage readings); no flow Aug. 3 to Sept. 2, 1936.

Remarks.- Records poor. Gage read once daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	2.2	3.2	30	58	7	4.3	6	2.5	0.7	0.9	5
2	2.2	2.5	2.8	28	54	d6	3.5	5	3.0	.6	1.5	3.9
3	2.8	2.5	2.5	27	58	10	3.5	4.7	3.5	.8	1.5	3.5
4	2.5	2.2	2.5	29	50	S	3.9	6	8	1.2	1.2	2.2
5	2.5	3.9	2.5	23	44	6	4.3	6	54	2.0	.9	1.2
6	2.8	2.2	2.2	19	37	4.7	3.5	6	32	2.5	.9	.8
7	3.5	2.0	3.5	16	36	4.3	4.7	6	19	3.2	.9	.8
8	2.8	2.0	3.0	13	33	3.5	4.3	6	11	3.0	.9	.6
9	2.2	2.2	3.2	11	30	3.9	3.9	3.9	9	2.5	.7	.5
10	2.2	2.8	4.3	10	25	4.7	3.5	3.5	8	2.5	.7	.6
11	2.5	16	2.8	S	22	3.5	2.2	3.0	8	2.5	.6	.6
12	2.5	22	3.2	S	20	3.0	2.2	3.0	8	1.S	.6	.6
13	2.2	17	3.2	7	17	2.5	3.2	d3.1	9	3.9	.5	.6
14	2.2	8	3.5	6	21	2.8	3.0	3.2	8	92	.5	.5
15	3.0	4.7	34	7	19	2.5	3.2	3.5	6	70	1.2	.5
16	1.5	3.9	212	6	1S	3.9	3.0	3.2	7	46	.8	.5
17	1.S	3.2	SS	12	17	3.0	2.5	3.2	5	32	.7	.3
18	2.2	2.8	47	23	16	2.S	2.8	3.2	4.7	22	.5	.4
19	2.0	2.2	32	16	15	2.8	1.8	4.3	3.9	16	1.0	.3
20	2.2	2.S	25	14	9	2.8	3.9	4.7	3.2	11	.8	.3
21	2.0	3.0	19	14	11	5	12	3.9	2.5	9	.6	.3
22	2.0	3.0	14	14	11	3.2	14	3.9	1.8	S	.6	.2
23	2.2	4.3	12	21	10	3.2	14	4.3	2.2	5	.6	.2
24	2.2	d5	11	301	9	3.5	11	3.0	2.0	3.9	.5	.2
25	2.8	d5	9	247	9	3.0	10	2.0	1.5	2.8	.5	.2
26	2.5	6	8	139	S	2.5	8	2.2	1.2	2.2	.6	.2
27	2.5	4.7	48	106	8	2.2	S	2.5	1.2	1.8	6	.2
28	2.8	3.5	166	79	S	2.5	6	2.2	.9	1.S	S	.2
29	3.0	3.9	79	66	-	2.5	4.7	2.2	.9	1.5	10	.2
30	3.0	4.7	37	58	-	3.0	6	2.2	.S	1.2	8	.2
31	2.5	-	37	62	-	3.9	-	2.0	-	1.0	7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	75.6	3.5	1.5	2.44	150
November	150.2	22	2.0	5.01	298
December	920.4	212	2.2	29.7	1,830
Calendar year 1940	16,705.1	1,110	1.5	45.6	33,140
January	1,420	301	6	45.8	2,S20
February	673	58	8	24.0	1,330
March	122.2	10	2.2	3.94	242
April	160.9	14	1.S	5.36	319
May	117.9	6	2.0	3.80	234
June	227.S	54	.S	7.59	452
July	354.4	92	.6	11.4	703
August	59.7	10	.5	1.93	118
September	25.8	5	.2	.86	51
Water year 1940-41	4,307.9	301	.2	11.8	S,550

d Doubtful gage-height record; discharge computed on basis of records for nearby stations.

White River at Beaver, Ark.

Location.- Wire-weight gage, lat. 36°28'20", long. 93°45'55", in sec. 20, T. 21 N., R. 26 W., at Missouri & North Arkansas Ry. bridge, a quarter of a mile east of Beaver and 2¾ miles upstream from Leatherwood Creek. Datum of gage is 883.04 feet above mean sea level, datum of 1929.

Drainage area.- 1,238 square miles (revised).

Records available.- July 1909 to December 1910, May 1923 to September 1941.

Average discharge.- 19 years, 1,498 second-feet. Figures published prior to this year did not include mean discharge for 1909-10.

Extremes.- Maximum discharge during year, 39,500 second-feet Apr. 20 (gage height, 28.3 feet, from graph based on gage readings); minimum, 33 second-feet Aug. 21, 22 (gage height, 2.19 feet).
1909-10, 1923-41: Maximum discharge observed, 65,000 second-feet Apr. 16, 1927 (gage height, 37.0 feet); minimum discharge, 3.0 second-feet Aug. 31, Sept. 1, 1936.

Remarks.- Records good. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	342	143	1,060	4,860	1,830	2,150	420	1,320	177	138	73	50
2	281	224	872	16,100	1,910	2,070	420	1,240	177	132	58	46
3	235	205	724	17,400	2,560	1,910	390	1,240	174	138	56	45
4	201	181	638	5,580	5,380	1,750	379	1,090	310	132	81	46
5	178	174	554	3,450	4,000	1,600	379	1,020	353	125	89	81
6	161	155	500	2,590	3,100	1,440	357	945	310	120	77	85
7	152	143	472	2,080	2,560	1,370	379	875	252	115	85	77
8	140	137	418	1,760	2,230	1,520	368	805	219	108	69	65
9	131	137	366	1,540	1,910	1,520	368	805	202	100	58	65
10	120	131	342	1,330	1,670	1,440	368	740	1,450	93	73	77
11	120	140	342	1,200	1,440	1,370	379	675	2,970	87	62	77
12	120	134	366	1,060	1,300	1,300	357	615	3,680	81	67	73
13	115	131	392	998	1,220	1,220	346	555	1,750	77	65	69
14	115	201	1,060	934	1,480	1,140	340	500	1,320	73	62	62
15	115	418	1,730	934	2,150	1,070	528	475	840	73	60	62
16	109	368	2,780	1,130	1,750	995	5,110	425	675	69	56	60
17	107	308	5,420	1,540	1,520	958	9,220	400	555	69	50	58
18	102	281	3,750	1,920	1,370	920	6,710	353	450	69	46	69
19	99	256	2,420	2,000	1,300	850	23,000	332	400	69	43	56
20	99	235	1,840	1,690	1,220	780	34,500	310	353	65	39	54
21	97	243	1,540	1,540	1,670	745	23,800	290	310	64	35	50
22	94	231	1,260	1,470	1,670	710	7,030	270	270	65	43	48
23	90	290	1,130	1,400	1,600	675	4,590	270	233	64	97	46
24	85	366	998	1,690	1,520	640	3,680	252	219	64	54	58
25	80	366	872	7,550	1,440	608	3,080	226	199	60	44	104
26	76	812	812	5,520	1,600	575	2,600	213	187	58	50	77
27	74	1,240	724	4,000	1,750	542	2,120	202	171	58	54	55
28	78	2,880	666	3,100	2,070	510	1,840	187	162	58	52	71
29	80	1,840	610	2,560	-	510	1,930	180	160	54	54	199
30	82	1,330	582	2,230	-	480	1,490	180	148	77	62	190
31	85	-	638	1,990	-	450	-	168	-	73	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,963	342	74	128	0.103	0.12	7,860
November	13,698	2,880	131	457	.369	.41	27,170
December	35,878	5,420	342	1,157	.935	1.08	71,160
Calendar year 1940	226,402	13,500	74	619	.500	†6.80	449,100
January	103,146	17,400	934	3,327	2.69	3.10	204,600
February	55,220	5,380	1,220	1,972	1.59	1.66	109,500
March	33,818	2,150	450	1,091	.881	1.02	67,080
April	136,478	34,500	340	4,549	3.67	4.10	270,700
May	17,158	1,320	168	553	.447	.52	34,030
June	18,676	3,680	148	623	.503	.56	37,040
July	2,628	138	54	84.8	.068	.08	5,210
August	1,879	97	35	60.6	.049	.06	3,730
September	2,186	199	46	72.9	.059	.07	4,340
Water year 1940-41	424,728	34,500	35	1,164	.940	12.78	842,400

† Computed on basis of revised drainage area.

White River near Reeds Spring, Mo.

Location.- Water-stage recorder, lat. 36°37'20", long. 93°25'20", in NE¼SE¼ sec. 9, T. 22 N., R. 23 W., at bridge on State Highway 13, 5¾ miles downstream from James River and 12 miles south of Reeds Spring. Datum of gage is 739.00 feet above mean sea level, datum of 1929.

Drainage area.- 3,617 square miles (revised).

Records available.- February 1938 to September 1941.

Extremes.- Maximum discharge during year, 107,000 second-feet Apr. 20 (gage height, 34.8 feet); minimum, 246 second-feet Aug. 24; minimum gage height, 0.41 foot Oct. 28.

1938-41: Maximum discharge, that of Aug. 24, 1941; minimum, 145 second-feet Sept. 27, 1939 (gage height, 0.09 foot).

Maximum stage known, 48.0 feet, from floodmark, Apr. 14, 1927.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	814	346	2,900	9,790	4,850	3,420	1,110	4,350	649	560	473	392
2	695	371	2,360	20,500	5,020	3,490	1,110	4,010	752	527	442	357
3	616	460	1,940	27,700	5,360	3,350	1,080	3,690	725	514	419	333
4	557	470	1,710	16,500	7,410	3,090	1,040	3,530	752	540	410	313
5	506	448	1,490	9,080	8,650	2,900	1,010	3,300	869	728	396	365
6	475	431	1,330	6,820	7,010	2,710	972	3,160	900	595	419	365
7	470	414	1,220	5,530	5,890	2,470	972	2,940	809	527	410	378
8	461	392	1,110	4,690	5,020	2,470	1,010	3,010	725	482	401	378
9	461	396	1,010	3,920	4,370	2,650	1,010	2,940	699	450	370	349
10	448	409	940	3,490	3,920	2,590	972	2,670	2,690	527	383	357
11	426	414	907	3,090	3,420	2,470	972	2,410	5,800	625	333	349
12	396	414	940	2,770	3,090	2,470	940	2,110	6,400	491	317	337
13	375	418	1,110	2,470	2,900	2,420	907	1,940	4,810	432	374	321
14	384	431	1,580	2,300	2,770	2,250	907	1,780	3,160	392	710	297
15	401	497	3,630	2,300	3,350	2,140	1,540	1,630	2,400	374	875	285
16	388	695	7,210	2,530	3,630	2,090	34,500	1,480	1,930	349	514	282
17	379	678	9,300	2,960	3,090	2,040	31,400	1,340	1,600	337	396	274
18	375	631	10,200	3,420	2,770	1,990	24,200	1,300	1,380	325	349	297
19	363	576	7,010	4,370	2,590	1,940	62,000	1,340	1,220	313	309	388
20	342	548	5,360	4,370	2,360	1,840	103,000	1,220	1,070	305	285	504
21	334	543	4,370	3,920	2,420	1,800	66,700	1,100	1,000	297	264	401
22	325	557	3,920	3,630	2,770	1,760	26,200	999	940	278	268	341
23	321	972	3,220	3,420	2,710	1,660	14,700	932	875	301	285	317
24	313	1,530	2,770	3,920	2,590	1,580	11,600	900	940	301	250	325
25	305	1,490	2,470	8,770	2,530	1,490	9,520	838	1,000	297	278	509
26	297	2,420	2,200	12,200	2,530	1,410	8,230	780	845	1,490	271	2,590
27	285	3,770	2,040	9,300	2,710	1,370	7,000	752	728	1,600	264	3,160
28	293	4,690	1,840	8,230	3,020	1,290	6,200	725	650	940	877	1,780
29	330	5,020	1,710	7,010	-	1,260	5,420	699	605	700	785	1,260
30	330	3,630	1,580	5,890	-	1,220	4,690	673	585	580	575	1,040
31	330	-	1,760	5,190	-	1,180	-	649	-	605	450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	12,795	814	285	413	0.114	0.13	25,380
November	34,061	5,020	346	1,135	.314	.35	67,560
December	91,137	10,200	907	2,940	.813	.94	180,800
Calendar year 1940	673,580	30,600	285	1,840	†.509	†6.93	1,336,000
January	210,080	27,700	2,300	6,777	1.87	2.16	416,700
February	108,750	8,650	2,360	3,884	1.07	1.11	215,700
March	66,810	3,490	1,180	2,155	.596	.69	132,500
April	430,912	103,000	907	14,360	3.97	4.43	854,700
May	59,197	4,350	649	1,910	.528	.61	117,400
June	47,508	6,400	585	1,584	.438	.49	94,230
July	16,782	1,600	278	541	.150	.17	33,290
August	13,152	877	250	424	.117	.13	26,090
September	18,644	3,160	274	621	.172	.19	36,980
Water year 1940-41	1,109,828	103,000	250	3,041	.841	11.40	2,201,000

Peak discharge.- Apr. 16 (5:30 p.m.) 45,000 sec.-ft.; Apr. 17 (7:30 p.m.) 31,400 sec.-ft.; Apr. 20 (5 a.m.) 107,000 sec.-ft.

† Computed on basis of revised drainage area.

White River at Forsyth, Mo.

Location.- Water-stage recorder, lat. 36°40'55", long. 93°06'05", in SE¼ sec. 33, T. 24 N., R. 20 W., in Forsyth, at bridge on State Highway 78, a quarter of a mile downstream from Swan Creek. Datum of gage is 640.64 feet above mean sea level, datum of 1929.

Drainage area.- 4,544 square miles (revised).

Records available.- January to September 1926, February 1930 to September 1941.

Average discharge.- 11 years (1930-41), 4,187 second-feet.

Extremes.- Maximum discharge during year, 106,000 second-feet Apr. 20 (gage height, 30.57 feet); minimum, 79 second-feet (regulated) Aug. 14; minimum gage height, 1.72 feet Nov. 8; minimum daily discharge, 91 second-feet (regulated) Aug. 24.
1926, 1930-41: Maximum discharge, 127,000 second-feet Mar. 11, 1935 (gage height, 35.23 feet); minimum, 30 second-feet (regulated) Sept. 2, 3, 1936; minimum gage height, 1.20 feet Sept. 25, 1932, July 14, 1934; minimum daily discharge, 34 second-feet (regulated) Sept. 3, 1936.
Maximum stage known, 45.36 feet, from floodmark, Apr. 16, 1927 (discharge, 180,000 second-feet, revised, from computation of flow over dam).

Remarks.- Records good except those for period of no gage-height record, which are fair. Flow regulated by hydroelectric plant of Empire District Electric Co., 2 miles above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	791	400	e3,390	12,100	6,230	3,760	1,190	5,440	e1,020	890	776	472
2	786	349	2,280	25,300	e5,940	e4,270	1,110	3,190	1,030	570	414	1,000
3	S37	e378	2,160	30,300	6,300	3,820	1,350	4,290	1,850	455	e330	972
4	501	486	2,210	26,200	7,330	3,880	2,070	e4,660	1,470	156	829	642
5	664	539	2,210	e12,900	9,470	3,880	1,520	3,740	1,070	164	918	502
6	189	378	1,780	9,470	8,800	3,520	e235	3,640	1,700	e413	786	585
7	317	414	617	7,550	7,650	3,360	1,330	3,890	885	701	759	e137
8	436	426	e1,080	6,450	6,450	2,210	1,460	3,880	e891	645	662	445
9	418	594	1,090	5,800	e5,800	e2,540	1,180	3,910	1,380	693	383	528
10	503	e290	1,190	5,600	5,400	4,370	1,060	3,940	4,170	610	e380	334
11	407	521	1,230	4,220	4,020	3,090	982	e2,650	6,330	503	530	467
12	671	449	782	e1,830	3,420	3,010	935	2,540	6,330	851	497	530
13	342	393	1,290	2,400	4,580	2,960	e1,160	2,860	6,330	e536	265	797
14	329	474	2,940	3,020	3,170	3,180	1,210	2,780	4,900	513	316	e140
15	270	401	e3,890	2,260	3,890	2,920	2,210	2,820	e2,520	537	565	608
16	415	694	8,470	2,900	e4,460	e1,800	43,400	2,140	2,780	673	666	469
17	474	e815	10,200	4,210	3,870	2,730	41,000	1,190	2,660	518	e428	280
18	233	557	12,000	4,560	3,940	2,920	31,600	e2,150	1,970	502	608	251
19	435	513	9,730	e3,780	3,450	2,470	75,800	1,290	468	129	631	112
20	482	698	7,330	5,670	2,910	2,220	e101,000	1,590	1,320	e326	566	266
21	268	727	6,230	4,780	3,100	2,710	84,600	1,830	960	171	625	e215
22	391	478	e5,740	4,220	2,090	1,740	42,600	1,980	e1,090	306	508	445
23	223	817	4,580	4,600	e2,880	e1,550	19,800	1,290	992	1,160	213	636
24	287	e1,540	2,430	5,330	3,840	2,530	14,500	568	a1,360	314	e91	3,040
25	416	1,770	2,060	6,220	2,880	1,940	12,000	e482	a1,380	286	372	6,150
26	441	2,910	3,590	e13,800	3,060	2,260	10,200	1,350	a1,330	605	525	1,540
27	251	3,190	3,260	12,600	3,330	1,840	e8,840	1,350	a1,250	e2,490	485	4,890
28	245	4,220	3,160	10,500	2,190	1,870	7,730	1,290	a760	1,150	782	e2,050
29	186	4,220	e434	8,970	-	870	6,970	1,150	a6310	1,300	836	2,630
30	393	4,220	2,120	7,770	-	e532	6,330	251	a650	908	1,060	1,100
31	292	-	3,000	6,890	-	1,750	-	641	-	754	e742	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,893	837	186	416	25,570
November	33,861	4,220	290	1,129	67,160
December	112,473	12,000	434	3,628	223,100
Calendar year 1940	814,820	39,300	163	2,226	1,616,000
January	262,200	30,300	1,830	8,458	520,100
February	130,350	9,470	2,090	4,655	258,500
March	82,502	4,370	532	2,661	163,600
April	525,172	101,000	235	17,510	1,042,000
May	74,772	5,440	251	2,412	148,300
June	61,156	6,330	310	2,039	121,300
July	19,829	2,490	129	640	39,330
August	17,548	1,060	91	566	34,810
September	32,233	6,150	112	1,074	63,930
Water year 1940-41	1,364,989	101,000	91	3,740	2,708,000

Peak discharge.- Jan. 3 (11 p.m.) 33,300 sec.-ft.; Apr. 16 (1:30 p.m.) 56,900 sec.-ft.; Apr. 18 (6 a.m.) 35,200 sec.-ft.; Apr. 18 (6 a.m.) 35,200 sec.-ft.; Apr. 19 (10:30 a.m.) 88,800 sec.-ft.; Apr. 20 (4 p.m.) 106,000 sec.-ft.

a No gage-height record; discharge computed on basis of records for hydroelectric plant plus estimated inflow from intervening drainage area.
e Sunday.

White River near Flippin, Ark.

Location.- Water-stage recorder, lat. 36°18'50", long. 92°33'20", in NE¼ sec. 10, T. 19 N., R. 15 W., 3 miles northeast of Flippin and 11 miles upstream from Crooked Creek. Datum of gage is 419.66 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 6,067 square miles (revised).

Records available.- October 1928 to September 1941.

Average discharge.- 13 years, 5,712 second-feet.

Extremes.- Maximum discharge during year, 115,000 second-feet Apr. 21 (gage height, 29.60 feet); minimum, 213 second-feet Sept. 23; minimum gage height, 2.20 feet Nov. 1.
1928-41: Maximum discharge observed, 164,000 second-feet Mar. 12, 1935 (gage height, 38.1 feet, site and datum then in use); minimum observed, 105 second-feet Sept. 14, 15, 1936.
Maximum stage known, 45.4 feet Apr. 16, 1927, site and datum then in use, or about 42 feet, present site and datum.

Remarks.- Records excellent. Some fluctuation at low flow caused by power plant at Forsyth, Mo.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 16				Apr. 17 to Sept. 30					
2.2	300	5.0	3,910	2.4	185	5.5	4,820	25.0	85,700
2.4	405	6.0	6,060	2.6	330	7.0	8,350	30.0	118,000
2.7	625	8.0	11,300	2.9	585	9.0	14,000		
3.1	995	10.0	17,400	3.3	985	12.0	24,200		
3.5	1,460	12.0	24,100	3.8	1,650	16.0	39,500		
4.0	2,160	15.0	35,400	4.5	2,840	20.0	57,300		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,330	325	5,050	10,800	8,540	3,340	1,110	6,860	805	718	1,120	963
2	1,490	438	4,620	23,400	8,020	4,110	1,940	6,380	795	708	886	805
3	1,170	425	3,250	29,600	7,760	4,840	1,670	4,110	1,170	908	835	746
4	1,120	470	2,900	32,300	8,020	4,620	2,160	4,310	1,230	805	670	796
5	1,070	458	2,640	27,700	8,540	4,520	2,240	5,470	1,770	699	540	997
6	838	500	2,720	15,400	11,000	4,420	2,400	6,340	1,490	594	614	845
7	791	625	2,640	11,300	10,400	4,010	1,940	6,620	1,200	427	886	718
8	737	650	2,240	9,070	8,800	4,110	1,060	5,690	1,650	354	845	652
9	405	545	1,140	7,760	7,760	3,160	1,670	5,250	1,040	540	825	662
10	418	617	1,400	7,010	7,010	2,810	1,870	4,820	1,230	795	756	436
11	530	773	1,560	6,530	6,290	4,520	1,700	4,820	2,820	708	632	470
12	585	702	1,840	5,380	5,600	3,820	1,510	3,710	6,150	775	486	567
13	569	601	2,080	5,620	4,310	3,530	1,420	3,410	6,150	670	452	436
14	634	719	2,010	2,980	6,290	3,440	1,320	3,120	6,150	775	604	504
15	684	650	4,400	3,530	5,060	3,530	1,660	3,220	5,690	699	576	652
16	500	625	7,510	3,530	4,940	3,340	3,000	3,220	3,320	690	427	708
17	451	642	11,300	3,720	5,720	2,810	69,100	2,940	2,390	632	436	436
18	366	693	12,700	5,380	4,940	2,810	47,900	2,260	3,030	699	567	585
19	500	1,030	13,900	6,530	5,160	3,260	40,800	1,800	2,480	785	708	604
20	545	866	11,800	4,730	4,420	3,070	91,900	2,260	1,880	845	585	410
21	372	791	9,070	6,770	4,010	2,720	111,000	1,720	965	614	642	354
22	478	955	7,510	6,060	3,720	2,810	95,100	1,860	1,200	394	670	308
23	530	945	6,770	5,830	3,340	2,720	45,500	2,090	1,080	346	699	234
24	400	955	6,060	8,540	3,070	2,160	22,800	2,060	1,140	549	661	553
25	451	1,150	3,820	8,800	4,520	2,480	16,600	1,530	1,230	845	576	18,000
26	345	2,290	3,070	9,610	3,820	2,640	13,400	952	1,530	908	378	13,800
27	345	4,310	3,620	16,700	3,720	2,400	11,100	795	1,460	576	315	4,110
28	545	4,420	4,010	15,800	3,910	2,480	9,410	1,360	1,490	558	315	4,820
29	569	5,380	3,620	13,000	-	2,240	8,350	1,440	1,320	2,010	604	3,500
30	425	5,270	3,070	11,300	-	2,080	7,340	1,460	919	1,350	1,020	3,120
31	405	-	2,080	9,610	-	1,410	-	1,340	-	1,220	886	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	19,598	1,490	345	632	0.104	0.12	38,870
November	38,820	5,380	325	1,294	.213	.24	77,000
December	150,400	13,900	1,140	4,852	.800	.92	298,300
Calendar year 1940	1,165,325	49,700	325	3,184	†.525	†7.14	2,311,000
January	332,290	32,300	2,980	10,720	1.77	2.04	659,100
February	168,680	11,000	3,070	6,024	.993	1.03	334,600
March	100,200	4,840	1,410	3,232	.533	.61	198,700
April	608,970	111,000	1,060	20,300	3.35	3.74	1,208,000
May	103,217	6,860	795	3,330	.549	.63	204,700
June	64,772	6,150	795	2,159	.356	.40	128,500
July	23,195	2,010	346	748	.123	.14	46,010
August	20,216	1,120	315	652	.107	.12	40,100
September	61,780	18,000	234	2,059	.339	.38	122,500
Water year 1940-41	1,692,139	111,000	234	4,636	.764	10.37	3,356,000

Peak discharge.- Jan. 4 (10 a.m.) 34,200 sec.-ft.; Apr. 21 (6 p.m.) 115,000 sec.-ft.
† Computed on basis of revised figure of drainage area.

White River at Calico Rock, Ark.

Location.- Water-stage recorder, lat. 36°07', long. 92°09', in SW¼ sec. 23, T. 17 N., R. 11 W., at Calico Rock, just upstream from Calico Creek, and 6 miles upstream from Piney Creek. Datum of gage is 317.38 (revised) feet above mean sea level, datum of 1929.

Drainage area.- 9,973 square miles (revised).

Records available.- October 1939 to September 1941. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 118,000 second-feet Apr. 22 (gage height, 26.85 feet); minimum, 812 second-feet Sept. 24 (gage height, 0.15 foot).
1940-41: Maximum discharge, that of Apr. 22, 1941; minimum, that of Sept. 24, 1941. Maximum stage known, 51.9 feet, present datum, Jan. 31, 1916, from records of U. S. Weather Bureau.

Remarks.- Records excellent. Slight regulation at low flow by power plant at Forsyth, Mo.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,970	1,070	6,310	9,240	13,700	7,270	2,970	9,970	2,580	1,750	g2,140	1,690
2	2,070	992	6,080	34,000	12,700	6,540	2,810	9,400	2,070	1,520	1,880	1,750
3	2,140	1,020	5,200	40,000	12,400	7,780	3,470	7,780	2,210	1,500	1,680	1,550
4	1,880	1,070	4,200	38,600	14,000	8,300	7,020	6,310	2,500	1,680	1,810	1,450
5	1,690	1,110	3,830	38,100	13,700	7,780	5,850	7,270	2,650	1,810	1,490	1,550
6	1,750	1,100	3,560	24,900	14,400	7,520	5,100	8,040	2,970	1,590	1,260	1,750
7	1,570	1,110	3,560	17,200	15,400	7,270	4,490	16,700	2,650	1,490	1,280	1,610
8	1,470	1,220	3,300	14,000	13,700	7,020	3,920	15,800	2,500	1,490	1,580	1,440
9	1,470	1,310	2,890	12,100	12,100	6,780	3,050	12,400	2,650	1,210	1,550	1,340
10	1,150	1,320	2,070	10,600	10,800	5,740	3,650	10,300	2,500	1,260	1,480	1,420
11	1,100	1,690	2,280	9,680	9,970	5,740	3,650	9,120	3,300	1,610	1,390	1,180
12	1,200	1,590	2,650	8,840	9,400	7,270	3,300	8,300	7,020	1,520	1,270	1,100
13	1,220	1,570	3,300	7,780	8,300	6,310	3,130	6,540	8,570	1,520	1,190	1,210
14	1,260	1,380	4,690	5,630	8,840	6,080	2,970	6,310	8,040	1,470	1,140	1,070
15	1,240	1,560	5,200	5,740	9,970	5,850	3,050	5,850	7,780	1,500	1,200	1,090
16	1,400	1,580	8,300	6,310	8,570	5,960	3,560	5,630	6,310	1,470	1,300	1,210
17	1,200	1,480	13,000	6,080	8,840	5,630	36,100	5,410	4,390	1,390	1,090	1,360
18	1,150	1,490	15,400	7,270	8,840	4,690	67,200	5,410	3,830	2,050	1,020	1,120
19	1,050	1,470	15,800	9,400	8,300	5,200	48,600	4,390	4,010	2,730	1,260	1,140
20	1,120	1,750	15,400	8,570	8,040	5,410	76,600	4,100	3,470	1,750	1,570	1,230
21	1,200	1,680	12,100	8,300	7,520	5,100	110,000	3,920	2,730	1,690	1,200	1,040
22	1,040	1,580	9,680	9,120	7,020	4,690	113,000	3,560	2,000	1,460	1,400	936
23	1,100	1,880	8,570	8,840	6,780	4,890	71,500	3,650	2,210	1,240	1,640	882
24	1,160	1,940	8,040	21,000	6,080	4,300	33,200	3,650	2,070	1,230	1,390	1,770
25	1,060	2,000	6,540	25,700	6,540	3,830	23,300	3,300	2,070	1,680	1,400	15,800
26	1,090	2,890	2,990	20,200	7,520	4,490	19,100	2,810	2,210	g1,810	1,300	28,100
27	1,010	5,100	4,390	21,700	6,780	4,300	15,800	2,350	2,420	g1,690	1,090	10,800
28	983	7,780	5,300	24,500	7,020	4,200	13,700	2,140	2,420	g1,320	1,220	6,540
29	1,150	6,780	5,410	20,200	-	4,010	12,100	2,650	2,350	g1,260	1,250	7,270
30	1,240	6,780	5,200	17,600	-	3,830	10,800	2,730	2,280	g2,730	1,550	4,890
31	1,110	-	4,100	15,400	-	3,470	-	2,730	-	g2,350	1,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	42,243	2,970	983	1,363	0.137	0.16	83,790
November	65,292	7,780	992	2,176	.218	.24	129,500
December	201,340	15,800	2,070	6,495	.651	.75	399,400
Calendar year 1940	1,885,505	87,200	983	5,152	†.517	†7.03	3,740,000
January	506,600	40,000	5,630	16,340	1.64	1.89	1,005,000
February	277,230	15,400	6,080	9,901	.993	1.03	549,900
March	177,250	8,300	3,470	5,718	.573	.66	351,600
April	712,990	113,000	2,810	23,770	2.38	2.66	1,414,000
May	198,520	16,700	2,140	6,404	.642	.74	393,800
June	104,760	8,570	2,000	3,492	.350	.39	207,800
July	50,970	2,730	1,210	1,644	.165	.19	101,100
August	43,710	2,140	1,020	1,410	.141	.16	86,700
September	105,288	28,100	882	3,510	.352	.39	208,800
Water year 1940-41	2,486,193	113,000	882	6,811	.683	9.26	4,931,000

† Computed on basis of revised figure of drainage area.
g Computed from graph based on once-daily gage readings and recorder graph for station near Flippin.

White River at Batesville, Ark.

Location.- Water-stage recorder, lat. 35°46', long. 91°39', in NE¼ sec. 21, T. 13 N., R. 6 W., at Batesville, a quarter of a mile upstream from lock and dam 1, and 1 mile downstream from Polk Bayou. Datum of gage is 237.72 feet above mean sea level, datum of 1929.

Drainage area.- 11,060 square miles (revised).

Records available.- July 1937 to September 1941. Gage-height records collected at lower lock gage since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 114,000 second-feet Apr. 22 (gage height, 19.24 feet); minimum, 1,160 second-feet Sept. 24 (gage height, 6.48 feet).
1937-41: Maximum discharge, 260,000 second-feet Feb. 19, 1938 (gage height, 26.7 feet, site then in use, from gage reading at flood crest); minimum observed, 1,100 second-feet Oct. 5-7, 9-18, 1938; minimum gage height, that of Sept. 24, 1941.
Maximum stage known, 30.7 feet Feb. 1, 1916, original site.

Remarks.- Records excellent. Lock and dam 1 is control below about 80,000 second-feet. Slight regulation at low flow by power plant at Forsyth, Mo.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

6.5	1,200	7.8	5,470	11.0	25,700
6.8	1,920	8.6	9,340	14.0	54,800
7.2	3,150	9.8	16,700	16.0	78,800

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,100	1,380	7,060	6,140	15,000	6,620	3,430	10,200	2,760	2,260	2,410	1,890
2	2,950	1,310	6,590	23,100	13,700	7,060	3,080	9,340	2,690	1,890	2,260	1,920
3	2,200	1,240	6,360	41,100	12,800	6,590	3,910	8,810	2,320	1,840	2,140	2,030
4	2,230	1,240	5,340	40,100	13,100	7,540	4,840	7,060	2,320	2,500	1,960	1,870
5	2,030	1,350	4,520	40,100	14,400	7,790	7,900	6,360	2,560	2,120	2,000	1,790
6	1,890	1,330	4,140	33,500	14,100	7,540	5,690	7,790	2,720	2,060	1,840	1,740
7	1,980	1,350	4,020	21,000	15,400	7,300	5,300	10,200	2,980	1,870	1,690	1,950
8	1,820	1,360	3,950	15,700	15,000	7,060	4,640	18,100	2,660	2,060	1,520	1,840
9	1,690	1,470	3,610	13,100	13,100	6,820	4,060	14,100	2,600	1,920	1,740	1,760
10	1,690	1,610	3,150	11,300	11,600	6,590	3,400	11,300	2,850	1,610	1,760	1,790
11	1,440	2,410	2,530	10,200	10,400	5,650	3,760	9,620	2,760	1,590	1,740	1,660
12	1,330	2,410	3,150	9,340	9,620	6,140	3,720	8,550	3,680	1,980	1,640	1,490
13	1,380	2,000	3,500	8,290	9,340	6,820	3,460	7,540	7,300	2,060	1,660	1,350
14	1,400	1,980	4,020	7,060	8,040	6,140	3,260	6,360	7,790	1,920	1,610	1,380
15	1,440	1,760	5,260	5,690	9,890	5,870	3,220	6,140	7,300	1,870	1,540	1,330
16	1,400	1,890	6,590	5,820	9,340	5,780	3,290	5,820	7,060	1,790	1,470	1,310
17	1,540	1,980	10,400	6,360	8,550	5,690	7,220	5,650	5,470	1,820	1,520	1,380
18	1,400	1,870	15,000	6,140	8,810	5,430	65,200	5,340	4,100	1,840	1,440	1,540
19	1,380	1,890	16,000	7,540	8,550	4,640	55,900	5,340	3,830	3,430	2,620	1,420
20	1,290	1,870	16,700	9,340	8,040	5,090	54,800	4,330	3,830	2,950	1,980	1,310
21	1,290	2,140	14,400	7,790	7,790	5,180	c95,800	4,250	3,430	2,090	1,920	1,420
22	1,400	2,200	11,600	8,810	7,300	4,890	c112,000	3,980	2,850	2,000	1,610	1,330
23	1,310	2,820	9,890	8,810	6,820	4,600	c100,000	3,670	2,290	1,890	1,640	1,220
24	1,310	3,290	8,810	20,000	6,590	4,800	50,400	3,540	2,290	1,740	2,030	1,290
25	1,380	2,720	8,290	29,000	6,140	4,250	27,400	3,610	2,200	2,030	1,980	4,830
26	1,330	4,370	6,590	24,900	6,620	3,910	21,000	3,290	2,170	2,120	1,920	24,800
27	1,310	4,760	6,140	21,000	7,300	4,410	17,400	2,890	2,290	2,120	1,760	20,800
28	1,270	6,590	5,910	25,700	6,820	4,170	14,700	2,470	2,410	2,090	1,590	9,340
29	1,270	7,790	6,140	23,300	-	4,100	12,800	2,380	2,410	1,980	1,520	6,620
30	1,310	7,300	5,910	19,500	-	3,980	11,300	2,720	2,410	1,950	1,610	6,820
31	1,440	-	5,870	17,100	-	3,950	-	2,790	-	2,720	1,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	51,200	4,100	1,270	1,652	0.149	0.17	101,600
November	77,670	7,790	1,240	2,589	.234	.26	154,100
December	221,440	16,700	2,530	7,143	.646	.74	439,200
Calendar year 1940	2,079,830	86,600	1,240	5,683	†.516	†6.99	4,126,000
January	526,830	41,100	5,690	16,990	1.54	1.78	1,045,000
February	284,360	15,400	6,140	10,160	.919	.96	564,000
March	176,600	7,790	3,910	5,697	.515	.59	350,300
April	712,880	112,000	3,080	23,760	2.15	2.40	1,414,000
May	203,440	18,100	2,380	6,563	.593	.68	403,500
June	104,330	7,790	2,170	3,478	.314	.35	206,900
July	64,110	3,430	1,590	2,068	.187	.22	127,200
August	56,260	2,820	1,440	1,815	.164	.19	111,600
September	111,420	24,800	1,220	3,714	.336	.37	221,000
Water year 1940-41	2,590,540	112,000	1,220	7,097	.642	8.71	5,138,000

† Computed on basis of revised figure of drainage area.
c Computed from loop curve defined by one discharge measurement and curves for comparable rises.

White River at Newport, Ark.

Location.- Staff gage, lat. 35°36'20", long. 91°17'20", NE¼ sec. 10, T. 11 N., R. 3 W., at highway bridge at Newport, 7½ miles downstream from Black River. Datum of gage is 194.09 feet above mean sea level, datum of 1929.

Drainage area.- 19,812 square miles (revised).

Records available.- September 1927 to September 1931 at site 2¾ miles downstream (published as White River near Newport, Ark.), October 1937 to September 1941. Gage-height records collected at same site since 1885 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 106,000 second-feet Apr. 23, from hydrograph based on daily discharge measurements; maximum gage height, 27.25 feet Apr. 24; minimum discharge observed, 3,480 second-feet Sept. 22-25 (gage height, -1.0 foot).
1927-31, 1937-41: Maximum discharge, 259,000 second-feet Feb. 20, 1938 (gage height, 33.4 feet; minimum observed, that of Sept. 22-25, 1941.
Maximum stage known, 35.6 feet Apr. 16, 1927, from records of U. S. Weather Bureau.

Remarks.- Records good. Gage read once daily.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army. Gage readings furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,140	3,740	12,100	11,600	30,500	11,900	7,650	22,300	6,600	5,400	5,400	4,270
2	6,150	3,740	11,700	15,200	28,000	11,900	7,200	20,800	6,750	5,250	5,100	4,140
3	5,700	3,740	11,200	28,900	26,000	11,900	7,500	19,300	6,750	4,950	4,800	4,140
4	5,100	3,610	10,700	38,600	24,400	11,600	11,700	18,400	6,300	4,950	4,800	4,140
5	4,950	3,610	9,670	42,400	24,000	12,100	16,000	15,900	6,300	6,150	4,400	4,540
6	4,670	3,610	8,650	44,200	23,800	12,100	18,000	14,800	6,450	5,850	4,270	4,540
7	4,540	3,610	8,140	40,500	23,600	11,900	17,100	15,600	6,450	5,550	4,140	4,800
8	4,540	3,610	7,970	33,900	24,000	11,900	16,500	17,600	6,600	5,250	4,010	4,540
9	4,400	3,610	7,970	28,500	24,200	11,600	15,400	22,200	6,450	5,100	3,880	4,400
10	4,270	3,610	7,650	25,000	21,800	11,200	14,300	20,700	6,600	4,950	3,880	4,270
11	4,270	4,540	7,080	22,000	20,100	11,000	12,800	18,800	6,450	4,670	3,880	4,800
12	4,270	4,950	6,600	19,600	18,600	10,000	12,100	17,300	6,300	4,670	3,880	4,400
13	4,140	6,300	6,150	18,200	17,500	10,000	11,600	15,600	6,900	4,800	3,610	4,270
14	4,010	5,850	6,000	16,700	16,700	10,900	11,200	14,600	9,840	5,400	3,610	4,010
15	3,880	5,400	6,000	15,000	15,600	10,400	11,000	13,200	10,500	5,250	3,610	3,740
16	3,880	4,950	9,670	13,700	16,300	10,200	10,700	12,300	10,500	4,950	3,610	3,740
17	3,740	4,670	11,600	13,400	15,600	10,200	10,400	11,700	10,400	4,950	3,610	3,610
18	3,740	4,540	15,200	13,500	14,800	9,840	34,600	11,200	9,330	4,800	3,610	3,610
19	3,740	4,400	15,800	13,400	14,800	9,500	56,800	11,000	7,800	4,800	3,610	3,610
20	3,740	4,540	20,300	14,100	14,400	9,160	56,500	10,900	7,350	6,300	3,480	3,610
21	3,740	4,540	21,400	15,400	13,900	9,160	62,400	9,840	7,200	6,600	4,540	3,610
22	3,740	4,540	19,900	14,400	13,400	9,160	79,800	9,670	6,750	6,000	4,140	3,480
23	3,740	6,600	17,800	14,800	12,800	8,990	101,000	9,330	6,300	5,250	4,010	3,480
24	3,740	5,550	16,300	18,400	12,500	8,990	91,500	8,820	5,850	4,800	4,010	3,480
25	3,740	7,500	14,800	29,200	11,900	8,820	74,400	8,140	5,550	4,670	4,010	3,480
26	3,740	7,500	14,100	36,800	11,600	8,310	59,900	8,140	5,400	4,670	4,010	11,200
27	3,740	10,200	12,600	36,500	11,900	7,800	47,500	7,800	5,250	4,670	4,010	20,300
28	3,740	11,400	12,500	35,400	12,100	7,970	35,600	7,500	5,250	4,670	4,140	16,700
29	3,740	12,500	12,300	36,800	-	7,800	27,100	6,900	5,400	4,800	4,540	13,500
30	3,740	12,600	12,300	35,400	-	7,800	24,000	6,600	5,400	4,800	4,400	10,900
31	3,740	-	11,900	33,100	-	7,650	-	6,600	-	4,800	4,270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	129,010	6,150	3,740	4,162	0.210	0.24	255,900
November	169,560	12,600	3,610	5,652	.285	.32	336,300
December	369,020	21,400	6,000	11,900	.601	.69	731,900
Calendar year 1940	4,059,830	75,200	3,610	11,090	.560	7.63	8,052,000
January	774,600	44,200	11,600	24,990	1.26	1.45	1,536,000
February	514,800	30,500	11,600	18,390	.928	.97	1,021,000
March	311,750	12,100	7,650	10,060	.508	.59	618,300
April	962,250	101,000	7,200	32,080	1.62	1.81	1,909,000
May	413,740	22,300	6,600	13,350	.674	.78	820,600
June	208,970	10,500	5,250	6,966	.352	.39	414,500
July	159,720	6,600	4,670	5,152	.260	.30	316,800
August	127,270	5,400	3,480	4,106	.207	.24	252,400
September	173,310	20,300	3,480	5,777	.292	.33	343,800
Water year 1940-41	4,314,000	101,000	3,480	11,820	.597	8.11	8,556,000

Note.- Discharge for period Apr. 18 to May 3 from hydrograph based on results of 15 discharge measurements.

White River at De Valls Bluff, Ark.

Location.- Water-stage recorder, lat. 34°47', long. 91°27', in sec. 16, T. 2 N., R. 4 W., 1 mile northeast of De Valls Bluff and 23 miles upstream from Cache River. Datum of gage is 152.93 feet above mean sea level, datum of 1929.

Drainage area.- 23,430 square miles (revised).

Records available.- December 1927 to September 1941.

Average discharge.- 13 years (1928-41), 22,830 second-feet.

Extremes.- Maximum discharge during year, 56,900 second-feet May 1 (gage height, 22.22 feet); minimum, 4,060 second-feet Nov. 8, 9; minimum gage height, 2.21 feet Sept. 27. 1927-41: Maximum discharge, 151,000 second-feet Jan. 23, 1937 (gage height, 29.20 feet); minimum, 3,200 second-feet Aug. 30 to Sept. 4, 1936 (gage height, 1.4 feet). Maximum stage known, 34.6 feet Apr. 23, 1927.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,800	4,240	14,900	16,000	38,200	19,800	9,810	56,900	9,160	6,710	6,000	6,100
2	4,800	4,240	15,100	15,700	38,800	19,800	9,680	56,900	9,030	6,710	6,000	6,100
3	4,900	4,150	14,800	16,000	38,200	19,400	10,300	54,700	9,030	6,710	6,000	6,100
4	5,300	4,240	14,300	20,200	37,600	19,100	11,900	50,700	9,030	f6,710	6,000	6,000
5	5,700	4,240	13,700	25,200	37,000	18,600	14,000	47,100	9,030	f6,600	6,000	5,900
6	5,800	4,150	13,000	28,700	35,300	18,100	16,900	42,900	9,160	f6,500	6,000	6,000
7	5,600	4,150	12,200	30,800	34,300	17,900	20,400	38,200	9,030	f6,400	5,800	6,200
8	5,500	4,060	11,600	32,000	32,800	17,600	22,300	35,300	8,900	f6,500	5,600	6,500
9	5,300	4,150	11,000	32,800	31,600	17,000	22,800	33,800	8,660	f6,600	5,400	6,600
10	5,200	4,240	10,600	33,300	30,800	16,700	22,600	33,300	8,660	f6,600	5,200	6,400
11	5,100	4,330	10,200	32,800	29,400	16,400	21,600	52,000	8,900	f6,710	5,000	6,100
12	5,000	4,600	9,940	31,600	27,700	15,900	20,400	30,400	9,420	f6,600	4,900	5,900
13	4,900	5,100	9,660	29,700	26,000	15,200	18,800	28,400	9,680	f6,600	4,800	5,800
14	4,800	5,400	9,420	27,400	24,100	14,600	17,600	25,500	9,940	f6,600	4,800	5,900
15	4,800	5,900	9,810	25,000	23,000	14,200	16,500	23,200	10,200	f6,300	4,800	5,800
16	4,600	6,300	11,000	23,000	21,900	14,000	15,700	20,900	10,800	f6,400	4,800	5,600
17	4,600	6,300	12,200	20,900	21,100	13,800	14,900	19,300	11,300	f6,500	4,700	5,300
18	4,510	6,200	13,400	19,300	20,600	13,600	14,300	17,900	11,800	f6,710	4,800	5,200
19	4,510	5,900	14,900	18,100	19,800	13,200	14,800	16,900	11,800	f6,600	4,800	5,000
20	4,510	5,700	17,400	17,600	19,300	13,000	20,000	15,900	11,300	f6,500	4,700	4,900
21	4,420	5,600	19,600	17,200	18,600	12,600	26,000	14,900	10,600	f6,500	4,600	4,800
22	4,420	5,500	21,100	17,200	18,200	12,200	30,100	14,200	9,940	6,600	4,800	4,800
23	4,420	5,700	21,700	17,200	18,400	11,900	33,800	13,400	9,290	7,040	5,200	4,700
24	4,330	5,800	21,500	18,400	18,900	11,900	37,000	13,000	8,790	7,150	5,500	4,700
25	4,330	6,100	20,700	20,200	19,300	11,600	39,400	12,400	8,420	7,040	5,600	4,700
26	4,330	6,930	19,400	24,800	19,600	11,300	42,200	11,900	7,940	6,600	5,400	4,600
27	4,330	9,030	18,600	30,400	19,600	11,000	45,300	11,500	7,480	6,400	5,400	4,700
28	4,330	10,900	17,600	33,800	19,600	10,600	48,000	11,000	7,260	6,200	5,500	7,760
29	4,330	13,000	16,900	35,800	-	10,300	51,700	10,600	6,930	6,100	5,600	13,700
30	4,330	14,400	16,200	37,000	-	10,100	54,700	10,200	6,820	6,100	5,600	16,200
31	4,240	-	16,200	38,200	-	9,940	-	9,680	-	6,000	5,900	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	148,040	5,800	4,240	4,776	293,600
November	180,650	14,400	4,060	6,018	358,100
December	458,520	21,700	9,420	14,790	909,500
Calendar year 1940	4,837,530	60,100	4,060	13,220	9,596,000
January	786,300	38,200	15,700	25,360	1,560,000
February	739,700	30,800	18,200	26,420	1,467,000
March	451,340	19,800	9,940	14,560	895,200
April	743,390	54,700	9,680	24,780	1,474,000
May	812,980	56,900	9,680	26,230	1,613,000
June	278,290	11,800	6,820	9,276	552,000
July	203,190	7,150	6,000	6,555	403,000
August	165,200	6,000	4,600	5,329	327,700
September	188,060	16,260	4,600	6,269	373,000
Water year 1940-41	5,155,560	56,900	4,060	14,120	10,226,100

f Computed from gage-height graph based on U. S. Weather Bureau records at Des Arc and Clarendon, and recorded range of stage.

West Fork of White River near Fayetteville, Ark.

Location.- Water-stage recorder, lat. 36°03', long. 94°07', in NE¼ sec. 24, T. 16 N., R. 30 W., 3 miles southeast of Fayetteville and 3½ miles upstream from mouth. Datum of gage is 1,158.06 feet above mean sea level, datum of 1929.
Drainage area.- 118 square miles.
Records available.- July 1937 to September 1941.
Extremes.- Maximum discharge during year, 26,500 second-feet Apr. 19 (gage height, 19.10 feet), average of slope-area and contracted-opening computations; minimum, 0.3 second-foot Sept. 9.

1937-41: Maximum discharge, that of Apr. 19, 1941; no flow July 23-25, July 27 to Aug. 3, Aug. 6-14, 1937.

Revisions.- The maximum discharge for the water year 1938 has been revised to 10,200 second-feet Feb. 18, 1938 (gage height, 16.18 feet), superseding figure published in Water-Supply Paper 857.
Remarks.- Records good except those above 7,000 second-feet, which are fair, and those below 20 second-feet, which are poor. City of Fayetteville diverts water for municipal use and returns effluent from sewage disposal plant above station.
Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1938, superseding those published in Water-Supply Paper 857, are given herein:

Feb. 18.....4,400

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches	Run-off in acre-feet
February.....	20,246	4,400	52	723	6.13	6.38	40,180
Water year 1937-38..	63,834.9	4,400	.5	175	1.48	20.13	126,600
Calendar year 1938..	59,126.8	4,400	.5	162	--	--	117,300

Peak discharge.- Feb. 15, 1938 (12:15 p.m.) 5,780 sec.-ft.; Feb. 18, 1938 (1:45 a.m.) 10,200 sec.-ft.; May 23, 1938 (8:30 a.m.) 7,530 sec.-ft.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	12	45	5,000	178	214	31	77	46	5.7	1.0	1.9
2	1.3	10	37	950	710	198	29	68	56	6.7	2.0	3.1
3	.9	10	33	475	676	174	29	63	19	3.4	2.5	1.3
4	.6	10	29	308	391	153	27	62	10	2.4	2.5	.8
5	.5	9.6	26	217	291	140	26	54	8.5	1.6	2.7	6.1
6	.6	6.5	23	163	234	151	25	56	6.9	1.3	3.4	2.8
7	1.0	5.2	20	133	180	163	28	53	6.0	1.3	3.7	1.0
8	.9	4.8	18	113	147	151	28	48	5.7	1.2	5.3	.4
9	.8	9.7	17	97	124	134	26	43	5.3	1.1	4.9	2.4
10	1.0	13	16	86	111	124	25	36	543	1.5	4.2	4.2
11	1.5	18	20	78	100	114	22	30	159	1.8	3.7	1.2
12	2.3	12	106	70	124	103	21	28	76	2.1	3.7	.6
13	3.1	9.6	124	64	222	95	20	24	49	2.7	4.2	.4
14	6.8	9.9	255	103	169	87	26	21	35	2.7	4.9	.4
15	7.5	10	668	297	134	82	512	18	26	2.7	5.3	.4
16	2.7	11	615	291	117	80	1,220	16	19	2.5	4.4	.5
17	1.6	11	278	415	106	70	568	15	14	2.2	3.2	.6
18	1.0	11	162	268	103	63	1,210	14	12	2.2	2.1	.7
19	.7	9.9	134	207	107	59	8,100	13	10	2.1	.9	.9
20	.5	8.5	107	196	207	56	1,060	11	9.0	2.0	1.2	.8
21	.5	51	88	176	187	54	525	11	7.2	1.8	.9	.8
22	1.8	25	74	180	176	50	335	9.6	2.4	1.6	.6	.7
23	1.6	20	63	862	165	48	270	8.7	1.6	1.6	2.7	.5
24	1.4	18	56	1,020	163	46	220	8.0	1.8	11	1.6	2.0
25	1.5	51	52	505	194	42	169	7.2	2.2	13	.9	9.0
26	2.3	420	48	397	207	41	134	6.9	3.7	6.2	.9	2.2
27	3.5	153	44	278	241	39	114	6.0	4.4	2.0	2.4	1.0
28	28	94	40	217	231	37	98	5.5	5.3	1.0	3.4	.7
29	28	69	35	180	-	34	84	5.5	5.7	.7	1.2	.7
30	6.8	54	32	157	-	33	82	5.1	5.3	.6	.8	1.0
31	6.9	-	197	138	-	32	-	5.1	-	.6	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	119.7	28	0.5	3.86	237
November.....	1,156.7	420	4.8	38.6	2,290
December.....	3,482	668	16	112	6,910
Calendar year 1940.....	20,397.4	1,870	.5	55.7	40,450
January.....	13,641	5,000	64	440	27,060
February.....	5,997	710	100	214	11,890
March.....	2,867	214	32	92.5	5,690
April.....	15,064	8,100	20	502	29,880
May.....	828.6	77	5.1	26.7	1,640
June.....	1,155.0	543	1.6	38.5	2,290
July.....	89.3	13	.6	2.88	177
August.....	81.8	5.3	.6	2.64	162
September.....	51.1	9.0	.4	1.70	101
Water year 1940-41.....	44,533.2	8,100	.4	122	88,330

Peak discharge.- Jan. 1 (11 a.m.) 8,900 sec.-ft., Apr. 19 (4:15 a.m.) 26,500 sec.-ft.
Note.- Intake to gage well partially clogged Feb. 18 to Mar. 9; discharge computed from graph based on partial record and occasional wire-weight gage readings.

Kings River near Berryville, Ark.

Location.- Water-stage recorder, lat. 36°24', long. 93°38', in sec. 15, T. 20 N., R. 25 W., a quarter of a mile downstream from Osage Creek and 4 miles northwest of Berryville. Datum of gage is 990.81 feet above mean sea level, datum of 1929.

Drainage area.- 517 square miles (revised).

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 25,600 second-feet Apr. 19 (gage-height, 20.18 feet); minimum, 8.1 second-feet July 30; minimum gage height, 2.09 feet Oct. 27, 28. 1939-41: Maximum discharge, that of Apr. 19, 1941; minimum, 2.9 second-feet Sept. 28, 1939 (gage height, 1.62 feet).

Remarks.- Records good except those for period of no gage-height record, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	66	280	6,900	650	650	160	418	74	48	11	27
2	75	56	230	5,310	835	650	158	400	136	46	14	22
3	65	52	199	2,000	1,300	625	155	374	357	44	14	22
4	58	47	173	1,300	1,300	570	150	340	226	41	30	20
5	51	44	156	995	1,070	508	146	299	159	42	28	42
6	48	39	141	772	920	476	144	319	126	40	26	41
7	51	37	130	638	780	472	139	404	107	38	42	38
8	66	35	118	549	675	462	139	449	97	36	44	34
9	53	37	109	472	580	449	135	382	69	32	35	34
10	46	40	101	421	512	444	130	319	1,070	28	26	34
11	42	54	100	375	458	444	126	267	1,160	25	22	32
12	37	95	124	342	416	428	120	233	630	22	16	29
13	32	141	207	310	494	400	116	208	410	21	a230	27
14	32	141	468	300	700	381	116	191	294	20	a200	25
15	38	122	908	353	620	366	266	175	224	19	a115	23
16	44	104	1,660	390	552	358	2,330	159	178	19	a80	23
17	45	93	1,330	480	508	340	2,320	145	150	16	a55	112
18	39	85	895	592	462	308	4,470	134	128	14	f41	109
19	37	77	705	549	436	290	16,400	124	115	13	f32	47
20	35	71	570	508	436	274	4,710	116	100	13	f27	34
21	32	78	484	480	436	267	2,410	107	92	21	25	27
22	30	88	417	460	416	251	1,600	101	84	22	24	23
23	28	101	367	480	404	242	1,200	95	77	21	24	22
24	28	106	328	2,590	412	226	950	86	75	19	26	84
25	26	110	297	2,410	428	215	808	82	70	17	26	655
26	27	464	280	1,800	462	206	650	77	66	14	25	605
27	25	795	261	1,410	526	198	570	76	63	15	23	318
28	28	615	245	1,100	615	188	498	73	69	14	22	199
29	33	444	233	920	-	182	449	76	54	11	22	142
30	57	349	224	808	-	172	404	79	62	9.2	38	115
31	77	-	405	700	-	167	-	81	-	9.7	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,377	92	25	44.4	0.086	0.10	2,730
November	4,588	795	35	153	.296	.33	9,100
December	12,145	1,660	100	392	.758	.87	24,090
Calendar year 1940	101,906	6,760	17	278	.538	7.33	202,100
January	36,714	6,900	300	1,184	2.29	2.64	72,820
February	17,403	1,300	404	622	1.20	1.25	34,520
March	11,209	650	167	362	.700	.81	22,230
April	41,969	16,400	116	1,399	2.71	3.02	83,240
May	6,389	449	73	206	.398	.46	12,670
June	6,522	1,160	52	217	.420	.47	12,940
July	749.9	48	9.2	24.2	.047	.05	1,490
August	1,377	230	11	44.4	.086	.10	2,730
September	2,865	605	20	95.5	.185	.21	5,680
Water year 1940-41	143,307.9	16,400	9.2	393	.760	10.51	284,200

Peak discharge.- Jan. 1 (9 p.m.) 10,100 sec.-ft; Apr. 18 (4 a.m.) 25,600 sec.-ft.
a No gage-height record; discharge computed on basis of rainfall records and typical recession curve.
f Computed on basis of partly estimated gage-height record.

James River at Galena, Mo.

Location.- Water-stage recorder, lat. 36°48'20", long. 93°27'50", in NW¼ sec. 7, T. 24 N., R. 23 W., at bridge on State Highways 13 and 44, in Galena, half a mile upstream from Railey Creek. Datum of gage is 923.37 feet above mean sea level, datum of 1929.

Drainage area.- 987 square miles (revised).

Records available.- October 1921 to September 1941.

Average discharge.- 19 years, 944 second-feet.

Extremes.- Maximum discharge during year, 60,200 second-feet Apr. 20 (gage height, 26.87 feet) from rating curve extended above 42,000 second-feet; minimum, 72 second-feet July 22; minimum gage height, 0.92 foot Aug. 26.
1921-41: Maximum discharge, 60,400 second-feet Mar. 11, 1935 (gage height, 27.05 feet) from rating curve extended above 46,000 second-feet; minimum, 22 second-feet Aug. 26, 27, 29, 30, Sept. 4, 1936; minimum gage height, 0.45 foot Aug. 30, 1936.

Remarks.- Records good prior to May 25, fair thereafter.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	119	115	504	745	985	300	277	1,180	227	128	232	183
2	121	115	435	1,800	920	297	274	1,120	236	122	222	185
3	115	104	394	2,200	888	289	259	1,020	243	175	240	165
4	109	109	358	1,720	920	289	256	992	195	381	222	150
5	108	111	324	1,370	920	277	252	961	198	206	195	161
6	109	104	297	1,120	920	285	245	930	190	153	172	170
7	131	102	270	952	856	285	277	961	183	150	163	150
8	145	99	256	824	793	293	281	1,020	180	118	170	142
9	131	102	238	745	731	277	270	930	180	309	166	148
10	125	109	232	654	671	289	252	809	395	253	160	158
11	117	113	228	585	625	308	245	740	524	164	158	150
12	113	109	238	541	591	308	235	678	479	139	151	136
13	111	108	252	509	563	520	222	615	399	123	151	132
14	111	106	281	479	525	304	215	576	331	120	151	131
15	102	102	426	464	499	520	270	529	296	108	139	125
16	121	104	1,260	454	469	345	6,250	484	250	105	135	119
17	117	102	2,160	484	445	358	10,600	509	227	96	129	174
18	109	106	1,640	793	421	380	6,640	629	218	89	123	217
19	104	97	1,260	1,120	398	398	25,700	834	185	89	120	208
20	108	102	1,060	952	384	398	35,000	470	175	83	121	172
21	102	111	856	856	358	402	7,500	418	175	84	118	163
22	101	143	750	762	349	394	4,790	375	164	76	116	151
23	101	376	677	689	337	380	3,640	343	159	76	116	138
24	101	445	613	665	337	362	2,910	523	227	81	118	148
25	97	416	563	683	341	349	2,430	300	215	1,280	116	1,040
26	97	525	520	888	333	328	2,080	274	171	1,830	115	4,190
27	97	743	494	1,520	316	528	1,790	277	153	900	1,080	1,190
28	104	756	454	1,600	308	308	1,600	260	145	589	710	790
29	117	671	426	1,370	-	297	1,420	243	149	411	407	584
30	125	585	398	1,230	-	289	1,320	230	139	326	262	475
31	121	-	398	1,090	-	281	-	218	-	260	215	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,489	145	97	113	0.114	0.13	6,920
November	6,888	756	97	230	.233	.26	13,660
December	18,262	2,160	228	589	.597	.69	36,220
Calendar year 1940	167,168	10,300	80	457	†.463	†6.28	331,600
January	29,860	2,200	454	963	.976	1.13	59,230
February	16,203	985	308	579	.587	.61	32,140
March	10,038	402	277	324	.328	.38	19,910
April	117,500	35,000	215	3,917	3.97	4.43	233,100
May	18,949	1,180	218	611	.619	.71	37,580
June	7,906	524	139	234	.237	.26	13,900
July	9,004	1,830	76	290	.294	.34	17,860
August	6,643	1,080	115	214	.217	.25	13,180
September	12,045	4,190	119	402	.407	.45	23,890
Water year 1940-41	255,887	35,000	76	701	.710	9.64	507,600

Peak discharge.- Dec. 17 (7 a.m.) 2,250 sec.-ft.; Apr. 16 (12 m.) 7,350 sec.-ft.; Apr. 17 (5:30 a.m.) 14,500 sec.-ft.; Apr. 20 (2:30 a.m.) 60,200 sec.-ft.
† Computed on basis of revised drainage area.

Buffalo River near St. Joe, Ark.

Location.- Water-stage recorder, lat. 35°59', long. 92°45', in SW¼ sec. 36, T. 16 N., R. 17 W., at bridge on U. S. Highway 65, 1¼ miles downstream from Mill Creek, 4 miles upstream from Bear Creek, and 4½ miles southwest of St. Joe. Datum of gage is 560.35 feet above mean sea level, datum of 1929.

Drainage area.- 825 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 12,800 second-feet Jan. 1 (gage height, 13.70 feet); minimum, 34 second-feet Sept.24.
1939-41: Maximum discharge, 13,000 second-feet Apr. 11, 1940 (gage height, 13.79 feet); minimum, 23 second-feet Oct. 3-5, 1939.

Remarks.- Records good.

Cooperation.- Result of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 13, Sept. 27-30

4.0	33	4.7	300	7.0	2,190
4.1	63	5.0	462	8.0	3,410
4.3	130	5.5	800	10.0	6,390
4.5	208	6.0	1,200	12.0	9,760

Mar. 14 to Sept. 26

4.0	38	4.7	285
4.1	50	4.9	400
4.3	122	5.3	660
4.5	188		

Note.- Same as preceding table above 5.3 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	63	523	5,790	1,180	1,240	280	559	140	78	56	69
2	114	63	428	7,870	1,420	1,200	275	533	163	74	67	67
3	107	59	356	3,540	3,150	1,200	319	513	168	74	56	65
4	97	63	310	2,360	2,590	1,140	330	456	176	69	65	62
5	94	70	276	1,770	2,020	1,010	330	431	163	67	65	67
6	84	66	252	1,380	1,720	958	324	2,750	151	65	58	58
7	88	70	230	1,120	1,470	982	313	3,960	140	60	56	56
8	88	70	217	966	1,240	934	307	2,300	133	58	51	58
9	88	84	196	835	1,070	878	296	1,620	126	56	49	67
10	84	81	183	730	950	856	285	1,180	900	56	47	58
11	84	91	179	653	842	835	280	942	1,420	56	42	58
12	84	104	569	604	772	744	275	786	842	58	40	60
13	84	200	1,770	550	1,380	695	265	660	526	65	84	62
14	81	239	1,340	511	1,570	646	254	572	376	67	51	60
15	77	204	1,420	517	1,290	619	280	500	291	74	42	58
16	74	179	2,650	730	1,110	599	1,130	457	234	76	42	58
17	70	163	2,300	835	1,020	572	2,300	382	202	76	47	58
18	66	148	1,570	870	926	520	2,530	335	175	74	47	58
19	59	137	1,200	758	894	488	2,960	319	155	74	47	53
20	56	134	990	681	926	456	2,650	285	136	67	45	51
21	56	127	814	646	886	443	2,020	254	130	67	40	47
22	56	123	681	618	849	425	1,620	225	130	67	42	42
23	52	145	583	998	856	400	1,380	211	109	65	40	38
24	52	262	511	9,230	878	388	1,290	188	106	62	40	595
25	49	538	456	4,980	942	370	1,090	176	98	62	40	3,400
26	49	1,380	416	3,540	1,010	341	954	172	95	65	42	1,220
27	49	2,300	416	2,710	1,100	330	807	158	89	65	47	577
28	56	1,290	632	2,140	1,190	324	716	155	83	62	62	367
29	56	858	681	1,770	-	313	646	155	78	60	106	276
30	52	660	590	1,520	-	291	585	151	78	56	89	217
31	59	-	550	1,340	-	285	-	147	-	56	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,292	127	49	73.9	0.090	0.10	4,550
November	9,967	2,300	59	332	.402	.45	19,770
December	23,289	2,650	179	751	.910	1.05	46,190
Calendar year 1940	184,298	7,190	40	504	.611	8.30	365,600
January	62,562	9,230	511	2,018	2.45	2.82	124,100
February	35,251	3,150	772	1,259	1.53	1.59	69,920
March	20,462	1,240	285	661	.801	.92	40,630
April	27,071	2,960	254	902	1.09	1.22	53,690
May	21,522	3,960	147	694	.841	.97	42,690
June	7,614	1,420	78	254	.308	.34	15,100
July	2,031	78	56	65.5	.079	.09	4,030
August	1,683	106	40	54.3	.066	.08	3,340
September	7,982	3,400	38	266	.322	.36	15,850
Water year 1940-41	221,746	9,230	38	608	.737	9.99	439,800

Peak discharge.- Jan. 1 (9 p.m.) 12,800 sec.-ft.; Jan. 24 (9 p.m.) 12,100 sec.-ft.; May 6 (8 p.m.) 6,230 sec.-ft.

Buffalo River near Rush, Ark.

Location.- Water-stage recorder, lat. 36°07', long. 92°33', in sec. 15, T. 17 N., R. 15 W., three-quarters of a mile upstream from Rush Creek, 14 miles southeast of Rush, and about 24 miles upstream from mouth. Datum of gage is 451.98 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 1,091 square miles.

Records available.- October 1928 to September 1941.

Average discharge.- 13 years, 1,225 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet Jan. 2 (gage height, 9.97 feet); minimum, 56 second-feet Aug. 13 (gage height, 0.52 foot).
1928-41: Maximum discharge observed, 68,100 second-feet Feb. 18, 1938 (gage height, 25.2 feet, site then in use); minimum observed, 15 second-feet Aug. 30 to Sept. 2, 1936.
Maximum stage known, 45.5 feet from floodmarks, original site, Aug. 19, 1915 (discharge, 164,000 second-feet by slope-area method). Flood of Apr. 14, 1927 reached a stage of 35.9 feet, from floodmarks, original site (discharge, 110,000 second-feet by slope-area method). The preceding data furnished by Corps of Engineers, U. S. Army.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173	66	712	2,830	1,470	1,470	509	688	175	95	75	111
2	155	66	586	10,800	1,470	1,470	321	644	195	90	105	100
3	155	66	494	4,850	2,910	1,420	357	615	195	90	111	95
4	135	66	427	5,030	3,530	1,390	408	571	186	87	79	90
5	111	71	378	9,190	2,620	1,260	440	515	186	83	79	100
6	104	71	339	1,740	2,190	1,160	421	1,230	173	81	81	103
7	107	71	309	1,480	1,890	1,130	395	5,920	169	79	77	87
8	98	71	286	1,170	1,600	1,130	382	3,270	156	85	75	81
9	91	60	259	1,010	1,380	1,060	376	2,190	145	81	69	87
10	88	104	243	862	1,190	1,010	365	1,650	641	75	65	114
11	85	151	238	759	1,050	988	351	1,290	1,790	71	61	95
12	85	140	264	674	926	910	335	1,050	1,380	81	58	65
13	83	138	1,530	615	1,120	838	321	894	822	85	56	83
14	83	278	1,740	564	1,990	767	303	759	564	87	94	83
15	88	281	1,520	543	1,650	720	327	652	427	87	97	81
16	83	238	2,400	644	1,420	690	401	571	339	87	87	81
17	80	214	3,210	646	1,270	667	2,350	508	276	92	59	81
18	78	190	2,090	934	1,150	608	2,400	454	238	97	61	79
19	75	173	1,560	878	1,070	564	3,790	414	204	114	65	77
20	73	159	1,280	767	1,100	536	3,400	376	182	97	63	73
21	73	159	1,050	697	1,130	508	2,790	333	189	87	59	69
22	71	151	894	667	1,080	487	2,140	303	160	87	61	67
23	66	168	767	774	1,050	467	1,790	281	156	85	67	63
24	63	199	667	9,240	1,050	454	1,600	254	158	81	67	210
25	61	480	600	6,930	1,090	434	1,420	233	127	81	67	4,030
26	61	830	550	4,640	1,180	414	1,220	214	120	79	65	2,460
27	61	2,700	522	3,400	1,280	389	1,050	219	114	81	87	1,110
28	61	1,790	622	2,680	1,380	376	926	199	108	81	92	682
29	66	1,200	870	2,190	-	369	822	190	103	79	114	460
30	66	902	798	1,890	-	363	751	195	97	75	152	339
31	61	-	712	1,650	-	359	-	182	-	77	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,750	173	61	88.1	0.081	0.09	5,410
November	11,265	2,700	66	376	.345	.38	22,340
December	27,915	5,210	258	900	.825	.95	55,370
Calendar year 1940	224,506	10,800	59	613	.562	7.64	445,300
January	71,884	10,800	543	2,319	2.13	2.46	142,600
February	42,256	5,530	926	1,506	1.38	1.44	83,770
March	24,572	1,470	359	786	.720	.83	48,340
April	32,257	3,790	303	1,075	.985	1.10	63,980
May	26,858	5,920	182	866	.794	.92	53,270
June	9,735	1,790	97	324	.297	.33	19,310
July	2,657	114	71	85.1	.078	.09	5,230
August	2,477	152	56	79.9	.073	.08	4,910
September	11,276	4,030	63	376	.345	.38	22,370
Water year 1940-41	285,640	10,800	56	728	.667	9.05	526,900

Note.- Discharge for Mar. 1-11, Mar. 16 to Apr. 2, computed from staff-gage readings.

North Fork River at Tecumseh, Mo.

Location.- Water-stage recorder, lat. 36°36'16", long. 92°17'19", in NW¼NE¼ sec. 16, T. 22 N., R. 12 W., at bridge on State Highway 80, at Tecumseh, half a mile downstream from Byrant Creek. Datum of gage is 547.75 feet above mean sea level, datum of 1929.

Drainage area.- 1,157 square miles (revised).

Records available.- October 1921 to September 1941.

Average discharge.- 19 years (1922-41), 1,184 second-feet.

Extremes.- Maximum discharge during year, 18,700 second-feet Apr. 16 (gage height, 10.95 feet); minimum, 362 second-feet Sept. 23 (gage height, 0.70).
1921-41: Maximum discharge observed, 53,000 second-feet June 13, 1928 (gage height, 24.00 feet), from rating curve extended above 40,000 second-feet; minimum, 280 second-feet Sept. 16, 1936; minimum gage height, that of Sept. 23, 1941.
Maximum stage known, 31.6 feet, from floodmarks, in July 1905.

Remarks.- Records excellent.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

0.7	362	1.6	995	3.0	2,570
.8	404	2.0	1,400	4.0	4,080
1.0	515	2.5	1,950	5.1	6,020
1.3	738				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	391	396	485	1,500	959	569	467	837	606	450	424	409
2	391	404	467	2,190	914	569	467	820	714	473	440	400
3	387	404	461	1,720	871	569	2,020	795	682	674	450	387
4	387	396	445	1,370	837	563	2,000	771	613	628	414	391
5	383	409	440	1,180	820	549	977	763	583	569	400	419
6	387	409	435	1,030	820	549	837	1,930	556	515	391	414
7	404	404	435	950	804	556	754	3,130	556	503	424	414
8	404	409	435	880	779	542	706	2,010	549	491	404	409
9	400	409	436	812	754	535	658	1,610	549	473	400	409
10	396	414	430	763	730	556	620	1,350	620	461	396	414
11	396	445	435	722	690	549	583	1,180	643	455	396	404
12	396	440	522	696	674	542	563	1,090	620	455	387	396
13	396	435	583	682	714	529	535	1,000	590	445	383	387
14	400	409	613	666	706	529	522	959	563	h435	400	387
15	419	404	706	658	682	522	556	888	549	h430	387	383
16	419	404	862	674	674	522	4,890	854	542	h419	387	379
17	419	404	932	730	674	522	5,880	1,380	529	h419	383	387
18	414	400	837	795	658	515	2,840	1,210	515	h409	461	396
19	404	404	763	812	650	509	3,180	977	503	h419	424	404
20	400	404	714	795	628	509	3,430	871	503	h409	391	387
21	400	409	658	771	620	509	2,070	812	479	h419	387	375
22	396	419	636	754	613	503	1,610	763	479	h414	383	375
23	396	467	606	828	598	503	1,400	730	473	h445	391	370
24	396	529	576	1,140	606	497	1,250	690	479	h461	391	767
25	400	515	556	1,140	598	491	1,130	666	467	h430	383	3,060
26	396	583	549	1,250	590	491	1,040	658	461	455	391	1,370
27	396	606	535	1,290	583	491	968	643	455	424	655	880
28	400	569	522	1,200	576	473	914	628	455	414	569	730
29	419	529	509	1,110	-	473	871	628	455	414	485	643
30	404	503	497	1,060	-	473	854	613	450	419	440	590
31	400	-	820	995	-	467	-	598	-	414	424	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	12,396	419	383	400	0.346	0.40	24,590
November	13,332	606	396	444	.384	.43	26,440
December	17,899	932	430	577	.499	.58	35,500
Calendar year 1940	257,282	10,400	374	703	†.608	†8.27	510,300
January	31,165	2,190	658	1,005	.869	1.00	61,810
February	19,822	959	576	708	.612	.64	39,320
March	16,176	569	467	522	.451	.52	32,080
April	44,592	5,880	467	1,486	1.28	1.43	88,450
May	31,854	3,130	598	1,028	.889	1.02	63,180
June	16,238	714	450	541	.468	.52	32,210
July	14,221	674	409	459	.397	.46	28,210
August	13,041	655	383	421	.364	.42	25,870
September	17,136	3,060	370	571	.494	.55	33,990
Water year 1940-41	247,872	5,880	370	679	.587	7.97	491,600

Peak discharge.- Apr. 3 (8:30 p.m.) 9,790 sec.-ft.; Apr. 4 (3:30 a.m.) 4,940 sec.-ft.; Apr. 16 (11 p.m.) 18,700 sec.-ft.; Apr. 19 (11 p.m.) 6,780 sec.-ft.; May 7 (2 a.m.) 4,080 sec.-ft.; Sept. 25 (5:30 a.m.) 5,300 sec.-ft.
† Computed on basis of revised drainage area.
h Computed from once-daily wire-weight gage readings.

North Fork River near Henderson, Ark.

Location.- Water-stage recorder, lat. 36°22', long. 92°14', in SE¼NW¼ sec. 26, T. 20 N., R. 12 W., half a mile downstream from Bennetts Bayou, half a mile east of Henderson, and 19 miles upstream from mouth. Datum of gage is 432.67 feet above mean sea level, datum of 1929.

Drainage area.- 1,612 square miles.

Records available.- July 1909 to December 1910, October 1928 to September 1941.

Average discharge.- 13 years (1928-41), 1,385 second-feet.

Extremes.- Maximum discharge during year, 17,200 second-feet Apr. 17, (gage height, 9.66 feet); minimum, 386 second-feet Sept. 23, 24 (gage height, 1.73 feet).
1928-41: Maximum discharge observed, 50,400 second-feet Mar. 11, 1935 (gage height, 22.2 feet, site and datum then in use); minimum observed, 312 second-feet Aug. 1-3, 15-17, 23, Sept. 1, 1936.
Maximum stage known, 29.5 feet in August 1915, original site and datum.

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Oct. 1 to Dec. 31)

1.7	370	2.3	930	4.0	4,400
1.8	425	2.6	1,400	5.0	6,520
1.9	493	3.0	2,210	7.0	10,900
2.1	685	3.5	3,300		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	422	563	3,740	1,440	740	580	1,020	652	479	445	445
2	414	422	543	3,520	1,400	729	571	975	694	473	473	432
3	406	422	516	2,790	1,370	740	590	930	775	563	510	432
4	414	414	507	2,040	1,300	729	5,620	930	694	729	473	420
5	406	430	507	1,730	1,250	706	1,730	917	652	621	445	452
6	422	422	489	1,440	1,220	706	1,250	1,780	611	563	439	459
7	445	422	489	1,280	1,160	694	1,080	4,290	601	545	459	445
8	445	422	480	1,160	1,110	685	950	2,990	601	528	452	445
9	450	437	480	1,080	1,050	685	890	2,270	590	519	439	452
10	437	463	471	990	1,020	673	811	1,810	683	502	432	452
11	430	507	489	930	975	685	775	1,540	694	486	425	432
12	430	480	696	877	930	685	740	1,380	694	479	420	420
13	422	480	717	851	990	662	694	1,230	642	466	439	414
14	414	462	833	824	1,000	662	685	1,140	601	466	420	408
15	437	445	1,000	811	1,000	652	706	1,080	580	466	439	408
16	437	437	1,240	824	975	662	786	1,020	571	466	420	403
17	430	437	1,220	960	960	662	9,580	1,020	554	452	414	408
18	430	437	1,110	1,040	917	642	3,740	1,730	536	466	414	414
19	430	430	1,000	1,040	864	632	3,080	1,170	528	459	685	420
20	430	430	895	1,040	838	621	5,160	1,020	519	445	452	420
21	414	437	833	990	824	621	2,950	930	510	432	425	403
22	406	445	762	945	811	621	2,320	851	510	456	420	392
23	406	507	739	1,600	786	611	1,940	798	519	459	420	392
24	406	563	696	3,850	785	611	1,690	764	510	479	420	1,250
25	414	592	685	2,380	786	590	1,510	729	502	601	420	5,210
26	406	752	674	2,540	775	580	1,350	706	493	479	420	2,290
27	414	798	663	2,320	786	580	1,230	706	493	473	473	1,180
28	414	728	631	2,060	764	571	1,140	683	486	459	662	890
29	437	663	621	1,830	-	563	1,080	673	486	452	554	740
30	430	612	602	1,670	-	563	1,040	673	479	459	486	683
31	422	-	931	1,550	-	571	-	662	-	459	459	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	13,092	445	406	422	0.262	0.30	25,970
November	14,918	798	414	497	.308	.34	29,590
December	22,082	1,240	471	712	.442	.51	43,800
Calendar year 1940	326,044	20,900	406	891	.553	7.53	646,700
January	50,802	3,850	811	1,639	1.02	1.17	100,800
February	28,087	1,440	764	1,003	.622	.65	55,710
March	20,126	740	563	649	.403	.46	39,920
April	56,286	9,580	571	1,876	1.16	1.30	111,600
May	38,417	4,290	662	1,239	.769	.89	76,200
June	17,460	775	479	582	.361	.40	34,630
July	15,391	729	432	496	.308	.36	30,530
August	14,254	685	414	460	.285	.33	28,270
September	22,011	5,210	392	734	.455	.51	43,660
Water year 1940-41	312,926	9,580	392	857	.532	7.22	620,700

Peak discharge.- Apr. 4 (6 a.m.) 14,100 sec.-ft.; Apr. 17 (7 a.m.) 17,200 sec.-ft.; Apr. 20 (7 a.m.) 7,580 sec.-ft.; Sept. 25 (4 a.m.) 8,480 sec.-ft.

Black River near Annapolis, Mo.

Location.- Water-stage recorder, lat. 37°20'20", long. 90°47'00", in sec. 25, T. 31 N., R. 2 E., half a mile downstream from Mayberry Branch and 7 miles southwest of Annapolis. Datum of gage is 569.72 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). The figure of elevation above mean sea level was published in error as 469.72 feet in Water-Supply Paper 897.

Drainage area.- 484 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 9,330 second-feet Apr. 17 (gage height, 10.14 feet); minimum, 69 second-feet Aug. 17, 18 (gage height, 2.11 feet).
1939-41: Maximum discharge, 32,500 second-feet Apr. 17, 1939 (gage height, 17.4 feet); minimum, that of Aug. 17, 18, 1941.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 16						Apr. 17 to Sept. 30					
2.3	88	3.8	530	6.0	2,560	2.1	68	3.5	424	5.5	1,950
2.5	117	4.2	775	6.5	3,270	2.3	92	3.9	611	6.5	3,240
2.8	180	4.6	1,080			2.5	125	4.2	793	8.5	6,260
3.1	261	5.0	1,430			2.8	191	4.5	1,010		
3.5	397	5.5	1,950			3.1	276	5.0	1,430		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	112	417	1,650	520	171	153	a330	147	104	92	78
2	93	112	367	2,180	481	169	155	a310	156	102	92	78
3	93	111	325	1,430	441	166	224	a300	163	100	91	79
4	93	111	295	1,020	401	162	2,820	a290	165	96	87	79
5	94	119	273	775	378	159	1,900	a310	156	95	84	86
6	97	117	255	602	353	159	1,240	a350	143	94	83	109
7	109	117	235	510	332	159	900	a600	135	91	86	114
8	123	119	221	446	315	157	707	a540	229	89	80	111
9	126	119	208	401	295	157	631	a470	354	88	79	118
10	119	121	200	367	280	162	562	a420	286	92	77	114
11	114	283	192	339	264	166	491	396	290	95	76	102
12	111	417	249	315	252	166	441	376	254	94	76	98
13	109	315	315	295	264	164	397	346	225	92	75	91
14	112	261	360	280	252	164	367	321	201	91	75	89
15	130	224	463	264	241	164	375	303	184	87	75	87
16	126	200	2,400	267	232	169	1,230	290	169	83	71	87
17	125	182	1,730	312	227	169	5,810	303	160	82	70	86
18	119	171	1,120	376	221	166	3,170	276	149	80	79	91
19	115	162	811	375	210	164	1,900	248	139	79	121	96
20	112	157	637	360	205	164	1,840	231	131	77	92	92
21	111	157	530	350	200	164	1,380	217	127	76	86	89
22	107	155	455	328	192	162	1,040	204	141	76	82	87
23	107	192	405	328	188	159	841	189	147	82	79	84
24	107	455	367	530	182	159	698	189	145	86	78	116
25	107	520	339	775	180	157	601	181	137	121	79	1,670
26	107	847	318	937	180	157	516	172	127	129	79	807
27	109	1,340	302	1,050	178	156	462	165	121	141	83	468
28	109	853	286	862	175	155	420	160	116	127	86	350
29	109	602	270	748	-	155	384	154	111	111	82	290
30	109	491	255	643	-	151	350	149	107	101	80	254
31	109	-	325	579	-	155	-	145	-	95	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,405	130	93	110	0.227	0.26	6,750
November	9,122	1,340	111	304	.628	.70	18,090
December	14,925	2,400	192	481	.994	1.15	29,600
Calendar year 1940	140,750	4,950	90	385	.795	10.79	279,200
January	19,696	2,180	264	635	1.31	1.51	39,070
February	7,639	520	175	273	.564	.59	15,150
March	5,004	171	151	161	.333	.38	9,930
April	32,005	5,810	153	1,067	2.20	2.45	63,490
May	8,935	609	145	288	.595	.69	17,720
June	5,115	354	107	170	.381	.39	10,150
July	2,958	141	76	95.4	.197	.23	5,870
August	2,554	121	70	82.4	.170	.20	5,070
September	6,092	1,670	78	203	.419	.47	12,080
Water year 1940-41	117,450	5,810	70	322	.665	9.05	233,000

a No gage-height record; discharge interpolated or computed on basis of records for station at Leeper.

Black River at Leeper, Mo.

Location.- Water-stage recorder, lat. 37°04'30", long. 90°42'35", in SW¼NE¼ sec. 27, T. 28 N., R. 3 E., at Missouri Southern R. R. bridge, at Leeper, 2½ miles downstream from McKenzie Creek. Datum of gage is 424.66 feet above mean sea level, datum of 1929.

Drainage area.- 957 square miles.

Records available.- June 1921 to September 1941.

Average discharge.- 20 years, 911 second-feet.

Extremes.- Maximum discharge during year, 8,000 second-feet Apr. 18 (gage height, 8.00 feet); minimum, 154 second-feet Aug. 18; minimum gage height, 1.15 feet Oct. 1.
1921-41: Maximum discharge, 78,400 second-feet May 14, 1933 (gage height, 20.01 feet); minimum, 133 second-feet Aug. 11, 1934; minimum gage height, 1.14 feet July 31, 1940.
Maximum stage known, about 24.7 feet, from floodmarks, in March 1904 (discharge, 125,000 second-feet, from rating curve extended above 55,000 second-feet).

Remarks.- Records good.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 3 to June 6)

Oct. 1 to May 22						May 23 to Sept. 30					
1.1	192	2.4	690	5.4	3,480	1.1	140	1.7	314	3.0	1,000
1.2	216	3.0	1,040	6.4	4,900	1.2	164	2.0	434	3.7	1,560
1.5	303	3.7	1,570	6.9	5,810	1.5	248	2.4	634		
1.9	455	4.5	2,380								

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	206	226	690	1,860	890	345	297	640	283	218	198	174
2	206	226	605	3,280	830	342	297	610	300	215	204	174
3	209	221	557	2,440	772	338	364	576	304	212	212	180
4	211	224	512	1,800	718	334	1,540	557	297	207	190	174
5	211	234	476	1,440	666	351	2,910	538	287	198	182	201
6	214	237	447	1,180	640	324	1,950	581	277	196	182	201
7	224	237	410	1,010	615	320	1,480	640	261	198	180	221
8	232	234	387	920	681	314	1,220	890	258	198	182	218
9	234	232	375	830	552	310	1,080	830	480	196	172	218
10	239	248	364	745	520	310	980	745	524	193	172	233
11	232	320	356	690	502	314	890	665	490	190	167	227
12	229	455	410	630	481	314	800	615	462	190	164	215
13	h229	485	447	590	481	310	718	562	417	190	164	207
14	h226	430	494	562	468	310	665	543	379	190	164	198
15	h224	383	562	534	451	314	630	512	355	185	162	190
16	h239	356	1,510	534	434	317	745	494	332	182	162	190
17	h239	338	2,440	557	426	314	2,800	534	314	180	159	187
18	h239	310	1,700	566	422	317	5,750	507	300	182	164	182
19	h237	303	1,280	605	410	317	2,850	489	283	182	227	182
20	h232	297	1,080	585	394	317	2,320	434	270	177	224	182
21	232	300	920	657	383	314	2,050	428	261	172	210	182
22	232	300	772	643	383	310	1,660	394	248	174	196	174
23	232	338	690	543	375	306	1,360	371	258	177	210	172
24	232	387	635	718	371	306	1,180	347	261	227	190	180
25	229	590	590	950	364	306	1,040	344	261	242	185	873
26	229	716	652	1,110	360	303	950	340	251	227	182	1,520
27	229	1,250	534	1,280	356	300	860	329	248	233	190	870
28	232	1,140	534	1,250	349	293	772	318	242	242	193	607
29	229	920	512	1,110	-	293	718	304	236	236	187	480
30	226	772	494	1,010	-	290	665	297	224	218	182	421
31	224	-	599	950	-	297	-	290	-	212	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	7,038	239	206	227	0.237	0.27	13,960
November	12,711	1,250	221	424	.443	.49	25,210
December	21,934	2,440	356	708	.740	.85	43,510
Calendar year 1940	223,640	8,360	204	611	.638	8.68	443,500
January	31,379	3,280	534	1,012	1.06	1.22	62,240
February	14,193	890	349	507	.530	.55	28,150
March	9,730	345	290	314	.328	.38	19,300
April	41,541	5,750	297	1,385	1.45	1.62	82,400
May	15,688	890	290	506	.529	.61	31,120
June	9,363	524	224	312	.326	.36	18,570
July	6,239	242	172	201	.210	.24	12,370
August	5,753	227	159	185	.193	.22	11,370
September	9,433	1,520	172	314	.328	.37	18,710
Water year 1940-41	184,982	5,750	159	507	.530	7.18	366,900

Peak discharge.- Jan. 2 (9 a.m.) 3,610 sec.-ft.; Apr. 5 (12:30 a.m.) 3,480 sec.-ft.; Apr. 18 (5 a.m.)8,000 sec.-ft.
h Computed from wire-weight gage readings.

Black River at Poplar Bluff, Mo.

Location.- Wire-weight gage, lat. 36°45'25", long. 90°23'25" in NW¼SE¼ sec. 2, T. 24 N., R. 6 E., at bridge on U. S. Highway 60 at Poplar Bluff, 5 miles downstream from Indian Creek. Datum of gage is 317.40 feet above mean sea level, datum of 1929. Prior to Oct. 1, 1940, at datum 2.00 feet higher.

Drainage area.- 1,245 square miles (revised).

Records available.- October 1936 to September 1937, October 1939 to September 1941. Gage-height records collected at same site since July 1935, and at site 300 feet downstream September 1923 to July 1935, are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 4,880 second-feet Apr. 19 (gage height, 13.6 feet, from graph based on gage readings); minimum, 260 second-feet, Sept. 19-25.
1936-37, 1939-41: Maximum discharge, 27,300 second-feet Jan. 16, 1937 (gage height, 19.66 feet, present datum, from graph based on gage readings); minimum, that of Sept. 19-25, 1941.
Maximum discharge known, 100,000 second-feet (estimated) March 1904; maximum stage known, 21.1 feet (present datum) Mar. 12, 1935 (affected by levees constructed since 1904).

Remarks.- Records good. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	326	900	1,050	1,260	488	404	760	364	341	298	278
2	302	328	810	2,310	1,170	460	404	720	364	341	298	278
3	302	302	720	3,600	1,110	460	516	690	388	341	298	260
4	302	326	660	3,140	1,020	460	750	660	388	364	319	278
5	302	326	631	2,310	960	460	1,560	651	364	319	298	278
6	302	326	575	1,840	900	452	2,700	651	364	319	278	298
7	302	326	544	1,550	870	452	2,210	690	364	319	278	298
8	302	326	516	1,360	810	452	1,770	720	364	319	278	298
9	326	326	488	1,200	780	452	1,520	900	364	319	278	298
10	326	326	488	1,080	760	452	1,360	870	519	319	260	298
11	328	377	460	990	720	432	1,230	810	604	298	260	319
12	326	377	488	930	690	432	1,140	750	575	319	260	319
13	326	460	516	870	690	432	1,020	690	575	298	260	298
14	326	544	544	810	720	432	960	631	519	298	260	298
15	326	516	602	780	660	432	900	602	492	298	260	278
16	326	488	870	720	631	452	840	575	465	298	245	278
17	326	452	1,260	760	602	452	990	575	439	298	245	278
18	326	432	2,170	720	575	432	2,240	575	439	298	245	278
19	326	404	1,770	720	575	432	4,540	575	413	298	278	278
20	326	404	1,450	750	544	432	3,800	544	388	319	278	260
21	326	377	1,250	750	544	452	2,580	616	388	298	298	260
22	326	377	1,080	720	644	452	2,140	488	388	278	298	260
23	326	432	960	720	616	452	1,770	460	364	278	278	260
24	326	432	870	1,290	616	404	1,520	432	364	278	298	260
25	326	460	810	1,320	488	404	1,320	452	388	341	278	260
26	326	660	750	1,390	488	404	1,170	404	364	364	278	519
27	326	780	750	1,580	488	404	1,050	388	364	341	278	1,240
28	326	1,140	810	1,640	488	404	960	388	364	341	278	945
29	326	1,200	750	1,580	-	404	870	388	364	341	278	725
30	326	1,050	690	1,450	-	404	810	364	341	341	278	604
31	326	-	660	1,360	-	404	-	364	-	319	278	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,914	326	302	320	0.257	0.30	19,660
November	14,578	1,200	302	486	.390	.44	28,920
December	25,880	2,170	450	833	.669	.77	51,210
Calendar year 1940	302,021	10,300	302	825	†.663	†9.05	599,000
January	41,180	3,500	720	1,328	1.07	1.23	81,680
February	20,105	1,260	488	718	.577	.60	39,880
March	13,336	488	404	430	.345	.40	26,450
April	45,044	4,540	404	1,501	1.21	1.35	89,340
May	18,235	900	364	588	.472	.54	36,170
June	12,441	504	341	415	.333	.37	24,680
July	9,843	364	278	318	.255	.29	19,520
August	8,686	319	243	277	.222	.26	17,030
September	11,075	1,240	260	369	.296	.33	21,970
Water year 1940-41	230,157	4,540	243	631	.507	6.88	456,500

† Computed on basis of revised drainage area.

Black River near Corning, Ark.

Location.- Wire-weight gage, lat. 36°24'05", long. 90°32'30", near center of sec. 4, T. 20 N., R. 5 E., at highway bridge 2½ miles east of Corning and 13 miles downstream from Cane Creek. Datum of gage is 272.90 feet above mean Gulf level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 1,749 square miles.

Records available.- October 1938 to September 1941. Gage-height records collected at site 7 miles downstream January 1925 to December 1929 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 2,800 second-feet Jan. 7 (gage height, 9.00 feet); minimum, 224 second-feet Sept. 22-27; minimum gage height observed, -0.52 foot Sept. 26.

1938-41: Maximum discharge, 18,000 second-feet Apr. 22, 1939 (gage height, 13.15 feet); minimum, that of Sept. 22-27, 1941.

Maximum stage since July 1918, 14.4 feet Apr. 18, 1927, according to records of Corps of Engineers, U. S. Army.

Remarks.- Records good. Gage read once daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	313	313	1,090	d1,430	2,040	610	477	1,140	488	361	318	d263
2	302	313	1,060	1,370	1,900	610	495	1,060	471	346	318	263
3	302	313	1,020	1,800	d1,800	590	641	994	488	346	304	250
4	302	313	906	2,420	1,670	590	884	928	488	406	290	250
5	292	313	840	2,620	1,550	570	1,420	884	471	505	290	237
6	292	313	797	2,740	1,430	570	1,700	862	454	558	290	237
7	292	325	734	2,800	1,290	570	1,860	862	454	488	290	250
8	292	325	692	2,740	1,210	551	2,040	862	438	422	276	250
9	292	325	650	2,470	1,140	532	2,200	862	422	376	276	250
10	302	338	610	2,120	1,060	551	2,200	906	422	346	276	263
11	302	352	590	1,860	994	532	2,080	972	438	332	263	263
12	302	352	590	1,640	950	532	1,940	994	505	361	250	263
13	313	366	590	1,430	928	532	1,730	950	576	471	250	263
14	313	396	610	1,260	928	513	1,550	906	576	438	250	276
15	302	427	650	1,160	906	532	1,340	862	576	406	250	263
16	302	495	818	1,090	906	513	1,210	818	558	361	237	263
17	302	513	1,140	1,040	884	513	1,110	797	505	332	237	250
18	313	495	1,430	1,040	840	495	1,060	818	488	318	237	237
19	313	495	1,550	1,020	797	495	1,240	797	471	318	250	237
20	313	460	1,730	1,020	776	495	1,580	776	454	304	250	237
21	313	443	1,800	994	755	495	2,000	713	406	290	276	237
22	313	443	1,760	972	734	477	2,380	693	406	304	276	224
23	313	460	1,610	972	692	495	2,620	653	406	290	276	224
24	313	460	1,400	1,140	671	495	2,690	633	391	290	276	224
25	313	460	1,260	1,670	650	495	2,570	614	376	290	276	224
26	313	513	1,110	2,280	630	477	2,280	595	376	290	276	224
27	313	532	1,060	2,620	630	460	2,000	558	376	304	276	224
28	313	650	1,240	2,620	630	460	1,730	540	376	318	276	406
29	313	797	1,260	2,520	-	460	1,490	522	376	318	276	693
30	313	972	1,370	2,330	-	460	1,290	505	361	318	276	776
31	313	-	1,430	2,160	-	477	-	488	-	318	263	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,499	313	292	306	0.175	0.20	18,840
November	13,272	972	313	442	.253	.28	26,330
December	33,397	1,800	590	1,077	.616	.71	66,240
Calendar year 1940	377,409	6,900	292	1,031	.589	8.02	748,570
January	55,348	2,800	972	1,785	1.02	1.18	109,800
February	29,391	2,040	630	1,050	.600	.62	58,300
March	16,147	610	460	521	.298	.34	32,030
April	49,797	2,680	477	1,660	.949	1.06	98,770
May	24,564	1,140	488	792	.453	.52	48,720
June	15,593	576	361	453	.259	.29	26,960
July	11,125	558	290	359	.205	.24	22,070
August	8,425	318	237	272	.156	.18	16,710
September	8,521	776	224	284	.162	.18	16,900
Water year 1940-41	273,079	2,800	224	748	.428	5.80	541,670

d Doubtful gage-height record; discharge computed from graph based on gage readings for adjacent days.

Black River at Pocahontas, Ark.

Location.- Water-stage recorder, lat. 36°15', long. 90°58', in SW¼ sec. 27, R. 1 E., T. 19 N., at Pocahontas, 1¼ miles downstream from Fourche Creek, 6 miles downstream from Current River, and 15 miles upstream from Spring River. Datum of gage is 242.43 feet above mean Gulf level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 4,843 square miles (revised).

Records available.- January 1936 to September 1941.

Extremes.- Maximum discharge during year, 7,270 second-feet Jan. 25 (gage height, 8.92 feet); minimum, 1,330 second-feet Aug. 16, 18, Sept. 18, 22-24; minimum gage height, 0.07 foot Sept. 24.

1936-41: Maximum discharge observed, 31,600 second-feet Jan. 21, 22, 1937 (gage height, 24.0 feet, site then in use); minimum observed, 1,190 second-feet Aug. 28 to Sept. 2, 1936 (gage height, 0.6 foot, site then in use).

Maximum stage known, 25.9 feet Apr. 17, 1927, present site.

Remarks.- Records good.

Rating table, water year 1940-41, except days of rapidly changing stage (gage height, in feet, and discharge, in second feet)

0.1	1,330	1.5	1,990	5.0	4,230
.5	1,490	2.0	2,280	7.0	5,630
1.0	1,740	3.0	2,880	9.0	7,190

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,540	1,490	2,880	k3,960	5,910	2,460	2,040	4,440	1,990	1,590	1,490	1,450
2	1,540	1,490	2,760	k5,630	5,770	2,400	2,040	4,300	2,040	1,540	1,490	1,450
3	1,540	1,490	2,700	k6,400	5,630	2,400	k3,250	4,020	2,100	1,740	1,450	1,410
4	1,490	1,490	2,640	6,710	5,490	2,400	k5,710	3,870	2,160	1,940	1,450	1,790
5	1,490	1,490	2,580	6,790	5,350	2,340	k6,880	3,390	2,100	1,940	1,410	1,640
6	1,490	1,490	2,520	6,250	5,140	2,280	6,870	3,250	2,040	1,890	1,410	1,450
7	1,490	1,540	2,520	5,700	4,930	2,280	6,310	3,320	1,990	1,840	1,370	1,450
8	1,490	1,540	2,400	5,350	4,720	2,280	5,770	3,250	1,940	1,790	1,370	1,410
9	1,540	1,540	2,280	5,070	4,440	2,280	5,350	k3,740	1,890	1,740	1,370	1,490
10	1,540	1,540	2,160	4,860	4,160	2,220	5,070	4,090	1,890	1,640	1,370	1,640
11	1,540	k1,990	2,100	4,790	5,880	2,220	4,860	3,950	1,940	1,590	1,370	1,590
12	1,490	2,100	2,160	4,650	5,670	2,220	4,790	3,670	2,040	1,590	1,370	1,490
13	1,490	1,940	2,340	4,650	5,530	2,220	4,720	3,390	2,160	1,940	1,450	1,450
14	1,490	1,940	2,400	4,580	5,460	2,160	4,580	3,250	2,100	1,940	1,410	1,410
15	1,490	1,840	2,520	4,510	5,320	2,160	4,440	3,120	2,040	1,890	1,370	1,370
16	1,490	1,790	k3,210	4,370	3,250	2,160	4,300	3,000	2,040	1,740	1,330	1,370
17	1,490	1,740	k3,780	4,440	3,120	2,160	4,160	2,940	1,990	1,690	1,330	1,370
18	1,540	1,740	4,090	4,370	3,060	2,100	4,160	3,000	1,940	1,590	1,330	1,330
19	1,490	1,740	4,300	4,230	3,000	2,100	k5,500	3,000	1,890	k2,150	1,370	1,370
20	1,490	1,740	4,230	4,160	2,880	2,100	5,770	3,120	1,840	2,340	1,450	1,370
21	1,490	1,740	4,090	4,020	2,820	2,040	5,630	3,060	1,790	1,790	1,410	1,370
22	1,490	1,740	3,880	3,810	2,760	2,040	5,490	2,880	1,790	1,590	1,410	1,330
23	1,490	k2,020	3,740	k3,860	2,700	2,040	5,490	2,700	1,740	1,540	1,370	1,330
24	1,490	2,400	3,670	k5,970	2,640	2,040	5,280	2,520	1,690	1,490	1,370	1,330
25	1,490	2,100	3,600	k7,160	2,580	2,040	5,140	2,400	1,690	1,540	1,410	1,450
26	1,490	k2,850	3,530	6,950	2,580	1,990	5,000	2,340	1,640	1,540	1,410	1,640
27	1,490	3,460	3,460	6,790	2,520	1,990	4,860	2,280	1,690	1,590	1,540	k2,160
28	1,490	3,120	3,670	6,710	2,520	1,990	4,720	2,220	1,690	1,590	1,540	2,640
29	1,490	3,120	3,670	6,630	-	1,940	4,650	2,160	1,640	1,690	1,540	2,460
30	1,450	3,000	3,530	6,390	-	1,940	4,580	2,100	1,590	1,690	1,490	2,220
31	1,450	-	3,320	6,150	-	1,990	-	2,040	-	1,540	1,450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	46,460	1,540	1,450	1,499	0.310	0.36	92,150
November	59,210	3,460	1,490	1,974	.408	.46	117,400
December	96,730	4,300	2,100	3,120	.644	.74	191,900
Calendar year 1940	1,234,810	15,000	1,450	3,374	.697	9.48	2,449,000
January	165,920	7,160	3,810	5,352	1.11	1.28	329,100
February	105,830	5,910	2,520	3,780	.781	.81	209,900
March	66,980	2,460	1,940	2,161	.446	.51	132,900
April	147,410	6,880	2,040	4,914	1.01	1.13	292,400
May	96,610	4,440	2,040	3,116	.643	.74	191,600
June	57,070	2,160	1,590	1,902	.393	.44	115,200
July	53,680	2,340	1,490	1,732	.358	.41	106,500
August	43,900	1,540	1,330	1,416	.292	.34	87,070
September	47,230	2,640	1,330	1,574	.325	.36	93,680
Water year 1940-41	987,030	7,160	1,330	2,704	.558	7.58	1,938,000

k Computed by using rate of change of stage as a factor.

Black River at Black Rock, Ark.

Location.- Staff gage, lat. 36°06', long. 91°06', in NW¼ sec. 21, T. 17 N., R. 1 W., at St. Louis-San Francisco Ry. bridge at Black Rock, 3¾ miles below Spring River. Datum of gage is 229.56 feet above mean sea level, datum of 1929.

Drainage area.- 7,323 square miles (revised).

Records available.- June 1929 to September 1931, October 1939 to September 1941. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 11,800 second-feet Jan. 25 (gage height, 10.0 feet, from graph based on gage readings); minimum observed, 1,870 second-feet Sept. 19-24 (gage height, 0.8 foot).
1929-31,1939-41: Maximum discharge observed, 41,100 second-feet Jan. 15, 1930 (gage height, 23.6 feet); minimum observed, 1,800 second-feet Sept. 19-24, 1931 (gage height, 0.5 foot).
Maximum stage known, 31.9 feet Aug. 21, 1915, from records of U. S. Weather Bureau.

Remarks.- Records good. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 10)

0.8	1,870	6.0	7,200
1.5	2,550	8.0	9,500
2.5	3,550	10.0	11,800
4.0	5,050		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,250	2,050	4,050	5,050	6,580	3,650	2,850	5,680	2,850	2,350	2,250	2,250
2	2,250	2,050	3,860	7,660	6,120	3,550	2,850	5,470	2,850	2,250	2,150	2,150
3	2,250	2,050	3,660	9,040	7,890	3,550	4,940	5,280	3,050	3,050	2,150	2,150
4	2,250	2,050	3,550	9,380	7,660	3,450	9,500	4,950	3,050	3,650	2,150	3,950
5	2,150	2,150	3,450	9,380	7,450	3,350	10,100	4,650	2,950	2,950	2,150	2,900
6	2,150	2,150	3,350	8,810	7,200	3,350	10,300	4,650	2,850	2,850	2,050	2,450
7	2,150	2,150	3,750	8,000	6,980	3,380	9,500	5,050	2,850	2,750	2,050	2,250
8	2,250	2,150	3,250	7,450	6,540	3,350	8,580	4,850	2,750	2,650	2,050	2,050
9	2,250	2,150	3,050	6,980	6,210	3,350	7,890	4,850	2,750	2,650	1,960	2,050
10	2,250	2,250	3,050	6,540	5,890	3,250	7,090	5,280	2,650	2,450	1,960	2,650
11	2,150	3,050	2,950	6,320	5,580	3,250	6,780	5,260	2,750	2,450	1,960	2,450
12	2,150	3,150	3,150	6,210	5,260	3,250	6,540	4,950	2,850	2,250	1,960	2,250
13	2,150	2,750	3,550	6,100	5,160	3,250	6,320	4,650	2,850	2,450	2,050	2,050
14	2,150	2,650	3,450	6,000	5,050	3,250	6,100	4,450	2,950	2,850	2,250	2,050
15	2,150	2,550	3,750	5,890	4,850	3,150	5,890	4,250	2,850	2,650	2,050	2,050
16	2,150	2,450	4,650	5,780	4,650	3,150	5,890	4,250	2,850	2,650	1,960	2,050
17	2,160	2,350	5,160	6,210	4,650	3,050	5,680	4,160	2,750	2,450	1,960	1,960
18	2,150	2,350	5,470	6,100	4,550	3,050	5,580	4,050	2,750	2,350	1,960	1,960
19	2,150	2,350	5,890	5,890	4,450	3,050	5,780	4,050	2,650	2,350	2,350	1,870
20	2,150	2,350	5,680	5,680	4,250	2,950	7,090	4,050	2,450	3,550	2,250	1,870
21	2,150	2,350	5,470	5,470	4,150	2,950	7,200	4,050	2,450	2,850	2,050	1,870
22	2,150	2,450	5,260	5,260	4,050	2,950	6,980	4,050	2,550	2,450	2,050	1,870
23	2,150	2,650	4,950	5,050	4,050	2,950	6,980	3,950	2,450	2,350	2,050	1,870
24	2,150	3,650	4,950	4,500	3,950	2,950	6,870	3,550	2,450	2,250	2,050	1,870
25	2,150	3,350	4,750	11,800	3,850	2,850	6,760	3,350	2,350	2,250	2,050	2,850
26	2,150	5,360	4,650	11,300	3,850	2,850	6,540	3,250	2,350	2,250	2,050	3,250
27	2,150	5,680	4,650	10,900	3,750	2,850	6,320	3,150	2,350	2,250	2,450	3,350
28	2,150	4,850	4,850	10,200	3,650	2,850	6,000	3,050	2,450	2,350	2,850	3,650
29	2,150	4,450	4,850	9,730	-	2,750	5,890	3,050	2,350	2,350	2,450	3,650
30	2,150	4,250	4,650	9,500	-	2,850	5,780	2,950	2,350	2,450	2,250	3,250
31	2,050	-	4,550	9,040	-	2,850	-	2,850	-	2,350	2,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	67,250	2,250	2,050	2,169	0.296	0.34	133,400
November	86,240	5,680	2,050	2,875	.393	.44	171,100
December	132,160	5,890	2,950	4,264	.582	.67	262,200
Calendar year 1940	1,779,100	22,400	2,050	4,861	.664	9.04	3,529,000
January	236,200	11,800	5,050	7,619	1.04	1.20	468,500
February	152,280	8,580	3,660	5,438	.745	.77	302,000
March	97,250	3,650	2,750	3,137	.428	.49	192,900
April	200,550	10,300	2,850	6,685	.913	1.02	397,800
May	132,030	5,680	2,850	4,259	.582	.67	261,900
June	80,400	3,050	2,350	2,680	.366	.41	159,500
July	80,650	3,650	2,250	2,602	.355	.41	160,000
August	66,220	2,850	1,960	2,136	.292	.34	131,300
September	72,890	3,950	1,870	2,430	.332	.37	144,600
Water year 1940-41	1,404,110	11,800	1,870	3,847	.525	7.13	2,785,000

Cane Creek at Harviell, Mo.

Location.- Wire-weight gage, lat. 36°39'50", long. 90°28'00", in NE¼NE¼ sec. 12, T. 23 N., R. 5 E., at bridge on State Highway 14, a quarter of a mile east of Harviell. Datum of gage is 300.30 feet above mean sea level, datum of 1929.

Drainage area.- 188 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 1,070 second-feet Jan. 2 (gage height, 13.52 feet); minimum observed, 8 second-feet Aug. 17, 18 (gage height, 3.47 feet).
1939-41: Maximum discharge, 3,070 second-feet Apr. 12, 1940 (gage height, 18.53 feet); minimum observed, 8 second-feet Oct. 22-25, 1940, Aug. 17, 18, 1941.
Maximum stage known, 19.2 feet, Jan. 15, 1937, from information furnished by gage observer.

Remarks.- Records poor. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	32	491	141	44	29	29	16	11	10	12
2	10	10	31	1,000	133	46	29	29	16	11	10	12
3	10	10	29	643	125	44	143	27	17	13	10	12
4	10	10	29	339	110	42	578	25	17	42	10	11
5	10	11	27	217	103	37	565	23	16	16	12	12
6	10	12	27	158	96	37	294	32	15	12	11	12
7	10	12	27	125	86	37	167	52	14	12	10	12
8	10	12	27	117	76	37	125	52	13	11	10	12
9	10	12	27	110	70	35	133	44	14	11	10	12
10	10	15	27	96	64	35	167	39	15	10	10	12
11	10	29	25	88	62	37	117	35	16	24	9	11
12	10	39	32	86	62	35	96	32	17	211	10	11
13	10	32	59	82	89	32	79	31	17	82	11	10
14	10	27	67	76	103	31	73	27	15	39	10	10
15	10	20	64	76	86	31	64	27	14	19	10	10
16	10	17	283	82	76	31	64	27	13	13	10	10
17	10	15	294	103	73	29	64	103	13	11	8	10
18	10	14	167	96	67	27	62	56	13	10	10	10
19	10	14	117	86	62	27	59	37	13	10	31	10
20	10	14	103	82	56	27	56	29	12	10	13	10
21	10	14	86	76	56	27	54	27	12	11	10	10
22	9	15	73	70	56	25	49	25	12	13	10	10
23	9	18	67	126	54	25	46	22	12	12	10	10
24	9	37	64	682	52	25	44	19	12	10	10	10
25	9	48	62	779	49	25	42	17	12	10	10	10
26	9	59	62	513	52	23	39	17	12	10	12	10
27	9	79	88	487	46	23	35	17	12	11	15	10
28	10	62	167	316	46	23	35	17	11	12	13	10
29	10	46	186	176	-	22	32	17	11	13	14	10
30	10	37	149	167	-	22	31	17	11	12	14	10
31	10	-	133	158	-	25	-	16	-	11	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	304	10	9	9.8	0.052	0.06	603
November	749	79	10	25.0	.133	.15	1,490
December	2,631	294	25	84.9	.452	.52	5,220
Calendar year 1940	36,085	2,640	9	98.6	.524	7.15	71,580
January	7,701	1,000	70	248	1.32	1.52	15,270
February	2,151	141	46	76.8	.409	.43	4,270
March	966	46	22	31.2	.166	.19	1,920
April	3,371	578	29	112	.596	.66	6,690
May	967	103	16	31.2	.166	.19	1,920
June	413	17	11	13.8	.073	.08	819
July	705	211	10	22.7	.121	.14	1,390
August	356	31	8	11.5	.061	.07	706
September	321	12	10	10.7	.057	.06	637
Water year 1940-41	20,633	1,000	8	56.5	.301	4.07	40,940

Current River near Eminence, Mo.

Location.- Water-stage recorder, lat. 37°11'00", long. 91°15'30", in SW¼NE¼ sec. 15, T. 29 N., R. 3 W., 1 mile downstream from Jacks Fork and 8 miles northeast of Eminence. Datum of gage is 568.82 feet (revised) above mean sea level, datum of 1929.

Drainage area.- 1,272 square miles (revised).

Records available.- August 1921 to September 1941.

Average discharge.- 20 years, 1,398 second-feet.

Extremes.- Maximum discharge during year, 4,210 second-feet Apr. 17 (gage height, 5.11 feet); minimum, 432 second-feet Oct. 27, Aug. 18; minimum gage height, 0.85 foot Aug. 18.

1921-41: Maximum discharge, 59,600 second-feet Mar. 11, 1935 (gage height, 24.35 feet); minimum, 360 second-feet July 21-25, July 27 to Aug. 13, 1934; minimum gage height, that of Aug. 18, 1941.

Remarks.- Records good.

Cooperation.- Results of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 7, and Feb. 5 to Apr. 16)

0.8	409	1.7	930	4.0	3,000
1.2	607	2.5	1,580	4.7	3,750

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	473	445	751	1,980	1,200	602	522	1,000	671	517	483	454
2	473	445	689	3,210	1,160	596	522	968	744	564	473	450
3	464	445	659	2,500	1,080	580	853	968	732	613	468	454
4	464	445	636	1,940	1,040	569	1,280	930	707	569	459	459
5	459	473	619	1,580	968	558	1,240	902	671	533	454	473
6	468	454	602	1,360	968	558	1,080	1,000	648	517	464	507
7	528	445	591	1,200	923	558	968	2,480	636	512	478	916
8	488	450	591	1,080	895	553	874	2,410	624	512	468	613
9	473	454	580	1,000	860	553	818	1,900	758	502	468	543
10	468	478	569	930	825	564	764	1,540	930	502	459	517
11	468	764	569	888	777	575	713	1,360	909	548	454	488
12	464	575	701	846	764	558	677	1,240	790	512	450	468
13	459	538	777	811	777	548	648	1,120	719	502	445	488
14	478	512	852	790	758	538	630	1,040	677	497	440	459
15	507	492	1,040	777	732	548	653	1,000	653	483	440	454
16	478	488	1,620	839	701	553	1,430	1,000	630	483	440	450
17	473	488	1,760	1,080	695	543	3,750	1,240	613	473	436	488
18	464	483	1,450	1,240	689	538	3,420	1,540	591	478	492	492
19	459	473	1,240	1,200	671	538	2,800	1,200	580	468	564	483
20	459	483	1,080	1,080	659	543	3,000	1,040	575	468	478	464
21	450	492	968	1,000	636	543	2,600	930	564	468	454	454
22	445	488	902	968	630	528	2,200	874	564	483	468	445
23	440	648	846	958	624	522	1,900	832	564	473	459	440
24	440	853	797	1,280	624	517	1,720	804	619	580	459	707
25	440	888	777	1,450	619	517	1,490	770	630	619	454	2,600
26	440	1,360	744	1,720	624	517	1,360	744	575	642	454	1,940
27	432	1,450	725	1,850	619	517	1,280	719	553	575	488	1,240
28	436	1,200	701	1,670	607	512	1,200	707	548	528	478	968
29	440	968	677	1,490	-	507	1,120	693	538	512	502	818
30	445	846	659	1,400	-	507	1,040	671	522	502	483	732
31	440	-	1,160	1,320	-	522	-	665	-	488	464	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	14,315	528	432	462	0.363	0.42	28,390
November	19,023	1,450	445	634	.498	.56	37,750
December	26,512	1,760	569	849	.667	.77	52,190
Calendar year 1940	340,404	7,010	473	930	†.731	†9.98	675,200
January	41,447	3,210	777	1,337	1.05	1.21	82,210
February	22,125	1,200	607	790	.621	.65	43,880
March	16,882	602	507	545	.428	.49	33,480
April	42,562	3,750	522	1,418	1.11	1.24	84,400
May	34,277	2,480	665	1,106	.869	1.00	67,990
June	19,535	930	522	651	.512	.57	38,750
July	16,123	642	468	520	.409	.47	31,980
August	14,476	564	436	467	.367	.42	28,710
September	20,444	2,600	440	681	.535	.60	40,550
Water year 1940-41	287,511	3,750	432	788	.619	8.40	570,300

† Computed on basis of revised drainage area.

Current River at Van Buren, Mo.

Location.- Water-stage recorder, lat. 36°59', long. 91°01', in NE¼NW¼ sec. 25, T. 27 N., R. 1 W., at bridge on U. S. Highway 60, in Van Buren, 700 feet downstream from Davis Creek. Datum of gage is 442.78 feet above mean sea level, datum of 1929.

Drainage area.- 1,667 square miles (revised).

Records available.- June 1921 to September 1941 in reports of U. S. Geological Survey. September 1912 to June 1921 in reports of University of Missouri and of Missouri Geological Survey.

Average discharge.- 20 years (1921-41), 1,772 second-feet.

Extremes.- Maximum discharge during year, 4,700 second-feet Apr. 18 (gage height, 6.47 feet); maximum gage height, 6.51 feet Jan. 2; minimum discharge, 580 second-feet Sept. 23, 24 (gage height, 2.60 feet).
1921-41: Maximum discharge, 86,600 second-feet Mar. 11, 1935 (gage height, 22.84 feet, present datum), from rating curve extended above 62,000 second-feet; minimum, 490 second-feet Aug. 26-28, 30, 31, 1936.
Maximum stage known, 29.0 feet, present datum, Mar. 26, 1904, from floodmarks.

Remarks.- Records good.

Cooperation.- Results of two discharge measurements furnished by Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Jan. 2				Jan. 3 to Sept. 30			
2.8	630	5.6	2,980	2.6	580	5.3	2,780
3.4	945	6.3	4,080	3.1	848	6.0	3,850
4.1	1,400			3.8	1,310	6.2	4,220
4.8	2,020			4.5	1,890		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	655	655	1,100	3,270	1,710	819	762	1,310	878	675	644	h619
2	655	655	1,000	4,080	1,620	819	734	1,270	970	670	644	h614
3	655	655	918	3,940	1,540	819	878	1,240	939	762	639	h614
4	655	655	890	2,910	1,460	819	2,820	1,200	908	762	639	604
5	655	680	835	2,410	1,380	790	2,360	1,170	878	707	629	624
6	655	680	835	2,040	1,350	790	1,940	1,270	848	675	629	624
7	705	655	808	1,800	1,310	790	1,670	1,800	819	665	629	848
8	706	655	780	1,620	1,270	790	1,500	2,910	819	665	629	848
9	680	655	780	1,500	1,200	790	1,380	2,300	878	660	624	734
10	655	680	780	1,380	1,170	790	1,310	1,940	1,170	654	624	665
11	655	1,060	755	1,310	1,130	819	1,200	1,670	1,270	665	619	639
12	655	945	890	1,240	1,070	790	1,130	1,500	1,070	675	619	619
13	655	808	1,000	1,200	1,100	790	1,070	1,380	970	649	614	609
14	655	755	1,100	1,130	1,070	762	1,000	1,310	878	644	609	600
15	705	730	1,190	1,130	1,030	762	1,000	1,240	848	639	609	595
16	705	705	1,920	1,130	1,000	790	1,100	1,240	819	634	604	590
17	680	680	2,280	1,420	970	790	3,330	1,380	790	629	600	595
18	680	680	2,020	1,620	970	762	4,220	1,710	762	649	600	654
19	680	680	1,690	1,670	939	762	3,420	1,540	762	629	h819	629
20	655	680	1,520	1,540	908	762	3,260	1,310	734	629	h762	614
21	655	680	1,360	1,460	908	762	3,190	1,200	734	629	h634	604
22	655	680	1,260	1,380	908	762	2,720	1,100	707	629	h619	595
23	655	780	1,160	1,350	878	762	2,410	1,030	762	639	h619	585
24	655	1,000	1,100	1,800	878	762	2,140	970	734	670	h624	675
25	656	1,160	1,060	2,040	878	762	1,890	970	819	848	h624	1,890
26	656	1,600	1,000	2,360	878	762	1,710	908	762	762	h619	2,780
27	655	1,780	1,000	2,530	878	762	1,580	908	707	762	h680	1,710
28	655	1,640	945	2,410	848	734	1,500	878	707	707	h619	1,270
29	655	1,400	918	2,140	-	734	1,380	878	707	670	h649	1,000
30	656	1,220	890	1,990	-	734	1,350	848	680	654	h665	908
31	655	-	1,220	1,840	-	762	-	848	-	649	h844	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	20,605	705	655	665	0.399	0.46	40,870
November	26,288	1,780	655	876	.525	.59	52,140
December	35,004	2,280	755	1,129	.677	.78	69,430
Calendar year 1940	444,507	9,730	630	1,214	†.728	†9.91	881,700
January	59,640	4,080	1,130	1,924	1.15	1.33	118,300
February	31,251	1,710	848	1,116	.669	.70	61,990
March	24,103	819	734	778	.467	.54	47,810
April	55,954	4,220	734	1,865	1.12	1.25	111,000
May	41,228	2,910	848	1,330	.798	.92	81,770
June	25,329	1,270	680	844	.506	.56	50,240
July	20,956	848	629	676	.406	.47	41,570
August	19,781	819	600	638	.383	.44	39,240
September	24,955	2,780	585	832	.499	.56	49,500
Water year 1940-41	385,094	4,220	585	1,055	.633	8.60	763,900

† Computed on basis of revised drainage area.
h Computed from wire-weight gage readings.

Current River at Doniphan, Mo.

Location.- Water-stage recorder, lat. 36°37'25", long. 90°50'55", in NW¼NW¼ sec. 27, T. 23 N., R. 2 E., half a mile upstream from State Highway 14, 1 mile west of Doniphan, and 2½ miles upstream from Briar Creek. Datum of gage is 322.21 feet above mean sea level, datum of 1929.

Drainage area.- 2,038 square miles (revised).

Records available.- June 1921 to September 1941.

Average discharge.- 20 years, 2,636 second-feet.

Extremes.- Maximum discharge during year, 5,110 second-feet Jan. 3 (gage height, 5.00 feet); minimum, 972 second-feet Aug. 17, 18 (gage height, 1.77 feet).

1921-41: Maximum discharge, 94,400 second-feet, Mar. 12, 1935 (gage height, 23.89 feet, site and datum then in use), from rating curve extended above 60,000 second-feet; minimum, 880 second-feet Aug. 1-14, 16, 1934, Aug. 30, 31, Sept. 1, 1936; minimum gage height, 1.75 feet Aug. 4, 7, 9-11, 1934, site and datum then in use.

Maximum stage known, 26.8 feet, from floodmarks (site and datum in use Oct. 1, 1932, to July 2, 1936), in March 1904, (discharge, 130,000 second-feet, from rating curve extended above 60,000 second-feet).

Remarks.- Records excellent.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.7	920	3.0	2,200
2.0	1,150	4.0	3,520
2.5	1,620	4.9	4,940

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	1,070	1,570	2,590	2,520	1,320	1,190	1,640	1,320	1,110	1,070	1,030
2	1,030	1,070	1,470	4,450	2,400	1,280	1,190	1,780	1,420	1,110	1,070	1,030
3	1,030	1,030	1,370	4,940	2,260	1,280	1,370	1,730	1,420	1,240	1,030	1,070
4	1,030	1,030	1,320	4,290	2,140	1,280	2,720	1,730	1,420	1,240	1,030	1,030
5	1,030	1,070	1,280	3,520	2,020	1,280	3,820	1,680	1,320	1,190	1,030	1,070
6	1,030	1,070	1,280	3,050	1,960	1,240	3,320	1,730	1,320	1,110	1,030	1,030
7	1,070	1,070	1,240	2,720	1,900	1,240	2,850	1,780	1,280	1,110	1,030	1,030
8	1,110	1,070	1,240	2,400	1,840	1,240	2,590	2,850	1,240	1,110	1,030	1,320
9	1,070	1,070	1,190	2,200	1,780	1,240	2,460	3,120	1,240	1,110	1,030	1,240
10	1,070	1,070	1,190	2,080	1,730	1,240	2,200	2,720	1,420	1,070	996	1,150
11	1,070	1,190	1,190	1,960	1,680	1,240	2,080	2,330	1,620	1,110	996	1,070
12	1,070	1,420	1,240	1,840	1,620	1,240	1,960	2,140	1,620	1,150	996	1,070
13	1,070	1,320	1,370	1,780	1,620	1,240	1,840	1,960	1,470	1,110	996	1,030
14	1,070	1,190	1,470	1,680	1,620	1,240	1,730	1,840	1,370	1,070	996	1,030
15	1,070	1,150	1,570	1,680	1,570	1,190	1,730	1,780	1,320	1,070	996	1,030
16	1,110	1,110	1,950	1,680	1,520	1,240	1,730	1,730	1,280	1,070	988	996
17	1,070	1,110	2,780	1,780	1,520	1,190	2,140	1,900	1,240	1,070	980	998
18	1,070	1,070	2,850	2,080	1,470	1,190	4,290	1,900	a1,220	1,110	988	1,030
19	1,070	1,070	2,520	2,200	1,470	1,190	4,290	2,200	1,190	1,280	1,030	1,070
20	1,070	1,070	2,200	2,200	1,420	1,190	3,740	1,950	1,190	1,110	1,150	1,030
21	1,070	1,070	2,020	2,080	1,420	1,190	3,820	1,730	1,150	1,070	1,070	998
22	1,070	1,110	1,840	1,960	1,370	1,190	3,520	1,620	1,150	1,070	1,030	996
23	1,030	1,190	1,730	1,960	1,370	1,190	3,180	1,520	1,150	1,070	1,030	998
24	1,030	1,280	1,620	2,460	1,370	1,190	2,920	1,520	1,150	1,110	1,030	1,030
25	1,030	1,470	1,570	2,850	1,320	1,190	2,660	1,420	1,190	1,150	1,030	1,370
26	1,030	1,730	1,520	3,050	1,320	1,190	2,460	1,420	1,240	1,280	1,030	2,780
27	1,030	2,260	1,520	3,320	1,320	1,190	2,260	1,370	1,150	1,240	1,110	2,660
28	1,030	2,260	1,470	3,320	1,320	1,150	2,080	1,370	1,110	1,190	1,150	1,960
29	1,070	2,020	1,420	3,120	-	1,150	2,020	1,320	1,110	1,150	1,070	1,620
30	1,030	1,730	1,370	2,920	-	1,150	1,900	1,320	1,110	1,110	1,070	1,470
31	1,030	-	1,370	2,720	-	1,190	-	1,320	-	1,070	1,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	32,690	1,110	1,030	1,055	0.518	0.60	64,840
November	38,440	2,260	1,030	1,281	.629	.70	76,240
December	49,750	2,850	1,190	1,605	.788	.91	98,680
Calendar year 1940	640,860	11,900	1,030	1,751	†.859	†11.70	1,271,000
January	80,880	4,940	1,680	2,609	1.28	1.48	160,400
February	46,870	2,520	1,320	1,674	.821	.85	92,970
March	37,750	1,320	1,150	1,218	.598	.69	74,900
April	75,060	4,290	1,190	2,535	1.24	1.38	150,900
May	56,630	3,120	1,320	1,827	.896	1.03	112,300
June	38,430	1,620	1,110	1,281	.629	.70	76,220
July	35,060	1,280	1,070	1,131	.555	.64	69,540
August	32,146	1,150	980	1,037	.509	.59	63,760
September	37,218	2,780	988	1,241	.609	.68	73,820
Water year 1940-41	551,934	4,940	980	1,540	.756	10.25	1,115,000

† Computed on basis of revised drainage area.
a No gage-height record; discharge interpolated.

Jacks Fork at Eminence, Mo.

Location.- Wire-weight gage, lat. 37°89'15", long. 91°21'30", in W½ sec. 26, T. 29 N., R. 4 W., at bridge on State Highway 19 at Eminence, 1 mile downstream from Pine Hollow. Datum of gage is 617.91 feet above mean sea level, datum of 1929.

Drainage area.- 398 square miles (revised).

Records available.- October 1921 to September 1941.

Average discharge.- 20 years, 419 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet Jan. 2 (gage height, 4.6 feet, from graph based on gage readings); minimum, 93 second-feet Aug. 5, 14-18; minimum gage height, 1.77 feet Aug. 15, 17, 18.

1921-41: Maximum discharge observed, 40,000 second-feet June 13, 1928 (gage height, 16.24 feet, site and datum then in use); minimum discharge, 64 second-feet Aug. 28, 1936; minimum gage height, that of Aug. 15, 17, 18, 1941.

Remarks.- Records good. Gage read twice daily.

Cooperation.- Results of two discharge measurements furnished by Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-18, 1940)

1.7	87	2.2	186	3.5	913
1.8	95	2.4	255	4.0	1,320
1.9	109	2.7	382	4.3	1,580
2.0	130	3.0	550		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	113	111	241	874	382	162	140	209	130	103	98	98
2	115	111	219	1,580	359	162	143	206	168	103	96	98
3	118	113	206	992	336	156	165	199	180	106	95	96
4	111	111	186	759	315	159	274	206	168	113	95	98
5	111	117	174	550	294	156	274	206	156	109	93	102
6	111	117	168	461	294	153	258	274	146	109	94	103
7	126	117	156	408	274	151	233	1,070	140	115	95	103
8	122	117	153	359	255	153	219	797	135	106	98	101
9	122	117	148	315	248	151	206	650	133	103	101	101
10	120	122	143	294	241	153	193	433	153	105	98	99
11	117	168	143	255	219	156	183	336	156	103	95	98
12	113	153	186	244	212	151	174	315	168	103	95	101
13	113	146	216	233	219	151	162	274	156	106	94	98
14	117	135	274	219	212	151	162	248	146	106	93	98
15	126	130	336	212	202	181	168	230	130	103	93	95
16	126	126	650	226	193	156	202	212	128	101	93	95
17	122	122	616	315	186	153	550	326	126	99	93	99
18	120	122	461	433	183	156	583	616	122	99	94	103
19	117	115	382	382	180	153	583	408	117	98	126	101
20	115	115	336	336	180	151	650	318	115	98	106	99
21	113	120	294	315	168	151	550	255	109	98	101	96
22	111	115	255	294	174	151	433	219	108	99	109	95
23	111	156	241	274	168	151	382	199	115	103	101	95
24	109	241	223	382	168	146	294	183	120	103	98	130
25	109	359	212	583	168	146	318	174	117	106	95	550
26	109	461	202	650	168	146	274	162	117	106	95	583
27	109	650	199	722	166	140	255	151	109	103	103	336
28	109	461	186	616	162	140	237	146	109	102	106	241
29	109	336	183	520	-	140	219	140	108	102	102	193
30	109	274	174	461	-	146	212	135	106	101	101	168
31	113	-	340	408	-	146	-	130	-	98	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,859	126	109	115	0.289	0.33	7,060
November	5,658	650	111	189	.475	.53	11,220
December	7,800	616	143	252	.633	.73	15,470
Calendar year 1940	88,270	2,840	109	241	†.606	†8.24	175,100
January	14,672	1,580	212	473	1.19	1.37	29,100
February	6,325	382	162	226	.568	.59	12,550
March	4,688	162	140	151	.379	.44	9,300
April	8,690	650	140	290	.729	.81	17,240
May	9,324	1,070	130	301	.756	.87	18,490
June	3,967	180	106	133	.334	.37	7,910
July	3,208	115	98	103	.259	.30	6,360
August	3,055	126	93	98.6	.247	.28	6,060
September	4,473	583	95	149	.374	.42	8,870
Water year 1940-41	75,442	1,580	93	207	.520	7.04	149,600

† Computed on basis of revised drainage area.

Big Spring near Van Buren, Mo.

Location.- Staff gage, lat. 36°57', long. 91°00', in sec. 6, T. 26 N., R. 1 E., 400 feet downstream from spring outlet and 4 miles southeast of Van Buren. Datum of gage is 429.08 feet above mean sea level, datum of 1929.

Records available.- January to June 1922, April 1923 to September 1941.

Average discharge.- 15 years, (1923-26, 1929-41), 381 second-feet.

Extremes.- Maximum daily discharge during year, 690 second-feet Jan. 3, during period of backwater from Current River; minimum, 276 second-feet Sept. 4-24.
1922-41: Maximum discharge, 1,300 second-feet (estimated) sometime in June 1928, during period of backwater from Current River; minimum, 247 second-feet July 4-6, 12, 1936.

Remarks.- Records good except those for periods of backwater from Current River, which are poor. Gage read once daily.

Cooperation.- Results of two discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	295	288	302	538	380	310	302	327	310	295	288	282
2	295	288	295	c670	368	310	302	327	310	295	288	282
3	295	288	295	c690	357	310	302	318	310	295	288	282
4	295	288	295	670	357	310	c550	318	310	295	288	276
5	295	288	295	565	346	310	625	318	310	295	288	276
6	295	288	295	438	346	310	565	318	310	295	288	276
7	295	288	295	407	346	310	474	318	310	302	288	276
8	295	288	295	380	336	310	438	423	302	310	288	276
9	295	288	295	368	336	310	421	380	302	302	282	276
10	295	288	295	368	327	310	407	346	302	302	282	276
11	295	295	295	357	327	310	393	336	310	295	282	276
12	295	295	295	346	327	310	393	336	310	295	282	276
13	295	295	295	346	327	302	393	327	310	295	282	276
14	295	295	295	336	327	302	368	327	302	295	282	276
15	295	295	302	336	327	302	346	327	302	295	282	276
16	295	288	336	336	327	302	357	318	302	295	282	276
17	295	288	346	346	318	302	438	318	302	295	282	276
18	288	288	336	346	318	302	c490	318	302	288	282	276
19	288	288	327	346	318	302	c500	318	302	288	282	276
20	288	288	318	336	318	302	c490	318	302	288	282	276
21	288	288	310	336	318	302	c480	318	302	288	282	276
22	288	288	310	336	318	302	454	318	302	288	282	276
23	288	288	310	336	310	302	393	310	302	288	282	276
24	288	288	310	393	310	302	368	310	302	288	282	276
25	288	295	310	421	310	302	346	310	302	295	282	302
26	288	310	302	474	310	302	336	310	302	288	282	421
27	288	310	302	454	310	302	336	310	302	288	282	288
28	288	310	302	454	310	302	327	310	302	288	282	282
29	288	302	302	421	-	302	327	310	302	288	282	282
30	288	302	302	407	-	302	327	310	295	288	282	282
31	288	-	302	393	-	302	-	310	-	288	282	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,047	296	288	292	17,940
November	8,776	310	288	293	17,410
December	9,464	346	295	305	18,770
Calendar year 1940	124,161	680	288	339	246,300
January	12,950	690	336	418	25,690
February	9,229	380	310	330	18,310
March	9,458	310	302	305	18,760
April	12,248	625	302	408	24,290
May	10,132	493	310	327	20,100
June	9,133	310	295	304	18,120
July	9,090	310	288	293	18,030
August	8,790	288	282	284	17,430
September	8,499	421	276	283	16,860
Water year 1940-41	116,816	690	276	320	231,700

c Stage-discharge relation affected by backwater from Current River; discharge computed on basis of gage heights, weather records and records for Greer Spring at Greer and Current River at Van Buren.

Little Black River near Fairdealing, Mo.

Location.- Wire-weight gage, lat. 36°39'40", long. 90°34'25", in NW¼NW¼ sec. 7, T. 23 N., R. 5 E., at bridge on State Highway 14, 2½ miles downstream from Beaverdam Creek and 2½ miles east of Fairdealing. Datum of gage is 297.15 feet above mean sea level, datum of 1929.

Drainage area.- 185 square miles (revised).

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 825 second-feet Jan. 25 (gage height, 9.7 feet, from floodmarks); minimum observed, 15 second-feet Aug. 4 (gage height, 1.48 feet).

1939-41: Maximum discharge, 4,220 second-feet Apr. 12, 1940 (gage height, 18.12 feet); minimum observed, that of Aug. 4, 1941.

Maximum stage known, about 22.5 feet Jan. 15, 1937, from information furnished by local resident.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Gage read twice daily.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-31, Jan. 3-24)

Oct. 1 to Jan. 24				Jan. 25 to Sept. 30			
1.9	22	3.5	127	1.5	16	4.0	183
2.0	26	4.0	172	1.7	22	5.0	273
2.2	35	5.0	263	2.0	34	7.0	478
2.5	52	7.0	470	2.5	63	8.0	593
3.0	87	9.1	736	3.0	98	8.8	697

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	27	46	383	156	57	45	57	30	21	20	36
2	28	30	49	708	147	57	51	54	69	24	18	30
3	25	30	46	373	138	54	165	54	45	72	17	21
4	24	30	43	273	114	54	522	51	42	86	16	32
5	28	35	40	208	114	54	610	51	36	42	26	42
6	27	35	40	154	106	51	343	66	34	34	24	36
7	29	32	43	127	98	54	257	72	32	30	23	34
8	28	32	43	111	90	51	183	66	30	28	21	30
9	27	32	40	95	86	51	393	60	28	28	20	28
10	27	38	38	91	83	54	423	54	42	26	19	32
11	27	58	38	91	76	51	273	51	39	26	25	30
12	26	49	52	87	d83	51	192	48	36	30	24	25
13	26	43	58	79	90	48	147	45	34	32	32	32
14	26	35	58	76	94	45	130	42	32	26	28	30
15	28	32	119	76	83	48	130	42	30	26	25	26
16	27	32	248	83	80	48	114	42	28	25	22	23
17	26	30	181	95	76	45	114	98	26	25	21	26
18	26	32	119	95	76	42	114	76	26	25	18	63
19	27	30	95	87	72	39	114	63	26	23	72	39
20	26	32	83	87	69	39	102	60	25	32	66	32
21	28	43	76	83	66	42	90	54	30	34	48	26
22	26	49	68	83	63	42	83	48	30	25	42	26
23	27	52	d66	119	63	45	80	45	28	22	51	25
24	25	58	d64	736	63	42	76	42	26	25	45	25
25	26	68	62	697	60	42	72	39	25	30	42	26
26	28	87	62	478	63	39	69	36	24	26	42	a150
27	26	91	72	393	63	39	66	36	24	25	90	a150
28	28	68	111	323	60	36	63	36	25	30	54	a75
29	28	58	103	246	-	34	60	36	24	28	86	a60
30	28	52	99	201	-	42	57	34	22	26	76	a50
31	28	-	111	183	-	45	-	32	-	20	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	833	29	24	26.9	0.145	0.17	1,650
November	1,320	91	27	44.0	.238	.27	2,620
December	2,373	248	38	76.5	.414	.48	4,710
Calendar year 1940	36,850	3,260	20	101	†.546	†7.42	73,090
January	6,921	736	76	223	1.21	1.40	13,730
February	2,432	156	60	86.9	.470	.49	4,820
March	1,441	57	34	46.5	.251	.29	2,860
April	5,118	610	45	171	.924	1.03	10,150
May	1,590	98	32	51.3	.277	.32	3,150
June	948	69	22	31.6	.171	.19	1,880
July	952	86	20	30.7	.166	.19	1,890
August	1,173	90	16	37.8	.204	.24	2,330
September	1,238	150	21	41.3	.223	.26	2,460
Water year 1940-41	26,339	736	16	72.2	.390	5.32	52,250

† Based on revised drainage area.

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

d Doubtful gage height; discharge interpolated.

Spring River at Imboden, Ark.

Location.- Water-stage recorder, lat. 36°12', long. 91°10', in E½ sec. 15, T. 18 N., R. 2 W., at Imboden, 8 miles upstream from Eleven Point River and 11 miles upstream from mouth. Datum of gage is 254.07 feet above mean sea level, datum of 1929.

Drainage area.- 1,162 square miles (revised).

Records available.- February 1936 to September 1941.

Extremes.- Maximum discharge during year, 4,680 second-feet Jan. 24 (gage height, 9.87 feet); minimum, 221 second-feet Sept. 24 (gage height, 2.91 feet).
1936-41: Maximum discharge observed, 47,800 second-feet Feb. 18, 1938 (gage height, 23.97 feet); minimum observed, 185 second-feet Aug. 1, 1936 (gage height, 2.0 feet, site then in use).
Maximum stage known, about 30.9 feet in August 1915.

Remarks.- Records good. Low flow slightly regulated by power plant at Mammoth Spring, Ark.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 29 to Sept. 25)

Oct. 1 to Jan. 1				Jan. 2 to Sept. 30			
3.0	259	4.5	982	2.8	216	4.5	1,010
3.3	370	5.0	1,290	3.0	275	5.0	1,300
3.6	506	6.0	1,960	3.3	392	6.0	1,950
4.0	708			3.6	533	7.0	2,680
				4.0	437	9.0	4,050

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	252	540	1,170	1,040	543	465	518	375	304	297	279
2	308	273	492	2,090	1,010	528	451	508	368	293	334	282
3	308	297	465	1,550	958	543	1,900	504	396	532	307	342
4	300	297	449	1,840	900	528	2,440	494	379	406	300	350
5	312	308	440	1,060	873	499	1,880	484	371	406	297	304
6	297	300	419	928	846	518	1,420	634	367	371	286	315
7	330	304	426	873	792	538	1,120	712	371	367	279	282
8	323	286	404	819	792	528	1,010	634	388	330	304	275
9	304	308	396	759	766	604	928	624	375	334	286	348
10	300	334	392	759	739	513	846	563	392	354	282	338
11	300	666	383	688	712	533	819	553	396	307	272	297
12	304	506	544	660	686	484	766	538	371	330	265	275
13	290	436	661	660	739	494	712	518	375	338	286	256
14	290	392	646	614	712	484	712	508	363	334	289	282
15	308	382	708	634	686	513	686	499	346	311	275	269
16	283	358	982	660	660	508	686	460	350	323	272	246
17	290	342	870	712	660	475	660	484	350	286	256	269
18	293	323	789	686	624	475	634	475	338	300	272	253
19	304	326	762	660	634	475	634	428	327	396	272	269
20	293	319	677	634	603	456	629	461	342	338	269	259
21	290	334	635	619	593	479	593	437	334	315	265	238
22	290	358	604	629	573	456	575	410	338	293	249	246
23	290	611	564	686	593	465	573	414	327	319	279	259
24	293	666	569	3,630	558	465	568	414	327	323	262	331
25	283	530	630	2,580	573	456	553	396	316	367	289	645
26	297	1,760	520	1,950	573	442	543	392	342	367	282	1,590
27	297	1,210	540	1,750	583	442	533	392	346	346	406	766
28	300	789	554	1,460	548	437	523	388	327	334	388	568
29	308	646	511	1,300	-	432	499	388	338	354	315	494
30	336	599	506	1,180	-	437	489	384	319	330	300	428
31	283	-	520	1,090	-	465	-	384	-	304	297	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,316	336	283	301	0.259	0.30	18,480
November	14,602	1,760	262	483	.416	.46	28,760
December	17,485	982	383	564	.485	.56	34,680
Calendar year 1940	249,908	11,600	242	685	.588	7.99	495,700
January	64,698	3,630	614	1,119	.963	1.11	68,820
February	20,023	1,040	548	715	.615	.64	39,720
March	15,115	543	432	488	.420	.48	29,980
April	24,845	2,440	461	828	.713	.80	49,280
May	14,988	712	384	483	.416	.48	29,730
June	10,673	396	315	356	.306	.34	21,170
July	10,612	532	286	342	.294	.34	21,050
August	9,032	406	249	291	.250	.29	17,910
September	11,315	1,590	238	377	.324	.36	22,440
Water year 1940-41	192,604	3,630	238	528	.454	6.16	382,000

Eleven Point River near Bardley, Mo.

Location.- Water-stage recorder, lat. 36°38'55", long. 91°12'13", in SE¼ sec. 17 (revised), T. 23 N., R. 2 W., at bridge on State Highway 14, 7 miles southwest of Bardley and 7½ miles upstream from Fredericks Fork. Datum of gage is 410.84 feet above mean sea level, datum of 1929.
Drainage area.- 793 square miles (revised).
Records available.- October 1921 to September 1941.
Average discharge.- 20 years, 719 second-feet.
Extremes.- Maximum discharge during year, 976 second-feet Apr. 4; maximum gage height, 3.43 feet Jan. 2; minimum discharge, 195 second-feet Sept. 22 (gage height, 2.00 feet).
1921-41: Maximum discharge, 40,000 second-feet Apr. 14, 1927 (gage height, 18.74 feet, present datum, from floodmarks), from rating curve extended above 15,000 second-feet; minimum, 188 second-feet Aug. 30, 31, Sept. 1, 6, 16, 1936; minimum gage height, 1.06 feet, present datum, Sept. 6-11, 1925.
Maximum stage known, 19.7 feet, present datum, from floodmarks, in August 1915 (discharge, 44,000 second-feet, from rating curve extended above 15,000 second-feet).
Remarks.- Records excellent.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 4 to June 7)

Oct. 1 to Jan. 1				Jan. 2 to Sept. 30			
2.1	201	2.7	461	2.0	195	2.8	520
2.3	280	3.0	650	2.2	263	3.0	631
2.5	366			2.4	339	3.2	768
				2.6	423	3.4	925

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	220	260	618	568	308	260	335	g285	238	232	228
2	228	217	244	917	552	308	256	335	g327	323	228	228
3	228	217	236	614	525	312	316	343	g347	316	232	246
4	228	220	240	732	495	304	791	351	316	331	228	225
5	228	224	244	650	485	293	853	360	304	316	221	246
6	232	217	232	590	470	296	710	393	293	293	221	238
7	240	213	228	552	461	293	625	495	293	278	225	235
8	228	213	224	515	451	293	579	541	274	270	221	228
9	228	217	224	490	432	289	536	510	270	267	218	232
10	224	224	224	461	414	293	500	470	282	260	218	228
11	228	264	224	446	406	293	480	437	289	285	218	221
12	224	260	244	432	397	285	451	414	285	274	215	212
13	224	228	284	410	410	285	437	397	274	267	212	208
14	224	213	305	406	393	282	419	389	267	263	212	208
15	224	209	322	393	376	282	406	376	263	256	215	208
16	224	209	422	402	372	285	397	360	256	252	212	205
17	224	209	446	428	372	278	384	372	256	249	208	205
18	224	205	403	442	364	274	397	368	252	289	212	205
19	224	205	375	428	355	270	406	355	252	278	218	202
20	224	205	344	410	343	274	402	355	246	263	208	202
21	224	209	322	406	339	274	393	347	238	252	212	202
22	224	209	305	397	335	267	380	335	235	252	212	198
23	224	228	297	406	331	267	384	323	256	249	208	198
24	217	238	293	608	331	263	384	312	249	249	212	221
25	217	236	288	732	331	263	376	308	252	249	212	335
26	217	314	288	754	323	263	360	304	249	242	208	465
27	213	371	284	754	320	260	347	g304	242	238	293	393
28	217	331	276	703	312	256	347	g300	238	238	339	347
29	217	297	272	664	-	256	343	g296	238	235	274	320
30	220	276	264	625	-	256	339	g289	235	242	249	300
31	220	-	264	596	-	270	-	g289	-	235	238	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6,950	240	213	224	0.282	0.33	13,790
November	7,092	371	205	236	.298	.33	14,070
December	8,878	446	224	286	.361	.42	17,610
Calendar year 1940	154,753	4,330	205	423	†.533	††7.25	306,900
January	17,181	917	393	554	.699	.81	34,080
February	11,263	568	312	402	.507	.53	22,340
March	8,698	312	256	280	.353	.41	17,240
April	13,258	853	256	442	.557	.62	26,300
May	11,363	541	289	367	.463	.53	22,540
June	8,063	347	235	269	.339	.38	15,990
July	8,249	331	235	266	.335	.39	16,360
August	7,031	339	208	227	.286	.33	13,950
September	7,389	465	198	246	.310	.35	14,660
Water year 1940-41	115,409	917	198	316	.398	5.43	228,900

† Computed on basis of revised drainage area.
g Computed from graph based on wire-weight gage readings.

Eleven Point River near Elevenpoint, Ark.

Location.- Water-stage recorder, lat. 36°21', long. 91°07', in SE¼SE¼ sec. 30, T. 20 N., R. 1 W., 1¼ miles southwest of Elevenpoint and 18 miles upstream from mouth. Zero of gage is 291.98 feet above mean sea level, datum of 1929.

Drainage area.- 1,115 square miles.

Records available.- November 1929 to June 1933, February 1936 to September 1941.

Extremes.- Maximum discharge during year, 5,120 second-feet Sept. 3 (gage height, 9.63 feet); minimum, 273 second-feet Sept. 24 (gage height, 2.28 feet).
1929-33, 1936-41: Maximum discharge, 22,500 second-feet Apr. 18, 1939 (gage height, 16.55 feet), from rating curve extended above 12,000 second-feet; minimum discharge observed, 226 second-feet Sept. 9, 1936 (gage height, 2.13 feet, present datum).

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 3 to Mar. 17)

2.2	236	3.5	955
2.4	330	4.0	1,260
2.7	486	5.0	1,910
3.0	656	6.0	2,580

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	345	325	475	984	947	502	411	530	422	335	335	335
2	340	325	443	1,330	923	502	411	519	459	432	335	320
3	340	320	427	1,230	875	502	1,170	508	541	1,580	330	2,230
4	340	320	427	1,110	833	492	1,770	536	492	662	335	779
5	340	335	422	1,020	803	492	1,390	536	459	524	320	508
6	340	325	422	923	785	492	1,170	627	437	481	316	459
7	365	320	416	863	767	486	1,050	639	432	448	316	401
8	350	320	401	815	749	481	953	738	427	432	311	365
9	340	325	401	779	720	475	893	738	416	416	296	375
10	335	335	396	738	697	481	833	697	432	406	287	370
11	335	659	390	714	679	481	785	650	443	396	282	335
12	335	416	481	691	662	470	749	615	443	869	282	320
13	330	385	514	673	679	464	714	592	427	492	690	316
14	330	350	547	650	656	454	691	587	406	416	301	316
15	340	335	604	639	627	459	685	575	401	390	296	311
16	335	330	797	697	610	459	685	552	390	380	292	306
17	330	330	755	761	598	454	662	581	385	360	287	301
18	330	325	697	726	575	448	656	564	380	497	292	296
19	330	320	662	708	564	443	662	547	375	1,160	406	292
20	330	320	615	685	552	443	656	530	365	470	306	287
21	330	330	570	656	547	443	650	524	365	416	292	287
22	330	350	541	639	541	437	633	508	375	380	292	282
23	330	536	514	697	536	437	621	492	365	370	296	277
24	330	406	497	1,880	536	437	610	475	380	360	292	456
25	330	406	486	1,300	530	432	598	470	375	459	306	749
26	330	1,080	475	1,300	530	422	587	464	365	390	301	598
27	325	644	492	1,230	524	422	570	459	365	360	744	615
28	330	598	508	1,170	514	416	547	448	355	355	514	541
29	330	536	497	1,110	-	406	536	437	350	345	448	492
30	325	502	475	1,050	-	406	536	432	340	340	380	454
31	325	-	524	984	-	437	-	427	-	340	416	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	10,375	365	325	335	0.300	0.35	20,580
November	12,388	1,080	320	413	.370	.41	24,570
December	15,871	797	390	512	.459	.53	31,490
Calendar year 1940	241,608	5,760	320	660	.592	8.06	479,200
January	28,752	1,880	639	927	.831	.96	57,030
February	18,559	947	514	663	.595	.62	36,810
March	14,175	502	406	457	.410	.47	28,120
April	22,884	1,770	411	763	.684	.76	45,390
May	16,997	736	427	548	.491	.57	33,710
June	12,167	541	340	406	.364	.41	24,130
July	15,261	1,580	338	492	.441	.51	30,270
August	10,896	744	282	351	.315	.36	21,610
September	13,973	2,230	277	466	.418	.47	27,720
Water year 1940-41	192,298	2,230	277	527	.473	6.42	381,400

Greer Spring at Greer, Mo.

Location.- Water-stage recorder, lat. 36°47'10", long. 91°20'50", in SE¼SW¼ sec. 36, T. 25 N., R. 4 W., 300 feet downstream from lower outlet of spring, 1 mile upstream from Eleven Point River, and 1 mile north of Greer. Datum of gage is 564.00 feet above mean sea level, datum of 1929.

Records available.- August to December 1904, November 1921 to September 1941.

Average discharge.- 19 years (1922-41), 327 second-feet.

Extremes.- Maximum discharge during year, 408 second-feet Jan. 2, 3 (gage height, 1.05 feet); minimum, 128 second-feet Sept. 23, 24 (gage height, 0.25 foot).
1921-41: Maximum discharge, 905 second-feet Jan. 14, 1937 (gage height, 1.84 feet), from rating curve extended above 600 second-feet; minimum, 116 second-feet Aug. 28-31, Sept. 14-17, 1936.

Remarks.- Records good. Occasional run-off from small drainage area above station included in records.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	151	190	341	318	211	178	218	199	160	163	142
2	166	148	181	398	310	214	178	a221	208	160	160	142
3	166	148	178	403	306	218	193	224	214	184	160	142
4	166	148	176	394	298	211	302	235	208	211	157	154
5	166	148	172	375	295	208	310	245	202	202	157	154
6	166	148	169	354	291	205	295	273	199	196	157	151
7	166	151	166	341	284	205	288	337	196	193	160	142
8	166	151	163	329	280	205	280	341	190	190	157	145
9	163	151	163	318	273	205	273	322	187	187	157	142
10	163	154	160	310	266	205	266	302	190	187	160	136
11	163	157	157	302	263	202	259	284	199	184	160	136
12	163	157	178	295	259	196	256	277	193	178	160	136
13	160	154	196	284	259	a195	250	266	187	175	160	133
14	160	151	208	277	256	a194	246	263	187	172	157	133
15	160	151	227	273	260	a194	243	253	184	175	151	133
16	160	154	270	266	246	193	253	250	181	178	157	130
17	160	154	270	277	243	a192	266	250	178	175	157	130
18	160	151	259	284	240	a190	270	259	175	172	157	130
19	163	151	246	273	236	a188	273	253	172	169	157	133
20	160	151	240	266	233	a187	270	250	172	166	157	133
21	160	151	227	266	230	a186	263	236	172	166	157	133
22	160	148	224	263	227	a184	259	233	169	166	157	130
23	157	151	218	259	224	a182	256	227	169	163	157	128
24	157	169	214	310	224	181	250	218	169	163	151	136
25	157	172	211	357	221	181	243	218	169	160	151	266
26	157	211	205	354	218	181	236	214	166	160	148	284
27	157	236	202	362	218	181	233	211	163	160	163	266
28	157	221	199	358	214	178	227	205	163	157	172	250
29	157	208	193	350	-	178	224	202	163	157	154	235
30	154	199	187	341	-	178	221	202	160	157	148	221
31	151	-	214	333	-	178	-	199	-	157	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,987	166	151	161	9,890
November	4,895	236	148	163	9,710
December	6,262	270	157	202	12,420
Calendar year 1940	86,433	599	148	236	171,400
January	9,893	403	259	319	19,620
February	7,182	318	214	256	14,250
March	6,006	218	178	194	11,910
April	7,561	310	178	252	15,000
May	7,684	341	199	248	15,240
June	5,494	214	160	183	10,880
July	5,380	211	157	174	10,670
August	4,864	172	145	157	9,650
September	4,830	284	128	161	9,580
Water year 1940-41	75,028	403	128	206	148,800

a No gage-height record; discharge interpolated.

Strawberry River near Evening Shade, Ark.

Location.- Water-stage recorder, lat. 36°06', long. 91°36', in NE¼ sec. 27, T. 17 N., R. 6 W., at highway bridge, 2 miles north of Evening Shade and 5¾ miles upstream from Piney Fork. Datum of gage is 406.97 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 225 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 3,080 second-feet Jan. 24 (gage height, 13.43 feet); minimum, 5 second-feet Sept. 18-23; minimum gage height, 3.29 feet Sept. 23. 1939-41: Maximum discharge, 8,750 second-feet Apr. 17, 1939 (gage height, 19.78 feet); minimum, that of Sept. 18-23, 1941.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	10	78	881	142	50	27	23	13	7	14	8
2	10	10	65	640	145	45	27	23	14	7	133	8
3	10	9	55	307	156	46	45	22	13	8	55	10
4	10	9	51	223	131	41	80	22	12	20	25	8
5	9	10	47	175	119	39	71	22	12	19	16	9
6	9	10	44	136	112	40	64	30	12	13	13	e
7	10	11	43	116	105	40	56	40	12	10	12	7
8	12	10	38	102	92	42	51	70	12	9	10	7
9	14	12	35	94	86	41	47	51	12	8	9	8
10	g12	16	34	84	81	40	41	39	15	8	8	10
11	g11	520	32	77	77	40	38	34	15	8	9	e
12	g10	147	101	72	73	38	36	30	13	8	8	6
13	g9	44	177	67	88	37	34	28	14	43	27	6
14	g8	26	127	63	92	35	33	26	12	19	48	6
15	g7	20	119	63	82	36	33	25	11	12	28	6
16	7	18	249	66	76	36	35	25	10	10	20	6
17	10	16	178	80	73	35	34	30	10	e	13	6
18	8	15	124	81	70	33	33	24	10	8	12	5
19	8	14	112	70	66	32	33	22	9	8	18	5
20	8	14	100	64	63	31	31	20	9	9	11	5
21	8	15	89	62	60	31	30	19	9	22	9	5
22	8	16	79	61	58	30	29	18	10	20	10	5
23	9	924	74	113	56	30	30	17	10	12	16	5
24	9	262	70	2,100	56	29	29	16	10	90	14	39
25	9	134	65	552	55	28	27	15	10	160	19	280
26	9	921	59	537	56	27	27	15	9	39	15	90
27	9	322	58	361	56	27	25	15	8	27	12	35
28	10	159	59	258	54	27	24	15	8	17	12	21
29	10	115	58	205	-	26	25	14	8	52	11	15
30	10	93	54	175	-	25	25	14	8	21	10	12
31	9	-	83	164	-	27	-	13	-	20	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	292	14	7	9.42	0.042	0.05	579
November	3,900	924	9	130	.578	.64	7,740
December	2,557	249	52	82.5	.367	.42	5,070
Calendar year 1940	37,951	2,810	7	104	.462	6.28	76,290
January	8,049	2,100	61	260	1.16	1.33	15,960
February	2,380	156	54	85.0	.378	.39	4,720
March	1,084	50	25	35.0	.156	.18	2,150
April	1,116	80	25	37.2	.165	.18	2,210
May	777	70	13	25.1	.112	.13	1,540
June	330	15	8	11.0	.049	.05	655
July	742	180	7	23.9	.106	.12	1,470
August	626	133	8	20.2	.090	.10	1,240
September	649	280	5	21.6	.096	.11	1,290
Water year 1940-41	22,502	2,100	5	61.6	.274	3.70	44,620

g Computed from graph based on gage readings.

Strawberry River near Poughkeepsie, Ark.

Location.- Water-stage recorder, lat. 36°07', long. 91°27', in NW¼ sec. 19, T. 17 N., R. 4 W., half a mile downstream from Hurricane Creek and 2½ miles northeast of Poughkeepsie. Datum of gage is 298.07 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 476 square miles.

Records available.- February 1936 to September 1941.

Extremes.- Maximum discharge during year, 3,850 second-feet Jan. 24 (gage height, 10.88 feet); minimum, 45 second-feet on many days; minimum gage height, 1.27 feet Sept. 23. 1936-41: Maximum discharge, 31,600 second-feet Feb. 18, 1938 (gage height, 23.6 feet, from graph based on gage readings), from rating curve extended above 20,000 second-feet; minimum observed, 10 second-feet Oct. 3, 1938 (gage height, 1.22 feet).

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	50	227	995	387	148	98	111	64	46	60	48
2	47	52	198	1,410	354	144	96	109	72	45	57	47
3	49	52	177	656	367	142	497	107	72	45	192	62
4	49	52	164	471	341	138	567	109	64	64	86	54
5	49	57	155	392	315	154	379	107	62	105	59	53
6	47	55	146	328	302	140	314	158	58	60	52	51
7	54	55	148	301	282	142	263	181	58	52	48	48
8	50	57	131	276	265	140	259	188	59	48	47	47
9	57	58	122	248	244	140	236	174	63	60	46	101
10	60	68	116	229	231	140	218	149	72	48	46	101
11	57	956	116	212	224	136	204	134	86	46	45	59
12	52	532	226	200	213	132	192	124	70	47	55	52
13	50	182	316	189	231	130	181	120	64	52	179	50
14	50	129	286	182	229	127	172	114	62	79	154	48
15	52	108	271	184	216	129	176	111	58	57	117	47
16	50	98	460	191	198	129	179	107	58	50	70	46
17	50	94	405	224	192	123	169	141	56	47	59	48
18	50	88	313	227	185	119	163	128	54	46	99	45
19	52	85	280	205	179	115	160	107	53	46	258	45
20	49	81	261	191	175	111	162	97	52	45	92	45
21	50	87	231	184	171	110	143	88	52	45	57	46
22	50	90	210	180	165	108	139	86	52	54	53	45
23	50	1,240	196	285	161	106	143	81	52	86	54	45
24	49	696	187	2,920	161	104	139	79	52	160	67	80
25	50	370	180	1,290	159	102	132	74	52	314	59	524
26	50	1,870	173	888	159	100	126	70	52	128	57	266
27	50	870	177	765	157	100	122	70	49	88	55	122
28	50	405	182	561	153	96	118	69	48	66	62	81
29	52	305	175	475	-	95	114	69	48	67	52	64
30	62	261	165	435	-	95	114	69	47	103	51	59
31	55	-	179	408	-	100	-	63	-	67	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,584	60	47	51.1	0.107	0.12	3,140
November	9,103	1,870	50	303	.637	.71	18,060
December	6,576	460	116	212	.445	.51	13,040
Calendar year 1940	87,684	3,880	47	240	.504	6.84	173,900
January	15,682	2,920	180	506	1.06	1.23	31,100
February	6,396	367	153	228	.479	.50	12,690
March	3,775	148	95	122	.256	.29	7,490
April	5,985	567	96	200	.420	.47	11,870
May	3,394	188	63	109	.229	.27	6,730
June	1,760	86	47	58.7	.123	.14	3,490
July	2,286	314	45	73.7	.155	.18	4,530
August	2,426	258	45	78.3	.164	.19	4,810
September	2,425	524	45	80.8	.170	.19	4,810
Water year 1940-41	61,392	2,920	45	168	.355	4.80	121,800

South Fork of Little Red River near Clinton, Ark.

Location.- Water-stage recorder, lat. 35°34', long. 92°23', in NE¼ sec. 29, T. 11 N., R. 13 W., 1¾ miles downstream from Pedee Creek, 4¼ miles southeast of Clinton, and 6 miles downstream from Archey Fork. Datum of gage is 430.02 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). Prior to July 14, 1939, staff gage at same site and datum.

Drainage area.- 316 square miles.

Records available.- February 1939 to September 1941.

Extremes.- 1939: Maximum discharge during period February to September, 26,000 second-feet (gage height, 21.1 feet, from graph based on gage readings), from rating curve extended above 17,000 second-feet; no flow Sept. 21-29.
1939-40: Maximum discharge during water year, 5,770 second-feet May 1 (gage height, 10.67 feet); no flow Oct. 19-25.
1940-41: Maximum discharge during water year, 6,820 second-feet May 7 (gage height, 11.37 feet); minimum, 1.0 second-foot Oct. 26-29, Aug. 22.
Maximum stage known, 25.2 feet, date unknown, from information by local resident.

Remarks.- Records fair except those for extremely low flows, which are poor. Gage read twice daily prior to July 14, 1939.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1939-41
1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	2,180	440	440	600	280	27	1.2
2					-	1,580	400	440	520	205	23	1.1
3					-	1,340	360	360	480	1,760	18	1.6
4					1,400	1,140	320	360	440	840	16	1.6
5					1,340	4,280	320	320	360	520	13	1.6
6					1,820	2,340	2,210	280	320	440	12	1.2
7					1,640	1,640	1,540	240	360	320	10	1.0
8					1,340	1,340	1,190	280	280	280	10	.9
9					1,140	1,140	940	360	205	240	17	.8
10					1,760	4,720	800	280	170	205	23	.9
11					1,290	3,640	720	205	140	170	16	.8
12					1,040	2,260	600	240	205	84	13	.7
13					940	1,580	520	760	520	70	12	.7
14					840	1,340	440	600	360	49	10	.5
15					2,260	1,090	468	480	280	45	8.5	.4
16					1,580	840	11,500	440	205	40	8.0	.2
17					1,240	720	13,300	360	140	35	7.5	.1
18					1,040	640	3,280	360	118	31	14	.1
19					2,170	560	1,940	840	100	28	15	.1
20					3,640	520	1,460	940	100	29	10	.1
21					2,100	480	1,190	800	205	24	9.5	0
22					1,520	400	940	1,140	140	21	8.5	0
23					1,240	360	760	1,640	118	19	7.5	0
24					1,040	360	680	1,040	100	19	6.5	0
25					4,560	320	600	1,240	100	17	5.0	0
26					3,190	320	520	2,020	100	16	4.2	0
27					2,100	320	760	6,050	84	20	3.5	0
28					3,870	280	680	2,340	360	23	2.7	0
29					-	360	600	1,460	440	37	2.7	0
30					-	520	520	940	360	61	2.0	.1
31					-	440	-	760	-	37	1.6	-

Discharge, in second-feet, of South Fork of Little Red River near Clinton, Ark., 1939-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	25	68	42	185	290	3,930	49	50	14	27
2	.1	.1	25	62	40	180	259	1,790	44	45	14	23
3	.1	.1	25	56	59	168	238	1,200	38	40	14	29
4	.1	.1	25	53	38	155	235	895	34	36	14	70
5	.1	.1	31	47	37	140	207	708	31	35	12	118
6	.1	.1	33	43	40	128	865	575	29	32	11	95
7	.1	.1	32	41	43	124	2,085	455	28	28	9.5	70
8	.1	.1	31	59	45	126	1,550	395	26	26	8.0	55
9	.1	.1	29	37	52	128	1,010	341	41	23	11	45
10	.5	.5	27	40	55	122	850	299	95	21	14	35
11	.3	1.1	25	86	57	120	1,270	230	44	19	23	30
12	.1	1.1	25	146	59	120	1,490	221	558	16	158	26
13	.1	1.0	23	220	65	130	1,080	187	365	14	130	23
14	.1	1.6	22	362	67	155	850	165	284	12	91	20
15	.1	5.0	22	366	70	160	670	150	187	12	67	18
16	.1	8.0	21	274	71	158	558	136	150	12	51	16
17	.1	8.5	20	228	78	155	592	120	122	17	40	14
18	.1	14	20	190	306	148	872	115	158	10	35	12
19	0	16	19	142	610	142	2,030	150	610	8.0	33	11
20	0	18	19	130	502	132	1,790	114	410	38	32	10
21	0	20	18	112	418	122	1,200	101	344	44	30	9.0
22	0	28	17	98	346	114	895	88	284	96	27	8.0
23	0	27	28	90	298	105	730	92	209	92	23	7.0
24	0	29	39	75	278	105	575	110	162	61	20	7.5
25	0	27	172	69	274	107	488	107	124	46	18	8.0
26	.1	25	136	65	249	105	425	101	95	35	16	6.5
27	.5	23	118	55	232	101	380	95	76	29	16	6.0
28	.8	22	101	55	224	101	353	85	64	23	21	e6.5
29	.7	21	88	50	204	185	1,810	74	60	20	22	e6.0
30	.4	21	80	47	-	374	2,650	65	55	19	29	e5.0
31	.3	-	75	44	-	330	-	57	-	17	30	-

e Stage-discharge relation indefinite; discharge computed on basis of gage heights, two discharge measurements (made in water year 1941), and records for Middle Fork of Little Red River near Shirley.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	2.6	456	2,600	505	690	110	314	40	23	6.0	22
2	4.5	3.5	372	3,200	558	610	107	270	257	20	8.0	18
3	4.5	4.0	304	1,410	750	558	184	235	204	18	6.0	16
4	4.1	4.5	252	1,010	690	488	2,220	200	122	16	9.0	15
5	3.8	4.8	222	770	610	425	1,290	185	92	14	8.0	18
6	3.7	5.2	191	610	540	440	950	2,920	76	13	6.5	19
7	4.8	5.5	170	505	488	488	770	3,240	78	12	6.0	18
8	5.0	6.0	152	440	425	470	690	1,600	82	12	4.4	17
9	4.8	7.0	131	377	380	440	570	1,070	68	10	3.3	17
10	4.4	15	118	332	344	425	490	817	571	9.0	3.3	18
11	4.1	65	113	299	314	395	422	650	722	8.0	2.5	15
12	3.8	290	1,080	272	290	347	374	510	395	11	1.6	14
13	3.5	160	1,360	245	425	317	326	418	284	14	1.6	12
14	3.5	109	990	227	505	290	286	554	212	15	2.1	12
15	4.0	88	840	260	470	278	455	290	162	17	1.9	10
16	3.7	68	1,110	296	410	284	1,080	239	130	16	1.9	9.5
17	3.2	58	950	293	377	257	990	197	104	14	1.6	9.0
18	2.7	51	760	278	347	230	1,020	168	85	13	1.4	10
19	2.5	46	700	248	338	209	1,040	142	72	14	1.4	7.5
20	2.2	41	600	233	362	195	1,210	122	63	13	1.3	6.5
21	2.0	40	508	227	341	187	970	104	55	12	1.2	5.0
22	1.8	46	440	227	326	177	850	90	54	12	1.0	4.4
23	1.6	1,640	396	277	410	165	850	80	56	16	1.2	4.1
24	1.4	1,810	352	2,890	470	158	810	278	46	15	2.5	80
25	1.2	865	324	1,870	558	146	690	98	40	17	3.7	2,300
26	1.0	2,500	300	1,440	650	138	610	74	36	14	5.0	588
27	1.0	1,550	316	1,120	790	130	510	62	33	12	7.5	338
28	1.0	940	504	895	750	122	450	55	32	10	11	236
29	1.0	700	480	750	-	116	390	49	27	9.0	25	179
30	1.4	560	404	630	-	110	346	44	25	8.0	28	130
31	1.8	-	388	558	-	110	-	41	-	6.5	24	-

Note.- Stage-discharge relation indefinite Oct. 1 to Nov. 10, 1940; discharge computed on basis of gage heights, two discharge measurements, and records for Middle Fork of Little Red River near Shirley.

Monthly discharge, in second-feet, of South Fork of Little Red River near Clinton, Ark., 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
February 4-28, 1939	46,100	4,560	840	1,844	5.84	5.43	91,440
March	39,060	4,720	280	1,260	3.99	4.60	77,480
April	50,098	13,300	320	1,670	5.28	5.90	99,370
May	28,015	6,050	205	904	2.86	3.30	55,570
June	7,910	600	84	264	.835	.93	15,690
July	5,965	1,760	16	192	.608	.70	11,830
August	336.7	27	1.6	10.9	.034	.04	668
September	15.7	1.6	C	.523	.0016	.002	31.1
The period	177,490.4	-	-	-	-	-	352,000
October 1939	5.2	0.8	0	0.168	C.00053	0.0006	10
November	318.8	29	.1	10.6	.034	.04	632
December	1,372	172	17	44.3	.140	.16	2,720
Calendar year 1939	-	-	-	-	-	-	-
January 1940	3,441	366	37	111	.351	.40	6,830
February	4,837	610	37	167	.528	.57	9,590
March	4,626	374	101	149	.472	.54	9,170
April	27,657	2,650	207	922	2.92	3.26	54,860
May	13,131	3,930	57	424	1.34	1.55	26,040
June	4,746	610	26	158	.500	.56	9,410
July	976	96	8.0	31.5	.100	.12	1,940
August	1,033.5	158	8.0	33.3	.105	.12	2,050
September	812.5	118	5.0	27.1	.086	.10	1,610
Water year 1939-40	62,955.0	3,930	0	172	.544	7.42	124,900
October 1940	92.5	5.0	1.0	2.98	0.0094	0.01	183
November	11,380.1	2,500	2.6	379	1.20	1.34	22,570
December	15,863	1,360	113	492	1.56	1.80	30,270
Calendar year 1940	87,994.6	3,930	1.0	240	.759	10.37	174,500
January 1941	24,589	3,200	227	793	2.51	2.89	48,770
February	13,453	790	290	480	1.52	1.58	26,680
March	9,395	690	110	303	.959	1.11	18,630
April	21,060	2,220	107	702	2.22	2.48	41,770
May	14,916	3,240	41	481	1.52	1.76	29,590
June	4,224	722	25	141	.446	.50	8,380
July	413.5	23	6.5	13.3	.042	.05	820
August	184.9	28	1.0	5.96	.012	.02	367
September	4,148	2,300	4.1	138	.437	.49	8,230
Water year 1940-41	119,112.0	3,240	1.0	326	1.03	14.03	236,300

Little Red River near Heber Springs, Ark.

Location.- Water-stage recorder, lat. 35°32', long. 92°00', in NE¼ sec. 6, T. 10, N., R. 9 W., 2¾ miles downstream from Peter Creek and 3 miles northeast of town of Heber Springs. Datum of gage is 271.81 feet above mean sea level, datum of 1929.
Drainage area.- 1,141 square miles (revised).
Records available.- September 1927 to June 1935, March 1936 to September 1941.
Average discharge.- 12 years (1927-34, 1936-41), 1,712 second-feet.
Extremes.- Maximum discharge during year, 15,300 second-feet Jan. 2 (gage height, 16.60 feet); minimum, 1.9 second-feet Oct. 27 (gage height, 1.43 feet).
1927-35, 1936-41: Maximum discharge observed, 74,400 second-feet Apr. 6, 1928 (gage height, 42.35 feet, site and datum then in use); no flow at times in October 1929, August 1930, August and September 1936.
Maximum stage known, 44.0 feet, original site and datum, in April 1927 (discharge, 78,900 second-feet).
Remarks.- Records good.
Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 26

1.4	1.5	1.9	17	3.0	153	6.0	1,300
1.5	2.8	2.0	20	3.5	265	7.0	1,950
1.6	4.8	2.2	44	4.0	403	8.0	2,730
1.7	7.6	2.4	65	4.5	579	9.0	3,670
1.8	12	2.7	101	5.0	799		

Nov. 27 to Sept. 30

1.9	17	3.5	240	7.5	2,210		
2.0	22	4.0	380	9.0	3,670		
2.3	50	4.5	550	11.0	5,990		
2.6	85	5.5	955	13.0	8,790		
3.0	145	6.5	1,520	15.0	12,300		

Note.- Same as preceding table below 1.9 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	2.3	1,000	1,270	1,700	2,050	359	785	119	64	70	265
2	6.8	2.4	845	10,500	1,640	1,910	350	725	194	57	56	206
3	6.2	2.5	705	6,420	1,700	1,700	420	645	380	50	46	175
4	5.6	2.7	587	4,000	2,000	1,580	2,360	568	413	48	41	145
5	5.1	2.7	515	2,770	1,830	1,370	4,380	515	285	45	39	134
6	5.1	2.5	463	2,050	1,640	1,220	2,770	5,970	218	40	34	115
7	7.3	2.4	480	1,640	1,460	1,260	2,050	7,950	187	35	28	115
8	8.0	2.3	429	1,370	1,310	1,340	1,640	5,590	173	37	22	110
9	8.5	2.5	380	1,160	1,140	1,310	1,400	3,370	180	32	20	108
10	8.0	3.0	338	980	1,000	1,220	1,190	2,210	364	30	19	104
11	7.6	5.6	308	865	910	1,140	1,030	1,640	1,770	29	17	88
12	7.0	5.9	463	785	825	1,030	887	1,310	1,520	32	15	78
13	6.5	61	1,580	705	978	932	805	1,030	887	45	14	78
14	5.6	308	2,190	665	1,510	845	725	865	645	58	14	73
15	5.4	265	1,830	645	1,640	805	685	745	498	130	12	66
16	4.8	218	1,830	685	1,370	825	971	625	396	130	12	60
17	4.4	185	2,440	785	1,220	785	1,790	550	320	115	11.6	54
18	4.0	155	2,050	785	1,110	725	1,760	463	265	103	11.1	49
19	3.6	133	1,640	765	1,030	645	1,980	396	222	133	10.7	44
20	3.2	118	1,430	705	1,030	606	2,210	350	193	123	836	40
21	2.8	113	1,220	645	1,030	568	2,480	308	169	136	606	35
22	2.7	109	1,030	625	1,060	550	1,980	273	148	145	356	30
23	2.5	139	887	648	1,190	515	1,910	242	130	173	238	26
24	2.4	3,040	805	5,730	1,400	498	1,980	265	121	140	180	36
25	2.1	2,820	725	9,460	1,640	480	1,760	413	112	127	145	1,820
26	2.1	3,240	665	5,770	1,910	446	1,520	267	102	129	124	4,280
27	1.9	5,950	645	4,920	2,130	413	1,280	202	89	109	628	1,470
28	2.1	3,020	905	3,570	2,210	396	1,110	175	82	100	429	887
29	2.4	1,830	1,900	2,770	-	368	955	155	74	108	356	625
30	2.1	1,310	1,520	2,300	-	347	845	140	68	102	396	480
31	2.4	-	1,220	1,910	-	344	-	130	-	80	314	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	145.8	8.5	1.9	4.70	0.0041	0.005	289
November	22,850.8	5,950	2.3	762	.668	.74	45,320
December	33,025	2,440	308	1,065	.933	1.08	65,500
Calendar year 1940	264,648.0	13,900	1.9	723	†.634	†8.62	524,900
January	77,898	10,500	625	2,513	2.20	2.54	154,500
February	39,613	2,210	825	1,415	1.24	1.29	78,570
March	28,243	2,050	344	911	.798	.92	56,020
April	45,582	4,380	350	1,519	1.33	1.49	90,410
May	38,872	7,950	130	1,254	1.10	1.27	77,100
June	10,324	1,770	68	344	.301	.34	20,480
July	2,885	173	29	86.6	.076	.09	5,330
August	5,100.4	836	10.7	165	.145	.17	10,120
September	11,794	4,280	26	393	.344	.38	23,390
Water year 1940-41	316,133	10,500	1.9	866	.759	10.32	627,000

† Computed on basis of revised figure of drainage area.

Middle Fork of Little Red River at Shirley, Ark.

Location.- Water-stage recorder, lat. 35°39', long. 92°18', in SW¼ sec. 20, T. 12 N., R. 12 W., at Missouri & Arkansas Ry. bridge, half a mile downstream from Sugar Camp and Wevers Creek and 1 mile east of Shirley. Datum of gage is 483.12 feet above mean sea level, datum of 1929.

Drainage area.- 294 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 7,770 second-feet Jan. 1 (gage height, 14.22 feet); minimum, 0.1 second-foot Oct. 3-6; minimum gage height, 4.56 feet Oct. 5.
1939-41: Maximum discharge observed, 16,800 second-feet Apr. 17, 1939 (gage height, 19.49 feet); minimum, 0.1 second-foot Oct. 25, 1939, Oct. 3-6, 1940.
Flood of Mar. 10, 1935, reached a stage of 27.3 feet, from information furnished by local residents.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 2 to Sept. 30)

4.5	0	5.1	13.7	6.5	280	10.5	2,400
4.6	.2	5.2	19.5	7.0	450	11.0	2,970
4.7	1.1	5.3	27	7.5	615	11.5	3,610
4.8	2.8	5.5	50	8.0	860	12.0	4,340
4.9	5.5	5.7	80	9.0	1,400		
5.0	9.1	6.0	135	10.0	1,980		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	3.3	262	2,280	430	483	77	181	18.9	7.3	8.7	102
2	.2	3.3	208	4,330	448	448	77	155	24	6.6	8.0	82
3	.1	3.3	166	1,620	564	415	124	131	26	5.9	7.3	70
4	.1	3.9	140	1,140	535	398	580	122	23	5.2	6.6	60
5	.1	4.7	120	735	483	334	483	112	18.9	4.4	5.9	64
6	.1	4.7	105	535	430	316	376	1,460	17.2	4.4	5.5	67
7	.6	4.7	99	448	385	340	316	3,150	17.8	4.4	4.4	58
8	.5	5.0	90	397	334	400	271	1,340	19.5	4.4	4.2	46
9	.2	6.2	80	346	295	370	235	835	18.3	3.9	3.6	38
10	.2	9.1	74	298	262	346	205	553	101	a3.3	3.3	48
11	.2	33	74	262	244	331	175	430	395	a4.7	3.1	49
12	.2	94	170	238	223	307	155	334	205	a8.4	2.6	41
13	.2	135	552	214	277	268	137	262	127	a7.7	6.6	34
14	.3	97	518	196	517	241	129	202	99	a8.0	6.6	29
15	.6	74	465	196	385	223	153	163	77	a9.6	8.7	25
16	.6	60	685	196	340	214	280	133	61	a10.9	9.6	22
17	.6	50	685	196	313	202	408	112	49	10.9	8.0	19.5
18	.5	42	500	196	286	176	416	97	38	10.9	7.3	17.8
19	.5	35	430	193	265	155	577	83	31	14.5	1,190	15.4
20	.4	32	376	193	268	143	778	77	26	12.3	292	13.2
21	.3	33	319	199	265	135	637	66	22	16.6	140	11.4
22	.3	40	274	199	262	129	518	58	19.5	20.3	100	10.5
23	.2	711	235	234	289	120	465	50	16.0	20.3	77	9.1
24	.2	776	208	4,140	328	114	465	46	14.3	22	60	245
25	.2	485	181	1,900	382	104	400	40	12.8	20.3	139	4,110
26	.2	1,560	160	1,530	430	97	355	35	12.8	25	754	980
27	.4	1,200	211	1,150	483	92	304	31	12.3	26	234	465
28	.6	570	737	835	500	88	265	28	11.9	19.5	308	271
29	1.9	400	592	660	-	83	232	26	10.0	14.9	253	178
30	2.3	322	448	553	-	80	205	23	8.7	11.9	166	140
31	2.6	-	400	483	-	80	-	21	-	9.6	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	15.6	2.6	0.1	0.50	0.0017	0.002	31
November	6,757.2	1,500	3.3	225	.765	.85	15,400
December	9,564	737	74	309	1.05	1.21	18,970
Calendar year 1940	62,840.2	2,240	.1	172	.585	7.95	124,600
January	26,092	4,330	193	842	2.86	3.30	51,750
February	10,223	564	223	365	1.24	1.29	20,280
March	7,221	483	80	233	.793	.91	14,390
April	9,797	778	77	327	1.11	1.24	19,430
May	10,356	3,150	21	334	1.14	1.31	20,540
June	1,532.9	395	8.7	51.1	.174	.19	3,040
July	352.9	25	3.3	11.4	.039	.04	700
August	3,947.0	1,190	2.6	127	.432	.58	7,830
September	7,320.9	4,110	9.1	244	.830	.93	14,520
Water year 1940-41	93,179.5	4,330	0.1	255	.867	11.77	184,800

Peak discharge.- Jan. 1 (9 p.m.) 7,770 sec.-ft.; Jan. 24 (9 a.m.) 7,450 sec.-ft.; May 6 (11 p.m.) 5,880 sec.-ft.; Sept. 25 (7 a.m.) 7,140 sec.-ft.

a Recorder stopped; discharge computed from graph based on adjacent record, recorded range in stage, weather records, and observer's reading on July 12.

Lagrue Bayou near Stuttgart, Ark.

Location.- Water-stage recorder, lat. 34°31'55", long. 91°21'20", in NW¼ sec. 17, T. 2 S., R. 3 W., 11 miles east of Stuttgart and 24 miles upstream from Little Lagrue Bayou. Datum of gage is 175.14 feet above mean Gulf level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 175 square miles.

Records available.- August 1935 to September 1941.

Extremes.- Maximum discharge during year, 592 second-feet Apr. 25, 26; maximum gage height, 9.44 feet Apr. 26; no flow May 29 to June 1, July 2, 3.
1935-41: Maximum discharge, 2,960 second-feet Jan. 24, 1937 (gage height, 16.9 feet, from floodmark), from rating curve extended above 1,200 second-feet; no flow during periods in May, June, and August 1936, August 1937, October and November, 1938, and May, June, and July 1941.

Remarks.- Records fair except those below about 10 second-feet, which are poor. Flow affected by seasonal diversions for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	2.9	129	145	373	283	21	328	0	0.1	85	42
2	29	4.4	120	145	382	259	19	283	.1	0	355	41
3	30	4.0	117	159	436	235	119	238	.1	.8	143	41
4	24	6.8	114	152	436	219	212	180	.4	12	47	38
5	28	6.5	108	120	418	205	235	123	1.0	9.2	19	35
6	26	5.2	100	96	391	191	198	73	.9	8.1	9.2	35
7	24	3.6	106	80	355	219	166	41	1.2	5.8	4.8	36
8	29	2.6	129	68	307	235	146	25	2.4	4.1	3.3	28
9	28	3.7	145	55	251	205	128	16	2.6	3.8	3.0	21
10	25	13	120	44	205	163	110	16	2.1	3.1	2.5	24
11	22	36	90	34	156	122	96	13	1.6	3.4	1.4	24
12	18	88	76	28	116	96	86	10	2.6	3.5	1.8	26
13	11	123	117	22	88	78	76	7.4	4.0	7.6	1.0	23
14	9.2	129	192	18	68	68	62	6.4	3.1	21	.7	18
15	11	108	283	16	54	71	48	4.0	2.6	44	2.0	22
16	10	83	463	31	56	96	46	3.0	2.2	38	4.5	23
17	9.0	57	463	28	58	107	52	2.4	1.4	24	4.0	17
18	5.6	43	454	22	54	86	50	1.8	1.6	19	3.3	14
19	3.3	35	427	21	49	63	43	1.4	1.1	25	5.9	16
20	2.5	30	382	22	94	47	102	1.2	.5	30	9.8	18
21	2.2	25	328	25	146	35	235	.9	.2	30	9.0	15
22	2.0	23	265	22	191	27	251	.7	.1	30	7.3	13
23	1.9	22	212	34	198	23	445	.6	.6	31	7.8	9.6
24	2.6	55	173	155	198	25	556	.4	1.2	28	8.4	6.8
25	2.7	117	148	273	235	52	592	.3	2.6	29	8.4	6.2
26	2.3	156	123	463	283	74	592	.2	3.3	103	8.4	5.8
27	1.9	184	138	481	299	71	556	.1	2.0	78	7.4	7.6
28	1.6	196	204	472	299	54	499	.1	.9	35	16	9.7
29	5.4	170	220	454	-	40	436	0	.3	73	47	9.4
30	3.9	142	180	427	-	31	373	0	.2	45	39	7.8
31	2.5	-	135	400	-	26	-	0	-	24	40	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	400.6	30	1.6	12.9	795
November	1,874.7	196	2.6	62.5	3,720
December	6,261	463	76	202	12,420
Calendar year 1940	36,534.6	850	.9	99.8	72,470
January	4,518	481	16	146	8,960
February	6,196	436	49	221	12,290
March	3,506	283	23	113	6,950
April	6,580	592	19	218	12,990
May	1,377.9	328	0	44.4	2,730
June	42.9	4.0	0	1.43	85
July	766.5	103	0	24.8	1,520
August	904.9	355	.7	29.2	1,790
September	651.8	42	5.8	21.1	1,290
Water year 1940-41	33,052.3	592	0	90.5	65,560

Arkansas River at Granite, Colo.

Location.- Water-stage recorder, lat. 39°03', long. 106°16', in sec. 31, T. 11 S., R. 79 W., at Granite, just upstream from Cache Creek. Datum of gage is 8,915.72 feet above mean sea level.
Drainage area.- 431 square miles.
Records available.- April to October 1895, May 1897 to September 1899, April 1910 to September 1927 and October 1933 to September 1941, in reports of Geological Survey. May 1897 to September 1899 and April 1910 to September 1941 in reports of State engineer.
Average discharge.- 31 years (1910-41), 333 second-feet.
Extremes.- Maximum discharge during year, 2,060 second-feet June 21; maximum gage height, 6.67 feet June 19; minimum daily discharge, 50 second-feet Mar. 12.
1895, 1897-99, 1910-41: Maximum discharge, 2,900 second-feet June 16, 1924 (gage height, 4.57 feet); minimum not determined.
Remarks.- Records good except those for period of ice effect, which are fair. Small diversions above station for irrigation. Sugar Loaf and Twin Lakes Reservoirs are on tributaries above station (combined capacity, 72,120 acre-feet). The following records, furnished by the office of the State engineer, show diversions above station from Colorado River Basin to Arkansas River Basin.

Ditch or tunnel	Diversion from	Diversion (acre-feet)
Ewing ditch	Eagle River and tributaries...	379
Busk-Ivanhoe tunnel...	Fryingpan Creek.....	3,470
Twin Lakes tunnel.....	Roaring Fork.....	36,090
Fremont Pass ditch....	Tenmile Creek.....	591
Wurts ditch.....	Eagle River.....	2,110
Columbine ditch.....	Eagle River.....	1,320
Total.....		43,960

Note.- Columbine ditch was erroneously published in Water-Supply Paper 877 as diverting from Tomichi Creek.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	232	109	109	74	64	75	85	225	658	969	352	181
2	232	109	111	72	64	74	75	225	622	906	393	172
3	216	100	103	70	67	72	70	263	647	893	497	138
4	197	105	106	68	72	53	77	263	730	927	602	127
5	191	96	98	66	77	68	83	222	708	941	586	118
6	166	103	100	110	76	57	83	229	679	895	650	153
7	159	96	96	*166	66	53	82	211	647	1,010	879	525
8	154	96	96	166	67	51	75	214	665	1,100	913	576
9	156	96	96	160	70	65	78	249	582	1,050	900	607
10	161	98	98	80	71	51	85	495	467	1,100	872	586
11	169	96	*96	79	*74	*51	89	559	457	763	886	525
12	219	84	94	84	74	50	105	672	471	540	955	207
13	200	78	84	83	75	58	100	862	430	535	948	127
14	188	78	78	80	74	68	92	820	407	505	927	149
15	132	*81	74	69	72	57	100	576	481	492	920	492
16	154	90	76	60	73	54	103	831	600	482	948	496
17	142	100	78	58	73	60	105	790	704	478	920	456
18	135	120	78	59	73	57	94	892	907	422	814	174
19	132	114	80	65	74	63	89	957	1,960	326	826	109
20	132	111	82	68	94	61	83	847	1,980	545	801	106
21	132	114	86	66	130	60	85	525	1,880	505	782	104
22	132	114	90	67	170	61	92	414	1,710	409	596	126
23	128	111	88	66	170	65	100	404	1,660	372	581	153
24	128	116	85	66	150	64	114	450	1,760	337	558	147
25	123	111	82	65	80	61	125	501	1,650	340	353	138
26	111	107	80	63	74	67	142	539	1,420	380	323	136
27	120	132	80	62	64	77	166	614	1,290	459	309	133
28	125	169	86	63	75	80	164	593	1,190	443	306	126
29	118	164	82	68	-	80	169	556	1,100	447	287	127
30	116	140	78	70	-	82	197	546	1,050	426	202	127
31	114	-	77	76	-	86	-	600	-	401	186	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,814	232	111	155	9,550
November	3,238	169	78	108	6,420
December	2,746	111	74	88.6	5,450
Calendar year 1940	86,327	1,150	54	236	171,200
January	2,469	166	58	79.6	4,900
February	2,543	170	64	83.7	4,650
March	1,980	85	50	63.9	3,930
April	3,107	197	70	104	6,160
May	16,164	957	211	521	32,060
June	29,482	1,980	407	983	58,480
July	19,376	1,100	326	625	38,430
August	19,822	955	186	639	39,320
September	7,540	607	104	245	14,560
Water year 1940-41	112,881	1,980	50	309	223,900

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 12-17, Dec. 13 to Mar. 3.

Arkansas River at Salida, Colo.

Location.- Water-stage recorder, lat. 38°31', long. 106°01', in sec. 31, T. 50 N., R. 9 E., at Salida, 3 miles upstream from South Arkansas River. Datum of gage is 7,051.45 feet above mean sea level, datum of 1929.

Drainage area.- 1,210 square miles.

Records available.- April 1895 to October 1903, November 1909 to September 1927, October 1933 to September 1941 in reports of Geological Survey. April 1895 to October 1903, November 1909 to September 1941 in reports of State engineer.

Average discharge.- 31 years (1910-41), 615 second-feet.

Extremes.- Maximum discharge during year, 3,530 second-feet June 21 (gage height, 4.33 feet); minimum daily, 166 second-feet Mar. 8, 13.
1895-1903, 1909-1941: Maximum discharge, 5,100 second-feet June 16, 1924 (gage height, 7.2 feet, site and datum then in use; minimum daily, 124 second-feet Apr. 12, 1940.

Remarks.- Records excellent. Diversions above station for irrigation. Flow regulated by Clear Creek Reservoir (capacity, 11,444 acre-feet) and as noted in deecription for station at Granite.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	323	214	271	210	204	198	201	337	1,010	1,670	645	362
2	351	204	260	194	194	204	201	351	970	1,470	565	346
3	337	201	260	188	191	196	188	382	1,030	1,550	538	328
4	314	204	247	185	191	194	182	424	1,200	1,560	761	296
5	300	204	239	188	198	188	178	388	1,270	1,590	626	275
6	309	204	231	191	201	182	185	388	1,320	1,480	970	266
7	292	201	235	198	198	175	185	377	1,350	1,460	1,030	408
8	279	194	235	258	204	166	182	372	1,250	1,700	1,130	625
9	275	201	231	266	204	175	178	414	1,060	1,630	1,170	684
10	292	217	239	247	204	169	182	494	842	1,590	1,220	668
11	283	217	235	201	204	176	191	691	753	1,470	1,180	632
12	314	214	231	210	204	182	198	777	738	1,180	1,250	513
13	323	210	220	210	207	166	210	1,300	753	1,120	1,340	300
14	305	210	224	204	207	175	204	1,710	923	1,150	1,460	279
15	296	224	231	204	210	182	210	1,240	990	1,070	1,390	414
16	260	231	224	194	210	172	207	1,310	1,190	932	1,360	572
17	271	235	231	191	201	172	210	1,200	1,730	885	1,380	585
18	243	239	224	191	210	182	210	1,320	2,220	868	1,240	469
19	251	254	228	210	217	201	198	1,470	2,800	850	1,180	279
20	228	247	220	204	207	214	185	1,410	3,240	980	1,140	243
21	228	239	210	207	228	214	178	1,010	3,330	1,020	1,140	235
22	235	247	224	198	275	214	185	625	3,230	851	1,000	285
23	235	250	228	198	266	210	182	660	3,100	755	660	398
24	231	250	231	191	243	224	185	645	3,280	691	684	362
25	228	254	235	201	210	210	191	753	3,220	730	558	351
26	217	247	217	191	198	194	214	834	2,930	691	526	314
27	217	231	217	204	185	201	250	990	2,680	738	475	296
28	220	287	220	191	185	210	276	990	2,540	753	469	279
29	217	314	220	204	-	214	262	885	2,260	714	482	287
30	214	318	224	207	-	210	287	834	1,940	676	440	296
31	217	-	224	207	-	198	-	876	-	660	377	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,275	351	214	267	16,410
November	6,962	318	194	232	13,810
December	7,146	271	210	231	14,170
Calendar year 1940	132,588	1,470	124	362	263,000
January	6,343	266	185	205	12,580
February	5,856	275	185	209	11,620
March	5,972	224	166	193	11,850
April	6,094	287	178	203	12,090
May	25,457	1,710	337	821	50,490
June	55,109	3,330	738	1,837	109,300
July	34,442	1,700	660	1,111	68,310
August	28,886	1,460	377	932	57,290
September	11,645	684	235	388	23,100
Water year 1940-41	202,187	3,330	165	554	401,000

Arkansas River at Canon City, Colo.

Location.- Water-stage recorder, lat. 38°26', long. 105°15', in sec. 32, T. 18 S., R. 70 W., in Canon City, just upstream from Sand Creek. Datum of gage is 5,343.87 feet above mean sea level, datum of 1929.

Drainage area.- 3,090 square miles.

Records available.- May 1888 to September 1927, October 1933 to September 1941 in reports of U. S. Geological Survey. May 1888 to September 1941 in reports of State engineer.

Average discharge.- 53 years (1888-1941), 719 second-feet.

Extremes.- Maximum discharge during year, 11,800 second-feet July 13 (gage height, 8.66 feet), from rating curve extended above 5,000 second-feet; minimum daily, 127 second-feet Apr. 17, 18.

1888-1941: Maximum discharge, 19,000 second-feet Aug. 2, 1921 (gage height, 10.7 feet), from rating curve extended above 4,000 second-feet; minimum daily, 82 second-feet Apr. 10, 1940.

Remarks.- Records good except those for period of ice effect and those for period Mar. 15 to May 15, which are fair. Diversions above station for irrigation. For statements on regulation, see descriptions for stations at Granite and Salida.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	210	386	294	251	262	330	445	1,510	2,240	688	361
2	274	228	326	247	232	282	318	540	1,420	1,980	626	354
3	294	243	314	240	240	266	306	590	1,330	1,910	603	320
4	278	243	294	225	247	236	294	636	1,520	1,900	701	290
5	266	266	286	232	262	236	274	559	1,780	1,900	795	268
6	270	243	270	270	247	236	251	502	1,900	1,830	960	245
7	270	251	266	274	262	228	240	518	1,910	1,690	980	243
8	270	200	274	302	243	225	182	481	1,970	1,860	1,160	479
9	262	179	243	374	247	225	186	450	1,880	1,880	1,290	638
10	266	210	*228	386	255	214	189	590	1,520	1,790	1,300	650
11	266	b251	b218	334	251	210	189	645	1,420	1,850	1,340	608
12	266	b236	b210	318	240	251	189	785	1,250	1,470	1,560	565
13	306	b259	b215	290	259	274	196	1,330	1,150	1,820	1,400	361
14	294	*b262	b235	262	247	262	214	1,960	1,270	1,570	1,440	262
15	298	b310	255	251	236	247	207	1,860	1,380	1,480	1,560	259
16	259	b318	266	251	247	225	169	1,560	1,540	1,310	1,420	452
17	243	306	322	243	240	218	127	1,560	2,050	1,260	1,460	497
18	255	274	394	225	232	228	127	1,570	2,540	1,310	1,450	502
19	225	306	432	266	247	243	145	1,740	3,350	1,320	1,310	326
20	221	342	390	274	251	266	136	1,790	4,180	1,340	1,330	243
21	218	302	378	282	243	338	143	1,560	4,240	1,390	1,290	220
22	214	286	378	266	286	346	156	1,210	4,360	1,220	1,260	270
23	221	306	390	259	334	366	176	1,120	4,360	1,030	1,000	416
24	218	322	378	255	326	338	152	934	4,620	920	912	425
25	225	322	350	266	322	326	232	997	4,680	1,170	638	388
26	218	326	338	247	334	314	255	1,320	4,460	952	570	358
27	225	290	322	236	302	322	326	1,500	3,700	888	502	325
28	218	302	338	232	243	314	458	1,570	3,410	912	465	310
29	218	382	334	247	-	310	472	1,450	3,100	841	456	307
30	210	386	314	278	-	314	458	1,420	2,600	841	461	320
31	214	-	302.	251	-	354	-	1,390	-	748	396	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,752	306	210	250	15,380
November	8,361	386	179	279	16,580
December	9,646	452	210	311	19,130
Calendar year 1940	129,290	1,310	82	353	256,400
January	8,377	386	225	270	16,620
February	7,326	354	232	262	14,530
March	8,476	366	210	273	16,810
April	7,095	472	127	236	14,070
May	34,380	1,960	445	1,109	68,190
June	76,400	4,680	1,150	2,547	151,500
July	44,622	2,240	748	1,439	88,510
August	31,523	1,560	396	1,010	62,130
September	11,260	650	220	375	22,330
Water year 1940-41	255,018	4,680	127	699	505,800

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Arkansas River at Portland, Colo.

Location.- Water-stage recorder, lat. 38°24', long. 105°01', in sec. 21, T. 19 S., R. 68 W., at lower edge of Portland, a short distance upstream from Hardscrabble Creek. Datum of gage is 5,921.56 feet above mean sea level, datum of 1929.

Drainage area.- 3,790 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 7,580 second-feet July 1 (gage height, 7.25 feet), from rating curve extended above 5,000 second-feet; minimum daily, 148 second-feet Apr. 17.
1939-41: Maximum discharge, that of July 1, 1941; minimum daily, 98 second-feet Apr. 1, 1940.

Remarks.- Records fair. Diversions above station for irrigation. For statements on regulation, see descriptions for stations at Salida and Granite.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	317	205	353	283	265	256	349	637	1,710	2,600	749	421
2	320	205	301	259	256	274	342	733	1,660	2,120	650	397
3	338	214	292	232	247	265	338	773	1,610	1,950	598	365
4	314	211	292	214	247	262	324	881	2,010	2,050	665	320
5	292	229	280	214	256	256	304	824	2,100	2,030	797	298
6	292	211	268	238	247	265	298	741	2,150	1,940	950	286
7	289	211	262	250	244	259	295	765	2,180	1,770	980	274
8	268	205	262	259	235	253	223	718	2,300	1,880	1,070	425
9	292	196	259	301	232	283	205	650	2,190	1,990	1,110	672
10	295	223	*253	314	241	307	188	710	1,800	1,880	1,180	725
11	286	b244	b235	292	241	320	182	1,000	1,680	2,010	1,300	672
12	271	b229	b220	268	235	314	180	1,110	1,510	1,780	2,120	624
13	301	b217	b225	265	241	286	188	1,480	1,390	2,130	1,660	460
14	298	*b226	b240	259	241	271	188	2,090	1,470	1,840	1,600	324
15	286	b259	b256	253	244	274	178	2,180	1,560	1,520	1,780	301
16	265	b289	b260	244	247	274	160	1,600	1,730	1,380	1,600	425
17	235	292	b320	226	241	259	148	1,740	2,240	1,320	1,730	555
18	250	286	b413	220	238	262	150	1,740	2,720	1,400	1,640	592
19	217	304	393	238	244	265	190	1,940	3,570	1,350	1,710	480
20	208	317	334	256	256	271	205	2,080	4,350	1,550	1,570	317
21	199	295	320	256	265	328	196	1,820	4,380	1,400	1,380	301
22	193	295	338	250	280	338	182	1,570	4,670	1,300	1,440	421
23	202	304	314	244	324	373	214	1,570	4,670	1,080	1,180	549
24	202	310	320	238	317	385	193	1,330	4,670	940	1,060	567
25	202	310	328	241	317	377	238	1,260	5,090	1,460	773	525
26	202	307	301	238	317	342	271	1,540	4,470	1,220	688	485
27	214	283	274	235	286	373	413	1,770	3,790	980	630	430
28	217	286	286	241	244	373	890	1,870	3,400	950	543	405
29	214	342	289	244	-	373	695	1,700	2,940	900	510	430
30	211	349	289	265	-	385	644	1,560	2,400	1,020	515	440
31	208	-	289	265	-	373	-	1,520	-	834	465	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,898	338	193	255	15,670
November	7,854	349	196	262	15,580
December	9,066	413	220	292	17,980
Calendar year 1940	136,432	1,440	98	373	270,600
January	7,802	314	214	252	15,480
February	7,248	324	232	259	14,380
March	9,496	385	253	306	18,840
April	8,571	890	148	286	17,000
May	41,902	2,180	637	1,352	83,110
June	82,410	5,090	1,390	2,747	163,600
July	48,574	2,600	834	1,567	96,350
August	34,643	2,120	465	1,118	68,710
September	13,466	725	274	449	26,710
Water year 1940-41	278,930	5,090	148	764	553,300

Peak discharge.- June 25 (1 a.m.) 6,300 sec.-ft.; July 1 (5 p.m.) 7,580 sec.-ft.; July 13 (11 p.m.) 7,360 sec.-ft.

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Arkansas River near Pueblo, Colo.

Location.- Water-stage recorder, lat. 38°16', long. 104°41', in sec. 34, T. 20 S., R. 65 W., at intake of south-side waterworks, 4 miles west of center of Pueblo. Datum of gage is 4,689.82 feet above mean sea level, datum of 1929.

Drainage area.- 4,730 square miles.

Records available.- May 1885 to September 1886, September 1894 to September 1927, October 1933 to September 1941, and June to December 1887, in reports of U. S. Geological Survey. May 1885 to September 1886, and September 1894 to September 1941 in reports of State engineer. (Records for May 1925 to September 1934 do not include water diverted above station into intake of north-side waterworks.)

Average discharge.- 37 years (1894-1924, 1934-41), 746 second-feet; 9 years (1925-34), 624 second-feet (not including water diverted above station into intake of north-side waterworks).

Extremes.- Maximum discharge during year, 7,560 second-feet July 19, from rating curve extended above 5,000 second-feet; minimum daily, 55 second-feet Apr. 18.
1885-87, 1894-1941: Maximum discharge, 103,000 second-feet June 3, 1921 (gage height, 24.66 feet, from gage at Pueblo), by slope-area method, including estimated discharge of Dry Creek, 19,500 second-feet; minimum daily, 18 second-feet (including 13 second-feet diverted above station into intake of north-side waterworks) Apr. 7, 1935.

Remarks.- Records good except those for periods of ice effect and those for period Sept. 6-30, which are fair. Records include water diverted above station into intake of north-side waterworks for municipal supply of Pueblo. Diversions above station for irrigation. For statements on regulation, see descriptions for stations at Salida and Granite.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	271	154	373	209	173	137	233	786	1,780	2,630	714	325
2	242	148	353	212	162	134	227	827	1,700	2,150	625	294
3	251	146	340	207	159	138	230	962	1,460	1,700	562	255
4	263	150	308	*209	150	138	218	944	2,030	2,150	561	217
5	238	152	307	192	136	131	200	948	2,180	2,030	644	208
6	230	169	300	b154	137	134	180	870	2,260	1,790	724	191
7	236	156	296	133	130	133	170	856	2,200	1,570	745	174
8	215	169	278	138	144	132	141	783	2,280	1,510	936	218
9	199	148	266	175	140	150	107	742	2,170	1,750	1,040	486
10	227	155	272	211	134	204	102	734	1,800	1,570	1,080	504
11	202	190	273	203	160	184	95	943	1,470	1,720	1,590	491
12	197	231	301	195	187	210	134	980	1,260	1,840	2,560	454
13	198	b226	218	195	198	209	145	1,150	1,080	1,600	1,580	419
14	219	b228	b149	182	176	159	143	1,690	1,060	2,490	1,390	312
15	193	251	b107	178	162	152	110	2,440	1,280	1,530	1,580	247
16	165	286	95	178	162	154	88	1,850	1,640	1,160	1,480	258
17	134	283	140	183	167	156	61	1,710	1,980	1,020	1,470	413
18	144	*301	192	222	153	141	55	1,640	2,630	1,030	1,740	441
19	137	302	258	223	141	140	122	1,680	3,600	2,110	1,700	395
20	102	347	244	195	150	143	119	1,880	4,380	1,110	1,460	266
21	103	321	236	189	158	180	119	1,830	4,470	1,290	1,270	206
22	98	308	266	193	158	225	103	1,580	4,740	1,040	1,270	268
23	106	311	249	175	196	237	119	1,690	4,610	848	1,080	360
24	119	310	267	162	199	265	142	1,400	4,510	726	863	383
25	121	314	274	185	195	273	108	1,230	5,010	900	679	366
26	157	310	254	189	200	246	184	1,480	4,630	1,240	560	357
27	138	304	239	154	196	246	268	1,570	3,830	770	520	315
28	160	290	235	152	149	247	1,100	1,790	3,470	803	434	286
29	161	312	218	141	-	255	1,150	1,940	3,080	680	420	334
30	162	360	214	167	-	263	911	2,000	2,590	665	406	382
31	158	-	201	178	-	246	-	1,760	-	905	362	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,525	271	98	178	10,960
November	7,354	360	146	244	14,550
December	7,723	373	95	249	15,320
Calendar year 1940	117,330	1,340	20	321	232,700
January	5,677	223	133	183	11,260
February	4,552	200	130	163	9,030
March	5,762	273	131	186	11,430
April	7,084	1,150	55	236	14,050
May	42,665	2,440	734	1,377	84,660
June	81,180	5,010	1,060	2,706	161,000
July	44,327	2,630	665	1,430	87,920
August	32,045	2,560	362	1,034	63,560
September	9,824	504	174	327	19,490
Water year 1940-41	253,718	5,010	55	695	503,200

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Arkansas River near Avondale, Colo.

Location.- Water-stage recorder, lat. 38°15', long. 104°24', in sec. 1, T. 21 S., R. 63 W., half a mile upstream from Sixmile Creek and 2½ miles west of Avondale.

Drainage area.- 6,350 square miles.

Records available.- May 1939 to September 1941.

Extremes.- Maximum discharge during year, 6,850 second-feet July 19 (gage height, 4.35 feet), from rating curve extended above 4,200 second-feet; minimum daily, 126 second-feet Apr. 18.
1939-41: Maximum discharge, 7,180 second-feet May 29, 1940 (gage height, 4.61 feet), from rating curve extended above 4,200 second-feet; minimum daily, 50 second-feet Apr. 2, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Storage and diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	165	455	430	303	228	294	1,280	1,600	1,800	927	494
2	344	188	468	377	285	249	290	1,200	2,660	2,500	730	430
3	339	157	418	308	294	267	308	1,390	2,440	2,160	618	383
4	339	153	412	245	276	249	324	1,520	3,110	2,560	536	324
5	313	165	412	233	267	220	329	1,280	2,680	2,730	588	294
6	276	180	383	271	285	204	299	1,100	2,660	2,240	692	267
7	271	169	372	290	271	237	280	1,140	2,770	1,860	730	245
8	271	150	360	329	285	233	290	1,120	2,580	1,640	a750	249
9	258	176	372	366	276	212	241	915	2,460	1,960	a1,050	588
10	290	169	360	412	258	267	204	814	2,100	1,800	1,170	645
11	329	180	344	412	245	285	188	1,090	1,680	1,630	1,260	645
12	313	220	377	383	249	280	184	1,160	1,480	1,730	4,620	580
13	285	233	383	360	271	294	212	1,260	1,520	1,710	2,340	529
14	276	276	188	350	212	262	237	1,470	1,470	2,870	1,660	350
15	262	241	303	372	216	237	216	1,750	1,530	2,160	1,900	267
16	245	271	a200	372	241	237	192	1,770	1,700	1,640	1,610	258
17	224	285	a200	360	237	245	129	1,310	2,180	1,270	1,580	389
18	204	318	377	350	241	233	126	1,450	2,620	1,200	1,840	474
19	216	383	474	366	237	233	180	1,630	3,110	2,840	1,860	494
20	188	383	494	395	254	271	228	1,440	3,640	1,640	1,960	372
21	176	395	501	395	262	290	212	1,140	4,320	2,110	1,820	258
22	176	383	522	377	276	294	196	1,010	5,160	1,630	1,730	449
23	153	344	522	372	271	329	192	3,160	4,800	1,170	1,660	474
24	176	377	558	344	280	383	245	2,260	4,670	870	1,360	508
25	161	383	550	334	267	424	220	1,640	5,370	987	1,130	487
26	139	412	522	324	271	430	267	1,450	4,800	1,790	814	461
27	129	406	468	329	280	412	424	1,560	4,140	1,060	2,320	372
28	129	395	474	334	249	383	1,140	1,940	3,600	1,160	962	294
29	136	401	455	334	-	350	2,060	2,200	3,180	1,090	730	324
30	146	443	443	344	-	344	1,820	1,600	2,400	1,020	664	383
31	169	-	418	313	-	316	-	1,130	-	1,050	588	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,283	350	129	235	14,450
November	8,401	443	150	280	16,660
December	12,785	558	188	412	25,360
Calendar year 1940	154,525	3,250	50	422	306,500
January	10,781	430	233	348	21,380
February	7,359	303	212	263	14,600
March	8,900	430	204	287	17,650
April	11,527	2,060	126	384	22,860
May	45,179	3,160	814	1,457	89,610
June	88,430	5,370	1,470	2,948	175,400
July	53,877	2,870	870	1,738	106,900
August	42,199	4,620	536	1,361	83,700
September	12,287	645	245	410	24,370
Water year 1940-41	309,008	5,370	126	847	612,900

a No gage-height record; discharge computed on basis of records for station near Pueblo.

Arkansas River near Nepesta, Colo.

Location.- Water-stage recorder above diversion dam of Oxford Farmers Co. canal, lat. 38°11', long. 104°10', in sec. 31, T. 21 S., R. 60 W., 1¼ miles west of Nepesta.

Drainage area.- 9,130 square miles.

Records available.- September 1897 to October 1903, July 1909 to November 1912 and October 1933 to September 1941 in reports of U. S. Geological Survey. September 1897 to October 1903, July 1909 to November 1912 and January 1914 to September 1941 in reports of State engineer.

Average discharge.- 16 years (1917-21, 1922-28, 1935-41), 664 second-feet.

Extremes.- Maximum discharge during year, 9,470 second-feet Aug. 27 (gage height, 5.85 feet), from rating curve extended above 6,300 second-feet; minimum daily, 66 second-feet Sept. 28.
1897-1903, 1909-12, 1914-41: Maximum discharge, 180,000 second-feet at point 9 miles upstream June 4, 1921, by slope-area method; no flow at times in 1902, 1910, 1931, 1934.

Remarks.- Records good except those for periods of ice effect, which are fair. Storage and diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	245	136	330	347	256	224	352	1,410	1,630	1,800	698	347
2	219	128	314	298	213	202	364	1,470	2,100	2,220	496	352
3	256	153	336	274	217	195	370	976	2,800	3,180	346	314
4	226	190	*325	275	192	195	340	978	2,600	3,000	322	246
5	192	199	303	256	202	224	286	850	2,740	2,430	376	199
6	183	199	303	242	206	229	291	672	2,510	1,270	328	186
7	210	*212	314	247	188	306	256	1,050	2,560	1,140	398	150
8	177	193	309	301	192	291	275	994	2,460	1,150	423	136
9	160	186	314	301	179	270	213	1,050	2,300	1,410	464	180
10	245	168	298	242	164	296	167	1,070	2,380	1,370	517	264
11	249	171	309	270	176	358	152	1,070	2,280	1,270	517	255
12	192	b200	325	252	206	364	152	866	1,960	1,320	3,790	216
13	169	b230	b300	270	306	398	167	1,180	1,310	1,560	1,690	193
14	136	b250	b715	270	206	370	202	1,690	1,150	3,700	1,390	180
15	108	b240	b230	270	176	238	206	2,220	1,310	1,480	1,330	246
16	92	b260	b195	233	173	224	152	1,900	1,600	1,080	1,070	246
17	136	325	b185	224	179	213	134	1,900	2,290	866	866	209
18	142	269	b240	210	188	185	110	2,010	2,010	1,050	1,120	159
19	139	336	b300	204	179	164	152	2,510	2,350	2,920	1,690	177
20	128	*514	b340	265	185	195	224	2,510	3,180	1,140	1,580	193
21	99	309	b385	275	224	233	195	2,060	4,270	1,480	1,600	556
22	99	314	b440	265	265	265	213	1,430	4,980	1,480	820	1,040
23	101	341	b510	247	256	317	229	3,070	4,430	1,230	1,640	674
24	104	330	b580	224	179	423	275	2,170	4,400	946	850	336
25	110	359	726	224	188	538	275	1,940	5,220	882	713	326
26	106	347	*577	224	206	608	213	1,940	4,650	1,730	660	556
27	110	330	412	270	275	517	312	2,510	4,300	882	3,640	325
28	110	293	427	270	265	506	1,090	2,710	3,790	1,270	1,090	66
29	120	314	399	286	-	439	1,450	2,560	3,590	1,120	392	202
30	129	330	372	286	-	398	1,390	1,990	2,270	1,560	347	359
31	136	-	352	286	-	346	-	1,780	-	1,290	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,808	249	92	155	9,540
November	7,626	359	128	254	15,130
December	11,465	726	185	370	22,740
Calendar year 1940	112,993	2,750	12	309	224,100
January	8,108	347	204	262	16,080
February	5,841	306	164	209	11,590
March	9,731	608	164	314	19,300
April	10,203	1,450	110	340	20,240
May	52,538	3,070	672	1,695	104,200
June	85,920	5,220	1,150	2,864	170,400
July	49,706	3,700	866	1,603	98,690
August	31,423	3,790	322	1,014	62,330
September	6,887	1,040	66	296	17,630
Water year 1940-41	286,256	5,220	66	784	567,800

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Arkansas River at La Junta, Colo.

Location.- Water-stage recorder, lat. 37°59', long. 103°31', in sec. 2, T. 24 S., R. 55 W., at East Bridge in La Junta, just upstream from King Arroyo. Datum of gage is 4,039.60 feet above mean sea level, datum of 1929.

Drainage area.- 12,200 square miles.

Records available.- May to August 1889, December 1893 to December 1895, January to December 1901, April to October 1903, August to November 1908, April 1912 to December 1913, and October 1933 to September 1941 in reports of U. S. Geological Survey. December 1893 to December 1895, January to December 1901, April to October 1903, August to November 1908, and April 1912 to September 1941 in reports of State engineer. This station has been maintained at several different sites in La Junta, but all records are equivalent.

Average discharge.- 29 years (1912-41), 252 second-feet.

Extremes.- Maximum discharge during year, 4,080 second-feet July 19 (gage height, 8.35 feet); minimum daily, 2.0 second-feet Sept. 26.
1889, 1893-95, 1901, 1903, 1908, 1912-41: Maximum discharge, 200,000 second-feet June 4, 1921 (gage height, 18.4 feet), by slope-area method; no flow Jan. 20-23, Mar. 20-22, 1915.

Remarks.- Records good. Storage and diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	7.4	101	175	39	32	154	137	78	196	394	238
2	181	7.4	107	187	40	33	154	104	217	246	168	270
3	86	9.6	81	160	63	34	213	62	234	117	196	53
4	58	14	87	121	97	26	171	27	251	176	242	47
5	52	13	68	119	90	27	146	16	138	187	109	88
6	30	9.6	58	91	75	45	151	37	84	69	68	59
7	14	8.8	51	115	64	54	66	67	558	92	74	39
8	7.4	8.8	42	115	55	64	55	46	860	76	54	43
9	12	8.8	37	111	62	111	59	52	135	158	46	71
10	9.6	5.3	27	109	55	183	35	53	94	289	119	41
11	14	18	28	82	29	186	24	67	193	213	66	42
12	23	12	47	71	20	280	14	31	121	489	503	35
13	7.1	10	64	62	28	166	14	73	82	437	400	34
14	6.5	35	81	68	62	161	43	100	128	586	181	24
15	7.7	43	103	90	67	118	67	174	172	109	280	15
16	7.1	158	162	57	62	64	78	183	103	314	503	51
17	6.5	256	138	55	53	28	19	133	196	456	551	36
18	7.4	193	92	68	37	24	18	325	125	190	510	31
19	11	158	74	75	23	18	23	330	190	572	656	18
20	14	165	78	67	24	28	25	565	193	221	482	11
21	15	155	142	71	32	25	37	386	187	366	450	12
22	16	142	238	85	39	46	28	149	1,060	242	251	677
23	14	115	251	80	49	59	40	800	628	256	187	28
24	48	155	309	79	47	86	42	1,020	572	275	190	16
25	84	175	275	79	54	239	30	105	679	284	256	2.6
26	18	181	202	88	33	352	51	57	1,490	119	344	2.0
27	10	160	140	104	16	364	30	84	988	87	2,220	16
28	8.8	150	168	131	33	290	54	119	572	94	98	126
29	7.7	138	196	140	-	369	104	68	628	109	69	117
30	7.4	109	175	146	-	267	171	89	213	142	74	46
31	6.8	-	160	51	-	202	-	81	-	294	140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	958.0	181	6.5	30.9	1,900
November	2,629.7	256	5.3	87.4	5,200
December	3,802	309	27	123	7,540
Calendar year 1940	33,830.8	934	1.3	92.4	67,110
January	3,072	187	51	99.1	6,090
February	1,348	97	16	48.1	2,670
March	3,981	369	18	128	7,900
April	2,116	213	14	70.5	4,200
May	5,531	1,020	16	178	10,970
June	11,163	1,490	78	372	22,140
July	7,457	586	69	241	14,790
August	9,901	2,220	46	319	19,640
September	2,288.6	677	2.0	76.3	4,540
Water year 1940-41	54,238.3	2,220	2.0	149	107,800

Arkansas River at Las Animas, Colo.

Location.- Water-stage recorder, lat. 38°05', long. 103°12', in NW¼ sec. 2, T. 23 S., R. 52 W., 1,500 feet downstream from highway bridge and 1 mile north of Las Animas.

Drainage area.- 14,500 square miles.

Records available.- May 1939 to September 1941.

Extremes.- 1939: Maximum discharge during period May to September, 4,320 second-feet May 26 (gage height, 5.63 feet); minimum daily, 10 second-feet Sept. 4-5.
1939-40: Maximum discharge during water year, 3,070 second-feet Sept. 11 (gage height, 5.61 feet); minimum daily, 8 second-feet Aug. 9, 28.
1940-41: Maximum discharge during water year, 4,010 second-feet Aug. 27 (gage height, 7.00 feet); minimum daily, 9 second-feet Oct. 11, Nov. 4, 8.

Remarks.- Records good. Storage and diversions above station for irrigation.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1939-41

1939

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-	683	208	17	13	16	-	568	18	20	42
2	-	721	159	23	12	17	-	568	15	17	51
3	-	485	204	185	11	18	-	512	15	14	40
4	-	473	96	355	10	19	-	536	14	14	36
5	-	466	61	139	10	20	-	544	14	729	35
6	-	458	36	43	23	21	-	466	17	409	33
7	-	461	87	16	22	22	-	285	17	122	29
8	-	444	137	11	23	23	-	444	17	49	30
9	-	444	153	11	25	24	536	323	14	28	38
10	-	480	63	11	27	25	628	276	14	23	39
11	-	422	31	12	26	26	1,670	280	25	21	39
12	-	451	22	13	25	27	1,360	196	22	19	36
13	-	395	21	15	22	28	315	146	19	18	35
14	-	473	21	29	22	29	497	151	18	17	30
15	-	560	19	21	22	30	660	110	17	16	31
						31	686	-	17	14	-

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	14	20	66	56	51	14	14	324	13	177	11
2	33	14	20	59	171	51	14	14	405	13	70	13
3	29	14	20	53	194	68	14	14	442	14	29	22
4	28	14	19	99	136	62	14	13	459	14	17	36
5	30	14	22	112	128	60	14	14	442	66	13	176
6	31	14	24	246	112	65	13	17	226	16	11	64
7	32	14	27	99	112	68	12	18	240	17	10	25
8	32	14	30	86	101	65	12	21	308	17	10	23
9	39	14	32	81	80	66	11	23	262	27	8	23
10	40	14	29	49	78	58	14	13	262	16	9	220
11	39	14	26	51	75	58	19	11	117	27	17	681
12	39	14	21	63	59	69	24	12	65	26	39	40
13	39	14	16	71	54	60	29	12	52	20	45	37
14	36	14	15	81	50	68	17	12	40	14	43	43
15	36	16	16	67	48	95	22	12	40	13	44	59
16	34	16	18	42	46	71	28	21	40	11	42	299
17	34	16	18	37	45	46	68	144	56	13	30	115
18	36	15	18	40	49	43	70	220	82	62	25	35
19	34	16	17	123	50	41	50	233	153	65	78	21
20	36	15	22	52	52	36	78	223	70	40	97	17
21	37	15	24	42	64	32	70	312	36	30	146	18
22	31	16	37	41	56	24	52	292	31	25	44	16
23	25	17	66	43	64	19	40	154	60	18	17	12
24	18	18	69	41	73	17	28	124	130	26	14	14
25	18	19	59	40	103	17	18	111	52	46	12	276
26	18	19	141	41	132	16	17	78	40	45	11	338
27	15	18	63	43	132	15	17	207	33	169	10	453
28	14	25	79	45	101	14	15	186	24	213	8	342
29	14	20	56	46	56	12	14	242	21	105	10	204
30	14	20	59	43	-	14	14	822	16	45	11	166
31	14	-	67	46	-	14	-	312	-	350	12	-

Discharge, in second-feet, of Arkansas River at Las Animas, Colo., 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	11	127	149	76	24	188	66	82	170	336	227
2	297	10	100	149	62	22	143	126	277	164	228	263
3	147	10	104	143	55	20	185	132	270	240	108	257
4	90	9	86	143	78	18	179	96	327	228	134	215
5	61	10	84	132	108	12	159	65	186	316	177	99
6	39	10	66	104	98	13	141	40	108	208	63	86
7	30	10	51	108	76	11	138	33	233	125	40	59
8	18	9	61	112	72	10	72	21	895	114	34	43
9	12	10	48	110	72	11	45	18	244	84	23	45
10	11	10	44	112	82	116	47	19	103	178	25	54
11	9	20	40	123	78	145	37	17	117	227	47	32
12	21	146	31	106	66	177	23	45	112	278	99	23
13	32	25	31	110	62	239	18	16	72	478	462	20
14	18	28	51	123	69	159	15	15	42	392	117	19
15	23	28	61	140	127	166	41	23	108	602	110	18
16	14	52	71	116	108	119	57	44	84	376	247	19
17	16	195	72	94	84	62	57	26	30	678	372	24
18	11	196	76	100	51	26	24	82	66	379	358	16
19	10	162	72	102	44	20	36	134	52	368	363	15
20	10	147	66	102	39	17	31	311	38	1,170	552	15
21	14	162	59	102	30	11	22	424	40	413	510	23
22	16	138	123	100	25	10	13	464	566	344	586	926
23	12	123	231	100	25	10	14	548	697	269	510	332
24	17	121	289	100	30	10	14	1,540	512	286	283	209
25	31	172	307	94	30	60	12	515	423	294	239	139
26	24	156	287	92	29	353	12	123	958	224	286	105
27	14	161	188	104	24	374	13	97	927	301	1,440	108
28	11	147	164	132	21	319	14	86	520	185	1,000	309
29	11	134	172	141	-	319	53	80	358	177	177	314
30	10	114	143	136	-	308	46	65	369	188	152	395
31	10	-	162	121	-	221	-	50	-	244	123	-

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 24-31, 1939	6,192	1,670	315	774	12,280
June	12,789	721	110	426	25,370
July	1,572	208	14	50.7	3,120
August	2,451	729	11	78.4	4,880
September	837	51	10	27.9	1,660
The period	-	-	-	-	47,250
October 1939	906	40	14	29.2	1,800
November	475	25	14	15.8	942
December	1,142	141	15	36.8	2,270
Calendar year	-	-	-	-	-
January 1940	2,048	246	37	66.1	4,060
February	2,467	194	45	85.1	4,890
March	1,384	95	12	44.6	2,750
April	822	76	11	27.4	1,630
May	3,911	822	11	126	7,760
June	4,528	459	16	151	8,980
July	1,565	350	11	50.5	3,106
August	1,109	177	8	35.8	2,200
September	3,789	681	11	126	7,520
Water year 1939-40	24,146	822	8	66.0	47,900
October 1940	1,220	297	9	39.4	2,420
November	2,506	196	9	83.5	4,970
December	3,447	307	31	111	6,840
Calendar year 1940	28,796	822	8	76.7	57,120
January 1941	3,600	149	92	116	7,140
February	1,711	127	21	61.1	3,390
March	3,382	374	10	109	6,710
April	1,849	188	12	61.6	3,670
May	5,321	1,540	15	172	10,550
June	8,815	958	30	294	17,480
July	9,700	1,170	84	313	19,240
August	9,201	1,440	23	297	18,250
September	4,409	926	15	147	8,750
Water year 1940-41	55,161	1,540	9	151	109,400

Arkansas River at Caddoa, Colo.

Location.- Water-stage recorder, lat. 38°06', long. 102°55', in northwest corner of sec. 4, T. 23 S., R. 49 W., just upstream from Caddoa Creek and 2 miles east of Caddoa. Datum of gage is 3,741.04 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 19,000 square miles.

Records available.- March 1938 to September 1941.

Extremes.- Maximum discharge during year, 12,800 second-feet May 3 (gage height, 6.40 feet); minimum daily, 9 second-feet Nov. 12.
1938-41: Maximum discharge, that of May 3, 1941; minimum daily, 5 second-feet July 16, 1939.

Remarks.- Records good except those for period Dec. 10 to Jan. 5, which are fair. Storage and diversions above station for irrigation.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	22	139	239	261	40	250	610	610	660	446	326
2	322	24	133	230	211	42	250	1,030	1,350	502	502	438
3	258	25	133	220	171	42	289	6,110	1,260	446	519	362
4	166	27	130	202	154	60	376	3,210	1,530	785	289	300
5	103	24	108	184	176	58	343	2,450	1,650	1,070	272	225
6	66	27	98	171	193	47	289	1,420	1,530	650	225	119
7	50	28	72	150	180	51	239	988	1,280	337	125	106
8	47	27	66	150	150	47	202	768	1,590	300	109	85
9	24	26	70	158	140	44	150	664	958	221	99	79
10	28	26	68	147	143	47	125	615	788	163	80	75
11	25	20	66	143	143	115	122	551	700	498	80	66
12	22	9	72	147	122	165	106	634	610	478	125	51
13	64	28	42	136	102	193	99	654	462	972	1,770	44
14	38	34	61	158	90	202	74	664	376	777	777	39
15	33	35	108	261	112	184	72	644	362	1,740	337	38
16	36	45	119	266	147	184	77	693	600	1,680	300	36
17	33	136	130	184	129	129	112	736	670	1,040	446	39
18	31	278	146	154	115	82	96	757	446	700	519	48
19	27	222	128	163	103	60	90	757	546	462	748	43
20	27	169	122	221	95	49	102	768	600	1,220	2,590	39
21	26	177	122	180	72	47	93	920	494	546	2,050	47
22	25	169	116	167	64	51	80	1,240	701	564	2,440	884
23	26	152	169	158	60	58	72	1,200	1,260	356	1,560	4,020
24	24	159	423	163	55	70	84	2,580	1,180	350	800	3,640
25	28	169	369	165	58	90	102	1,730	1,000	410	586	1,510
26	34	192	319	156	53	340	167	960	1,600	846	586	779
27	30	185	278	176	49	416	325	670	1,800	733	2,340	461
28	27	204	239	171	44	403	454	670	1,210	722	2,250	577
29	27	185	261	202	-	356	824	766	846	510	777	683
30	24	156	250	225	-	345	733	680	822	537	564	725
31	23	-	225	211	-	337	-	410	-	416	362	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,054	370	22	66.6	4,090
November	2,980	278	9	99.3	5,910
December	4,802	423	42	155	9,520
Calendar year 1940	52,101	3,460	8	142	103,300
January	5,658	266	136	183	11,220
February	3,390	261	44	121	6,720
March	4,350	416	40	140	8,630
April	6,397	824	72	213	12,690
May	36,549	6,110	410	1,179	72,490
June	28,831	1,800	362	961	57,190
July	20,691	1,740	163	667	41,040
August	24,653	2,590	80	795	48,900
September	15,983	4,020	36	629	31,500
Water year 1940-41	156,248	6,110	9	428	309,900

Arkansas River at Lamar, Colo.

Location.- Water-stage recorder, lat. 38°06', long. 102°37', in sec. 30, T. 22 S., R. 46 W., 800 feet downstream from highway bridge, 1 mile north of Lamar. Prior to June 4, 1941, at site 800 feet upstream and at datum 1.00 foot higher. Datum of gage is 3,605.02 feet above mean sea level, datum of 1929. (Figure of datum for former site published in error in Water-Supply Paper 897).

Drainage area.- 19,800 square miles.

Records available.- May to December 1913 and October 1933 to September 1941 in reports of U. S. Geological Survey. May 1913 to September 1941 in reports of State engineer.

Average discharge.- 28 years, 258 second-feet.

Extremes.- Maximum discharge during year, 12,200 second-feet May 3 (gage height, 5.90 feet); minimum daily, 1.3 second-feet Apr. 11, 12.
1913-41: Maximum discharge, 165,000 second-feet June 5, 1921, by slope-area method; no flow at times during 1913-15.

Remarks.- Records fair prior to June 4, good thereafter. Storage and diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	1.8	1.8	8.0	1.6	11	3.2	411	68	38	20	50
2	9.6	1.8	1.8	5.6	1.8	11	3.2	2,060	1,120	143	10	30
3	9.2	1.8	1.7	4.6	1.6	11	3.7	5,170	1,170	110	8.8	18
4	3.6	1.8	1.7	5.6	1.6	11	3.7	3,090	860	215	3.2	16
5	2.0	1.8	1.6	31	1.6	11	3.7	2,160	801	765	2.4	16
6	2.0	1.7	1.6	30	1.6	10	4.2	1,110	820	350	2.4	12
7	2.0	1.7	1.5	16	1.6	9.5	3.7	686	574	113	2.2	8.0
8	2.0	1.7	1.5	18	1.6	8.7	3.2	425	1,130	19	3.2	6.4
9	2.0	1.7	1.5	16	1.6	8.0	2.7	265	880	15	19	7.2
10	2.0	1.7	1.5	32	1.6	7.2	2.7	348	444	14	28	5.6
11	2.0	1.8	1.5	35	1.6	6.5	1.3	270	320	53	42	4.8
12	2.0	1.8	1.5	40	1.6	3.7	1.3	270	260	42	55	8.8
13	2.0	1.8	1.5	40	6.0	3.7	2.7	255	178	190	186	12
14	2.0	1.8	1.5	35	13	3.7	2.7	245	73	295	194	11
15	2.0	1.8	1.8	24	13	3.7	2.7	89	23	432	32	8.8
16	2.0	2.0	1.8	24	13	4.2	2.7	56	75	639	25	8.0
17	2.0	2.0	1.8	15	13	4.2	2.7	81	310	720	31	7.2
18	2.0	2.0	1.8	15	13	4.2	2.7	33	170	487	31	7.2
19	2.0	2.0	1.8	24	13	1.8	2.3	18	28	140	53	8.0
20	2.0	2.0	1.8	24	32	1.8	2.3	16	140	494	648	5.6
21	1.8	2.1	1.8	6.5	26	2.3	2.3	68	53	290	910	3.6
22	1.8	2.1	1.8	6.5	11	2.3	2.3	676	75	174	1,180	29
23	1.8	2.1	1.8	6.5	11	2.3	2.3	548	606	122	747	1,370
24	1.8	2.1	9.2	6.6	11	2.3	2.3	1,550	684	35	390	1,400
25	1.8	2.1	41	6.6	11	2.3	2.3	1,710	390	28	230	840
26	1.8	2.2	30	6.5	11	5.1	2.3	578	508	206	113	384
27	1.8	2.2	16	4.2	11	2.7	2.3	270	1,080	178	456	167
28	1.8	2.1	11	1.6	11	2.7	23	118	639	320	1,630	140
29	1.8	2.1	8.0	1.6	-	2.7	142	162	285	53	582	255
30	1.8	2.0	8.0	1.6	-	2.7	705	136	100	53	315	325
31	1.8	-	8.0	1.6	-	3.2	-	50	-	113	240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	80.0	9.6	1.8	2.58	159
November	57.6	2.2	1.7	1.92	114
December	169.6	41	1.5	5.47	336
Calendar year 1940	6,167.0	1,270	.7	16.9	12,280
January	492.4	40	1.6	15.9	977
February	238.2	32	1.6	8.51	472
March	166.5	11	1.8	5.37	330
April	945.5	705	1.3	31.4	1,870
May	22,922	5,170	16	739	45,470
June	14,004	1,170	23	467	27,780
July	6,846	765	14	221	13,580
August	8,189.2	1,630	2.2	264	16,240
September	5,164.2	1,400	3.6	172	10,240
Water year 1940-41	59,273.2	5,170	1.3	162	117,600

Arkansas River at Holly, Colo.

Location.- Water-stage recorder, lat. 38°02', long. 102°07', in sec. 14, T. 23 S., R. 42 W., just upstream from Wild Horse Creek, 400 feet upstream from highway bridge, and half a mile south of Holly.

Drainage area.- 25,000 square miles.

Records available.- December 1893 to December 1894, May 1901 to April 1902 (published as at Barton or at Byron), October 1907 to September 1927, and October 1933 to September 1941 in reports of U. S. Geological Survey. October 1907 to September 1941 in reports of State engineer.

Average discharge.- 34 years (1907-41), 327 second-feet.

Extremes.- Maximum discharge during year, 5,540 second-feet May 4 (gage height, 6.58 feet), from rating curve extended above 4,000 second-feet; minimum daily, 0.3 second-foot Oct. 13-15.

1893-94, 1901-2, 1907-41: Maximum discharge, 136,000 second-feet Oct. 20, 1908 (gage height, 11.0 feet, datum then in use), by slope-area method; no flow Aug. 9, 1924, May 27 to June 6, June 26 to July 3, 1925.

Remarks.- Records good except those below 100 second-feet, which are fair. Storage and several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	2.3	12	25	16	23	22	444	194	272	194	358
2	9.1	2.3	13	27	16	21	30	544	520	485	95	230
3	9.1	2.3	12	24	16	22	29	1,910	950	278	76	209
4	9.1	2.3	12	20	16	20	23	3,940	950	214	64	156
5	7.2	2.3	12	20	16	20	23	2,910	1,240	720	50	119
6	5.3	2.5	12	30	21	20	18	1,730	1,100	730	40	108
7	3.9	3.0	11	40	17	20	22	1,140	1,030	663	29	64
8	2.1	3.4	11	50	17	16	18	800	1,150	343	25	48
9	1.4	3.9	11	40	17	17	12	520	1,630	169	21	44
10	1.0	4.4	11	40	22	18	14	411	1,080	126	18	33
11	.5	4.8	12	41	22	24	14	430	810	88	18	26
12	.7	3.9	12	44	30	21	15	373	740	108	17	28
13	.3	4.8	5.8	44	33	12	950	343	627	204	14	25
14	.3	3.9	3.0	46	31	12	301	319	437	552	169	20
15	.3	3.4	12	46	36	12	115	307	301	1,330	66	23
16	.5	3.0	13	44	36	8.6	71	189	325	1,350	31	28
17	.5	3.0	8.6	37	30	6.3	60	147	245	1,220	31	27
18	.5	3.0	7.7	29	31	6.3	54	143	301	1,000	33	23
19	.7	3.4	13	21	29	5.8	66	139	214	790	76	18
20	.7	6.7	16	23	19	6.3	71	130	143	437	209	18
21	.7	13	18	24	21	7.2	71	126	189	960	1,160	25
22	.7	13	18	30	22	7.7	71	430	219	392	1,010	50
23	1.2	13	20	28	25	7.7	62	930	296	313	1,070	230
24	1.8	14	18	26	26	8.2	52	860	584	235	790	2,100
25	1.2	15	18	26	23	12	37	1,690	627	156	492	2,590
26	1.2	18	54	26	28	13	34	1,120	411	139	307	1,240
27	1.8	17	43	26	23	15	37	544	840	313	645	860
28	1.8	14	30	21	24	17	50	373	800	290	2,560	700
29	1.8	13	25	16	-	17	76	337	560	307	1,380	552
30	1.8	13	27	16	-	14	272	284	343	126	780	636
31	2.3	-	26	16	-	18	-	219	-	102	513	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	78.6	9.1	0.3	2.54	156
November	211.6	18	2.3	7.05	420
December	517.1	54	3.0	16.7	1,050
Calendar year 1940	10,420.1	966	.1	28.5	20,670
January	946	50	16	30.5	1,880
February	663	36	16	23.7	1,320
March	448.1	24	5.8	14.5	889
April	2,690	950	12	89.7	5,340
May	23,782	3,940	126	767	47,170
June	18,856	1,630	143	629	37,400
July	14,422	1,360	88	465	28,610
August	11,983	2,560	14	387	23,770
September	10,586	2,590	18	353	21,000
Water year 1940-41	86,182.4	3,940	.3	233	169,000

Arkansas River at Syracuse, Kans.

Location.- Water-stage recorder, lat. 37°58', long. 101°45', in NW¼ 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 1941.

Average discharge.- 20 years (1921-41), 301 second-feet.

Extremes.- Maximum discharge during year, 7,610 second-feet May 4 (gage height, 7.44 feet); minimum, 1 second-foot on many days in October and November.
1902-6, 1921-41: Maximum gage height, about 11.75 feet, present datum, June 6, 1921 (discharge not determined); minimum discharge, 1 second-foot at times in 1931, 1934, 1937, 1939, 1940, and 1941. Bank-full stage, 7.0 feet.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	3	28	45	64	38	39	645	614	515	148	845
2	19	3	28	42	68	39	62	645	1,090	733	172	680
3	9	3	28	35	68	41	72	1,340	985	574	135	534
4	6	3	26	*38	62	42	60	4,340	1,240	554	h98	437
5	5	3	27	20	62	41	47	2,920	1,240	488	h87	352
6	3	1	27	23	57	41	45	2,290	1,360	1,280	h76	222
7	2	5	28	38	47	41	44	1,620	1,320	1,120	h71	172
8	1	4	28	50	55	41	44	1,320	1,360	880	h64	135
9	1	4	28	70	55	38	44	1,060	1,900	594	h52	113
10	1	6	27	70	59	35	42	887	1,570	394	h39	98
11	1	7	24	72	57	38	41	831	1,060	240	29	89
12	1	7	29	82	55	37	38	713	873	184	27	80
13	2	*b5	11	84	48	39	595	600	768	310	26	73
14	2	b5	b10	96	62	39	1,320	515	680	328	24	71
15	3	10	b10	96	54	41	408	482	528	1,320	105	64
16	3	17	b10	104	44	44	268	400	653	1,520	74	54
17	2	27	12	99	42	38	197	304	515	1,240	50	50
18	2	29	11	82	44	37	154	250	437	1,400	57	43
19	1	28	12	89	45	32	154	222	475	1,200	64	38
20	1	32	19	70	37	31	h150	298	382	873	74	31
21	1	32	27	78	34	24	h137	176	328	1,240	276	a25
22	1	32	41	70	38	24	h134	388	508	985	1,060	51
23	1	34	39	66	38	26	h120	754	394	653	1,570	87
24	1	38	44	68	44	26	h117	817	607	528	1,280	1,850
25	1	45	45	64	35	26	h94	1,200	824	364	1,060	2,610
26	*1	*41	42	62	44	27	h92	1,520	1,020	358	720	1,960
27	3	35	68	62	52	29	h80	1,060	768	322	660	1,070
28	3	34	66	59	41	27	h80	754	1,200	310	2,250	754
29	4	32	54	57	-	26	120	627	894	334	2,520	682
30	3	29	47	57	-	28	414	508	706	271	1,440	804
31	3	-	44	57	-	35	-	469	-	161	1,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	106	19	1	3.4	210
November	554	45	1	18.5	1,100
December	942	68	10	30.4	1,870
Calendar year 1940	13,924	1,270	1	38.0	27,620
January	2,005	104	20	64.7	3,980
February	1,411	68	34	50.4	2,800
March	1,071	44	24	34.5	2,120
April	5,212	1,320	38	174	10,340
May	29,955	4,340	176	966	59,410
June	26,299	1,900	328	877	52,160
July	21,273	1,520	161	686	42,190
August	15,328	2,520	24	494	30,400
September	14,074	2,610	25	469	27,920
Water year 1940-41	118,230	4,340	1	324	234,500

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of observer's notes.
b Stage-discharge relation affected by ice.
h Computed from wire-weight gage readings.

Arkansas River at Garden City, Kans.

Location.- Water-stage recorder and wire-weight gage, lat. 37°57', long. 100°52', in NW¼ 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 1941.

Average discharge.- 19 years, 178 second-feet.

Extremes.- Maximum discharge during year, 4,820 second-feet May 4 (gage height, 6.30 feet); no flow many times during year.
1922-41: Maximum discharge, 21,200 second-feet Aug. 9, 1929; maximum gage height, 8.56 feet (based on resident engineer's notes) May 31, 1936; no flow during several periods. Bank-full stage, 7.0 feet.

Remarks.- Records fair. Wire-weight gage read once daily. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	7	8	7	6	1	1	23	184	341	0	g423
2	0	7	9	7	6	1	1	g114	260	f184	0	g30
3	0	7	9	7	6	2	1	g260	812	76	0	16
4	0	7	9	6	6	2	1	f203	860	365	0	22
5	0	7	9	7	6	2	1	2,020	1,010	333	0	5
6	0	7	8	7	6	2	1	1,060	1,060	333	0	22
7	0	7	8	6	6	2	0	f571	1,190	620	0	2
8	0	8	9	7	6	1	1	g94	1,740	680	0	0
9	1	8	8	7	6	1	1	62	1,600	514	0	0
10	1	7	9	6	6	1	1	5	1,760	312	0	0
11	1	7	8	7	6	2	1	39	1,530	f189	0	0
12	2	8	9	7	6	2	1	6	1,050	134	0	0
13	2	7	9	6	4	2	1	94	933	130	0	0
14	2	6	8	7	3	2	1	28	908	120	0	0
15	2	6	9	7	3	3	1	16	423	f156	0	0
16	2	6	8	7	3	3	50	4	365	f680	0	0
17	2	7	9	7	3	3	2	0	514	f1,120	0	0
18	2	7	9	7	3	2	1	0	600	g1,320	0	0
19	2	7	9	7	4	2	0	0	432	g1,340	0	0
20	2	7	9	6	4	2	0	6	397	g1,090	0	0
21	2	9	9	7	4	2	0	66	325	g640	0	0
22	2	8	9	6	4	2	0	147	273	g524	0	0
23	3	9	9	6	4	2	0	126	226	g812	2	0
24	5	9	8	6	2	1	0	122	373	g214	4	0
25	5	9	8	7	3	1	3	87	349	60	72	0
26	6	9	8	7	2	1	3	83	610	7	11	g712
27	7	9	7	7	2	1	3	f495	824	23	6	g325
28	7	8	7	7	1	1	5	836	723	8	2	g4
29	7	8	7	7	-	1	5	600	848	3	1	g52
30	8	7	7	7	-	1	28	477	660	4	g734	g292
31	8	-	7	7	-	1	-	405	-	0	g341	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	81	8	0	2.6	161
November	225	9	6	7.5	446
December	259	9	7	8.4	514
Calendar year 1940	1,005	77	0	2.7	2,000
January	209	7	6	6.7	415
February	121	6	1	4.3	240
March	52	3	1	1.7	103
April	114	50	0	3.8	226
May	8,049	2,020	0	260	15,960
June	22,859	1,760	184	761	45,300
July	12,331	1,340	0	398	24,460
August	1,172	734	0	37.8	2,320
September	1,905	712	0	63.5	3,780
Water year 1940-41	47,357	2,020	0	130	93,920

f Computed on basis of partly estimated gage-height record.
g Computed from graph based on gage readings.
Note.- Discharge Oct. 1 to May 1, May 9-26, July 12-14, July 25 to Aug. 29, Sept. 3-25, computed from wire-weight gage readings.

Arkansas River at Great Bend, Kans.

Location.- Water-stage recorder, lat. 38°21', long. 98°46', in SE¼ sec. 33, T. 19 S., R. 13 W., on highway bridge, half a mile south of Great Bend and 4½ miles above Walnut Creek.

Drainage area.- 35,260 square miles.

Records available.- September 1940 to September 1941. Fragmentary gage-height records collected at same site since 1909 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during period, 4,720 second-feet June 29 (gage height, 8.30 feet); no flow Oct. 25-30.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	2	24	34	58	65	61	52	242	2,120	396	83
2	11	165	25	34	58	69	65	52	256	1,260	330	102
3	8	228	24	34	61	67	72	54	256	960	285	153
4	7	72	21	39	61	61	74	85	275	759	237	133
5	6	45	23	40	61	56	69	93	275	610	215	126
6	5	33	22	40	59	96	69	65	285	517	202	113
7	4	19	22	33	52	61	67	54	418	484	185	90
8	4	13	23	36	50	83	65	412	500	528	181	83
9	3	14	23	34	52	86	61	594	684	556	173	81
10	2	13	23	36	54	81	58	496	1,460	605	161	74
11	2	12	23	38	54	78	56	350	2,640	632	146	67
12	2	11	24	38	50	74	54	271	2,540	594	150	61
13	1	10	23	38	46	74	52	211	2,120	534	143	58
14	1	10	32	42	45	72	54	177	1,260	478	143	58
15	2	10	26	44	46	72	54	143	925	440	133	54
16	2	11	36	44	45	69	56	126	848	f360	126	52
17	1	13	30	42	45	63	59	104	827	f335	116	48
18	1	13	25	42	44	61	61	93	827	f285	129	161
19	1	14	28	44	38	58	63	83	813	275	129	310
20	1	19	32	52	32	52	61	69	759	418	166	113
21	1	23	33	46	39	50	56	67	672	605	216	69
22	1	20	32	50	48	52	56	63	638	649	146	56
23	1	18	52	40	38	56	50	58	594	654	133	48
24	1	18	38	38	34	58	46	50	534	583	165	46
25	0	19	42	33	69	59	44	63	495	473	133	44
26	0	23	42	30	36	65	42	63	484	572	113	44
27	0	24	39	32	38	65	42	67	2,520	848	113	44
28	0	24	40	50	81	61	42	52	3,300	690	107	42
29	0	23	39	48	-	59	45	56	3,440	766	99	52
30	0	23	34	56	-	65	50	56	2,640	622	90	169
31	2	-	34	56	-	65	-	85	-	512	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
September 24-30, 1940	112	-	-	†16	-
October	83	13	0	2.7	165
November	942	228	2	31.4	1,870
December	914	42	21	29.5	1,810
Calendar year	-	-	-	-	-
January 1941	1,263	56	30	40.7	2,510
February	1,394	81	32	49.8	2,760
March	2,052	96	50	66.2	4,070
April	1,704	74	42	56.8	3,380
May	4,263	594	50	138	8,460
June	33,527	3,440	242	1,118	66,500
July	19,724	2,120	275	636	39,120
August	5,142	396	83	166	10,200
September	2,634	310	42	87.8	5,220
Water year 1940-41	73,642	3,440	0	202	146,100

† Computed on basis of one discharge measurement and gage heights.
f Computed on basis of partly estimated gage-height record.

Arkansas River at Wichita, Kans.

Location.- Water-stage recorder, lat. 37°41', long. 97°21', in SE¼ sec. 20, T. 27 S., R. 1 E., on Douglas Avenue Bridge in Wichita, half a mile downstream from Little Arkansas River.

Drainage area.- 41,600 square miles.

Records available.- June 1921 to March 1935, at site 1½ miles upstream from Little Arkansas River, and July 1934 to September 1941, at present site, in reports of Geological Survey. Gage-height records collected at same site since 1897 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 10,900 second-feet July 3 (gage height, 8.20 feet); minimum, 56 second-feet Oct. 22, 23, 29, 30, Nov. 5.
1934-41: Maximum discharge, 12,500 second-feet June 3, 1935 (gage height, 9.67 feet); minimum, 3 second-feet Sept. 3, 1934 (gage height, 0.37 foot).
Maximum stage observed by U. S. Weather Bureau, 13.5 feet June 10, 1923.

Remarks.- Records fair.

Cooperation.- Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	80	172	177	363	201	196	291	679	3,620	712	250
2	144	76	158	168	400	211	201	265	640	4,960	672	245
3	149	90	140	168	561	201	196	265	561	9,900	603	2,760
4	130	72	149	172	492	206	211	275	532	5,660	561	1,800
5	130	56	140	168	416	240	201	291	498	3,090	520	932
6	108	80	135	153	369	250	201	348	514	2,080	492	1,100
7	80	108	130	149	342	255	211	395	537	1,670	475	1,900
8	80	135	121	168	322	255	206	369	819	1,420	453	2,300
9	85	126	112	163	301	265	206	337	3,260	1,220	427	1,840
10	94	121	108	172	291	270	206	316	8,910	1,140	379	1,500
11	76	108	117	172	286	363	206	337	7,080	1,060	358	798
12	98	103	108	172	291	572	206	492	6,240	1,020	395	470
13	108	76	121	172	270	549	216	432	6,440	985	406	448
14	60	72	90	182	260	475	216	406	5,300	962	395	390
15	94	98	80	187	260	406	270	384	4,320	918	369	348
16	72	72	85	201	250	369	280	358	2,740	854	337	311
17	67	112	85	211	235	337	275	332	2,030	798	322	322
18	76	103	94	153	230	327	265	322	1,710	750	316	291
19	76	108	103	149	230	306	270	311	1,500	718	306	255
20	72	126	112	192	216	286	255	296	1,340	679	311	235
21	85	140	126	235	211	280	245	301	1,220	640	296	211
22	56	163	149	221	216	270	240	342	1,100	609	291	230
23	56	135	153	216	230	260	236	332	1,020	634	280	230
24	60	140	153	211	230	245	226	322	1,020	679	301	211
25	50	226	163	211	216	235	216	311	985	672	291	192
26	63	187	172	192	221	235	216	306	955	686	306	172
27	76	390	168	187	211	226	211	464	1,020	666	332	149
28	80	286	177	177	206	221	206	481	1,500	634	332	135
29	56	246	177	182	-	211	211	374	4,320	686	337	286
30	56	187	177	221	-	211	221	316	4,960	731	327	216
31	72	-	172	226	-	196	-	296	-	705	275	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,677	158	56	86.4	5,310
November	4,021	390	56	134	7,980
December	4,147	177	80	134	8,230
Calendar year 1940	121,090	3,460	12	331	240,200
January	5,728	235	149	185	11,360
February	8,126	561	206	290	16,120
March	8,934	572	196	288	17,720
April	6,721	280	196	224	13,330
May	10,667	492	265	344	21,160
June	73,750	8,910	498	2,458	146,300
July	50,846	9,900	609	1,640	100,900
August	12,177	712	275	393	24,150
September	20,527	2,760	135	684	40,710
Water year 1940-41	208,321	9,900	56	571	413,300

Arkansas River at Arkansas City, Kans.

Location.- Water-stage recorder and wire-weight gage, lat. 37°04', long. 97°03', in NW¼ sec. 25, T. 34 S., R. 3 E., at Chestnut Avenue highway bridge, half a mile west of Arkansas City and 5 miles upstream from Walnut River.

Drainage area.- 44,700 square miles.

Records available.- September 1902 to July 1906 (incomplete), September 1921 to September 1941.

Average discharge.- 20 years, (1921-41), 1,164 second-feet.

Extremes.- Maximum discharge during year, 17,200 second-feet June 11 (gage height, 15.93 feet); minimum observed, 226 second-feet Oct. 16, 17 (gage height, 7.21 feet).
1902-6, 1921-41: Maximum gage height, 25.64 feet June 11, 1923, from floodmarks (discharge not determined); minimum discharge, 1 second-foot Oct. 9, 1921, (due to diversion by Kansas Gas & Electric Co.'s power canal, which was washed out June 10, 1923). Minimum discharge after canal washed out, 30 second-feet Aug. 19, 1933. Bankfull stage, 16 feet.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	315	258	592	554	630	625	734	728	792	6,040	1,310	647
2	324	262	548	581	861	647	734	753	2,000	5,400	1,310	674
3	306	270	537	564	1,580	642	753	936	2,730	7,410	1,310	625
4	324	262	532	515	1,530	636	760	1,030	1,640	14,300	1,080	2,090
5	333	250	488	510	1,210	642	760	2,800	1,120	10,100	982	2,800
6	306	246	460	510	935	669	760	1,580	966	5,000	935	1,640
7	292	250	450	510	805	669	766	1,360	920	3,800	854	1,420
8	274	262	450	510	740	658	779	1,700	1,210	3,240	826	1,880
9	254	262	450	510	680	692	772	1,310	7,650	2,730	772	2,940
10	262	262	440	510	647	920	753	1,090	13,500	2,380	798	2,250
11	279	270	440	504	636	1,160	740	990	16,900	2,380	760	1,880
12	270	270	435	498	636	1,310	734	920	14,300	2,320	819	1,160
13	258	262	430	504	636	1,360	740	935	11,100	2,000	812	826
14	242	258	430	504	630	1,420	974	1,010	8,610	1,940	990	669
15	238	258	b390	576	620	1,310	3,080	920	6,710	1,880	905	630
16	230	264	b320	734	614	1,160	5,000	840	5,610	1,880	792	592
17	226	254	b270	716	598	1,080	3,160	792	4,070	1,880	716	559
18	230	262	b300	652	598	990	1,420	766	3,240	1,700	716	526
19	238	320	b320	564	592	920	1,260	734	2,800	1,530	620	532
20	a238	370	b390	554	592	868	1,210	710	2,380	a1,440	620	510
21	238	360	b430	576	576	847	1,210	704	2,120	1,360	620	510
22	242	400	b480	608	559	840	905	746	1,880	1,260	625	510
23	242	425	532	658	554	826	812	798	1,700	1,260	614	498
24	238	430	542	636	570	798	760	1,480	1,530	1,210	598	504
25	242	435	520	620	614	779	740	982	1,480	1,310	598	504
26	242	868	537	608	608	760	734	942	1,480	1,260	658	498
27	234	1,880	603	581	603	746	722	854	1,420	1,260	1,380	498
28	242	1,110	680	548	614	740	716	833	1,530	1,260	746	504
29	258	826	636	537	-	740	740	890	2,000	1,160	669	504
30	258	664	586	542	-	746	760	833	5,820	1,260	636	875
31	258	-	564	559	-	734	-	766	-	1,360	630	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,133	333	226	262	16,130
November	12,780	1,880	246	426	25,360
December	14,782	680	270	477	29,320
Calendar year 1940	291,472	8,860	190	796	578,200
January	17,553	734	498	566	34,820
February	20,468	1,580	554	731	40,600
March	26,934	1,420	625	869	53,420
April	33,988	5,000	716	1,133	67,410
May	31,731	2,800	704	1,024	62,940
June	129,208	16,900	792	4,307	256,300
July	93,310	14,300	1,160	3,010	185,100
August	25,701	1,380	598	829	50,980
September	30,255	2,940	498	1,008	60,010
Water year 1940-41	444,843	16,900	226	1,219	882,400

a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
Note.- Discharge computed on basis of wire-weight gage readings Oct. 1 to Nov. 25, Dec. 5-24, July 18 to Aug. 18.

Arkansas River at Ralston, Okla.

Location.- Water-stage recorder, lat. 36°30'10", long. 96°43'30", in NW¼ sec. 1, T. 23 N., R. 5 E., at bridge on State Highway 18 at Ralston, 2 miles downstream from Salt Creek and 2 miles upstream from Grayhorse Creek. Datum of gage is 776.80 feet above mean sea level, datum of 1929.
Drainage area.- 54,100 square miles.
Records available.- March 1938 to September 1941. Gage-height records collected in same vicinity since 1922 are contained in reports of U. S. Weather Bureau.
Extremes.- Maximum discharge during year, 51,000 second-feet June 11 (gage height 13.59 feet); minimum, 286 second-feet Nov. 17, 18 (gage height, 0.76 foot).
1938-41: Maximum discharge observed, 75,600 second-feet May 23, 1938 (gage height, 16.44 feet); minimum discharge recorded, 160 second-feet Nov. 2, 1939, but may have been less during period of ice effect in January 1940.
Maximum stage known, 23.24 feet June 11, 1923, at site 1,200 feet downstream, from reports of U. S. Weather Bureau.
Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 25, June 14 to July 1, Sept.1-5)

Oct. 1 to Apr. 15				Apr. 16 to Sept. 30					
0.7	290	2.0	1,160	1.5	770	3.5	3,130	9.0	21,500
.8	330	2.5	1,690	1.7	930	4.0	4,050	11.0	32,800
1.0	425	3.0	2,330	2.0	1,210	5.0	6,440	13.0	46,200
1.3	595	4.0	3,980	2.5	1,750	6.0	9,500		
1.6	805	5.0	6,190	3.0	2,380	7.0	13,100		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	910	322	2,930	1,580	1,690	1,230	1,270	5,160	h2,120	9,840	1,180	2,450
2	768	314	2,190	1,420	2,470	1,210	1,260	4,370	h1,930	10,900	1,210	1,590
3	660	325	1,690	1,300	3,920	1,170	1,240	3,950	h1,750	7,000	1,220	1,360
4	602	339	1,450	1,220	5,210	1,150	1,200	4,080	8,660	7,000	1,200	1,310
5	559	339	1,270	1,460	6,580	1,180	1,190	13,100	6,720	12,400	1,240	3,850
6	541	357	1,130	1,580	4,990	1,260	1,190	16,300	4,160	17,100	1,200	11,300
7	518	344	1,030	1,360	3,880	1,360	1,160	13,900	3,300	9,500	1,110	8,420
8	491	326	953	1,200	3,090	1,400	1,170	11,300	2,740	6,300	1,050	4,260
9	474	334	894	1,120	2,700	1,430	1,170	9,840	8,960	4,930	1,010	5,780
10	469	339	845	1,060	2,330	1,360	1,160	8,200	33,500	4,160	948	7,450
11	469	322	821	1,020	2,120	1,350	1,150	7,000	48,600	3,760	922	5,040
12	447	318	813	962	1,930	1,470	1,130	5,780	41,900	3,220	984	3,660
13	430	330	853	979	1,750	1,930	1,090	4,260	32,200	2,970	1,050	3,300
14	415	330	790	1,020	1,640	2,330	2,080	3,480	18,700	3,570	1,030	2,740
15	410	326	853	1,100	1,580	2,540	6,460	3,050	13,900	3,760	993	2,180
16	395	306	902	1,190	1,470	2,540	25,100	2,810	11,300	3,050	966	1,810
17	380	298	894	1,340	1,440	2,470	38,400	2,520	9,160	2,740	1,100	1,630
18	366	298	845	1,640	1,390	2,260	25,400	2,380	7,600	2,520	1,150	1,460
19	352	322	752	2,620	1,340	2,120	16,700	2,250	6,500	2,180	1,130	1,360
20	344	370	738	2,770	1,290	1,930	13,900	2,660	5,520	1,990	975	1,260
21	339	442	805	2,770	1,230	1,870	12,000	5,860	4,820	1,810	890	1,160
22	334	415	861	2,060	1,210	1,750	8,200	8,200	4,370	1,690	834	1,100
23	330	712	805	1,690	1,200	1,690	6,720	4,480	3,850	1,580	906	1,040
24	322	608	805	1,580	1,210	1,580	5,650	3,760	3,570	1,460	957	984
25	318	1,360	953	1,750	1,210	1,520	4,820	3,760	3,220	1,410	858	948
26	314	3,700	1,050	2,190	1,220	1,470	3,660	4,150	2,970	1,360	786	930
27	310	3,340	1,500	1,870	1,230	1,470	3,130	5,440	2,810	1,310	1,190	890
28	348	3,340	1,640	1,580	1,240	1,400	2,810	3,300	2,970	1,290	4,260	858
29	326	5,560	1,640	1,450	-	1,370	2,740	2,660	3,660	1,260	3,300	858
30	314	4,270	1,520	1,690	-	1,330	3,130	2,320	6,170	1,230	4,900	1,210
31	322	-	1,690	1,640	-	1,300	-	2,180	-	1,200	4,420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,577	910	310	438	26,930
November	30,307	5,560	298	1,010	60,110
December	35,912	2,930	738	1,158	71,230
Calendar year 1940	554,907	20,400	-	1,516	1,101,000
January	48,211	2,770	962	1,555	95,630
February	62,560	6,580	1,200	2,234	124,100
March	50,440	2,540	1,150	1,627	100,000
April	196,280	38,400	1,090	6,543	389,300
May	173,470	16,300	2,180	5,596	344,100
June	307,430	48,600	1,750	10,250	609,800
July	134,490	17,100	1,200	4,338	266,800
August	44,969	4,900	786	1,451	89,190
September	82,288	11,300	858	2,743	163,200
Water year 1940-41	1,179,934	48,600	298	3,233	2,340,000

h Computed from once-daily readings of wire-weight gage.

Arkansas River at Tulsa, Okla.

Location.- Water-stage recorder, lat. 36°08'40", long. 96°00'10", in NW¼ sec. 11, T. 19 N., R. 12 E., at bridge on U. S. Highway 66, in Tulsa, 17 miles downstream from Cimarron River. Datum of gage is 618.37 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 74,700 square miles.

Records available.- March 1938 to September 1941. Gage-height records collected in same vicinity since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 78,100 second-feet June 11 (gage height, 11.65 feet); minimum, 372 second-feet Nov. 5-7.
1938-41: Maximum discharge, 143,000 second-feet Sept. 4, 1940 (gage height, 16.2 feet), from rating curve extended above 100,000 second-feet; minimum daily, 147 second-feet Jan. 20, 1940, occurred during period of ice effect.
Maximum stage known, 19.8 feet June 13, 1923, from reports of U. S. Weather Bureau.

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	445	7,000	2,140	2,440	g1,870	1,480	4,600	5,820	8,900	2,040	6,800
2	1,510	412	5,120	2,120	2,940	g1,710	1,490	6,400	5,300	10,900	2,720	4,780
3	1,310	390	3,820	1,930	4,250	g1,620	1,410	10,200	4,950	15,000	2,610	3,240
4	1,140	390	3,110	1,710	4,780	g1,600	1,390	g7,600	4,420	9,920	2,350	2,830
5	1,020	372	2,700	1,560	5,650	g1,580	1,410	g20,900	8,640	7,800	2,280	3,950
6	908	372	2,330	1,510	7,200	g1,560	1,420	33,200	11,600	12,800	2,300	4,250
7	824	372	2,040	1,730	6,800	g1,620	1,530	45,000	8,000	18,300	2,140	13,000
8	796	390	1,850	1,800	5,480	g1,670	1,510	31,000	8,000	11,400	1,980	11,600
9	740	423	1,710	1,620	4,600	g1,820	1,550	20,800	13,100	8,480	1,890	11,800
10	715	412	1,550	1,460	3,950	g1,780	1,490	18,300	42,600	6,800	1,800	10,600
11	665	390	1,480	1,340	3,550	1,870	1,460	15,600	67,600	5,650	1,870	11,800
12	652	390	1,440	1,310	3,240	1,820	1,460	12,800	68,400	5,120	2,060	7,800
13	615	390	1,340	1,320	2,810	1,890	1,490	10,200	58,400	5,480	2,480	5,650
14	665	381	1,260	1,420	2,550	2,040	3,130	7,800	39,500	5,120	2,040	4,100
15	740	401	1,440	1,690	2,280	2,370	3,860	6,200	24,600	4,780	1,830	3,680
16	715	401	1,530	1,620	2,100	2,790	13,990	5,480	18,900	5,480	1,760	3,060
17	678	390	1,600	1,760	2,060	2,880	42,800	4,780	15,000	4,420	1,760	g2,700
18	615	401	1,490	1,960	1,980	2,940	62,500	4,250	12,500	3,950	1,820	g2,370
19	592	401	1,340	2,120	1,980	2,830	40,600	3,950	10,900	3,680	1,800	g2,060
20	546	690	1,270	2,480	1,950	2,650	27,000	3,820	8,960	g3,290	1,780	1,850
21	512	1,410	1,220	3,299	1,930	2,350	20,800	6,740	7,800	g2,900	1,730	1,690
22	489	1,580	1,190	3,550	1,890	2,200	17,200	16,500	7,000	g2,720	g1,560	1,530
23	467	1,800	1,170	3,260	1,870	1,980	12,300	29,200	6,400	g2,550	g1,460	1,410
24	445	1,910	1,360	2,740	1,850	1,820	8,960	21,700	5,650	g2,410	g1,390	1,370
25	423	2,920	1,310	2,480	1,850	1,740	7,800	17,400	5,300	g2,330	g1,360	1,310
26	401	19,600	1,240	2,350	2,040	1,710	7,400	16,000	4,950	g2,280	g1,340	1,530
27	390	14,300	1,340	2,520	g2,060	1,690	6,600	10,600	4,420	g2,260	1,390	1,460
28	500	9,440	1,600	2,720	g1,870	1,620	4,950	12,700	4,100	g2,180	1,340	2,360
29	489	9,440	2,300	2,480	-	1,600	4,100	9,440	5,300	2,060	2,550	3,020
30	500	7,600	2,370	2,260	-	1,600	3,950	9,680	5,480	2,000	3,950	2,740
31	456	-	2,080	2,140	-	1,530	-	7,200	-	2,000	3,950	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22,118	1,600	390	713	43,870
November	78,213	19,600	372	2,607	155,100
December	62,600	7,000	1,170	2,019	124,200
Calendar year 1940	958,099	66,800	147	2,618	1,900,000
January	64,390	3,550	1,310	2,077	127,700
February	87,950	7,200	1,850	3,141	174,400
March	60,730	2,940	1,530	1,959	120,500
April	307,020	62,500	1,390	10,230	609,000
May	430,040	45,000	3,820	13,870	853,000
June	493,590	68,400	4,100	16,450	979,000
July	182,060	18,300	2,000	5,873	361,100
August	65,330	3,950	1,340	2,043	125,800
September	136,340	13,000	1,310	4,545	270,400
Water year 1940-41	1,988,381	68,400	372	5,448	3,944,000

g Computed from graph based on once-daily readings of wire-weight gage.

Arkansas River near Muskogee, Okla.

Location.- Water-stage recorder, lat. 35°46', long. 95°18', in NW¼ sec. 21, T. 15 N., R. 19 E., 1 mile downstream from Neosho and Verdigris Rivers and 3½ miles northeast of Muskogee. Datum of gage is 471.38 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 96,800 square miles.

Records available.- March 1935 to September 1941.

Extremes.- Maximum discharge during year, 248,000 second-feet Apr. 21 (gage height, 32.72 feet); minimum, 650 second-feet Oct. 26 (gage height, 4.04 feet).
1935-41: Maximum discharge, that of Apr. 21, 1941; minimum, 340 second-feet Aug. 11-14, 1936 (gage height, 3.80 feet).
Maximum stage known, 37.23 feet, Oct. 31, 1941 (discharge, 304,000 second-feet). Flood of June 1923 reached a stage of 34.6 feet, present site, from observations by Oklahoma Gas and Electric Co. at site 1,600 feet downstream.

Remarks.- Records good. Flow partly regulated by Lake O'The Cherokees on Neosho (Grand) River.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 15, Apr. 16-21)

3.9	600	5.5	2,970	9.0	13,700	20.0	90,600
4.2	880	6.0	4,130	11.0	23,700	24.0	133,000
4.5	1,240	7.0	6,810	13.0	35,200	28.0	181,000
5.0	1,990	8.0	9,930	16.0	55,400	32.0	234,000

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g1,960	1,010	12,800	14,200	21,000	6,810	2,860	13,700	10,600	11,300	4,630	7,710
2	g1,810	1,010	11,000	15,500	36,400	6,530	2,860	13,700	10,200	10,200	4,890	8,330
3	g2,120	1,290	8,650	10,800	48,800	6,010	2,650	13,200	24,700	12,800	4,760	13,500
4	g1,970	1,170	7,110	8,970	47,400	5,830	2,550	18,500	37,000	18,000	5,150	22,000
5	g1,720	801	5,970	8,650	45,300	5,690	2,530	23,700	40,100	13,700	4,760	27,600
6	g1,560	744	5,150	8,330	35,800	5,550	2,650	35,800	38,800	12,800	4,630	32,800
7	g1,360	735	4,500	8,970	28,600	5,690	2,550	49,500	44,000	16,000	4,760	30,400
8	g1,260	822	4,010	8,010	24,200	6,390	2,550	55,400	47,400	21,500	4,890	31,000
9	g1,170	1,080	3,650	8,010	20,000	6,530	g2,550	38,800	38,200	14,600	4,760	41,700
10	g1,120	885	3,300	7,710	15,200	6,010	2,550	27,000	89,100	11,000	4,500	89,600
11	g1,060	832	3,190	7,260	10,200	5,970	2,550	23,700	175,000	9,930	4,370	95,600
12	g1,010	762	3,190	6,810	10,600	5,830	2,550	20,500	190,000	9,290	4,250	78,800
13	g1,000	699	3,890	4,890	10,600	5,970	2,970	17,500	156,000	8,650	4,890	71,600
14	g988	682	3,410	4,250	10,200	5,970	2,970	15,000	130,000	8,010	5,020	68,000
15	g1,010	682	5,940	7,990	9,690	5,830	3,820	12,800	109,000	8,010	5,150	57,600
16	g1,080	690	11,300	16,500	8,650	5,970	47,600	11,000	92,600	7,560	4,890	41,400
17	g1,060	699	12,400	23,700	6,960	7,260	78,500	10,200	78,800	7,410	4,630	34,600
18	g1,020	744	6,650	22,600	6,960	6,810	113,000	9,690	74,300	7,410	4,500	35,200
19	g942	1,000	6,670	21,300	7,110	6,530	230,000	8,970	60,000	8,010	4,370	25,400
20	a885	1,810	5,830	31,000	7,710	6,390	239,000	8,010	41,400	7,110	4,500	17,700
21	a828	4,630	5,550	37,000	7,710	5,280	240,000	8,010	25,400	6,250	4,500	6,390
22	g771	13,700	4,890	35,800	7,110	4,370	206,000	13,600	14,600	5,690	4,500	5,550
23	g717	22,200	4,500	32,200	6,670	4,130	129,000	29,800	11,600	5,410	4,500	5,150
24	g726	17,300	4,130	31,000	6,679	3,890	71,600	39,400	11,000	5,280	4,370	5,150
25	690	15,100	3,770	28,600	7,260	3,650	61,600	30,400	9,930	5,150	4,500	7,410
26	666	32,500	3,650	25,400	7,560	3,530	56,800	22,600	g9,290	5,020	4,250	7,260
27	699	55,800	3,410	24,800	7,710	3,300	57,600	20,500	g8,970	4,890	5,410	5,410
28	812	47,900	3,300	25,900	7,410	3,190	24,000	14,200	g8,330	4,890	7,260	4,890
29	1,350	34,500	3,080	27,000	-	4,130	23,100	15,000	10,000	4,760	10,600	4,630
30	1,270	25,200	3,300	24,800	-	3,950	22,600	12,400	20,500	4,630	6,390	5,970
31	1,080	-	5,410	20,000	-	3,080	-	12,000	-	4,500	8,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,714	2,120	666	1,152	70,840
November	286,977	55,800	682	9,566	569,200
December	175,600	12,800	3,080	5,665	348,300
Calendar year 1940	1,971,378	129,000	500	5,386	3,910,000
January	557,950	37,000	4,250	18,000	1,107,000
February	469,480	48,800	6,670	16,770	931,200
March	166,070	7,260	3,080	5,357	329,400
April	1,641,560	240,000	2,530	54,720	3,256,000
May	644,580	55,400	8,010	20,790	1,279,000
June	1,625,820	190,000	8,330	54,190	3,225,000
July	279,760	21,500	4,500	9,025	554,900
August	159,230	10,600	4,250	5,136	315,800
September	888,350	95,600	4,630	29,610	1,762,000
Water year 1940-41	6,931,091	240,000	666	18,990	13,750,000

a No gage-height record; discharge interpolated.
g Computed from graph based on twice-daily readings of wire-weight gage.

Arkansas River at Van Buren, Ark.

Location.- Water-stage recorder, lat. 35°26', long. 94°22', in sec. 24, T. 9 N., R. 32 W., at Van Buren, 1½ miles downstream from Lee Creek. Datum of gage is 372.36 feet above mean sea level, datum of 1929.

Drainage area.- 150,300 square miles.

Records available.- October 1927 to September 1941.

Average discharge.- 14 years, 25,850 second-feet.

Extremes.- Maximum discharge during year, 311,000 second-feet Apr. 22 (gage height, 30.58 feet); minimum observed, 1,280 second-feet Oct. 28 (gage height, 1.80 feet).
1927-41: Maximum discharge, 418,000 second-feet June 19, 1935; maximum gage height, 34.1 feet June 19, 1935, just before break in levee; minimum discharge, 216 second-feet Aug. 19, 21, 1934.
Flood of Nov. 3, 1941, reached a stage of 35.70 feet (discharge, 485,000 second-feet). Flood of 1833 reached a stage about 0.6 foot higher than that of 1941. Flood of Apr. 16, 1927, reached a stage of 35.0 feet.

Remarks.- Records excellent.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,760	2,250	36,000	45,000	31,700	23,900	5,770	59,300	28,300	31,700	14,600	14,600
2	3,850	2,250	25,000	96,800	31,700	21,000	5,120	54,700	28,800	32,900	11,400	15,800
3	3,120	2,110	19,500	71,700	52,400	18,200	4,760	47,300	32,900	27,100	10,700	11,800
4	2,740	1,980	17,700	60,100	78,100	16,400	4,640	37,300	53,900	22,900	9,620	13,400
5	2,740	1,860	15,500	44,500	75,300	14,200	4,520	32,300	66,600	27,100	8,940	24,500
6	2,840	1,980	13,400	27,700	64,900	13,400	4,410	49,100	63,300	26,100	8,600	30,000
7	2,660	1,860	11,800	20,000	53,200	13,400	4,410	97,700	65,700	20,500	9,280	43,900
8	2,400	1,640	10,700	17,700	40,500	13,400	4,410	83,000	100,000	20,500	9,620	40,500
9	2,250	1,700	9,960	16,400	33,500	13,400	4,300	83,000	85,100	26,600	9,960	38,600
10	2,110	1,750	8,940	15,900	28,800	13,800	4,640	69,100	85,100	23,900	10,300	51,000
11	2,040	1,980	7,490	15,000	25,000	13,400	5,380	50,900	157,000	24,500	9,620	102,000
12	1,860	2,040	7,960	13,800	19,500	12,600	5,380	45,900	220,000	20,500	8,940	108,000
13	1,860	1,750	10,700	12,600	19,500	11,800	4,880	41,200	239,000	17,200	8,940	92,800
14	1,800	1,640	11,000	12,200	22,400	11,000	4,640	36,600	216,000	14,200	8,940	84,000
15	1,700	1,750	14,200	16,800	21,400	10,700	7,240	33,500	187,000	13,800	8,940	77,200
16	1,750	1,700	26,600	21,400	20,500	10,700	26,100	28,300	158,000	13,400	8,600	67,400
17	1,700	1,590	34,800	32,900	18,200	10,700	71,300	24,500	133,000	13,800	8,280	50,900
18	1,700	1,540	35,400	41,800	15,900	10,700	119,000	22,400	110,000	13,400	7,960	41,800
19	1,700	1,540	28,800	39,200	16,400	11,000	181,000	21,400	98,900	13,000	8,120	41,200
20	1,700	1,540	20,000	34,800	30,000	10,300	267,000	20,500	85,100	18,200	7,040	36,000
21	1,640	1,700	15,500	37,900	41,200	9,960	303,000	18,200	64,100	21,000	6,600	27,700
22	1,590	2,180	13,400	45,200	41,800	9,620	304,000	15,900	50,200	15,000	6,320	16,800
23	1,540	7,750	12,200	48,000	38,600	8,280	271,000	22,600	35,400	12,200	6,460	11,800
24	1,500	24,500	10,700	52,400	32,300	7,340	207,000	47,300	27,100	10,300	7,490	9,620
25	1,450	27,700	9,620	51,700	30,000	6,890	124,000	56,200	23,400	9,280	6,890	8,600
26	1,400	26,600	8,600	48,800	30,500	6,460	91,700	50,200	19,500	9,620	8,940	8,940
27	1,360	46,600	8,120	44,500	31,100	6,040	79,000	49,500	16,400	10,700	13,000	40,800
28	1,450	70,000	7,490	39,900	28,300	5,770	74,400	55,400	17,200	9,620	15,000	33,500
29	1,700	62,500	7,190	37,900	-	5,640	51,700	41,200	15,500	26,100	25,500	23,900
30	2,040	46,600	8,600	36,600	-	5,250	42,500	31,700	17,700	29,400	26,100	19,500
31	2,040	-	8,280	35,400	-	5,770	-	31,700	-	20,500	21,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	64,990	4,760	1,360	2,096	128,900
November	352,580	70,000	1,540	11,750	699,500
December	475,150	36,000	7,190	15,330	942,400
Calendar year 1940	3,528,372	98,900	559	9,640	6,999,000
January	1,134,600	96,800	12,200	36,600	2,250,000
February	972,700	78,100	15,900	34,740	1,929,000
March	351,020	23,900	5,250	11,320	696,200
April	2,287,200	304,000	4,300	76,240	4,537,000
May	1,357,900	97,700	15,900	43,800	2,693,000
June	2,500,200	239,000	15,500	83,340	4,959,000
July	595,020	32,900	9,280	19,190	1,180,000
August	331,700	26,100	6,320	10,700	657,900
September	1,184,560	108,000	8,600	39,490	2,350,000
Water year 1940-41	11,607,620	304,000	1,360	31,800	23,020,000

Note.- Discharge for Oct. 10 to Nov. 22, May 24, 25, June 7, 8, July 31, Aug. 1, Sept. 6, 7, 10, 27-30, computed from graph based on twice-daily gage readings.

Arkansas River at Dardanelle, Ark.

Location.- Water-stage recorder, lat. 35°13', long. 93°09', in sec. 29, T. 7 N., R. 20 W., at Dardanelle, 5 miles downstream from Illinois Bayou. Datum of gage is 290.16 feet above mean sea level, datum of 1929.

Drainage area.- 153,600 square miles.

Records available.- July 1937 to September 1941. Gage-height records collected at same site since 1886 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 295,000 second-feet Apr. 23 (gage height, 27.16 feet); minimum, 1,560 second-feet Oct. 30 (gage height, 0.59 foot).
1937-41: Maximum discharge observed, 396,000 second-feet Feb. 19, 20, 1938; maximum gage height observed, 29.55 feet Feb. 20, 1938; minimum discharge, 1,100 second-feet Oct. 9, 1940 (gage height, 0.11 foot).
Flood of Nov. 5, 1941, reached a stage of 30.92 feet (discharge, 433,000 second-feet). Flood of Apr. 19, 1927, reached a stage of 33.0 feet.

Remarks.- Records excellent.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,200	1,990	48,700	22,400	40,000	34,400	6,680	47,900	33,000	17,100	23,900	22,400
2	6,440	2,120	37,900	75,000	38,600	29,900	7,200	61,300	34,400	26,700	17,500	16,700
3	5,060	2,200	28,700	109,000	46,300	26,300	7,720	60,300	31,700	33,000	13,600	14,000
4	4,220	2,280	21,900	87,500	65,300	22,400	8,000	53,000	32,300	28,700	11,500	12,900
5	3,620	2,280	18,900	73,700	92,300	19,900	7,200	43,100	53,000	23,400	10,600	12,200
6	3,240	2,120	17,100	56,600	93,500	19,400	6,680	40,700	65,300	25,100	9,700	17,500
7	3,240	1,990	15,100	37,900	82,700	18,900	6,440	57,500	63,300	26,300	9,120	29,300
8	3,240	2,020	13,200	26,300	67,300	17,900	6,680	104,000	67,300	21,900	9,120	38,600
9	3,060	2,200	12,200	21,900	53,000	17,100	6,200	92,300	98,400	20,400	9,700	37,200
10	2,880	2,200	11,500	19,900	43,100	17,100	6,080	86,300	94,700	23,900	9,700	35,800
11	2,700	2,970	10,900	17,900	36,500	16,700	5,960	72,600	97,400	26,300	10,000	51,800
12	2,520	3,420	13,200	17,100	32,300	16,300	6,080	56,600	161,000	25,700	10,300	97,100
13	2,280	2,970	15,500	15,900	28,700	15,500	6,680	48,700	211,000	23,400	9,700	102,000
14	2,200	2,970	15,500	15,100	26,300	14,300	6,680	44,700	231,000	21,400	9,400	91,100
15	2,200	2,610	16,300	15,100	25,700	14,000	7,200	38,600	213,000	17,100	9,400	82,700
16	2,020	2,360	20,400	16,700	25,100	13,600	10,300	34,400	189,000	15,900	9,120	75,900
17	1,990	2,280	31,100	20,900	23,900	12,900	26,600	30,500	162,000	15,100	9,120	66,300
18	1,960	2,280	39,300	29,900	21,900	12,900	77,200	25,700	138,000	14,700	8,840	52,100
19	1,940	2,200	40,000	40,700	20,400	12,600	128,000	23,400	129,000	17,100	9,120	42,300
20	1,930	2,020	34,400	40,000	22,400	12,600	185,000	21,900	101,000	14,700	8,560	39,300
21	1,910	1,990	25,100	35,100	35,800	12,600	244,000	21,400	87,500	15,500	8,000	35,800
22	1,880	2,040	18,900	35,800	49,500	11,800	280,000	19,900	68,300	20,900	7,460	28,100
23	g1,850	3,150	16,300	45,500	53,000	11,500	294,000	17,500	52,100	17,900	7,200	20,900
24	g1,740	4,840	14,700	75,000	48,700	10,900	283,000	19,400	38,600	14,300	6,940	15,100
25	g1,690	15,400	12,900	77,000	42,300	9,700	229,000	40,000	29,900	12,600	7,200	18,900
26	g1,600	30,500	11,800	70,400	38,600	8,840	148,000	53,900	25,700	11,800	8,000	14,300
27	g1,570	33,000	11,500	63,300	37,900	8,280	106,000	51,200	22,400	10,600	8,840	12,200
28	1,570	47,800	11,200	54,800	37,200	8,000	88,700	49,500	19,400	10,900	12,600	32,100
29	1,600	69,300	10,600	47,100	-	7,460	80,300	55,700	18,400	11,200	13,600	37,200
30	1,570	64,300	9,400	43,100	-	7,200	59,300	45,500	17,100	15,800	19,400	26,300
31	1,620	-	9,700	40,700	-	6,940	-	33,700	-	31,700	24,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	82,540	7,200	1,570	2,663	163,700
November	319,800	69,300	1,990	10,660	634,300
December	613,900	48,700	9,400	19,800	1,218,000
Calendar year 1940	4,082,380	90,300	1,200	11,150	8,097,000
January	1,347,300	109,000	15,100	43,460	2,672,000
February	1,228,300	93,500	20,400	43,870	2,436,000
March	467,920	34,400	6,940	15,090	928,100
April	2,340,880	294,000	5,960	78,030	4,643,000
May	1,451,200	104,000	17,500	46,810	2,878,000
June	2,585,200	231,000	17,100	86,170	5,128,000
July	611,100	33,000	10,600	19,710	1,212,000
August	341,740	24,500	6,940	11,020	677,800
September	1,178,100	102,000	12,200	39,270	2,337,000
Water year 1940-41	12,567,980	294,000	1,570	34,430	24,930,000

g Computed from graph based on twice-daily gage readings.

Arkansas River at Little Rock, Ark.

Location.- Water-stage recorder, lat. 34°45', long. 92°16', in sec. 3, T. 1 N., R. 12 W., at Little Rock. Datum of gage is 223.61 feet above mean sea level, datum of 1929.

Drainage area.- 157,900 square miles.

Records available.- September 1927 to September 1931 and October 1933 to September 1941 in reports of U. S. Geological Survey. Gage-height records collected at or near same site since 1873 are contained in reports of U. S. Weather Bureau. Gage-height records collected at site three-quarters of a mile upstream since 1883 and intermittent records of discharge since 1885 are contained in reports of Mississippi River Commission.

Average discharge.- 12 years (1927-31, 1933-41), 34,370 second-feet.

Extremes.- Maximum discharge during year, 294,000 second-feet Apr. 24 (gage height, 22.36 feet); minimum, 2,090 second-feet Nov. 1, 2 (gage height, -1.78 feet).
1927-31, 1933-41: Maximum discharge, 458,000 second-feet Feb. 21, 1938; maximum gage height, 28.18 feet June 22, 23, 1935; minimum discharge, 850 second-feet Aug. 23, 1934 (gage height, -4.16 feet).
Maximum stage known, 34.6 feet in June 1833. Flood of Apr. 20, 1927, reached a stage of 33.0 feet.

Remarks.- Records excellent.

Cooperation.- Results of 68 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,710	2,140	78,400	13,800	49,700	54,200	9,020	74,600	38,800	19,300	23,800	24,400
2	4,590	2,110	63,600	19,800	48,800	50,600	8,660	58,700	39,600	17,800	27,500	25,600
3	7,110	2,210	51,500	g79,500	49,700	44,400	10,800	64,600	42,000	23,200	20,900	20,900
4	6,620	2,360	41,000	g110,000	58,000	39,300	12,400	64,600	39,600	32,200	15,900	16,800
5	5,420	2,440	30,800	97,800	75,400	33,800	15,200	58,700	37,300	30,800	12,900	15,000
6	4,590	2,540	24,700	83,700	97,800	30,200	16,100	50,400	51,300	26,200	11,800	13,700
7	4,200	2,440	22,100	69,400	98,900	28,000	14,200	47,000	66,800	25,000	11,100	14,600
8	3,710	2,380	19,800	52,400	90,100	28,000	12,800	66,400	64,600	26,800	10,400	23,800
9	3,710	2,340	17,600	39,300	77,400	26,600	12,000	105,000	68,600	24,400	10,100	g38,000
10	3,710	2,440	15,600	31,600	63,600	26,000	11,200	105,000	g99,200	20,900	10,800	39,600
11	3,480	3,040	14,700	28,000	52,400	25,400	10,400	94,400	g96,800	22,000	10,800	38,000
12	3,260	2,940	14,200	24,700	44,400	24,000	9,970	81,100	g115,000	25,600	10,800	g52,900
13	3,150	3,600	15,200	22,800	39,300	22,800	9,210	65,600	g172,000	26,800	11,100	g94,400
14	2,940	4,080	20,400	21,000	36,100	21,500	9,020	54,000	g206,000	25,600	11,500	103,000
15	2,830	3,600	22,800	19,200	33,800	20,400	9,400	47,800	213,000	23,800	11,100	94,400
16	2,630	3,480	24,000	18,700	32,300	19,200	9,400	41,200	202,000	19,800	10,400	87,700
17	2,630	3,260	26,600	19,800	30,800	19,200	10,800	37,300	g162,000	16,800	10,100	81,100
18	2,440	2,830	37,700	g24,700	28,800	18,700	21,400	32,900	g161,000	15,900	10,100	71,600
19	2,360	2,630	49,700	g33,800	26,600	18,200	75,400	28,800	g139,000	15,400	10,100	58,700
20	2,340	2,630	53,300	g47,000	24,700	17,600	g132,000	25,600	g121,000	16,400	9,790	47,800
21	2,330	2,630	48,800	g50,600	26,000	17,100	g185,000	23,800	108,000	15,900	9,470	42,800
22	2,290	2,630	38,500	47,900	37,700	16,600	231,000	22,600	92,100	15,000	9,150	40,400
23	2,270	3,600	29,400	g47,000	55,100	16,100	278,000	21,500	74,600	18,300	8,850	33,600
24	2,290	9,670	23,400	g57,000	64,600	15,200	292,000	19,800	58,700	19,800	8,250	27,500
25	2,290	15,600	20,400	g83,700	63,600	14,700	268,000	19,300	44,400	16,800	7,970	21,500
26	2,250	18,300	18,200	g92,300	59,800	13,300	207,000	32,200	34,300	14,100	7,690	22,000
27	2,210	35,300	16,600	g85,800	56,000	12,000	158,000	51,300	28,800	12,600	8,550	21,500
28	2,200	46,100	15,600	74,400	55,100	11,200	129,000	55,800	25,000	11,500	9,150	18,300
29	2,270	58,800	15,600	66,500	-	10,400	109,000	52,200	22,000	11,100	11,800	26,800
30	2,230	80,600	15,600	58,900	-	9,970	96,800	57,800	20,400	11,800	15,000	42,800
31	2,210	-	14,200	53,300	-	9,400	-	52,200	-	11,800	16,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	100,270	7,110	2,200	3,235	198,900
November	328,820	80,600	2,110	10,960	652,200
December	900,000	78,400	14,200	29,030	1,785,000
Calendar year 1940	5,087,740	90,100	2,000	13,900	10,090,000
January	1,574,400	110,000	13,800	50,790	3,123,000
February	1,476,500	98,900	24,700	52,730	2,929,000
March	714,070	54,200	9,400	23,030	1,416,000
April	2,373,180	292,000	6,660	79,110	4,707,000
May	1,612,200	105,000	19,300	52,010	3,198,000
June	2,663,700	213,000	20,400	88,790	5,283,000
July	613,400	32,200	11,100	19,790	1,217,000
August	373,670	27,500	7,690	12,050	741,200
September	1,259,200	103,000	13,700	41,970	2,498,000
Water year 1940-41	13,989,410	292,000	2,110	38,330	27,750,000

g Computed from graph based on twice-daily readings of wire-weight gage 1 mile upstream and occasional readings of staff gage at recorder site.

Reservoirs in upper Arkansas River basin

Sugar Loaf Reservoir (Turquoise Lake).- Inclined gage, lat. 39°15', long. 106°22', at dam on Lake Fork of Arkansas River in northeast corner of sec. 19, T. 9 S., R. 80 W., 4 miles west of Leadville, Colo. Records available, October 1938 to September 1941 in reports of Geological Survey. May 1902 to September 1938 in files of State engineer. Maximum contents observed during year, 17,090 acre-feet June 30 (gage height, 29.60 feet); minimum observed, 2,950 acre-feet Nov. 30 to Jan. 31 (gage height, 10.15 feet). Maximum contents observed during period 1938-41, that of June 30, 1941; minimum, 1,512 acre-feet Aug. 31 to Sept. 30, and Nov. 30 to Dec. 31, 1939 (gage height, 7.47 feet).

Reservoir is formed by earth dam completed by Colorado Fuel and Iron Co. May 1, 1902. Capacity, 17,416 acre-feet between gage heights 0.0 foot (bottom of outlet gate) and 30.0 feet (crest of spillway). Dead storage unknown. Records given herein represent usable contents. Water diverted from Colorado River Basin through Carlton tunnel enters Lake Fork above reservoir. Water used for irrigation near Pueblo, Colo. and for industrial supply at Pueblo. Gage read occasionally. Records furnished by State engineer.

Twin Lakes Reservoir.- Staff gage, lat. 39°04', long. 106°19', at dam on Lake Creek in sec. 23, T. 11 S., R. 80 W., 3½ miles northwest of Granite, Colo. Records available, October 1938 to September 1941 in reports of Geological Survey. December 1896 to September 1938 in files of State engineer. Maximum contents observed during year, 54,470 acre-feet July 31 (gage height, 28.53 feet); minimum observed, 10,510 acre-feet Feb. 28 (gage height, 6.39). Maximum contents observed during period 1938-41, that of July 31, 1941; minimum, 9,975 acre-feet Aug. 31, 1940 (gage height, 6.08 feet).

Reservoir is formed by earth dam completed by Twin Lakes Reservoir and Canal Co. Dec. 15, 1896. Capacity, 53,260 acre-feet between gage heights 0.0 foot (bottom of outlet gate) and 28.0 feet (crest of spillway). Dead storage unknown. Records given herein represent usable contents. Water used for irrigation east of Pueblo, Colo. Gage read occasionally. Records furnished by State engineer.

Clear Creek Reservoir.- Staff gage, lat. 39°01', long. 106°14', at dam on Clear Creek in northwest corner of sec. 17, T. 12 S., R. 79 W., 2 miles southeast of Granite, Colo. Datum of gage is 8,826.6 feet above mean sea level. Records available, October 1938 to September 1941 in reports of Geological Survey. October 1909 to September 1938 in files of State engineer. Maximum contents observed during year, 9,240 acre-feet July 31 (gage height, 49.50 feet); minimum observed, 337 acre-feet Oct. 1 (gage height, 10.20 feet). Maximum contents observed during period 1938-41, that of July 31, 1941; minimum observed, 135 acre-feet Aug. 31, 1940 (gage height, 6.40 feet).

Reservoir is formed by earth and rock dam completed by Otero Canal Co. Oct. 7, 1909. Capacity, 11,410 acre-feet between gage heights 0.0 foot (bottom of outlet gage) and 55.0 feet (crest of spillway). No dead storage. Water used for irrigation east of Fowler, Colo. Clear Creek enters Arkansas River 2 miles below gaging station at Granite, Colo. Gage read occasionally. Records furnished by State engineer.

Monthly gage height, and contents, water year October 1940 to September 1941

Date	Sugar Loaf Reservoir (Turquoise Lake)			Twin Lakes Reservoir			Clear Creek Reservoir		
	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	10.37	3,080	-	6.49	10,680	-	10.2	†337	-
Oct. 31.....	10.43	3,120	+40	6.65	10,960	+280	15.0	776	+439
Nov. 30.....	10.15	2,950	-170	6.58	10,850	-110	15.0	776	0
Dec. 31.....	10.15	2,950	0	6.74	11,120	+270	15.0	776	0
Calendar year 1940	-	-	+1,440	-	-	-4,680	-	-	0
Jan. 31.....	10.15	2,950	0	6.51	10,720	-400	15.0	776	0
Feb.....	10.45	3,130	+180	6.39	10,510	-210	15.0	776	0
Mar. 31.....	11.20	3,580	+450	6.80	11,220	+710	15.0	776	0
Apr. 30.....	11.48	3,760	+180	7.01	11,580	+360	15.0	776	0
May 31.....	20.50	9,970	+6,210	12.47	21,380	+9,800	24.0	2,090	+1,310
June 30.....	29.60	17,090	+7,120	28.50	54,400	+33,020	48.0	8,670	+6,580
July 31.....	29.45	16,970	-120	28.53	54,470	+70	49.5	9,240	+570
Aug. 31.....	22.85	11,740	-5,230	19.50	35,070	-19,400	43.8	7,170	-2,070
Sept.30.....	22.50	11,480	-260	16.75	29,610	-5,460	43.8	7,170	0
Water year 1940-41	-	-	+8,400	-	-	+18,930	-	-	+6,830

† Incorrectly published as 537 in Water-Supply Paper 897. Figure of change in contents for water year 1939-40 has been corrected to -165 acre-feet.

Grape Creek near Westcliffe, Colo.

Location.- Water-stage recorder and concrete control, lat. 38°11', long. 105°30', in sec. 36, T. 21 S., R. 73 W., 3 miles northwest of Westcliffe.

Drainage area.- 346 square miles.

Records available.- December 1924 to June 1928 and October 1933 to September 1941 in reports of Geological Survey. December 1924 to June 1928 and March 1930 to September 1941 in reports of State engineer.

Extremes.- Maximum discharge during year, 658 second-feet June 25 (gage height, 3.57 feet); minimum daily, 5.1 second-feet Oct. 4.
1924-28, 1930-41: Maximum discharge, 1,400 second-feet July 22, 1930 (gage height, 4.80 feet), computed by weir formula with overflow estimated; minimum daily, 0.1 second-foot June 19-22, 1936.

Remarks.- Records excellent except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Rating table, water year 1940-41, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.2	4.0	0.6	30	2.0	233
.3	9.0	.7	39	2.5	336
.4	15	1.0	72	3.0	460
.5	22	1.5	142	3.5	630

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	7.0	21			36	145	45	164	229	82	10
2	7.5	8.0	18			46	114	130	255	220	68	10
3	6.5	7.5	16			49	88	86	249	195	58	8.5
4	5.0	7.5	16			49	89	92	326	186	51	7.5
5	7.0	6.5	15			51	77	51	302	195	46	7.5
6	8.5	7.5	16			51	65	29	257	191	46	7.5
7	7.0	*7.5	16			49	34	30	257	168	40	6.5
8	6.0	8.0	15			48	32	29	319	147	38	8.0
9	6.5	9.0	16			47	*28	33	330	171	48	11
10	8.0	9.0	15			43	25	51	259	206	43	11
11	6.5	8.0	14			42	23	81	311	216	35	9.6
12	6.0	7.0	14			42	21	108	210	245	57	8.0
13	5.5	7.0	13			39	19	127	206	261	50	6.5
14	5.5	8.5	12			38	16	161	176	267	40	7.5
15	5.5	12	11			39	16	150	178	279	54	8.5
16	5.5	15	12	17	23	37	15	118	233	271	56	8.0
17	6.0	20	13			36	15	111	269	184	49	7.5
18	6.0	15	14			43	15	108	321	269	47	8.5
19	7.5	17	15			95	23	120	402	281	41	9.0
20	6.0	16	16			112	46	218	442	229	36	8.5
21	5.5	16	18			152	56	253	439	224	35	8.5
22	5.5	16	19			162	75	195	622	195	35	23
23	6.5	14	18			159	133	362	541	156	34	34
24	6.5	13	17			139	118	218	517	139	28	21
25	6.0	12	16			a130	48	164	630	162	21	16
26	6.0	10	14			a120	36	150	582	142	18	15
27	7.5	12	13			a119	39	178	487	122	15	11
28	8.5	13	13			120	95	206	451	122	13	11
29	7.5	18	12			145	105	212	358	98	13	14
30	7.5	21	12		-	173	75	187	275	88	13	21
31	7.0	-	13		-	127	-	150	-	93	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	204.0	8.5	5.0	6.58	405
November	349.0	21	6.5	11.6	692
December	463	21	11	14.9	918
Calendar year 1940	5,008.8	70	3.0	13.7	9,950
January	527	-	-	17.0	1,050
February	644	-	-	23.0	1,280
March	2,538	173	36	81.9	5,030
April	1,686	145	15	56.2	3,340
May	4,151	362	29	134	8,230
June	10,368	630	164	346	20,560
July	5,951	281	88	192	11,800
August	1,220	82	11	39.4	2,420
September	343.6	34	6.5	11.5	682
Water year 1940-41	28,444.6	630	3.0	77.9	56,410

* Winter discharge measurement made on this day.
a No gage-height record; discharge estimated.
Note.- Stage-discharge relation affected by ice Nov. 11-16, 23-28, Dec. 2 to Feb. 28, Mar. 16-19.

Fountain Creek near Fountain, Colo.

Location.- Water-stage recorder, lat. 38°36', long. 104°40', in sec. 4, T. 17 S., R. 65 W., 1 mile downstream from Little Fountain Creek and 6 miles south of Fountain.

Drainage area.- 676 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 9,940 second-feet May 22 (gage height, 6.62 feet), from rating curve extended above 3,000 second-feet on basis of slope-area determination at gage height 9.19 feet; minimum daily, 0.8 second-foot Feb. 23.
1938-41: Maximum discharge, 22,100 second-feet May 28, 1940 (gage height, 9.19 feet), by slope-area method; no flow Sept. 24, 30, 1939.
Maximum stage known, 14.4 feet May 30, 1935.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	6.0	5.6	12	12	2.8	10	480	176	52	54	38
2	14	6.8	3.2	12	19	4.6	15	540	180	59	32	36
3	12	12	2.8	12	17	12	12	380	170	61	26	35
4	8.8	30	2.8	14	16	7.0	10	303	380	72	21	37
5	10	30	2.8	10	12	2.2	10	314	228	18	11	37
6	11	14	2.5	12	9.4	2.8	11	252	210	16	16	39
7	11	16	3.6	17	7.0	6.4	12	216	170	16	23	33
8	9.2	12	3.6	16	5.2	6.8	7.6	210	165	16	24	33
9	10	8.8	3.2	14	4.6	8.2	8.2	178	160	9.4	18	34
10	18	16	2.2	15	8.2	9.4	3.4	258	136	3.1	15	37
11	19	22	4.2	19	6.4	5.2	5.2	264	142	12	24	36
12	20	19	7.6	17	2.5	4.6	5.2	205	114	42	124	37
13	20	10	2.0	16	3.1	1.0	7.0	175	98	98	44	38
14	21	6.0	3.5	16	3.1	3.4	11	121	95	131	26	35
15	20	5.0	4.0	*16	3.1	1.9	11	105	95	74	34	29
16	21	8.0	6.0	16	1.9	4.0	11	81	95	74	33	31
17	20	15	9.0	16	3.7	3.1	5.2	65	92	42	63	34
18	21	13	*9.0	17	2.2	2.5	5.2	57	83	20	149	33
19	22	12	*12	15	.9	1.9	11	61	68	35	142	30
20	20	12	16	13	2.8	.9	7.6	74	65	34	70	30
21	20	12	18	11	3.1	7.0	5.2	83	59	70	54	29
22	20	12	14	10	1.3	3.1	3.4	314	88	44	131	51
23	19	15	12	9.5	.8	2.5	4.6	258	72	31	195	63
24	18	21	12	10	1.6	12	2.5	264	59	27	70	42
25	12	21	10	12	1.0	11	7.6	460	118	46	48	41
26	24	18	7.6	9.5	5.8	12	5.8	420	56	83	44	36
27	31	20	12	8.5	7.0	15	124	380	41	195	170	31
28	22	20	15	7.0	9.4	12	1,300	292	26	81	49	30
29	6.4	16	12	6.4	-	12	1,220	270	32	79	45	36
30	5.0	12	13	2.2	-	8.8	580	216	54	153	44	42
31	5.0	-	13	3.1	-	10	-	210	-	77	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	506.4	31	5.0	16.3	1,000
November	440.6	30	5.0	14.7	874
December	244.2	18	2.0	7.88	484
Calendar year 1940	10,105.6	1,620	-	27.6	20,050
January	384.2	19	2.2	12.4	762
February	170.1	19	.8	6.08	337
March	198.1	15	.9	6.39	393
April	3,431.7	1,300	2.5	114	6,810
May	7,503	540	57	242	14,880
June	3,546	380	26	118	7,030
July	1,770.5	195	3.1	57.1	3,510
August	1,840	195	11	69.4	3,650
September	1,093	63	29	36.4	2,170
Water year 1940-41	21,127.8	1,300	.8	57.9	41,900

Peak discharge.- Apr. 28 (11:30 p.m.) 4,000 sec.-ft.; May 10 (8:30 p.m.) 3,300 sec.-ft.; May 22 (5 p.m.) 9,940 sec.-ft.; July 4 (1 a.m.) 5,820 sec.-ft.; Aug. 27 (12:30 a.m.) 4,880 sec.-ft.
* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 13-18, Dec. 13-23, Jan. 5-28.

Monument Creek at Pikeview, Colo.

Location.- Wire-weight gage, lat. 38°55', long. 104°49', in sec. 18, T. 13 S., R. 66 W., at Pikeview, 1 mile downstream from Cottonwood Creek. Datum of gage is 6,203.31 feet above mean sea level, adjustment of 1912.

Drainage area.- 204 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge observed during year, 190 second-feet May 2 (gage height, 2.09 feet), from rating curve extended above 120 second-feet; minimum daily, 2.2 second-feet Jan. 1, 2.

1938-41: Maximum discharge observed, 260 second-feet Apr. 12, 1939 (gage height, 2.96 feet), from rating curve extended above 60 second-feet; no flow July 24, 1939.

Remarks.- Records poor. Gage read twice daily. Diversions above station for irrigation. Flow regulated by several small reservoirs (total capacity, approximately 2,700 acre-feet).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	7.1	13	2.2	16	9.3	13	130	46	4.5	41	24
2	5.4	7.9	14	2.2	18	8.4	13	172	49	9.7	34	20
3	8.8	4.6	*14	*b2.6	*10	8.4	13	135	54	9.3	24	20
4	9.7	3.0	14	b3.8	7.1	5.8	13	136	47	8.8	22	19
5	8.4	3.8	16	b6.4	8.8	3.8	15	122	48	6.4	19	18
6	10	3.2	16	b6.8	8.8	4.0	14	125	42	4.9	18	16
7	14	3.0	16	b6.6	13	4.2	16	104	38	4.9	19	18
8	14	2.8	14	7.1	5.4	4.2	16	82	36	4.9	20	23
9	a11	3.2	13	7.1	6.2	6.2	15	76	36	3.0	20	23
10	a12	4.5	14	13	9.3	4.6	17	65	35	4.0	24	21
11	13	6.6	15	b11	16	6.2	15	59	33	10	24	21
12	13	7.5	14	b9.0	8.4	5.8	18	59	31	47	47	18
13	12	7.9	15	b6.8	11	6.2	20	50	31	19	31	17
14	5.4	7.5	13	b5.0	10	8.4	18	38	24	24	28	18
15	3.0	6.6	b4.0	*4.2	9.3	8.4	23	39	25	36	33	17
16	2.5	7.9	b3.0	b4.0	7.1	7.5	14	44	24	17	33	16
17	4.0	7.5	b3.2	b5.0	5.4	5.8	14	41	18	16	47	13
18	3.8	8.8	*3.8	b6.2	4.5	9.7	13	41	12	16	47	14
19	2.8	5.8	*5.4	b6.6	8.8	5.4	16	41	12	23	45	12
20	4.0	8.4	b5.8	b4.2	5.4	5.8	13	41	12	25	46	9.7
21	4.2	7.9	b7.5	b4.6	7.5	11	9.3	39	13	23	31	10
22	5.4	9.3	6.6	b6.4	7.9	6.2	10	47	11	22	38	17
23	4.5	8.4	6.6	3.5	8.4	3.5	13	49	9.7	24	34	21
24	7.1	12	b6.2	b6.8	9.7	16	9.7	49	11	30	40	21
26	6.8	7.9	b5.0	b7.1	7.5	15	8.8	52	16	62	38	20
26	6.6	4.0	b6.2	b6.2	7.1	15	11	54	11	62	50	17
27	5.4	3.6	7.1	7.1	6.2	8.8	25	62	9.7	71	54	14
28	6.6	3.5	5.4	10	6.2	12	62	47	12	106	44	16
29	8.4	6.2	3.6	13	-	11	68	45	4.5	65	34	17
30	7.9	12	4.2	7.5	-	14	128	49	5.8	71	29	16
31	8.8	-	3.0	9.3	-	13	-	47	-	48	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	234.6	14	2.6	7.57	465
November	192.2	12	2.8	6.41	381
December	266.5	16	3.0	9.24	568
Calendar year 1940	4,650.8	68	.4	12.4	9,020
January	197.1	13	2.2	6.36	391
February	249.0	18	4.5	8.89	494
March	253.6	16	3.5	8.18	503
April	652.8	128	8.8	21.8	1,290
May	2,129	172	38	68.7	4,220
June	754.7	54	4.5	25.2	1,500
July	869.4	106	3.0	28.0	1,720
August	1,057	58	18	34.1	2,100
September	526.7	24	9.7	17.6	1,040
Water year 1940-41	7,402.5	172	2.2	20.3	14,670

* Winter discharge measurement made on this day.
a No gage-height record; discharge estimated.
b Stage-discharge relation affected by ice.

Huerfano River at Manzanares Crossing, near Redwing, Colo.

Location.- Water-stage recorder, lat. 37°44', long. 105°20', in sec. 5, T. 27 S., R. 71 W., at Manzanares Crossing, 3½ miles southwest of Redwing.

Drainage area.- 76 square miles.

Records available.- October 1933 to September 1941 in reports of Geological Survey. July 1923 to September 1941 in reports of State engineer. No winter records prior to 1936.

Extremes.- Maximum discharge during year, 792 second-feet July 30 (gage height, 2.42 feet), from rating curve extended above 270 second-feet; minimum daily, 4.8 second-feet Mar. 2.
1923-41: Maximum gage height, 4.80 feet July 27, 1934; minimum daily discharge, 4 second-feet Jan. 22, 1937.

Remarks.- Records fair except those for period May 6 to July 28, which are good. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	11	13	18	10	5.5	17	48	230	174	52	a32
2	21	11	14	12	9.4	4.8	15	58	220	171	66	31
3	19	9.5	*14	12	9.9	5.5	15	67	287	173	64	30
4	18	8.5	14	11	10	7.0	15	66	244	176	58	30
5	22	*9.5	14	11	11	7.5	17	67	233	182	61	30
6	24	9.0	14	11	9.0	7.5	15	86	226	173	60	30
7	22	9.0	14	11	7.8	10	15	102	251	158	56	32
8	22	9.5	14	12	8.8	12	15	130	240	155	64	35
9	22	9.0	14	13	9.8	a12	15	162	206	155	56	36
10	23	9.0	12	13	11	a11	16	206	223	149	56	32
11	22	8.0	11	14	*11	a10	15	226	177	155	58	30
12	22	7.2	9.7	14	10	18	19	276	165	152	58	29
13	22	7.4	8.0	13	8.0	12	21	288	165	143	58	31
14	22	6.8	7.5	12	7.0	11	19	264	171	134	60	45
15	22	7.6	7.2	10	7.2	10	20	247	193	140	62	39
16	21	8.1	8.8	10	7.5	7.5	20	233	213	124	62	37
17	20	8.7	11	11	7.4	7.0	20	240	247	120	64	35
18	20	8.3	12	12	7.0	10	20	240	258	120	76	34
19	21	8.0	13	12	6.4	11	20	216	276	117	56	33
20	20	9.2	13	11	6.2	11	18	209	276	140	56	39
21	20	9.0	14	10	6.2	12	17	190	276	146	52	47
22	20	8.5	16	9.8	6.0	13	17	184	230	124	51	61
23	19	8.8	18	9.2	5.8	12	17	159	251	112	46	68
24	a17	9.5	17	9.6	5.6	12	18	153	251	100	41	54
25	a17	9.0	16	*10	5.2	11	22	177	272	89	40	45
26	a16	10	16	10	5.1	14	22	233	251	95	38	42
27	a15	11	15	9.5	*5.0	14	18	247	209	87	38	40
28	14	12	15	9.8	5.0	14	30	258	226	81	35	40
29	14	12	14	10	-	17	39	244	213	76	34	62
30	14	13	14	10	-	15	43	223	174	80	34	62
31	12	-	13	11	-	15	-	213	-	66	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	607	24	12	19.6	1,200
November	277.1	13	5.8	9.24	550
December	406.2	18	7.2	13.1	806
Calendar year 1940	6,872.5	60	5.8	18.8	13,620
January	346.9	14	9.2	11.2	688
February	218.4	11	5.0	7.80	433
March	339.3	18	4.8	10.9	673
April	590	43	15	19.7	1,170
May	5,702	288	48	184	11,310
June	6,804	276	165	227	13,500
July	4,067	182	66	131	8,070
August	1,635	76	33	52.7	3,240
September	1,191	68	29	39.7	2,360
Water year 1940-41	22,183.9	288	4.8	60.8	44,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Cucharas River at Boyd ranch, near La Veta.
Note.- Stage-discharge relation affected by ice Nov. 11 to Dec. 2, Dec. 11 to Feb. 26.

Huerfano River at Badito, Colo.

Location.- Chain gage, lat. 37°43', long. 105°00', in sec. 4, T. 27 S., R. 68 W., at Badito, half a mile downstream from South Oak Creek.

Drainage area.- 519 square miles.

Records available.- August to December 1912 and March 1938 to August 1941 (discontinued) in reports of U. S. Geological Survey. August to December 1912, April 1923 to September 1925 and March 1938 to August 1941 in reports of State engineer.

Extremes.- Maximum discharge observed during period, 745 second-feet May 14 (gage height, 4.70 feet), from rating curve extended above 260 second-feet; no flow Oct. 1, 3-5, 18, 21-26, Mar. 3, 9, 11.

1912, 1923-25, 1938-41: Maximum discharge, 3,150 second-feet Aug. 2, 1939 (gage height, 9.01 feet), from rating curve extended above 1,300 second-feet; no flow Aug. 12-15, Sept. 29, Oct. 1, 3-5, 18, 21-26, 1940, Mar. 3, 9, 11, 1941.

Maximum stage known, 12.8 feet, from floodmarks, July 27 or 28, 1936 (discharge, 5,000 second-feet), from rating curve extended above 650 second-feet.

Remarks.- Records poor. Gage read twice daily. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.4	8.2	20	17	4.7	1.0	36	256	96	51	
2	.1	1.8	6.2	18	12	4.7	1.7	44	464	88	37	
3	0	.3	8.7	17	12	0	1.9	47	244	85	41	
4	0	.6	7.9	16	13	4.0	2.4	47	274	86	39	
5	0	.5	7.1	15	17	4.9	1.1	47	308	84	32	
6	.8	.8	6.0	20	12	5.6	2.1	61	265	74	26	
7	1.7	1.0	6.3	22	6.5	3.7	1.5	104	259	76	-	
8	.9	3.5	3.4	25	7.1	4.0	1.7	138	214	85	-	
9	.3	1.2	6.0	27	9.0	0	1.8	250	271	109	-	
10	.4	1.9	5.8	30	15	4.4	.6	265	327	76	-	
11	.7	5.8	3.0	32	7.3	0	3.2	390	274	57	-	
12	1.9	9.6	6.5	25	5.6	15	3.9	422	256	71	-	
13	.9	6.5	1.5	22	5.1	5.4	6.0	492	268	94	-	
14	.4	3.5	1.0	21	2.7	4.4	7.6	605	244	90	-	
15	.2	4.0	1.2	19	5.1	3.7	7.6	534	259	98	-	
16	.1	5.0	2.5	16	6.8	2.4	9.0	492	292	115	-	
17	.2	5.6	4.0	18	6.0	1.2	11	460	334	102	-	
18	0	1.7	5.0	21	5.6	.9	13	460	311	100	-	
19	.1	1.0	7.0	28	4.9	.8	14	406	280	102	-	
20	.2	13	9.5	32	5.4	.9	21	380	238	85	-	
21	0	5.8	12	15	4.9	1.4	18	356	346	102	-	
22	0	1.4	20	11	4.4	1.4	19	359	207	84	-	
23	0	2.5	30	10	4.2	1.7	23	397	138	67	-	
24	0	2.2	35	13	4.4	1.9	20	235	138	49	-	
25	0	6.3	30	*16	6.0	2.8	22	235	136	88	-	
26	0	6.0	26	20	6.0	1.0	23	238	131	85	-	
27	.4	5.6	*31	24	7.6	.9	23	262	117	79	-	
28	.9	7.1	26	27	4.4	.7	25	334	114	66	-	
29	1.4	6.2	23	22	-	.9	37	376	112	67	-	
30	3.2	9.0	25	19	-	1.0	37	314	109	88	-	
31	2.4	-	23	18	-	1.7	-	265	-	79	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	17.2	3.2	0	0.55	34
November	131.8	13	.3	4.39	261
December	389.8	35	1.0	12.6	773
Calendar year 1940	3,767.5	155	0	10.3	7,480
January	639	32	10	20.6	1,270
February	217.0	17	4.2	7.75	430
March	86.1	15	0	2.78	171
April	359.1	37	.6	12.0	712
May	9,053	605	36	292	17,960
June	7,186	464	109	240	14,260
July	2,627	115	49	84.7	5,210
August 1-6	226	51	26	37.7	448
September	-	-	-	-	-
The period	-	-	-	-	41,520

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 31.

Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.

Location.- Water-stage recorder, lat. 38°03', long. 104°26', in sec. 15, T. 23 S., R. 63 W., at mouth of canyon, half a mile below diversion dam for Huerfano Valley ditch, 5 miles southwest of Undercliffe.

Drainage area.- 1,710 square miles.

Records available.- October 1939 to September 1941. May 1938 to September 1939 at site 600 feet above diversion dam, half a mile upstream; August to December 1908 at site 1½ miles downstream. Records equivalent for high flows only.

Extremes.- Maximum discharge during year, 3,080 second-feet June 1; maximum gage height, 5.88 feet July 29; no flow Oct. 28 to Nov. 9, Nov. 16, 19-21, Dec. 12-16.

1938-41: Maximum discharge, 11,000 second-feet June 7, 1938 (gage height, 5.91 feet, site and datum then in use), by slope-area and weir methods; no flow at times in each year.

Flood of July 27-28, 1936, reached a stage of 11.4 feet, gage datum of 1938 (discharge, 26,600 second-feet).

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	0	11	13	14	1.8	34	21	1,050	52	31	0.1
2	8.9	0	*11	12	13	1.2	40	45	952	54	25	.1
3	4.9	0	11	b10	15	.5	28	102	545	61	23	.1
4	3.8	0	11	b8	15	.5	12	110	446	12	14	.1
5	2.9	0	9.8	b10	16	.9	9.8	115	490	15	9.9	.1
6	2.5	0	9.5	b15	4.6	1.8	8.4	139	501	19	5.8	.1
7	2.0	0	8.9	20	3.0	2.4	6.2	176	402	22	4.0	.1
8	1.8	0	8.6	19	3.4	2.4	5.8	246	424	17	6.2	.1
9	1.5	0	8.3	16	3.6	1.8	3.0	380	372	19	6.2	.1
10	1.1	.1	8.0	*17	2.8	.8	2.2	479	332	26	6.3	.7
11	1.1	.1	b2.0	13	3.0	1.6	1.0	600	340	30	8.3	1.3
12	1.1	.1	0	17	3.4	4.6	1.2	691	288	81	33	1.5
13	1.1	.1	0	b12	3.0	3.8	.8	808	224	63	25	1.6
14	1.0	.1	0	b8	5.8	9.8	.8	756	270	168	22	1.7
15	1.0	.1	0	b7	6.6	10.	.8	899	244	82	25	1.8
16	.8	0	*0	6	7.7	7.7	1.2	873	212	63	24	2.1
17	.7	.2	b.5	b5	9.1	5.8	.8	743	236	44	26	2.3
18	.7	.2	b1.0	b6	6.2	5.8	5.4	589	212	39	107	2.4
19	.6	0	b1.5	b7	3.0	2.4	55	652	216	52	84	2.7
20	.5	0	b2.0	b6	3.8	1.2	69	678	196	20	26	2.8
21	.4	0	b2.5	b3	3.4	3.0	56	704	239	23	22	6.6
22	.3	.6	b3.0	b6	3.8	6.2	51	678	125	30	41	4.4
23	.2	1.5	b4.0	17	2.8	6.2	58	782	184	16	34	3.6
24	.2	1.5	5.1	19	2.2	5.0	51	782	200	17	15	3.5
25	.2	1.5	6.2	31	2.6	5.0	45	534	212	26	10	3.2
26	.2	1.2	7.0	32	2.0	13	44	652	156	51	8.6	3.9
27	.1	1.4	6.6	28	1.6	26	43	860	184	56	5.5	5.4
28	0	2.0	5.6	26	2.0	33	35	925	125	75	2.9	7.2
29	0	4.2	6.8	*18	-	38	20	886	108	132	1.1	11
30	0	6.0	*6.4	17	-	31	21	834	96	110	.3	11
31	0	-	10	15	-	28	-	756	-	230	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	61.6	22	0	1.99	122
November	20.9	6.0	0	.70	41
December	167.3	11	0	5.40	332
Calendar year 1940	3,678.9	1,150	0	10.1	7,300
January	439	32	3	14.2	871
February	162.8	16	1.8	5.81	323
March	261.2	38	.5	8.43	518
April	709.4	69	.8	23.6	1,410
May	17,495	925	21	564	34,700
June	9,561	1,050	96	319	18,960
July	1,705	230	12	55.0	3,380
August	652.2	107	.1	21.0	1,290
September	81.6	11	.1	2.72	162
Water year 1940-41	31,317.0	1,050	0	85.8	62,110

Peak discharge.- June 1 (7 p.m.) 3,080 sec.-ft.; June 2 (11 a.m.) 3,000 sec.-ft.; June 21 (5 p.m.) 2,220 sec.-ft.; July 29 (9 p.m.) 2,200 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Cucharas River at Boyd Ranch, near La Veta, Colo.

Location.- Water-stage recorder, lat. 37°25', long. 105°03', in sec. 24, T. 30 S., R. 69 W., at Boyd Ranch, 6 miles south of La Veta.

Drainage area.- 75 square miles.

Records available.- October 1934 to September 1941.

Extremes.- Maximum discharge during year, 315 second-feet May 13 (gage height, 3.04 feet); minimum daily, 5.0 second-feet Dec. 16.
1935-41: Maximum discharge, that of May 13, 1941; minimum daily, 2 second-feet on several days during period November 1934 to January 1935.

Remarks.- Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	8.0	10	8.0	7.2	8.0	21	81	243	105	40	15
2	7.6	9.0	9.5	8.0	6.4	7.2	18	108	223	98	34	14
3	7.2	8.5	*9.5	8.0	6.4	7.2	18	125	222	91	33	14
4	7.2	*8.5	9.0	11	8.0	7.6	17	114	216	88	31	12
5	10	7.6	8.0	12	8.5	8.5	18	102	206	92	32	11
6	11	8.5	8.5	10	8.0	8.5	21	114	200	88	31	12
7	8.5	7.6	9.0	12	8.5	10	20	128	200	82	28	11
8	8.5	8.0	8.5	15	10	14	20	136	191	80	27	13
9	8.5	8.0	8.0	14	9.5	10	20	170	174	78	28	15
10	10	7.6	9.0	12	8.0	12	23	192	153	78	27	14
11	10	5.6	9.5	13	7.2	10	23	223	138	79	28	12
12	9.5	b5.2	9.5	9.0	7.6	12	27	240	127	75	46	11
13	9.0	b5.3	b8.0	7.6	7.6	10	29	275	123	72	33	12
14	9.5	b6.0	b6.4	8.5	6.8	8.5	26	264	126	74	29	14
15	9.5	b8.0	b5.4	8.0	8.0	8.5	24	234	135	75	27	11
16	9.0	9.5	b5.0	10	8.0	8.5	25	204	141	68	26	12
17	8.0	8.0	b6.2	12	8.5	9.0	29	178	156	67	39	12
18	8.5	8.0	b9.0	12	7.6	10	28	188	170	63	34	11
19	8.5	7.6	b9.6	8.5	7.6	12	27	206	172	59	28	11
20	8.5	*8.0	b10	7.2	8.5	15	23	189	163	57	29	12
21	8.5	7.6	b10	6.4	8.5	14	23	167	153	61	26	15
22	8.5	8.0	b11	6.4	8.5	14	20	204	152	54	24	32
23	8.5	7.6	b12	5.6	9.0	12	23	237	142	50	25	23
24	8.0	11	b10	6.4	8.5	12	26	235	139	53	21	18
25	9.0	10	8.5	6.0	8.0	11	36	251	136	58	19	15
26	9.5	9.0	8.0	5.6	9.0	17	51	274	135	63	18	14
27	9.5	9.0	8.5	5.6	8.0	15	69	269	127	57	19	13
28	9.0	12	*8.0	6.4	8.0	13	77	266	124	63	17	13
29	8.5	9.5	8.0	6.4	-	14	77	274	117	45	16	18
30	8.5	12	8.0	6.0	-	17	74	258	109	44	17	17
31	8.0	-	8.0	6.8	-	20	-	250	-	44	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	273.5	11	7.2	8.82	542
November	248.2	12	5.2	8.27	492
December	267.6	12	5.0	8.63	531
Calendar year 1940	6,617.7	92	3.9	18.1	13,110
January	273.4	15	5.6	8.82	542
February	225.4	10	6.4	8.05	447
March	355.5	20	7.2	11.5	705
April	933	77	17	31.1	1,850
May	6,156	275	81	199	12,210
June	4,813	243	109	160	9,550
July	2,161	105	44	69.7	4,290
August	845	46	15	27.3	1,680
September	427	32	11	14.2	847
Water year 1940-41	16,978.6	275	5.0	46.5	33,690

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Apishapa River near Aguilar, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 104°40', in sec. 4, T. 31 S., R. 65 W., 1¼ miles southwest of Aguilar and 2 miles downstream from Mauricio Canyon Creek.

Drainage area.- 130 square miles.

Records available.- October 1939 to September 1941. March 1938 to September 1939 at site 2 miles downstream; records not equivalent.

Extremes.- Maximum discharge during year, 3,870 second-feet June 17 (gage height, 7.50 feet), by slope-area method; no flow Oct. 5 to Nov. 10, Aug. 28, 30, 31.
1939-41: Maximum discharge, that of June 17, 1941; no flow at times each year.

Remarks.- Records poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0	0.2	0.3	0.2	0.4	11	74	46	6.8	1.5	3.3
2	.2	0	.2	.4	.4	.4	11	123	42	7.4	3.3	2.5
3	.1	0	.2	.5	.4	.2	12	136	52	5.5	2.5	1.2
4	.1	0	.2	1.2	.4	.2	8.1	200	67	4.4	3.9	1.8
5	0	0	.2	.4	.4	1.9	6.2	255	64	4.4	1.0	3.3
6	0	0	.2	.2	.8	1.9	6.6	238	59	3.3	4.4	3.9
7	0	0	.2	.2	.8	1.2	6.8	200	51	2.5	2.8	2.8
8	0	0	.2	.2	.5	.4	5.0	175	50	1.5	2.2	2.8
9	0	0	.2	.2	.4	.8	1.2	152	42	.5	1.1	1.5
10	0	0	.2	.2	.4	1.5	2.8	190	40	6.2	1.2	2.2
11	0	.1	.2	.2	.4	.4	6.2	159	37	5.0	.8	1.6
12	0	.1	.2	.2	.2	4.6	11	157	31	23	48	1.5
13	0	.2	.2	.2	.2	3.2	6.2	160	30	8.1	19	1.1
14	0	.4	.2	.2	.2	5.1	7.4	161	33	8.6	14	1.0
15	0	.4	.2	.2	.2	5.1	12	118	51	48	15	.8
16	0	.2	.2	.2	.2	4.1	11	92	62	45	21	.7
17	0	.2	.2	.2	.2	3.6	9.4	80	350	28	14	1.1
18	0	.2	.2	.2	.2	4.1	7.4	77	153	24	17	1.1
19	0	.2	.2	.2	.2	2.2	14	74	73	17	15	1.2
20	0	.2	.3	.2	.2	2.2	18	72	56	18	17	1.1
21	0	.2	.4	.2	.2	7.4	17	59	50	18	22	1.2
22	0	.2	.3	.2	.2	8.8	17	63	42	18	2.2	15
23	0	.2	.3	.2	.2	6.8	29	65	32	8.1	5.0	23
24	0	.2	.3	.2	.2	7.4	23	65	28	7.4	5.0	15
25	0	.2	.2	.2	.2	4.4	27	64	33	18	5.5	14
26	0	.2	.3	.2	.2	11	36	72	25	48	5.5	14
27	0	.2	.4	.2	.2	8.1	60	73	21	46	15	16
28	0	.2	.3	.2	.2	8.8	76	58	18	41	0	18
29	0	.2	.3	.2	-	6.2	76	54	14	41	2.8	22
30	0	.2	.3	.2	-	6.2	65	54	11	39	0	19
31	0	-	.3	.2	-	7.4	-	50	-	24	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.6	0.2	0	.02	1.2
November	4.2	.4	0	.14	8.3
December	7.5	.4	.2	.24	15
Calendar year 1940	1,052.3	36	0	2.88	2,090
January	8.0	1.2	.2	.26	16
February	8.5	.8	.2	.30	17
March	126.0	11	.2	4.06	250
April	598.5	76	1.2	20.0	1,190
May	3,614	255	50	117	7,170
June	1,663	350	11	55.4	3,300
July	577.9	48	.5	18.6	1,150
August	267.7	48	0	8.63	531
September	193.9	23	.7	6.46	385
Water year 1940-41	7,070.8	350	0	19.4	14,030

Peak discharge.- June 17 (8 p.m.) 3,870 sec.-ft.; July 12 (6 p.m.) 324 sec.-ft.; Aug. 27 (3:30 p.m.) 390 sec.-ft.

Apishapa River near Fowler, Colo.

Location.- Water-stage recorder, lat. 38°05', long. 103°59", in sec. 35, T. 22 S., R. 59 W., 4 miles upstream from mouth and 4 miles southeast of Fowler.

Drainage area.- 1,130 square miles.

Records available.- May 1939 to September 1941 in reports of Geological Survey. April 1922 to September 1925 (at site 1 mile downstream), May 1939 to September 1941 in reports of State engineer.

Extremes.- 1939: Maximum gage height during period May to September, 8.50 feet Aug. 20 (discharge not determined); minimum daily discharge, 0.3 second-foot July 27 to Aug. 1.
1939-40: Maximum gage height during water year, 8.30 feet Sept. 10 (discharge not determined); minimum daily discharge, 0.6 second-foot Nov. 11, 14-16, 19-25, Aug. 13, 15, 16, Sept. 4, 5.
1940-41: Maximum gage height during water year, 7.85 feet Aug. 27 (discharge not determined); minimum daily discharge, 1.5 second-feet Oct. 9.
1922-25, 1939-41: Maximum discharge, 70,000 second-feet Aug. 22, 1923, based on slope-area measurement of 83,000 second-feet 2 miles upstream (Apishapa Reservoir dam failure); minimum daily, that of July 27 to Aug. 1, 1939.

Remarks.- Records fair. Water is wasted by Oxford Farmers and Rocky Ford Highline canals above station.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1939-41

1939

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-	7.0	0.8	0.3	1.1	16	-	1.9	2.9	2.8	0.4
2	-	6.4	.8	530	1.1	17	-	1.5	2.3	29	.4
3	-	5.8	1.2	151	.9	18	-	1.2	1.2	52	.6
4	-	9.4	1.5	82	.9	19	-	.8	1.2	41	.8
5	-	8.2	1.5	56	.9	20	-	1.5	1.2	1,720	.9
6	-	2.9	1.5	37	.9	21	-	1.2	1.2	282	.9
7	-	10	1.5	28	.8	22	-	.8	1.2	176	.9
8	-	8.2	1.9	21	.8	23	-	.8	.8	126	.8
9	-	9.4	23	14	.8	24	-	1.2	.8	87	.9
10	-	12	8.8	5.5	.8	25	-	1.2	.8	60	1.1
11	-	8.2	4.0	2.5	.6	26	-	1.5	.8	40	1.3
12	-	11	2.6	1.8	.6	27	-	1.2	.3	28	1.5
13	-	3.3	4.0	2.0	.6	28	13	1.2	.3	19	1.7
14	-	2.6	2.9	2.2	.6	29	5.2	.8	.3	10	1.8
15	-	2.3	2.6	2.5	.4	30	5.2	.8	.3	4.7	2.0
						31	5.2	-	.3	1.7	-

Peak discharge.- Aug. 2 (6 a.m.) 3,500 sec.-ft.; Aug. 20 (9 a.m.) 9,000 sec.-ft.

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.0	1.0	1.6	3.1	3.5	2.5	1.8	6.8	0.8	1.8	1.0
2	1.5	1.8	1.0	1.6	2.8	14	2.5	1.3	6.8	.8	1.1	1.0
3	1.3	1.5	1.1	1.8	3.5	5.1	3.8	1.3	6.2	.8	1.3	.8
4	1.5	1.3	2.3	1.8	3.8	2.2	3.5	1.3	5.4	.8	.8	.6
5	1.5	1.3	1.6	1.0	4.1	2.3	5.7	2.8	5.1	.6	1.1	.6
6	1.6	.8	1.8	1.3	4.7	12	4.1	2.8	4.7	.8	.8	1.1
7	1.5	.7	1.6	2.0	3.5	12	3.8	2.8	5.1	.8	1.3	2.2
8	1.6	.8	1.6	2.3	5.7	4.7	3.8	4.7	5.1	.8	.8	5.4
9	1.6	.7	1.6	3.1	6.4	4.7	3.1	1.8	4.7	.8	.8	8.4
10	1.6	.7	1.6	3.8	7.8	5.1	3.1	2.5	4.4	.8	.7	1,300
11	1.8	.6	1.3	4.1	4.1	7.8	2.5	2.8	4.1	.8	.8	2,110
12	1.8	1.8	1.5	2.5	2.3	11	2.2	2.0	3.8	1.0	.8	39
13	1.8	.8	1.1	3.1	5.1	12	2.0	2.3	3.8	1.0	.6	32
14	2.0	.6	1.3	2.5	4.1	16	2.0	2.3	3.1	30	.7	45
15	2.0	.6	1.5	2.2	2.5	13	1.6	1.8	3.1	8.4	.6	81
16	2.3	.6	1.3	1.5	2.3	4.4	2.2	1.6	2.5	1.3	.6	43
17	2.3	.7	1.1	1.6	2.0	4.7	3.1	19	2.5	1.5	78	35
18	2.3	.8	1.0	2.0	1.8	20	4.6	70	2.5	1.5	741	31
19	2.3	.6	1.3	2.5	2.0	8.9	12	34	2.2	1.6	252	26
20	1.6	.6	1.1	2.8	2.5	8.9	7.3	17	2.2	1.8	104	22
21	1.5	.6	2.2	2.8	2.2	10	4.7	6.8	2.0	1.8	22	19
22	1.5	.6	12	3.1	1.8	11	4.1	6.2	1.8	2.0	41	20
23	1.6	.6	6.8	3.1	2.3	8.4	3.1	4.7	1.6	2.0	33	31
24	1.6	.6	10	3.1	1.6	5.7	2.5	3.8	1.6	2.2	29	192
25	1.5	.6	5.4	3.1	1.6	5.1	1.8	2.5	1.5	2.3	9.9	166
26	1.5	.8	1.6	3.1	1.8	4.4	2.3	2.5	1.3	2.3	5.1	135
27	1.5	.8	1.8	3.1	4.7	3.8	25	2.3	1.1	983	2.3	159
28	1.8	1.1	2.0	3.1	5.1	2.8	16	2.3	1.1	33	1.6	70
29	2.5	1.3	1.5	2.2	1.6	2.5	3.5	2.2	.8	14	1.1	30
30	2.8	.8	.7	2.0	-	2.5	2.5	3.5	.8	6.8	1.1	20
31	1.6	-	.7	2.2	-	2.5	-	5.1	-	3.8	1.0	-

Peak discharge.- July 27 (1 a.m.) 4,930 sec.-ft.; Aug. 18 (11 a.m.) 3,330 sec.-ft.; Aug. 19 (8 p.m.) 2,090 sec.-ft.; Sept. 10 (6 a.m.) 5,320 sec.-ft.

Discharge, in second-feet, of Apishapa River near Fowler, Colo., 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	552	1.7	6.9	7.6	23	2.2	5.3	78	84	13	30	33
2	116	2.0	11	5.3	28	15	7.2	544	74	27	31	21
3	25	2.7	13	5.3	27	16	18	279	286	127	21	12
4	19	12	14	6.5	15	17	13	179	82	78	13.	7.6
5	12	4.0	11	8.0	12	6.1	9.5	155	36	44	7.2	5.7
6	9.0	4.2	10	10	11	5.0	6.5	126	30	29	3.8	6.1
7	2.9	2.0	12	12	18	4.6	3.5	112	43	20	2.4	6.1
8	1.9	2.0	12	15	18	4.2	2.7	98	47	14	1.7	3.6
9	1.5	2.0	12	19	7.2	4.2	1.9	98	53	15	5.0	3.5
10	3.3	2.2	12	20	6.5	4.6	1.6	100	49	15	10	3.3
11	6.9	3.8	8.5	14	12	5.7	1.9	761	53	13	12	4.0
12	3.5	2.2	17	12	30	10	2.0	239	53	14	25	2.7
13	5.7	2.2	16	26	22	17	2.9	185	59	44	277	2.7
14	4.0	2.0	15	36	11	12	4.6	152	64	110	59	4.2
15	1.9	2.0	35	21	6.9	6.9	19	131	60	46	42	4.0
16	1.9	1.9	15	21	5.7	27	2.4	121	69	54	36	2.9
17	2.0	9.0	15	19	7.6	12	1.6	110	90	50	32	2.4
18	3.5	10	16	19	6.1	3.3	1.7	78	320	60	42	2.4
19	3.3	6.5	17	20	8.0	2.2	2.9	86	231	59	84	1.9
20	2.9	5.0	17	20	36	1.7	3.3	230	116	46	345	2.7
21	4.6	4.6	18	19	39	1.7	3.1	74	148	54	695	5.0
22	3.3	2.0	19	19	37	2.2	2.2	78	88	47	155	255
23	1.9	6.9	19	23	15	2.2	2.9	198	72	36	811	794
24	1.7	18	19	20	5.3	3.8	2.7	144	72	23	126	792
25	1.7	24	16	21	4.0	6.9	2.4	71	76	17	112	71
26	2.7	19	9.5	21	2.4	2.9	2.9	71	67	81	326	50
27	10	9.5	3.5	20	2.0	2.2	6.1	69	53	56	1,230	41
28	8.5	8.0	5.0	19	2.7	1.9	12	74	32	39	138	27
29	8.3	6.1	4.9	17	-	7.6	72	57	16	32	71	24
30	3.5	5.3	8.5	20	-	6.1	118	54	19	41	44	27
31	1.9	-	6.9	22	-	4.2	-	54	-	36	65	-

Peak discharge.- May 11 (7 p.m.) 5,290 sec.-ft.; Aug. 21 (11 a.m.) 3,150 sec.-ft.; Aug. 23 (1 a.m.) 3,890 sec.-ft.; Aug. 27 (12:30 a.m.) 10,600 sec.-ft.; Sept. 24 (3 a.m.) 3,110 sec.-ft.

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
June 1939	124.3	12	0.8	4.14	246
July	74.5	23	.3	2.40	148
August	3,615.0	1,720	.3	117	7,170
September	27.8	2.0	.4	.93	55
The period	-	-	-	-	7,620
October 1939	55.1	2.8	1.3	1.78	109
November	27.1	2.0	.6	.90	54
December	72.4	12	.7	2.34	144
Calendar year	-	-	-	-	-
January 1940	76.0	4.1	1.0	2.45	151
February	98.8	8.4	1.6	3.41	196
March	231.0	20	2.2	7.45	458
April	140.9	25	1.6	4.70	279
May	217.8	70	1.3	7.03	432
June	97.7	6.8	.8	3.26	194
July	1,110.1	983	.8	35.8	2,200
August	1,336.7	741	.6	43.1	2,650
September	4,627.1	2,110	.6	154	9,180
Water year 1939-40	8,090.7	2,110	.6	22.1	16,050
October 1940	826.3	552	1.5	26.7	1,640
November	182.8	24	1.7	6.09	363
December	394.7	19	3.5	12.7	783
Calendar year 1940	9,339.9	2,110	.6	25.5	16,550
January 1941	537.7	36	5.3	17.3	1,070
February	418.4	39	2.0	14.9	830
March	218.4	27	1.7	7.05	433
April	335.8	118	1.6	11.2	666
May	4,806	761	54	155	9,530
June	2,542	320	16	84.7	5,040
July	1,340	127	13	43.2	2,660
August	4,852.1	1,230	1.7	157	9,620
September	2,217.7	794	1.9	73.9	4,400
Water year 1940-41	18,671.9	1,230	1.5	51.2	37,040

Purgatoire River at Trinidad, Colo.

Location.- Water-stage recorder, lat. 37°10', long. 104°30', in sec. 13, T. 33 S., R. 64 W., at foot of State Street in Trinidad.

Drainage area.- 742 square miles.

Records available.- May 1896 to July 1899, August to December 1905, November 1906 to March 1907, October 1907 to November 1912 and October 1933 to September 1941 in reports of U. S. Geological Survey. May 1896 to July 1899, August to December 1905, November 1906 to March 1907, October 1907 to November 1912 and April 1916 to September 1941 in reports of State engineer.

Average discharge.- 29 years (1907-12, 1916-18, 1919-41), 88.8 second-feet.

Extremes.- Maximum discharge during year, 9,320 second-feet May 2 (gage height, 7.43 feet); minimum daily, 4.0 second-feet Jan. 3.
1896-99, 1905, 1906-12, 1916-41: Maximum discharge, 45,400 second-feet Sept. 30, 1904 (gage height, 16.6 feet, on Commercial Street gage), by slope-area method; no flow for several days during summer of 1896.

Remarks.- Records good above 200 second-feet, fair between 50 and 200 second-feet, and poor below 50 second-feet. Diversions above station for irrigation.

Cooperation.- Results of 28 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	32	19	22	35	24	94	624	586	400	299	51
2	49	22	19	15	22	19	77	2,520	540	355	233	44
3	37	22	19	4.0	22	18	67	1,250	553	323	212	40
4	40	24	24	6.4	22	16	63	973	592	323	275	30
5	52	27	19	22	29	18	49	726	540	355	193	27
6	29	22	19	29	29	22	56	618	527	373	261	18
7	29	24	24	59	29	24	59	605	520	299	174	17
8	32	27	19	56	24	27	56	586	514	299	174	20
9	27	27	18	67	22	35	56	618	482	331	275	44
10	32	32	19	59	22	45	52	670	426	315	168	47
11	40	24	16	56	27	16	49	710	400	315	168	40
12	42	56	24	42	27	15	52	750	355	463	409	34
13	42	42	5.0	42	24	16	52	830	335	409	193	34
14	45	52	16	42	22	18	45	919	631	355	156	40
15	52	63	24	35	18	19	56	806	442	400	156	54
16	52	74	45	56	19	19	56	710	458	254	117	58
17	40	85	56	52	19	22	49	678	514	315	291	61
18	32	49	35	59	19	22	52	657	536	275	261	65
19	29	24	59	52	19	19	74	678	586	247	212	61
20	35	19	42	32	19	22	74	670	624	247	240	68
21	32	35	42	27	19	37	74	586	644	254	339	95
22	32	16	37	37	19	32	77	586	624	240	199	645
23	27	24	24	40	19	32	195	579	592	205	168	1,690
24	29	35	24	27	19	37	205	566	644	580	122	133
25	27	40	18	35	19	45	280	572	618	436	90	47
26	15	37	15	35	19	45	320	650	650	409	76	23
27	19	22	18	32	18	74	488	686	657	391	101	11
28	24	18	19	22	22	85	579	670	634	240	174	9.5
29	27	35	16	49	-	81	494	644	562	219	79	47
30	24	22	22	40	-	99	566	618	472	219	101	44
31	27	-	22	27	-	99	-	579	-	347	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,071	52	15	34.5	2,120
November	1,031	85	16	34.4	2,040
December	778.0	59	5.0	25.1	1,540
Calendar year 1940	18,774.9	592	4.5	51.3	37,220
January	1,178.4	67	4.0	38.0	2,340
February	623	35	18	22.2	1,240
March	1,102	99	15	35.5	2,190
April	4,466	579	45	149	8,860
May	23,334	2,520	566	753	46,280
June	16,308	657	335	544	32,350
July	10,193	580	205	329	20,220
August	5,967	409	51	192	11,840
September	3,595.5	1,690	9.5	120	7,130
Water year 1940-41	69,646.9	2,520	4.0	191	138,200

Purgatoire River at Ninemile Dam, near Higbee, Colo.

Location.- Water-stage recorder above diversion dam of Ninemile ditch, lat. 37°45', long. 103°28', in sec. 32, T. 26 S., R. 54 W., 4 miles southwest of Higbee and 4 miles upstream from Smith Canyon. Datum of gage is 4,240.59 feet above mean sea level, datum of 1929.

Drainage area.- 2,900 square miles.

Records available.- October 1933 to September 1941 in reports of U. S. Geological Survey. October 1924 to September 1941 in reports of State engineer.

Average discharge.- 17 years, 97.4 second-feet.

Extremes.- Maximum discharge during year, 19,300 second-feet May 2 (gage height, 7.10 feet); minimum daily, 3.5 second-feet Nov. 14, 15.
1924-41: Maximum discharge, 64,500 second-feet Sept. 15, 1934 (gage height, 12.60 feet), by slope-area method; no flow at times.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	5.5	26	23	163	18	120	420	450	259	171	77
2	33	6.0	33	22	126	11	115	6,160	700	163	305	67
3	31	6.5	31	20	98	12	112	2,680	860	112	159	56
4	24	7.8	26	17	73	12	91	3,690	780	686	120	46
5	22	7.6	26	14	56	12	82	1,480	800	209	98	36
6	19	7.3	26	15	48	12	84	1,480	730	139	77	30
7	15	7.2	26	16	44	11	70	722	630	120	84	29
8	15	7.4	26	16	41	7.9	80	495	540	62	75	25
9	14	7.4	27	16	34	9.7	77	540	480	25	96	22
10	15	6.3	26	15	30	12	75	420	440	26	133	21
11	15	7.3	25	19	27	15	58	495	390	67	156	20
12	11	5.0	20	23	25	16	44	486	350	73	398	19
13	11	4.0	15	26	19	16	40	520	270	59	1,140	18
14	9.4	3.5	11	36	13	13	69	580	330	264	288	16
15	8.2	3.5	9.4	43	9	13	69	640	430	698	123	15
16	7.6	7.5	10	38	17	12	47	300	551	784	70	16
17	7.6	9.2	11	35	14	16	44	220	382	247	52	15
18	7.0	15	15	32	14	17	31	230	573	171	43	15
19	7.0	17	19	30	14	14	50	240	840	398	428	15
20	7.0	25	18	22	13	13	41	300	606	171	710	14
21	7.0	23	21	24	13	9.2	40	350	513	123	390	15
22	6.5	22	24	22	14	11	82	450	477	109	522	183
23	6.0	22	28	33	14	29	73	580	639	98	354	2,120
24	5.5	25	26	56	13	56	69	720	504	67	237	2,650
25	6.5	36	26	38	13	62	228	650	333	242	179	770
26	6.0	44	26	46	13	53	347	460	504	242	136	347
27	6.0	27	27	46	13	58	495	460	333	270	183	195
28	5.0	24	26	50	15	61	606	580	242	264	868	152
29	5.5	31	25	54	-	69	758	580	326	293	531	146
30	5.5	28	25	69	-	82	628	380	305	139	259	149
31	5.5	-	24	199	-	91	-	340	-	101	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	376.8	33	5.0	12.2	747
November	448.0	44	3.5	14.9	889
December	704.4	33	9.4	22.7	1,400
Calendar year 1940	22,501.4	2,850	0	61.5	44,630
January	1,115	199	14	36.0	2,210
February	986	163	9	35.2	1,960
March	843.8	91	7.9	27.2	1,670
April	4,725	758	31	158	9,370
May	27,648	6,160	220	892	54,840
June	15,308	860	242	510	30,360
July	6,681	784	25	216	13,250
August	8,514	1,140	43	275	16,890
September	7,299	2,350	14	243	14,480
Water year 1940-41	74,649.0	6,160	3.5	205	148,100

Peak discharge.- May 2 (6 p.m.) 19,300 sec.-ft.; July 4 (10 a.m.) 4,510 sec.-ft.; Aug. 12 (7 p.m.) 3,430 sec.-ft.; Aug. 28 (2 a.m.) 4,510 sec.-ft.; Sept. 24 (2 a.m.) 4,710 sec.-ft.
Note.- No gage-height record May 13 to June 15; discharge computed on basis of records for station at Highland Dam, near Higbee.

Purgatoire River at Highland Dam, near Las Animas, Colo.

Location.- Water-stage recorder above diversion dam of Highland ditch, lat. 37°55', long. 103°18', in sec. 1, T. 25 S., R. 53 W., 11 miles southwest of Las Animas.

Drainage area.- 3,320 square miles.

Records available.- October 1933 to September 1941 in reports of U. S. Geological Survey. October 1931 to September 1941 in reports of State engineer.

Average discharge.- 10 years, 83.9 second-feet.

Extremes.- Maximum discharge during year, 17,000 second-feet May 3 (gage height, 9.54 feet); no flow Oct. 17-22, Oct. 25 to Nov. 14.
1931-41: Maximum discharge, 33,000 second-feet Sept. 15, 1934 (gage height, 14.00 feet, from floodmarks), by slope-area method; no flow at times during 1932-41.

Remarks.- Records good except those below 100 second-feet, which are fair. Diversions above station for irrigation.

Cooperation.- Results of 31 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110	0	19	13	186	17	100	358	496	303	163	113
2	45	0	18	*15	110	18	137	1,310	750	266	342	88
3	30	0	19	12	71	17	132	5,680	750	212	212	69
4	26	0	20	11	49	16	112	2,970	856	634	146	41
5	21	0	18	b12	41	16	91	1,640	715	326	119	28
6	16	0	17	b13	34	17	74	1,140	750	155	92	26
7	14	0	17	b14	29	17	66	772	738	119	78	24
8	12	0	17	15	28	16	66	566	588	107	80	17
9	11	0	18	14	27	16	67	508	634	86	65	19
10	10	0	18	14	25	14	69	415	531	80	67	18
11	10	0	18	16	23	14	66	424	450	84	83	18
12	9.5	0	19	21	22	15	42	485	374	110	82	19
13	6.6	0	b11	18	20	17	40	520	334	92	1,340	19
14	2.8	0	b20	22	20	22	30	520	296	116	390	16
15	1.6	.4	b26	42	19	22	61	634	334	433	218	14
16	1.2	4.0	b28	38	18	19	81	566	424	934	155	14
17	0	8.0	b30	34	18	20	44	350	508	326	126	13
18	0	6.4	b32	29	18	20	43	259	276	193	126	12
19	0	6.8	b20	28	18	22	66	225	669	358	476	11
20	0	6.0	16	29	17	20	59	288	542	199	1,480	11
21	0	5.6	15	27	16	20	49	382	542	146	726	8.9
22	0	16	19	27	17	20	40	433	508	126	738	80
23	a.1	17	29	26	16	20	115	450	520	119	508	3,150
24	a.1	17	22	27	16	28	104	692	450	101	342	3,010
25	0	21	22	27	16	127	161	588	382	172	206	856
26	0	12	21	29	16	94	318	566	704	485	159	390
27	0	26	20	28	16	50	415	508	424	508	1,180	225
28	0	*21	15	*29	17	57	520	508	374	318	960	167
29	0	17	13	28	-	59	660	468	382	450	658	186
30	0	21	12	33	-	76	508	407	350	225	350	186
31	0	-	13	25	-	79	-	382	-	163	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	326.9	110	0	10.5	648
November	205.2	26	0	6.84	407
December	602	32	11	19.4	1,190
Calendar year 1940	22,106.3	2,830	0	60.4	43,840
January	716	42	11	23.1	1,420
February	923	186	16	33.0	1,830
March	985	127	14	31.8	1,950
April	4,356	680	30	145	8,640
May	25,014	5,680	225	807	49,610
June	15,861	856	296	528	31,440
July	7,946	934	80	256	15,760
August	11,830	1,480	65	382	23,460
September	8,948.9	3,150	8.9	295	17,550
Water year 1940-41	77,604.0	5,680	0	213	153,900

Peak discharge.- May 3 (4 a.m.) 17,000 sec.-ft.; July 4 (1 p.m.) 4,050 sec.-ft.; Aug. 20 (11 a.m.) 4,080 sec.-ft.; Aug. 27 (4:30 a.m.) 8,230 sec.-ft.; Sept. 23 (7 a.m.) 7,330 sec.-ft.; Sept. 24 (9:30 a.m.) 6,570 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of one discharge measurement.

b Stage-discharge relation affected by ice.

Wild Horse Creek at Holly, Colo.

Location.- Water-stage recorder, lat. 38°03', long. 102°07', in sec. 15, T. 23 S., R. 42 W., just upstream from mouth, a quarter of a mile southeast of Holly.

Records available.- October 1922 to September 1927, October 1933 to September 1935, November 1938 to September 1941 in reports of U. S. Geological Survey. October 1922 to September 1935, November 1938 to September 1941 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,410 second-feet June 25 (gage height, 6.30 feet), from rating curve extended above 220 second-feet; no flow about a third of year.

1922-35, 1938-41: Maximum discharge, 22,000 second-feet, by slope-area method, at point 11 miles above station Aug. 28, 1935; no flow most of time.

Remarks.- Records fair. Discharge for Aug. 28, 1935, included in records for Arkansas River at Holly, and that for period Aug. 29, 1935, to about Nov. 10, 1938, included in records for Holly drain near Holly. Flow is mostly waste water from Amity canal. Diversions above station for irrigation.

Cooperation.- Results of 22 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	0	0	1.5	0.1	4.3	11	51	229	244	2.6	202
2	2.5	0	0	1.2	0	3.8	13	30	175	112	.2	147
3	1.1	0	0	1.0	0	3.5	3.3	14	95	111	0	137
4	1.4	.2	0	2.4	1.1	3.6	1.2	9.3	84	192	0	89
5	1.8	0	0	0	2.8	3.6	3.2	0	3.2	149	.1	13
6	.7	0	0	0	4.1	3.6	.9	30	2.3	104	0	0
7	.4	0	0	0	6.2	5.2	0	198	1.5	69	0	3.2
8	.5	0	0	0	8.8	5.0	0	215	98	99	0	0
9	.2	0	0	2.5	11	2.8	6.0	224	10	119	0	0
10	0	.4	0	1.0	12	1.7	2.9	154	.2	49	0	0
11	0	3.6	0	0	13	1.6	1.3	27	.2	5.8	0	.2
12	0	3.1	0	0	10	.3	0	4.2	1.2	2.1	0	0
13	0	2.5	0	.4	0	.3	212	7.9	1.2	84	0	0
14	0	2.5	0	1.7	.1	.2	7.6	43	1.8	19	0	0
15	0	2.5	0	2.8	1.2	0	.2	63	8.6	78	0	0
16	0	2.8	0	2.1	0	1.6	0	95	350	98	.3	0
17	0	2.1	0	.7	5.5	1.5	0	133	16	136	0	0
18	0	.9	0	.2	8.0	.3	0	76	93	157	8.2	0
19	0	1.1	.2	2.5	8.3	.3	0	34	100	129	29	0
20	.2	.1	.2	.9	5.7	0	.9	29	92	175	33	0
21	.3	0	0	1.0	5.0	0	0	40	116	160	102	0
22	0	0	0	0	5.7	0	.2	113	158	70	138	5.2
23	0	.6	.3	0	4.3	.4	2.6	27	27	101	172	15
24	0	0	.7	0	3.9	3.2	.9	0	56	53	227	33
26	0	0	4.3	.4	6.4	4.5	.3	0	94	12	217	65
26	0	0	.8	0	5.9	5.8	.3	10	160	67	168	110
27	0	0	0	0	3.8	6.2	.9	74	79	11	220	130
28	0	0	0	0	4.6	7.0	14	69	105	15	168	114
29	0	0	.9	.5	-	7.5	170	83	72	16	150	150
30	0	0	.4	0	-	9.2	168	102	110	9.0	149	125
31	0	-	.4	.2	-	13	-	99	-	.9	190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11.6	2.5	0	0.37	23
November	22.4	3.6	0	.75	44
December	8.2	4.3	0	.26	16
Calendar year 1940	806.1	83	0	2.20	1,600
January	23.0	2.8	0	.74	46
February	137.5	13	0	4.91	273
March	100.5	13	0	3.24	199
April	620.7	212	0	20.7	1,230
May	2,054.4	224	0	66.3	4,070
June	2,339.2	350	.2	78.0	4,640
July	2,666.8	244	.9	85.7	5,270
August	1,974.4	227	0	63.7	3,920
September	1,338.6	202	0	44.6	2,660
Water year 1940-41	11,287.3	350	0	30.9	22,390

Holly drain near Holly, Colo.

Location.- Water-stage recorder, lat. 38°03', long. 102°03', in sec. 16, T. 23 S., R. 41 W., just downstream from Cheyenne Creek, 100 yards west of Colorado-Kansas State line, and 3½ miles east of Holly.

Records available.- January 1924 to September 1927 and October 1933 to September 1941 in reports of U. S. Geological Survey. January 1924 to September 1941 in reports of State engineer. Records for Aug. 28, 1935, to about Nov. 10, 1938, include flow of Wild Horse Creek. Since Aug. 28, 1935, flow of Holly drain above Wild Horse Creek enters Arkansas River above station at Holly.

Extremes.- Maximum discharge during year, 660 second-feet June 1 (gage height, 9.08 feet); minimum daily, 4.2 second-feet Feb. 12.
1924-41: Maximum discharge, 1,470 second-feet Sept. 3, 1938 (gage height, 10.29 feet), from rating curve extended above 500 second-feet by logarithmic plotting on basis of slope-area determinations; minimum daily, 0.5 second-foot Aug. 31, 1938.

Remarks.- Records fair.

Cooperation.- Results of 27 discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	12	10	12	33	5.9	14	67	92	27	29	35
2	30	12	10	9.8	33	5.9	32	66	128	49	26	29
3	29	12	10	8.2	29	5.7	25	58	42	53	21	28
4	28	12	10	7.6	23	5.4	23	49	53	42	20	30
5	25	13	10	7.6	23	5.7	23	42	40	43	25	26
6	23	12	9.8	8.2	12	5.7	23	45	30	54	19	30
7	19	12	9.4	12	9.1	5.7	31	51	27	52	18	28
8	19	12	9.4	12	8.5	5.9	28	49	78	62	19	24
9	18	13	9.8	9.4	7.3	5.9	16	42	30	55	19	22
10	17	11	10	13	5.9	5.9	13	49	22	44	20	23
11	15	11	10	17	5.1	6.2	14	64	20	42	22	23
12	14	9.8	11	18	4.2	7.9	16	57	19	33	22	25
13	12	7.9	10	18	9.1	20	168	48	18	61	21	22
14	12	11	10	22	28	22	44	40	19	54	22	20
15	12	16	10	23	9.1	22	19	36	22	69	26	18
16	12	17	10	24	8.5	18	18	30	38	90	27	10
17	12	16	10	16	8.2	15	15	23	13	85	22	7.4
18	12	15	10	18	7.9	15	14	25	17	59	27	10
19	13	14	10	34	7.1	13	15	24	20	46	30	17
20	13	14	10	42	6.5	14	15	38	17	57	28	19
21	14	13	10	45	6.5	15	38	56	25	53	59	27
22	16	13	11	32	5.9	15	42	78	46	50	69	35
23	17	14	12	26	5.9	12	35	52	28	45	77	37
24	15	13	12	23	6.2	11	32	40	27	39	83	41
25	14	13	13	22	5.9	11	28	38	62	30	59	34
26	14	11	13	18	5.9	11	25	32	118	49	58	34
27	14	12	14	18	5.9	10	27	34	30	34	56	34
28	13	12	13	22	5.9	7.1	24	33	21	42	45	34
29	12	11	12	26	-	7.6	52	40	19	40	45	37
30	13	11	11	31	-	11	121	37	19	34	40	35
31	13	-	9.1	33	-	13	-	40	-	27	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	536	46	12	17.3	1,060
November	375.7	17	7.9	12.5	745
December	329.5	14	9.1	10.6	654
Calendar year 1940	4,714.1	90	3.0	12.9	9,360
January	627.8	45	7.6	20.3	1,250
February	325.6	33	4.2	11.6	646
March	334.5	22	5.4	10.8	663
April	992	166	13	33.1	1,970
May	1,383	73	23	44.6	2,740
June	1,140	128	13	38.0	2,260
July	1,520	90	27	49.0	3,010
August	1,092	83	18	35.2	2,170
September	796.4	41	7.4	26.5	1,580
Water year 1940-41	9,452.5	168	4.2	25.9	18,750

Amazon canal near Hartland, Kans.

Location.- Water-stage recorder, lat. 37°53', long. 101°22', in SE¼ sec. 9, T. 25 S., R. 37 W., half a mile west of Hartland and 2½ miles downstream from point of diversion from Arkansas River.

Records available.- 1921-24 (irrigation seasons only) and October 1930 to September 1941 in reports of U. S. Geological Survey. 1921-24 (irrigation seasons only) in reports of Kansas Water Commission. October 1924 to September 1939 in reports of Division of Water Resources of State Board of Agriculture.

Extremes.- Maximum discharge during year, 419 second-feet June 8 (gage height, 9.20 feet); no flow during long periods.
1921-24, 1930-41: Maximum discharge, 490 second-feet Aug. 28, 1933 (gage height, 8.80 feet); no flow during long periods.

Remarks.- Records fair. Canal diverts water for irrigation from left bank of Arkansas River in sec. 12, T. 25 S., R. 38 W.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	5	15	120	142	129
2							0	7	10	117	55	126
3							0	4	0	41	0	123
4							0	117	0	0	0	149
5							0	200	0	0	0	151
6							0	129	0	0	0	181
7							0	185	0	0	0	172
8							0	191	44	0	0	145
9							0	159	14	59	0	74
10							0	128	12	113	0	0
11							0	145	0	131	0	0
12							0	109	0	132	0	0
13							0	124	0	18	0	0
14							0	145	0	82	0	0
15							0	182	0	6	0	0
16							0	183	0	0	0	0
17							0	184	0	0	3	0
18							0	185	0	0	14	0
19							0	169	0	0	56	0
20							0	61	13	0	67	0
21							0	14	168	0	88	0
22							0	24	26	0	f188	0
23							0	10	0	16	f196	0
24							0	10	0	162	193	0
25							0	8	0	160	190	67
26							0	53	0	152	183	180
27							0	0	0	155	188	178
28							0	0	0	168	190	174
29							23	4	34	176	176	164
30							11	0	141	184	147	145
31							-	0	-	179	139	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	884	198	0	2.4	1,760
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	34	23	0	1.1	67
May	2,735	200	0	88.2	5,420
June	477	168	0	15.9	946
July	2,144	184	0	69.2	4,250
August	2,213	196	0	71.4	4,390
September	2,158	181	0	71.9	4,280
Water year 1940-41	9,761	200	0	26.7	19,350

f Computed on basis of partly estimated gage-height record.

South Side ditch near Hartland, Kans.

Location.- Water-stage recorder, lat. 37°52', long. 101°22', in SE¼ sec. 15, T. 25 S., R. 37 W., three-quarters of a mile south of Hartland and 1½ miles downstream from point of diversion from Arkansas River.

Records available.- 1921-24 (irrigation seasons only), October 1930 to September 1941 in reports of U. S. Geological Survey. 1921-24 (irrigation seasons only) in reports of Kansas Water Commission. October 1924 to September 1939 in reports of Division of Water Resources of State Board of Agriculture.

Extremes.- Maximum discharge during year, 284 second-feet Sept. 26 (gage height, 8.05 feet); no flow during long periods.
1921-24, 1930-41: Maximum discharge, 367 second-feet Sept. 6, 1938 (gage height, 8.62 feet); no flow during long periods.

Remarks.- Records poor. Ditch diverts water for irrigation from right bank of Arkansas River in sec. 16, T. 25 S., R. 37 W.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	43		0	0	0	0	78	18	150
2			0	37		6	0	0	0	76	6	140
3			0	39		0	0	0	0	86	0	140
4			0	*b6		0	0	0	0	86	0	112
5			6	29		0	0	0	0	87	0	86
6			24	0		0	0	52	0	87	0	25
7			*16	0		18	0	126	13	87	0	0
8			18	0		38	0	132	71	87	0	0
9			18	0		23	0	108	61	86	0	39
10			18	0		0	0	112	66	76	0	108
11			18	0		0	0	178	59	50	0	94
12			14	0		0	0	194	44	32	0	78
13			0	0		0	0	188	71	85	0	63
14			0	0		0	9	190	72	90	0	49
15			0	0		0	0	169	68	90	0	42
16			0	0		16	0	186	71	50	0	38
17			0	0		33	0	164	71	66	0	28
18			0	0		34	0	131	70	66	0	0
19			0	0		31	0	104	70	66	0	0
20			0	0		28	0	119	70	67	0	0
21			0	0		28	0	83	56	67	0	0
22			0	0		24	0	63	67	67	89	0
23			0	0		24	0	46	71	64	214	0
24			0	0		22	0	46	73	49	217	0
25			0	0		22	0	41	75	42	217	168
26			0	0		9	0	40	76	60	167	250
27			0	0		0	0	66	78	42	160	222
28			a30	0		0	0	86	83	34	164	189
29			a50	0		0	0	38	86	31	171	182
30			*51	0		0	0	0	84	30	152	160
31			48	0		0	-	0	-	28	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	311	51	0	10.0	617
Calendar year 1940	1,220	148	0	3.3	2,420
January	154	43	0	5.0	305
February	0	0	0	0	0
March	356	38	0	11.5	706
April	9	9	0	.3	18
May	2,681	194	0	86.5	5,320
June	1,625	86	0	54.2	3,220
July	2,012	90	28	64.9	3,990
August	1,742	217	0	56.2	3,460
September	2,363	250	0	78.8	4,690
Water year 1940-41	11,253	250	0	30.8	22,330

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of resident engineer's notes.
b Stage-discharge relation affected by ice.

Great Eastern canal at Lakin, Kans.

Location.- Water-stage recorder, lat. 37°57', long. 101°15', in NE¼ sec. 22, T. 24 S., R. 36 W., at highway bridge 1 mile north of Lakin and 8 miles northeast of Hartland.

Records available.- 1921-24 (irrigation seasons only), October 1930 to September 1941 in reports of U. S. Geological Survey. 1921-24 (irrigation seasons only) in reports of Kansas Water Commission. November 1924 to September 1939 in reports of Division of Water Resources of State Board of Agriculture.

Extremes.- Maximum discharge during year, 830 second-feet May 5 (gage height, 7.20 feet); no flow during long periods.
1921-24, 1930-41: Maximum gage height, 10.50 feet May 28, 1936, affected by backwater from highway bridge (discharge not determined); no flow during long periods.

Remarks.- Records poor. Canal diverts water from left bank of Arkansas River in sec. 16, T. 25 S., R. 37 W. for irrigation or for storage in Lake McKinney.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	8	0	45	41	19	5	471	213	14	265
2		0	7	0	51	30	26	267	256	260	0	151
3		0	5	0	44	31	37	322	30	16	0	74
4		0	6	0	43	31	52	667	0	0	0	44
5		0	6	0	41	29	41	824	0	0	0	48
6		0	1	0	38	31	32	749	0	0	0	21
7		0	0	0		29	28	808	0	0	0	0
8		0	0	1		2	25	729	31	0	0	0
9		0	0	24	b40	0	27	602	0	0	0	0
10		0	0	17		23	26	377	0	0	0	0
11		0	0	*30	41	6	24	314	0	5	0	0
12		0	0	26	43	0	20	292	0	65	0	0
13		0	0	27	38	0	31	215	0	69	0	0
14		0	0	b40	34	0	389	122	161	0	0	0
15		0	0	b43	*38	6	402	f26	491	0	0	0
16		0	0	b27	42	16	210	f8	10	0	0	0
17		0	0	b43	34	0	134	f1	0	0	0	0
18		0	0	*b26	33	0	98	0	0	0	0	19
19		0	0		35	0	108	0	0	0	0	37
20		0	0			0	103	163	0	0	0	25
21		0	0			0	87	258	47	31	0	29
22		0	2			0	81	166	122	174	45	40
23		0	15			0	80	373	0	134	170	48
24		0	31	b50	b35	0	77	654	0	215	393	82
25		3	34			0	70	646	0	154	340	526
26		8	33			3	26	729	0	f215	238	f545
27		5	22			26	0	214	0	115	95	f528
28		6	a25			20	0	0	0	81	120	384
29		8	0		-	18	0	0	0	60	641	232
30		10	0	49	-	18	130	0	19	51	f672	237
31		-	0	46	-	16	-	230	-	44	711	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	40	10	0	1.3	79
December	195	34	0	6.3	387
Calendar year 1940	4,330	212	0	11.8	8,600
January	949	-	0	30.6	1,880
February	1,075	51	33	38.4	2,130
March	376	41	0	12.1	746
April	2,383	402	0	79.4	4,730
May	9,781	824	0	316	19,400
June	1,838	491	0	54.6	3,250
July	1,902	260	0	61.4	3,770
August	3,439	711	0	111	6,820
September	3,335	545	0	111	6,610
Water year 1940-41	25,113	824	0	68.8	49,800

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of resident engineer's notes.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.

Farmers ditch near Garden City, Kans.

Location.- Water-stage recorder, lat. 38°00', long. 101°04', in NW¼ sec. 4, T. 24 S., R. 34 W., 4 miles downstream from head gate, 4 miles northwest of Holcomb, and 10 miles west of Garden City.

Records available.- 1921-24 (irrigation seasons only), October 1930 to September 1941 in reports of U. S. Geological Survey. 1921-24 (irrigation seasons only),in reports of Kansas Water Commission, March 1925 to September 1939 in reports of Division of Water Resources of State Board of Agriculture.

Extremes.- Maximum discharge during year, 273 second-feet May 7 (gage height, 7.86 feet); no flow during long periods.
1921-24, 1930-41: Maximum discharge, 318 second-feet July 21, 1938 (gage height, 8.63 feet); no flow during long periods.

Remarks.- Records fair. Ditch diverts water for irrigation from left bank of Arkansas River in sec. 12, T. 24 S., R. 35 W.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	201	0	0	27	96
2							0	255	0	0	26	118
3							0	214	0	0	94	106
4							0	a250	0	12	106	78
5							0	a250	0	f3	89	61
6							0	a250	0	2	80	31
7							0	f246	0	46	72	29
8							0	210	f5	43	62	24
9							0	138	0	37	55	20
10							0	118	0	62	50	f20
11							0	130	0	72	40	0
12							0	86	0	72	38	0
13							0	99	0	130	30	0
14							0	84	0	65	26	0
15							149	84	0	64	22	0
16							69	66	f4	64	20	0
17							17	58	0	17	58	0
18							7	34	0	f3	78	0
19							0	28	0	0	50	0
20							0	19	0	9	26	0
21							0	f8	0	15	21	0
22							0	0	f3	26	28	0
23							0	0	0	39	101	0
24							0	0	0	79	126	0
25							0	0	0	78	130	2
26							0	0	0	52	118	122
27							23	0	0	40	100	196
28							52	0	0	48	91	154
29							71	0	0	40	93	50
30							142	0	0	35	92	114
31							-	0	-	32	93	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	1,232	178	0	3.4	2,440
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	530	149	0	17.7	1,050
May	2,828	255	0	91.2	5,610
June	12	5	0	.4	24
July	1,185	130	0	38.2	2,350
August	2,041	130	20	65.8	4,050
September	1,221	196	0	40.7	2,420
Water year 1940-41	7,817	255	0	21.4	15,600

a No gage-height record; discharge computed on basis of records for Great Eastern and South Side canals and Arkansas River at Syracuse.
f Computed on basis of partly estimated gage-height record.

Garden City canal near Garden City, Kans.

Location.- Water-stage recorder, lat. 38°00', long. 101°02', in SW¼ sec. 3, T. 24 S., R. 34 W., 1½ miles downstream from point of diversion from Arkansas River, 3 miles west of Holcomb, and 9 miles west of Garden City. Datum of gage is 2,895.88 feet above mean sea level, datum of 1929.

Records available.- 1921-24 (irrigation seasons only), October 1930 to September 1941 in reports of Geological Survey. 1921-24 (irrigation seasons only) in reports of Kansas Water Commission. October 1924 to September 1939 in reports of Division of Water Resources of State Board of Agriculture.

Extremes.- Maximum discharge during year, 59 second-feet Sept. 25 (gage height, 9.31 feet); no flow during long periods.
1921-24, 1930-41: Maximum discharge, 87 second-feet Sept. 8, 1937 (gage height, 8.90 feet); no flow during long periods.

Remarks.- Records poor. Canal diverte water for irrigation from left bank of Arkansas River in sec. 5, T. 24 S., R. 34 W.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	0	1	0	12	0	0	0	30
2				0	0	0	0	30	0	0	0	21
3				0	0	0	0	18	0	17	0	23
4				0	0	0	0		0	28	0	20
5				0	0	0	2	a20	0	22	0	2
6				0	0	0	2		0	16	0	1
7				0	0	0	1	f27	0	14	0	0
8				0	0	0	1	18	0	10	0	0
9				0	0	0	1	10	0	30	0	0
10				0	0	0	1	5	0	30	0	8
11				0	0	0	1	15	0	28	0	11
12				0	0	0	2	7	0	16	0	6
13				0	0	0	2	2	0	20	0	10
14				2	0	0	1	2	0	30	0	11
15				2	0	0	18	1	0	19	0	10
16				1	0	0	5	2	0	14	0	9
17				0	0	0	1	3	0	13	0	8
18				0	0	0	1	3	0	12	8	8
19				0	0	0	1	3	0	14	0	8
20				0	0	0	6	9	20	13	0	6
21				0	0	0	3	15	38	31	0	5
22				0	1	0	2	11	24	42	0	9
23				0	1	0	2	3	7	44	1	14
24				0	2	0	2	3	4	f21	f32	16
25				0	1	0	2	4	3	f8	26	34
26				0	1	0	2	4	2	f14	f5	48
27				0	2	0	4	3	2	8	0	33
28				0	2	3	1	3	1	2	0	2
29				0	-	4	2	2	1	1	24	11
30				0	-	3	6	1	0	0	43	3
31				0	-	2	-	1	-	0	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	246	28	0	.7	487
January	5	2	0	.2	10
February	10	2	0	.4	20
March	13	4	0	.4	26
April	72	18	0	2.4	143
May	274	30	1	8.8	543
June	102	38	0	3.4	202
July	517	44	0	16.7	1,030
August	177	43	0	5.7	351
September	367	48	0	12.2	728
Water year 1940-41	1,537	48	0	4.2	3,050

a No gage-height record; discharge computed on basis of resident engineer's notes.
f Computed on basis of partly estimated gage-height record.

Pawnee River near Larned, Kans.

Location.- Water-stage recorder, lat. 38°11', long. 99°19', in NW¼ sec. 33, T. 21 S., R. 18 W., about 300 feet downstream from Moffet Dam and 11½ miles west of Larned.

Drainage area.- 2,300 square miles.

Records available.- November 1924 to September 1941.

Average discharge.- 17 years, 48.3 second-feet.

Extremes.- Maximum discharge during year, 1,370 second-feet June 30 (gage height, 16.59 feet); no flow many times during year.
1924-41: Maximum discharge, 20,000 second-feet (estimated) May 28, 1935 (gage height, 31.96 feet); no flow during periods in 1926, 1930, 1931, 1933, 1935-1941.
Bank-full stage, 27 feet.

Remarks.- Records fair. Diversion above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	800	4	3	3	3	4	4	1	230	25	0
2	0	151	3	3	4	3	4	4	1	96	20	0
3	0	48	3	3	4	3	4	3	192	64	22	0
4	0	20	3	3	4	3	4	4	95	48	14	0
5	0	9	3	3	4	3	4	5	83	39	8	0
6	0	6	3	3	4	4	4	5	54	35	3	0
7	0	4	3	3	3	4	4	9	27	29	2	0
8	0	3	3	3	3	4	3	14	44	136	2	0
9	0	2	3	3	3	4	3	16	134	90	4	0
10	0	2	3	3	3	4	4	17	592	42	26	0
11	0	2	3	3	3	4	4	18	1,090	29	14	0
12	0	1	2	3	3	4	4	17	1,060	23	5	0
13	0	2	3	3	3	4	3	16	230	18	3	0
14	1	13	3	4	3	4	2	14	83	15	3	0
15	1	12	3	4	3	4	2	11	96	14	3	0
16	1	9	3	4	3	4	2	8	33	14	2	0
17	1	8	3	3	3	4	2	6	25	9	2	4
18	1	6	3	4	3	4	2	5	19	28	2	16
19	1	4	3	3	2	4	3	4	13	19	3	6
20	1	4	3	3	3	4	3	3	10	11	3	4
21	1	4	3	3	3	4	2	3	9	8	2	2
22	1	3	3	3	2	4	2	3	9	5	1	2
23	1	3	3	3	3	4	2	2	7	3	2	2
24	1	2	3	3	3	3	1	2	4	3	2	1
25	1	3	3	3	3	3	1	2	5	2	1	1
26	1	4	3	3	3	4	1	1	260	5	1	1
27	1	4	3	3	3	4	1	1	585	12	0	0
28	1	4	3	3	3	4	1	1	1,110	358	0	0
29	1	4	3	3	-	4	3	1	1,330	198	0	2
30	1	4	3	3	-	4	5	1	1,230	62	0	3
31	184	-	3	3	-	4	-	1	-	35	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	201	184	0	6.5	399
November	1,141	800	1	38.0	2,260
December	93	4	2	3.0	184
Calendar year 1940	38,445	9,900	0	105	76,260
January	97	4	3	3.1	192
February	87	4	2	3.1	173
March	117	4	3	3.8	232
April	64	5	1	2.8	127
May	201	18	1	6.5	399
June	8,429	1,330	1	281	16,720
July	1,660	358	2	54.2	3,330
August	175	26	0	5.6	347
September	44	16	0	1.5	87
Water year 1940-41	12,349	1,330	0	33.8	24,490

Peak discharge.- Nov. 1 (8 a.m.) 1,060 sec.-ft.; June 11 (11 p.m.) 1,230 sec.-ft.; June 30 (9 a.m.) 1,370 sec.-ft.

Cow Creek near Lyons, Kans.

Location.- Water-stage recorder, lat. 38°18', long. 98°11', in SW¼ sec. 15, T. 20 S., R. 8 W., 60 feet upstream from Missouri Pacific R. R. bridge, 400 feet downstream from Little Cow Creek, and 3 miles south of Lyons, Kans.

Drainage area.- 501 square miles (not including 239 square miles in Cheyenne Bottoms).

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge, 6,500 second-feet Sept. 3 (gage height, 19.27 feet); minimum, 2 second-feet Aug. 11.
1938-41: Maximum discharge, that of Sept. 3, 1941; no flow at times during 1938-39. Maximum stage known, about 22.75 feet July 11, 1929, from records of Missouri Pacific R. R.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	5	6	6	15	9	7	7	14	17	4	6
2	8	4	a6	6	15	9	7	9	13	16	4	218
3	8	4	a5	6	14	9	7	6	12	15	4	3,700
4	10	4	5	5	13	9	7	9	10	12	3	2,400
5	10	4	5	5	11	9	7	5	9	9	3	1,140
6	8	4	5	5	10	8	7	5	9	8	3	216
7	6	4	5	6	8	10	7	5	11	8	3	99
8	5	4	5	5	7	10	7	5	55	7	6	64
9	5	5	5	5	7	11	7	5	294	6	3	46
10	5	5	5	6	8	14	7	5	656	12	3	36
11	4	a5	5	6	8	19	7	5	970	16	3	31
12	4	a5	a5	6	7	25	6	4	548	7	5	27
13	4	a5	a5	6	6	23	6	4	120	6	4	24
14	5	a5	a5	8	7	20	6	3	59	5	3	22
15	5	5	a5	7	6	16	6	3	37	6	4	21
16	5	5	a5	8	6	14	7	4	28	a6	4	20
17	5	5	a5	6	10	12	7	3	22	6	3	22
18	5	6	5	6	9	10	7	3	18	5	3	40
19	5	7	6	7	7	9	8	5	15	5	3	46
20	5	8	6	5	6	9	7	4	13	4	18	66
21	5	7	6	7	7	8	8	4	12	4	25	35
22	6	8	6	7	6	8	7	6	10	4	10	26
23	6	8	7	6	8	8	7	316	93	4	7	19
24	7	7	7	6	8	8	7	507	178	4	5	17
25	7	8	8	7	7	7	7	162	87	5	133	16
26	7	10	10	6	8	7	7	46	43	6	161	15
27	7	10	10	7	8	7	7	30	48	6	41	14
28	8	10	9	7	7	7	7	22	48	6	21	14
29	6	9	8	7	-	7	8	18	27	5	14	16
30	5	8	7	11	-	6	8	15	19	5	10	18
31	7	-	6	12	-	7	-	13	-	4	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	192	10	4	6.2	381
November	184	10	4	6.1	365
December	188	10	5	6.1	375
Calendar year 1940	12,954	2,400	1	35.4	25,690
January	204	12	5	6.6	463
February	232	15	6	8.5	474
March	335	25	6	10.8	664
April	210	8	6	7.0	417
May	1,236	507	3	39.9	2,450
June	3,478	970	9	116	6,900
July	227	17	4	7.3	450
August	518	161	3	16.7	1,030
September	8,427	3,700	6	281	16,710
Water year 1940-41	15,468	3,700	3	42.3	30,680

Peak discharge.- May 24 (3 a.m.) 589 sec.-ft.; June 11 (2 p.m.) 1,040 sec.-ft.; June 23 (10 p.m.) 209 sec.-ft.; Aug. 25 (11 p.m.) 334 sec.-ft.; Sept. 3 (12 m.) 6,500 sec.-ft.
a No gage-height record; discharge interpolated.

Little Arkansas River at Valley Center, Kans.

Location.- Water-stage recorder, lat. 37°50', long. 97°23', in SW¼ sec. 36, T. 25 S., R. 1 W., at county highway bridge, half a mile west of Valley Center and 16 miles upstream from mouth. Datum of gage is 1,327.82 feet above mean sea level (preliminary determination), datum of 1929.

Drainage area.- 1,316 square miles.

Records available.- February 1935 to September 1941. June 1922 to February 1935, at site 2 miles downstream.

Average discharge.- 19 years, 143 second-feet.

Extremes.- Maximum discharge during year, 9,300 second-feet June 10 (gage height, 18.94 feet); minimum, 20 second-feet on numerous days in October (gage height, 1.96 feet).
1922-41: Maximum discharge observed, 10,500 second-feet June 11, 1923 (gage height, 18.02 feet, site and datum then in use); minimum discharge, 1 second-foot Dec. 27, 1933.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	26	68	41	242	37	42	41	154	248	71	33
2	24	24	55	39	346	37	43	39	200	3,180	54	1,350
3	24	23	46	36	455	38	44	39	79	5,100	42	3,540
4	24	23	41	36	248	38	45	45	46	2,100	40	1,350
5	23	22	38	33	160	39	44	55	53	793	37	955
6	22	22	37	32	113	39	44	91	48	395	34	883
7	22	22	35	33	82	42	45	89	129	266	35	2,380
8	22	22	34	33	63	41	49	68	480	194	37	1,560
9	22	21	33	33	55	49	51	52	4,860	143	38	1,420
10	22	22	33	34	52	125	50	46	7,680	116	34	846
11	22	23	32	34	48	380	48	43	3,160	107	36	280
12	22	23	32	35	46	471	46	39	1,920	96	65	182
13	22	22	32	36	43	346	45	37	984	99	88	141
14	22	24	32	38	40	230	44	34	425	101	75	118
15	21	25	33	44	38	148	49	33	286	87	57	101
16	20	22	39	50	37	108	57	32	212	79	47	96
17	21	23	36	58	36	85	58	31	165	72	41	116
18	21	24	32	48	35	70	51	31	131	66	43	90
19	20	24	32	56	35	61	50	30	106	61	41	76
20	20	28	33	48	34	57	49	30	103	58	42	69
21	20	38	37	46	36	53	46	30	95	56	38	61
22	20	47	39	43	35	50	44	32	86	52	36	55
23	20	38	41	42	35	48	42	54	78	51	33	53
24	20	33	44	39	36	47	41	46	75	48	34	50
25	20	39	46	71	37	44	39	37	73	46	44	48
26	20	209	47	38	38	38	38	81	72	45	81	46
27	20	332	49	39	38	44	38	72	87	46	109	44
28	22	160	51	39	37	44	38	45	206	44	109	44
29	22	102	50	38	-	42	39	37	609	42	62	59
30	23	84	46	44	-	41	43	32	440	40	46	79
31	25	-	43	136	-	41	-	30	-	41	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	673	25	20	21.7	1,330
November	1,547	332	21	51.6	3,070
December	1,246	68	32	40.2	2,470
Calendar year 1940	32,119	2,240	19	87.8	63,720
January	1,372	136	32	44.3	2,720
February	2,500	455	34	89.3	4,960
March	2,933	471	37	94.6	5,820
April	1,362	58	38	45.4	2,700
May	1,401	91	30	45.2	2,780
June	23,042	7,680	46	768	45,700
July	13,872	5,100	40	447	27,510
August	1,587	109	33	51.2	3,150
September	16,125	3,540	33	538	31,980
Water year 1940-41	67,660	7,680	20	185	134,200

Peak discharge.- June 10 (2 a.m.) 9,300 sec.-ft.; June 29 (11 a.m.) 709 sec.-ft.; July 3 (1 a.m.) 6,840 sec.-ft.; Sept. 3 (3 a.m.) 4,420 sec.-ft.; Sept. 6 (1 a.m.) 1,040 sec.-ft.; Sept. 7 (10 a.m.) 2,820 sec.-ft.

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Ninnescah River near Peck, Kans.

Location.- Water-stage recorder, lat. 37°28', long. 97°25', in NW¼ sec. 10, T. 30 S., R. 1 W., at county highway bridge, 3 miles southwest of Peck and 28 miles upstream from mouth.

Drainage area.- 2,092 square miles.

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge during year, 8,550 second-feet July 3 (gage height, 13.70 feet); minimum, 48 second-feet Sept. 28 (gage height, 1.86 feet).
1938-41: Maximum discharge, 11,200 second-feet July 3, 1940 (gage height, 15.77 feet); minimum, 19 second-feet Sept. 24, 1939 (gage height, 1.44 feet).
Maximum stage known, 26.4 feet June 9, 1923, from floodmark.

Remarks.- Records good except those for periods of ice effect, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	130	280	216	342	300	282	292	534	610	156	79
2	105	127	241	203	570	319	282	370	1,110	1,620	156	75
3	105	125	232	181	610	334	292	416	482	7,050	112	69
4	105	127	228	169	510	322	311	378	326	2,900	108	68
5	108	130	228	166	438	330	296	386	225	1,060	103	90
6	100	127	225	163	394	286	292	774	200	763	90	83
7	92	120	232	172	350	307	296	1,130	305	601	85	68
8	90	120	225	187	315	410	288	650	2,010	504	83	62
9	90	122	222	206	300	530	274	490	6,100	438	79	60
10	90	127	219	184	288	796	260	430	6,000	383	75	62
11	90	135	212	178	285	774	250	390	4,900	365	75	66
12	88	130	209	175	278	711	240	342	4,060	313	117	64
13	83	b125	200	184	274	630	236	311	2,130	293	122	66
14	77	b120	b180	285	260	570	240	285	1,580	260	120	62
15	77	b120	b160	303	232	510	311	260	1,130	248	115	58
16	77	112	b130	288	229	470	570	236	928	235	110	56
17	79	143	*b110	292	229	426	510	219	774	216	96	56
18	81	179	b120	b190	222	382	418	200	670	200	90	56
19	79	*159	b130	160	216	370	570	193	530	182	88	56
20	77	162	b150	190	190	362	414	193	446	168	100	94
21	79	206	175	*303	178	350	322	200	382	148	117	115
22	81	222	229	326	187	346	296	917	338	138	120	81
23	79	216	271	271	250	330	282	790	296	125	122	64
24	79	203	271	254	264	322	264	610	271	115	125	58
25	79	248	225	254	243	315	246	486	326	105	120	56
26	79	660	319	254	271	307	236	386	311	108	117	55
27	81	445	271	222	274	307	229	307	288	108	117	50
28	92	372	246	236	285	303	219	246	378	105	135	50
29	100	334	236	260	-	292	222	209	1,630	100	112	149
30	100	310	219	*68	-	282	243	190	1,090	103	98	748
31	115	-	203	250	-	282	-	172	-	135	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,762	115	77	89.1	5,480
November	5,956	660	112	195	11,680
December	6,598	319	110	213	13,090
Calendar year 1940	124,085	9,290	38	339	246,100
January	6,990	326	160	225	13,860
February	8,484	610	178	303	16,830
March	12,577	796	282	406	24,950
April	9,191	570	219	306	18,230
May	12,460	1,130	172	402	24,710
June	39,550	6,100	200	1,318	78,450
July	19,699	7,050	100	635	39,070
August	3,353	156	75	108	6,650
September	2,770	742	50	92.3	5,490
Water year 1940-41	130,290	7,050	50	357	258,400

Peak discharge.- May 22 (9 p.m.) 2,690 sec.-ft.; June 2 (2 a.m.) 1,740 sec.-ft.; June 9 (8 p.m.) 6,940 sec.-ft.; June 12 (9 a.m.) 4,900 sec.-ft.; June 29 (6 p.m.) 2,280 sec.-ft.; July 3 (8 p.m.) 8,550 sec.-ft.

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Walnut River at Winfield, Kans.

Location.- Water-stage recorder, lat. 37°14', long. 97°00', in NE¼ sec. 33, T. 32 S., R. 4 E., at bridge on U. S. Highway 77, 1 mile south of Winfield and 1 mile upstream from Black Crook Creek.

Drainage area.- 1,894 square miles.

Records available.- November 1921 to September 1941.

Average discharge.- 19 years (1922-41), 551 second-feet.

Extremes.- Maximum discharge during year, 14,200 second-feet June 10 (gage height, 23.14 feet); minimum, 4 second-feet (regulated) May 14 (gage height, 2.12 feet).
1921-41: Maximum discharge observed, 94,400 second-feet Nov. 18, 1928 (gage height, 40.61 feet), on basis of study by Burns and McDonnell Engineering Co.; no flow Nov. 11, 1928, July 27 to Sept. 20, 1936. Bankfull stage, 30 feet.

Remarks.- Records good except those for periods of fragmentary gage-height records, which are fair. Some regulation at low flow by City Water Works Dam above gage.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 26)

2.1	4	2.8	50	4.0	426
2.2	7	3.0	88	5.0	920
2.3	11	3.2	132	8.0	2,700
2.4	17	3.4	189	12.0	5,400
2.6	30	3.6	262	22.0	13,200

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	11	203	170	1,860	148	115	350	1,600	801	76	f200
2	40	6	140	833	3,280	140	115	328	8,560	470	66	f155
3	35	6	104	760	3,260	132	118	322	3,190	1,660	70	6,150
4	29	5	80	418	1,410	132	125	342	865	5,400	72	10,100
5	26	6	68	274	760	132	132	1,500	569	2,470	55	7,050
6	21	7	68	206	569	135	130	1,620	430	574	52	f588
7	19	9	64	167	475	145	125	760	535	405	46	f3,940
8	17	9	52	140	405	183	127	602	2,610	322	39	f3,090
9	14	9	46	125	348	274	125	479	12,200	270	35	f810
10	30	9	43	127	310	470	127	430	12,900	232	38	f636
11	19	10	42	153	290	660	115	380	10,400	214	37	f554
12	12	7	39	145	274	735	108	326	7,120	1,920	49	f422
13	10	7	38	132	266	530	120	278	1,620	944	57	f314
14	8	6	37	135	258	388	1,910	101	975	334	318	f235
15	7	6	42	466	235	302	7,050	203	735	224	314	f200
16	7	6	40	1,500	206	262	7,350	189	636	189	239	f217
17	7	6	40	1,170	189	243	2,520	177	545	158	164	f203
18	6	8	42	2,340	186	217	f975	168	470	145	118	f189
19	7	9	43	810	180	196	f1,170	150	418	140	90	177
20	17	15	43	466	170	183	f1,350	142	360	127	310	158
21	17	24	279	426	167	174	f1,030	142	342	110	401	145
22	16	22	397	636	174	164	f685	155	310	98	224	137
23	17	55	270	1,260	164	158	f502	186	282	92	150	130
24	17	64	232	710	164	155	466	708	258	80	110	125
25	16	64	170	452	161	153	413	380	239	84	2,440	116
26	19	1,200	142	355	153	142	409	239	270	90	f1,620	108
27	19	2,580	385	810	153	140	235	196	479	82	f735	98
28	17	1,290	685	612	153	137	298	164	1,080	72	5,780	102
29	15	507	470	435	-	130	306	142	6,300	64	f2,040	116
30	14	294	298	342	-	120	380	135	5,670	66	f498	3,700
31	13	-	228	1,250	-	113	-	125	-	80	f318	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	566	55	6	18.3	1,120
November	6,257	2,580	5	209	12,410
December	4,830	685	37	156	9,580
Calendar year 1940	93,499	9,120	5	255	185,400
January	17,825	2,340	125	575	35,360
February	16,238	3,260	153	580	32,210
March	7,193	735	113	232	14,270
April	28,631	7,350	108	954	56,790
May	11,407	1,620	101	368	22,630
June	81,966	12,900	239	2,732	162,600
July	17,917	5,400	64	578	35,540
August	16,561	5,780	35	534	32,850
September	40,163	10,100	9e	1,339	79,660
Water year 1940-41	249,556	12,900	5	684	495,000

Peak discharge.- Apr. 15 (10:30 p.m.) 10,700 sec.-ft.; June 2 (2 p.m.) 9,520 sec.-ft.; June 10 (3 a.m.) 14,200 sec.-ft.; June 30 (3 a.m.) 7,950 sec.-ft.; Aug. 28 (5 p.m.) 6,820 sec.-ft.; Sept. 5 (1 a.m.) 11,000 sec.-ft.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Salt Fork of Arkansas River near Alva, Okla.

Location.- Water-stage recorder, lat. 36°48'45", long. 98°38'50", on line between sec. 18, T. 27 N., R. 13 W., and sec. 13, T. 27 N., R. 14 W., at bridge on State Highway 14, 1 mile northeast of Alva and 22 miles upstream from Medicine Lodge River. Datum of gage is 1,297.04 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,020 equare miles.

Records available.- April 1904 to December 1905 (gage heights only), February 1938 to September 1941.

Extremes.- Maximum discharge during year, 8,150 second-feet Sept. 1 (gage height, 6.43 feet); no flow at times.

1938-41: Maximum discharge, 25,300 second-feet Aug. 16, 1938 (gage height, 8.90 feet), from rating curve extended above 7,000 eecond-feet by slope-area method; no flow at times.

Maximum stage known, 9.8 feet on unknown date, from information by State Highway Department.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	0	10	11	50	55	25	124	32	h12	h13	1,710
2	5	0	9	9	104	50	27	245	32	h9	h5	132
3	4	0	6	*8	107	48	28	454	33	h7	0	77
4	2	0	*5	4	73	40	26	2,010	32	h5	0	51
5	1	0	2	2	*58	33	19	812	31	h3	0	21
6	1	0	2	1	48	34	14	941	31	h2	0	8
7	1	0	1	3	39	48	13	298	32	h2	0	4
8	1	0	1	5	36	67	13	176	31	h1	0	4
9	1	0	1	6	31	83	11	122	1,740	0	h314	81
10	0	3	1	15	31	97	9	77	998	0	h130	38
11	0	27	b1	14	29	77	7	48	1,100	0	h25	13
12	0	h1	b1	13	*28	77	6	42	98	0	h10	6
13	0	h1	b1	21	25	81	8	34	114	0	h1	4
14	0	0	b1	33	22	75	10	51	99	0	0	3
15	0	0	b1	*46	h18	69	182	55	79	0	0	2
16	0	0	b1	40	h19	58	578	48	67	0	0	2
17	0	0	b1	36	h23	45	181	40	65	0	0	138
18	0	0	*b1	b30	h19	34	90	33	65	0	0	222
19	0	0	b1	b24	17	32	73	32	65	0	h13	169
20	0	14	1	18	h16	32	85	36	65	0	h6	h51
21	0	102	2	*21	h13	31	51	398	60	0	h3	h28
22	0	45	2	25	h19	31	45	412	58	0	0	h25
23	0	20	2	21	h17	31	42	556	184	0	0	h13
24	0	10	6	b20	22	31	39	h112	108	0	0	h10
25	0	58	14	b19	32	28	34	h67	93	0	0	h6
26	0	333	19	b18	50	31	26	55	97	h1,130	0	h5
27	0	109	19	b17	*50	34	31	44	60	h936	0	h3
28	0	51	17	16	53	40	32	34	40	h552	0	h7
29	0	33	14	16	-	33	36	34	23	h140	0	1,290
30	0	21	12	18	-	27	90	33	17	h39	0	387
31	0	-	11	*18	-	23	-	32	-	h19	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22	6	0	0.7	44
November	828	333	0	27.6	1,640
December	166	19	1	5.4	329
Calendar year 1940	12,995	1,770	0	35.5	25,770
January	548	46	1	17.7	1,090
February	1,049	107	13	37.5	2,080
March	1,475	97	23	47.6	2,930
April	1,831	578	6	61.0	3,630
May	7,457	2,010	32	241	14,790
June	5,549	1,740	17	185	11,010
July	2,857	1,130	0	92.2	5,670
August	534	314	0	17.2	1,060
September	4,510	1,710	2	150	8,950
Water year 1940-41	26,826	2,010	0	73.5	53,220

Peak discharge.- May 4 (3:30 p.m.) 6,240 sec.-ft.; June 9 (6:15 p.m.) 6,490 sec.-ft.; Sept. 1 (5 a.m.) 8,150 sec.-ft.; Sept. 29 (9:30 a.m.) 4,030 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

h Computed on basis of once-daily readings of staff gage.

Salt Fork of Arkansas River near Jet, Okla.

Location.- Water-stage recorder, lat. 36°45'00", long. 98°08'45", in NE¼NE¼ sec. 11, T. 26 N., R. 9 W., 0.6 mile downstream from Great Salt Plains Dam, about 4 miles upstream from Wagon Creek, and 6 miles northeast of Jet. Datum of gage is 1,097.20 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,070 square miles.

Records available.- October 1937 to September 1941.

Extremes.- Maximum discharge during year, 4,340 second-feet May 7 (gage height, 5.74 feet); no flow at times.
1937-41: Maximum discharge, 25,900 second-feet May 19, 1938 (gage height, 8.80 feet); no flow at times.

Remarks.- Records fair. During latter part of year flow regulated by Great Salt Plains Reservoir (capacity of conservation pool, 58,000 acre-feet). Low flow sustained by seepage from dam.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	9	35	56	417	106	130	180	103	e	8	13
2	14	3	28	49	607	106	136	266	116	8	e	12
3	10	1	21	43	337	108	119	426	98	8	8	12
4	e	0	20	37	266	108	103	1,110	94	8	9	13
5	6	0	20	31	222	94	101	3,360	88	8	9	14
6	5	0	19	26	184	106	96	4,080	72	s	9	14
7	4	0	20	37	145	114	98	3,550	53	8	10	14
8	3	0	20	51	121	111	96	2,120	58	s	10	13
9	2	0	18	64	116	116	96	1,450	66	8	10	13
10	1	0	17	54	116	119	103	704	70	e	10	13
11	1	0	17	49	111	121	133	544	68	8	9	13
12	0	0	15	46	103	130	154	500	66	s	9	13
13	0	0	14	107	72	133	157	414	59	8	9	13
14	0	0	9	428	51	133	121	354	51	s	9	13
15	0	0	12	161	73	139	219	295	39	8	9	15
16	0	0	12	114	108	142	1,680	257	36	8	9	13
17	0	0	10	210	92	139	2,540	230	31	8	9	13
18	0	0	34	88	81	139	2,440	203	27	8	10	13
19	0	0	151	54	77	139	2,120	532	21	8	10	12
20	0	290	46	57	72	139	1,340	331	18	8	10	12
21	0	443	32	77	75	139	621	365	14	8	11	12
22	0	31	25	94	73	139	331	547	12	8	11	12
23	0	24	28	90	77	139	261	792	8	8	11	12
24	0	36	61	72	79	139	218	933	7	8	12	12
25	0	681	68	72	92	139	164	581	7	8	12	12
26	0	1,270	139	61	90	136	133	285	9	8	12	12
27	0	480	124	49	70	133	116	479	9	8	12	12
28	189	180	73	53	106	133	103	261	9	8	12	12
29	34	75	64	61	-	133	192	184	8	8	12	12
30	8	43	59	54	-	130	402	142	8	8	12	41
31	74	-	54	59	-	133	-	119	-	8	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	381	189	0	12.3	756
November	3,566	1,270	0	119	7,070
December	1,265	151	9	40.8	2,510
Calendar year 1940	36,149	2,240	0	98.8	71,700
January	2,504	428	26	80.8	4,970
February	4,013	607	31	143	7,960
March	3,935	142	94	127	7,800
April	14,523	2,540	96	484	28,810
May	25,594	4,080	119	826	50,760
June	1,323	116	7	44.1	2,620
July	248	8	8	8.0	492
August	314	13	8	10.1	623
September	408	41	12	13.6	809
Water year 1940-41	58,074	4,080	0	159	115,200

Note.- Discharge for period July 1 to Sept. 1 computed on basis of occasional readings of staff gage.

Salt Fork of Arkansas River at Tonkawa, Okla.

Location.- Water-stage recorder, lat. 36°40', long. 97°19', in NE¼SW¼ (revised) sec. 4, T. 25 N., R. 1 W., at bridge on U. S. Highway 177 in Tonkawa, 4 miles downstream from Thompson Creek and 8 miles upstream from Chikaskia River. Datum of gage is 930.08 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 4,480 square miles.

Records available.- September 1903 to October 1905, January 1936 to September 1941.

Extremes.- Maximum discharge during year, 12,500 second-feet June 10 (gage height, 15.58 feet); minimum daily, 2.8 second-feet Oct. 23.
1903-5, 1936-41: Maximum discharge, 40,800 second-feet May 20, 1938 (gage height, 22.82 feet); minimum observed, 0.5 second-foot Aug. 23, 1936.
Maximum stage known, 26.8 feet June 10, 1923, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good except those based on wire-weight gage, which are fair, and those for period of no gage-height record, which are poor. Some regulation during periods of extreme low flow.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	54	204	60	86	84	125	948	a200	300	19	144
2	59	29	136	55	144	86	130	1,060	a400	172	20	80
3	48	79	99	52	369	79	122	830	g630	99	26	124
4	40	48	76	48	600	76	122	1,000	a450	69	31	94
5	34	28	62	46	515	81	118	2,390	a350	54	18	77
6	28	20	53	46	345	101	101	2,600	a250	46	17	54
7	22	15	46	45	280	120	94	3,550	a220	41	16	79
8	19	12	41	47	225	130	97	3,430	g197	38	29	80
9	15	14	38	48	190	122	92	2,390	3,470	35	26	72
10	17	13	36	44	163	128	86	1,840	10,500	34	31	52
11	17	10	35	50	142	120	79	1,190	4,950	79	22	38
12	15	6.6	34	55	144	122	81	g910	1,420	77	46	32
13	13	9.2	33	55	117	133	103	a700	515	42	60	29
14	9.9	7.2	25	58	115	142	706	a550	280	37	70	28
15	8.4	4.8	34	62	103	130	1,080	a450	166	33	66	26
16	7.8	3.6	32	217	83	130	5,210	a350	142	32	96	25
17	7.2	3.0	29	208	60	142	5,790	a300	112	29	51	23
18	6.0	3.6	32	150	55	166	4,030	a250	92	26	37	22
19	4.8	3.0	41	132	57	163	3,310	g214	79	24	29	21
20	4.2	10	47	154	60	154	3,090	a200	70	22	30	20
21	3.6	17	51	99	62	148	1,930	a300	62	22	25	18
22	3.0	25	84	77	58	139	1,190	a500	58	20	27	18
23	2.8	242	60	69	67	133	840	g765	54	18	25	16
24	9.9	157	45	72	79	122	630	1,510	52	18	34	17
25	15	143	39	82	76	122	465	1,050	53	18	33	16
26	14	238	42	82	79	125	390	g720	48	18	26	16
27	14	1,390	59	77	77	130	322	g540	47	18	35	15
28	18	1,320	81	70	82	125	280	a800	1,440	18	36	18
29	20	660	105	66	-	122	292	a500	980	17	481	19
30	16	345	86	63	-	120	570	a500	465	18	576	52
31	54	-	66	64	-	112	-	a300	-	22	222	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	625.6	80	2.8	20.2	1,240
November	4,910	1,390	3.0	164	9,740
December	1,851	204	25	59.7	3,670
Calendar year 1940	41,556.4	1,530	1.8	114	82,410
January	2,453	217	44	79.1	4,870
February	4,433	600	55	158	8,790
March	3,807	166	76	123	7,550
April	31,475	5,790	79	1,049	62,430
May	32,637	3,550	200	1,053	64,730
June	27,732	10,500	47	924	55,010
July	1,496	300	17	48.3	2,970
August	2,260	576	16	72.9	4,480
September	1,325	144	15	44.2	2,630
Water year 1940-41	115,004.6	10,500	2.8	315	228,100

Peak discharge.- Apr. 17 (2 a.m.) 6,750 sec.-ft.; May 5 (8:45 a.m.) 2,690 sec.-ft.; May 7 (4 a.m.) 3,670 sec.-ft.; May 8 (8 a.m.) 3,550 sec.-ft.; June 10 (4 a.m.) 12,500 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Jet.

g Computed from graph based on once-daily readings of wire-weight gage.

Medicine Lodge River near Kiowa, Kans.

Location.- Water-stage recorder, lat. 37°03', long. 98°28', in SW¼ sec. 36, T. 34 S., R. 11 W., at highway bridge, 1½ miles northeast of Kiowa, Kans. Datum of gage is 1,289.99 feet above mean sea level (Corps of Engineers, U. S. Army).

Drainage area.- 1,000 square miles.

Records available.- February 1938 to September 1941. May 1895 to October 1896 at site 2 miles upstream.

Extremes.- Maximum discharge during year, 6,360 second-feet June 9 (gage height, 5.72 feet); no flow during several periods.
1895-96, 1938-41: Maximum discharge observed, 24,600 second-feet July 16, 1896 (gage height, 5.9 feet, site and datum then in use); no flow at times in 1896, 1939-41.

Remarks.- Records are fair for discharges of less than 200 second-feet and poor for those above 200 second-feet.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e	2	46	54	118	76	62	71	56	63	7	1,140
2	e	4	44	52	136	76	71	96	57	125	9	29
3	10	5	41	*49	134	74	68	112	54	74	9	1
4	8	5	*41	49	123	66	63	1,410	52	85	6	0
5	4	5	39	44	102	71	60	1,550	44	54	4	0
6	2	5	38	46	89	62	59	1,870	45	47	2	0
7	2	6	38	74	81	106	56	386	47	41	1	0
8	1	7	36	68	76	108	53	232	75	36	1	0
9	1	10	39	60	71	123	49	173	2,330	31	1	0
10	1	14	36	60	71	129	49	166	3,410	28	0	0
11	1	13	34	57	66	123	53	173	1,920	25	0	0
12	1	a16	b32	60	66	116	53	132	359	23	0	0
13	0	a10	b28	65	68	106	57	116	200	19	0	0
14	0	a10	b24	87	59	96	68	106	136	17	0	0
15	0	a10	b20	94	59	94	248	94	106	16	0	0
16	0	14	b20	92	60	87	670	83	83	14	0	0
17	0	27	b20	68	59	78	160	74	74	11	0	0
18	0	30	*b19	104	60	76	100	68	65	9	0	0
19	0	28	b24	100	62	74	90	85	64	7	0	8
20	0	34	b30	98	60	74	81	100	52	4	0	6
21	0	59	b45	90	a60	71	66	150	47	4	0	0
22	0	68	89	70	66	70	63	284	44	3	0	0
23	0	53	112	66	74	68	62	618	415	2	0	0
24	0	40	74	87	78	66	57	148	470	1	0	0
25	0	60	63	68	83	66	52	121	205	1	0	0
26	0	109	74	146	80	66	49	102	703	9	0	0
27	0	102	70	78	78	68	47	100	134	41	0	0
28	0	71	66	74	74	66	50	85	94	70	0	1
29	0	59	60	63	-	63	68	70	80	42	0	1,050
30	0	54	60	63	-	63	80	68	68	25	0	877
31	0	-	56	66	-	65	-	56	-	17	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	47	10	0	1.5	93
November	931	109	2	31	1,850
December	1,418	112	19	45.7	2,810
Calendar year 1940	24,042	3,430	0	65.7	47,680
January	2,257	148	44	72.8	4,480
February	2,215	136	59	79.1	4,390
March	2,555	129	62	82.4	5,070
April	2,766	670	47	92.2	5,490
May	8,921	1,870	56	288	17,690
June	11,479	3,410	44	383	22,770
July	924	125	1	29.8	1,830
August	91	51	0	2.9	180
September	3,113	1,140	0	104	6,170
Water year 1940-41	36,717	3,410	0	101	72,820

Peak discharge.- May 5 (9 a.m.) 5,660 sec.-ft.; May 6 (1 a.m.) 3,610 sec.-ft.; June 9 (12 m.) 6,360 sec.-ft.
* Winter-discharge measurement made on this day.
a No gage-height record, discharge estimated.
b Stage-discharge relation affected by ice.

Chickaskia River near Blackwell, Okla.

Location.- Water-stage recorder above low-water dam of city of Blackwell, lat. 36°49', long. 97°17', on line between secs. 14 and 15, T. 27 N., R. 1 W., a quarter of a mile north of Blackwell and half a mile upstream from Bitter Creek.

Drainage area.- 1,690 square miles.

Records available.- January 1936 to September 1941.

Extremes.- Maximum discharge during year, 8,820 second-feet Apr. 16 (gage height, 16.38 feet); minimum daily, 2 second-feet Oct. 18, 19, 26.
1936-41: Maximum discharge, 26,800 second-feet May 20, 1938 (gage height, 24.05 feet, observed at crest; minimum, 0.5 second-foot July 29 to Aug. 3, Aug. 25-27, 1940.
Maximum stage known, 27.0 feet June 10, 1923.

Remarks.- Records good except those below 5 second-feet, which are fair, and those based on auxiliary gage, which are poor. Low flow regulated by Braman Reservoir (capacity, 3,600 acre-feet), 12 miles above station. Small diversion made from reservoir for municipal supply of city of Blackwell.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	7.4	68	79	79	87	90	304	76	175	11	126
2	7.4	8.2	56	76	105	87	96	279	85	466	10	268
3	9.1	7.4	49	66	210	96	90	515	73	468	12	108
4	12	7.4	47	49	245	85	85	376	69	575	12	42
5	12	7.4	42	32	171	82	82	1,790	66	305	29	63
6	12	8.2	42	34	140	90	79	1,390	68	212	7.4	31
7	12	8.2	62	32	117	79	93	2,520	96	167	19	5.9
8	12	8.2	54	32	99	90	102	1,160	82	133	12	38
9	12	9.1	87	34	90	130	90	587	2,630	111	18	40
10	14	10	197	34	87	205	76	1,020	7,420	93	e13	51
11	15	9.1	85	34	85	212	71	672	3,450	111	e12	17
12	13	9.1	40	18	79	197	68	413	1,390	87	e9	11
13	10	8.2	47	17	96	178	74	314	894	76	e6	10
14	11	8.2	47	18	74	160	308	245	572	68	e4	9.1
15	10	8.2	40	42	82	175	1,300	208	424	61	40	9.1
16	4.8	11	26	85	91	193	7,910	189	330	58	40	9.1
17	2.3	8.2	34	96	66	171	2,970	164	271	52	26	8.2
18	2.0	8.2	38	66	32	136	696	143	224	49	15	7.4
19	2.0	9.1	34	45	58	120	802	130	193	32	10	5.9
20	2.6	12	24	49	63	114	894	130	167	23	11	3.8
21	8.2	13	26	71	56	111	536	127	146	17	9.1	3.4
22	8.2	16	49	90	56	105	305	164	127	21	10	3.8
23	8.2	54	58	76	63	102	237	300	114	19	12	3.8
24	9.1	52	105	68	76	96	201	208	102	17	14	3.8
25	e15	58	96	63	76	93	175	143	96	17	14	4.3
26	e2	460	71	66	79	90	157	143	108	15	14	3.8
27	6.6	542	66	58	85	90	143	127	195	15	1,000	3.8
28	8.2	224	68	56	85	90	136	111	974	14	551	3.8
29	6.6	127	85	58	-	82	143	102	468	14	125	5.9
30	6.6	90	82	63	-	82	276	90	271	13	49	86
31	8.2	-	85	66	-	85	-	82	-	12	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	270.3	15	2	8.72	536
November	1,808.8	542	7.4	60.3	3,590
December	1,900	197	24	61.3	3,770
Calendar year 1940	31,249.6	3,180	.5	85.4	61,980
January	1,673	96	17	54.0	3,320
February	2,645	245	32	94.5	5,250
March	3,713	212	79	120	7,360
April	18,285	7,910	68	610	36,270
May	14,646	2,520	82	472	29,050
June	21,181	7,420	66	706	42,010
July	3,496	575	12	113	6,930
August	2,144.5	1,000	4	69.2	4,250
September	985.9	268	3.4	32.9	1,960
Water year 1940-41	72,748.5	7,910	2	199	144,300

Peak discharge.- Apr. 16 (2 p.m.) 8,820 sec.-ft.; June 10 (6:45 a.m.) 8,190 sec.-ft.
e Sluice gates in dam open; discharge computed on basis of once-daily readings of auxiliary staff gage below dam.

Cimarron River near Boise City, Okla.

Location.- Water-stage recorder, lat. 36°55'15", long. 102°31'15", in NW¼NE¼ sec. 9, T. 5 N., R. 5 E., at bridge on State Highway 3, 2 miles downstream from Ute Creek and 13 miles north of Boise City. Datum of gage is 3,859.86 feet above mean sea level (levels by Corps of Engineers, U. S. Army; Oklahoma State Highway bench mark).

Drainage area.- 3,200 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 60,200 second-feet Sept. 22 (gage height, 10.00 feet); no flow at times.
1938-41: Maximum discharge, that of Sept. 22, 1941; no flow at times.

Remarks.- Records fair. Some small diversions above station.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,740	0	30	2	2	7	6	1,440	32	22	11	7
2	778	0	26	*2	2	4	6	13,700	2,300	30	18	6
3	163	0	22	b2	*2	*4	5	7,220	f2,100	2,050	20	6
4	a100	0	20	b2	2	3	4	1,120	f530	5,020	4	2
5	a60	0	*12	b2	2	3	3	362	912	1,760	3	2
6	a40	0	12	b6	2	3	2	142	548	f132	2	1
7	a30	0	10	11	2	3	2	100	533	f53	2	0
8	a20	0	9	6	2	3	2	86	912	f36	27	0
9	a15	0	8	4	3	2	2	86	h437	h2	86	0
10	a10	0	7	2	*2	b2	1	86	f337	1	20	0
11	4	0	6	*2	2	*b3	1	74	h286	1	3	0
12	5	0	b6	2	2	b2	26	67	f249	143	2	0
13	5	*b1	b6	*3	2	b2	185	64	h226	1,790	2	0
14	3	b1	b6	2	2	1	4	64	f205	587	2	0
15	3	b2	b6	2	3	1	4	53	f184	3,070	2	0
16	3	2	b6	1	4	1	8	56	f163	2,550	3	0
17	3	2	b26	2	6	*1	4	50	f1,510	f437	2	0
18	2	2	84	2	5	1	2	32	h56	h106	67	0
19	2	3	22	2	6	1	7	24	f1	f93	93	0
20	2	6	*20	4	*4	1	6	16	h1	f80	3,400	21
21	2	9	16	2	4	2	7	14	f1	h64	1,050	7,740
22	2	*10	11	2	6	3	8	18	h1	h66	422	21,400
23	2	10	11	3	6	4	12	10,400	f1	f36	523	8,390
24	1	13	11	2	*8	8	14	2,000	f1	h24	174	1,280
25	1	24	11	3	8	28	12	337	f1	2,120	53	592
26	1	64	10	4	11	24	20	194	2,630	f299	32	368
27	1	46	7	*2	9	24	64	163	507	f205	26	204
28	0	28	7	2	7	18	142	86	249	119	26	148
29	0	30	5	2	-	16	93	112	132	a76	20	238
30	0	32	8	2	-	10	132	80	56	32	8	265
31	0	-	2	2	-	4	-	50	-	26	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,998	7,740	0	290	17,850
November	285	64	0	9.5	565
December	443	84	2	14.3	879
Calendar year 1940	25,630	7,740	0	70.0	50,850
January	87	11	1	2.8	173
February	116	11	2	4.1	230
March	189	28	1	6.1	375
April	784	185	1	26.1	1,560
May	38,296	13,700	14	1,235	75,960
June	15,101	2,530	1	503	29,950
July	21,010	5,020	1	676	41,670
August	6,103	3,400	2	197	12,110
September	40,670	21,400	0	1,356	80,670
Water year 1940-41	132,082	21,400	0	362	262,000

Peak discharge.- Oct. 1 (2:30 p.m.) 17,900 sec.-ft.; May 2 (11 a.m.) 30,600 sec.-ft.; May 23 (2 p.m.) 29,600 sec.-ft.; July 4 (3:30 p.m.) 11,900 sec.-ft.; Sept. 21 (5:30 a.m.) 27,600 sec.-ft.; Sept. 22 (10 p.m.) 60,200 sec.-ft.

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
f Computed on basis of estimated gage height record.
h Computed on basis of once-daily readings of staff gage.

Cimarron River near Waynoka, Okla.

Location.- Water-stage recorder, lat. 36°30'55", long. 98°52'45", near center of sec. 35, T. 24 N., R. 16 W., at bridge on State Highway 14, three-quarters of a mile downstream from Ewers (Main) Creek and 5 miles south of Waynoka. Datum of gage is 1,367.50 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 12,200 square miles.

Records available.- February 1938 to September 1941. November 1903 to December 1905 (gage heights only), at Atchison, Topeka & Santa Fe Ry. bridge 5 miles upstream.

Extremes.- Maximum discharge during year, 29,700 second-feet Sept. 25 (gage height, 8.35 feet); minimum, 1 second-foot at times.
1938-41: Maximum gage height, 10.70 feet May 23, 1938 (discharge not determined); no flow at times.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	3	93	90	369	188	112	558	165	689	300	81
2	33	3	90	75	633	231	99	601	206	515	360	49
3	22	1	*78	75	396	177	99	717	165	270	219	38
4	90	1	78	70	356	128	78	7,160	278	163	98	17
5	696	*1	66	b60	314	128	59	12,700	109	101	85	16
6	492	1	61	b60	219	177	49	3,940	1,240	206	44	10
7	256	1	54	b70	142	243	45	1,760	2,360	3,090	27	8
8	135	1	50	99	124	212	42	900	970	2,330	88	8
9	81	1	47	87	112	278	38	558	10,000	1,160	291	183
10	57	1	40	81	109	206	29	404	7,760	760	80	37
11	44	8	34	174	109	148	24	495	3,800	553	18	17
12	33	6	35	120	105	138	21	538	1,770	349	54	11
13	23	b2	b33	189	116	142	26	429	1,220	234	14	10
14	19	*b2	b31	382	87	124	35	286	810	182	10	8
15	14	b1	b29	309	73	131	3,680	148	553	150	5	8
16	13	3	b27	309	61	154	877	90	433	119	5	8
17	11	3	b26	309	52	135	332	52	337	157	2	500
18	9	2	b25	212	54	109	206	35	280	640	2	744
19	7	*3	24	131	66	93	348	28	226	1,180	2	636
20	6	34	28	*93	59	90	212	3,360	170	1,030	1	243
21	4	133	27	75	81	87	120	3,440	131	615	2	90
22	3	38	35	128	68	78	116	1,420	821	285	132	47
23	2	57	*267	159	59	73	120	1,850	2,340	176	8	34
24	2	59	212	124	68	70	99	6,460	1,320	122	178	g242
25	2	514	128	116	90	78	75	3,160	445	113	396	g12,200
26	1	782	131	96	105	128	64	6,920	290	1,820	160	2,780
27	1	438	124	87	159	142	66	1,630	163	1,980	914	1,370
28	2	*332	105	81	262	138	98	772	187	1,090	154	915
29	2	183	112	87	-	183	120	404	591	989	75	1,900
30	2	120	109	105	-	188	376	243	761	723	47	1,700
31	5	-	*90	138	-	138	-	142	-	555	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,109	696	1	68.0	4,180
November	2,734	782	1	91.1	5,420
December	2,289	267	24	73.8	4,540
Calendar year 1940	71,872	8,790	0	196	142,600
January	4,191	382	60	135	8,310
February	4,448	633	82	159	8,820
March	4,635	276	70	146	9,000
April	7,662	3,680	21	255	15,200
May	61,089	12,700	28	1,971	121,200
June	39,901	10,000	109	1,330	79,140
July	22,246	3,090	101	718	44,120
August	3,808	914	1	123	7,550
September	23,912	12,200	8	797	47,430
Water year 1940-41	178,924	12,700	1	490	354,900

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
g Computed from gage-height graph based on floodmark and several readings of staff gage.

Cimarron River near Guthrie, Okla.

Location.- Water-stage recorder, lat. 35°55'10", long. 97°25'35", in NE¼SE¼ sec. 29, T. 17 N., R. 2 W., 1 mile downstream from Cottonwood Creek, 2½ miles north of Guthrie, and 5 miles upstream from Ephraim Creek. Datum of gage is 900.50 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 16,000 square miles.

Records available.- January 1938 to September 1941.

Extremes.- Maximum discharge during year, 32,000 second-feet May 5; maximum gage height, 9.87 feet June 10; minimum discharge, 5.7 second-feet Nov. 15.
1938-41: Maximum discharge, 46,000 second-feet May 20, 1938 (gage height, 10.7 feet, from floodmark), from rating curve extended above 23,000 second-feet; minimum, 0.1 second-foot Nov. 2, 1939.

Remarks.- Records good except those above 10,000 second-feet, which are fair. Extreme low flow sustained by sewage from Guthrie.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	18	466	178	139	164	148	3,600	988	370	608	276
2	49	19	358	160	151	160	209	1,310	2,000	557	886	196
3	39	20	276	154	186	164	230	633	1,520	1,060	624	146
4	31	13	221	142	276	209	209	2,840	624	848	358	555
5	27	21	182	122	561	217	182	16,900	546	593	281	3,620
6	24	18	160	117	509	225	148	18,700	1,440	453	272	1,190
7	19	13	142	112	388	221	133	6,260	8,190	358	590	1,090
8	69	11	127	114	376	209	122	5,760	4,350	286	376	658
9	g236	11	117	120	318	217	112	3,000	2,710	414	256	1,580
10	g151	10	109	122	257	204	97	2,560	18,800	1,760	196	1,370
11	g127	10	107	122	221	217	89	2,470	12,200	1,360	151	414
12	g114	9.3	102	120	185	213	82	1,540	9,000	1,000	167	221
13	95	8.1	102	127	174	225	82	1,550	3,810	745	192	160
14	80	8.7	100	139	164	230	127	1,210	2,380	502	377	157
15	67	7.6	114	152	151	213	2,540	896	1,990	370	230	133
16	52	8.1	100	313	136	196	9,470	683	1,510	286	217	114
17	42	8.1	76	286	130	178	9,570	577	1,090	243	148	104
18	33	8.1	84	297	136	164	3,900	440	857	209	114	109
19	27	9.3	95	262	151	151	3,340	346	692	225	107	102
20	25	30	116	234	167	148	3,440	459	585	196	107	95
21	22	47	217	225	164	164	1,850	2,510	502	142	89	254
22	18	38	171	200	171	151	1,100	9,470	473	438	82	531
23	16	115	142	174	160	142	906	4,140	407	745	84	352
24	14	230	117	154	171	133	1,220	11,500	346	488	317	248
25	13	591	107	139	178	126	1,300	5,920	878	346	208	178
26	12	1,880	130	130	192	130	658	4,820	1,480	252	114	3,560
27	10	3,360	240	142	200	136	502	4,940	2,210	196	220	2,820
28	18	1,800	466	145	182	133	407	4,880	1,080	174	1,390	1,940
29	17	960	308	139	-	133	446	2,560	616	1,190	2,300	1,440
30	13	593	238	130	-	139	2,340	1,660	440	1,220	1,060	1,160
31	18	-	196	127	-	148	-	1,250	-	g842	459	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,538	238	10	49.6	3,050
November	9,875.3	3,360	7.6	329	19,590
December	5,486	466	76	177	10,880
Calendar year 1940	105,959.0	7,870	1.9	290	210,200
January	5,128	313	112	165	10,170
February	6,183	561	130	221	12,260
March	5,449	230	125	176	10,810
April	44,959	9,570	82	1,499	89,170
May	125,414	18,700	346	4,046	248,800
June	83,714	18,800	346	2,790	166,000
July	17,868	1,760	142	576	35,440
August	12,610	2,300	82	407	25,010
September	24,752	3,620	95	825	49,090
Water year 1940-41	342,976.3	18,800	7.6	940	680,300

g Computed from gage-height graph based on once-daily readings of staff gage.

Cimarron River at Perkins, Okla.

Location.- Water-stage recorder, lat. 35°58', long. 97°02', in SW¼SW¼ sec. 7, T. 17 N., R. 3 E., at county highway bridge, 1 mile south of Perkins, 1¼ miles upstream from Dugout Creek and 4 miles downstream from Wildhorse Creek. Datum of gage is 819.88 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 17,050 square miles.

Records available.- June 1939 to September 1941. Gage-height records collected at same site since 1927 are continued in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 31,600 second-feet June 11 (gage height, 12.70 feet); minimum, 12 second-feet Nov. 19.
1939-41: Maximum discharge, that of June 11, 1941; minimum, 1 second-foot at times in October and November 1939.
Flood of Oct. 4-5, 1926, reached a stage of 17.0 feet, from floodmarks, from information by Corps of Engineers, U. S. Army. Flood of Aug. 18, 1932, reached a stage of 14.6 feet, from reports of U. S. Weather Bureau.

Remarks.- Records good below 1,000 second-feet and fair above.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	28	562	205	172	216	159	6,330	1,010	648	890	534
2	64	28	454	178	188	195	159	3,230	930	562	710	380
3	55	27	380	159	185	195	178	1,530	1,980	730	930	246
4	46	26	312	156	205	175	242	6,110	1,100	1,010	780	192
5	41	25	270	144	380	209	231	11,800	850	890	534	4,180
6	35	23	235	128	562	239	209	23,100	815	679	428	5,120
7	32	22	212	123	507	250	205	11,000	6,860	590	404	1,520
8	30	21	195	118	404	270	178	7,340	11,600	507	734	780
9	26	20	175	115	404	250	150	5,000	3,130	454	480	3,690
10	146	19	166	115	334	250	134	4,140	21,200	571	380	2,650
11	192	18	156	120	334	246	118	2,650	21,600	1,340	312	1,300
12	153	16	150	120	290	250	111	2,160	14,100	1,100	380	507
13	120	17	144	123	231	270	99	1,340	6,850	850	242	404
14	115	16	134	125	178	250	113	1,240	4,140	679	334	312
15	93	15	156	128	166	270	2,250	1,060	2,420	507	480	270
16	80	14	169	150	142	250	14,600	815	1,840	454	334	239
17	68	14	144	290	111	239	14,500	710	1,400	380	270	205
18	56	13	113	312	113	220	5,450	619	1,100	334	198	181
19	46	12	113	312	115	198	4,140	590	850	312	166	181
20	40	20	152	290	123	185	4,140	990	710	334	136	175
21	35	45	334	242	123	172	3,740	5,310	619	312	131	156
22	32	55	270	239	123	166	1,400	13,700	534	270	118	261
23	32	120	192	227	134	166	1,060	8,370	507	454	113	480
24	31	162	153	195	156	159	1,440	12,800	480	648	111	380
25	28	1,100	123	185	188	144	2,530	10,800	454	507	106	290
26	28	3,020	123	169	205	144	1,100	9,400	1,080	404	246	1,440
27	24	6,580	224	150	223	162	648	4,770	1,840	334	198	3,250
28	28	f3,470	209	156	231	156	562	9,790	2,000	270	220	1,580
29	28	1,240	428	166	-	139	507	3,770	1,100	239	1,010	1,140
30	28	780	290	166	-	142	1,220	1,840	780	590	1,520	1,010
31	29	-	242	159	-	159	-	1,190	-	1,100	745	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,843	192	24	59.5	3,660
November	16,968	6,580	12	566	33,660
December	6,980	562	113	225	13,840
Calendar year 1940	137,562	7,270	4	376	272,800
January	5,465	312	115	176	10,840
February	6,527	562	111	233	12,950
March	6,336	270	139	204	12,570
April	61,773	14,800	99	2,059	122,500
May	173,494	23,100	590	5,597	344,100
June	113,879	21,600	454	3,796	225,900
July	18,059	1,340	239	583	35,820
August	13,640	1,520	106	440	27,050
September	33,053	5,120	156	1,102	65,560
Water year 1940-41	468,017	23,100	12	1,255	908,400

f Computed from estimated gage height.

Note.- Discharge computed from gage-height graph based on once-daily readings of wire-weight gage Nov. 18-19, Apr. 22-24, 26-29, May 3-5, 13-20, May 31 to June 2, June 4-6, 15-26, June 29 to July 2, Aug. 19-26, Sept. 1-4, 10-12, 28-30.

Cimarron River at Oilton, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 36°06', long. 96°35', in SW¼ sec. 28, T. 19 N., R. 7 E., at bridge on State Highway 51, half a mile north of Oilton and 4½ miles upstream from Buckeye Creek. Datum of gage is 718.12 feet above mean sea level, datum of 1929.

Drainage area.- 17,700 square miles.

Records available.- July 1934 to September 1941.

Extremes.- Maximum discharge during year, 25,200 second-feet June 11 (gage height, 11.48 feet); minimum, 29 second-feet Nov. 19.
1934-41: Maximum discharge observed, 72,300 second-feet June 21, 1935 (gage height, 16.8 feet); no flow Sept. 8, 13-16, 1936.
Maximum stage known, about 21.3 feet in October 1908, from information by State Highway Department.

Remarks.- Records fair. Prior to May no gage-height record was obtainable from water-stage recorder for discharges below 1,500 second-feet due to sand bar around gage well, and record was obtained from twice-daily readings of wire-weight gage.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	44	960	320	228	273	178	1,130	2,000	802	1,000	915
2	121	40	690	266	481	266	184	4,590	1,740	2,240	662	560
3	107	39	555	234	510	259	178	2,340	1,540	1,960	660	400
4	92	3e	465	210	356	234	169	1,900	2,150	670	750	390
5	82	3e	388	204	270	224	224	12,900	1,610	1,080	696	933
6	75	37	336	194	312	224	266	17,900	1,480	945	520	3,380
7	72	35	292	188	430	259	256	14,800	2,490	738	425	3,100
8	66	34	259	181	530	273	245	7,800	5,660	612	388	1,800
9	63	36	238	172	440	280	214	6,200	8,150	535	525	3,140
10	60	38	217	166	396	266	184	6,400	14,100	465	500	4,260
11	60	39	207	158	368	270	169	3,980	22,100	480	396	2,600
12	105	36	204	155	328	266	152	2,700	13,800	1,410	410	1,600
13	188	34	191	169	304	256	491	2,220	9,400	1,230	445	780
14	178	34	178	178	259	273	449	1,610	4,920	996	360	505
15	169	32	231	172	231	266	544	1,480	3,200	768	420	372
16	155	33	224	175	210	270	5,070	1,280	2,450	624	455	300
17	141	31	207	217	191	266	14,900	1,040	2,080	515	495	266
18	136	31	197	259	224	256	10,200	915	1,610	420	336	224
19	128	31	175	336	248	234	6,400	832	1,330	360	280	194
20	118	127	155	340	352	228	4,250	848	1,130	316	224	172
21	109	581	146	344	324	214	3,500	2,550	930	304	191	152
22	102	546	178	320	273	200	2,900	12,600	774	292	175	139
23	94	550	316	288	266	191	1,680	14,300	672	252	166	131
24	88	352	292	266	320	184	1,230	8,180	600	231	152	318
25	86	2,340	238	256	510	178	1,400	13,500	560	516	139	455
26	82	7,730	210	238	430	184	2,150	6,600	480	460	126	296
27	80	3,460	231	217	352	184	1,230	6,600	740	376	292	2,340
28	110	4,490	344	197	296	184	774	4,700	1,740	316	292	3,000
29	69	2,420	360	184	-	161	654	3,200	1,870	276	210	2,380
30	67	1,480	352	191	-	161	1,210	3,850	1,130	220	455	2,300
31	48	-	410	204	-	175	-	2,520	-	682	1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,179	188	48	103	6,310
November	24,756	7,730	31	825	49,100
December	9,446	960	146	305	18,740
Calendar year 1940	170,237	9,290	8	465	337,700
January	6,999	344	155	226	13,880
February	9,439	530	191	337	18,720
March	7,199	280	175	232	14,280
April	61,451	14,900	152	2,048	121,900
May	174,965	17,900	832	5,644	347,000
June	112,436	22,100	480	3,748	223,000
July	21,293	2,240	220	687	42,230
August	15,675	1,330	126	441	27,120
September	37,382	4,250	131	1,246	74,150
Water year 1940-41	482,220	22,100	31	1,321	956,400

Note.- Discharge computed from gage-height graph based on twice-daily readings of wire-weight gage Oct. 1 to Nov. 25, Dec. 1 to Apr. 15, Apr. 23-25, Apr. 27 to May 2, May 16-24.

Cimarron River at Mannford, Okla.

Location.- Wire-weight gage, lat. 36°09', long. 96°24', in SE¼NE¼ sec. 1, T. 19 N., R. 8 E., at St. Louis-San Francisco Ry. bridge, a fifth of a mile downstream from House Creek, 1 mile west of Mannford, and 19 miles upstream from mouth. Datum of gage is 687.92 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 17,940 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 24,800 second-feet May 6 (gage height, 11.97 feet, from graph based on gage readings); minimum, 33 second-feet Nov. 16, 17.
1939-41: Maximum discharge, 103,000 second-feet Sept. 4, 1940 (gage height, 25.2 feet, from graph based on gage readings near crest); minimum observed, 5 second-feet Oct. 25, 1939.
Flood in 1908 reached a stage about 0.5 foot higher than that of Sept. 4, 1940, from information by Corps of Engineers, U. S. Army.

Remarks.- Records fair except those above 2,000 second-feet, which are poor. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	72	980	314	219	358	f177	2,420	2,420	1,160	1,060	1,440
2	125	57	680	236	909	314	f170	5,230	2,120	2,200	e920	575
3	101	48	530	196	875	314	161	5,290	1,860	3,450	e750	343
4	94	42	450	167	450	292	155	2,420	2,120	1,160	e820	579
5	85	41	402	174	531	254	167	13,300	2,120	1,440	928	1,730
6	76	41	335	180	254	273	193	18,300	1,610	1,270	685	2,840
7	72	38	292	180	380	314	212	20,100	3,050	1,060	540	4,600
8	68	39	254	189	450	335	236	9,540	3,740	884	472	2,720
9	48	44	219	177	402	358	212	5,860	2,220	762	505	5,970
10	38	41	219	167	380	335	199	7,150	13,500	647	611	5,290
11	48	42	236	158	425	335	186	4,190	22,700	575	505	3,230
12	50	43	216	155	380	314	174	2,720	15,500	1,260	540	1,860
13	184	38	212	167	358	314	847	2,570	9,870	1,730	685	1,110
14	245	36	209	196	314	314	996	1,990	4,600	1,440	505	647
15	218	37	236	209	292	314	1,110	1,860	3,050	1,110	472	505
16	178	33	273	202	254	292	6,280	1,490	2,570	843	505	408
17	211	33	254	219	236	292	16,200	1,320	2,270	685	647	378
18	166	35	236	254	236	273	14,100	972	1,730	575	438	332
19	130	35	212	292	273	273	9,430	843	1,490	472	372	277
20	108	190	199	314	358	236	4,560	884	1,270	408	271	230
21	96	742	183	314	358	236	4,300	4,150	1,060	378	215	192
22	98	499	170	314	356	219	4,820	8,640	972	408	187	168
23	92	635	358	292	358	212	2,680	14,500	928	408	177	142
24	89	515	335	273	335	206	2,120	11,600	802	326	168	146
25	80	2,030	273	273	590	209	1,860	11,900	802	540	129	575
26	72	11,100	219	254	560	212	3,080	7,490	647	723	134	438
27	70	3,170	219	236	475	212	2,570	6,050	611	505	220	665
28	87	3,120	273	206	402	216	1,730	4,600	1,860	438	282	e3,000
29	94	2,240	292	180	-	212	1,490	6,060	2,570	337	355	e2,450
30	101	1,580	254	183	-	202	1,990	4,600	1,730	223	251	e1,900
31	96	-	358	189	-	199	-	3,050	-	378	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,368	245	38	109	6,680
November	26,616	11,100	33	887	52,790
December	9,578	980	170	309	19,000
Calendar year 1940	235,270	54,400	-	643	466,600
January	6,860	314	155	221	13,610
February	11,412	909	219	408	22,640
March	8,439	358	199	272	16,740
April	82,605	16,200	155	2,754	163,800
May	192,089	20,100	843	6,196	381,000
June	118,792	22,700	611	3,960	235,600
July	27,797	3,450	225	897	55,130
August	15,749	1,400	129	508	31,240
September	44,740	5,970	142	1,491	88,740
Water year 1940-41	548,045	22,700	33	1,501	1,087,000

e Gage readings not representative of average for day; discharge estimated.
f Computed from partly estimated gage height.

Council Creek near Stillwater, Okla.

Location.- Water-stage recorder and concrete control, lat. 36°07', long. 96°52', in SE¼SW¼ sec. 15, T. 19 N., R. 4 E., 10 miles east of Stillwater. Datum of gage is 838.28 feet above mean sea level, adjustment of 1912.

Drainage area.- 30.2 square miles.

Records available.- March 1934 to September 1941.

Extremes.- Maximum discharge during year, 2,050 second-feet June 9 (gage height, 9.60 feet); no flow at times.
1934-41: Maximum discharge, 3,740 second-feet Mar. 28, 1938 (gage height, 13.34 feet), from rating curve extended logarithmically above 2,700 second-feet; no flow at times in each year.

Remarks.- Records good except those above 200 second-feet, which are fair.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.03	0	1.3	8.0	1.8	58	3.0	299
1.10	.20	1.4	15	2.0	90	3.5	393
1.15	1.1	1.5	24	2.3	150	4.0	477
1.2	3.0	1.6	34	2.6	215	5.0	656

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0.04	0.11	f5.1	0.25	0.20	3.4	2.4	2.6		0
2	0	0	.02	.07	f17	.25	.25	1.6	3.0	9.4		0
3	0	0	.01	.04	f3.3	.25	.25	1.1	1.1	1.1		0
4	0	0	.01	.07	f.37	.20	1.1	434	.79	.37		1.2
5	0	0	0	.07	f.20	.16	1.8	95	.55	.25		42
6	0	0	0	.16	.20	.20	1.1	9.2	36	.20		.07
7	0	0	0	.16	.16	.20	1.1	f176	16	.20		0
8	0	0	0	.11	.20	.16	.25	12	1.8	.16		0
9	0	0	0	.07	.25	.16	.37	59	648	.11		79
10	0	0	0	.07	.25	.11	.20	32	42	.07		.55
11	0	0	.01	.11	.16	.11	.11	5.2	12	.79		.06
12	0	0	.04	.16	.20	.16	.11	3.4	4.7	.25		0
13	0	0	.07	.25	.16	.16	.16	3.0	3.0	.07		0
14	0	0	.02	.25	.20	.11	.55	2.6	2.6	.07		0
15	0	0	2.1	.20	.37	.20	6.2	2.2	2.2	.11		0
16	0	0	.55	.25	.37	.25	41	1.1	2.2	.11		0
17	0	0	.11	1.1	.37	.20	2.2	.79	2.2	.11		0
18	0	0	.04	.37	1.1	.20	1.4	1.4	2.2	.01		0
19	0	0	.07	.25	1.8	.20	66	1.4	2.2	0		0
20	0	20	.02	.25	1.6	.25	3.4	324	1.8	0		0
21	0	33	.01	.25	1.1	.25	1.1	256	1.8	0		0
22	0	.11	.01	.07	2.2	.20	.55	f209	1.4	0		0
23	0	14	.01	.11	2.2	.20	.79	f75	1.4	0		0
24	0	1.3	.01	.11	15	.16	.79	8	2.2	0		0
25	0	298	.01	.16	10	.20	.79	4.7	2.6	0		0
26	0	72	1.1	.20	2.2	.55	.55	7.7	2.6	0		0
27	0	1.4	18	.16	1.4	.37	.79	4.6	2.6	0		0
28	6.7	.25	.79	.16	.55	.20	.79	1.4	3.0	0		0
29	.02	.16	.25	.16	-	.25	f68	1.4	2.2	0		0
30	0	.11	.11	.20	-	.25	15	.20	1.8	0		16
31	0	-	.07	.20	-	.25	-	.20	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	6.72	6.7	0	0.217	0.0072	0.008	13
November	440.33	298	0	14.7	.487	.54	873
December	23.48	18	0	.757	.025	.03	47
Calendar year 1940	1,062.61	298	0	2.91	.096	1.31	2,110
January	5.9	1.1	.04	.190	.0063	.007	12
February	68.21	17	.16	2.44	.081	.08	135
March	6.66	.55	.11	.215	.0071	.008	13
April	236.9	86	.11	7.90	.262	.29	470
May	1,736.79	434	.20	56.0	1.85	2.13	3,450
June	808.34	648	.55	26.9	.891	.99	1,600
July	15.98	9.4	0	.515	.017	.02	32
August	0	0	0	0	0	0	0
September	138.88	79	0	4.63	.153	.17	275
Water year 1940-41	3,488.19	648	0	9.56	.317	4.27	6,920

Peak discharge.- Nov. 25 (7:30 p.m.) 1,070 sec.-ft.; May 4 (9 p.m.) 1,980 sec.-ft.; May 7 (6 a.m.) 762 sec.-ft.; May 20 (4:30 p.m.) 1,560 sec.-ft.; May 21 (10 p.m.) 1,070 sec.-ft.; June 9 (4 p.m.) 2,050 sec.-ft.
f Computed on basis of partly estimated gage-height record.

Verdigris River near Coyville, Kans.

Location.- Wire-weight gage, lat. 37°42'20", long. 95°54'20", in SW¼ sec. 8, T. 27 S., R. 14 E., on county highway bridge, 1¼ miles upstream from Meadow Creek, 1¾ miles northwest of Coyville, and 2⅝ miles downstream from Pig Creek. Datum of gage is 845.28 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 770 square miles.

Records available.- August 1939 to September 1941.

Extremes.- Maximum discharge during year, 59,000 second-feet June 1 (gage height, 38.58 feet, from floodmarks) by slope-area method; no flow during several periods.
1939-41: Maximum discharge, that of June 1, 1941; no flow at times.

Remarks.- Records fair. Gage read twice a day and bihourly when river was rising.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	0	31	65	1,560	89	56	160	35,700	98	71	402
2	1	0	22	1,460	2,070	84	56	166	37,600	2,970	58	2,040
3	1	0	16	579	919	82	58	154	6,910	2,190	52	503
4	1	0	13	220	498	79	62	136	959	342	36	184
5	0	0	10	136	400	74	63	160	498	196	29	102
6	0	0	8	100	372	76	60	226	401	142	23	4,640
7	0	0	6	78	304	87	58	178	418	110	19	13,900
8	0	0	5	67	238	107	547	154	2,480	88	16	5,670
9	0	0	5	87	202	160	728	118	10,700	76	15	4,860
10	0	0	3	107	190	244	286	129	14,600	63	16	1,890
11	0	0	3	117	190	256	196	76	3,500	113	13	565
12	0	0	2	110	202	178	154	67	1,030	190	19	400
13	0	0	2	102	214	142	165	61	596	105	18	316
14	0	0	2	394	184	126	5,450	55	456	67	108	268
15	0	0	4	1,790	148	119	7,030	52	365	51	184	232
16	0	0	10	2,100	129	134	6,830	49	316	42	142	190
17	0	0	8	6,790	129	136	1,730	43	274	36	53	280
18	0	0	7	2,130	122	114	723	38	232	34	100	184
19	0	0	18	498	110	94	1,880	34	196	30	226	129
20	0	0	50	498	98	91	1,800	36	166	27	89	104
21	0	8	64	783	91	91	554	61	148	26	268	84
22	0	4	43	1,690	88	86	400	55	126	24	280	72
23	0	3	35	794	93	80	337	67	113	22	93	60
24	0	2	30	428	96	76	292	53	100	22	69	52
25	0	2	32	602	101	70	262	39	89	20	90	44
26	0	540	39	3,200	105	67	226	32	82	18	262	41
27	0	264	399	866	105	64	202	29	74	17	3,180	36
28	0	120	344	442	98	64	184	27	428	16	583	36
29	0	92	166	372	-	62	166	25	337	16	160	2,460
30	0	61	105	1,570	-	59	160	26	160	24	101	7,370
31	0	-	72	2,440	-	57	-	142	-	214	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4	1	0	0.1	8
November	1,096	540	0	36.5	2,170
December	1,554	399	2	50.1	3,080
Calendar year 1940	33,579	5,990	0	91.7	66,600
January	30,615	6,790	65	988	60,720
February	9,056	2,070	88	323	17,960
March	3,248	256	57	105	6,440
April	30,715	7,030	56	1,024	60,920
May	2,648	226	25	85.4	5,250
June	119,054	37,600	74	3,968	236,100
July	7,389	2,970	16	238	14,660
August	6,504	3,180	13	210	12,900
September	47,114	13,900	36	1,570	93,450
Water year 1940-41	258,997	37,600	0	710	513,700

Verdigris River near Altoona, Kans.

Location.- Wire-weight gage, lat. 37°29', long. 95°41', in SW¼ sec. 29, T. 29 S., R. 16 E., on county highway bridge, 2½ miles southwest of Altoona, 2½ miles downstream from Big Cedar Creek, and 6 miles upstream from Chetopa Creek. Datum of gage, 780.18 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,150 square miles.

Records available.- November 1938 to September 1941.

Extremes.- Maximum discharge observed during year, 35,700 second-feet June 2 (gage height, 27.90 feet); no flow during several periods.
1939-41: Maximum discharge observed, that of June 2, 1941; no flow at times.

Remarks.- Records fair. Some diurnal fluctuation caused by power plant above station. Gage read twice a day and oftener during periods of rapidly changing stage.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	1	118	576	3,480	140	80	382	7,040	185	153	1,200
2	6	1	98	1,160	3,860	138	80	286	22,300	906	105	2,610
3	5	0	67	1,680	2,500	135	82	230	25,200	4,260	57	1,620
4	10	0	65	564	1,070	120	78	215	15,100	1,720	53	474
5	13	0	38	319	685	110	78	265	4,010	360	46	277
6	3	0	33	221	572	120	78	244	820	199	40	549
7	2	0	34	180	469	150	78	266	640	161	26	6,300
8	1	0	32	166	382	193	103	199	1,690	135	21	9,130
9	1	0	27	210	306	224	804	166	6,980	96	30	13,400
10	1	0	24	227	274	227	644	153	11,800	80	8	11,600
11	1	0	21	210	256	265	299	122	13,100	73	15	2,930
12	1	0	20	204	256	271	224	105	8,570	182	38	639
13	0	0	26	227	293	221	177	98	1,450	135	26	401
14	0	0	32	640	293	171	1,130	91	798	125	33	326
15	0	0	44	1,910	244	163	9,640	91	595	101	105	271
16	0	0	218	3,130	207	156	12,200	91	452	71	193	253
17	0	0	166	5,620	193	161	9,740	82	375	46	96	221
18	0	0	140	6,850	166	161	3,140	63	329	42	65	277
19	0	0	177	2,670	161	153	2,400	57	265	46	306	230
20	0	1	204	865	153	138	3,330	57	244	26	250	161
21	0	42	166	1,680	138	122	1,620	73	196	32	105	148
22	0	34	156	2,030	138	115	514	177	156	31	368	125
23	0	118	132	1,990	130	115	469	105	156	34	274	108
24	0	63	108	642	138	105	428	126	150	23	138	101
25	0	466	105	1,070	140	96	368	73	132	19	135	91
26	0	3,270	105	3,710	150	91	293	57	115	30	78	76
27	0	1,430	490	3,450	156	87	262	49	91	19	757	69
28	0	432	775	968	150	84	241	53	38	19	2,480	87
29	1	253	412	640	-	78	227	23	78	18	485	164
30	0	180	262	1,180	-	78	210	23	360	31	196	4,980
31	1	-	193	3,290	-	78	-	34	-	32	115	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	53	13	0	1.7	105
November	6,291	3,270	0	210	12,480
December	4,496	775	21	145	8,920
Calendar year 1940	76,715	9,720	0	210	152,200
January	48,479	6,850	166	1,564	96,160
February	16,960	3,860	130	606	33,640
March	4,466	271	78	144	8,860
April	49,017	12,200	78	1,634	97,220
May	4,057	382	23	131	8,050
June	123,232	25,200	38	4,108	244,400
July	9,237	4,260	18	298	18,320
August	6,797	2,480	8	219	15,480
September	58,818	13,400	69	1,961	116,700
Water year 1940-41	331,903	25,200	0	909	658,300

Verdigris River at Independence, Kans.

Location.- Water-stage recorder, lat. 37°13', long. 95°41', in NE¼ sec. 32, T. 32 S., R. 16 E., at bridge on U. S. Highway 160, 2 miles east of Independence and 3½ miles downstream from Elk River.

Drainage area.- 2,952 square miles.

Records available.- October 1930 to September 1941. April to September 1904 (occasional gage readings) and November 1921 to September 1930, at site three-quarters of a mile upstream.

Average discharge.- 20 years (1921-41), 1,379 second-feet.

Extremes.- Maximum discharge during year, 35,800 second-feet Apr. 17 (gage height, 39.55 feet); no flow at times during October and November.

1921-41: Maximum discharge, 124,000 second-feet Oct. 3, 1927 (gage height, 46.04 feet, site and datum then in use), from rating curve extended above 36,000 second-feet on basis of velocity-area study made at gage height 40.0 feet; no flow during periods in 1932, 1934, 1936, 1939-41.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	0	376	806	7,420	445	210	g805	4,620	460	g58	2,98
2	22	0	278	2,190	10,700	389	208	g1,150	14,800	376	163	5,47
3	18	0	222	2,580	9,280	348	210	g877	19,800	2,200	171	8,15
4	14	0	186	1,600	3,910	325	206	g751	25,000	3,700	116	2,06
5	11	0	163	787	2,140	319	206	g1,190	21,200	864	95	7,73
6	10	0	149	550	1,740	327	217	g1,690	4,370	431	80	2,11
7	15	0	128	445	1,500	357	217	g1,150	1,150	314	66	4,88
8	12	0	113	403	1,190	431	222	g787	1,970	246	53	11,00
9	7	0	103	474	971	534	278	g614	11,000	215	44	18,80
10	4	0	103	566	859	630	1,070	g550	23,700	180	38	22,60
11	4	1	88	534	805	769	614	460	25,700	153	37	15,00
12	3	1	90	504	787	716	403	417	19,400	151	36	g2,36
13	4	1	90	474	787	614	338	376	7,690	256	61	g1,19
14	4	0	86	914	769	534	1,140	348	1,940	222	63	g91
15	4	0	120	3,000	698	504	14,000	317	1,460	188	54	75
16	3	0	276	4,880	582	489	29,900	286	1,150	143	121	66
17	3	0	417	7,780	519	460	33,400	268	971	116	226	56
18	2	0	351	10,100	504	460	21,800	240	841	101	171	51
19	2	0	403	6,930	474	417	10,800	210	698	a86	123	51
20	2	0	489	1,890	431	376	10,000	199	598	a66	388	43
21	2	4	445	3,260	403	343	5,950	614	519	a56	306	37
22	2	35	376	4,360	389	327	g2,580	933	460	a49	219	32
23	2	94	335	3,580	376	314	g1,890	990	403	a49	417	29
24	2	151	283	2,300	389	299	g1,600	751	359	a43	263	28
25	2	322	246	1,640	403	283	g1,370	474	319	a36	534	24
26	2	7,700	222	4,620	417	263	g1,150	340	286	a40	752	21
27	1	6,230	317	6,580	431	256	g990	260	266	a34	319	20
28	1	1,740	1,600	3,060	431	238	g877	212	253	a31	2,980	18
29	0	605	1,240	1,500	-	226	g805	178	299	a29	2,130	21
30	0	504	716	1,890	-	222	g769	165	733	a29	504	4,44
31	0	-	504	5,210	-	219	-	147	-	a36	293	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	188	30	0	6.1	37
November	17,588	7,700	0	586	34,89
December	10,515	1,600	86	339	20,86
Calendar year 1940	142,675	13,600	0	390	283,00
January	85,407	10,100	403	2,755	169,40
February	49,305	10,700	376	1,761	97,80
March	12,434	769	219	401	24,66
April	143,420	33,400	206	4,781	284,50
May	17,749	1,690	147	573	35,21
June	191,955	25,700	253	6,398	380,70
July	10,904	3,700	29	352	21,63
August	10,861	2,980	36	351	21,58
September	115,435	22,600	188	3,848	229,00
Water year 1940-41	665,781	33,400	0	1,824	1,321,00

Peak discharge.- Feb. 2 (6 p.m.) 11,500 sec.-ft.; Apr. 17 (5 a.m.) 35,800 sec.-ft.; Apr. 20 (2 p.m.) 10,800 sec.-ft.; June 4 (2 p.m.) 25,700 sec.-ft.; June 11 (6 a.m.) 27,000 sec.-ft.; Sept (10 a.m.) 23,300 sec.-ft.

a No gage-height record; discharge computed on basis of records for station near Lenapah, Okla.

g Computed from graph based on gage readings and partial recorder trace.

Verdigris River near Lenapah, Okla.

Location.- Water-stage recorder, lat. 36°51', long. 95°35', at center of sec. 3, T. 27 N., R. 16 E., 2¾ miles east of Lenapah and 4¼ miles upstream from Cedar Creek. Datum of gage is 645.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,620 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 39,300 second-feet Apr. 19 (gage height, 33.66 feet); minimum, 5 second-feet Oct. 26, 27 (gage height, 2.47 feet).
1939-41: Maximum discharge, that of Apr. 19, 1941; no flow at times in 1939 and 1940.

Remarks.- Records fair. Some regulation by low dams below Independence and Coffeyville, Kansas.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	10	665	562	9,400	502	260	830	1,380	748	28	422
2	92	8	506	1,810	13,800	518	252	1,040	11,300	490	32	11,500
3	71	8	401	2,440	13,800	458	252	1,150	17,400	518	127	8,200
4	59	7	333	2,500	7,930	422	257	950	21,700	3,730	221	5,940
5	52	6	291	1,290	2,990	387	252	f1,870	25,900	2,450	147	7,440
6	41	5	254	802	2,120	394	246	f1,870	22,500	775	129	7,300
7	39	5	235	625	1,790	415	268	1,550	3,460	461	120	1,850
8	32	5	205	534	1,510	450	268	1,150	1,430	356	92	9,820
9	24	5	178	542	1,220	538	265	660	13,600	293	71	27,700
10	a24	6	167	620	1,040	625	545	692	35,700	254	61	31,400
11	a22	7	160	665	950	748	980	f592	35,400	214	44	28,000
12	a20	7	162	630	950	860	592	f514	32,900	179	47	14,400
13	a18	8	167	597	920	775	436	f454	25,400	161	58	1,880
14	16	8	167	696	890	665	954	f418	5,010	288	57	1,290
15	a16	8	373	4,360	890	606	9,870	f381	1,990	261	66	1,010
16	a14	8	960	5,260	775	588	29,200	f345	1,550	238	71	f860
17	a13	8	665	9,740	655	550	32,300	318	1,290	181	68	f748
18	a12	8	640	10,600	602	530	33,800	304	1,120	144	277	f650
19	a10	8	570	10,600	570	510	38,200	274	950	116	238	f579
20	9	13	692	4,830	538	466	33,100	248	802	92	181	f522
21	a8	461	692	3,790	490	415	13,500	259	692	78	419	f483
22	a7	380	579	4,900	466	401	f4,640	1,010	588	66	384	f454
23	7	498	490	4,350	450	380	f2,800	1,040	502	55	293	f444
24	6	943	443	3,390	446	370	f1,950	890	451	47	472	f447
25	6	1,860	380	2,160	470	348	f1,630	692	402	44	339	a600
26	5	13,700	345	4,850	494	324	1,400	454	387	42	1,020	a400
27	5	11,400	321	6,840	514	315	1,220	337	337	42	7,750	a300
28	6	4,420	633	5,800	510	297	1,060	272	318	39	975	f300
29	8	1,550	1,710	2,160	-	277	980	231	301	34	3,950	a300
30	9	950	1,080	1,950	-	271	f890	200	416	31	1,290	950
31	10	-	720	4,000	-	265	-	184	-	29	597	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	777	116	5	25.1	1,540
November	36,310	13,700	5	1,210	72,020
December	15,184	1,710	160	490	30,120
Calendar year 1940	229,464	13,700	0	627	455,100
January	103,893	10,600	534	3,351	206,100
February	67,180	13,800	446	2,399	133,200
March	14,670	860	265	473	29,100
April	212,387	38,200	246	7,080	421,300
May	21,379	1,970	184	690	42,400
June	265,176	35,700	301	8,839	526,000
July	12,456	3,730	29	402	24,710
August	19,624	7,750	28	633	38,920
September	165,889	31,400	300	5,530	329,000
Water year 1940-41	934,925	38,200	5	2,561	1,854,000

a No gage-height record; discharge interpolated or computed on basis of records for station near Sageeyah (unpublished).
f Computed on basis of partly estimated gage-height record.

Verdigris River near Claremore, Okla.

Location.- Water-stage recorder, lat. 36°18'30", long. 95°41'40", on line between secs. 10 and 15, T. 21 N., R. 15 E., at bridge on State Highway 20, 2¼ miles downstream from Caney River, 4⅔ miles west of Claremore, and 12 miles upstream from Bird Creek. Auxiliary staff gage at site 3,600 feet downstream. Datum of each gage is 538.62 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 6,520 square miles.

Records available.- December 1935 to September 1941.

Extremes.- Maximum discharge during year, 48,200 second-feet Apr. 22 (gage height, 44.46 feet); minimum, 1.6 second-feet Nov. 14, 15 (gage height, 3.33 feet).
1935-41: Maximum discharge, that of Apr. 22, 1941; no flow at times.
Flood of Nov. 2, 1941, reached a stage of 46.60 feet (discharge, 64,200 second-feet). A somewhat higher discharge probably occurred at a crest stage of 46.2 feet in June 1935.

Remarks.- Records good.

Cooperation.- Results of three discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	261	4.3	1,600	1,260	k7,340	681	418	1,850	521	527	59	737
2	192	3.2	1,170	1,100	k17,300	658	407	2,000	k3,670	642	68	1,250
3	146	2.9	913	2,250	e19,600	850	412	2,000	k12,600	796	59	8,860
4	112	3.2	744	3,200	k18,900	789	407	2,100	k15,700	604	63	9,100
5	90	3.2	651	2,800	k10,600	708	397	3,500	k18,000	3,370	174	10,200
6	68	2.9	546	1,700	k4,650	665	381	6,930	k20,600	2,390	261	6,860
7	57	2.6	480	1,170	3,300	665	386	7,920	k20,500	986	219	7,280
8	47	2.3	424	1,010	2,800	694	397	5,400	k6,140	651	167	3,020
9	41	3.2	397	865	2,350	752	407	2,500	k4,660	492	153	k23,700
10	34	3.5	355	811	2,000	889	397	1,900	k31,100	597	134	27,500
11	30	3.5	340	658	1,750	986	418	f1,550	k34,600	340	121	29,100
12	27	2.6	360	953	1,600	1,060	1,100	f1,260	37,700	297	121	29,000
13	24	1.8	434	945	1,550	1,170	796	f1,110	41,400	306	140	k20,300
14	22	1.6	591	1,000	1,450	1,100	631	f953	44,500	330	156	k6,900
15	21	1.6	893	2,500	1,350	1,030	k6,110	642	k35,600	261	107	1,850
16	19	1.8	3,800	6,840	1,300	1,010	k26,000	f722	e20,100	345	101	f1,450
17	16	1.8	2,200	9,760	1,170	1,030	k32,300	638	e11,200	326	82	f1,750
18	14	2.0	1,450	12,100	1,050	978	k34,900	f578	e4,160	306	80	f1,110
19	11	2.3	1,300	12,000	986	897	36,700	521	1,850	253	95	1,080
20	8.6	32	1,170	10,900	970	842	42,700	480	f1,500	196	227	a860
21	6.0	943	1,170	6,390	921	774	46,200	571	1,260	167	236	a780
22	8.0	932	1,110	5,500	842	715	46,200	5,100	1,100	146	200	a640
23	7.5	1,950	1,010	6,000	804	672	c31,000	6,300	953	124	466	a520
24	7.0	5,100	881	5,100	796	638	c13,900	4,500	e19	112	340	a500
25	5.1	2,500	781	3,900	796	597	c6,900	3,000	722	98	355	631
26	4.3	k14,500	708	4,500	834	559	c3,600	f1,450	651	87	434	a460
27	3.9	e19,600	638	6,570	873	534	2,700	961	564	77	k3,980	a370
28	9.2	k16,800	578	7,520	897	503	2,300	f701	527	68	k6,260	a310
29	9.2	k7,240	718	5,600	-	474	2,000	f584	497	61	1,470	a290
30	5.1	2,500	2,150	2,900	-	456	2,000	f503	492	57	3,560	k1,600
31	5.5	-	1,650	3,300	-	440	-	424	-	59	1,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,313.4	261	3.9	42.4	2,610
November	72,147.3	19,600	1.6	2,405	143,100
December	31,212	3,800	340	1,007	61,910
Calendar year 1940	361,349.8	19,600	0	987	716,800
January	131,302	12,100	811	4,236	260,400
February	108,779	19,600	796	3,885	215,800
March	24,216	1,170	440	781	48,030
April	346,464	46,200	381	11,550	687,200
May	68,848	7,920	424	2,221	136,600
June	373,806	44,500	492	12,460	741,400
July	15,071	3,370	57	486	29,890
August	21,390	6,260	59	690	42,430
September	200,008	29,100	290	6,667	396,700
Water year 1940-41	1,394,656.7	46,200	1.6	3,821	2,766,000

a No gage-height record; discharge computed on basis of records for station near Sageeyah.
c Stage-disoharge relation affected by backwater from overbank return flow; discharge computed from hydrograph based on once-daily measurements.
e Computed by using fall as determined from four readings daily of auxiliary staff gage as a factor.
f Gage height partly estimated.
k Computed by using rate of change of stage as a factor.

Fall River near Fall River, Kans.

Location.- Wire-weight gage, lat. 37°38', long. 96°03', in sec. 2, T. 28 S., R. 12 E., on County highway bridge, 2 miles upstream from Salt Creek and 2¼ miles northwest of Fall River. Datum of gage is 898.44 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 573 square miles.

Records available.- May 1939 to September 1941. April 1904 to September 1905 (gage heights only) at site at Fall River below Salt Creek.

Extremes.- Maximum discharge during the year, 13,600 second-feet June 1 (gage height, 19.47 feet from graph based on gage readings), from rating curve extended above 9,750 second-feet; no flow during several periods.
1939-41: Maximum discharge that of June 1, 1941; no flow at times during 1939-40.

Remarks.- Records fair. Gage read twice a day and oftener during rapidly changing stages.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	0	14	108	1,880	123	76	248	7,950	86	89	1,490
2	1	0	10	*391	2,320	117	71	275	2,470	80	40	3,800
3	1	0	6	212	768	112	76	209	693	111	30	436
4	1	0	*5	89	542	98	81	215	386	119	20	196
5	1	0	4	103	455	85	76	398	331	91	12	142
6	1	0	3	101	401	101	73	310	268	62	8	3,070
7	1	0	4	89	346	117	65	232	508	46	6	2,470
8	1	0	3	89	321	123	65	189	2,360	35	3	654
9	0	0	3	113	248	196	71	161	6,260	28	2	1,510
10	0	0	2	134	225	289	71	140	3,170	22	2	768
11	0	0	2	113	235	209	67	140	946	32	2	407
12	0	0	2	108	225	164	65	135	665	22	20	276
13	0	0	3	108	215	146	98	117	462	35	28	215
14	0	0	3	300	196	152	2,890	112	365	25	98	190
15	0	0	4	855	188	146	3,500	112	280	21	71	177
16	0	0	b7	855	171	146	4,710	95	242	20	34	153
17	0	0	b10	2,320	164	140	1,040	90	199	17	25	142
18	0	0	*b12	409	140	120	768	71	186	12	20	125
19	0	0	b20	459	129	112	2,540	67	157	12	209	114
20	0	0	28	401	120	109	1,110	109	139	10	84	94
21	0	1	37	390	123	109	508	109	119	8	30	94
22	0	1	50	508	120	103	440	186	116	8	42	80
23	0	1	38	574	135	106	398	331	111	7	69	75
24	0	1	31	289	135	95	360	132	98	5	1,420	71
25	0	68	28	335	135	90	310	76	86	3	440	66
26	0	662	52	1,060	135	90	262	52	77	2	142	60
27	0	280	465	444	132	90	241	50	69	2	1,380	52
28	0	98	212	328	123	85	232	50	73	1	480	62
29	0	50	140	310	-	83	196	50	130	1	153	212
30	0	19	82	768	-	71	205	46	103	6	108	5,450
31	0	-	60	826	-	76	-	34	-	125	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8	1	0	0.3	16
November	1,181	662	0	39.4	2,340
December	1,340	465	2	43.2	2,660
Calendar year 1940	22,536	5,990	0	61.6	44,700
January	13,219	2,320	89	426	26,220
February	10,297	2,320	120	368	20,420
March	3,803	289	71	123	7,540
April	20,665	4,710	65	689	40,990
May	4,541	398	34	146	9,010
June	29,529	7,950	69	984	58,570
July	1,054	125	1	34.0	2,090
August	5,138	1,420	2	166	10,190
September	22,651	5,450	52	755	44,930
Water year 1940-41	113,426	7,950	0	311	225,000

e Winter-discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Fall River at Fredonia, Kans.

Location.- Wire-weight gage, lat. 37°30'30", long. 95°50'00", in sec. 24, T. 29 S., R. 14 E., at bridge on State Highway 96, three-quarters of a mile upstream from Clear Creek, 1 mile south of Fredonia, and 1 mile downstream from Salt Creek. Datum of gage is 819.09 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 816 square miles.

Records available.- November 1938 to September 1941.

Extremes.- Maximum discharge during year, 12,600 second-feet April 15 (gage height, 20.00 feet, from graph based on gage readings), from rating curve extended above 8,500 second-feet; no flow Oct. 13-24, Nov. 14, 15.
1939-41: Maximum discharge that of April 15, 1941; no flow at times.

Remarks.- Records good. Gage read twice daily and oftener during periods of rapidly changing stage.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 29 to Dec. 2, Aug. 4-25, 28)

2.8	1	3.9	148	7.0	1,360	14.0	5,900
2.9	3	4.2	228	8.0	1,880	16.0	7,670
3.0	8	4.6	351	9.0	2,450	18.0	9,880
3.2	24	5.0	481	10.0	3,080	20.0	12,600
3.4	48	5.5	658	11.0	3,750		
3.6	80	6.0	870	12.0	4,440		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	2	43	269	2,520	158	86	282	1,850	107	118	279
2	3	2	35	779	3,690	140	84	325	6,840	100	86	4,110
3	2	2	26	536	1,760	118	84	297	1,090	123	46	1,820
4	2	2	25	252	738	114	84	246	532	148	27	399
5	1	1	24	181	620	112	90	304	389	100	21	432
6	1	1	17	148	549	109	80	498	300	73	20	580
7	1	1	15	126	464	128	77	329	354	63	14	5,240
8	1	1	18	126	364	173	92	270	1,080	56	12	1,120
9	1	1	14	184	329	217	92	211	7,240	38	9	4,550
10	1	1	13	189	319	338	92	178	11,100	12	7	1,900
11	1	1	16	181	304	294	96	166	2,490	60	4	584
12	1	1	14	158	294	228	84	158	990	80	17	402
13	0	b1	12	158	288	200	73	150	620	80	10	322
14	0	b0	9	319	264	195	1,870	138	481	45	23	276
15	0	b0	27	1,270	206	186	7,820	123	405	35	62	240
16	0	1	45	967	189	184	8,180	109	357	28	86	206
17	0	1	57	2,930	189	189	3,490	96	300	17	51	178
18	0	1	54	1,540	184	178	1,710	84	258	6	36	160
19	0	1	73	448	163	143	1,160	77	217	6	31	153
20	0	1	84	516	153	136	1,860	60	189	6	246	158
21	0	14	73	1,060	143	136	804	54	168	12	92	123
22	0	14	66	804	140	133	602	222	146	12	80	96
23	0	12	65	620	146	128	515	211	128	12	64	107
24	0	13	60	402	153	114	464	184	118	12	83	77
25	1	14	48	583	153	112	415	114	105	8	1,230	70
26	1	1,290	50	1,780	158	109	373	78	98	8	222	60
27	1	687	481	909	153	100	332	70	86	8	214	58
28	1	274	605	464	197	94	307	63	88	7	1,760	54
29	1	102	234	389	-	92	282	57	245	7	273	331
30	1	66	146	1,190	-	90	264	51	178	8	168	5,060
31	2	-	114	1,840	-	86	-	48	-	8	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	27	4	0	0.9	54
November	2,508	1,290	0	83.6	4,970
December	2,463	505	9	79.4	4,880
Calendar year 1940	34,603	5,560	0	94.5	68,620
January	21,317	2,930	126	688	42,280
February	14,830	3,690	140	530	29,410
March	4,734	338	86	153	9,390
April	31,562	8,180	73	1,050	62,600
May	5,253	498	48	169	10,420
June	38,440	11,100	86	1,281	76,240
July	1,265	148	6	41.4	2,550
August	5,220	1,760	4	168	10,350
September	29,145	5,240	54	972	57,810
Water year 1940-41	156,784	11,100	0	430	310,900

b Stage-discharge relation affected by ice.

Bird Creek near Sperry, Okla.

Location.- Water-stage recorder, lat. 36°17', long. 95°57', on line between secs. 20 and 29, T. 21 N., R. 13 E., at bridge on county highway, 1¼ miles upstream from Delaware Creek, 2 miles downstream from Hominy Creek, and 2½ miles southeast of Sperry.

Drainage area.- 922 square miles.

Records available.- March 1939 to September 1941.

Extremes.- 1939: Maximum discharge during period March to September, 10,100 second-feet May 13 (gage height, 17.48 feet); no flow Sept. 13-30.
1939-40: Maximum discharge during water year, 11,300 second-feet Sept. 5 (gage height, 19.53 feet); no flow Oct. 1-28.
1940-41: Maximum discharge during water year, 23,000 second-feet June 11 (gage height, 28.46 feet); minimum, 0.5 second-feet Oct. 22, 23 (gage height, 1.02 feet).
Flood of Oct. 31, 1941, reached a stage of 30.14 feet (discharge 44,700 second-feet). About the same stage occurred in 1915, from information furnished by local residents.

Remarks.- Records good.

Discharge, in second-feet, 1939-41

1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	53	3.1	32	121	2.6	0.9
2						-	34	2.6	24	80	1.4	.9
3						-	19	2.6	18	58	1.2	.7
4						-	13	1.4	14	51	1.2	.3
5						-	19	1.2	14	32	.9	.3
6						-	31	.9	15	32	.7	.3
7						-	174	1.4	11	25	.9	.3
8						-	394	4,990	8.3	19	12	.2
9						-	103	722	7.5	14	247	.2
10						-	68	142	8.3	11	80	.2
11						8.3	45	68	7.5	9.2	36	.1
12						6.7	31	2,060	39	8.3	22	.1
13						9.2	21	8,690	156	7.5	14	0
14						8.3	17	1,470	96	5.1	10	0
15						6.7	15	350	66	3.7	6.7	0
16						6.7	15	173	49	3.1	5.9	0
17						6.7	29	116	31	3.1	3.7	0
18						6.7	17	84	21	2.6	3.1	0
19						6.7	14	75	15	2.0	2.6	0
20						5.9	12	62	14	2.0	2.0	0
21						5.1	11	366	15	1.4	1.4	0
22						4.3	10	239	14	2.0	1.4	0
23						5.1	9.2	118	13	101	1.4	0
24						5.1	7.5	75	10	27	1.2	0
25						5.9	6.7	81	18	11	1.2	0
26						5.9	5.9	1,530	31	7.5	1.4	0
27						6.7	5.1	337	22	5.9	1.4	0
28						6.7	4.3	257	32	4.3	1.4	0
29						8.3	4.3	129	194	3.1	1.4	0
30						9.2	3.7	71	228	3.1	1.2	0
31						12	-	47	-	3.1	1.2	-

Discharge, in second-feet, of Bird Creek near Sperry, Okla., 1939-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.9	0.7	0.9	1.0	3.7	0.9	163	8.3	32	4.3	8.3
2	0	.7	.6	.8	1.1	3.7	.9	82	6.7	21	3.7	7.5
3	0	.6	.8	.8	1.9	3.1	.9	47	5.9	27	2.6	330
4	0	.5	.6	1.0	1.9	3.1	.7	32	4.3	11	2.0	4,670
5	0	.5	.6	.9	1.9	2.6	.3	22	4.3	7.5	1.4	9,940
6	0	.5	.5	1.0	1.5	2.0	2.6	14	3.7	5.1	1.2	1,730
7	0	.5	.5	1.1	1.1	2.0	6.7	10	4.3	4.3	11	265
8	0	.5	.5	1.0	1.1	1.4	3.7	10	3.1	2.6	13	139
9	0	.5	.5	.9	1.1	1.4	2.6	11	3.7	3.7	8.3	89
10	0	.5	.5	.9	1.0	1.4	5.1	18	18	2.6	7.5	58
11	0	.5	.4	.9	1.0	1.4	160	25	3,530	2.6	34	40
12	0	.5	.4	.9	1.0	1.4	302	15	452	41	24	27
13	0	.6	.5	1.0	1.0	1.2	88	10	182	12	24	19
14	0	.6	.5	1.1	1.0	1.2	51	8.3	106	10	17	15
15	0	.8	.5	1.0	1.1	.9	24	5.9	68	9.2	32	13
16	0	1.0	.5	1.0	3.0	.9	15	5.9	45	8.3	572	12
17	0	1.0	.5	.9	12	.9	13	5.1	34	5.9	1,040	10
18	0	.9	.5	b.7	13	.9	10	385	27	4.3	691	9.2
19	0	.9	.5	b.7	14	.7	17	1,400	75	3.1	219	8.3
20	0	.9	.5	b.6	27	.7	19	369	45	3.1	126	7.5
21	0	.8	.6	b.5	19	.5	12	319	36	334	71	6.7
22	0	.8	.7	b.5	13	.3	8.3	653	17	216	40	5.9
23	0	.7	2.6	b.5	10	.3	5.9	286	15	306	25	6.9
24	0	.7	2.2	b.5	7.5	1.4	4.3	131	414	232	18	5.9
25	0	.7	1.6	b.5	5.9	1.2	3.7	73	273	77	12	4.3
26	0	.6	1.5	b.5	5.1	.7	27	51	116	38	10	3.1
27	0	.6	1.1	b.6	5.1	.7	161	32	60	21	7.5	3.1
28	0	.6	1.0	b.6	3.7	.7	397	21	635	13	6.7	3.1
29	2.9	.7	.9	b.6	3.7	.7	2,580	14	267	9.2	27	2.6
30	2.2	.8	.9	b.7	-	.7	508	11	70	7.5	13	2.6
31	1.1	-	.9	b.8	-	.7	-	9.2	-	5.9	10	-

b Stage-discharge relation affected by ice.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.0	113	66	215	91	16	529	66	137	4.5	11
2	2.6	1.4	83	66	1,600	86	16	239	69	480	4.6	7.0
3	2.6	1.2	70	61	2,380	77	14	151	139	461	3.8	6.2
4	2.0	1.2	59	36	705	63	13	153	121	224	3.8	38
5	2.0	.9	51	31	332	53	12	5,400	87	113	3.8	512
6	1.4	.9	42	25	224	44	12	4,750	106	66	3.8	856
7	1.4	2.0	36	25	174	46	12	868	397	42	3.8	232
8	1.4	2.0	33	25	139	48	11	735	301	34	5.4	117
9	1.2	3.1	29	25	118	55	9.4	329	1,320	27	6.2	3,610
10	1.4	2.6	25	24	98	70	9.4	198	16,400	22	6.4	4,130
11	2.0	2.6	24	20	81	66	9.4	147	18,000	17	4.6	587
12	2.0	1.4	24	20	70	55	8.2	116	3,550	101	11	204
13	1.4	1.4	24	22	63	61	9.4	a94	651	105	39	113
14	2.6	1.2	25	68	59	48	596	a78	360	57	103	74
15	2.6	1.2	104	171	51	46	4,110	64	247	42	42	51
16	1.4	1.2	370	313	46	44	10,500	56	190	31	24	38
17	1.2	1.2	243	332	42	42	6,090	47	153	36	17	31
18	1.2	.9	153	540	38	38	2,540	40	126	29	16	34
19	.9	1.4	118	304	55	38	5,210	31	105	27	12	31
20	.7	24	93	184	68	38	4,580	32	91	25	11	24
21	.7	428	79	142	66	36	652	5,760	77	16	8.2	17
22	.5	226	70	123	66	33	h341	7,720	68	12	7.0	14
23	.5	827	61	103	66	27	h262	2,550	61	8.2	7.0	12
24	.7	1,820	55	88	68	24	h228	1,150	53	7.0	7.0	12
25	.7	993	46	79	83	22	a214	382	55	7.0	6.2	12
26	.7	8,690	40	95	86	20	h200	212	55	7.0	6.2	9.4
27	.9	4,690	36	98	98	19	a159	156	57	7.0	7.0	8.2
28	3.7	473	34	105	95	17	118	134	86	6.2	7.0	7.0
29	5.1	239	40	95	-	17	98	134	620	5.4	9.4	7.0
30	3.1	159	86	81	-	17	357	106	258	4.6	12	14
31	2.6	-	74	72	-	17	-	82	-	6.2	13	-

Peak discharge.- Nov. 26 (9 p.m.) 10,500 sec.-ft.; Apr. 16 (9 p.m.) 11,500 sec.-ft.; June 11 (3:30 a.m.) 23,000 sec.-ft.

a No gage-height record; discharge interpolated.

h Computed on basis of twice-daily readings of wire-weight gage.

Monthly discharge, in second-feet, of Bird Creek near Sperry, Okla., 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
March 11-31, 1939	146.2	12	4.3	6.96	0.0075	0.006	290
April	1,191.7	394	3.7	39.7	.043	.05	2,360
May	22,265.2	8,690	.9	718	.779	.90	44,160
June	1,223.6	228	7.5	40.8	.044	.05	2,430
July	659.0	121	1.4	21.3	.023	.03	1,310
August	468.5	247	.7	15.1	.016	.02	929
September	4.5	.9	0	.15	.00016	.0002	8.9
The period	-	-	-	-	-	-	51,490
October 1939	6.2	2.9	0	.20	.00022	.0003	12
November	20.4	1.0	.5	.68	.00074	.0008	40
December	24.3	2.6	.4	.78	.00085	.001	48
Calendar year	-	-	-	-	-	-	-
January 1940	24.4	1.1	.5	.79	.00086	.001	48
February	160.7	27	1.0	5.54	.0060	.006	319
March	42.6	3.7	.3	1.37	.0016	.002	84
April	4,430.6	2,580	.3	148	.161	.18	8,790
May	4,238.4	1,400	5.1	137	.149	.17	8,410
June	6,527.3	3,530	3.1	218	.236	.26	12,950
July	1,475.9	334	2.6	47.6	.052	.06	2,930
August	3,074.2	1,040	1.2	99.2	.108	.12	6,100
September	17,441.0	9,940	2.6	581	.630	.70	34,590
Water year 1939-40	37,465.9	9,940	0	102	.111	1.50	74,320
October 1940	53.8	5.1	.5	1.74	.0019	.002	107
November	18,598.8	8,690	.9	620	.672	.75	36,890
December	2,340	370	24	75.5	.082	.09	4,640
Calendar year 1940	58,407.6	9,940	0	160	.174	2.34	115,900
January 1941	3,429	540	20	111	.120	.14	6,800
February	7,187	2,380	38	257	.279	.29	14,260
March	1,348	91	17	43.5	.047	.05	2,670
April	36,406.8	10,500	8.2	1,214	1.32	1.47	72,210
May	32,443	7,720	31	1,047	1.14	1.31	64,350
June	43,869	18,000	53	1,462	1.59	1.77	87,010
July	2,152.6	480	4.6	69.4	.075	.09	4,270
August	414.8	103	3.8	13.4	.015	.02	823
September	10,818.8	4,130	6.2	361	.392	.44	21,460
Water year 1940-41	159,061.6	18,000	5	436	.473	6.42	315,500

Neosho River at Council Grove, Kans.

Location.- Water-stage recorder above spillway of city dam, lat. 38°40', long. 96°30', in NW¼ sec. 14, T. 16 S., R. 8 E., on highway bridge at city water plant in north part of Council Grove, a quarter of a mile downstream from Mulers Creek and 1 mile upstream from Elm Creek. Datum of gage is 1,205.63 above mean sea level (levels of Corps of Engineers U. S. Army).

Drainage area.- 265 square miles.

Records available.- November 1938 to September 1941.

Extremes.- Maximum discharge observed during the year, 12,100 second-feet June 9 (gage height, 24.04 feet), result of discharge measurement; no flow during several periods. 1939-41: Maximum discharge that of June 9, 1941; no flow at times during 1939-41. Flood of June 11, 1938, reached a stage of 35.30 feet. According to local residents, floods in 1903 and 1932 reached stages 2 feet and 1 foot higher, respectively.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	7	5	183	14	25	20	5,360	23	4	0
2		0	5	5	116	16	26	26	296	39	2	93
3		0	3	5	*65	16	26	138	131	46	1	60
4		0	2	5	50	15	24	42	85	32	1	13
5		0	2	4	46	14	23	52	65	25	2	6
6		0	*1	4	44	17	23	39	60	22	6	5
7		0	0	4	35	h17	24	27	98	19	3	3
8		0	0	4	30	h17	143	19	1,700	17	2	2
9		0	0	4	30	20	76	17	7,510	14	3	1
10		0	0	4	30	97	42	16	1,820	11	2	0
11		0	0	4	29	206	34	16	412	10	2	0
12		0	0	4	27	124	28	16	264	9	20	0
13		0	0	4	26	57	27	16	188	9	15	0
14		0	0	6	23	37	29	15	149	9	7	0
15		0	0	121	21	37	76	14	138	8	4	0
16		0	0	515	20	55	40	12	116	8	2	0
17		0	0	779	23	37	32	11	98	7	2	0
18		0	0	85	24	28	28	9	85	6	2	2
19		0	0	67	23	27	28	7	76	5	2	1
20		0	0	55	19	26	35	6	e79	4	2	0
21		0	0	92	19	25	29	5	e85	4	1	0
22		0	0	345	19	23	24	5	e66	4	0	0
23		0	0	*b84	19	22	25	5	e47	3	0	0
24		0	32	b77	17	21	22	4	37	3	0	0
25		0	27	b71	17	20	20	4	34	2	1	0
26		978	22	b65	16	21	19	3	47	2	7	0
27		179	20	b59	16	22	19	3	44	1	5	0
28		39	14	b53	15	23	17	2	60	1	5	0
29		19	10	b47	-	22	17	2	32	1	3	0
30		11	8	979	-	22	19	2	26	22	1	0
31		-	6	464	-	23	-	318	-	7	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	1,226	978	0	40.9	2,430
December	159	32	0	5.1	315
Calendar year 1940	7,414	2,090	0	20.3	14,700
January	4,020	979	4	130	7,970
February	1,002	183	15	35.8	1,990
March	1,123	208	14	36.2	2,230
April	1,000	143	17	33.3	1,980
May	871	318	2	28.1	1,730
June	19,208	5,360	26	640	38,100
July	373	46	1	12	740
August	108	20	0	3.5	214
September	186	93	0	6.2	369
Water year 1940-41	29,276	5,360	0	80.2	58,100

Peak discharge.- Nov. 26 (7 a.m.) 2,410 sec.-ft.; Jan. 16 (11 p.m.) 2,170 sec.-ft.; June 1 (8:30 a.m.) 11,900 sec.-ft.; June 9 (11 a.m.) 12,100 sec.-ft.

* Winter-discharge measurement made on this day.
b Stage-discharge relation affected by ice.
e Combined flow through submerged orifice and over the crest of the dam.
h Based on wire-weight gage readings.

Neosho River near Iola, Kans.

Location.- Water-stage recorder, lat. 37°53', long. 95°26', in NE¼ sec. 9, T. 25 S., R. 18 E., 1 mile downstream from Elm Creek and 3 miles southwest of Iola.

Drainage area.- 3,795 square miles.

Records available.- October 1917 to September 1941. August 1895 to November 1903, at site 4 miles upstream. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Average discharge.- 24 years (1917-41), 1,161 second-feet.

Extremes.- Maximum discharge during year, 42,200 second-feet Sept. 6 (gage height, 29.70 feet); minimum, 2 second-feet Oct. 21, 27 (gage height, 2.55 feet).
1895-1903, 1917-41: Maximum gage height, 33.2 feet Sept. 13, 1926 (discharge not determined); no flow for several days in September and October 1897, Aug. 19 to Sept. 15, Sept. 21, 22, 1936. Bankfull stage, 27 feet.

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 6 to Nov. 25 and Dec. 2-15)

2.6	2	3.3	183	5.0	1,070	16.0	13,000
2.7	10	3.6	310	6.0	1,920	20.0	18,500
2.8	33	4.0	505	8.0	3,720	24.0	24,200
3.0	89	4.5	765	12.0	8,000	28.0	34,000

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	217	26	855	375	4,700	380	328	405	16,700	1,140	198	1,260
2	159	33	490	3,380	5,500	370	310	400	24,800	3,080	210	1,260
3	121	28	328	2,730	3,810	370	332	400	31,800	7,880	247	855
4	86	9	243	825	2,640	355	342	405	27,600	1,880	430	3,000
5	38	26	194	525	2,190	350	342	490	23,300	2,460	355	5,700
6	63	24	173	385	1,560	350	337	495	20,500	3,360	270	26,500
7	52	12	152	310	1,140	365	355	520	5,980	1,740	206	30,800
8	41	17	134	283	945	375	550	455	2,460	885	176	19,900
9	10	10	104	278	825	395	1,830	405	10,700	682	152	26,000
10	38	31	101	370	738	445	2,100	360	21,300	595	159	23,900
11	33	24	98	375	677	520	1,100	324	22,400	666	163	20,700
12	24	5	74	346	660	795	704	288	22,300	1,560	159	19,300
13	17	5	66	342	738	1,300	575	274	20,700	1,830	202	18,800
14	15	8	72	1,500	738	1,600	2,190	252	20,500	1,600	1,150	7,160
15	12	15	115	3,360	630	1,220	8,360	243	21,300	825	1,180	2,010
16	8	9	213	6,050	590	885	8,840	230	19,600	570	765	1,560
17	19	9	265	16,500	545	738	4,800	210	4,680	470	520	2,460
18	12	10	194	15,100	505	682	2,550	194	2,280	405	430	2,100
19	15	15	234	6,470	475	630	1,920	191	1,830	365	337	1,140
20	15	33	485	2,910	450	575	4,000	194	1,520	337	728	975
21	4	74	650	2,550	425	530	2,010	180	1,300	324	355	885
22	28	173	520	6,920	405	500	1,000	180	1,140	278	490	795
23	22	146	385	4,490	385	460	765	176	1,000	265	628	738
24	12	130	332	2,190	405	445	635	159	915	247	1,040	688
25	17	121	306	2,890	400	415	570	152	825	213	738	640
26	6	2,660	310	10,300	405	405	510	149	765	206	6,590	605
27	9	4,700	677	4,880	405	390	470	143	699	213	20,300	575
28	26	2,140	1,140	1,960	395	375	435	149	1,020	187	20,600	565
29	57	3,090	672	1,330	-	355	410	163	1,730	169	20,000	3,510
30	31	2,010	455	2,430	-	337	405	159	855	337	13,100	13,000
31	33	-	355	5,600	-	332	-	223	-	247	1,830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,240	217	4	40.0	2,460
November	15,593	4,700	5	520	30,930
December	10,392	1,140	66	335	20,610
Calendar year 1940	121,243	6,950	1	331	240,500
January	107,994	16,500	278	3,484	214,200
February	33,281	5,500	385	1,189	66,010
March	17,244	1,600	332	556	34,200
April	49,075	8,840	310	1,636	97,340
May	8,568	520	143	276	16,990
June	332,549	31,800	699	11,080	659,600
July	35,016	7,680	169	1,130	69,450
August	94,208	20,600	152	3,039	186,900
September	237,381	30,800	565	7,913	470,800
Water year 1940-41	942,541	31,800	4	2,582	1,869,000

Peak discharge.- Jan. 17 (5 p.m.) 17,400 sec.-ft.; June 3 (9 a.m.) 32,600 sec.-ft.; June 12 (1 a.m.) 22,700 sec.-ft.; Aug. 27 (3 p.m.) 21,700 sec.-ft.; Sept. 6 (7 p.m.) 42,200 sec.-ft.; Sept. 9 (3 p.m.) 27,100 sec.-ft.

Neosho River near Parsons, Kans.

Location.- Water-stage recorder, lat. 37°20', long. 95°06', in NE¼ sec. 21, T. 31 S., R. 21 E., at bridge on U. S. Highway 160, half a mile upstream from Hickory Creek, three-quarters of a mile upstream from St. Louis-San Francisco Ry. bridge, and 8½ miles east of Parsons. Datum of gage is 810.25 feet above mean sea level (levels by Corps of Engineers, U. S. Army).
Drainage area.- 4,828 square miles, including that of Hickory Creek.
Records available.- June 1929 to September 1941. October 1921 to June 1929 at site half a mile downstream. Records include flow of Hickory Creek.
Average discharge.- 20 years, 1,954 second-feet.
Extremes.- Maximum discharge during year, 32,900 second-feet Sept. 11 (gage height, 26.09 feet); minimum, 6 second-feet Oct. 27 (gage height, 1.01 feet).
1921-41: Maximum discharge observed, 48,100 second-feet Nov. 24, 1928 (gage height, 27.50 feet, site and datum then in use); no flow at times in 1934, 1936, and 1940.
Bankfull stage, 24 feet.
Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 2 to Nov. 27 and Apr. 27 to May 31)

1.0	4	2.0	122	5.0	1,610	21.0	19,400
1.1	9	2.2	170	6.0	2,310	24.0	25,400
1.2	15	2.4	230	7.0	3,080	27.0	38,000
1.4	32	2.6	304	9.0	4,790		
1.6	53	3.0	475	12.0	7,900		
1.8	83	4.0	975	15.0	11,600		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	713	17	2,460	597	8,500	480	348	886	8,470	1,250	289	7,430
2	344	20	1,280	2,460	10,400	475	352	839	19,000	1,090	220	2,540
3	192	25	713	3,900	9,100	448	340	738	21,400	2,870	170	2,690
4	136	22	498	3,720	5,260	439	332	616	23,400	7,660	178	1,680
5	104	19	332	1,480	3,320	417	344	611	25,200	3,320	224	4,250
6	87	16	259	839	2,770	417	344	713	27,000	2,240	373	6,140
7	61	13	204	578	2,160	452	357	688	28,300	3,480	300	15,000
8	43	12	176	462	1,640	512	382	640	27,300	2,240	227	19,300
9	36	12	155	426	1,340	530	484	602	19,900	1,180	176	25,400
10	37	13	134	439	1,150	521	1,540	521	21,800	813	145	29,800
11	36	12	98	462	1,030	507	2,390	457	23,400	664	143	32,400
12	31	12	104	516	947	554	1,540	404	22,600	578	143	31,100
13	22	11	102	489	919	738	975	365	22,200	1,340	165	30,200
14	24	10	96	919	947	1,250	919	320	22,200	1,740	148	28,600
15	22	8	98	3,240	1,000	1,740	8,860	285	22,000	1,880	418	26,200
16	19	8	134	5,540	892	1,540	24,400	259	21,400	1,090	1,380	11,600
17	16	10	293	11,700	788	1,150	26,800	241	20,500	713	975	3,080
18	13	11	489	15,000	713	892	15,100	224	16,700	526	664	2,920
19	11	11	466	16,600	640	788	11,600	211	4,250	426	489	2,920
20	10	13	512	12,400	587	738	11,500	195	2,460	369	448	1,740
21	11	20	640	5,160	544	664	5,450	201	1,950	332	521	1,380
22	10	21	813	5,740	512	616	3,080	241	1,680	293	1,030	1,180
23	8	25	738	8,140	493	559	1,810	296	1,480	266	688	1,060
24	7	94	563	5,840	480	516	1,310	248	1,280	227	526	975
25	7	173	430	3,320	470	484	1,060	204	1,150	217	559	919
26	7	606	369	8,020	484	466	892	178	1,030	227	1,030	839
27	6	3,990	344	11,500	493	439	788	158	919	204	6,890	763
28	10	6,140	713	8,110	484	412	688	145	839	178	14,500	713
29	17	2,920	1,740	2,850	-	395	640	138	947	173	16,900	713
30	14	3,080	1,060	2,310	-	386	616	131	2,160	201	18,200	4,820
31	15	-	664	4,700	-	369	-	143	-	192	18,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,069	713	6	66.7	4,100
November	17,344	6,140	8	578	34,400
December	16,677	2,460	96	538	33,080
Calendar year 1940	214,344	13,500	6	586	425,200
January	147,357	16,500	426	4,753	292,300
February	58,063	10,400	470	2,074	115,200
March	19,894	1,740	369	642	39,460
April	125,241	26,800	332	4,175	248,400
May	11,898	886	131	384	23,600
June	413,015	28,300	839	13,770	819,200
July	37,979	7,660	173	1,225	75,330
August	86,319	18,200	143	2,784	171,200
September	298,352	32,400	713	9,945	591,800
Water year 1940-41	1,234,208	32,400	6	3,381	2,448,000

Peak discharge.- Jan. 19 (6 p.m.) 16,800 sec.-ft.; Apr. 17 (7 a.m.) 27,600 sec.-ft.; June 7 (7 a.m.) 28,300 sec.-ft.; June 11 (8 a.m.) 23,400 sec.-ft.; Aug. 31 (9 a.m.) 18,600 sec.-ft.; Sept. 11 (8 a.m.) 32,900 sec.-ft.

Neosho River near Commerce, Okla.

Location.- Water-stage recorder, lat. 36°56', long. 94°57', in SW¼SE¼ sec. 5, T. 28 N., R. 22 E., at county highway bridge, 1¼ miles upstream from Mud Creek, 1⅝ miles downstream from Four Mile Creek, and 4½ miles west of Commerce. Datum of gage is 748.97 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 5,880 square miles.

Records available.- June 1939 to September 1941.

Extremes.- Maximum discharge during year, 38,400 second-feet June 11 (gage height, 20.26 feet); minimum, 8.4 second-feet Oct. 27 (gage height, 1.89 feet).
1939-41: Maximum discharge, that of June 11, 1941; minimum, 0.5 second-foot Oct. 24, 25, Nov. 8, 1939 (gage height, 1.65 feet).
Flood of Nov. 1, 1941, reached a stage of 22.06 feet (discharge, 64,800 second-feet).

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,430	13	2,960	798	9,140	514	366	1,460	945	1,890	328	16,700
2	678	14	2,000	1,120	14,600	506	366	2,320	14,200	1,180	384	6,920
3	390	14	1,160	2,780	14,200	506	366	1,600	19,500	1,320	347	2,760
4	262	13	697	4,800	9,000	483	363	1,030	20,600	5,180	260	2,420
5	186	15	493	2,980	4,600	468	334	864	21,100	6,700	218	5,760
6	150	18	383	1,400	3,340	461	334	841	22,000	2,290	239	8,180
7	122	19	317	898	2,690	461	353	887	23,100	2,760	359	9,120
8	99	16	267	622	2,100	476	366	798	23,700	3,030	347	15,700
9	80	13	230	508	1,720	522	379	706	25,300	1,810	293	24,700
10	61	14	215	463	1,440	554	467	630	32,500	1,050	265	29,500
11	51	19	206	470	1,260	545	1,830	545	37,600	812	209	31,900
12	44	14	196	500	1,120	545	2,050	491	33,900	676	190	30,700
13	44	14	191	546	1,080	579	1,320	440	28,900	617	195	30,700
14	42	13	186	606	1,020	788	1,310	405	24,900	1,370	204	30,100
15	42	12	433	2,870	1,050	1,430	8,350	366	22,400	1,850	204	29,500
16	34	11	1,020	5,500	1,080	1,760	23,700	334	21,200	1,610	466	28,300
17	29	10	456	10,100	956	1,460	28,300	447	20,300	964	1,260	19,700
18	25	10	443	14,200	853	1,090	31,900	366	19,700	665	900	3,900
19	23	10	580	15,200	756	887	34,600	299	14,200	538	660	3,280
20	20	15	580	16,000	668	788	31,300	271	3,580	451	509	2,460
21	16	30	622	11,200	630	725	24,000	244	2,330	397	465	1,650
22	14	34	788	6,280	579	668	8,000	239	1,930	372	523	1,310
23	12	100	921	7,700	537	604	3,150	338	1,640	334	953	1,160
24	10	261	788	8,440	530	554	2,080	379	1,430	305	694	1,510
25	9.6	159	588	5,080	506	506	1,620	317	1,250	288	562	1,500
26	9.0	3,220	478	8,150	506	483	1,280	271	1,140	276	1,090	1,010
27	8.4	2,780	416	11,700	522	468	1,080	223	1,010	276	3,980	861
28	12	6,020	363	11,800	522	440	933	228	911	265	10,800	775
29	14	5,220	964	5,950	-	419	630	209	842	239	14,400	711
30	14	2,780	1,600	2,690	-	398	809	190	1,250	239	16,200	3,690
31	13	-	1,050	3,530	-	392	-	176	-	293	17,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,944	1,430	8.4	127	7,820
November	20,871	6,020	10	696	41,400
December	21,601	2,960	186	697	42,840
Calendar year 1940	253,560	14,400	0.5	693	503,000
January	164,881	16,000	463	5,319	327,000
February	77,005	14,600	506	2,750	152,700
March	20,480	1,760	392	661	40,620
April	212,126	34,600	334	7,071	420,700
May	17,914	2,320	176	578	35,530
June	443,358	37,600	842	14,780	879,400
July	40,067	6,700	239	1,292	79,470
August	74,804	17,300	190	2,413	148,400
September	346,677	31,900	711	11,560	687,600
Water year 1940-41	1,443,728	37,600	8.4	3,955	2,863,000

Peak discharge.- Jan. 20 (2 p.m.) 16,200 sec.-ft.; Feb. 2 (11 p.m.) 15,700 sec.-ft.; Apr. 19 (11 a.m.) 36,800 sec.-ft.; June 11 (9 a.m.) 38,400 sec.-ft.; Sept. 1 (7 a.m.) 17,800 sec.-ft.; Sept. 11 (1 p.m.) 31,900 sec.-ft.

Lake O' The Cherokees at Langley, Okla.
(Formerly published as Grand Lake at Langley, Okla.)

Location.- Wire-weight gage, lat. 36°28', long. 95°02', at Pensacola Dam on Neosho (Grand) River, in SW¼ sec. 14, T. 23 N., R. 21 E., at Langley, 5 miles (revised) east of Pensacola and 10 miles upstream from Cabin Creek. Datum of gage is 1.10 feet (revised) above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 10,370 square miles.

Records available.- March 1940 to September 1941.

Extremes.- Maximum contents during year, 1,821,000 acre-feet Apr. 19, 20 (gage height, 748.1 feet); minimum contents observed since maximum power-pool stage was first reached, 1,577,000 acre-feet Aug. 25 (gage height, 742.9 feet).
1940-41: Maximum contents, that of April 19, 20, 1941; minimum contents observed since maximum power-pool stage was first reached, that of Aug. 25, 1941.

Remarks.- Reservoir is formed by multiple-arch concrete dam; storage began Mar. 21, 1940; maximum power-pool stage was first reached Apr. 19, 1941. Capacity 1,492,000 acre-feet between gage height 682.0 feet (sill of power-house penstock) and 745.0 feet (maximum power pool). Capacity between gage heights 745.0 and 755.0 is 525,000 acre-feet and is reserved for flood control only. Overflow controlled by Taintor gates on three spillways, with crest of one at gage height 730.0 and crests of two at gage height 740.0. Dead storage (below gage height 682.0), 180,200 acre-feet. Reservoir is utilized for power development and flood control. Gage read at 8 a.m. and 4 p.m. prior to April 1 and at midnight thereafter.

Cooperation.- Gage heights and capacity table furnished by Grand River Dam Authority.

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	721.1	825,800	-
Oct. 31	721.7	841,700	+15,900
Nov. 30	725.3	941,900	+100,200
Dec. 31	730.2	1,093,000	+151,100
Calendar year 1940	-	-	-
Jan. 31	732.7	1,176,000	+83,000
Feb. 28	732.2	1,159,000	-17,000
Mar. 31	733.2	1,193,000	+34,000
Apr. 30	745.5	1,696,000	+503,000
May 31	744.6	1,654,000	-42,000
June 30	745.2	1,681,000	+27,000
July 31	744.6	1,654,000	-27,000
Aug. 31	745.6	1,700,000	+46,000
Sept.30	745.8	1,710,000	+10,000
Water year 1940-41	-	-	+884,200

† Gage height at midnight (interpolated prior to April).

Neosho (Grand) River near Langley, Okla.

Location.- Water-stage recorder, lat. 36°26', long. 95°03', in SE¼ sec. 27, T. 23 N., R. 21 E., 2 miles south of Langley, 3½ miles downstream from Summerfield Creek, and 6½ miles upstream from Cabin Creek. Datum of gage is 607.65 feet (revised) above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 10,400 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 150,000 second-feet Apr. 20 (gage height, 35.43 feet); minimum daily, 36 second-feet Oct. 13.
1939-41: Maximum discharge, that of Apr. 20, 1941; minimum daily, 9 second-feet (regulated) Mar. 25, 1940.
Flood of Oct. 31, 1941, reached a stage of 36.20 feet (discharge, 158,000 second-feet).

Remarks.- Records good. Flow regulated by Lake O' The Cherokees, 4 miles upstream (see p. 168).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47	812	129	175	10,800	1,880	151	3,420	4,130	1,690	1,990	2,280
2	42	170	241	165	13,900	1,820	146	2,430	16,000	1,900	1,990	8,060
3	61	160	133	160	17,100	1,750	155	4,500	24,100	2,090	2,020	12,000
4	76	160	142	278	18,200	1,820	155	10,500	23,700	2,120	2,120	12,600
5	93	165	151	2,130	16,500	1,820	155	6,230	19,500	2,100	2,130	14,200
6	51	590	137	3,120	14,200	1,820	151	2,810	12,500	2,100	2,090	14,200
7	40	175	174	3,390	12,000	1,820	165	2,640	18,100	2,130	2,120	13,800
8	59	180	192	3,390	10,000	1,750	200	2,720	18,400	2,120	2,150	13,800
9	68	124	254	3,390	6,350	1,750	304	2,810	20,900	2,120	2,150	26,200
10	84	124	153	3,210	2,480	1,750	195	2,810	54,900	2,120	1,930	40,700
11	45	133	1,090	2,380	3,760	1,750	200	2,640	57,200	2,150	2,150	34,200
12	42	133	146	170	4,730	1,750	227	2,720	50,200	2,150	2,120	33,000
13	36	146	403	165	4,530	1,750	244	2,720	39,900	2,130	2,230	33,000
14	42	165	142	170	4,330	1,750	250	2,610	36,200	2,070	2,310	32,600
15	38	133	151	170	3,030	2,200	318	2,810	31,900	2,150	2,310	31,900
16	42	532	155	355	1,880	2,730	1,030	2,810	22,700	2,150	2,310	28,300
17	40	242	213	252	2,430	1,880	2,650	2,900	19,500	2,150	2,230	29,600
18	38	956	155	1,230	2,020	1,880	16,600	1,650	14,300	2,150	2,310	24,400
19	38	137	586	12,900	2,090	1,340	110,000	2,810	16,700	2,150	2,310	14,900
20	38	133	290	20,600	2,090	190	136,000	2,810	14,000	2,100	2,310	2,230
21	48	585	165	25,600	2,090	160	113,000	2,810	3,510	2,150	2,310	2,230
22	124	211	160	21,600	2,090	160	57,300	2,900	2,640	2,150	2,310	2,230
23	92	284	155	18,800	a2,040	155	11,000	2,810	2,810	2,150	2,310	2,230
24	48	180	142	18,800	a2,000	151	1,100	2,900	2,810	2,150	2,310	2,310
25	124	262	142	16,100	1,950	151	2,800	2,720	2,810	2,150	2,310	2,230
26	133	190	146	14,200	1,950	155	17,800	2,720	2,810	2,130	2,310	2,230
27	120	165	151	14,500	1,950	941	7,170	2,720	2,700	2,050	2,310	2,150
28	168	142	146	15,100	1,950	1,290	10,100	2,720	13,700	2,150	2,310	2,310
29	234	137	142	15,100	-	175	12,100	2,720	16,800	2,130	2,310	2,230
30	232	133	165	12,900	-	155	3,000	2,640	3,470	2,090	2,310	2,810
31	271	-	160	11,100	-	151	-	2,810	-	2,090	2,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,614	271	36	84.3	5,180
November	7,659	956	124	255	15,190
December	6,731	1,090	129	217	13,350
Calendar year 1940	69,945	1,090	9	191	138,700
January	241,620	25,600	165	7,794	479,200
February	168,440	18,800	1,880	6,016	334,100
March	38,844	2,730	151	1,253	77,050
April	504,676	136,000	146	16,820	1,001,000
May	98,020	10,500	1,650	3,162	194,400
June	568,890	57,200	2,640	18,960	1,128,000
July	65,230	2,150	1,690	2,104	129,400
August	68,610	2,310	1,930	2,213	136,100
September	444,930	40,700	2,150	14,830	882,500
Water year 1940-41	2,216,264	136,000	36	6,072	4,395,000

a No gage-height record; discharge interpolated.

Neosho (Grand) River near Choteau, Okla.

Location.- Water-stage recorder, lat. 36°14', long. 95°14', in SE¼SE¼ sec. 1, T. 20 N., R. 19 E., at bridge on county road between Locust Grove and Pryor, 5 miles upstream from Pryor Creek and 7½ miles northeast of Choteau. Datum of gage is 551.83 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). Prior to Apr. 3, wire-weight gage at bridge on State Highway 33, 6 miles downstream. Datum of gage was 536.37 feet (revised) above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 11,650 square miles (11,950 miles at former site).

Records available.- April to September 1941. October 1937 to March 1941 at site 6 miles downstream.

Extremes.- Maximum discharge during year, 186,000 second-feet Apr. 20 (gage height, 35.18 feet); minimum daily, 57 second-feet Oct. 10, 22.
1937-41: Maximum discharge, that of Apr. 20, 1941; minimum daily, 28 second-feet (regulated) Mar. 30, 1940.
Flood of Nov. 1, 1941, reached a stage of 36.45 feet (discharge, 205,000 second-feet). Flood of April 1927 reached a stage of 34.1 feet (present site and datum, discharge, 165,000 second-feet).

Remarks.- Records good. Flow regulated by Lake O'The Cherokees, 33 miles upstream (see p. 168). Gage read twice daily prior to Apr. 3.

Cooperation.- Result of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	253	1,200	2,220	13,000	2,340	320	3,990	2,940	2,420	2,200	2,270
2	89	815	979	5,340	22,100	2,340	310	3,210	10,400	1,980	1,980	4,500
3	77	314	1,030	3,290	22,800	2,200	290	3,590	23,600	2,270	2,120	12,100
4	71	198	729	2,340	20,300	2,340	285	9,910	24,000	2,270	2,120	11,700
5	66	194	639	1,910	18,600	2,200	280	9,240	21,600	2,270	2,200	14,900
6	94	194	598	3,780	15,800	2,200	265	3,400	12,700	2,270	2,200	14,900
7	94	361	556	4,460	13,300	2,340	285	3,300	17,800	2,270	2,200	14,500
8	97	444	519	4,280	11,200	2,500	280	3,210	18,500	2,270	2,270	13,800
9	60	209	519	4,280	9,060	2,340	275	3,120	19,300	2,270	2,270	26,800
10	57	198	482	4,120	3,780	2,340	333	3,120	62,500	2,200	2,270	55,200
11	73	148	556	3,940	4,120	2,200	300	3,030	77,800	2,270	2,050	41,300
12	94	157	1,680	2,080	5,340	2,340	250	2,940	58,000	2,270	2,270	33,400
13	92	154	729	777	4,980	2,200	230	3,030	44,400	2,270	2,270	32,900
14	68	164	825	825	4,980	2,200	270	3,030	37,800	2,200	2,340	32,500
15	109	167	2,170	5,340	4,650	2,200	627	3,030	35,600	2,200	2,340	32,100
16	92	180	4,800	4,980	2,650	3,130	16,800	3,030	25,600	2,270	2,340	27,700
17	80	285	2,810	4,800	2,500	2,810	18,200	3,120	20,100	2,270	2,340	29,900
18	66	580	1,770	4,800	2,970	2,340	20,400	2,850	18,500	2,270	2,340	29,000
19	71	1,200	1,610	10,400	2,650	2,340	132,000	1,990	12,500	2,270	2,340	18,900
20	62	450	1,770	19,200	2,650	1,420	172,000	3,030	18,200	2,270	2,340	3,660
21	62	3,650	1,380	28,600	2,650	556	133,000	3,030	6,270	2,200	2,420	2,340
22	57	4,630	1,030	24,700	2,500	482	83,300	3,030	3,210	2,270	2,340	2,340
23	64	3,450	876	20,300	2,500	482	24,200	3,030	2,970	2,200	2,340	2,270
24	109	3,290	777	20,300	2,500	417	4,200	3,030	3,050	2,270	2,340	3,380
25	112	2,970	729	17,500	2,500	417	2,420	3,030	3,050	2,200	2,340	5,160
26	77	9,320	639	15,800	2,500	388	12,900	2,850	3,050	2,270	2,340	2,970
27	115	8,840	639	15,200	2,500	360	17,200	2,760	2,970	2,200	2,420	2,420
28	171	2,970	556	15,200	2,500	1,330	3,680	2,850	7,720	2,120	3,210	2,340
29	224	1,770	519	15,500	-	1,250	18,500	2,850	18,500	2,200	2,570	2,340
30	228	1,440	482	13,900	-	388	4,640	2,850	8,150	2,200	2,420	2,730
31	283	-	482	12,100	-	360	-	2,760	-	2,200	2,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,131	283	57	101	6,210
November	48,993	9,320	148	1,633	97,180
December	33,980	4,800	482	1,096	67,400
Calendar year 1940	217,568	9,320	28	594	431,500
January	292,262	28,600	777	9,428	579,700
February	207,560	22,800	2,500	7,413	411,700
March	52,750	3,130	360	1,702	104,600
April	668,040	172,000	230	22,270	1,325,000
May	107,240	9,910	1,990	3,459	212,700
June	620,780	77,800	2,940	20,690	1,231,000
July	69,380	2,420	1,980	2,238	137,600
August	71,880	3,210	1,980	2,319	142,600
September	480,320	55,200	2,270	16,010	952,700
Water year 1940-41	2,656,316	172,000	57	7,278	5,268,000

Neosho (Grand) River near Wagoner, Okla.

Location.- Water-stage recorder, lat. 35°56', long. 95°16', on line between secs. 22 and 27, T. 17 N., R. 19 E., at bridge on U. S. Highway 51, 2¼ miles downstream from Nigger Creek, 5 miles southeast of Wagoner, and 6 miles upstream from Fourteen Mile Creek. Datum of gage is 495.34 feet (revised) above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark). Datum of gage used prior to Oct. 1, 1939, at site 1½ miles downstream, was 491.32 feet (revised) above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 12,400 square miles.

Records available.- March 1924 to December 1925, October 1937 to September 1941.

Extremes.- Maximum discharge during year, 183,000 second-feet Apr. 20 (gage height, 37.65 feet); minimum daily, 77 second-feet Oct. 24.
1924-25, 1937-41: Maximum discharge, that of Apr. 20, 1941; minimum daily, 54 second-feet (regulated) Mar. 31, 1940.
Flood of Nov. 2, 1941, reached a stage of 38.78 feet (discharge, 190,000 second-feet). About the same stage was reached by the flood of December 1895.

Remarks.- Records good. Flow regulated by Lake O'The Cherokees, 64 miles upstream (see p. 168).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	229	334	1,660	4,570	14,200	2,580	438	4,780	2,960	4,170	2,160	2,290
2	165	311	1,400	6,520	23,000	2,580	406	4,660	5,390	2,220	2,220	2,580
3	129	317	1,200	4,680	24,700	2,500	391	3,910	21,000	2,430	2,020	9,990
4	109	321	1,150	3,200	21,900	2,430	391	6,950	23,500	2,500	2,090	12,100
5	105	225	937	2,500	20,700	2,430	382	10,800	22,700	2,500	2,160	14,900
6	105	215	873	3,640	18,000	2,430	377	5,660	17,000	2,430	2,160	16,400
7	116	212	781	4,880	15,700	2,580	382	4,000	14,600	2,360	2,090	15,300
8	127	514	695	4,780	13,100	2,800	386	3,730	18,700	2,360	2,220	14,200
9	135	308	668	4,580	11,200	2,720	367	3,640	18,700	2,360	2,220	21,300
10	109	243	661	4,380	6,560	2,650	352	3,550	53,000	2,290	2,220	51,100
11	91	232	709	4,100	4,000	2,500	401	3,460	85,900	2,430	2,020	50,300
12	93	186	1,200	3,460	5,300	2,500	382	3,290	74,600	2,360	2,160	35,700
13	109	180	1,160	1,350	5,840	2,500	321	3,290	50,600	2,360	2,220	33,100
14	124	171	979	1,080	5,620	2,430	321	3,290	39,200	2,290	2,290	32,208
15	124	174	2,280	4,580	5,300	2,430	1,500	3,290	37,000	2,220	2,360	31,800
16	124	192	4,780	7,490	3,950	2,880	25,800	3,290	29,500	2,290	2,360	30,400
17	122	205	4,380	7,740	2,800	3,640	28,700	3,290	21,500	2,290	2,360	29,600
18	110	417	2,430	7,260	3,200	2,720	25,000	3,290	20,700	2,290	2,290	29,700
19	95	499	1,960	7,920	2,960	2,580	132,000	2,120	13,500	2,800	2,360	19,100
20	87	1,050	2,020	18,500	3,120	2,430	174,000	2,910	20,100	2,290	2,360	10,200
21	82	2,320	1,720	27,200	2,960	1,090	162,000	3,120	11,000	2,220	2,360	2,290
22	81	5,940	1,450	26,800	2,800	709	122,000	3,120	4,780	2,220	2,360	2,090
23	78	7,730	1,200	22,300	2,720	603	44,600	3,200	3,820	2,220	2,360	2,020
24	77	4,780	1,070	21,500	2,720	583	8,360	3,200	3,820	2,220	2,360	2,160
25	87	3,320	971	19,500	2,720	553	4,880	3,120	3,640	2,290	2,360	5,410
26	138	12,000	897	17,600	2,800	546	6,760	2,960	3,550	2,290	2,360	3,850
27	109	12,300	819	17,200	2,800	493	22,100	2,960	3,460	2,220	2,500	2,360
28	186	5,430	758	16,400	2,650	497	4,870	2,880	4,330	2,160	2,720	2,020
29	270	2,720	689	16,800	-	2,020	16,000	2,960	17,300	2,220	3,120	2,020
30	236	2,020	648	15,700	-	879	8,650	2,960	13,500	2,220	2,500	1,960
31	251	-	635	13,500	-	488	-	2,800	-	2,160	2,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,002	270	77	129	7,940
November	65,366	12,300	171	2,179	129,700
December	42,781	4,780	635	1,380	84,850
Calendar year 1940	283,824	12,300	54	775	563,000
January	321,710	27,200	1,080	10,380	638,100
February	233,320	24,700	2,650	8,333	462,800
March	60,771	3,640	488	1,960	120,500
April	795,517	174,000	321	26,520	1,578,000
May	116,500	10,800	2,120	3,758	231,100
June	659,350	85,900	2,960	21,980	1,308,000
July	73,680	4,170	2,160	2,377	146,100
August	71,700	3,120	2,020	2,313	142,200
September	488,440	51,100	1,960	16,280	968,800
Water year 1940-41	2,933,137	174,000	77	8,036	5,818,000

Cottonwood River at Cottonwood Falls, Kans.

Location.- Water-stage recorder, lat. 38°22', long. 96°31', in NE¼ sec. 28, T. 19 S., R. 8 E., 1 mile east of Cottonwood Falls and 3⅛ miles upstream from South Fork of Cottonwood River. Datum of gage is 1,147.41 feet above mean sea level by preliminary determination (datum of 1929).

Drainage area.- 1,444 square miles.

Records available.- February 1935 to September 1941. April 1932 to February 1935 at site in Cottonwood Falls.

Extremes.- Maximum discharge during year, 21,600 second-feet Sept. 8 (gage height, 21.08 feet); minimum, 8 second-feet Oct. 26 (gage height, 1.81 feet).
1932-41: Maximum discharge, that of Sept. 8, 1941; minimum, 1 second-foot Aug. 15 to Sept. 13, 1934, Sept. 19-23, 1936.

Remarks.- Records good.

Rating table, water year 1940-41, except period of backwater from South Fork (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 4-13, Nov. 19-25, Dec. 7-22, and Mar. 13 to May 16)

1.8	7	2.8	235	8.0	4,980
1.9	15	3.0	328	10.0	6,730
2.0	25	3.5	600	12.0	8,230
2.2	53	4.0	965	15.0	10,200
2.4	92	5.0	1,830	18.0	13,100
2.6	153	6.0	2,870	21.0	21,100

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	13	108	73	1,380	150	139	142	11,800	280	404	128
2	30	13	82	69	1,250	150	153	142	8,440	309	209	2,950
3	26	14	69	66	1,160	146	161	142	3,310	3,310	113	8,300
4	25	19	60	77	632	142	153	136	893	2,760	86	10,200
5	22	18	57	66	446	146	146	142	594	588	77	8,060
6	21	18	52	60	378	161	142	184	394	353	67	c8,700
7	21	17	50	58	333	165	146	180	430	280	66	c17,100
8	18	17	48	58	290	153	157	196	4,570	235	53	21,100
9	16	17	48	58	266	161	153	157	12,400	205	73	15,400
10	14	18	48	58	253	377	161	122	14,400	214	69	3,570
11	14	15	47	58	248	1,040	161	110	13,500	2,370	69	901
12	14	15	46	60	248	1,300	146	102	12,200	721	192	700
13	14	15	46	60	235	728	136	294	3,010	353	150	613
14	14	15	46	66	214	462	136	92	1,080	222	132	552
15	12	15	48	106	192	348	142	95	855	172	132	484
16	12	a15	47	473	188	314	153	90	714	150	97	441
17	12	a15	a47	1,200	180	276	150	75	626	142	82	399
18	11	a15	a46	768	176	248	146	69	552	128	136	373
19	11	15	46	343	169	226	161	71	501	110	161	363
20	10	14	46	304	161	214	157	67	435	108	226	328
21	9	20	48	262	157	209	150	67	583	100	188	304
22	9	24	62	446	153	201	139	64	348	95	420	280
23	9	a35	71	626	153	192	128	73	309	92	552	266
24	9	46	71	409	153	184	122	97	285	86	1,480	258
25	9	47	71	280	153	176	122	110	266	79	4,980	244
26	9	209	77	258	157	172	118	92	253	77	2,940	235
27	9	2,220	84	262	157	169	118	69	253	75	1,750	231
28	12	901	88	248	150	161	125	88	344	71	409	222
29	10	304	88	226	-	150	128	53	1,460	69	240	235
30	11	153	84	426	-	146	128	47	576	128	180	338
31	12	-	77	2,100	-	146	-	209	-	192	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	461	37	9	14.9	914
November	4,272	2,220	13	142	8,470
December	1,908	108	46	61.5	3,780
Calendar year 1940	38,470	2,230	5	105	76,290
January	9,624	2,100	58	310	19,090
February	9,632	1,380	150	344	19,100
March	8,813	1,300	142	284	17,480
April	4,277	161	118	143	8,480
May	3,547	294	47	114	7,040
June	95,181	14,400	253	3,173	188,800
July	14,074	3,310	69	454	27,920
August	15,883	4,980	53	512	31,500
September	103,265	21,100	128	3,442	204,800
Water year 1940-41	270,937	21,100	9	742	537,400

Peak discharge.- June 1 (7 a.m.) 13,000 sec.-ft.; June 10 (10 a.m.) 14,700 sec.-ft.; July 4 (1 a.m.) 4,190 sec.-ft.; Aug. 25 (12 m.) 5,360 sec.-ft.; Sept. 4 (11 p.m.) 10,600 sec.-ft.; Sept. 8 (8 a.m.) 21,600 sec.-ft.

a No gage-height record; discharge interpolated.

c Backwater from South Fork; discharge computed on basis of one discharge measurement.

Lightning Creek near McCune, Kans.

Location.- Staff gage, lat. 37°17', long. 95°02', in NE¼ sec. 7, T. 32 S., R. 22 E., at township highway bridge, 4 miles south of McCune, 5 miles southeast of Straus, and 13½ miles southeast of Parsons. Datum of gage is 818.10 feet above mean sea level (levels of Corps of Engineers, U. S. Army).

Drainage area.- 197 square miles.

Records available. November 1938 to September 1941.

Extremes.- Maximum discharge during year, 10,300 second-feet April 16 (gage height, 16.80 feet); no flow during several periods.
1939-41: Maximum discharge that of April 16, 1941; no flow at times during 1939-41.

Remarks.- Records are fair. Gage read twice daily and more often during rapidly changing stages.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41, except for period July 4-11 (gage height, in feet and discharge, in second-feet)
(Shifting-control method used Feb. 9 to Apr. 13, May 4-31, Sept. 6-30)

1.0	1	2.2	73	4.0	302	10.0	1,250	15.3	3,040
1.2	5	2.6	120	5.0	442	12.0	1,750	15.6	3,340
1.5	15	3.0	170	6.0	582	14.0	2,410	16.0	4,500
1.8	34	3.5	235	8.0	890	15.0	2,860	17.0	12,200

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1	0	576	5	0	48	1,140	2	0	14
2		0	1	1	806	4	0	187	2,190	e2	0	12
3		0	0	6	394	4	0	61	241	e2	0	29
4		0	0	7	103	3	0	62	64	e1	0	100
5		0	0	6	65	3	0	35	75	e1	0	751
6		0	0	6	41	4	0	37	222	e1	0	262
7		0	0	2	30	4	0	30	682	e1	0	833
8		0	0	2	19	6	0	18	126	e1	0	157
9		0	0	2	16	6	1	14	1,160	e0	0	2,090
10		0	0	1	13	6	2	11	5,650	e0	0	3,670
11		0	0	1	12	8	2	7	3,300	e0	0	1,260
12		0	0	1	10	8	0	6	398	e0	0	90
13		0	0	2	11	7	0	4	114	19	0	34
14		0	0	7	10	6	96	4	44	3	0	24
15		0	1	42	9	5	1,990	4	41	0	0	11
16		0	13	76	7	4	8,420	4	33	0	0	8
17		0	12	382	11	5	2,900	5	25	0	0	6
18		0	7	226	7	5	422	10	18	0	0	5
19		0	5	53	7	4	4,230	8	15	0	0	4
20		0	4	45	6	3	3,320	4	12	0	0	4
21		0	3	124	5	3	463	2	9	0	0	4
22		0	3	165	4	2	78	2	7	0	0	3
23		0	2	101	4	2	50	2	6	0	0	2
24		0	2	44	4	2	46	2	5	0	0	3
25		0	2	106	4	2	37	2	4	0	0	2
26		137	1	618	4	2	28	2	4	0	0	3
27		57	1	230	5	2	25	1	3	0	361	2
28		12	0	62	5	1	22	1	2	0	215	2
29		5	0	34	-	1	39	1	2	0	82	2
30		3	0	46	-	1	30	1	2	0	32	147
31		-	0	254	-	1	-	1	-	0	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	214	137	0	7.1	424
December	58	13	0	1.9	115
Calendar year 1940	6,865	1,340	0	18.8	13,610
January	2,632	618	0	84.9	5,220
February	2,188	806	4	78.1	4,340
March	119	8	1	3.8	236
April	22,201	8,420	0	740	44,040
May	576	187	1	18.6	1,140
June	15,584	5,650	2	519	30,910
July	33	19	0	1.1	65
August	709	361	0	22.9	1,410
September	9,234	3,670	2	308	18,320
Water year 1940-41	53,548	8,420	0	147	106,200

e Gage readings not representative of average for the day; discharge estimated.

Spring River near Waco, Mo.

Location.- Water-stage recorder, lat. 37°14'45", long. 94°33'55", on line between SE¼ sec. 7 and NE¼ sec. 18, T. 29 N., R. 33 W., at county highway bridge, three-quarters of a mile downstream from Blackberry Creek and 1½ miles east of Waco. Datum of gage is 833.23 feet above mean sea level, datum of 1929.

Drainage area.- 1,160 square miles.

Records available.- April 1924 to September 1941.

Average discharge.- 17 years, 802 second-feet.

Extremes.- Maximum discharge during year, 38,800 second-feet Apr. 20 (gage height, 24.66 feet); minimum, 12 second-feet Oct. 26, Nov. 19.
1924-41: Maximum discharge, 57,400 second-feet Aug. 17, 1927 (gage height, 28.6 feet, from floodmarks); minimum, 11 second-feet July 24, 1934.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Low flow regulated by power plant 3 miles above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 11-30)

Oct. 1 to Apr. 15						Apr. 16 to Sept. 30					
1.1	21	2.0	210	5.0	1,800	1.4	50	3.5	772	11.0	7,150
1.2	34	2.4	340	7.0	3,350	1.5	68	4.0	1,070	15.0	11,700
1.3	49	2.9	545	9.0	5,200	1.7	110	5.0	1,700	18.0	16,200
1.5	85	3.5	848	9.9	6,060	2.0	185	6.0	2,420	20.0	20,400
1.7	129	4.0	1,150			2.4	308	8.0	4,150	22.0	26,800
						3.0	532				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	37	222	240	1,570	a257	149	772	636	188	76	112
2	64	37	181	504	2,160	a240	152	718	619	162	76	117
3	51	36	176	607	1,870	228	134	772	465	172	99	124
4	54	31	168	527	1,180	216	134	1,040	667	185	134	101
5	54	33	146	449	821	201	134	890	404	182	117	249
6	37	33	142	408	716	196	132	1,340	272	152	117	175
7	42	28	120	370	626	219	134	1,010	292	136	95	139
8	38	33	113	336	554	225	168	667	332	142	86	250
9	38	33	118	312	470	234	162	553	498	127	68	7,480
10	34	36	122	298	470	240	178	504	5,420	117	78	4,240
11	40	49	129	279	449	256	170	469	3,520	115	70	2,500
12	37	34	113	246	436	246	154	465	1,570	108	72	742
13	31	34	116	262	416	228	152	434	692	101	78	231
14	36	48	106	272	404	225	498	404	512	97	84	177
15	37	28	187	312	373	216	5,980	378	423	112	167	139
16	36	33	794	478	344	201	14,700	393	382	99	103	154
17	46	37	876	1,640	a335	207	12,000	438	339	97	84	2,100
18	38	37	691	a1,380	a323	219	8,580	371	298	92	70	920
19	36	22	487	a1,050	a311	193	19,500	342	269	82	92	643
20	30	28	416	716	a298	184	26,500	328	249	76	76	335
21	40	48	362	716	a284	187	10,300	315	222	86	72	219
22	24	59	330	666	a276	178	3,790	288	253	92	74	167
23	40	61	308	607	a270	159	1,840	275	272	82	64	182
24	29	52	292	518	a263	168	1,540	256	222	78	63	297
25	29	81	269	573	a262	168	1,310	234	210	76	68	830
26	34	298	259	1,700	a262	159	1,190	234	191	63	400	772
27	31	470	240	1,700	a262	154	1,040	234	180	72	465	553
28	31	355	219	1,060	a262	149	980	219	180	84	479	305
29	33	272	187	716	-	149	890	207	169	86	389	275
30	36	246	201	742	-	146	830	199	182	90	188	1,840
31	36	-	207	1,180	-	132	-	193	-	76	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,206	64	24	38.9	0.034	0.04	2,390
November	2,629	470	22	87.6	.076	.08	5,210
December	8,299	876	106	268	.231	.27	16,460
Calendar year 1940	69,246	4,860	22	189	.163	2.22	137,300
January	20,864	1,700	240	673	.580	.67	41,380
February	16,267	2,160	262	581	.501	.52	32,270
March	6,180	257	132	199	.172	.20	12,260
April	113,421	26,500	132	3,781	3.26	3.64	225,000
May	14,942	1,340	193	482	.416	.48	29,640
June	19,940	5,420	169	665	.573	.64	39,550
July	3,427	188	63	111	.096	.11	6,800
August	4,221	479	63	136	.117	.13	8,370
September	26,378	7,480	101	879	.758	.85	52,320
Water year 1940-41	237,774	26,500	22	651	.561	7.63	471,600

Peak discharge.- Apr. 16 (11 a.m.) 15,400 sec.-ft.; Apr. 18 (5:30 p.m.) 9,020 sec.-ft.; Apr. 20 (1 a.m.) 38,800 sec.-ft.; June 10 (5 p.m.) 6,620 sec.-ft.; Sept. 9 (3 p.m.) 9,350 sec.-ft.; Sept. 17 (12 m.) 3,700 sec.-ft.

a No gage-height record; discharge computed on basis of weather records.

Spring River near Quapaw, Okla.

Location.- Water-stage recorder, lat. 36°56', long. 94°45', in center of SW¼ sec. 5, T. 28 N., R. 24 E., at county highway bridge an eighth of a mile upstream from Rock Creek and 3 miles southeast of Quapaw. Datum of gage is 746.25 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 2,580 square miles, including that of Rock Creek.

Records available.- July 1939 to September 1941 (including flow of Rock Creek).

Extremes.- Maximum discharge during year, 63,200 second-feet Apr. 20 (gage height, 29.66 feet); minimum daily, 114 second-feet Nov. 6.
1939-41: Maximum discharge, that of Apr. 20, 1941; minimum daily, 100 second-feet Oct. 23, 1939.
Flood of Mar. 13, 1935, reached a stage of 30 feet, from information furnished by local residents.

Remarks.- Records good. Low and medium flow regulated by Riverton hydro-electric plant 15 miles above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	188	168	738	1,240	2,760	358	406	2,160	1,190	587	308	285
2	215	127	747	1,600	4,200	698	544	1,950	2,790	565	308	322
3	180	161	659	1,570	4,080	643	380	2,270	2,160	565	235	318
4	191	166	539	1,520	3,050	494	426	2,360	1,080	448	427	354
5	135	129	479	838	2,650	608	318	2,140	1,110	519	350	1,540
6	120	114	447	1,350	1,880	532	381	2,380	1,070	561	255	827
7	137	149	477	1,030	1,700	567	455	2,170	1,380	444	325	256
8	141	133	302	979	1,650	544	434	1,670	1,010	521	275	1,070
9	129	195	298	930	978	451	440	1,540	2,420	455	169	15,600
10	177	133	499	692	1,430	751	427	1,250	15,600	431	151	12,900
11	144	120	499	860	1,330	559	420	1,290	13,600	398	251	4,820
12	133	118	390	615	1,200	594	392	1,110	4,300	378	204	2,660
13	141	127	526	779	1,120	613	361	1,210	2,940	306	267	915
14	147	129	500	613	997	530	591	1,020	2,060	383	357	346
15	143	163	928	1,430	907	554	e,160	1,170	1,140	504	246	734
16	118	131	1,640	1,100	998	548	25,000	909	1,470	422	235	675
17	154	120	1,560	2,030	979	482	24,300	1,180	1,230	382	245	1,820
18	226	120	1,680	3,060	1,030	576	16,800	1,150	1,050	289	497	2,550
19	133	150	1,310	2,570	860	535	39,100	941	799	200	206	1,270
20	118	164	892	1,600	659	516	57,600	855	989	215	258	942
21	129	329	894	1,670	781	550	33,000	866	775	368	209	602
22	132	302	884	1,470	556	388	10,200	845	751	272	161	468
23	127	388	865	1,600	615	491	5,140	716	940	301	222	474
24	125	447	734	1,210	986	552	4,100	700	905	277	166	1,460
25	149	416	684	1,360	510	438	3,660	789	663	206	148	1,970
26	124	2,090	840	2,170	710	506	3,140	580	674	211	588	1,200
27	136	1,770	617	3,160	841	385	2,740	678	611	368	3,320	1,400
28	127	1,420	529	2,460	707	467	2,640	634	616	195	1,440	576
29	153	842	492	1,880	-	481	2,550	467	346	210	1,050	748
30	163	825	618	1,470	-	333	2,120	696	695	353	555	5,410
31	146	-	583	1,640	-	437	-	393	-	329	365	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	4,581	226	118	148	0.057	0.07	9,090
November	11,666	2,090	114	389	.151	.17	23,140
December	22,870	1,680	298	738	.286	.33	45,360
Calendar year 1940	169,331	7,460	100	463	.179	2.44	335,900
January	46,696	3,160	613	1,506	.584	.67	92,620
February	40,164	4,200	510	1,434	.556	.58	79,660
March	16,181	751	333	522	.202	.23	32,090
April	246,225	57,600	318	8,208	3.18	3.55	488,400
May	36,089	2,380	393	1,229	.476	.55	75,650
June	66,244	15,500	346	2,208	.856	.95	131,400
July	11,665	587	196	376	.146	.17	23,130
August	13,803	3,320	148	445	.172	.20	27,380
September	65,612	16,600	256	2,187	.848	.95	130,100
Water year 1940-41	583,794	57,600	114	1,599	.620	8.42	1,158,800

Peak discharge.- Apr. 16 (10:30 a.m.) 26,300 sec.-ft.; Apr. 17 (1 p.m.) 25,300 sec.-ft.; Apr. 20 (2:30 a.m.) 63,200 sec.-ft.; June 11 (1:30 a.m.) 17,300 sec.-ft.; Sept. 9 (2:45 p.m.) 22,600 sec.-ft.

Shoal Creek near Joplin, Mo.

Location.- Water-stage recorder, lat. 37°02'05", long. 94°32'30", in NE¼SW¼ sec. 2S, T. 27 N., R. 33 W., at Grand Falls hydroelectric plant of Empire District Electric Co., 4 miles south of Joplin and 11 miles downstream from Baynham Branch. Datum of gage is 857.16 feet above mean sea level, datum of 1929.

Drainage area.- 458 square miles.

Records available.- April 1924 to September 1941 (discontinued).

Average discharge.- 17 years, 386 second-feet.

Extremes.- Maximum discharge during year, 54,000 second-feet Apr. 19 (gage height, 28.0 feet, from floodmarks), from rating curve extended above 41,000 second-feet; minimum, 10 second-feet Mar. 2, 3 (gage height, 0.83 foot); minimum daily discharge, 46 second-feet Nov. 6.

1924-41: Maximum discharge, that of Apr. 19, 1941; minimum, 1.5 second-feet (regulated) Aug. 17, 1938; minimum gage height, 0.60 foot Aug. 4, 1936; minimum daily discharge, 16 second-feet Aug. 6, 1934.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Low flow regulated by power plant Oct. 1 to Apr. 15.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	73	317	290	364	178	143	681	270	182	154	125
2	88	66	275	598	367	175	140	681	251	186	147	120
3	81	69	252	549	411	172	156	681	220	189	131	114
4	72	72	251	495	421	176	140	731	207	200	126	114
5	80	54	213	467	421	170	130	632	200	178	126	150
6	73	46	211	432	408	168	130	585	217	171	118	158
7	62	62	194	371	391	163	149	548	225	167	116	146
8	72	71	183	362	364	164	141	512	209	160	118	132
9	73	66	184	358	343	168	124	476	260	155	114	439
10	77	49	169	312	314	165	129	442	2,220	150	112	204
11	73	72	184	289	302	145	128	425	2,160	147	109	171
12	66	71	176	280	299	162	127	400	833	146	112	150
13	62	57	178	269	295	161	121	384	681	144	a115	139
14	85	69	171	284	267	159	134	364	576	146	129	132
15	85	55	206	291	257	155	212	341	503	143	123	128
16	84	60	386	278	251	164	1,270	345	446	137	118	128
17	75	54	470	357	244	166	2,490	323	396	132	a115	300
18	72	56	445	365	222	167	1,340	312	357	131	a110	160
19	70	59	411	355	231	157	22,500	298	323	128	a100	140
20	57	87	339	352	223	168	6,720	280	301	127	a100	134
21	83	143	364	349	217	165	2,500	270	280	126	a95	127
22	57	134	318	336	208	161	1,820	267	260	123	a95	122
23	56	163	293	324	110	159	1,480	257	254	121	a100	117
24	59	270	283	313	248	151	1,270	245	239	119	105	140
25	67	241	267	318	127	152	1,100	236	225	117	104	157
26	65	434	255	388	221	148	968	227	217	146	155	155
27	51	595	235	431	197	152	885	222	214	126	261	146
28	69	491	216	402	184	139	808	217	a200	121	390	134
29	77	403	222	396	-	145	756	209	a195	117	163	132
30	73	344	204	397	-	141	731	204	189	127	140	610
31	80	-	210	381	-	137	-	202	-	125	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,244	100	51	72.4	0.158	0.18	4,450
November	4,486	595	46	150	.328	.37	8,900
December	8,082	470	169	261	.570	.66	16,030
Calendar year 1940	49,749	986	39	136	.297	4.04	98,680
January	11,389	598	269	367	.801	.92	22,590
February	7,907	421	110	282	.616	.64	15,680
March	4,953	178	137	160	.349	.40	9,830
April	48,742	22,500	121	1,625	3.55	3.96	96,680
May	11,997	731	202	387	.845	.97	23,800
June	13,128	2,220	189	438	.956	1.07	26,040
July	4,487	200	117	145	.317	.37	8,900
August	4,130	390	95	133	.290	.33	8,190
September	5,124	610	114	171	.373	.42	10,160
Water year 1940-41	126,669	22,500	46	347	.758	10.29	251,200

Peak discharge.- Apr. 19 (12:30 p.m.) 54,000 sec.-ft.; June 10 (4:30 a.m.) 4,320 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Spring River near Waco.

Elk River near Tiff City, Mo.

Location (revised).- Water-stage recorder, lat. 36°38', long. 94°35', in NE¼ sec. 22, T. 22 N., R. 34 W., at bridge on State Highway 43, three-quarters of a mile downstream from Blackfoot Branch, 2¾ miles upstream from Buffalo Creek, and 3 miles southeast of Tiff City. Datum of gage is 750.61 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 848 square miles.

Records available.- October 1939 to September 1941.

Extremes.- Maximum discharge during year, 137,000 second-feet Apr. 19 (gage height, 28.4 feet, from floodmark), by slope-area method; minimum daily, 49 second-feet Oct. 27, Nov. 17.

1939-41: Maximum discharge, that of Apr. 19, 1941; minimum daily, 24 second-feet Oct. 8, 1939.

Maximum stage known, that of Apr. 19, 1941. The next highest known stage was 22.7 feet, date unknown.

Revisions.- The maximum discharge for the water year 1940 has been revised to 9,480 second-feet Apr. 12 (gage height, 11.62 feet), superseding figure published in Water-Supply Paper 897.

Remarks.- Records good except those above 50,000 second-feet, which are fair. Low flow regulated by power plant at Noel, 5 miles above station.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1940, superseding those published in Water-Supply Paper 897, are given herein:

Apr. 11.....	4,660
12.....	6,730

Month	Second-foot days	Maximum	Minimum	Mean	Run-off in acre-feet
April.....	33,343	6,730	115	1,111	66,130
Water year 1939-40.	66,237	6,730	24	241	175,000

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	80	773	1,180	978	316	269	978	216	200	92	132
2	96	76	645	4,750	1,140	310	264	857	213	196	118	120
3	87	58	554	2,990	1,600	329	258	773	210	191	117	113
4	84	79	468	2,060	1,700	313	252	828	206	193	106	113
5	80	74	427	1,600	1,520	313	244	773	198	184	90	228
6	63	66	381	1,320	1,360	310	228	694	208	175	92	340
7	96	65	345	1,140	1,220	320	255	646	241	168	90	272
8	86	65	301	1,010	1,080	323	255	598	228	159	90	210
9	77	65	295	886	978	313	266	554	244	150	89	196
10	77	52	264	773	686	338	258	512	4,530	142	89	210
11	75	82	264	720	800	351	255	476	4,290	134	92	206
12	71	75	278	645	746	361	255	449	1,950	130	90	172
13	58	a72	298	598	694	367	239	423	1,320	124	104	155
14	84	a68	351	554	645	364	252	402	1,040	120	138	140
15	93	65	651	576	576	374	315	371	857	120	140	126
16	90	65	2,440	622	529	381	19,700	354	720	117	124	122
17	86	49	2,180	746	508	402	14,700	345	622	113	107	115
18	84	75	1,650	800	472	398	7,020	329	537	111	100	130
19	75	66	1,320	828	449	398	g68,600	313	472	109	97	126
20	59	77	1,110	857	427	395	g16,200	298	420	100	90	113
21	60	156	947	857	398	391	6,280	286	378	99	89	106
22	75	262	800	828	378	378	4,130	275	338	97	86	97
23	66	992	720	800	351	358	3,150	266	313	94	84	92
24	64	1,040	645	800	364	358	2,490	255	295	95	144	90
25	62	857	576	828	342	335	2,080	247	275	89	155	104
26	63	1,360	520	978	332	323	1,700	236	258	87	120	109
27	49	1,680	472	1,110	329	313	1,480	228	244	89	140	106
28	77	1,440	430	1,140	320	298	1,320	226	234	94	264	104
29	73	1,110	384	1,080	-	289	1,180	210	223	75	168	102
30	74	916	371	1,040	-	269	1,080	208	213	82	136	111
31	75	-	348	978	-	281	-	203	-	86	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October.....	2,382	103	49	76.8	0.091	0.10	4,720
November.....	11,387	1,880	49	380	.448	.50	22,590
December.....	21,228	2,440	264	685	.808	.93	42,110
Calendar year 1940.....	115,700	6,730	48	316	.373	5.05	229,500
January.....	35,114	4,750	554	1,133	1.34	1.54	69,650
February.....	21,122	1,700	320	754	.889	.93	41,890
March.....	10,569	402	269	341	.402	.46	20,960
April.....	154,975	68,600	228	5,166	6.09	6.80	307,400
May.....	13,612	978	203	439	.518	.60	27.000
June.....	21,493	4,530	198	716	.844	.94	42,630
July.....	3,923	200	75	127	.150	.17	7,780
August.....	3,573	264	84	115	.136	.16	7,090
September.....	4,368	348	90	146	.172	.19	8.660
Water year 1940-41.....	303,746	68,600	49	832	.981	13.32	602,500

Peak discharge.- Jan. 2 (9 a.m.) 5,900 sec.-ft.; Apr. 16 (7:45 p.m.) 48,000 sec.-ft.; Apr. 19 (11 a.m.) 137,000 sec.-ft.; June 10 (11:30 p.m.) 8,920 sec.-ft.

a No gage-height record; discharge interpolated.

g Water-stage recorder graph incomplete; discharge computed from gage heights based on partial record and gage heights of points set on bank during crest and recession of flood.

Illinois River near Tahlequah, Okla.

Location.- Water-stage recorder, lat. 35°55', long. 94°55', in SE¼ sec. 26, T. 17 N., R. 22 E., at bridge on U. S. Highway 62, 2¼ miles northeast of Tahlequah and 5 miles upstream from Barren Fork. Datum of gage is 664.14 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 933 square miles.

Records available.- December 1935 to September 1941.

Extremes.- Maximum discharge during year, 41,400 second-feet Apr. 20 (gage height, 19.56 feet); minimum, 73 second-feet July 25 (gage height, 5.89 feet).

1935-41: Maximum discharge, that of Apr. 20, 1941; maximum gage height, 19.67 feet Feb. 18, 1938; minimum discharge, 5 second-feet Aug. 31, 1936 (gage height, 5.67 feet).

Maximum stage known, about 26 feet in January 1916. A stage of 22.3 feet was reached in April 1927.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	225	171	818	1,010	1,110	695	278	982	214	146	100	115
2	197	156	697	10,900	1,320	672	273	892	227	148	100	106
3	175	141	603	9,620	2,250	642	283	819	227	151	144	98
4	156	123	523	3,450	2,910	597	263	759	231	144	223	98
5	144	120	462	2,430	2,190	583	254	719	227	144	236	169
6	133	114	410	1,910	1,840	555	254	656	240	144	201	165
7	123	96	367	1,520	1,530	541	268	654	249	148	165	154
8	114	88	332	1,380	1,340	541	259	604	249	144	148	151
9	104	93	304	1,130	1,160	534	245	555	240	140	134	173
10	101	96	282	972	1,030	521	240	521	1,360	134	177	165
11	101	104	287	874	921	508	240	488	2,590	124	201	144
12	98	96	282	785	836	494	240	456	1,710	127	177	130
13	93	90	287	727	785	475	231	431	1,070	121	165	121
14	96	85	292	695	751	456	245	412	811	118	151	115
15	98	85	450	776	776	449	292	400	672	118	144	109
16	93	85	1,300	1,370	695	431	6,200	372	569	115	154	106
17	88	85	2,400	2,510	634	412	11,200	344	481	112	158	103
18	88	85	1,800	2,670	597	400	8,200	328	412	109	148	109
19	88	82	1,420	2,050	590	389	21,800	323	366	103	134	112
20	88	101	1,180	1,690	583	378	30,600	313	323	100	118	108
21	85	193	988	1,450	649	360	8,940	297	287	95	109	103
22	82	269	856	1,290	649	355	4,350	292	268	88	123	98
23	82	846	747	1,190	612	349	3,070	287	249	82	112	90
24	82	856	672	1,350	597	339	2,430	268	197	78	103	103
25	82	765	610	2,830	583	333	2,050	259	185	92	106	106
26	77	1,450	552	2,050	604	323	1,700	249	a177	151	115	100
27	77	1,750	509	1,840	642	318	1,490	245	a170	127	151	98
28	93	1,600	469	1,550	687	307	1,290	240	a162	109	158	92
29	123	1,230	429	1,370	-	302	1,150	236	154	118	140	103
30	141	988	398	1,220	-	297	1,090	227	151	118	127	100
31	163	-	379	1,110	-	297	-	214	-	109	121	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,490	225	77	113	0.121	0.14	6,920
November	12,043	1,750	82	401	.430	.48	23,890
December	21,105	2,400	282	681	.730	.84	41,860
Calendar year 1940	127,533	4,450	49	348	.373	5.07	253,000
January	65,719	10,900	695	2,120	2.27	2.62	130,400
February	28,871	2,910	583	1,031	1.11	1.15	57,260
March	13,853	695	297	447	.479	.55	27,480
April	109,425	30,600	231	3,648	3.91	4.36	217,000
May	13,822	982	214	446	.478	.55	27,420
June	14,468	2,590	151	482	.517	.58	28,700
July	3,759	151	78	121	.130	.15	7,460
August	4,543	236	100	147	.158	.18	9,010
September	3,542	173	90	118	.126	.14	7,030
Water year 1940-41	294,640	30,600	77	807	.865	11.74	584,400

Peak discharge.- Jan. 2 (11:15 p.m.) 20,500 sec.-ft.; Apr. 16 (11:15 p.m.) 13,300 sec.-ft.; Apr. 17 (4 p.m.) 12,100 sec.-ft.; Apr. 19 (3:45 p.m.) 30,800 sec.-ft.; Apr. 20 (7:45 a.m.) 41,400 sec.-ft.

a No gage-height record; discharge interpolated.

Illinois River near Gore, Okla.

Location.- Water-stage recorder, lat. 35°36', long. 95°03', in NE¼NE¼ sec. 22, T. 13 N., R. 21 E., 4 miles upstream from site of former gaging station, 5½ miles northeast of Gore, and 9 miles upstream from mouth. Datum of gage is 482.60 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,583 square miles.

Records available.- March 1924 to April 1926, April 1939 to September 1941.

Extremes.- Maximum discharge during year, 43,900 second-feet Apr. 20 (gage height, 16.18 feet); minimum, 103 second-feet July 26; minimum gage height, 1.55 feet Oct. 28. 1924-26, 1939-41: Maximum discharge, that of Apr. 20, 1941; minimum, 20 second-feet (estimated) Sept. 9, 10, 1925.

Remarks.- Records good.

Cooperation.- Result of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	419	212	1,540	5,600	2,300	1,560	449	1,880	358	349	175	190
2	356	230	1,310	9,880	2,760	1,530	431	1,670	364	345	200	171
3	312	222	1,130	15,100	4,470	1,460	426	1,510	351	310	180	161
4	276	208	984	7,110	5,530	1,380	426	1,400	351	292	200	152
5	248	199	875	4,500	4,880	1,280	414	1,290	358	280	264	275
6	230	187	774	3,440	3,980	1,210	385	1,200	416	270	298	280
7	208	181	695	2,800	3,340	1,150	397	1,130	409	253	286	253
8	205	167	635	2,360	2,920	1,100	402	1,080	390	242	253	231
9	184	167	577	2,030	2,520	1,070	397	989	377	231	226	248
10	175	154	528	1,780	2,230	1,040	375	917	1,480	216	206	286
11	175	159	514	1,600	2,020	980	370	849	2,760	206	195	270
12	167	159	528	1,430	1,820	940	365	792	2,940	216	226	242
13	159	159	514	1,280	1,690	910	360	736	1,960	206	248	216
14	153	156	606	1,330	1,570	846	370	692	1,480	200	253	195
15	189	151	1,380	1,840	1,530	820	698	666	1,130	195	236	180
16	151	146	2,200	2.790	1,450	794	1,830	632	948	190	226	175
17	146	143	3,200	5,080	1,320	751	11,300	608	810	190	216	166
18	140	140	3,360	5,080	1,230	718	12,300	568	692	185	231	161
19	136	136	2,660	4,500	1,260	694	21,100	552	624	175	226	152
20	136	140	2,220	3,690	1,400	669	40,600	530	552	166	211	152
21	133	164	1,960	3,260	1,440	638	29,200	508	515	152	190	147
22	130	248	1,720	2,840	1,470	615	8,960	485	444	142	180	138
23	128	401	1,480	2,680	1,400	592	6,040	478	444	129	226	129
24	123	901	1,320	3,260	1,390	570	4,580	464	409	120	264	180
25	121	1,060	1,180	4,170	1,440	549	3,720	437	377	116	206	200
26	116	1,660	1,070	4,570	1,500	528	3.120	423	351	107	175	175
27	114	2,160	965	3,700	1,530	514	2,680	409	333	321	270	161
28	128	2,400	884	3,340	1,550	494	2,340	390	321	333	248	152
29	140	2,160	807	2,840	-	475	2,030	383	304	253	242	142
30	164	1,840	742	2,520	-	462	2,340	377	292	211	231	142
31	181	-	710	2,300	-	456	-	364	-	190	206	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	5,613	419	114	181	0.114	0.13	11,130
November	16,422	2,400	138	547	.346	.39	32,570
December	39,008	3,360	514	1,258	.795	.92	77,370
Calendar year 1940	228,147	8,530	98	623	.394	5.36	452,500
January	118,700	15,100	1,280	3,829	2.42	2.79	235,400
February	61,940	5,530	1,230	2,212	1.40	1.46	122,900
March	26,795	1,580	456	864	.546	.63	53,150
April	158,405	40,600	360	5,280	3.34	3.73	314,200
May	24,409	1,880	364	787	.497	.57	48,410
June	22,540	2,940	292	751	.474	.53	44,710
July	6,791	349	107	219	.13e	.16	13,470
August	6,994	298	175	226	.143	.16	13,870
September	5,722	286	129	191	.121	.14	11,360
Water year 1940-41	493,339	40,600	107	1,352	.854	11.61	978,630

Dirty Creek near Warner, Okla.

Location.- Wire-weight gage, lat. 35°33', long. 95°18', in SE¼ sec. 32, T. 13 N., R. 19 E., at bridge on U. S. Highway 64, 4 miles north of Warner, 6½ miles upstream from Georges Fork, and 6½ miles downstream from Butter Creek. Datum of gage is 485.51 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 229 square miles.

Records available.- October 1939 to September 1941.

Extremes.- 1939-40: Maximum discharge during water year, 2,360 second-feet, Aug. 19 (gage height, 18.42 feet); no flow at times.
1940-41: Maximum discharge during water year, 2,360 second-feet, Jan. 2 (gage height, 18.42 feet); no flow at times.
Flood of February 1939 reached a stage of 23 feet, from information by local resident.

Remarks.- Records fair. Gage read twice-daily, oftener during rises.

Cooperation.- Records for water-year 1940-41 collected and prepared in cooperation with Corps of Engineers, U. S. Army; records for water year 1939-40 collected and computed by Corps of Engineers and prepared for publication by Geological Survey.

Rating table, October 1939 to September 1941 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 13-29, July 15-20, Aug. 21-26, 1940, and Aug. 30 to Sept. 4, Sept. 8-16, 23-27, 1941)

1.8	0	3.5	22	12.0	825
2.0	.3	4.0	36	14.0	1,100
2.2	1.2	5.0	93	16.0	1,500
2.4	3.0	6.0	168	17.0	1,800
2.7	6.9	8.0	355	18.0	2,180
3.0	12	10.0	580		

Discharge, in second-feet, 1939-41

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0			0	1	0	37	0	0	0	3
2	0	0			0	1	0	17	0	0	0	2
3	0	0			0	0	0	11	0	0	0	1
4	0	0			0	0	0	7	0	0	0	1
5	0	0			0	0	0	5	0	0	0	187
6	0	0			0	0	2	3	0	0	0	95
7	0	0			0	0	58	2	0	0	0	24
8	0	0			0	0	57	2	0	0	1	9
9	0	0			0	0	18	22	3	0	0	5
10	0	0			0	0	28	8	164	0	0	3
11	0	0			0	0	784	6	256	0	0	2
12	0	0			0	0	976	3	58	119	0	1
13	0	0			0	0	94	2	16	198	0	1
14	0	0			0	0	27	1	7	18	9	0
15	0	0			0	0	17	1	5	7	5	0
16	0	0			0	0	11	0	4	3	2	0
17	0	0			0	0	8	0	3	1	575	0
18	0	0			1	0	5	0	5	1	1,650	0
19	0	0			2	0	4	65	4	0	2,270	0
20	0	0			3	0	3	35	5	1	829	0
21	0	0			2	0	2	10	11	81	27	0
22	0	0			1	0	2	5	4	41	10	0
23	0	0			1	0	1	4	2	12	6	0
24	0	0			1	0	1	3	4	5	3	0
25	0	0			1	0	1	2	5	3	2	0
26	0	0			1	0	1	1	3	2	2	0
27	0	0			1	0	1	7	2	1	1	0
28	3	0			1	0	15	6	1	0	1	0
29	1	0			1	0	561	3	1	0	47	0
30	0	1			-	0	226	2	0	0	14	0
31	0	-			-	0	-	1	-	0	5	-

Discharge, in second-feet, of Dirty Creek near Warner, Okla., 1939-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	19	1,740	82	104	6	483	68	1	0	1
2		0	15	2,270	553	72	6	124	335	3	0	0
3		0	11	807	1,270	54	6	57	143	9	0	0
4		0	9	237	439	49	6	42	16	11	0	21
5		0	9	104	148	40	6	36	109	8	0	190
6		0	7	82	100	25	5	32	315	4	0	738
7		0	7	72	76	31	5	29	679	3	0	156
8		0	6	63	49	76	5	38	148	2	0	36
9		0	4	54	38	82	5	38	30	1	0	25
10		0	4	44	33	49	4	25	1,230	1	0	19
11		0	5	40	31	33	4	20	2,180	13	0	14
12		0	7	36	30	25	3	15	733	33	0	9
13		0	19	36	29	22	3	10	62	14	0	5
14		0	34	77	26	20	4	9	22	11	0	2
15		0	168	488	22	21	86	6	44	6	0	1
16		0	797	368	20	23	477	4	22	4	0	1
17		0	255	676	19	21	257	4	16	2	0	0
18		0	82	251	22	19	263	4	12	2	0	0
19		0	60	110	62	16	1,720	3	9	1	0	0
20		0	46	66	479	15	1,900	3	7	1	0	0
21		0	34	60	383	18	400	2	5	0	0	0
22		160	29	52	192	14	107	2	4	0	1	0
23		371	26	49	107	13	228	2	4	0	1	1
24		128	21	69	135	12	330	1	4	0	6	2
25		120	19	100	557	10	136	1	4	0	2	2
26		762	18	93	440	9	72	1	4	0	11	1
27		605	16	72	315	8	49	0	3	0	48	1
28		84	16	46	188	7	38	0	1	0	188	0
29		30	14	36	-	6	133	0	1	0	118	0
30		23	12	33	-	6	596	0	1	0	25	0
31		-	12	36	-	6	-	0	-	0	8	-

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1939	4	3	0	0.13	7.9
November	1	1	0	.03	2.0
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1940	0	0	0	0	0
February	16	3	0	.55	32
March	2	1	0	.06	4.0
April	2,903	976	0	98.8	5,760
May	271	65	0	8.74	538
June	583	256	0	18.8	1,120
July	493	198	0	15.9	978
August	5,459	2,270	0	176	10,830
September	334	187	0	11.1	662
Water year 1939-40	10,046	2,270	0	27.4	19,930
October 1940	0	0	0	0	0
November	2,283	762	0	76.1	4,530
December	1,780	797	4	57.4	3,530
Calendar year 1940	14,104	2,270	0	38.5	27,980
January 1941	8,267	2,270	33	267	16,400
February	5,845	1,270	19	209	11,590
March	903	104	6	29.1	1,790
April	6,860	1,900	3	229	13,610
May	991	483	0	32.0	1,970
June	6,211	2,180	1	207	12,320
July	130	33	0	4.2	258
August	408	188	0	13.2	809
September	1,225	738	0	40.8	2,430
Water year 1940-41	34,903	2,270	0	95.6	69,240

Canadian River near Taylor Springs, N. Mex.

Location.- Water-stage recorder, lat. 36°17', long. 104°30', in SE¼ sec. 28, T. 24 N., R. 23 E., 2 miles upstream from Chico Creek, 2½ miles downstream from Cimarron River, and 2½ miles south of Taylor Springs.

Drainage area.- 2,740 square miles.

Records available.- January 1940 to September 1941 in reports of Geological Survey. September 1925 to July 1927 in reports of State engineer.

Extremes.- Maximum discharge during year, 21,700 second-feet May 2 (gage height, 18.79 feet), by slope-area method; minimum daily, 3.5 second-feet Nov. 12.
1940-41: Maximum discharge, that of May 2, 1941; minimum daily, 1 second-foot June 27-30, July 1, 2, 24-27, 1940.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	4.9	9	11	28	14	262	2,750	1,800	100	400	48
2	9.7	4	*8	10	23	13	198	14,400	1,850	150	297	52
3	8.5	4	8	9	22	10	128	4,840	1,260	120	266	78
4	5.2	5	8	8	21	8.0	113	3,450	1,250	90	246	46
5	5.7	4	9	9	20	9.2	80	2,680	800	80	242	36
6	4.1	4.5	10	9	21	11	81	1,930	600	100	176	35
7	4.1	4	8	10	23	10	89	1,760	500	80	125	35
8	3.8	4	8	11	20	*8.0	76	1,660	400	70	140	43
9	4	*6	8	10	20	12	72	1,620	350	60	150	48
10	4	5	8	11	*23	8.8	66	1,650	300	110	169	36
11	4.1	4	11	12	22	9.6	64	1,680	270	250	121	33
12	4.1	3.5	9	13	25	10	72	1,920	240	622	539	33
13	3.8	4.5	8	17	24	13	91	1,930	220	1,350	849	32
14	3.6	4	8	*15	26	19	93	2,000	200	1,400	500	28
15	3.6	4.5	7	15	23	20	74	1,900	190	790	300	26
16	4.1	5	6	13	22	18	60	1,650	180	1,030	400	23
17	4.9	5	8	12	20	14	54	1,350	250	500	250	24
18	5.2	6	9	10	19	12	47	950	220	300	350	28
19	5.4	7	8	12	18	12	58	750	200	400	509	861
20	5.7	8	7	15	19	13	97	600	160	250	262	1,050
21	5.4	10	7	16	19	44	83	1,000	140	489	274	362
22	5.4	8	8	15	18	103	89	1,350	130	605	214	3,880
23	5.4	9	9	14	17	66	131	1,290	120	258	717	6,160
24	5.4	15	10	13	17	42	214	2,210	150	374	550	2,750
25	5.4	20	9	*15	16	182	501	2,000	540	977	218	911
26	5.2	15	9	13	16	267	595	1,980	200	882	111	405
27	4.9	10	8	14	19	359	720	1,620	350	879	64	238
28	4.3	10	9	15	16	212	3,430	1,290	250	535	101	143
29	4.3	11	9	20	-	107	2,420	1,100	140	432	87	721
30	4.6	12	9	30	-	93	1,820	1,000	110	493	85	748
31	4.9	-	10	35	-	201	-	1,080	-	356	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	158.8	10	3.6	5.12	315
November	216.9	20	3.5	7.23	430
December	262	11	6	8.45	520
Calendar year 1940	9,270.7	1,830	1	25.3	18,390
January	432	35	8	13.9	857
February	577	88	16	20.6	1,140
March	1,920.6	359	8.0	62.0	3,810
April	11,868	3,430	47	396	23,540
May	67,380	14,400	600	2,174	133,600
June	13,570	1,850	110	446	26,520
July	14,132	1,400	60	456	28,030
August	8,767	849	55	283	17,390
September	18,913	6,160	23	630	37,510
Water year 1940-41	137,997.3	14,400	3.5	378	273,700

Peak discharge.- May 2 (11 a.m.) 21,700 sec.-ft.; June 1 (2 p.m.) 5,640 sec.-ft.; Sept. 19 (7 p.m.) 4,740 sec.-ft.; Sept. 20 (6 p.m.) 6,610 sec.-ft.; Sept. 22 (4 a.m.) 6,360 sec.-ft.; Sept. 23 (5 p.m.) 13,000 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Jan. 25 to Feb. 14. Fragmentary or no gage-height record Oct. 9, 10, Nov. 2 to Jan. 24; May 18-21, 29-31, June 5-30, July 1-11, 15, 17-20, Aug. 14-18; discharge computed on basis of available gage-heights, weather records and records for stations near Roy and near Sanchez.

Canadian River near Roy, N. Mex.

Location.- Water-stage recorder, lat. 35°55', long. 104°21', in E½ sec. 35, T. 20 N., R. 24 E., at bridge on State Highway 120, 8½ miles west of Roy.

Drainage area.- 4,000 square miles.

Records available.- January 1940 to September 1941 in reports of Geological Survey. April 1936 to December 1939 (October to December 1939, gage heights only) in files of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 34,700 second-feet May 2 (gage height, 10.33 feet); minimum daily, 1.7 feet for periods in October and November.

1940-41: Maximum discharge, that of May 2; minimum daily, 1 second-foot on many days in 1940.

On June 3, 1937, a discharge of 43,800 second-feet was measured by means of surface floats (gage height, 11.55 feet).

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	1.9	33	a22	100	20	a280	d3,000	1,830	120	d600	87
2	19	1.9	20	a25	83	22	218	25,800	2,180	135	d480	79
3	10	1.9	19	a25	66	22	176	d8,920	1,870	135	d400	76
4	8.4	1.7	19	a20	53	19	160	a5,500	1,290	125	d350	69
5	8.4	1.7	19	a17	50	17	135	a3,500	1,520	108	d330	69
6	7.0	1.9	15	a19	45	19	108	a2,800	d860	112	d290	60
7	5.1	1.9	19	a21	42	15	91	a2,400	d720	120	d250	53
8	4.4	2.1	15	a22	47	12	76	a2,200	d670	83	d230	42
9	3.8	1.7	12	a22	37	12	66	a2,000	a600	79	d210	37
10	3.8	1.7	15	a20	*28	10	57	a2,000	a540	87	d230	73
11	3.2	1.7	20	a23	28	9.0	47	a2,500	a490	108	d250	66
12	3.8	1.9	22	a26	35	8.4	45	a3,000	a470	323	893	57
13	3.8	1.7	20	*28	37	9.0	40	a2,500	a420	1,100	d1,300	60
14	2.5	1.7	28	28	57	12	42	a2,000	a350	1,420	a800	53
15	2.3	1.7	20	23	37	8.4	53	a1,700	a310	974	a500	40
16	2.1	2.1	7.7	17	28	8.4	69	1,550	a270	1,100	a400	33
17	1.9	1.9	16	20	22	13	69	1,350	a350	670	a450	33
18	1.9	2.3	20	16	23	15	66	1,040	a370	319	a350	45
19	1.9	3.8	16	20	23	15	69	865	a390	278	a430	47
20	1.7	7.7	8.4	b30	20	13	69	721	a310	328	310	926
21	1.7	9.0	7.7	b28	19	15	63	682	a250	254	328	4,350
22	1.7	10	10	30	19	25	79	926	a240	575	302	8,100
23	1.7	9.0	10	*23	22	a150	79	1,930	218	450	335	7,000
24	1.7	12	16	28	20	a100	100	2,070	182	350	656	5,720
25	1.9	30	17	30	22	a150	145	2,200	194	980	373	a2,000
26	1.9	40	15	25	22	a800	431	1,970	455	1,580	200	a1,300
27	2.1	25	a17	20	20	a500	618	1,770	302	1,070	130	a1,500
28	1.7	17	a17	23	20	a400	2,340	1,370	455	d900	133	a2,000
29	1.7	33	a14	33	-	a300	a3,500	1,260	270	d800	206	d3,500
30	1.9	40	a15	57	-	a200	a2,200	1,220	155	d650	130	1,610
31	1.9	-	a18	91	-	a350	-	1,100	-	d700	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	133.9	19	1.7	4.32	266
November	269.9	40	1.7	9.00	535
December	520.8	33	7.7	16.8	1,030
Calendar year 1940	9,816.6	1,190	1	26.8	19,460
January	832	91	16	26.8	1,650
Fsbruary	1,025	100	19	36.6	2,030
Marah	3,269.2	800	s.4	105	6,480
April	11,491	3,500	40	383	22,790
May	91,844	25,800	682	2,963	182,200
June	18,331	2,180	155	611	36,360
July	16,033	1,580	79	517	31,800
August	11,962	1,300	116	386	23,730
September	39,085	s,100	33	1,303	77,520
Water year 1940-41	194,796.8	25,800	1.7	534	386,400

Peak discharge.- May 2 (4 p.m.) 34,700 sec.-ft.; June 1 (9 p.m.) 6,020 sec.-ft.; Aug. 13 (6:30 p.m.) 4,640 sec.-ft.; Sept. 21 (2 a.m.) 9,990 sec.-ft.; Sept. 22 (11 a.m.) 11,000 sec.-ft.; Sept. 23(12p.m.) 16,700 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Taylor Springs and near Sanchez.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of weather records and records for stations near Taylor Springs and near Sanchez.

Canadian River near Sanchez, N. Mex.

Location.- Water-stage recorder, lat. 35°38', long. 104°23', about sec. 3, T. 16 N., R. 24 E., at bridge on State Highway 65, several hundred feet upstream from Lagartija Creek, 3 miles east of Sanchez, 8 miles downstream from Mora River, and 25 miles southwest of Moequero.

Drainage area.- 6,000 square miles.

Records available.- May 1912 to December 1914 (at site about 3 miles upstream) and April 1939 to September 1941 in reports of Geological Survey. April 1938 to March 1939 in files of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 44,900 second-feet May 2 (gage height, 12.96 feet); minimum daily, 4.1 second-feet Nov. 1.
1912-14, 1939-41: Maximum discharge, 82,700 second-feet June 12, 1913 (gage height, 25.0 feet, probably from floodmarks), from slope-area studies; minimum, 0.1 second-foot Aug. 2, 1940.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	4.1	73	72	140	66	511	3,820	3,510	504	853	224
2	24	4.5	73	72	156	59	560	30,800	4,510	460	710	175
3	31	4.5	55	70	130	50	560	13,400	3,350	472	609	156
4	24	5.8	50	b54	107	41	448	6,660	3,320	460	518	144
5	20	6.6	52	b48	96	41	370	5,240	4,090	388	486	126
6	14	7.4	57	b37	93	41	305	3,600	2,370	364	454	123
7	13	7.8	62	b49	82	38	270	2,940	2,000	354	418	99
8	12	7.4	59	52	82	31	280	2,860	1,930	364	394	88
9	12	7.0	55	53	85	26	270	2,780	1,790	290	412	82
10	12	5.3	53	53	85	20	238	2,690	1,580	285	848	82
11	13	5.3	55	*52	73	20	211	5,380	1,470	354	460	96
12	14	4.5	66	59	73	18	216	4,530	1,480	305	2,120	88
13	14	4.9	77	70	80	18	211	3,120	1,340	1,310	2,840	77
14	22	5.3	66	75	85	20	216	3,030	1,150	2,370	1,270	88
15	22	5.8	93	77	107	18	275	3,120	1,010	1,420	758	73
16	18	6.2	*70	70	93	18	224	2,780	961	661	546	68
17	16	6.2	88	56	75	16	206	2,370	1,200	1,070	484	64
18	14	7.0	75	b43	70	14	193	2,070	1,330	934	478	64
19	12	7.4	68	b32	66	18	211	1,720	1,360	694	412	134
20	14	9.8	50	38	68	18	224	1,560	1,150	623	623	324
21	13	12	45	55	66	27	198	1,620	907	2,590	478	1,720
22	12	14	48	*64	64	242	193	2,470	928	1,230	581	15,500
23	10	20	46	64	73	265	198	4,260	844	1,020	478	10,400
24	9.1	43	62	50	73	238	211	5,200	654	881	662	4,220
25	7.8	35	64	43	82	2,270	247	4,660	783	1,030	654	a2,500
26	7.8	38	66	52	77	1,210	382	4,010	1,090	2,580	454	a2,000
27	9.1	75	62	53	70	871	686	3,500	1,150	1,510	381	a1,700
28	7.4	70	52	55	68	718	1,850	3,640	826	1,110	256	a3,000
29	6.6	57	55	59	-	574	3,990	5,320	889	1,010	295	a7,000
30	5.8	62	55	59	-	518	2,370	4,090	630	826	342	a4,300
31	4.9	-	66	85	-	567	-	3,110	-	808	265	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	444.5	31	4.9	14.3	882
November	548.8	75	4.1	18.3	1,090
December	1,918	93	45	61.9	3,800
Calendar year 1940	18,717.8	1,720	.1	51.1	37,120
January	1,770	85	32	57.1	3,510
February	2,419	156	64	86.4	4,800
March	8,091	2,270	14	261	16,050
April	16,324	3,990	193	544	32,380
May	146,350	30,800	1,560	4,721	290,300
June	49,602	4,510	630	1,653	98,380
July	28,277	2,590	285	912	56,090
August	20,519	2,840	256	662	40,700
September	54,715	15,500	64	1,824	108,500
Water year 1940-41	330,978.3	30,800	4.1	907	656,500

Peak discharge.- May 2 (3 a.m.) 44,900 sec.-ft.; May 29 (9 p.m.) 14,200 sec.-ft.; June 1 (5 p.m.) 8,730 sec.-ft.; Aug. 12 (7 p.m.) 9,050 sec.-ft.; Sept. 21 (10 a.m.) 13,000 sec.-ft.; Sept. 22 (8 a.m.) 26,900 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station on Mora River near Shoemaker.

b Stage-discharge relation affected by ice.

Conchas Reservoir near Conchas Dam, N. Mex.

Location.- Water-stage recorder, lat. 35°24'10", long. 104°11'25", at Conchas Dam on Canadian River in Montoya Grant, San Miguel County, 2½ miles northwest of town of Conchas Dam, about 24 miles north of Newkirk. Datum of gage is at mean sea level, datum of 1929.

Drainage area.- 7,350 square miles.

Records available.- December 1938 to September 1941.

Extremes.- Maximum and minimum contents for the water years 1939 to 1941 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents (acre-feet)	Elevation (feet)	Date	Contents (acre-feet)	Elevation (feet)
1938-39	Sept.28	80,250	4,147.90	Dec. 29	677	4,062.10
1939-40	Aug. 31	100,300	4,154.25	Dec. 20, 22	77,830	4,147.05
1940-41	Sept.24	453,800	4,206.14	Nov. 18, 19, 22	96,390	4,153.10

1939-41: Maximum contents, 453,800 acre-feet September 24, 1941 (elevation, 4,206.14 feet); minimum contents, 677 acre-feet December 29, 1938 (elevation 4,062.10 feet).

Remarks.- Reservoir is formed by dam consisting of concrete main section and earth-fill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 398,700 acre-feet between elevations 4,061.0 feet (invert of sluicing conduits) and 4,201.0 feet (crest of 300-foot ungated service spillway); dead storage negligible. Reservoir not drawn below elevation 4,157.35 feet (sill of irrigation outlet), capacity, 111,300 acre-feet, except for minor sluicing and operation of small power plant. Capacity of 201,800 acre-feet between elevations 4,201.0 feet (crest of 300-foot ungated service spillway) and 4,218.0 feet (crest of 3,000-foot ungated emergency spillway) acts as detention storage in the control of floods. Figures given herein represent total contents. Reservoir is used for irrigation, flood control, and recreation. Contents computed from daily readings at 8 a.m., mountain standard time.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Prepared by Corps of Engineers, U. S. Army)

4,061	582	4,170	167,300	4,210	498,400
4,100	10,630	4,180	226,400	4,218	601,100
4,130	39,800	4,190	299,900		
4,157.35	111,300	4,200	389,300		

Contents, in acre-feet, 1938-41

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	1,040	5,840	10,340	15,480	25,240	32,530	38,610	50,320	78,050
2			-	1,180	5,960	10,750	15,620	25,410	32,560	38,770	52,940	77,970
3			-	1,290	6,040	10,700	15,760	27,080	32,540	38,840	57,900	77,910
4			-	1,410	6,450	10,630	15,900	28,800	32,540	38,850	61,140	77,800
5			-	1,530	6,210	10,980	16,110	29,300	32,530	38,820	63,640	77,740
6			-	1,710	6,370	11,080	16,250	29,690	32,530	38,760	64,920	77,680
7			-	1,810	6,490	11,180	16,500	29,810	32,520	38,720	65,570	77,460
8			-	1,960	6,630	11,310	16,830	29,940	32,490	38,720	66,570	77,380
9			-	2,400	6,770	11,440	17,320	30,070	32,430	38,650	68,580	77,290
10			-	2,750	6,840	11,570	18,010	30,190	32,390	38,580	70,110	77,240
11			-	3,020	6,920	11,750	18,700	30,320	32,360	38,510	70,860	77,150
12			-	3,030	6,990	11,860	19,240	30,380	32,260	38,430	70,640	77,040
13			-	3,480	7,040	12,000	19,840	30,460	32,160	38,400	70,860	76,980
14			-	3,660	7,170	12,190	20,420	30,320	32,110	38,460	71,040	76,960
15			-	3,840	7,260	12,300	20,900	30,450	32,040	41,250	71,150	76,790
16			-	3,980	7,320	12,460	21,360	30,470	31,970	44,220	71,650	77,540
17			-	4,100	7,460	12,630	21,720	30,510	31,930	44,640	71,840	76,740
18			-	4,200	7,590	12,740	22,110	30,550	31,880	44,980	71,890	79,390
19			-	4,300	7,860	12,950	22,650	30,570	31,820	45,110	71,920	79,790
20			-	4,380	8,020	13,090	23,010	30,590	31,710	45,350	71,890	80,110
21			-	4,490	8,250	13,300	23,360	30,600	35,280	45,600	71,920	79,820
22			-	4,640	8,470	13,920	23,670	30,640	36,200	45,840	75,980	80,020
23			-	4,730	8,760	13,660	23,880	30,660	36,450	46,090	77,380	80,110
24			-	4,900	8,920	13,860	24,100	30,680	36,870	46,350	77,680	80,160
25			-	5,000	9,070	14,120	24,310	30,560	37,370	46,540	77,940	80,190
26			-	5,160	9,160	14,300	24,420	30,560	37,620	47,310	78,050	80,190
27			-	5,240	9,760	14,460	24,640	30,550	37,820	47,460	78,140	80,190
28			-	5,380	10,060	14,660	24,800	30,540	38,010	47,500	78,140	80,250
29			677	5,490	-	14,840	24,970	31,830	38,220	47,700	78,080	80,160
30			786	5,620	-	15,030	25,130	32,360	38,430	48,290	78,080	80,160
31			929	5,750	-	15,240	-	32,450	-	49,260	78,080	-

Contents, in acre-feet, of Conchas Reservoir near Conchas Dam, N. Mex., 1938-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80,160	79,190	77,940	77,970	79,000	80,650	81,660	80,620	84,090	83,850	82,930	100,200
2	80,140	79,140	77,910	78,000	79,110	80,560	81,630	80,560	84,390	83,700	82,840	100,200
3	80,110	79,080	77,910	78,030	79,170	80,590	81,510	80,510	84,540	83,700	82,750	100,100
4	80,080	79,020	77,940	78,050	79,310	80,890	81,450	80,450	84,630	83,700	82,660	100,000
5	79,960	78,970	77,880	78,110	79,450	80,980	81,360	80,360	84,690	83,790	82,570	99,960
6	79,910	78,970	77,910	78,200	79,590	81,100	81,570	80,310	84,690	84,000	83,460	99,920
7	79,850	78,970	77,910	78,260	79,620	81,100	81,570	80,250	84,690	84,000	84,150	99,860
8	79,880	78,940	77,910	78,280	79,680	81,120	81,570	80,160	84,630	83,940	86,070	99,750
9	79,880	78,970	77,910	78,340	79,790	81,210	81,540	80,140	84,540	83,850	88,720	99,690
10	79,850	78,820	77,910	78,400	79,910	81,270	81,510	80,110	84,420	83,820	92,520	99,580
11	79,880	78,370	77,940	78,400	79,960	81,360	81,510	80,050	84,330	83,700	93,330	99,520
12	79,910	78,340	77,880	78,480	79,990	81,390	81,480	80,020	84,240	83,880	93,850	99,410
13	79,910	78,310	77,910	78,570	80,050	81,420	81,420	79,910	84,180	83,970	93,980	99,480
14	79,910	78,280	77,880	78,540	80,140	81,450	81,390	79,710	84,090	83,970	94,210	99,550
15	79,940	78,250	77,880	78,570	80,190	81,510	81,360	79,650	84,000	83,970	94,250	99,650
16	79,740	78,250	77,880	78,620	80,220	81,600	81,360	79,620	83,940	84,030	94,280	99,760
17	79,820	78,230	77,880	78,620	80,220	81,690	81,270	79,560	83,880	84,030	94,280	99,650
18	79,820	78,230	77,880	78,650	80,250	81,690	81,240	79,510	83,790	83,970	93,850	99,550
19	79,760	78,200	77,860	78,620	80,310	81,720	81,210	79,510	83,700	83,910	93,880	99,520
20	79,760	78,170	77,830	78,620	80,330	81,770	81,210	79,390	83,640	83,850	93,980	99,480
21	79,760	78,170	77,860	78,620	80,330	81,800	81,180	79,310	83,550	83,790	95,160	99,410
22	79,740	78,140	77,830	78,650	80,390	81,860	81,150	79,390	83,460	83,730	95,890	99,340
23	79,740	78,080	77,910	78,680	80,450	81,860	81,100	79,620	83,550	83,640	96,590	99,310
24	79,680	78,080	77,910	78,710	80,450	81,830	81,070	79,850	84,000	83,550	97,590	99,750
25	79,590	78,050	77,970	78,680	80,450	81,890	81,040	79,910	84,150	83,430	99,180	99,860
26	79,540	77,970	78,030	78,680	80,480	81,920	80,950	80,080	84,150	83,340	99,690	99,990
27	79,480	77,940	78,030	78,740	80,510	81,890	80,920	80,250	84,090	83,190	99,920	100,100
28	79,480	77,910	78,030	78,770	80,510	81,890	80,920	80,330	84,090	83,100	100,100	100,100
29	79,340	77,880	78,030	78,800	80,590	81,770	80,770	82,040	83,970	83,010	100,200	100,100
30	79,280	77,910	78,030	78,850	-	81,740	80,710	83,190	83,910	82,930	100,200	100,100
31	79,250	-	77,940	78,940	-	81,720	-	83,880	-	82,980	100,300	-

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100,000	97,760	97,790	100,500	102,700	106,000	122,900	155,500	420,500	401,600	397,300	405,200
2	99,960	97,690	97,890	100,600	102,900	106,100	123,700	204,100	422,100	402,600	392,600	404,600
3	99,890	97,620	97,960	100,600	103,100	106,200	124,400	256,100	423,400	402,900	387,200	399,300
4	99,860	97,560	98,060	100,700	103,300	106,100	125,400	275,700	428,000	403,000	387,900	393,100
5	99,750	97,390	98,130	100,800	103,500	106,100	126,100	287,500	430,400	403,300	388,700	392,300
6	99,520	97,320	98,190	100,800	103,600	106,200	126,700	296,800	431,100	403,300	389,100	392,300
7	99,310	97,250	98,300	100,900	103,700	106,200	126,900	303,200	426,500	403,300	390,400	392,000
8	99,240	97,190	98,400	100,900	103,800	106,200	127,300	308,600	410,800	403,000	391,000	391,600
9	99,180	97,120	98,460	100,900	104,000	106,200	127,800	313,900	396,600	399,900	391,800	391,300
10	99,070	97,020	98,530	101,000	104,100	106,200	128,300	318,800	390,800	393,700	389,300	391,200
11	98,900	96,920	98,670	101,100	104,200	106,200	128,600	323,900	392,000	394,300	391,000	390,900
12	98,870	96,850	98,730	101,200	104,400	106,100	128,900	336,800	393,400	394,800	391,800	390,700
13	98,800	96,720	98,840	101,200	104,400	106,100	129,600	343,900	396,000	397,400	403,300	390,600
14	98,730	96,620	98,940	101,400	104,500	106,000	129,600	349,200	398,400	401,300	406,900	390,400
15	98,600	96,550	99,140	101,600	104,500	106,000	129,900	354,800	400,700	406,200	407,800	390,200
16	98,560	96,490	99,180	101,600	104,700	106,000	130,400	360,100	402,400	408,000	407,400	389,600
17	98,530	96,460	99,240	101,700	104,800	106,000	130,800	365,200	403,900	399,500	406,700	389,600
18	98,500	96,390	99,340	101,800	104,900	106,000	131,200	369,600	396,700	389,600	406,100	389,500
19	98,460	96,390	99,410	101,800	105,000	106,000	131,500	373,100	389,500	391,400	405,700	391,100
20	98,430	96,450	99,520	101,900	105,100	106,000	131,800	375,800	392,000	392,600	405,200	391,300
21	98,400	96,450	99,580	102,000	105,100	105,900	132,300	378,400	394,000	394,900	405,900	391,600
22	98,330	96,390	99,660	102,000	105,200	106,400	132,700	383,400	396,500	400,900	405,700	418,500
23	98,300	96,420	99,720	102,000	105,300	106,800	133,000	391,300	398,700	402,900	405,700	448,400
24	98,230	96,890	99,820	102,000	105,500	107,300	133,600	400,300	400,000	404,000	405,400	453,800
25	98,190	97,150	99,890	102,100	105,700	110,000	134,000	410,700	394,300	405,500	405,300	446,700
26	98,190	97,290	99,920	102,100	105,800	115,200	134,500	416,200	389,900	406,500	405,300	432,000
27	98,090	97,320	100,000	102,200	105,900	117,300	136,200	418,700	396,300	411,000	405,000	419,900
28	97,990	97,450	100,100	102,200	106,000	118,800	138,300	419,100	398,800	411,300	406,400	402,100
29	97,960	97,560	100,200	102,300	-	120,900	143,500	420,600	399,800	406,700	406,400	411,500
30	97,890	97,690	100,300	102,400	-	121,100	151,100	425,200	400,900	403,800	406,600	418,400
31	97,820	-	100,400	102,600	-	122,000	-	419,600	-	401,800	406,000	-

Monthly elevation and contents, of Conchas Reservoir near Conchas Dam, N. Mex., 1938-41

Month	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Dec. 29, 1938	4,062.10	677	-
Dec. 31	4,064.65	929	252
Jan. 31, 1939	4,087.80	5,750	+4,821
Feb. 28	4,098.80	10,060	+4,310
Mar. 31	4,108.05	15,240	+5,180
Apr. 30	4,119.40	25,130	+9,890
May 31	4,125.24	32,450	+7,320
June 30	4,129.19	38,430	+5,980
July 31	4,135.17	49,260	+10,830
Aug. 31	4,147.14	78,080	+28,820
Sept.30	4,147.87	80,160	+2,080
The period	-	-	+79,480
Oct. 31, 1939	4,147.55	79,250	-910
Nov. 30	4,147.08	77,910	-1,340
Dec. 31	4,147.09	77,940	+30
Calendar year 1939	-	-	+77,011
Jan. 31, 1940	4,147.44	78,940	+1,000
Feb. 29	4,148.02	80,590	+1,650
Mar. 31	4,148.40	81,720	+1,130
Apr. 30	4,148.06	80,710	-1,010
May 31	4,149.13	83,880	+3,170
June 30	4,149.14	83,910	+30
July 31	4,148.83	82,980	-930
Aug. 31	4,154.25	100,300	+17,320
Sept.30	4,154.19	100,100	-200
Water year 1939-40	-	-	+19,940
Oct. 31, 1940	4,153.53	97,820	-2,280
Nov. 30	4,153.49	97,690	-130
Dec. 31	4,154.30	100,400	+2,710
Calendar year 1940	-	-	+22,460
Jan. 31, 1941	4,154.92	102,600	+2,200
Feb. 28	4,155.88	106,000	+3,400
Mar. 31	4,160.12	122,000	+16,000
Apr. 30	4,166.76	151,100	+29,100
May 31	4,202.98	419,600	+268,500
June 30	4,201.16	400,900	-18,700
July 31	4,201.25	401,800	+900
Aug. 31	4,201.66	406,000	+4,200
Sept.30	4,202.86	418,400	+12,400
Water year 1940-41	-	-	+318,300

† Elevation at 8 a.m.

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Canadian River at Logan, N. Mex.

Location.- Water-stage recorder, lat. 35°21', long. 103°26', in sec. 15, T. 13 N., R. 33 E., half a mile south of Logan, three-quarters of a mile upstream from Chicago, Rock Island & Pacific R. R. bridge, 5 miles downstream from Ute Creek, and 5 miles upstream from Tucumcari Creek.

Drainage area.- 11,200 square miles.

Records available.- June 1904 to February 1905, December 1908 to May 1914 and October 1930 to September 1941 in reports of Geological Survey. June 1904 to February 1905, December 1908 to May 1914 and October 1922 to December 1931 in reports of State engineer.

Average discharge.- 14 years (1912-13, 1924-32, 1933-38), 408 second-feet (prior to completion of Conchas Dam). Figure published in Water-Supply Paper 897 in error.

Extremes.- Maximum discharge during year, 219,000 second-feet Sept. 22 (gage height, 29.3 feet, from floodmarks), from rating curve extended above 75,000 second-feet by logarithmic plotting; no flow at times.

1930-41: Maximum discharge, that of Sept. 22, 1941; no flow at times.

Maximum stage known, approximately 36.55 feet Sept. 30, 1904, at site three-quarters of a mile downstream (datum of that gage was 3,651.0 feet above mean sea level).

Remarks.- Records poor. Flow regulated by Conchas Dam (reservoir capacity, 600,000 acre-feet) 45 miles upstream. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	8	0	1	0	23	2,120	4,290	572	3,670	976
2		0	14	b1	0	0	14	39,900	4,440	492	3,530	811
3		0	24	b1	b1	0	9	5,780	5,550	792	3,530	3,330
4		0	26	b1	b1	0	6	1,520	10,600	962	957	3,780
5		0	20	b1	b2	0	6	733	19,500	759	120	1,150
6		0	16	b1	b2	0	3	420	11,600	746	51	156
7		0	13	b1	b1	0	1	312	6,970	709	31	90
8		0	12	b1	b1	0	1	190	17,200	772	21	68
9		0	10	b1	*b1	0	0	144	11,100	2,480	32	66
10		0	8	*b1	1	0	0	105	6,400	7,930	712	64
11		0	6	b1	0	0	0	280	1,690	420	667	62
12		0	5	b1	0	0	0	165	580	8,280	96	61
13		0	b4	b2	0	0	38	170	1,050	15,300	919	62
14		0	a3	b3	0	0	22	170	326	654	720	76
15		0	b2	b3	0	0	54	96	312	1,270	759	82
16		0	*b2	b3	0	0	28	55	420	1,640	746	68
17		0	2	b2	0	0	a15	41	1,030	7,510	698	a2,000
18		0	4	b3	0	0	a12	36	7,610	6,310	580	a800
19		0	3	b3	0	0	a10	32	6,030	114	1,980	a400
20		0	b3	b3	0	0	a8	115	256	14	1,290	a700
21		0	b2	b3	0	0	a5	48	62	89	610	a2,000
22		0	b2	b3	0	7	a2	2,130	766	76	680	a70,000
23		0	b3	*b2	1	19	0	24,100	892	1,060	2,470	a30,000
24		3	5	b1	1	82	173	1,040	1,820	402	1,540	a20,000
25		4	3	1	1	385	117	2,520	13,500	117	610	a15,000
26		4	2	1	0	394	82	687	4,990	140	530	a10,000
27		4	1	0	0	156	3,370	1,080	590	1,370	570	a9,000
28		4	1	0	0	90	1,650	1,270	483	1,170	1,140	a20,000
29		*4	1	1	-	72	733	1,420	438	2,890	931	a30,000
30		4	1	2	-	55	560	14,600	501	2,910	1,160	a20,000
31		-	0	1	-	38	-	11,900	-	1,940	1,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	27	4	0	.90	54
December	206	26	0	6.65	409
Calendar year 1940	8,722	1,250	0	23.8	17,300
January	48	3	0	1.55	95
February	14	2	0	.50	28
March	1,298	394	0	41.9	2,570
April	6,942	3,370	0	231	13,770
May	113,179	39,900	32	3,651	224,500
June	140,996	19,500	62	4,700	279,700
July	69,890	15,300	14	2,255	138,600
August	32,370	3,670	21	1,044	64,200
September	240,802	70,000	61	8,027	477,600
Water year 1940-41	605,772	70,000	0	1,660	1,202,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station near Amarillo.

b Stage-discharge relation affected by ice.

Canadian River near Amarillo, Tex.

Location.- Water-stage recorder, lat. 35°28'10", long. 101°52'45", at bridge on U. S. Highways 87 and 287, 2,000 feet downstream from Pitcher Creek, 2.0 miles downstream from Panhandle & Santa Fe Ry. bridge, and 19 miles north of Amarillo, Potter County. Datum of gage is 2,989.12 feet above mean sea level, datum of 1929.

Drainage area.- 19,830 square miles.

Records available.- January 1924 to December 1925, April 1938 to September 1941.

Extremes.- Maximum discharge during year, 135,000 second-feet, July 25 (gage height, 15.7 feet), from rating curve extended above 100,000 second-feet; minimum, 0.4 second-foot Oct. 7-9.
1924-25, 1938-41: Maximum discharge, that of July 25, 1941; no flow at times. Maximum stage known, about 24.0 feet sometime in May 1914, but a higher stage probably occurred during flood of October 1904.

Remarks.- Records poor. Daily discharge published only to show distribution of flow during year. Flow partly regulated by Conchas Reservoir in New Mexico (capacity at crest of spillway, 400,000 acre-feet, storage began December 29, 1938).

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.3	65	16	16	12	71	279	9,810	1,670	3,180	673
2	.9	1.5	63	14	16	11	59	22,000	3,530	4,100	3,800	688
3	.9	1.3	69	14	15	9.2	51	37,500	3,560	6,960	3,280	584
4	.8	1.1	68	12	15	7.8	49	5,940	4,990	6,780	3,370	741
5	.7	1.1	66	14	14	8.2	41	3,400	14,800	2,460	3,030	2,220
6	.5	1.1	63	15	14	7.8	37	1,610	23,600	1,770	1,140	2,260
7	.4	2.0	59	14	14	7.2	31	1,020	10,100	1,070	494	1,450
8	.4	2.2	56	15	12	7.8	28	640	6,450	688	729	688
9	.4	2.0	51	16	12	7.8	24	470	12,600	404	1,400	317
10	.5	1.6	49	16	10	7.2	22	384	6,360	311	2,030	220
11	.5	1.5	45	16	9.2	11	20	2,620	4,210	7,280	521	177
12	.7	1.5	41	16	9.2	5.2	18	536	2,380	1,730	970	146
13	.9	2.7	38	19	9.2	4.8	18	479	752	10,100	563	128
14	.8	3.5	31	20	10	4.5	15	390	688	14,200	371	110
15	.7	3.2	21	20	9.8	4.8	14	300	2,070	6,530	610	313
16	1.1	3.6	19	20	10	5.2	12	252	1,280	2,480	676	149
17	1.1	3.0	20	19	10	5.5	10	206	510	2,320	688	644
18	.8	3.8	24	15	10	5.2	9.5	186	494	4,940	652	1,400
19	.8	3.8	28	15	9.5	5.8	9.2	157	1,600	5,510	700	745
20	.9	6.5	29	16	9.8	5.0	7.0	5,490	4,760	1,600	12,500	404
21	1.1	7.0	30	18	10	6.8	6.0	2,060	2,820	595	4,790	588
22	1.2	5.2	26	17	9.5	10	4.5	11,500	2,190	816	3,280	2,670
23	.9	7.5	24	17	10	11	3.5	25,400	926	1,610	14,700	79,600
24	.8	1,950	24	17	11	13	3.5	28,600	3,200	1,050	9,930	33,000
25	.8	3,220	23	16	10	14	3.5	12,500	13,100	40,400	2,920	19,600
26	.8	127	21	16	11	44	3.8	11,600	10,600	9,330	1,840	13,600
27	.7	84	18	15	12	200	4.0	3,090	5,530	4,590	948	12,900
28	.5	89	16	14	12	184	1,640	2,380	2,190	1,830	595	8,860
29	.7	93	17	15	-	122	2,620	3,340	1,830	1,280	521	21,800
30	.9	82	20	16	-	91	1,410	12,900	1,720	2,580	1,190	33,800
31	1.1	-	21	16	-	76	-	13,700	-	3,700	676	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24.2	1.2	0.4	0.78	48
November	5,712.9	3,220	1.1	190	11,330
December	1,145	69	16	36.9	2,270
Calendar year 1940	48,835.2	6,500	0	133	96,880
January	499	20	12	16.1	990
February	320.2	16	9.2	11.4	635
March	914.8	200	4.5	29.5	1,810
April	6,243.5	2,620	3.5	208	12,380
May	210,929	37,500	157	6,804	418,400
June	158,630	23,600	494	5,288	314,600
July	151,284	40,400	311	4,880	300,100
August	82,094	14,700	371	2,648	162,800
September	240,475	79,600	110	8,016	477,000
Water year 1940-41	858,271.6	79,600	.4	2,351	1,702,000

Peak discharge.- May 2 (1 p.m.) 60,900 sec.-ft.; May 3 (2 a.m.) 70,500 sec.-ft.; May 23 (6:30 a.m.) 59,300 sec.-ft.; May 24 (2:30 a.m.) 56,200 sec.-ft.; July 25 (7 a.m.) 135,000 sec.-ft.; Sept. 23 (10 a.m.) 111,000 sec.-ft.

Note.- Discharge Nov. 26 to Mar. 24, Mar. 29 to Apr. 3, May 5-19, July 26 to Aug. 1, Aug. 6-19, 27-29, Sept. 24-30 computed from graph based on wire-weight gage readings. Gage read twice daily or oftener.

Canadian River near Canadian, Tex.

Location.- Wire-weight gage, lat. 35°55', long. 100°22', at bridge on U. S. Highway 60, 220 feet downstream from Panhandle & Santa Fe Ry. bridge, 1.2 miles downstream from Red Deer Creek, and 1.6 miles northeast of Canadian, Hemphill County. Prior to July 25, water-stage recorder at same site and datum (destroyed by flood of July 25). Datum of gage is 2,301.50 feet above mean sea level, datum of 1929.

Drainage area.- 23,280 square miles.

Records available.- July 1924 to August 1925 (gage heights only), April 1938 to September 1941.

Extremes.- Maximum discharge during year, about 122,000 second-feet Sept. 23 (gage height, 9.8 feet, from graph based on gage readings), from rating curves for two channels extended above 8,000 and 38,000 second-feet; no flow at times.
1924-25, 1938-41: Maximum discharge, that of Sept. 23, 1941; no flow at times. Maximum stage known, about 20 feet, Oct. 2, 1904.

Remarks.- Records poor. Daily discharge published only to show distribution of flow during year. Gage read twice daily, oftener during floods. Gage-height record Oct. 1 to June 27 obtained from water-stage recorder and two or more daily readings of wire-weight gages. Shifting sands frequently clog recorder intakes at low and medium stages. Flow partly regulated by Conchas Reservoir in New Mexico (capacity at spillway crest, 400,000 acre-feet, storage began Dec. 29, 1938). No large diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	2.6	115	10	624	159	507	2,330	17,000	870	4,420	339
2	.8	1.0	231	6.4	841	80	317	2,250	13,200	609	6,480	420
3	.8	1.0	251	5.6	507	32	136	52,400	4,950	206	5,010	575
4	.8	1.0	231	0	434	9.2	64	25,500	3,030	4,740	3,660	660
5	.8	1.0	195	0	339	24	28	8,460	5,250	17,000	2,610	406
6	.8	2.6	*108	0	251	101	12	3,500	19,400	17,300	2,750	1,170
7	.8	1.0	150	21	204	68	2.4	1,620	37,200	3,990	1,620	3,900
8	a.8	1.8	177	129	159	56	0	1,140	18,000	977	924	1,660
9	a.8	1.8	168	136	143	36	0	1,110	27,000	378	1,360	626
10	a.8	1.0	122	101	168	14	0	723	15,600	136	1,500	434
11	.8	1.0	129	*101	136	3.2	0	870	10,800	195	2,420	240
12	.8	1.0		108	115	6.4	0	3,070	4,490	2,660	807	129
13	.8	1.8		414	76	6.4	0	1,700	2,480	3,920	490	72
14	.8	1.0		352	48	6.4	0	702	1,150	8,380	924	40
15	.8	2.6	b15	350	48	3.2	377	420	1,890	13,300	558	28
16	.8	2.6	(*)	394	40	0	200	406	3,380	7,080	406	48
17	.8	2.4		130	32	0	32	306	3,540	3,220	541	28
18	.8	3.6	64	99	30	1.6	14	240	1,000	1,430	609	336
19	1.0	4.4	115	73	56	0	101	204	524	1,430	849	6,280
20	1.8	9.2	177	64	68	0	7.2	306	262	10,400	660	1,280
21	1.0	9.6	231	68	80	3.2	0	5,440	5,220	4,040	14,700	807
22	1.8	7.0	136	72	87	14	0	5,030	2,620	1,140	7,200	378
23	1.0	11	94	52	108	36	9.2	17,000	870	643	8,500	39,600
24	1.0	26	87	52	251	68	8.0	26,500	1,580	378	22,300	60,600
25	1.0	803	80	77	378	101	0	16,100	18,200	33,000	9,100	26,400
26	1.0	6,160	72	84	350	709	3.2	11,300	28,100	31,300	3,340	15,200
27	3.4	971	52	52	240	1,200	19	12,200	12,500	8,210	2,470	7,460
28	3.4	262	34	48	177	1,090	180	12,400	5,230	2,940	1,620	8,460
29	1.0	168	28	52	-	1,060	469	9,310	3,030	2,920	765	22,800
30	2.6	150	20	73	-	1,180	7,920	9,160	1,740	3,900	406	21,600
31	3.4	-	16	139	-	765	-	21,400	-	2,980	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	37.8	3.4	0.8	1.22	75
November	8,612.0	6,160	1.0	287	17,080
December	3,173	251	-	102	6,290
Calendar year 1940	42,357.1	6,160	.2	116	84,000
January	3,263.0	414	0	105	6,470
February	5,990	841	30	214	11,880
March	6,832.6	1,200	0	220	13,550
April	10,406.0	7,920	0	347	20,640
May	253,097	52,400	204	8,164	502,000
June	269,266	37,200	262	8,976	534,100
July	189,672	33,000	136	6,118	376,200
August	109,250	22,300	251	3,524	216,700
September	221,976	60,600	28	7,399	440,300
Water year 1940-41	1,081,575.4	60,600	0	2.963	2,145,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.

Canadian River near Newcastle, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 35°18', long. 97°36', in NW¼NW¼ sec. 35, T. 10 N., R. 4 W., at bridge on U. S. Highway 62, 4 miles north of Newcastle and 9 miles downstream from Worley Creek. Datum of gage is 1,146.75 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 26,600 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 200,000 second-feet May 4 (gage height, 9.2 feet), from rating curve extended above 80,000 second-feet; no flow at times.
1938-41: Maximum discharge, that of May 4, 1941; no flow at times.
Maximum flood known occurred on Oct. 3, 1904, from information by Corps of Engineers, U. S. Army, and reached a stage of 18.5 feet, from information by State Highway Department.

Remarks.- Records poor. Gage-height record from water-stage recorder was fragmentary owing to shifts in the low-water channel; record for periods of no recorder graph based on readings of wire-weight gage made once daily to Jan. 9 and twice daily thereafter.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	912	137	134	180	395	412	5,430	5,220	1,340	1,040
2		0	477	113	222	232	645	425	19,700	3,160	1,380	508
3		0	370	96	222	252	433	6,760	12,700	1,460	3,620	475
4		0	201	92	544	280	830	38,800	10,900	1,800	2,400	976
5		0	144	74	1,210	259	370	83,200	6,250	740	1,440	932
6		0	116	80	1,110	216	185	14,200	10,900	610	1,630	431
7		0	108	82	444	201	116	9,470	6,640	4,060	2,050	578
8		0	98	73	309	172	82	6,790	16,000	9,820	400	746
9		0	92	68	216	156	54	3,400	26,400	4,950	3,400	1,680
10		0	82	76	176	134	41	2,780	33,400	2,180	2,590	2,270
11		0	76	71	152	125	16	5,500	26,100	2,100	1,100	1,940
12		0	76	*65	108	101	7	8,680	23,700	1,040	1,140	969
13		0	69	89	85	80	10	3,400	10,600	571	964	486
14		0	68	128	74	73	179	2,220	5,500	400	2,410	325
15		0	60	384	61	69	621	1,990	4,950	346	1,600	219
16		0	60	196	62	62	1,460	1,960	3,400	3,400	581	198
17		0	60	*b227	53	42	2,060	1,020	2,590	10,600	360	184
18		0	90	b584	46	42	6,530	581	1,800	5,780	412	2,430
19		0	113	b168	109	33	3,190	570	3,400	3,290	562	866
20		2	110	134	152	28	2,780	764	3,260	2,420	310	316
21		5	108	122	137	23	1,200	13,700	1,660	1,530	272	177
22		14	103	220	116	16	828	7,750	797	1,360	409	107
23		6	89	*176	94	15	490	7,020	552	4,950	2,200	51
24		22	96	156	156	10	360	17,500	5,670	2,260	5,360	645
25		1,060	148	137	144	S	270	29,800	2,260	847	5,260	66,200
26		1,110	302	108	156	7	180	24,000	1,180	514	10,800	22,400
27		664	286	89	134	21	160	12,000	901	53,600	11,300	19,200
28		335	227	71	160	28	155	12,500	7,890	21,900	10,400	13,200
29		201	196	61	-	34	368	9,180	11,100	10,700	3,830	9,440
30		3,160	160	56	-	25	1,120	5,250	8,180	4,320	2,380	11,500
31		-	144	69	-	14	-	3,190	-	3,400	1,960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	6,579	3,160	0	219	13,050
December	5,241	912	60	169	10,400
Calendar year 1940	33,050	3,160	0	90.3	65,560
January	4,202	584	56	136	8,330
February	6,586	1,210	46	235	13,060
March	2,941	280	7	94.9	5,830
April	25,135	6,530	7	838	49,850
May	334,812	83,200	412	10,800	664,100
June	273,810	33,400	552	9,127	543,100
July	169,328	53,600	346	5,462	335,900
August	83,860	11,300	272	2,705	166,300
September	160,489	66,200	51	5,350	318,300
Water year 1940-41	1,072,983	83,200	0	2,940	2,128,000

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Discharge computed from graph based on wire-weight gage readings Nov. 20 to Jan. 17, Jan. 19 to Feb. 3, Feb. 8 to Apr. 15, Apr. 23-29, May 1, 2, May 5 to Aug. 5, Aug. 31 to Sept. 9, Sept. 11-24, 26-29.

Canadian River at Calvin, Okla.

Location.- Wire-weight gage, lat. 34°58', long. 96°14', in NE¼SW¼ sec. 22, T. 6 N., R. 10 E., at bridge on U. S. Highway 75, half a mile northeast of Calvin and 2½ miles upstream from Shawnee Creek. Datum of gage is 684.72 feet (revised) above mean sea level, datum of 1929.

Drainage area.- 28,700 square miles.

Records available.- January 1905 to December 1908 at site three-quarters of a mile upstream (gage heights only except for period July 1905 to December 1906), October 1938 to September 1941. Gage-height records at former site from 1904 to 1934 and subsequently at present site are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 150,000 second-feet May 5 (gage height, 17.0 feet, observed at crest); from rating curve extended above 100,000 second-feet; minimum observed, 9 second-feet Oct. 9, 10, 25.

1938-41: Maximum discharge, that of May 5, 1941; no flow at times.

Flood of Aug. 7, 1906, reached a stage of 21 feet, site and datum then in use, from floodmarks.

Remarks.- Records fair through April, poor thereafter. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	62	550	3,120	694	612	120	5,160	5,490	9,850	5,340	1,740
2	16	42	1,570	1,490	1,770	550	118	3,200	28,700	6,690	3,360	1,200
3	15	34	1,420	820	2,300	550	115	1,800	22,300	4,850	1,960	840
4	14	29	694	514	1,400	520	110	4,060	13,600	2,520	1,960	620
5	12	26	541	412	820	470	275	65,600	13,000	1,900	3,040	630
6	13	23	412	396	650	600	370	35,200	31,500	1,790	2,460	1,280
7	12	20	396	925	1,080	680	1,110	16,200	40,700	1,200	1,640	1,040
8	11	16	412	1,080	1,490	850	1,920	13,300	22,600	3,050	2,250	780
9	10	39	300	428	1,080	550	810	7,130	33,500	9,260	2,890	16,300
10	10	55	239	338	760	620	500	7,130	66,400	5,980	2,430	9,920
11	12	50	514	368	620	450	370	4,460	49,900	2,050	1,930	7,400
12	12	45	640	344	514	380	290	4,880	31,200	1,830	1,740	5,600
13	11	38	541	320	487	340	235	6,050	28,100	1,650	1,360	2,530
14	20	33	532	365	396	300	400	4,270	17,200	1,100	1,230	1,280
15	30	30	1,880	650	510	295	4,700	2,890	6,060	4,200	1,040	900
16	30	28	1,870	580	300	260	8,830	2,200	5,570	1,700	1,960	780
17	25	26	766	478	257	255	8,200	2,080	4,080	2,500	1,120	780
18	20	26	396	396	235	230	9,250	1,960	3,430	7,820	780	650
19	16	26	295	444	1,860	210	14,000	1,280	2,080	7,100	512	552
20	13	606	300	413	5,800	200	9,550	2,940	2,740	4,800	403	2,080
21	12	3,030	295	1,010	2,400	195	8,310	11,700	3,460	3,210	467	1,040
22	11	1,240	295	428	1,230	185	7,300	15,400	2,140	1,840	512	467
23	11	850	295	374	670	178	3,100	12,800	1,710	1,540	480	416
24	10	478	295	338	1,430	176	2,000	14,000	1,500	3,360	7,570	488
25	9	4,100	295	344	1,930	172	1,270	16,400	2,770	2,910	8,000	355
26	10	6,700	460	374	1,630	160	980	30,600	3,130	1,740	6,850	35,200
27	10	5,350	2,990	295	1,450	150	900	26,200	2,140	11,300	13,400	25,500
28	90	3,700	1,870	975	875	145	900	13,000	1,580	38,400	11,700	13,400
29	96	1,490	1,240	257	-	145	860	15,100	4,470	17,800	10,100	11,000
30	48	760	749	230	-	130	4,430	15,000	9,550	9,200	2,330	10,400
31	71	-	741	310	-	120	-	5,800	-	5,570	1,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	698	96	9	22.5	1,380
November	28,752	6,700	16	958	57,030
December	23,793	2,990	239	768	47,190
Calendar year 1940	226,526	17,900	8	619	449,300
January	18,119	3,120	230	584	35,940
February	34,438	5,800	235	1,230	68,310
March	10,977	850	120	354	21,770
April	91,303	14,000	110	3,043	181,100
May	367,790	65,600	1,280	11,860	729,500
June	460,580	66,400	1,500	15,350	913,600
July	179,710	38,400	1,180	5,797	356,400
August	102,564	13,400	403	3,309	203,400
September	158,168	35,200	355	5,272	313,700
Water year 1940-41	1,476,902	66,400	9	4,046	2,929,000

Canadian River near Whitefield, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 35°17', long. 95°13', near center of sec. 5, T. 9 N., R. 20 E., at Midland Valley R. R. bridge, 2½ miles northeast of Whitefield, 3½ miles upstream from Snake Creek, and about 20 miles upstream from mouth. Datum of gage is 475.36 feet above mean sea level, datum of 1929.

Drainage area.- 47,370 square miles.

Records available.- July 1938 to September 1941.

Extremes.- Maximum discharge during year, 94,600 second-feet May 6 (gage height, 17.75 feet); minimum, 96 second-feet Oct. 27, 28.
1938-41: Maximum discharge, that of May 6, 1941; minimum, 65 second-feet Apr. 2, 1940.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	352	5,250	37,500	1,260	5,030	528	24,900	10,500	14,200	5,250	3,510
2	199	293	4,550	19,300	4,080	3,420	501	19,100	19,100	12,900	4,840	3,360
3	186	278	5,430	14,400	13,200	2,830	501	11,700	29,500	9,820	3,270	2,850
4	183	264	4,810	10,700	13,200	2,520	485	8,740	26,300	9,120	2,520	2,060
5	177	243	4,440	5,340	10,100	2,310	461	12,400	19,600	7,670	3,160	4,790
6	177	202	4,370	3,470	6,750	2,030	456	70,000	17,900	5,480	4,400	5,660
7	174	183	4,410	2,620	4,660	1,850	470	26,300	58,200	5,120	4,280	6,090
8	158	170	4,070	2,260	3,990	1,900	506	22,200	35,500	4,260	4,670	3,510
9	151	226	2,930	3,240	4,150	2,170	1,930	20,000	36,400	4,770	5,500	3,070
10	145	232	1,680	2,260	3,170	2,310	1,950	17,400	58,900	10,400	3,930	20,400
11	145	226	1,480	1,730	2,290	2,010	1,130	19,800	77,100	7,120	3,570	17,700
12	139	215	1,580	1,460	1,900	1,790	831	14,800	54,700	4,730	3,520	13,600
13	133	222	1,660	1,340	2,170	1,530	733	13,700	50,500	3,270	2,820	10,500
14	139	219	2,410	1,440	2,940	1,380	748	13,300	45,900	4,620	2,230	6,370
15	142	206	5,610	3,090	2,010	1,260	4,120	9,450	42,600	3,660	2,060	5,210
16	130	196	9,300	3,520	1,390	1,150	20,800	8,560	32,600	5,810	2,040	4,710
17	124	183	8,300	6,050	1,120	1,060	22,600	8,730	27,300	4,270	2,720	4,450
18	121	164	5,380	4,310	1,070	980	20,500	9,370	23,100	4,320	2,080	4,410
19	118	158	3,190	3,060	2,260	920	55,900	9,040	19,900	12,900	1,570	4,450
20	118	151	2,390	2,450	14,700	847	47,300	6,160	17,300	10,100	1,190	4,470
21	118	264	1,930	1,930	16,700	800	30,600	4,970	16,700	6,600	990	5,330
22	115	3,220	1,590	1,740	14,300	762	25,500	11,800	13,600	5,180	1,380	3,030
23	112	4,510	1,400	2,070	12,100	712	17,400	16,700	10,500	3,500	1,140	1,550
24	110	4,140	1,220	2,410	9,800	670	15,300	12,600	8,860	2,740	1,010	1,300
25	107	2,990	1,120	2,910	10,700	644	16,600	14,100	5,160	4,560	6,630	1,340
26	104	13,800	1,060	3,270	9,800	631	15,300	26,700	5,120	4,630	6,070	37,900
27	101	20,300	1,010	2,450	8,300	631	13,800	32,800	5,350	2,870	8,410	25,400
28	186	14,400	2,460	1,790	6,750	605	12,500	20,900	4,220	27,600	17,400	18,300
29	286	8,540	2,570	1,430	-	587	11,700	13,900	3,350	24,500	12,100	15,600
30	311	6,360	1,980	1,290	-	540	17,200	15,300	9,890	13,800	9,250	13,300
31	427	-	1,780	1,160	-	534	-	12,500	-	7,640	4,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,045	427	101	163	10,010
November	82,907	20,300	151	2,764	164,400
December	101,360	9,300	1,010	3,270	201,000
Calendar year 1940	774,797	22,800	66	2,117	1,537,000
January	151,990	37,500	1,160	4,903	301,500
February	184,860	16,700	1,070	6,602	366,700
March	46,413	5,030	534	1,497	92,060
April	358,350	55,900	456	11,940	710,800
May	527,920	70,000	4,970	17,030	1,047,000
June	785,550	77,100	3,350	26,180	1,558,000
July	248,160	27,600	2,740	8,005	492,200
August	134,820	17,400	990	4,349	267,400
September	254,720	37,900	1,300	8,491	505,200
Water year 1940-41	2,882,095	77,100	101	7,896	5,716,000

Note.- Discharge for the periods Dec. 2, 4-13, Jan. 5-14, 27-30, Feb. 12, 14-19, Mar. 1 to Apr. 15, May 14-18, 20, 21, and Aug. 18-20 computed from graph based on twice-daily readings of wire-weight gage.

Vermejo River near Dawson, N. Mex.

Location.- Water-stage recorder, lat. 36°42', long. 104°47', about T. 28 N., R. 20 E., in Maxwell grant, 2¼ miles north of Dawson.

Drainage area.- 250 square miles.

Records available.- October 1930 to September 1941 in reports of Geological Survey. October 1915 to May 1923 and February 1927 to December 1931 in reports of State engineer.

Average discharge.- 17 years (1916-17, 1919-20, 1921-22, 1927-41), 20.3 second-feet.

Extremes.- Maximum discharge, 4,980 second-feet May 2 (gage height, 7.96 feet), from rating curve extended above 272 second-feet by logarithmic plotting; minimum daily discharge, 0.3 second-foot Nov. 24.
1930-41: Maximum gage height, 11.88 feet Aug. 6, 1940 (discharge not determined); no flow at times.

Remarks.- Records fair except those for periods of fragmentary or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	4.7	5.9	6.4	7.0	5.9	47	388	213	86	98	26
2	7.6	4.3	5.3	7.0	6.4	7.0	43	1,450	205	77	68	30
3	5.8	4.3	4.7	f3.5	f6.0	7.0	35	489	229	74	72	25
4	4.8	4.3	5.3	f3.5	f5.0	4.7	33	440	222	65	107	21
5	5.1	3.9	5.9	a3.0	f4.0	5.9	29	388	222	67	79	19
6	4.8	3.9	8.8	f3.0	f6.0	7.6	38	356	194	72	64	19
7	4.8	3.9	7.0	f3.0	5.3	8.2	32	350	186	67	65	17
8	5.1	3.9	4.3	f3.5	f5.0	4.7	27	346	179	59	57	18
9	4.8	4.3	5.9	f4.0	f5.0	4.7	25	346	171	56	66	21
10	4.8	4.3	8.2	f4.0	5.3	f5.0	21	342	164	62	88	20
11	4.5	3.1	6.4	f7.0	4.3	f4.5	24	342	158	57	54	17
12	5.4	.8	3.1	10	5.9	f4.0	34	372	158	168	51	16
13	5.4	.7	a2.5	11	6.4	f3.5	29	416	154	214	74	15
14	4.9	.5	a2.5	5.9	4.7	5.9	24	444	154	194	54	14
15	4.7	.6	a2.5	5.9	5.9	7.0	20	400	154	223	50	14
16	4.7	.7	a3.0	f5.0	6.4	7.0	21	a350	161	113	48	13
17	4.3	1.2	a3.5	f4.5	8.2	5.3	20	a300	197	94	62	13
18	4.3	3.1	f4.0	f4.0	7.6	4.3	21	a290	274	83	94	17
19	3.9	7.0	f4.0	f5.0	7.6	4.7	22	275	a240	74	62	17
20	3.9	4.3	f3.5	5.9	7.0	5.3	20	254	a220	98	46	16
21	3.9	2.8	f3.5	7.6	7.6	14	17	236	a190	182	56	214
22	3.9	4.3	f5.0	4.7	7.0	17	18	336	a160	90	67	184
23	3.5	.7	7.0	3.9	7.0	14	24	342	a140	60	43	995
24	3.5	.3	9.9	4.3	7.0	19	34	328	f150	53	34	156
25	3.9	3.5	7.0	9.3	7.6	53	53	339	a110	84	28	77
26	4.3	10	4.3	f6.0	7.0	33	54	332	105	157	27	54
27	3.9	10	f5.0	5.3	8.2	39	179	300	99	120	27	41
28	4.3	7.6	8.8	f8.5	5.3	51	332	284	92	106	28	35
29	3.9	7.6	7.0	15	-	46	219	257	86	67	32	54
30	4.3	9.9	11	12	-	53	197	236	79	64	34	56
31	4.3	-	9.9	7.6	-	46	-	219	-	72	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	144.0	7.6	3.5	4.65	286
November	120.5	10	.3	4.02	239
December	174.7	11	2.5	5.64	347
Calendar year 1940	6,171.6	2,000	.2	16.9	12,240
January	189.3	15	3.0	6.11	375
February	175.7	8.2	4.0	6.28	348
March	497.2	53	3.5	16.0	986
April	1,692	332	17	56.4	3,360
May	11,547	1,450	219	372	22,900
June	5,066	274	79	169	10,050
July	3,058	223	53	98.6	6,070
August	1,763	107	27	56.9	3,500
September	2,234	995	13	74.5	4,430
Water year 1940-41	26,661.4	1,450	.3	73.0	52,890

Peak discharge.- May 2 (1 a.m.) 4,980 sec.-ft.; July 13 (9 p.m.) 1,050 sec.-ft.; July 15 (5 p.m.) 1,440 sec.-ft.; July 21 (6 p.m.) 1,540 sec.-ft.; Sept. 21 (5 p.m.) 1,390 sec.-ft.; Sept. 23 (5 a.m.) 4,130 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Cimarron River at Springer and Rayado River at Sauble ranch, near Cimarron.

f Fragmentary gage-height record; discharge computed on basis of available gage heights, and records for stations noted above.

Cieneguilla Creek near Eagle Nest, N. Mex.

Location.- Water-stage recorder, lat. 36°30', long. 105°14', in Maxwell grant, a quarter of a mile downstream from Schoolhouse Draw, 3,500 feet upstream from high-water line of Eagle Nest Reservoir, and 6 miles south of Eagle Nest, Colfax County.

Records available.- October 1930 to September 1941 in reports of U. S. Geological Survey (no winter records after November 1932). April 1928 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 330 second-feet July 11 (gage height, 4.55 feet) from rating curve extended above 160 second-feet; minimum daily recorded, 1.2 second-feet Oct. 8.
1930-41: Maximum discharge that of July 11, 1941; maximum gage height recorded, 4.65 feet, Aug. 23, 1935; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.2	b2.0				-	143	59	10	7.5	4.2
2	1.7	2.4					-	216	57	11	7.5	4.2
3	1.5	2.4					-	214	62	9.4	7.5	3.8
4	1.4	3.0	-				-	199	66	9.4	7.5	3.1
5	1.5	2.5	-				-	192	54	11	6.6	3.0
6	1.7	2.5	-				-	202	51	12	7.5	3.0
7	1.5	2.4	-				-	216	52	9.8	6.3	2.8
8	1.2	2.7	-				-	252	45	9.4	6.3	2.8
9	1.4	2.7	-				-	243	45	10	7.5	3.0
10	2.1	2.4	-				-	230	38	9.8	6.9	3.0
11	1.8	2.2	-				-	227	37	80	6.9	3.0
12	1.7	2.2	-				98	225	38	37	24	3.0
13	1.5	2.2	-				a80	214	32	13	11	3.0
14	1.4	1.9	-				a75	201	28	29	9.0	3.1
15	1.5	a2.0	-				a75	185	26	16	7.5	3.3
16	1.5	a2.1	-				a75	172	25	54	6.9	3.0
17	1.4	a2.3	*b2.0				a75	158	22	57	6.3	2.8
18	1.5	a2.4	-				73	146	20	64	6.9	3.1
19	1.5	2.5	-				60	135	18	23	5.8	3.3
20	1.7	2.7	-				49	122	15	29	5.5	3.3
21	1.5		-				43	120	13	24	5.2	4.2
22	1.9		-				40	168	13	27	5.2	11
23	1.9		-				45	140	15	14	4.8	11
24	2.1		-				68	120	17	12	4.5	7.8
25	2.1		-				67	113	22	10	4.2	5.5
		b2.5										
26	2.2		-				69	96	17	9.0	4.0	5.0
27	2.4		-				106	89	13	8.7	3.8	4.5
28	3.0		-				117	95	11	9.4	4.0	5.2
29	2.7		-				109	91	a10	9.0	4.2	9.4
30	2.7		-		-		117	99	9.8	7.8	5.8	8.1
31	2.4	-	-		-		-	68	-	7.5	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	56.2	3.0	1.2	1.81	111
November	72.7	3.0	1.9	2.42	144
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 12-30	1,441	117	40	75.8	2,860
May	5,094	252	68	164	10,100
June	930.8	66	9.8	31.0	1,850
July	642.2	80	7.5	20.7	1,270
August	211.1	24	3.8	6.81	419
September	135.5	11	2.8	4.52	269
Water year	-	-	-	-	-

Peak discharge.- July 11 (2 p.m.) 330 sec.-ft.; July 14 (5 p.m.) 124 sec.-ft.) July 16 (5 p.m.) 182 sec.-ft.; July 18 (4 a.m.) 136 sec.-ft.; Aug. 12 (2 p.m.)158 sec.-ft.

*Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations on Six Mile Creek near Eagle Nest and Moreno Creek at Eagle Nest.

b Stage-discharge relation affected by ice.

Cimarron River at Ute Park, N. Mex.

Location.- Water-stage recorder, lat. 36°34', long. 105°04', in Maxwell grant, half a mile downstream from Ute Creek and 1 mile east of post office at Ute Park, Colfax County.

Drainage area.- 235 square miles.

Records available.- July 1907 to December 1914 and October 1930 to September 1941 in reports of U. S. Geological Survey. July 1907 to December 1931 in reports of State engineer.

Average discharge.- 22 years (1918-25, 1926-41) since completion of Eagle Nest Dam, 28.5 second-feet.

Extremes.- Maximum discharge during year, 240 second-feet May 23 (gage height, 3.10 feet), from rating curve extended above 173 second-feet by logarithmic plotting; minimum daily, 4.6 second-feet Oct. 4, 5.
1930-41: Maximum discharge, 253 second-feet July 18, 1938 (gage height, 3.27 feet); minimum daily, 1.5 second-feet Jan. 18-20, 1936.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Eagle Nest Reservoir (capacity, 78,800 acre-feet). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	34	12	6.4	5.0	6.7	a27	77	132	47	29	24
2	4.8	27	9.2	b7.0	b5.5	6.7	a24	146	124	60	29	25
3	4.8	17	*10	b7.5	b5.5	7.4	a23	180	118	57	29	24
4	4.6	29	9.8	b8.0	b6.0	7.2	22	210	111	57	29	24
5	4.6	29	10	b9.0	b6.5	6.9	22	176	107	56	28	29
6	4.8	30	8.9	b7.5	b6.5	6.9	24	172	106	57	26	37
7	4.8	*30	9.2	b8.5	6.2	6.9	22	188	104	72	28	36
8	4.8	28	8.3	b8.0	6.9	7.2	22	188	99	73	37	43
9	4.8	15	7.4	b6.5	b7.0	6.9	20	190	95	73	38	43
10	9.8	13	7.7	b6.0	b6.5	6.9	21	192	88	73	38	44
11	9.8	b19	8.0	b6.5	*6.0	7.7	22	188	85	74	42	43
12	9.2	b19	7.7	6.2	5.7	6.9	25	199	76	74	55	39
13	9.5	b20	b6.5	6.0	6.0	8.9	33	219	74	67	38	26
14	13	b20	b7.0	b6.5	5.7	9.8	29	230	67	91	34	22
15	13	b17	b8.5	b6.0	6.0	7.7	29	219	65	85	32	27
16	13	b14	10	*b6.0	6.2	7.4	28	201	66	76	30	25
17	16	11	11	b7.0	5.7	7.7	31	184	67	75	28	25
18	16	11	b7.5	b9.0	6.0	8.0	32	174	68	72	27	25
19	14	11	b7.0	b8.0	6.0	8.6	28	170	67	49	25	25
20	15	10	b7.0	b9.0	6.0	10	24	159	68	42	23	25
21	20	11	b6.5	b7.5	6.0	11	23	157	67	39	25	22
22	20	9.8	b7.0	b7.5	6.0	11	20	228	65	35	24	21
23	26	8.9	6.9	b8.0	6.0	11	20	236	60	33	22	19
24	35	7.4	7.2	*8.9	6.2	a12	22	223	58	33	20	16
25	34	7.7	6.9	8.0	6.4	a8	32	214	56	32	20	15
26	27	9.2	b6.0	7.7	6.4	a10	36	203	51	30	18	14
27	19	b8.5	b6.5	7.4	6.2	a11	48	188	47	30	18	14
28	38	b11	6.9	7.7	6.4	a10	60	176	45	30	18	14
29	38	14	b6.5	5.5	-	a13	63	166	42	29	20	18
30	38	10	6.9	5.2	-	a19	62	155	40	31	19	16
31	34	-	6.9	b5.0	-	a22	-	141	-	32	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	510.1	38	4.6	16.5	1,010
November	501.5	34	7.4	16.7	995
December	246.9	12	6.0	7.96	490
Calendar year 1940	11,881.2	155	3.2	32.5	23,570
January	223.0	9.0	5.0	7.19	442
February	170.5	7.0	5.0	6.09	338
March	290.4	22	6.7	9.37	576
April	894	63	20	29.8	1,770
May	5,749	236	77	185	11,400
June	2,318	132	40	77.3	4,600
July	1,684	91	29	54.3	3,340
August	867	55	18	28.0	1,720
September	780	44	14	26.0	1,550
Water year 1940-41	14,234.4	236	4.6	39.0	28,230

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather record and records for Rayado River at Sauble Ranch, near Cimarron.
b Stage-discharge relation affected by ice.

Cimarron River at Springer, N. Mex.

Location.- Water-stage recorder, lat. 36°22', long. 104°37', in sec. 33, T. 25 N., R. 22 E., 300 feet downstream from highway bridge, on eighth of a mile west of Springer, 6 miles downstream from Rayado River, and 6 miles upstream from mouth.

Records available.- July 1907 to December 1909 and October 1930 to September 1941 in reports of U. S. Geological Survey. August 1907 to December 1909 and January 1921 to December 1931 in reports of State engineer.

Average discharge.- 20 years (1920-25, 1926-41) since completion of Eagle Nest Dam, 20.3 second-feet.

Extremes.- Maximum discharge during year, 1,620 second-feet May 2 (gage height, 6.37 feet), from rating curve extended above 930 second-feet by logarithmic plotting; minimum daily, 1.4 second-feet Oct. 3, 4.

1930-41: Maximum discharge, 3,690 second-feet June 3, 1937 (gage height, 9.15 feet), from rating curve extended above 1,300 second-feet by logarithmic plotting; minimum daily, 0.1 second-foot Apr. 11, 1933.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.6	a6		7.8	3.6	8.6	223	525	9.2	67	6.6
2	1.9	2.6			7.0	3.6	7.8	1,440	525	8.5	53	6.2
3	1.4	2.6	7.0		6.7	3.6	7.4	1,340	490	9.6	59	5.8
4	1.4	2.6			6.7	3.6	7.0	1,280	560	12	70	5.3
5	1.6	2.8			6.4	3.6	6.4	1,060	445	8.5	53	4.8
6	1.6	2.8		a6	6.0	3.6	5.7	942	460	6.6	19	4.6
7	1.6	2.8			6.4	3.6	5.4	965	445	6.9	11	4.3
8	1.9	3.1			5.7	3.6	5.4	942	415	7.7	12	5.3
9	1.9	3.3			5.7	3.6	5.4	942	371	8.8	11	6.6
10	2.1	3.6	a6		5.7	3.3	5.4	942	351	9.6	16	5.8
11	2.1	3.6			5.4	3.3	5.4	942	354	43	11	5.6
12	2.1	3.6			5.7	3.6	5.4	1,040	342	21	11	5.6
13	2.1	3.6		6.4	5.1	3.3	5.1	1,060	290	120	136	5.6
14	2.1			a7	5.1	3.8	5.1	1,110	261	27	89	4.6
15	2.1			8.6	5.1	3.8	4.8	1,040	214	24	75	4.3
16	2.6				5.1	3.8	4.4	898	210	16	61	4.0
17	2.4		*b4.8		4.8	3.8	4.1	790	244	14	49	3.8
18	2.4	a4			4.8	3.8	4.4	710	256	13	52	4.0
19	2.4				4.8	3.8	6.4	595	198	25	53	23
20	1.9			a8	4.8	3.8	6.4	560	148	52	58	8.1
21	1.9				4.8	6.0	5.7	490	128	40	46	9.8
22	1.9				4.4	15	5.7	922	103	61	22	104
23	1.9				4.1	14	7.4	1,210	82	69	18	290
24	2.1		a5		4.1	12	8.6	1,280	45	245	17	206
25	1.9				4.1	19	6.7	1,210	36	178	11	84
26	1.9			7.4	4.1	31	6.7	1,040	27	132	8.8	59
27	1.9	a5		5.7	4.1	48	7.4	920	19	109	8.1	46
28	2.1			6.4	3.6	20	89	830	17	102	19	43
29	2.1			8.6	-	13	28	750	12	126	11	84
30	2.1			13	-	11	39	710	12	77	8.5	84
31	2.6			9.0	-	9.4	-	595	-	98	7.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	62.4	2.6	1.4	2.01	124
November	114.6	-	2.6	3.82	227
December	171.8	-	-	5.54	341
Calendar year 1940	1,360.3	57	.8	3.72	2,700
January	224.1	13	-	7.23	444
February	148.1	7.8	3.6	5.29	294
March	270.9	48	3.3	8.74	537
April	320.2	89	4.1	10.7	635
May	28,778	1,440	223	928	57,080
June	7,585	560	12	253	15,040
July	1,677.4	245	6.6	54.1	3,330
August	1,143.1	136	7.7	36.9	2,270
September	1,133.7	290	3.8	37.8	2,250
Water year 1940-41	41,629.3	1,440	1.4	114	82,570

Peak discharge.- May 2 (10 a.m.) 1,620 sec.-ft.; July 24 (5 p.m.) 965 sec.-ft.; Sept. 23 (9 p.m.) 898 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Cimarron River at Ute Park, Rayado River at Sauble Ranch, near Cimarron, and Rayado River near Miami.

b Stage-discharge relation affected by ice.

Six Mile Creek near Eagle Nest, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°32', long. 105°16', in Maxwell grant, 88 feet downstream from highway bridge, a quarter of a mile upstream from high-water line of Eagle Nest Reservoir, and 3 miles southwest of Eagle Nest, Colfax County.

Records available.- October 1930 to September 1941 in reports of Geological Survey (no winter records after water year 1931-32). April 1928 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 124 second-feet May 14 (gage height, 2.85 feet, from floodmarks in gage well), from rating table extended above 24 second-feet by logarithmic plotting; minimum daily, 1.3 second-feet Oct. 3, Nov. 27-30, Aug. 6.
1930-41: Maximum discharge, 230 second-feet Apr. 11, 1937, from rating curve extended above 30 second-feet by logarithmic plotting; maximum gage height recorded, 3.38 feet (datum then in use) Apr. 2, 1937, during ice jam; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	2.2				-	6.5	22	15	2.9	a1.8	a2.8
2	1.4	1.9				-	6.5	30	14	2.9	1.4	a2.8
3	1.3	2.0				-	6.0	38	14	a3	1.6	a2.5
4	1.6	1.9				-	7.2	35	13	a3	1.4	a2.1
5	1.9	2.2				-	10	34	13	a3	1.4	a2.0
6	2.2	2.0				-	8.8	a34	12	a3	1.3	a1.9
7	2.0	2.2				-	9.1	a36	13	a3	1.4	a1.8
8	1.9	2.0				-	8.8	a40	12	a2	1.4	a1.8
9	1.7	2.2				-	11	a40	12	a2	1.6	a1.9
10	1.7	2.2				-	12	a39	11	a3	1.6	a2.0
11	2.0	b2.1				-	11	a39	11	5.3	1.7	a2.0
12	1.9	b2.0				-	16	a40	10	2.9	1.9	a1.9
13	1.9	b1.9				-	12	a40	a8	2.7	1.9	1.7
14	1.7	b1.7				-	11	a39	a7	3.7	2.7	1.9
15	1.6	b1.5				-	11	a36	a7	2.5	3.4	1.9
16	1.7	b1.5				-	11	a34	a7	2.5	3.4	1.9
17	1.4	a1.4	*b0.5			-	11	a30	a6	3.3	3.6	2.0
18	1.4	a1.4				-	11	a29	a6	2.9	3.6	1.9
19	1.4	*b1.4				-	9.1	a26	a6	2.5	3.4	2.0
20	1.4	a1.4				-	10	a25	a5	2.5	3.8	2.0
21	1.4	a1.4				-	6.7	25	a5	2.5	4.0	2.3
22	1.4	a1.4				-	6.2	a32	a4	2.5	3.8	3.3
23	1.6	a1.4				-	8.3	a27	a4	a2	3.6	3.1
24	1.6	a1.4				-	9.8	a24	a4	a2	3.4	3.1
25	1.6	a1.4				-	5.5	a23	a5	2.0	3.4	3.1
26	1.6	a1.4				-	6.0	a21	a4	2.0	a3.1	2.9
27	1.6	a1.3				-	7.8	a20	a3	a2.0	a2.9	2.7
28	1.6	*b1.3				-	8.8	a20	3.1	a2.1	a3.0	3.3
29	2.0	a1.3				3.4	10	a19	3.1	a1.9	a3.1	4.9
30	1.7	a1.3				4.0	11	a17	2.9	a1.7	a3.2	3.4
31	2.0	-				5.3	-	15	-	a1.6	a2.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	51.6	2.2	1.3	1.66	102
November	50.7	2.2	1.3	1.69	101
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	279.1	16	5.5	9.30	554
May	929	40	15	30.0	1,840
June	240.1	15	2.9	8.00	476
July	80.9	5.3	1.6	2.61	160
August	80.7	4.0	1.3	2.60	160
September	72.9	4.9	1.7	2.43	145
Water year	-	-	-	-	-

Peak discharge.- May 14, 124 sec.-ft.; July 14 (4 p.m.) 31 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Cienegville Creek near Eagle Nest and Moreno Creek at Eagle Nest.
b Stage-discharge relation affected by ice.

Moreno Creek at Eagle Nest, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°34', long. 105°15', in Maxwell grant, 25 feet downstream from highway bridge, 1,000 feet west of Eagle Nest, Colfax County, and half a mile upstream from high-water line of Eagle Nest Reservoir.

Records available.- October 1930 to September 1941 in reports of Geological Survey (no winter records after water year 1931-32). April 1928 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 130 second-feet May 14 (gage height, 2.59 feet), from rating curve extended above 81 second-feet; no flow Nov. 14 and probably on some days during period of no winter records.

1930-41: Maximum discharge, 164 second-feet Aug. 19, 1940 (gage height, 3.16 feet), from rating curve extended above 81 second-feet; maximum gage height recorded, 3.54 feet (datum then in use) Mar. 10, 1937, during ice jam; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.9				-	b28	70	60	7.4	12	a3.7
2	.8	.8				-	27	95	56	7.7	9.7	a3.7
3	.8	.7				-	26	102	61	7.1	9.1	a3.4
4	.8	.8				-	27	95	60	8.0	e.5	a2.8
5	.8	.7				-	31	86	52	8.8	8.2	a2.7
6	.8	.8				-	33	92	52	8.8	8.0	a2.7
7	.9	.6				-	32	102	51	8.0	7.4	a2.5
8	.8	.7				-	32	106	45	7.4	7.7	a2.5
9	.9	.7				-	32	109	45	9.1	8.5	a2.6
10	1.3	.7				-	36	112	42	9.1	8.5	a2.6
11	1.4	.3				-	34	109	40	11	19	a2.7
12	1.4	.4				-	38	120	35	13	9.1	a2.7
13	1.2	.2				-	39	120	30	17	8.0	2.7
14	.9	0				-	36	123	26	12	7.7	2.5
15	.6	-				-	37	112	25	10	6.2	2.7
16	.6	-				-	36	106	26	9.7	6.0	2.5
17	.7	-	(*)0.2			-	38	95	23	9.4	5.7	2.3
18	.6	-				-	38	92	22	8.5	7.1	2.5
19	.4	*b.5				-	37	89	21	7.7	5.7	2.6
20	.4	-				-	30	83	20	e.8	5.2	2.5
21	.6	-				-	29	82	18	8.2	5.2	3.4
22	.7	-				-	26	98	14	7.7	4.9	6.5
23	.6	-				-	29	83	13	7.1	4.9	6.0
24	.6	-				-	28	82	13	7.7	4.7	4.4
25	.6	-				-	29	78	14	10	4.4	3.9
26	.7	-				-	32	76	11	e.e	3.9	3.6
27	.e	-				-	43	75	9.7	7.4	3.9	3.2
28	1.1	*1.2				-	46	75	8.e	7.7	4.2	3.6
29	1.1	-				b20	48	71	8.0	7.1	4.2	6.8
30	1.1	-				b21	52	67	8.0	6.5	3.9	5.5
31	1.1	-				b23	-	58	-	8.2	a3.e	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26.0	1.4	0.4	0.84	52
November 1-14	8.3	.9	0	.59	16
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,029	52	26	34.3	2,040
May	2,863	123	58	92.4	5,680
June	909.5	61	8.0	30.3	1,800
July	272.9	17	6.5	8.80	541
August	215.3	19	3.8	6.95	427
September	101.7	6.8	2.3	3.39	202
Water year	-	-	-	-	-

Peak discharge.- May 14 (6:30 a.m.) 130 sec.-ft.; July 13 (5 p.m.) 75 sec.-ft.; Aug. 11 (5 p.m.) 73 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station on Cieneguilla Creek near Eagle Nest.

b Stage-discharge relation affected by ice.

Rayado River at Sauble Ranch, near Cimarron, N. Mex.

Location.- Water-stage recorder, lat. 36°22', long. 104°58', in T. 25 N., R. 19 E., in Maxwell grant at Sauble Ranch, 10 miles southwest of Cimarron and about 16 miles upstream from mouth.

Records available.- May 1911 to December 1914 (at site 3 miles upstream), and October 1930 to September 1941 in reports of U. S. Geological Survey. January 1915 to December 1931 in reports of State engineer.

Average discharge.- 20 years (1911-12, 1913-14, 1916-17, 1920-24, 1928-41), 14.6 second-feet.

Extremes.- Maximum discharge during year, 765 second-feet May 6 (gage height, 4.10 feet), from rating curve extended above 184 second-feet by logarithmic plotting; minimum daily, 1.5 second-feet Nov. 13.
1930-41: Maximum discharge, that of May 6, 1941; minimum daily, 0.5 second-foot Dec. 8, 1932, Nov. 22, 1934.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	2.7	b4.5	4.2	3.5	5.3	25	162	126		14	8.4
2	3.8	2.8	b6.0	b4.0	b3.5	5.3	22	330	111		13	8.1
3	3.6	2.7	b5.0	a3.5	b3.5	4.9	20	a370	156		14	7.8
4	3.5	2.8	4.9	a3.5	b3.5	4.7	19	a350	132		13	7.2
5	3.3	2.4	b4.5	a3.5	b3.5	5.6	22	a320	108		13	6.9
6	3.0	3.0	4.9	b3.5	b3.5	5.1	22	a380	98		12	6.6
7	2.8	2.8	4.5	b3.5	3.6	4.9	22	421	98		12	6.0
8	2.8	3.0	4.5	b4.0	b3.5	4.5	22	412	88		12	6.0
9	3.0	3.0	4.7	b4.0	b3.5	5.1	21	378	85		24	6.0
10	4.0	3.0	4.2	b4.0	b3.5	4.2	24	358	74		16	6.0
11	4.5	2.4	b4.0	b4.0	b3.5	b4.0	25	350	80	a25	14	5.8
12	3.6	b2.5	b4.0	3.8	3.5	b4.0	34	374	74		26	5.6
13	3.2	b1.5	b4.0	4.0	4.2	b4.5	48	394	58		23	5.6
14	3.0	b2.5	b4.0	4.2	3.8	b4.5	44	399	54		16	5.6
15	3.0	3.3	b4.0	b4.0	4.2	4.5	49	334	50		14	6.0
16	2.7	3.3	b4.0	b4.0	4.2	4.7	56	260	52		14	a6
17	2.5	3.8	b4.0	b3.0	4.2	5.3	61	221	50		26	a6
18	2.5	3.8	*b4.0	b3.0	4.2	6.0	54	204	45		22	a6
19	2.5	3.8	b4.5	b3.5	4.2	6.6	39	182	39		16	6.0
20	2.5	4.7	b4.5	b3.5	4.2	7.5	32	156	39	22	14	5.6
21	2.4	4.7	b5.0	b3.5	4.2	8.1	29	186	38	19	18	6.6
22	2.4	4.2	b5.0	b3.5	4.2	8.1	24	346	40	19	17	22
23	2.4	4.9	5.3	b4.0	4.5	7.8	21	306	36	16	14	91
24	2.5	8.4	4.7	*b4.0	4.9	8.7	22	294	a37	16	13	27
25	2.7	7.5	4.7	b4.0	4.7	5.3	26	256	39	16	11	19
26	2.5	b5.0	b4.5	b3.5	4.5	8.1	31	238	31	14	11	16
27	2.4	b5.0	b4.0	b3.5	3.8	9.8	54	214	29	16	9.8	14
28	2.5	5.1	4.2	b3.5	5.6	9.0	70	207		16	9.8	14
29	2.4	4.7	4.2	4.0	-	11	70	190	a25	15	9.4	23
30	3.3	4.7	4.2	b3.5	-	16	88	168		15	9.4	19
31	2.8	-	4.2	b3.5	-	20	-	132	-	15	8.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	92.3	4.5	2.4	2.98	183
November	114.0	8.4	1.5	3.80	226
December	138.7	6.0	4.0	4.47	275
Calendar year 1940	2,162.6	22	1.5	5.91	4,290
January	115.2	4.2	3.0	3.72	228
February	111.7	5.6	3.5	3.99	222
March	213.1	20	4.0	6.87	423
April	1,096	88	19	36.5	2,170
May	8,889	421	132	287	17,630
June	1,942	156	-	64.7	3,850
July	674	-	14	21.7	1,340
August	459.1	26	8.7	14.8	911
September	378.8	91	5.6	12.6	751
Water year 1940-41	14,223.9	421	1.5	39.0	28,210

Peak discharge.- May 6 (7 p.m.) 765 sec.-ft.; Aug. 9 (1 p.m.) 263 sec.-ft.; Aug. 12 (2 p.m.) 132 sec.-ft.; Sept. 23 (8 a.m.) 238 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Miami.
b Stage-discharge relation affected by ice.

Rayado River near Miami, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 36°23', long. 104°53', in W½ sec. 25, T. 25 N., R. 19 E., 50 feet downstream from diversion dam for Valdez ditch, 6 miles northwest of Miami, and about 18 miles west of Springer.

Records available.- March 1939 to September 1941.

Extremes.- Maximum discharge during year, 440 second-feet May 6 (gage height, 3.65 feet), from rating curve extended above 64 second-feet; no flow at times.
1939-41: Maximum discharge, that of May 6, 1941; no flow at times.

Remarks.- Records fair except those above 114 second-feet and those for periods of ice-effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0		0	0	102	90	1.2	0.2	
2			0	.1		0	a0	325	60	1.1	.1	
3			0	.1		0	a0	360	107	3.7	.1	
4			0	.1		0	0	325	98	5.0	.1	
5			0	.2		0	0	290	85	5.2	.1	
6			0	.2		0	0	325	91	5.4	1.6	
7			0	.2		0	0	360	91	5.4	1.2	
8			0	.2		0	.8	360	71	6.0	.6	
9			0	.2		0	2.6	325	78	6.4	.9	a1
10			0	.2		0	5.6	360	72	6.4	.7	
11			0	b.1		0	4.1	360	75	6.0	.2	
12			b0	b0		0	2.8	400	75	8.0	.4	
13			b.1	b0		0	.6	400	69	7.5	.1	
14			b.1	*b0		0	.4	400	40	6.9	.1	
15			b.1	0		0	.2	360	17	2.4	.1	
16			b0	0		0	.1	325	17	2.1	.1	
17			b.1	b.1		0	.1	260	20	2.1	.1	
18			.2	0		0	.1	260	43	1.9	.1	1.4
19			.2	b.1		0	.1	230	38	1.8	.9	1.8
20			.2	.1		0	.1	114	27	1.7	2.2	2.1
21			.3	.1		0	.1	132	11	1.4	3.6	2.5
22			.3	.2		.1	.1	325	2.6	1.4	3.8	9.4
23			.3	.1		.1	.1	325	2.1	1.2	1.1	55
24			.2	*b.1		.1	.1	325	1.9	1.1	.9	27
25			.2	0		.2	.1	290	1.9	1.1	.7	15
26			.2	0		.1	.1	260	1.7	.9	.8	12
27			.2	0		.1	.2	230	1.7	.8	1.1	10
28			.1	0		.1	.4	230	1.7	.7	1.0	10
29			.1	0		.1	8.6	180	1.4	.7	a1	19
30			.1	0		0	65	160	1.3	.6		17
31			.1	0		0	-	111	-	.5		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	3.1	.3	0	.10	6.1
Calendar year 1940	229.3	9.1	0	.63	455
January	2.4	.2	0	.08	4.8
February	0	0	0	0	0
March	.9	.2	0	.03	1.8
April	92.4	65	0	3.08	183
May	8,809	400	102	284	17,470
June	1,299.3	107	1.3	43.3	2,580
July	96.6	8.0	.5	3.12	192
August	25.9	3.8	.1	.84	51
September	199.2	55	-	6.64	395
Water year 1940-41	10,528.8	400	0	28.8	20,880

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station at Sauble Ranch.
b Stage-discharge relation affected by ice.

Colmor intake canal near Ocate, N. Mex.

Location.- Water-stage recorder, lat. 36°09', long. 104°53', in SW¼ sec. 12, T. 22 N., R. 19 E. (corrected), 130 feet downstream from head gate, 5 miles southwest of Lake Charette, and 10 miles southeast of Ocate.

Records available.- May 1933 to September 1941.

Extremes.- Maximum discharge during year, 650 second-feet May 2 (gage height, 4.99 feet), from rating curve extended above 125 second-feet on basis of hydraulic properties of canal; no flow at times.

1933-41: Maximum discharge, 695 second-feet Aug. 26, 1933, June 1, 1937 (gage-heights, 5.14 and 5.17 feet, respectively), from rating curve extended above 50 second-feet on basis of hydraulic properties of canal; no flow for long periods.

Remarks.- Records fair. Canal delivers water to Lake Charette, which serves as a reservoir for Colmor irrigation district.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	a1.2	2.1	2.8	0.4	12	121	40	8.1	35	5.6
2		0	a1.3	1.6	2.6	.1	10	490	48	8.1	34	5.4
3		0	a1.4	1.2	2.4	.1	9.1	285	45	7.8	61	4.1
4		0	1.6	.7	2.1	0	8.1	204	115	7.1	27	3.0
5		0	1.7	.4	2.1	0	6.4	137	138	7.1	20	2.4
6		0	1.8	.3	2.0	0	5.6	114	66	9.7	20	2.6
7		0	2.1	.4	1.6	0	6.1	111	56	7.4	33	2.2
8		0	2.4	.6	1.4	0	5.1	104	61	5.6	26	2.0
9		0	2.6	.8	1.3	0	3.9	111	42	6.5	26	2.1
10		0	2.7	.9	1.2	0	2.7	104	38	14	25	1.4
11		0	2.2	1.2	1.8	0	2.4	100	58	11	14	1.3
12		0	2.3	2.1	1.0	0	2.6	115	68	55	33	1.3
13		0	1.7	2.8	1.4	0	12	105	41	238	43	1.0
14		0	1.3	2.6	1.2	0	18	91	34	216	31	.8
15		0	b.9	2.2	1.1	0	14	75	34	151	20	.9
16		0	.6	1.6	.4	0	13	62	36	37	24	.8
17		0	.3	1.0	.4	0	11	54	47	39	23	1.0
18		0	b.3	.8	.5	0	8.8	48	33	28	28	1.2
19		0	.4	1.0	.7	0	7.1	45	25	32	17	1.4
20		0	.4	1.8	.8	0	5.6	43	20	29	12	12
21		0	.4	2.0	.6	0	4.2	51	18	20	11	16
22		0	.4	1.5	.4	.1	3.7	145	17	18	19	68
23		0	1.3	1.3	.6	2.0	3.9	108	18	14	12	210
24		0	3.0	1.4	.6	3.2	6.6	103	25	13	7.8	65
25		0	2.8	1.8	.6	4.2	10	111	51	41	6.1	24
26		0	2.4	1.8	.6	14	16	77	24	50	4.8	18
27		0	2.1	2.0	.6	6.6	64	58	20	34	7.1	13
28		0	2.2	1.8	.4	3.9	174	51	14	60	16	14
29		0	2.4	3.0	-	3.2	114	51	10	28	8.8	73
30		.9	2.6	3.7	-	3.9	68	72	8.4	117	8.4	50
31		-	2.4	3.0	-	11	-	47	-	140	6.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	.9	.9	0	.03	1.8
December	51.2	3.0	.3	1.65	102
Calendar year 1940	408.4	128	0	1.12	811
January	49.4	3.7	.3	1.59	98
February	33.2	2.8	.4	1.19	66
March	52.7	14	0	1.70	105
April	627.9	174	2.4	20.9	1,250
May	3,393	490	43	109	6,730
June	1,250.4	138	8.4	41.7	2,480
July	1,452.4	238	5.6	46.9	2,880
August	659.6	61	4.8	21.3	1,310
September	603.5	210	.8	20.1	1,200
Water year 1940-41	8,174.2	490	0	22.4	16,220

a No gage-height record; discharge computed on basis of weather records.
b Stage-discharge relation affected by ice.

Mora River at La Cueva, N. Mex.

Location.- Water-stage recorder, lat. 35°56', long. 105°14', in Mora grant, at highway bridge at La Cueva, Mora County, 40 feet downstream from wasteway from La Cueva canal, a quarter of a mile downstream from Las Vegas-Mora highway bridge, and half a mile downstream from La Cueva dam site.

Drainage area.- 210 square miles.

Records available.- August 1903 to July 1911, April 1931 to September 1941.

Average discharge.- 13 years (1906-7, 1908-10, 1931-41), 32.4 second-feet.

Extremes.- Maximum discharge during year, 1,530 second-feet Sept. 23 (gage height, 7.58 feet), from rating curve extended above 400 second-feet; minimum daily, 5.2 second-feet Nov. 17.

1931-41: Maximum discharge, that of Sept. 23, 1941; maximum gage height, 7.62 feet Aug. 5, 1940; no flow at times.

Remarks.- Records fair except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	18	12	27	24	17	106	327	413	196	46	37
2	27	14	15	20	18	19	94	773	380	179	48	34
3	23	13	15	15	18	17	91	633	330	162	48	26
4	33	15	17	b13	18	16	83	589	424	158	50	24
5	28	15	*16	b12	17	28	86	523	435	152	51	22
6	27	13	17	b12	17	29	89	534	424	148	53	20
7	26	13	15	b12	17	28	87	611	413	140	61	20
8	26	13	15	b13	17	21	86	633	402	130	70	16
9	26	12	16	14	20	22	86	633	369	124	76	17
10	52	9.1	18	15	21	20	91	611	325	142	74	16
11	47	8.0	16	16	17	17	95	611	310	140	68	15
12	43	8.4	19	20	17	19	100	611	283	144	97	15
13	39	10	18	13	17	20	116	655	274	150	106	14
14	39	12	15	12	20	21	114	655	270	138	90	14
15	42	8.7	9.7	13	21	24	121	589	272	150	83	12
16	42	5.8	b11	b12	22	23	122	523	263	185	106	13
17	35	5.2	b12	*b10	22	22	131	446	285	146	104	13
18	30	7.2	12	b11	20	22	131	435	305	116	114	14
19	30	7.2	b14	13	20	25	119	402	301	116	88	16
20	30	6.5	*b13	12	18	33	106	336	279	136	81	18
21	30	6.1	b14	10	18	46	102	360	257	146	79	44
22	26	6.1	16	7.6	18	50	95	716	257	126	79	55
23	20	8.7	20	9.1	18	65	99	589	239	102	76	196
24	18	16	22	10	20	91	111	678	296	104	73	74
25	17	18	18	9.7	24	89	114	678	336	95	68	62
26	17	10	18	6.9	20	71	124	611	301	95	55	53
27	15	10	19	*8.4	19	65	195	567	257	88	61	41
28	15	12	28	13	15	68	218	512	239	79	64	45
29	13	13	28	26	-	76	193	479	219	61	47	173
30	20	15	25	23	-	94	186	446	198	51	45	106
31	22	-	27	20	-	99	-	424	-	46	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	885	52	13	28.5	1,760
November	329.0	18	5.2	11.0	653
December	530.7	28	9.7	17.1	1,050
Calendar year 1940	7,081.2	167	2.1	19.3	14,050
January	428.7	27	6.9	13.8	850
February	533	24	15	19.0	1,060
March	1,257	99	16	40.5	2,490
April	3,491	218	83	116	6,920
May	17,190	773	327	555	34,100
June	9,406	435	198	314	18,660
July	3,945	196	46	127	7,820
August	2,197	106	36	70.9	4,360
September	1,223	196	12	40.8	2,430
Water year 1940-41	41,415.4	773	5.2	113	82,150

Peak discharge.- June 4 (1 p.m.) 545 sec.-ft.; July 15 (4 p.m.) 512 sec.-ft.; July 16 (1:30 p.m.) 678 sec.-ft.; Aug. 28 (1 p.m.) 512 sec.-ft.; Sept. 23 (3 a.m.) 1530 sec.-ft.

*Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Mora River near Golondrinas, N. Mex.

Location.- Water-stage recorder, lat. 35°53', long. 105°07', in Mora Grant, half a mile upstream from Coyote Creek and 2 miles east of Golondrinas, Mora County.

Records available.- August 1903 to September 1904 (gage heights only, at site at Weber, N. Mex.) and October 1930 to September 1940 in reports of Geological Survey. March 1915 to December 1931 in reports of State engineer.

Average discharge.- 25 years (1915-20, 1921-41), 38.8 second-feet.

Extremes.- Maximum discharge during year, 1,760 second-feet Sept. 23 (gage height, 8.88 feet), from rating curve extended above 450 second-feet; minimum daily, 9 second-feet Nov. 13.

1930-41: Maximum discharge that of Sept. 23, 1941; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record and those above 1,000 second-feet, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	17	19	32	26	22	167	526	486	242	86	52
2	26	13	20	27	22	24	135	1,290	463	222	96	53
3	24	13	20	20	22	22	115	911	452	194	93	42
4	29	13	22	b17	22	22	101	832	533	179	84	37
5	31	19	*22	b15	22	24	111	704	498	173	85	34
6	29	*16	22	b16	22	29	124	679	498	175	83	32
7	29	17	22	b16	22	28	116	704	474	161	93	32
8	31	17	20	b17	22	26	111	729	463	149	90	30
9	31	15	22	b18	22	24	106	704	440	141	100	29
10	64	14	24	b20	24	22	118	679	394	143	98	27
11	56	11	22	b22	22	21	122	679	372	151	88	25
12	48	b9	24	b23	22	21	130	679	351	196	191	24
13	42	b10	19	b23	20	21	182	679	328	173	154	22
14	41	b16	b17	b16	22	22	180	704	328	190	119	21
15	42	b13	b14	b16	25	25	188	654	317	177	106	20
16	43	b11	b14	b14	24	25	188	605	339	234	141	19
17	37	10	a15	*b10	24	23	201	545	317	186	117	19
18	32	10	a17	b13	24	24	207	498	350	175	148	18
19	31	14	a19	b17	23	25	188	474	361	151	112	18
20	31	12	a19	b15	24	30	157	428	339	166	100	21
21	31	12	*22	b14	22	39	148	452	317	166	96	98
22	29	13	22	b11	23	46	135	819	317	170	96	130
23	24	13	24	b12	22	65	137	654	298	137	90	616
24	22	30	28	b13	22	121	171	729	339	129	86	134
25	22	27	24	b11	26	162	209	729	394	119	81	94
26	18	22	24	13	24	93	211	679	361	120	68	84
27	18	16	26	*15	23	99	391	617	328	114	66	65
28	18	17	31	17	21	96	460	569	302	112	89	66
29	16	20	32	31	-	106	414	545	283	94	64	418
30	18	22	31	35	-	169	368	509	254	88	57	208
31	23	-	32	22	-	153	-	474	-	88	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	960	64	16	31.0	1,900
November	462	30	9	15.4	916
December	689	32	14	22.2	1,370
Calendar year 1940	7,470.3	470	.8	20.4	14,820
January	561	35	10	18.1	1,110
February	639	26	20	22.8	1,270
March	1,629	169	21	52.5	3,230
April	5,591	460	101	186	11,090
May	20,479	1,290	428	661	40,620
June	11,296	533	254	377	22,410
July	4,915	242	88	159	9,750
August	3,024	191	47	97.5	6,000
September	2,488	616	18	82.9	4,930
Water year 1940-41	52,733	1,290	9	144	104,600

Peak discharge.- July 12 (9 p.m.) 498 sec.-ft.; July 16 (7 p.m.) 498 sec.-ft.; Aug. 12 (5 p.m.) 533 sec.-ft.; Sept. 21 (10 p.m.) 452 sec.-ft.; Sept. 23 (10 a.m.) 1,760 sec.-ft.; Sept. 29 (12 m.) 754 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations at La Cueva and near Shoemaker.

b Stage-discharge relation affected by ice.

Mora River near Shoemaker, N. Mex.

Location.- Water-stage recorder, lat. 35°48', long. 104°48', in sec. 10, T. 18 N., R. 20 E., 5½ miles east of Shoemaker and about 23 miles upstream from mouth.

Drainage area.- 1,160 square miles.

Records available.- October to December 1914 and October 1930 to September 1941 in reports of U. S. Geological Survey. October 1914 to December 1931 in reports of State engineer.

Average discharge.- 23 years (1915-17, 1919-25, 1926-41), 63.0 second-feet.

Extremes.- Maximum discharge during year, 6,410 second-feet Sept. 23 (gage height, 8.30 feet), from rating curve extended above 2,800 second-feet by logarithmic plotting; minimum daily, 2.5 second-feet Nov. 11.
1930-41: Maximum gage height, 10.41 feet June 3, 1937 (discharge not determined); no flow at times.

Remarks.- Records fair except those for periods of ice effect, or doubtful gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	7.5	24	44	38	26	364	883	900	312	231	86
2	10	9.5	23	44	39	24	345	2,980	990	312	168	83
3	9.0	5.0	26	36	37	25	255	2,310	d890	270	205	77
4	9.0	3.6	*31	b28	35	22	210	1,920	1,320	237	165	63
5	7.5	2.9	36	b23	36	16	178	1,530	1,160	208	154	57
6	12	2.9	35	b25	36	6.5	192	1,220	1,120	192	138	50
7	11	2.8	35	b28	36	7.5	228	1,220	a900	192	148	45
8	10	2.8	36	b28	36	6.1	216	1,300	a810	165	202	44
9	10	2.8	35	b30	36	5.4	195	1,300	a720	152	231	40
10	12	2.8	37	b32	36	5.4	180	1,300	675	172	213	37
11	27	2.5	39	37	36	5.8	198	1,330	a600	160	188	37
12	30	2.8	39	47	33	4.7	202	1,530	a560	358	271	32
13	18	3.3	42	51	31	4.7	237	1,410	a520	1,470	468	31
14	17	3.2	b32	48	30	3.8	291	1,490	a500	758	349	30
15	16	3.2	b25	*35	31	3.6	228	1,410	a480	d640	261	28
16	16	2.9	b25	b28	33	3.3	213	1,260	d540	a460	243	24
17	17	3.6	b25	b22	34	3.6	205	1,120	d500	a530	300	23
18	14	3.6	b27	b28	35	3.6	210	1,020	a550	d420	243	23
19	10	4.0	b30	b35	35	4.0	219	930	a600	a350	237	23
20	7.2	3.8	32	b31	34	3.8	185	810	a560	920	202	162
21	7.2	5.8	35	b28	35	4.7	165	.870	a510	2,200	202	868
22	7.2	6.8	35	b25	35	21	172	2,050	a480	452	195	987
23	6.8	14	37	b26	38	52	168	1,830	a460	327	188	2,150
24	5.4	80	45	b27	37	80	198	1,780	d540	422	162	932
25	5.0	42	45	b25	36	281	255	2,060	645	306	150	436
26	5.0	26	38	b29	37	303	294	1,780	a540	392	146	306
27	5.0	24	35	b28	36	240	432	1,370	496	267	134	216
28	5.0	20	38	*30	31	249	900	1,190	424	265	148	208
29	5.0	18	44	31	-	282	930	1,120	388	321	150	2,010
30	5.8	22	45	44	-	420	680	1,260	345	228	156	1,650
31	8.0	-	43	48	-	388	-	960	-	345	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	343.1	30	5.0	11.1	681
November	334.1	80	2.5	11.1	663
December	1,074	45	23	34.6	2,130
Calendar year 1940	7,729.5	550	1.8	21.1	15,330
January	1,021	51	22	32.9	2,030
February	982	39	30	35.1	1,950
March	2,505.5	420	3.3	80.8	4,970
April	8,745	930	165	292	17,350
May	44,543	2,980	810	1,437	88,350
June	19,723	1,320	345	657	39,120
July	13,823	2,200	152	446	27,420
August	6,373	468	105	206	12,640
September	10,758	2,150	23	359	21,340
Water year 1940-41	110,224.7	2,980	2.5	302	218,600

Peak discharge.- June 4 (10 p.m.) 2,110 sec.-ft.; July 13 (8 p.m.) 5,240 sec.-ft.; July 20 (7 p.m.) 4,760 sec.-ft.; July 21 (5 a.m.) 6,240 sec.-ft.; Sept. 20 (12 p.m.) 3,880 sec.-ft.; Sept. 23 (9 p.m.) 6,410 sec.-ft.; Sept. 30 (1 a.m.) 4,160 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for Mora River at La Cueva, and near Golondrinas, and for Coyote Creek near Golondrinas.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of records for stations at La Cueva, and near Golondrinas and for Coyote Creek near Golondrinas.

Coyote Creek near Golondrinas, N. Mex.

Location.- Water-stage recorder, lat. 35°55', long. 105°10', in Mora grant, a third of a mile downstream from Coyote Creek dam site, about 2 miles upstream from mouth, and 2 miles northeast of Golondrinas, Mora County.

Drainage area.- 250 square miles.

Records available.- October 1930 to September 1941 in reports of Geological Survey. April 1928 to December 1931 in reports of State engineer.

Average discharge.- 13 years (1928-41), 12.1 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet May 2 (gage height, 4.92 feet), from rating curve extended above 105 second-feet by logarithmic plotting; minimum daily, 3.5 second-feet Dec. 16.
1930-41: Maximum discharge, 3,020 second-feet Aug. 30, 1936 (gage height, 10.1 feet, site and datum then in use), from rating curve extended above 250 second-feet; minimum daily, 0.1 second-foot July 20-27, 1939, July 1, 2, 1940.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	5.2	a9.0	8.9	8.5	10	93	200	116	26	33	13
2	5.2	5.2	a10	a7.5	8.5	10	60	825	117	22	36	11
3	5.2	5.6	a10	a6.0	b8.0	10	44	422	123	19	45	8.9
4	4.7	5.2	a11	a5.5	b8.0	8.5	30	360	222	15	40	7.5
5	5.2	5.2	*11	a5.0	b7.5	11	45	272	166	13	32	5.6
6	4.2	*5.6	12	a5.5	b7.5	11	63	230	140	25	41	5.2
7	4.4	5.6	b10	a6.0	b7.5	12	76	225	125	30	42	5.2
8	4.4	5.6	b11	a6.5	8.9	11	74	215	116	20	66	4.7
9	4.7	5.6	b10	7.0	8.9	10	64	220	104	45	48	4.7
10	14	5.2	b11	.8.0	9.4	9.4	72	220	98	52	35	5.2
11	8.9	4.7	b8.0	8.9	8.0	8.0	74	245	98	75	29	5.2
12	6.1	4.4	b9.0	8.5	8.0	8.9	74	235	110	185	51	5.2
13	5.6	4.7	b7.0	8.0	*7.0	8.9	109	232	95	233	60	5.2
14	5.2	5.6	a5.0	a6.5	8.0	11	82	230	81	191	41	5.2
15	5.2	6.1	a4.0	a6.5	7.5	11	64	210	72	89	36	5.2
16	5.2	6.6	a3.5	a5.5	8.0	10	56	190	74	64	57	5.2
17	5.2	6.1	a4.0	*b5.0	8.0	9.4	48	172	66	86	41	4.7
18	5.2	6.1	a4.5	7.5	8.5	8.9	50	160	56	73	35	5.2
19	5.2	8.5	a4.5	8.9	8.9	9.4	46	152	47	116	30	5.2
20	5.2	8.5	a5.0	9.4	10	8.9	41	142	45	87	27	10
21	5.2	7.0	*b6.0	8.5	10	13	44	160	41	73	27	45
22	5.2	8.0	a6.0	6.6	11	20	40	266	38	61	29	47
23	5.2	7.5	b5.0	7.5	11	29	51	192	40	46	26	385
24	5.2	6.6	4.7	7.5	11	61	64	178	120	40	25	87
25	5.2	7.5	4.0	b6.8	12	76	90	200	109	42	20	57
26	5.2	10	4.4	b6.0	11	60	104	166	70	31	17	46
27	5.2	8.5	4.7	*7.5	9.4	53	154	144	56	54	18	37
28	5.2	a9.5	6.1	8.9	9.4	63	245	152	a45	97	22	36
29	5.2	a10	9.4	13	-	78	208	142	a40	58	14	110
30	5.2	a11	9.4	11	-	97	148	144	a30	29	15	67
31	5.2	-	8.9	8.9	-	95	-	126	-	81	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	171.8	14	4.2	5.54	341
November	200.9	11	4.4	6.70	398
December	228.1	12	3.5	7.36	452
Calendar year 1940	1,686.4	108	.1	4.61	3,340
January	232.8	13	5.0	7.51	462
February	249.4	12	7.0	8.91	495
March	842.3	97	8.0	27.2	1,670
April	2,413	245	30	80.4	4,790
May	7,007	825	126	226	13,900
June	2,660	222	30	88.7	5,280
July	2,078	233	13	67.0	4,120
August	1,053	66	14	34.0	2,090
September	1,044.3	385	4.7	34.8	2,070
Water year 1940-41	18,180.6	825	3.5	49.8	36,070

Peak discharge.- May 2 (8 a.m.) 1,270 sec.-ft.; June 4 (4 p.m.) 412 sec.-ft.; July 12 (10 p.m.) 775 sec.-ft.; July 13 (7 p.m.) 920 sec.-ft.; July 14 (5 p.m.) 536 sec.-ft.; Sept. 23 (8 a.m.) 1,160 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Mora River at La Cueva.

b Stage-discharge relation affected by ice.

Conchas River at Variadero, N. Mex.

Location.- Water-stage recorder, about lat. 35°23', about long. 104°27', on State Highway 104 at Variadero, San Miguel County, approximately 14 miles west of Conchas Dam.

Records available.- October 1939 to September 1941 in reports of Geological Survey. April 1938 to September 1939 in files of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 40,000 second-feet May 1 (gage height, 20.72 feet), from rating curve extended above 2,590 second-feet by logarithmic plotting; no flow at times.
1939-41: Maximum discharge and gage height, those of May 1, 1941.

Remarks.- Records poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0		0	0	3	2,130	55	a4	a30	91
2		0	0		0	0	2	6,850	50	a2	a20	73
3		0	0		0	0	1	157	73	a1	13	55
4		0	0		0	0	1	187	633	a1	10	39
5		0	0		0	0	0	73	1,420	a0	8	29
6		0	0		0	0	0	25	282	0	7	24
7		0	0		0	0	0	21	58	a0	6	16
8		0	0		0	0	0	18	33	a0	7	11
9		0	0		0	0	0	13	a20	0	8	10
10		0	0		0	0	0	13	8	a0	613	9
11		0	0		0	0	0	13	a8	a0	a150	10
12		0	0		0	0	0	12	a8	161	200	9
13		0	1		0	0	0	9	a7	581	a100	7
14		0	0		0	0	0	7	a7	45	a50	6
15		0	0		0	0	0	3	7	326	13	3
16		0	0		0	0	0	2	a10	124	11	2
17		0	0		0	0	0	2	a15	a25	8	4
18		0	0		0	0	0	2	18	a15	39	7
19		0	0		0	0	0	1	39	9	11	28
20		0	0		0	0	0	1	22	a10	7	107
21		0	0		0	1	0	15	13	a15	47	218
22		0	0		0	4	0	493	10	a20	43	[illegible]
23		1	0		1	16	0	154	7	29	9	2,980
24		8	0		0	15	1	121	1,770	249	82	791
25		3	0		2	104	7	239	776	462	52	191
26		2	0		0	73	13	82	96	265	13	104
27		1	0		0	45	12	33	35	1,020	332	76
28		1	0		0	24	111	19	a15	a50	1,170	1,710
29		0	0		-	22	179	95	a10	a30	229	7,680
30		0	0		-	13	60	178	a5	64	317	902
31		-	0		-	7	-	82	-	a130	104	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	a 0	0	0
November	16	8	0	.5	32
December	1	1	0	0	2.0
Calendar year 1940	2,412	472	0	6.6	4,790
January	0	0	0	0	0
February	3	2	0	.1	6.0
March	324	104	0	10.5	643
April	390	179	0	13	774
May	11,050	6,850	1	356	21,920
June	5,510	1,770	5	184	10,930
July	3,638	1,020	0	117	7,220
August	3,709	1,170	6	120	7,360
September	18,712	7,680	2	624	37,110
Water year 1940-41	43,353	7,680	0	119	86,000

Peak discharge.- May 1 (12 p.m.) 40,000 sec.-ft.; June 24 (7:30 p.m.) 13,900 sec.-ft.; Aug. 27 (12 p.m.) 8,860 sec.-ft.; Sept. 22 (6 a.m.) 8,130 sec.-ft.; Sept. 23 (6 p.m.) 4,580 sec.-ft.; Sept. 29 (6 a.m.) 15,900 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station on Canadian River near Sanchez.

North Canadian River near Guymon, Okla.

Location.- Water-stage recorder, lat. 36°43'20", long. 101°29'30", in NW¼SW¼ sec. 18, T. 3 N., R. 15 E., at bridge on U. S. Highway 64 at Dry Sand Draw, 1¼ miles upstream from Gulf Creek and 2½ miles north of Guymon. Datum of gage is 2,970.93 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 2,040 square miles, including that of Dry Sand Draw.

Records available.- March 1938 to September 1941 (include flow of Dry Sand Draw).

Extremes.- Maximum gage height during year, 13.82 feet Sept. 23, from floodmark (discharge not determined); no flow at times.
1939-41: Maximum gage height, that of Sept. 23, 1941; no flow at times.
Maximum stage known, that of Sept. 23, 1941. Previous maximum stage was 11.4 feet on June 1, 1937, from readings at flood crest by Corps of Engineers, U. S. Army.

Remarks.- Records fair except those above 50 second-feet and those for period of ice effect, which are poor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	1	7	b7	7	8	8	20	18	3	h59	0
2	1	1	6	6	8	7	7	1,340	20	580	25	0
3	1	1	5	7	8	6	8	6,190	18	434	h8	0
4	1	1	4	*bS	8	5	9	691	36	1,620	h3	0
5	1	1	*4	b9	7	6	10	189	20	2,870	1	0
6	1	1	5	b10	8	7	7	75	20	547	0	0
7	1	a1	5	b11	9	6	5	24	303	f145	100	0
8	1	a1	5	12	11	6	7	15	417	152	206	0
9	1	a1	6	11	9	5	7	11	242	120	h34	0
10	1	a1	6	*9	7	6	7	13	94	96	h11	0
11	1	2	7	9	7	6	7	15	77	75	1	0
12	1	1	7	10	6	7	7	15	72	61	0	0
13	1	2		10	5	7	10	15	75	389	0	0
14	1	a2		*10	4	7	22	13	75	f156	0	0
15	1	2		9	4	7	8	9	224	f96	0	0
			b7									
16	1	4		6	4	6	6	8	383	f59	0	0
17	1	3		3	5	4	3	9	301	f31	0	0
18	1	3		b12	5	5	3	8	678	f12	0	h174
19	1	4		7	6	5	10	8	47	f8	6	h10
20	1	7	*7	5	6	6	7	112	23	f4	11	h3
21	1	13	10	4	6	7	7	48	9	f2	1,280	h2,880
22	1	9	9	7	9	10	9	23	87	3	h570	h5,030
23	1	h10	9	7	9	10	13	43	77	6	h156	h14,700
24	1	h22	9	13	11	9	15	134	95	2	h40	h1,130
25	1	h23	9	9	11	12	11	57	86	190	h4	h396
26	1	h11	10	7	12	25	13	f23	66	395	1	h175
27	1	h15	8	*7	10	16	14	f11	260	57	2	h84
28	1	h11	8	7	9	14	23	10	210	13	3	h75
29	1	10	7	7	-	13	16	15	f59	h4	1	h61
30	1	8	*9	7	-	9	16	16	f12	h0	2	h50
31	1	-	8	7	-	9	-	14	-	227	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31	1	1	1.0	61
November	172	23	1	5.7	341
December	219	10	4	7.1	434
Calendar year 1940	10,495	2,450	0	28.7	20,820
January	253	13	3	8.2	502
February	211	12	4	7.5	419
March	256	25	4	8.3	508
April	295	23	3	9.8	585
May	9,174	6,190	8	296	18,200
June	4,124	678	9	137	8,180
July	8,357	2,870	0	270	16,580
August	2,525	1,280	0	81.5	5,010
September	24,768	14,700	0	826	49,130
Water year 1940-41	50,385	14,700	0	138	99,950

Peak discharge.- May 3 (2 a.m.) 16,100 sec.-ft.; July 5 (1 a.m.) 9,400 sec.-ft.; Sept. 21 (12 p.m.) 17,600 sec.-ft.
* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.
h Computed on basis of once-daily readings of staff gage.

North Canadian River at Beaver, Okla.

Location.- Water-stage recorder, lat. 36°49'20", long. 100°31'05", in SW¼ sec. 7, T. 4 N., R. 24 E., at bridge on U. S. Highway 270 at Beaver, 1⅛ miles downstream from Home Creek and 5 miles upstream from Clear Creek. Datum of gage is 2,371.16 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 7,210 square miles.

Records available.- March 1938 to September 1941. March 1904 to December 1905 (gage heights only), at nearby site but different datum, published as "Beaver Creek at Beaver, Okla."

Extremes.- Maximum discharge during year, 38,200 second-feet Sept. 24 (gage height, 10.65 feet), from rating curve extended above 17,000 second-feet; no flow at times.
1938-41: Maximum discharge, that of Sept. 24, 1941; no flow at times.

Remarks.- Records fair except those above 1,000 second-feet and those for period of ice effect, which are poor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	0	16	14	36	64	36	190	214	26	131	4
2	1	0	12	11	158	54	23	740	539	263	101	1
3	0	0	9	10	138	37	17	5,830	275	308	37	0
4	0	0	7	b10	80	26	15	2,590	152	502	19	0
5	0	0	7	b10	64	23	14	956	147	4,600	13	0
6	0	0	5	b12	49	37	11	293	152	2,420	9	0
7	0	0	4	b12	37	46	7	a250	130	778	6	0
8	0	0	3	b12	32	46	5	a200	578	306	8	0
9	0	0	3	*14	26	44	4	a150	740	216	307	0
10	0	0	2	13	27	32	2	a100	511	131	398	0
11	0	0	*2	10	27	29	1	a100	214	96	88	0
12	0	0	b2	10	26	22	1	a90	91	72	22	0
13	0	0	b1	13	16	27	4	80	80	323	8	0
14	0	0	b1	27	15	32	3	69	70	624	3	0
15	0	0	b1	34	12	34	4	56	62	253	1	0
16	0	0	b1	37	10	25	417	46	54	159	0	0
17	0	0	b1	f36	8	20	39	40	264	77	0	687
18	0	0	b1	f36	8	17	14	36	143	42	0	3,010
19	0	0	b1	117	11	11	8	35	389	43	0	114
20	0	0	*b1	22	15	9	3	54	149	36	0	44
21	0	0	8	26	15	9	3	44	63	14	2	24
22	0	0	22	27	f15	10	4	159	94	10	785	3,040
23	0	0	32	25	42	13	15	1,910	149	12	499	6,220
24	0	0	22	16	32	16	19	767	133	42	230	9,590
25	0	2	19	19	29	20	25	1,110	87	40	134	1,500
26	0	17	20	25	59	32	25	602	299	704	33	987
27	0	27	20	25	69	114	41	235	654	566	22	810
28	0	27	20	20	76	91	97	136	37	277	22	746
29	0	34	16	20	-	73	190	118	100	141	13	1,410
30	0	22	15	22	-	56	376	214	58	263	12	1,230
31	0	-	*15	23	-	41	-	234	-	129	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2	1	0	0.1	4.0
November	129	34	0	4.3	256
December	289	32	1	9.3	573
Calendar year 1940	33,556	4,440	0	91.7	66,560
January	708	117	10	22.8	1,400
February	1,132	158	e	40.4	2,250
March	1,110	114	9	35.8	2,200
April	1,423	417	1	47.4	2,820
May	17,437	5,830	35	562	34,590
June	6,628	740	37	221	13,150
July	13,473	4,600	10	435	26,720
August	2,913	785	0	94.0	5,780
September	29,417	9,590	0	981	58,350
Water year 1940-41	74,661	9,590	0	205	148,100

Peak discharge.- May 3 (6 p.m.) 17,600 sec.-ft.; July 5 (8:30 p.m.) 16,000 sec.-ft.; Sept. 24 (1 a.m.) 38,200 sec.-ft.

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
f Computed on basis of partly estimated gage-height record.

North Canadian River near Supply, Okla.

Location.- Water-stage recorder and staff gage, lat. 36°35'30", long. 99°35'30", in NE¼ sec. 6, T. 24 N., R. 22 W., at bridge on State Highway 34, 1½ miles northwest of Supply and 6½ miles upstream from Wolf Creek. Datum of gage is 1,975.63 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 8,920 square miles.

Records available.- October 1937 to September 1941.

Extremes.- Maximum discharge during year, 17,300 second-feet May 23 (gage height, 8.50 feet); no flow at times.
1937-41: Maximum discharge, that of May 23, 1941; no flow at times.
Maximum stage known, 9.4 feet, date unknown, from information by State Highway Department.

Remarks.- Records fair above 1,000 second-feet, poor below.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4			0	12	46	58	501	340	436	108	32
2	3			0	32	46	48	290	813	340	107	26
3	2			0	*33	*51	38	340	1,280	260	100	20
4	1			0	53	40	33	2,780	f600	300	88	13
5	1			0	71	36	25	1,900	h480	422	68	6
6	0			0	62	42	22	865	h360	4,770	58	3
7	0			0	48	43	22	550	f320	4,020	67	2
8	0			0	38	50	17	315	f300	1,280	73	2
9	0			0	36	53	17	230	h1,630	705	70	1
10	0			0	*33	50	13	185	h1,420	570	58	1
11	0			0	27	45	10	393	h785	510	64	1
12	0			0	23	43	10	340	f510	455	81	1
13	0			0	20	39	10	315	h360	405	60	1
14	0			3	15	35	17	270	f300	360	44	0
15	0			4	14	38	101	208	f300	634	46	0
16	0			4	12	36	129	185	h260	430	39	0
17	0			4	*10	29	35	141	f245	380	37	0
18	0			4	8	25	90	104	h200	340	38	311
19	0			3	9	24	64	90	165	260	41	813
20	0			*4	b8	23	40	111	122	194	39	135
21	0			3	b7	23	38	158	162	122	33	81
22	0			b2	b6	22	30	316	176	81	635	58
23	0			b1	b6	18	35	9,210	168	57	705	829
24	0			0	b6	16	27	7,000	142	57	480	3,340
25	0			0	b10	16	25	1,680	128	61	360	6,670
26	0			0	*b17	23	25	1,310	108	138	182	1,220
27	0			0	19	28	25	875	306	73	108	975
28	0			0	27	43	30	480	405	287	78	920
29	0			0	-	40	50	380	215	173	67	875
30	0			4	-	71	142	320	182	136	58	959
31	0			5	-	66	-	300	-	110	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11	4	0	0.4	22
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	34,048	4,010	0	93.0	67,530
January	41	5	0	1.3	81
February	662	71	6	23.6	1,310
March	1,159	71	16	37.4	2,300
April	1,226	142	10	40.9	2,430
May	32,142	9,210	90	1,037	63,750
June	12,782	1,630	108	426	25,350
July	18,365	4,770	57	592	36,430
August	4,036	705	33	130	8,010
September	17,295	6,670	0	576	34,300
Water year 1940-41	87,719	9,210	0	240	174,000

Peak discharge.- May 4 (4 p.m.) 6,030 sec.-ft.; May 23 (5 p.m.) 17,300 sec.-ft.; July 7 (1 a.m.) 8,940 sec.-ft.; Sept. 25 (4:30 a.m.) 13,900 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
f Computed from estimated gage height.
h Computed from once-daily readings of staff gage.
Note.- Discharge for period July 12 to Aug. 21 and Aug. 26 to Sept. 13 computed on basis of occasional readings of staff gage.

North Canadian River at Woodward, Okla.

Location.- Staff gage, lat. 36°26'55", long. 99°23'55", on line between secs. 24 and 25. T. 23 N., R. 21 W., at county highway bridge just north of Woodward, 14 miles upstream from Indian Creek and 16 miles downstream from Wolf Creek. Datum of gage is 1,867.44 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 10,530 square miles (revised).

Records available.- October 1938 to September 1941. November 1903 to December 1905 (gage heights only) and January to June 1906, at Atchison, Topeka & Santa Fe Ry. bridge 6½ miles downstream. Gage-height records collected at present site since 1919 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 18,000 second-feet May 24 (gage height, 6.40 feet); no flow at times.
1938-41: Maximum discharge, that of May 24, 1941; no flow at times.
Maximum stage known, 11.0 feet, present datum, Oct. 12, 1923, from reports of U. S. Weather Bureau.

Remarks.-- Records good except those above 250 second-feet, which are fair, and those for period of ice effect and those for May and June, which are poor. Gage read twice daily, oftener during floods.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	0	3	11	63	80	110	670	360	274	148	106
2	10	0	1	9	118	91	134	615	770	904	154	75
3	6	0	1	9	*137	91	93	490	2,710	435	142	50
4	3	0	1	9	137	82	80	2,930	932	335	123	35
5	1	0	1	b7	132	84	63	4,030	582	410	89	29
6	0	0	1	*b5	140	98	56	1,800	520	4,140	67	239
7	0	0	1	7	132	96	45	818	490	7,680	59	57
8	0	0	1	9	108	96	38	770	462	1,900	49	41
9	0	0	*1	b18	82	89	33	490	2,760	932	67	21
10	0	0	1	26	*71	84	30	385	7,780	727	37	14
11	0	0	1	21	65	89	29	462	6,860	685	26	11
12	0	0	1	21	59	82	26	2,260	5,680	582	69	8
13	0	0	b1	*26	50	84	27	1,900	4,600	582	103	7
14	0	0	0	34	42	78	26	770	2,860	462	65	4
15	0	0	0	34	49	80	166	550	1,070	410	29	3
16	0	0	0	41	38	69	968	410	818	685	24	2
17	0	0	0	37	*35	57	822	335	685	490	16	2
18	0	0	1	35	38	54	194	290	582	435	16	4
19	0	0	1	33	b30	54	170	270	520	290	10	878
20	0	1	1	*35	b25	50	123	539	582	227	7	410
21	0	0	1	29	b20	50	100	685	435	173	11	266
22	0	0	8	28	b20	50	91	1,000	650	137	654	164
23	0	0	*13	25	b20	52	89	5,820	550	108	1,690	656
24	0	0	13	23	75	52	82	14,900	462	93	1,070	2,400
25	0	8	11	20	63	49	71	5,840	290	82	650	6,500
26	0	1	13	17	*65	82	61	3,220	286	129	385	1,840
27	0	3	12	*26	78	96	57	2,290	254	167	258	727
28	0	7	6	20	71	106	71	770	986	176	190	490
29	0	7	6	20	-	100	100	520	520	262	227	1,020
30	0	4	*13	20	-	106	129	435	290	194	278	1,140
31	0	-	12	28	-	116	-	385	-	183	151	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	34	14	0	1.1	67
November	31	8	0	1.0	61
December	126	13	0	4.1	250
Calendar year 1940	40,884	7,090	0	112	81,100
January	683	41	5	22.0	1,350
February	1,963	140	20	70.1	3,890
March	2,447	116	49	78.9	4,850
April	4,084	968	26	136	8,100
May	56,649	14,900	270	1,827	112,400
June	46,346	7,780	254	1,545	91,930
July	24,289	7,680	82	784	48,180
August	6,864	1,690	7	221	13,610
September	17,199	6,500	2	573	34,110
Water year 1940-41	160,715	14,900	0	440	318,800

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.

North Canadian River at Canton, Okla.

Location.- Water-stage recorder and staff gage, lat. 36°03'30", long. 98°34'55", in northwest corner of sec. 10, T. 18 N., R. 13 W., at bridge on State Highway 58, a quarter of a mile northeast of Canton, 2¼ miles upstream from Minnehaha Creek, and 7⅞ miles upstream from Nine Mile Creek. Datum of gage is 1,560.59 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 11,600 square miles.

Records available.- March 1938 to September 1941. Gage-height records collected at or near same site since 1914 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 9,980 second-feet May 25 (gage height, 11.05 feet); no flow at times.
1938-41: Maximum discharge, that of May 25, 1941; no flow at times.
Maximum stage known, 16.8 feet, former site, Oct. 13, 1923, from reports of U. S. Weather Bureau.

Remarks.- Records good except those based on staff gage, which are poor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	0		0	27	82	146	150	g644	g387	g276	g193
2	11	0		0	36	87	130	303	701	g412	g193	179
3	6	0		0	51	84	100	850	776	586	g155	132
4	3	0		0	76	85	97	1,920	g1,800	710	g150	116
5	1	0		0	95	92	102	3,780	644	g523	g146	286
6	0	0		0	97	95	78	2,720	523	g466	g124	193
7	0	0		0	100	97	66	1,770	1,680	2,870	112	144
8	0	0		0	100	100	62	1,160	552	4,220	210	122
9	0	0		0	92	102	55	g885	3,410	g2,290	207	g104
10	0	0		0	82	98	47	g644	7,040	g1,510	150	g76
11	0	0		1	79	93	43	g740	7,200	g920	g92	g60
12	0	0		3	75	97	38	984	5,980	g613	g87	g46
13	0	0		5	64	93	51	1,460	4,330	g439	g69	g34
14	0	0		12	60	95	80	850	3,160	g412	g56	g24
15	0	0		12	55	87	285	g677	1,990	g412	g58	g23
16	0	0		13	50	82	595	g494	1,240	g339	g84	21
17	0	0		15	46	76	906	g362	g780	g296	g62	202
18	0	0		15	46	73	710	g257	g613	g481	g50	241
19	0	0		14	49	68	494	g223	g613	g387	g40	65
20	0	0		16	47	62	387	467	494	g296	g42	226
21	0	0		20	47	60	387	2,140	412	g239	g65	257
22	0	0		16	48	57	257	1,270	412	g207	510	207
23	0	0		19	49	56	223	1,380	1,180	g167	311	155
24	0	0		21	49	51	193	6,050	677	g126	1,120	462
25	0	0		23	51	49	167	8,890	644	g134	920	2,850
26	0	0		18	56	64	141	5,610	494	g167	624	4,230
27	0	12		16	73	76	128	3,420	g387	412	2,170	g838
28	0	5		12	73	90	120	1,890	g317	223	644	g780
29	0	1		15	-	100	130	960	g551	g179	g494	g552
30	0	0		16	-	109	141	644	g582	g167	g317	g1,170
31	0	-		16	-	107	-	g613	-	g460	g239	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	40	19	0	1.3	79
November	18	12	0	.6	36
December	0	0	0	0	0
Calendar year 1940	33,775	4,150	0	92.3	67,000
January	298	23	0	9.6	591
February	1,773	100	27	63.3	3,520
March	2,567	109	49	82.8	5,090
April	6,359	906	38	212	12,610
May	53,563	8,890	150	1,728	106,200
June	49,826	7,200	317	1,661	98,850
July	21,030	4,220	126	678	41,710
August	9,777	2,170	40	315	19,390
September	14,088	4,230	21	470	27,940
Water year 1940-41	159,339	8,890	0	437	316,000

g Computed from graph based on once-daily readings of staff gage.

North Canadian River near El Reno, Okla.

Location.- Water-stage recorder, lat. 35°34', long. 97°58', on line between secs. 32 and 33, T. 13 N., R. 7 W., at bridge on U. S. Highway 81, 2 miles north of El Reno. Datum of gage is 1,299.02 feet above mean sea level, datum of 1929 (U. S. Weather Bureau bench mark).

Drainage area.- 12,100 square miles.

Records available.- October 1902 to April 1908, March 1938 to September 1941. Gage-height records collected at same site since March 1934 and at site 1 mile upstream February 1914 to March 1934, are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 6,130 second-feet June 13, 14 (gage height, 11.60 feet); no flow at times.
1902-8, 1938-40: Maximum discharge, 7,950 second-feet May 21, 1938 (gage height, 11.10 feet), from rating curve extended above 3,000 second-feet; no flow at times.
Flood of October 1923 reached an elevation of 1,326.5 feet above mean sea level at railroad bridge 1 mile above station, from reports of U. S. Weather Bureau.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0		0	0	35	67	208	1,250	642	158	208
2		0		0	0	41	73	186	1,170	554	362	176
3		0		0	0	46	73	181	876	384	250	197
4		0		0	0	47	104	971	915	340	173	160
5		0		0	0	48	89	1,790	1,680	471	150	129
6		0		0	0	51	76	2,680	2,120	397	138	110
7		0		0	0	56	81	2,380	1,230	340	138	132
8		0		0	27	60	76	1,580	1,500	2,130	132	183
9		0		0	38	62	62	970	1,330	3,080	123	125
10		0		0	42	62	53	842	3,460	1,440	129	90
11		0		0	47	64	45	784	4,410	1,180	178	100
12		0		0	49	67	38	1,340	5,380	834	141	89
13		0		0	44	67	44	1,110	5,980	608	108	81
14		0		0	39	67	66	1,580	5,530	484	100	68
15		0		2.0	37	68	136	902	2,970	430	85	57
16		0		.2	32	68	168	732	1,630	388	70	48
17		0		0	30	66	401	562	1,100	368	59	44
18		0		0	31	61	546	416	842	310	67	85
19		0		0	33	60	1,030	343	715	307	72	105
20		0		0	34	59	590	679	608	397	57	206
21		0		0	31	57	290	1,390	529	293	51	106
22		0		0	31	56	332	2,280	468	244	54	90
23		0		0	31	55	310	2,230	435	211	48	229
24		0		0	34	53	276	1,730	921	181	212	173
25		.7		0	34	51	214	3,080	490	159	538	159
26		22		0	35	50	183	3,890	548	153	656	2,300
27		6.0		0	36	51	163	4,800	490	158	536	3,000
28		.2		0	34	51	146	5,080	376	153	1,440	1,340
29		0		0	-	51	199	2,180	328	241	562	749
30		0		0	-	53	318	1,280	310	192	430	638
31		-		0	-	60	-	1,000	-	176	303	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	28.9	22	0	.96	57
December	0	0	0	0	0
Calendar year 1940	24,443.1	2,780	0	66.8	48,480
January	2.2	2.0	0	.07	4.4
February	747	49	0	26.7	1,480
March	1,743	68	35	56.2	3,460
April	6,249	1,030	38	208	12,390
May	49,186	5,080	181	1,587	97,560
June	49,691	5,980	310	1,653	98,560
July	17,244	3,080	153	556	34,200
August	7,520	1,440	48	243	14,920
September	11,177	3,000	44	373	22,170
Water year 1940-41	143,488.1	5,980	0	393	284,600

Lake Overholser near Oklahoma City, Okla.

Staff gage, lat. 35°29', long. 97°40', at dam on North Canadian River on north line of SW¼ sec. 30, T. 12 N., R. 4 W., 2½ miles southwest of Bethany and 5 miles west of Oklahoma City. Datum of gage is 1,065.77 feet above mean sea level (levels by Oklahoma City Water Department). Records available, October 1939 to September 1941. Maximum contents observed during year, 20,600 acre-feet May 6 (gage height, 176.7 feet); minimum observed, 12,200 acre-feet Feb. 16 (gage height, 171.55 feet). Maximum contents observed during period 1939-41, that of May 6, 1941; minimum observed, 4,150 acre-feet May 21, 1940 (gage height, 165.25 feet).

Reservoir is formed by Ambursen type dam flanked by long earth fill sections; storage began in 1917. Dam was partially washed out in 1923 and rebuilt in 1924. Capacity (based on 1924 survey) 20,200 acre-feet below 176.5 feet (top of spillway gates). Dead storage unknown. Records given herein represent total contents. Water used for municipal water supply by the city of Oklahoma City. Gage read once daily. Gage-height record and capacity table furnished by Oklahoma City Water Department.

Monthly gage height and contents, water year October 1940 to September 1941

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	175.05	17,800	-
Oct. 31.....	173.9	15,900	-1,900
Nov. 30.....	173.05	14,500	-1,400
Dec. 31.....	172.5	13,700	-800
Calendar year 1940....	-	-	+6,000
Jan. 31.....	171.8	12,600	-1,100
Feb. 28.....	171.9	12,700	+100
Mar. 31.....	172.85	14,200	+1,500
Apr. 30.....	176.2	19,700	+5,500
May 31.....	175.8	19,100	-600
June 30.....	175.95	19,300	+200
July 31.....	176.2	19,700	+400
Aug. 31.....	176.0	19,400	-300
Sept.30.....	175.9	19,200	-200
Water year 1940-41....	-	-	+1,400

† Gage height at 8 a.m.

North Canadian River near Oklahoma City, Okla.

Location.- Water-stage recorder, lat. 35°29'40", long. 97°25'40", on line between secs. 20 and 29, T. 12 N., R. 2 W., 2 miles east of Oklahoma City, 5 miles upstream from Crutcho Creek, and 22 miles downstream from Lake Overholser. Datum of gage is 1,140.79 feet above mean sea level, datum of 1929.

Drainage area.- 12,400 square miles.

Records available.- November 1936 to September 1941.

Extremes.- Maximum discharge during year, 8,780 second-feet June 6 (gage height, 11.79 feet); minimum daily, 12 second-feet Oct. 18.
1936-41: Maximum discharge, that of June 6, 1941; minimum daily, 12 second-feet Dec. 20, 1938 and Oct. 18, 1940.
Maximum stage known, 16.3 feet Oct. 16, 1923, from information by State Highway Department, about 2 feet of which was due to failure of dam at Lake Overholser, from information by Corps of Engineers, U. S. Army.

Remarks.- Records fair except those based on gage-relation curve, which are poor. Considerable flow diverted into Lake Overholser for municipal use (see p. 214). Low flow sustained by sewage from Oklahoma City.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	g24	28	30	77	30	22	596	1,560	368	87	g121
2	24	g24	27	28	67	25	24	224	1,980	990	53	g58
3	23	g24	28	31	40	25	24	196	1,500	735	250	g40
4	22	g27	27	28	31	26	22	1,200	1,050	332	351	57
5	20	26	25	25	27	26	24	5,440	1,200	117	311	335
6	18	24	26	28	27	29	24	3,520	5,840	758	85	108
7	20	24	25	30	25	32	27	3,850	4,200	556	93	43
8	23	24	22	28	24	27	25	3,210	3,180	466	193	64
9	22	24	23	28	22	23	24	1,880	2,620	2,000	228	1,100
10	24	24	24	28	22	22	24	1,500	2,810	2,710	84	168
11	24	38	26	27	25	24	24	900	3,310	1,890	49	48
12	21	27	27	24	26	25	23	1,140	4,070	1,320	102	38
13	18	22	24	29	24	25	24	1,330	4,970	902	257	33
14	19	24	24	33	24	24	115	1,140	5,580	g576	89	39
15	22	24	44	29	23	24	112	1,190	6,080	g311	49	185
16	24	24	32	35	20	20	147	835	4,500	221	76	112
17	16	20	33	27	22	21	52	675	1,940	264	190	50
18	12	22	31	24	27	23	1,590	507	1,160	537	64	43
19	19	24	29	24	54	24	754	313	g922	370	54	38
20	18	130	28	27	67	24	1,290	136	g878	316	60	35
21	19	102	27	25	37	24	707	702	735	484	49	30
22	19	36	24	24	30	23	388	1,400	675	351	52	160
23	20	83	24	25	29	20	556	2,840	598	72	48	94
24	21	32	24	25	53	21	343	2,810	490	58	40	52
25	21	363	22	24	58	22	227	2,540	933	215	41	234
26	20	367	85	20	42	27	157	2,910	695	210	579	513
27	17	76	126	21	36	30	147	3,630	715	52	860	1,980
28	54	41	52	22	31	24	91	4,430	543	251	532	2,380
29	g25	36	35	22	-	24	316	5,270	507	63	1,500	1,110
30	g23	34	32	23	-	22	873	3,270	407	203	730	902
31	g95	-	31	30	-	22	-	1,530	-	228	402	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	747	95	12	24.1	1,480
November	1,770	367	20	59.0	3,510
December	1,035	126	22	33.4	2,050
Calendar year 1940	25,455	3,130	12	69.5	50,480
January	824	35	20	26.6	1,630
February	990	77	20	35.4	1,960
March	758	32	20	24.5	1,500
April	8,176	1,590	22	272	16,220
May	61,114	5,440	136	1,971	121,200
June	65,648	6,080	407	2,188	130,200
July	17,926	2,710	52	578	35,560
August	7,558	1,500	40	244	14,990
September	10,170	2,380	30	339	20,170
Water year 1940-41	176,716	6,080	12	484	350,500

g Computed from gage-height graph based on gage-relation curve and once-daily readings of staff gage 3½ miles upstream.

North Canadian River near Wetumpka, Okla.

Location.- Water-stage recorder, lat. 35°15'40", long. 96°12'40", in center of SW¼ sec. 12, T. 9 N., R. 10 E., at bridge on U. S. Highway 75, 2½ miles northeast of Wetumpka, 4½ miles upstream from Wewoka Creek, and 70 miles upstream from Deep Fork. Datum of gage is 683.28 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 13,500 square miles (revised).

Records available.- March 1938 to September 1941.

Extremes.- Maximum discharge during year, 16,600 second-feet June 12 (gage height, 19.18 feet); minimum, 41 second-feet Oct. 27.
1938-41: Maximum discharge, that of June 12, 1941; minimum daily, 26 second-feet Jan. 23, 26, 1940, occurred during period of ice effect.
Maximum stage known, 26.5 feet sometime in October 1923, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good. Considerable flow diverted into Lake Overholser (capacity, 17,000 acre-feet), 190 miles upstream. Low flow augmented by sewage from Oklahoma City.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	52	269	352	102	206	96	1,600	3,570	972	338	1,040
2	69	48	210	444	384	184	96	880	5,700	880	373	790
3	64	46	169	430	708	169	91	926	4,250	2,580	304	586
4	60	51	141	210	390	151	88	834	2,620	2,540	379	437
5	59	53	139	147	253	136	88	1,900	2,190	1,600	338	1,580
6	56	51	132	126	184	132	85	4,490	4,110	1,190	289	1,580
7	55	56	123	121	159	138	97	3,940	7,840	949	277	570
8	53	52	115	117	143	143	104	3,500	8,240	664	434	335
9	52	55	112	112	128	138	100	3,430	7,140	605	461	3,280
10	53	53	110	110	117	130	97	4,250	9,220	834	350	6,160
11	54	48	110	105	110	121	97	4,170	14,300	684	274	f2,280
12	53	45	110	102	105	115	92	2,680	15,800	1,680	298	1,230
13	51	45	100	104	102	112	90	1,830	12,700	2,070	392	834
14	52	45	99	107	97	110	121	1,490	8,940	1,720	353	586
15	52	46	244	232	92	108	592	1,720	4,510	1,890	298	478
16	51	45	292	182	88	104	1,680	1,600	4,100	1,770	301	398
17	50	45	147	124	88	102	1,190	1,660	4,170	1,220	344	353
18	50	46	134	112	88	100	4,530	1,430	4,330	903	304	319
19	51	50	117	102	102	99	7,370	1,170	4,570	664	251	310
20	48	67	108	100	346	100	6,840	996	4,230	568	226	338
21	47	325	107	99	326	100	5,040	3,360	2,070	568	237	298
22	46	227	102	96	280	99	1,950	2,230	1,550	704	260	257
23	46	321	99	92	201	97	1,770	1,040	1,600	549	224	240
24	46	216	96	94	212	97	1,220	1,230	1,330	568	213	322
25	44	560	94	92	381	96	880	2,070	1,190	586	205	243
26	43	2,590	99	90	472	96	834	2,490	1,120	g513	194	216
27	42	2,030	104	88	377	96	768	2,620	972	g408	325	251
28	51	1,070	104	85	264	96	624	2,490	1,170	g366	1,020	240
29	53	622	107	82	-	92	664	2,620	1,070	g385	395	229
30	47	390	126	82	-	91	2,140	2,820	1,040	418	513	1,590
31	48	-	151	85	-	94	-	2,940	-	379	644	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,617	71	42	52.2	3,210
November	9,350	2,590	45	312	18,550
December	4,170	292	94	135	8,270
Calendar year 1940	68,042	3,340	26	186	135,000
January	4,424	444	82	143	8,770
February	6,299	708	88	225	12,490
March	3,652	206	91	118	7,240
April	39,434	7,370	85	1,314	78,220
May	70,406	4,490	834	2,271	139,600
June	145,642	15,800	972	4,855	288,900
July	31,427	2,580	366	1,014	62,330
August	10,814	1,020	194	349	21,450
September	27,370	6,160	216	912	54,290
Water year 1940-41	354,605	15,800	42	972	703,300

f Computed from partly estimated gage height.
g Computed from graph based on once-daily readings of wire-weight gage.

Wolf Creek at Lipscomb, Tex.

Location.- Water-stage recorder and wire-weight gage, lat. 36°14', long. 100°16', at bridge on State Highway 305, in northwest corner of Lipscomb, Lipscomb County, and 2 miles upstream from Plum Creek. Datum of gage is 2,377.1 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 680 (revised) square miles, of which about 234 square miles is probably noncontributing.

Records available.- January 1938 to September 1941.

Extremes.- Maximum discharge during year, 11,000 second-feet June 9 (gage height, 4.50 feet); no flow at times.
1938-41: Maximum discharge, 16,800 second-feet (revised) June 23, 1939 (gage height, 4.73 feet); no flow at times.
Revisions.- The maximum discharge for period January to September 1938 has been revised to 11,000 second-feet Sept. 4, 1938 (gage height, 4.52 feet), superseding figures published in Water-Supply Paper 897.

Remarks.- Records poor. Daily discharge published only to show distribution of flow during year. Wire-weight gage read twice daily. No large diversion above station. Low flow partly regulated by reservoir in Perryton State Park, 20 miles above station (capacity, 900 acre-feet).

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	2	2	24	10	6	100	51	2	6	7
2		0	2	2	40	10	6	75	69	2	1	3
3		0	2	2	14	9	4	50	24	2	0	2
4		0	2	1	11	5	4	37	11	2	0	1
5		0	2	0	6	6	4	25	15	111	0	0
6		0	1	0	9	5	2	15	14	1,300	0	0
7		0	1	0	4	5	2	15	14	73	12	0
8		0	1	1	4	5	2	15	9	22	0	0
9		0	1	2	6	6	2	16	2,730	14	0	0
10		0	1	2	6	4	2	16	240	11	0	0
11		0	1	2	9	4	1	1,360	61	5	0	0
12		0	1	2	8	4	1	165	32	2	0	0
13		0	b0	11	4	6	11	65	37	1	0	0
14		0	b0	15	4	6	4	29	37	1	0	0
15		0	b0	7	6	6	5	19	102	1	0	0
16		0	b0	10	6	5	7	12	45	1	0	0
17		0	b0	3	4	6	4	9	27	1	0	0
18		0	b2	6	4	5	2	9	18	0	0	0
19		0	b4	5	11	4	5	9	14	0	0	0
20		0	b6	6	11	4	4	433	10	0	0	0
21		0	10	4	11	4	4	49	6	0	0	0
22		0	4	4	10	4	4	42	6	0	951	0
23		0	4	4	10	5	6	1,490	7	0	96	0
24		0	4	3	11	5	6	45	7	0	35	0
25		4	4	2	12	6	3	35	12	0	4	0
26		24	5	1	14	32	5	24	6	0	1	0
27		12	4	1	15	15	6	19	5	0	277	0
28		4	4	1	12	10	19	12	4	0	142	0
29		4	2	2	-	9	162	11	3	0	35	560
30		4	2	4	-	9	552	6	2	0	24	77
31		-	2	11	-	6	-	12	-	61	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	52	24	0	1.73	103
December	74	10	0	2.39	147
Calendar year 1940	6,550	2,220	0	17.9	13,000
January	116	15	0	3.74	230
February	286	40	4	10.2	567
March	220	32	4	7.10	436
April	845	552	1	28.2	1,680
May	4,219	1,490	6	136	8,370
June	3,618	2,730	2	121	7,180
July	1,612	1,300	0	52.0	3,200
August	1,598	951	0	51.5	3,170
September	650	560	0	21.7	1,290
Water year 1940-41	13,290	2,730	0	36.4	26,370

Peak discharge.- May 11 (3 a.m.) 3,900 sec.-ft.; May 23 (4:30 a.m.) 6,800 sec.-ft.; June 9 (8:15 a.m.) 11,000 sec.-ft.
b Stage-discharge relation affected by ice.

Wolf Creek near Shattuck, Okla.

Location.- Water-stage recorder, lat. 36°17'10", long. 99°54'45", in NE¼NE¼ sec. 19, T. 21 N., R. 25 W., at Santa Fe Ry. bridge 2 miles northwest of Shattuck, 2⅔ miles upstream from Rock Creek and 3 miles downstream from Ivanhoe Creek. Datum of gage is 2,189.22 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,100 square miles.

Records available.- January 1938 to September 1941.

Extremes.- Maximum discharge during year, 14,600 second-feet June 9 (gage height, 7.70 feet); no flow Oct. 4-23.

1938-41: Maximum discharge, 16,600 second-feet Aug. 8, 1940 (gage height, 8.42 feet), from rating curve extended above 7,500 second-feet on basis of velocity-area studies; no flow at times.

Remarks.- Records good except those above 200 second-feet and those for period of ice effect, which are poor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	2	6	7	28	22	16	170	40	22	26	22
2	1	2	6	*6	55	19	19	96	279	24	14	16
3	1	2	6	b6	43	16	14	73	84	24	9	12
4	0	1	5	b6	*32	14	13	96	63	24	8	9
5	0	1	4	b6	28	16	10	75	56	34	7	8
6	0	2	*4	*b7	25	24	9	52	54	1,080	6	7
7	0	1	4	b7	20	23	9	44	48	164	7	6
8	0	1	4	b7	19	20	9	37	106	81	6	5
9	0	1	4	b8	18	20	9	38	6,030	51	5	5
10	0	2	*4	10	17	16	7	38	977	36	5	5
11	0	2	4	9	*17	15	7	1,430	454	28	4	4
12	0	2	4	9	15	16	7	336	300	24	4	4
13	0	2	b3	17	14	15	9	90	248	20	4	4
14	0	2	b2	20	11	15	10	63	236	17	4	4
15	0	*b2	b2	18	11	15	112	40	218	18	4	4
16	0	b2	b2	17	11	14	99	32	196	16	4	4
17	0	3	b2	b12	*11	12	32	27	100	14	3	4
18	0	3	b3	b8	11	10	20	22	81	13	3	4
19	0	3	*b5	b8	15	10	20	20	59	12	4	5
20	0	6	b7	10	15	12	17	111	48	10	4	4
21	0	5	9	12	b14	12	16	138	36	9	93	4
22	0	*4	8	13	b12	13	15	94	119	9	562	4
23	0	6	7	*12	b14	14	18	3,020	55	9	170	4
24	1	6	8	10	b16	14	18	232	40	9	86	4
25	1	15	8	10	b20	14	15	114	34	9	42	4
26	2	*15	13	b9	*27	27	14	60	40	32	25	4
27	2	8	*9	b9	28	32	16	46	57	18	22	3
28	2	6	9	10	20	29	26	32	29	10	268	4
29	2	6	8	10	-	21	89	30	23	9	131	386
30	2	6	7	12	-	20	421	32	21	8	55	110
31	3	-	7	*14	-	17	-	34	-	20	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18	3	0	0.6	36
November	119	15	1	4.0	236
December	174	13	2	5.6	345
Calendar year 1940	12,020	4,220	0	32.8	23,840
January	319	20	6	10.3	633
February	567	55	11	20.2	1,120
March	537	32	10	17.3	1,070
April	1,096	421	7	36.5	2,170
May	6,722	3,020	20	217	13,330
June	10,131	6,030	21	338	20,090
July	1,854	1,080	8	59.8	3,680
August	1,614	562	3	52.1	3,200
September	663	396	3	22.1	1,320
Water year 1940-41	23,814	6,030	0	65.2	47,230

Peak discharge.- May 23 (10:30 a.m.) 12,100 sec.-ft.; June 9 (1 p.m.) 14,600 sec.-ft.
* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.- Discharge computed from once-daily readings of staff gage Oct. 26 to Nov. 28, June 12-19.

Wolf Creek near Supply, Okla.

Location.- Water-stage recorder, lat. 36°34'00", long. 99°33'05", on line between secs. 9 and 10, T. 24 N., R. 22 W., at bridge on U. S. Highway 270, 1 mile southeast of Supply, 1.3 miles downstream from Fort Supply flood-control dam, and 3 miles upstream from mouth. Datum of gage is 1,968.35 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,460 square miles.

Records available.- October 1937 to September 1941.

Extremes.- Maximum discharge during year, 6,050 second-feet June 10 (gage height, 4.75 feet); no flow at times.
1937-41: Maximum discharge, 14,200 second-feet June 24, 1939 (gage height, 5.60 feet), from rating curve extended above 8,000 second-feet; no flow at times.
Maximum stage known, 9.6 feet, date unknown, from information by State Highway Department.

Remarks.- Records fair except those for period of ice effect, which are poor. Some regulation during low water due to construction of Fort Supply dam.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	9	21	53	54	55	480	124	150	38	g54
2		0	9	21	97	52	80	234	370	136	46	g49
3		0	9	19	*105	*42	47	195	427	127	32	g36
4		0	8	18	89	38	42	224	153	118	21	g26
5		0	8	b14	72	41	40	186	94	115	18	229
6		0	7	b10	54	54	36	168	94	304	16	92
7		0	7	b15	52	56	34	272	124	728	20	g28
8		0	7	b20	50	53	33	200	89	276	36	g21
9		0	*8	*29	46	47	33	115	1,580	168	21	g17
10		0	7	28	*39	44	33	102	4,780	103	14	g15
11		0	7	26	38	40	29	281	4,480	80	10	g14
12		0	8	25	34	40	29	1,180	3,780	130	10	g12
13		0	b6	26	31	40	28	g505	2,280	73	10	g10
14		0	b4	*31	29	41	36	g181	876	66	9	g7
15		0	b3	37	26	38	142	g74	298	58	9	g5
16		0	*b2	37	24	36	878	g60	345	62	9	4
17		0	b2	b35	*24	33	270	g81	332	54	9	6
18		0	b4	b33	25	32	108	g64	276	46	9	13
19		0	b12	b31	28	29	89	g64	208	38	8	9
20		0	31	*29	b22	28	86	g56	183	33	8	5
21		0	37	29	b22	29	70	g289	157	28	20	4
22		0	27	25	b22	29	64	g263	171	24	622	3
23		0	25	25	b28	31	62	1,600	345	21	767	2
24		0	22	25	b30	31	62	3,230	200	19	272	2
25		4	22	23	44	32	58	1,050	157	19	g187	2
26		54	*16	19	*46	50	56	1,000	146	26	g124	2
27		30	11	*16	54	68	56	238	206	109	g78	2
28		19	25	21	53	62	64	76	260	56	g58	2
29		14	28	22	-	60	79	56	192	34	281	17
30		10	*22	22	-	53	158	70	154	23	109	288
31		-	22	25	-	50	-	81	-	24	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	131	54	0	4.4	260
December	415	37	2	13.4	823
Calendar year 1940	13,828	3,310	0	37.8	27,430
January	757	37	10	24.4	1,500
February	1,235	105	22	44.1	2,450
March	1,333	68	28	43.0	2,640
April	2,857	878	28	95.2	5,670
May	13,475	3,230	56	435	26,730
June	22,881	4,780	89	763	45,380
July	3,248	728	19	105	6,440
August	2,938	767	8	94.8	5,830
September	976	288	2	32.5	1,940
Water year 1940-41	50,246	4,780	0	138	99,660

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
g Computed from graph based on once-daily readings of staff gage.

Deep Fork near Beggs, Okla.

Location.- Wire-weight gage, lat. 35°41', long. 96°04', on line between secs. 19 and 20, T. 14 N., R. 12 E., at county highway bridge, 3 miles upstream from Adams Creek, 4 miles south of Beggs, and 8 miles downstream from Flat Rock (Checkerboard) Creek. Datum of gage is 632.55 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,980 square miles.

Records available.- September 1938 to September 1941.

Extremes.- Maximum discharge during year, 26,200 second-feet June 11 (gage height, 29.78 feet); minimum, 10 second-feet Oct. 22, 23, 25, 27, Nov. 19.
1938-41: Maximum discharge, that of June 11, 1941; no flow at times.

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

0.5	12	3.0	198	10.0	1,480	20.0	4,780	22.5	14,000	27.0	23,600
.7	20	4.0	308	12.0	2,020	20.5	5,680	23.0	15,900	29.0	25,500
1.0	37	5.0	440	15.0	2,880	21.0	7,000	23.5	17,500		
1.5	70	6.0	610	18.0	3,810	21.5	9,100	24.0	18,800		
2.0	107	8.0	1,020	19.0	4,200	22.0	11,400	25.0	20,900		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	49	4,440	658	132	556	80	1,410	208	132	30	141
2	26	40	4,780	1,020	667	384	80	1,150	188	251	29	88
3	26	60	4,500	556	1,640	308	80	1,110	262	1,260	29	63
4	24	43	3,750	344	1,290	251	80	724	229	1,530	25	46
5	22	33	2,190	240	688	208	77	1,780	357	1,560	26	284
6	19	25	488	178	667	188	77	2,740	1,060	1,640	43	1,510
7	18	21	320	150	426	188	84	3,030	2,710	1,700	49	1,180
8	17	18	251	141	296	308	88	3,120	3,270	1,640	137	1,130
9	16	19	208	141	218	262	141	5,620	3,430	896	46	2,530
10	15	19	188	141	188	229	132	10,400	14,700	332	43	3,400
11	14	18	168	123	159	198	94	8,400	26,000	218	29	3,850
12	14	17	150	115	150	178	88	5,400	24,500	178	84	3,880
13	14	15	141	115	141	159	84	4,500	22,500	178	115	3,750
14	14	14	132	141	132	141	88	3,990	20,700	284	99	3,710
15	14	12	198	208	115	132	412	3,490	17,000	218	107	3,810
16	14	11	574	308	115	123	2,650	2,560	9,600	159	115	3,750
17	15	11	556	398	103	123	3,060	781	5,180	132	99	3,300
18	19	11	332	296	103	115	3,850	412	4,200	188	84	1,290
19	15	10	284	218	123	107	9,660	320	3,370	150	91	320
20	12	18	240	208	488	103	18,000	262	1,150	115	63	198
21	11	385	198	198	686	99	18,300	1,480	440	94	46	159
22	10	762	168	168	488	99	18,500	2,850	344	80	35	132
23	10	1,900	159	150	504	99	16,900	2,680	296	70	29	91
24	11	2,280	141	150	426	99	9,560	2,530	556	63	24	99
25	10	1,760	132	141	648	94	5,180	2,560	308	56	21	77
26	11	2,910	123	132	822	94	4,250	2,530	229	49	19	70
27	10	3,030	123	132	932	91	3,550	2,270	198	46	45	63
28	22	3,190	123	123	844	88	1,640	1,240	178	40	440	56
29	60	3,030	123	115	-	88	610	440	159	37	332	49
30	60	3,470	320	107	-	84	976	308	141	35	384	49
31	74	-	320	103	-	84	-	251	-	32	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	642	74	10	20.7	1,270
November	23,171	3,470	10	772	45,960
December	25,820	4,780	123	833	51,210
Calendar year 1940	148,014	4,780	5	404	293,600
January	7,218	1,020	103	233	14,320
February	13,391	1,640	103	478	26,560
March	5,280	556	84	170	10,470
April	118,371	18,500	77	3,946	234,800
May	80,138	10,400	251	2,585	159,000
June	163,463	26,000	141	5,449	324,200
July	13,363	1,700	32	431	26,510
August	2,969	440	19	95.8	5,890
September	39,075	3,880	46	1,302	77,500
Water year 1940-41	492,901	26,000	10	1,350	977,700

Deep Fork near Dewar, Okla.

Location.- Water-stage recorder, lat. 35°28'50", long. 95°52'50", in SE¼ sec. 25, T. 12 N., R. 13 E., at bridge on U. S. Highway 266, 3½ miles east of Dewar and 3½ miles upstream from Wolf Creek. Datum of gage is 578.32 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 2,300 square miles.

Records available.- March 1938 to September 1941.

Extremes.- Maximum discharge during year, 23,300 second-feet June 13 (gage height, 23.9 feet); minimum, 12 second-feet Oct. 25-28 (gage height, 1.21 feet).
1938-41: Maximum discharge, that of June 13, 1941; minimum, 1.8 second-feet Oct. 16, 1939 (gage height, 1.10 feet).
Maximum stage known, about 29.0 feet from floodmarks, in October 1908, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	69	3,230	833	139	940	87	1,420	311	251	42	326
2	32	71	3,450	1,370	830	638	81	1,180	1,460	516	38	177
3	30	53	3,730	1,180	2,060	444	83	961	428	467	41	117
4	30	48	4,040	696	2,020	342	91	877	287	994	41	79
5	30	58	4,190	428	1,530	295	95	756	303	1,350	36	928
6	28	46	3,920	295	1,040	247	97	1,680	922	1,420	33	940
7	27	34	1,950	216	756	239	103	2,490	3,020	1,460	36	1,310
8	24	28	510	177	510	255	146	2,900	2,990	1,510	46	1,330
9	21	27	319	159	349	326	131	3,080	3,110	1,480	66	1,750
10	20	26	255	148	271	311	129	3,380	4,950	961	91	2,730
11	18	26	216	143	220	263	146	3,800	6,700	380	54	2,870
12	20	21	204	133	187	221	123	4,440	13,400	263	51	2,900
13	20	21	191	127	167	187	107	5,100	22,900	247	48	3,080
14	20	17	165	125	152	158	107	5,550	19,800	214	89	3,260
15	21	15	344	154	135	141	350	5,650	16,000	247	103	3,320
16	24	13	961	319	129	131	1,550	5,400	13,400	255	101	3,380
17	20	13	756	592	121	123	3,080	4,800	11,000	209	a107	3,420
18	18	13	581	563	117	115	4,040	3,020	8,900	168	113	3,420
19	17	15	412	380	152	111	6,850	914	7,500	179	97	2,670
20	18	20	349	279	581	107	6,920	460	6,300	194	85	818
21	20	263	295	239	796	103	6,220	364	5,100	156	85	239
22	17	856	247	231	816	101	8,750	1,330	2,530	127	66	187
23	15	1,420	211	194	600	101	11,600	2,320	675	105	51	150
24	13	1,950	184	172	638	101	12,000	2,600	396	89	42	152
25	13	2,250	163	175	940	101	10,700	2,550	396	75	36	287
26	12	2,960	158	170	1,090	101	8,850	2,520	356	66	32	196
27	12	3,290	158	159	1,200	101	7,400	2,490	279	60	220	129
28	17	3,200	150	144	1,110	97	6,250	2,320	247	54	253	89
29	34	3,200	143	135	-	93	5,010	1,460	239	49	262	71
30	46	3,220	143	125	-	89	2,370	601	221	48	412	62
31	66	-	269	119	-	89	-	349	-	46	404	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	736	66	12	23.7	1,460
November	23,243	3,290	13	775	46,100
December	31,894	4,190	143	1,029	63,260
Calendar year 1940	165,268.4	4,190	8.6	452	327,800
January	10,180	1,370	119	328	20,190
February	18,656	2,060	117	666	37,000
March	6,671	940	89	215	13,230
April	103,466	12,000	81	3,449	205,200
May	76,762	5,650	349	2,476	152,300
June	154,120	22,900	221	5,137	305,700
July	13,640	1,510	46	440	27,050
August	3,181	412	32	103	6,310
September	40,385	3,420	62	1,346	80,100
Water year 1940-41	482,934	22,900	12	1,323	957,900

Note.- Discharge for Nov. 13-29, Dec. 8, 9, Jan. 9-11, May 31 to June 1, June 3-9, June 22 to Aug. 16, and Sept. 26-30, computed from graph based on gage readings.
a No gage-height record; discharge interpolated.

Sans Bois Creek near Keota, Okla.

Location.- Wire-weight gage, lat. 35°16', long. 94°58', in NW¼ sec. 15, T. 9 N., R. 22 E., at bridge on State Highway 10, 2½ miles west of Keota and 13 miles upstream from mouth. Datum of gage is 437.27 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 346 square miles.
Records available.- May 1938 to September 1941.
Extremes.- Maximum discharges for water years 1938 to 1941 are contained in the following table:

Water year	Date	Maximum	
		Discharge (sec.-ft.)	Gage height (feet)
* 1938	May 25	3,870	†18.2
1938-39	Apr. 18	3,450	†17.55
1939-40	Apr. 13	3,660	‡17.9
1940-41	Jan. 3	6,300	†19.4

* Period May 11 to Sept. 30.
† From graph based on gage readings.
‡ From reading at flood crest.

1938-41: Maximum discharge, that of Jan. 3, 1941; no flow at times during each year. Maximum stage known, 26.1 feet Feb. 18, 1938, from information by local residents.
Remarks.- Records for water years 1938, 1939, and 1940 poor; records for water year 1941 fair, except those below 10 second-feet, which are poor. Gage read twice daily, oftener during rises.
Cooperation.- Records from May 1938 to September 1940 were collected and computed by the Corps of Engineers, U. S. Army, and prepared for publication by the Geological Survey.

Discharge, in second-feet, 1938-41

1938

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	- -	144	17	4	2	16	1,280	52	8	78	1
2	-	312	14	4	2	17	299	58	15	611	1
3	-	102	10	3	2	18	162	37	28	522	1
4	-	58	8	3	2	19	97	92	10	252	0
5	-	41	7	3	2	20	73	325	7	82	0
6	-	44	6	3	2	21	62	174	5	26	0
7	-	58	6	4	2	22	52	87	4	15	0
8	-	41	4	4	2	23	2,220	41	3	11	0
9	-	32	4	3	2	24	3,030	25	3	8	0
10	-	39	4	3	2	25	3,870	19	2	7	0
11	138	250	3	3	2	26	2,320	22	2	5	0
12	87	924	14	3	2	27	1,070	16	2	4	0
13	822	780	10	4	2	28	1,250	14	1	3	0
14	2,200	299	7	5	1	29	632	15	2	3	0
15	2,700	102	4	17	1	30	341	22	5	3	0
						31	162	-	5	3	-

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1	3	26	743	211	20	13	14	0	
2		0	2	3	32	475	144	18	30	7	0	
3		0	2	3	37	262	97	16	20	12	0	
4		0	2	3	58	770	468	15	15	32	0	
5		0	2	3	73	1,780	1,330	12	13	26	0	
6		4	2	3	97	936	2,420	10	47	21	0	
7		55	2	3	114	364	2,840	8	42	14	0	
8		132	2	3	102	212	1,870	7	88	9	0	
9		87	2	4	87	186	516	7	58	6	0	
10		52	2	8	162	162	271	7	30	3	0	
11		26	2	16	273	162	197	6	21	2	0	
12		16	2	11	224	174	145	5	64	2	0	
13		9	2	8	108	126	104	10	229	2	0	
14		7	2	7	73	102	82	7	88	2	0	
15		6	2	8	69	62	62	4	34	1	0	
16		6	1	9	65	62	1,170	3	22	1	0	
17		5	1	9	69	58	2,880	186	15	1	0	
18		7	1	10	73	52	2,820	145	11	0	0	
19		5	1	11	1,020	49	1,150	685	15	0	0	
20		5	1	11	1,780	44	360	839	17	0	0	
21		4	1	11	1,290	41	238	342	9	0	0	
22		4	1	12	432	39	186	150	7	0	0	
23		3	2	15	198	37	142	82	14	0	0	
24		2	2	14	172	32	110	47	13	0	0	
25		2	2	14	669	32	82	37	59	0	4	
26		2	2	16	1,010	34	72	215	94	0	0	
27		1	2	17	707	37	51	115	30	0	0	
28		1	3	17	810	37	42	51	20	0	0	
29		1	3	18	-	158	30	32	32	0	0	
30		1	3	19	-	444	24	22	44	0	0	
31		-	3	22	-	364	-	18	-	0	0	

Discharge, in second-feet, of San Bois Creek near Keota, Okla., 1938-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	2	2	2	40	3	609	42	9	8	16
2		0	2	2	2	34	3	256	32	9	8	11
3		0	2	2	2	28	3	144	25	32	8	59
4		0	2	2	3	25	3	93	20	28	a6	144
5		0	4	2	2	22	36	120	17	25	a6	c104
6		0	7	2	3	20	77	42	15	15	a4	c88
7		0	10	b3	3	18	536	37	403	14	a3	c72
8		0	11	b3	3	15	862	28	574	10	a2	c54
9		0	7	3	2	14	480	24	1,830	6	a1	40
10		0	4	2	2	13	229	22	2,650	4	a1	25
11		0	3	2	a3	11	1,130	21	2,700	3	2	20
12		0	3	2	a3	11	2,540	19	2,370	15	1	16
13		0	2	2	a4	10	3,210	16	845	98	3	13
14		0	2	3	a4	9	1,560	13	310	47	1	10
15		0	2	2	*6	10	335	11	212	22	1	7
16		0	1	2	4	14	185	9	158	14	1	6
17		0	1	2	6	12	170	8	420	9	372	5
18		0	1	2	30	10	270	160	256	5	c882	4
19		0	1	*2	75	9	175	410	188	4	c560	3
20		0	1	2	243	7	120	132	115	292	c240	3
21		0	1	b2	188	6	82	44	72	1,510	77	2
22		0	1	b2	120	6	62	37	47	1,400	40	2
23		0	1	b2	77	5	44	34	37	575	37	2
24		0	b1	b2	44	8	40	58	42	100	34	2
25		0	1	b2	42	8	34	126	37	42	16	2
26		0	2	2	82	6	28	382	26	30	13	1
27		0	3	2	104	6	34	270	24	22	15	1
28		0	*3	2	77	6	93	104	19	20	93	1
29		0	2	2	51	4	867	138	15	18	166	1
30		1	2	2	-	4	1,440	98	12	16	51	1
31		-	2	2	-	3	-	47	-	8	25	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
c Backwater from Arkansas River; discharge estimated.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	23	67	1,820	274	404	24	1,900	52	7.5	2.0	24
2	.3	16	44	4,300	660	313	21	1,240	635	9.5	28	14
3	.3	9.6	39	5,250	1,440	274	20	420	1,430	6.5	3.5	39
4	.3	6.8	42	2,820	1,650	196	20	274	840	4.6	1.8	21
5	.3	4.0	37	904	782	147	20	590	196	4.2	1.2	128
6	.3	2.8	29	280	446	117	20	720	106	3.2	.8	705
7	.3	2.1	28	207	300	159	20	432	54	2.0	5.3	339
8	.2	1.7	26	167	222	171	19	261	41	3.5	16	82
9	.1	5.0	23	148	171	171	19	196	38	5.5	21	66
10	.1	17	22	134	141	141	18	129	129	4.2	3.9	74
11	.1	31	26	95	123	117	16	129	209	3.4	.2	50
12	.1	28	125	74	111	100	15	100	339	2.9	1.2	41
13	.1	23	295	70	242	94	14	70	418	2.6	0	21
14	.1	14	315	112	530	84	21	58	171	2.0	39	19
15	.2	8.6	465	670	326	84	617	47	47	1.8	26	16
16	.1	6.0	1,260	1,380	196	84	1,950	41	38	168	5.7	12
17	.1	4.5	1,570	1,150	141	79	2,710	36	30	193	3.5	8.4
18	0	3.5	480	686	123	74	1,560	32	26	54	1.4	7.3
19	0	2.7	310	382	330	62	1,110	28	23	48	6.3	d5.0
20	0	2.2	2356	243	1,920	54	2,160	24	19	615	.8	d3.8
21	0	9.9	240	204	3,100	54	1,880	21	15	339	3.2	d2.8
22	0	19	135	230	3,130	44	1,170	18	14	70	9.2	d2.0
23	0	26	100	296	1,320	38	700	21	13	32	126	d3.0
24	0	33	86	1,340	715	38	360	135	9.7	21	185	30
25	0	68	76	1,480	1,240	41	280	159	7.5	15	41	54
26	0	372	68	862	1,190	36	210	111	5.7	11	19	14
27	0	719	63	630	900	34	150	54	4.8	6.1	37	10
28	5.4	446	56	432	615	30	123	41	4.4	10	600	4.9
29	19	152	53	274	-	28	100	38	3.5	5.3	274	12
30	74	121	49	222	-	28	932	28	2.9	3.2	62	7.7
31	39	-	103	196	-	26	-	21	-	2.6	30	-

d Doubtful gage-height record; discharge estimated.

Monthly discharge, in second-feet, of Sans Bois Creek near Keota, Okla., 1938-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
May 11-31, 1938	22,867	3,870	62	1,089	3.15	2.46	45,360
June	4,225	924	14	141	.408	.45	8,380
July	220	28	1	7.1	.021	.02	436
August	1,699	611	3	54.8	.158	.18	3,370
September	31	2	0	1.0	.0030	.003	61
The period	-	-	-	-	-	-	57,600
October 1938	0	0	0	0	0	0	0
November	443	132	0	14.8	.043	.05	879
December	58	3	1	1.9	.0054	.006	115
Calendar year	-	-	-	-	-	-	-
January 1939	311	22	3	10.0	.029	.03	617
February	9,830	1,780	26	351	1.01	1.06	19,500
March	8,036	1,780	32	259	.749	.86	15,940
April	20,114	2,880	24	670	1.94	2.16	39,900
May	3,121	839	3	101	.292	.34	6,190
June	1,194	229	7	39.8	.115	.13	2,370
July	155	32	0	5.0	.014	.02	307
August	4	4	0	.1	.00038	.0004	8
September	0	0	0	0	0	0	0
Water year 1938-39	43,266	2,880	0	119	.344	4.66	85,830
October 1939	0	0	0	0	0	0	0
November	1	1	0	.03	.000095	.0001	2
December	87	11	1	2.8	.0081	.009	173
Calendar year 1939	42,853	2,880	0	117	.338	4.61	85,010
January 1940	66	3	2	2.1	.0062	.007	131
February	1,187	243	2	40.9	.118	.13	2,350
March	394	40	3	12.7	.037	.04	781
April	14,651	3,210	3	488	1.41	1.57	29,060
May	3,512	609	8	113	.327	.38	6,970
June	13,513	2,700	12	450	1.30	1.45	26,800
July	4,402	1,510	3	142	.410	.47	8,730
August	2,677	882	1	86.4	.250	.29	5,310
September	715	144	1	23.8	.069	.08	1,420
Water year 1939-40	41,205	3,210	0	113	.327	4.43	81,730
October 1940	140.8	74	0	4.54	.013	.01	279
November	2,177.4	719	1.7	72.6	.210	.23	4,320
December	6,467	1,570	22	209	.604	.70	12,830
Calendar year 1940	51,184.2	3,210	0	140	.405	5.50	101,500
January 1941	27,068	5,250	70	873	2.52	2.90	53,670
February	22,338	3,130	111	798	2.31	2.40	44,310
March	3,322	404	26	107	.309	.36	6,590
April	16,279	2,710	14	543	1.57	1.75	32,290
May	7,374	1,900	18	238	.688	.79	14,630
June	4,921.5	1,430	2.9	164	.474	.53	9,760
July	1,646.6	615	1.8	53.1	.153	.18	3,270
August	1,552.0	600	0	50.1	.145	.17	3,080
September	1,815.9	705	2.0	60.5	.175	.20	3,600
Water year 1940-41	95,092.2	5,250	0	261	.754	10.22	188,800

Poteau River at Cauthron, Ark.

Location.- Water-stage recorder, lat. 34°55', long. 94°18', in sec. 16, T. 3 N., R. 31 W., at highway bridge at Cauthron, about 8 miles downstream from Jones Creek. Altitude of gage, 585 feet (from topographic map).

Drainage area.- 198 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 2,760 second-feet Dec. 16 (gage height, 10.57 feet); no flow Oct. 25-27.
1939-41: Maximum discharge, 22,300 second-feet Apr. 16, 1939 (gage height, 22.5 feet, from graph based on gage readings), from rating curve extended above 10,000 second-feet by velocity-area studies; no flow at times during each year.
Flood of June 1935 reached a stage of 27.4 feet, from information furnished by local residents.

Remarks.- Records good except those for period of backwater from trash, which are poor.

Rating tables, water year 1940-41, except for period of backwater from trash (gage height, in feet, and discharge, in second-feet)

Nov. 11 to May 6

4.7	4.8	5.4	103	7.0	863
4.8	9.5	5.6	175	8.0	1,380
4.9	19	5.8	260	9.0	1,900
5.0	29	6.0	354		
5.2	58	6.5	603		

May 7 to Sept. 30

4.5	1.0	4.8	8.5	5.1	33
4.6	3.2	4.9	13	5.2	50
4.7	5.5	5.0	22	5.4	103

Note.- Same as preceding table above 5.4 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.3	62	1,160	221	242	32	265	11	6.1	2.5	2.8
2	.9	.3	50	863	588	204	30	148	876	5.5	2.3	2.8
3	.8	.2	42	340	865	179	28	106	278	4.8	3.7	2.3
4	.8	.1	36	212	448	145	28	103	110	3.9	3.4	1.9
5	.7	.1	33	152	316	106	27	90	62	3.9	2.8	12
6	.7	.1	29	113	242	624	25	967	39	3.9	1.9	9.2
7	.8	.1	28	93	183	508	25	528	31	3.4	1.4	20
8	.8	.1	26	80	141	423	42	311	25	2.8	1.4	13
9	.7	.9	24	69	113	311	56	533	22	2.5	1.4	17
10	.5	2.5	22	60	95	238	37	288	1,060	2.1	1.0	12
11	.4	325	45	53	82	175	29	167	1,150	2.1	.8	6.1
12	.3	88	889	50	80	148	24	117	354	2.8	.6	5.3
13	.2	33	398	45	634	123	20	86	183	3.2	33	4.8
14	.4	20	256	48	278	103	19	64	117	9.7	137	4.1
15	.7	12	771	183	171	145	251	48	80	14	39	3.4
16	.5	8.8	1,540	130	134	260	603	39	60	6.9	17	3.0
17	.4	7.2	413	100	110	164	251	33	47	14	9.2	2.3
18	.3	5.9	251	69	93	117	624	28	33	16	6.1	2.1
19	.2	7.2	234	55	320	95	619	24	27	8.8	4.1	1.9
20	.2	10	179	50	993	87	478	20	24	5.5	2.8	1.4
21	.1	22	123	48	493	80	238	17	20	3.9	2.1	1.2
22	.1	40	95	50	423	71	167	15	22	3.0	2.8	.8
23	.1	645	77	142	388	64	1,020	13	16	14	2.9	.8
24	.1	251	64	1,020	553	58	759	16	17	14	2.1	148
25	0	160	58	458	578	53	378	19	15	16	3.7	811
26	0	1,200	52	543	558	48	234	13	11	13	6.1	132
27	0	340	52	354	453	44	164	11	9.2	8.8	5.3	47
28	.2	156	238	242	316	42	117	9.7	8.5	6.3	4.1	25
29	.3	98	120	191	-	39	87	10	7.6	4.8	3.7	18
30	.1	73	75	160	-	36	234	9.2	6.9	4.6	2.8	13
31	.2	-	62	134	-	34	-	8.5	-	3.7	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	12.5	1.0	0	0.40	0.0020	0.002	25
November	3,506.8	1,200	.1	117	.591	.66	6,960
December	6,334	1,540	22	204	1.03	1.19	12,560
Calendar year 1940	27,560.8	1,730	0	75.3	.380	5.18	54,670
January	7,287	1,180	45	235	1.19	1.37	14,450
February	9,867	993	80	352	1.78	1.85	19,570
March	4,966	624	34	160	.808	.93	9,850
April	6,646	1,020	19	222	1.12	1.25	13,180
May	4,106.4	967	8.5	132	.667	.77	8,140
June	4,722.2	1,150	6.9	157	.793	.88	9,370
July	214.0	16	2.1	6.90	.035	.04	424
August	309.2	137	.6	9.97	.050	.06	613
September	1,324.2	811	.8	44.1	.223	.25	2,630
Water year 1940-41	49,295.3	1,540	0	135	.682	9.25	97,770

Note.- Backwater from trash Oct. 1 to Nov. 10; discharge computed on basis of three discharge measurements, gage heights, and weather records.

Poteau River near Wister, Okla.

Location.- Water-stage recorder, 34°57', long. 94°42', in NW¼ sec. 32, T. 6 N., R. 25 E., at Chicago, Rock Island & Pacific Ry. bridge, three-quarters of a mile upstream from Caston Creek, 2 miles southeast of Wister, and 5½ miles downstream from Fourche Maline. Datum of gage is 433.02 feet above mean sea level, datum of 1929.
Drainage area.- 1,015 square miles.
Records available.- May 1938 to September 1941.
Extremes.- Maximum discharge during year, 8,760 second-feet Jan. 2 (gage height, 21.58 feet); minimum, 1.1 second-foot Nov. 9.
1938-41: Maximum discharge, 90,200 second-feet Apr. 17, 1939 (gage height, 37.1 feet); no flow Sept. 28 to Nov. 3, 1938, Sept. 11 to Oct. 25, 1939.
Maximum stage known, 43.0 feet, original site and datum, in June 1935.
Remarks.- Records fair except those for days of rapidly changing stage and those below 10 second-feet, which are poor.

Rating tables, water year 1940-41, except period of backwater from debris (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 24 to Nov. 12, Sept. 27-30)

Oct. 1 to Apr. 18				Apr. 19 to Sept. 30			
3.7	1.6	5.6	208	3.8	3.0	5.3	144
3.8	2.5	6.0	335	3.9	5.0	5.6	207
3.9	3.5	6.5	535	4.0	7.5	6.0	305
4.0	4.6	7.0	760	4.2	15	6.5	456
4.2	8.0	9.0	1,660	4.4	27	7.0	650
4.4	16	11.0	2,600	4.6	44	8.0	1,100
4.6	31	14.0	4,250	4.8	65	10.0	2,100
4.8	50	18.0	6,600	5.0	92		
5.0	76	22.0	9,000	Note.- Same as preceding table above 11 feet.			
5.3	131						

Discharge, in second-fset, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	2.3	419	5,520	895	1,520	197	4,800	86	46	21	30
2	7.2	2.0	328	8,580	2,380	1,260	181	3,100	116	40	18	24
3	11	1.5	265	6,240	6,240	1,120	181	1,450	836	38	16	20
4	c11	1.4	225	3,260	5,160	985	168	920	740	37	13	15
5	c9.5	1.5	189	1,390	2,820	850	155	762	409	35	10	206
6	c8.8	1.5	163	1,010	1,660	1,120	148	988	274	32	9.2	f384
7	c10	1.4	143	828	1,260	1,840	148	1,900	207	28	8.2	218
8	c8.9	1.4	129	715	1,050	1,620	145	1,400	164	26	7.2	232
9	c7.8	1.7	118	625	872	1,340	136	4,140	138	22	7.5	f346
10	c6.8	3.3	108	527	738	1,160	138	2,100	448	20	7.8	f530
11	c6.0	12	262	463	670	985	155	988	2,400	18	6.2	324
12	5.4	22	1,710	411	648	828	151	650	2,400	17	5.2	148
13	5.0	256	2,460	371	1,080	738	114	474	965	31	4.8	89
14	4.4	155	1,660	598	1,340	670	143	384	590	40	4.2	68
15	3.9	87	2,260	1,210	1,100	692	2,590	313	396	31	4.0	57
16	3.1	58	5,400	1,190	850	805	6,720	269	305	24	3.4	47
17	2.7	43	5,040	1,120	692	850	6,180	235	247	20	3.0	39
18	2.4	35	2,600	940	625	692	8,160	205	207	39	8.9	33
19	2.2	29	1,300	760	1,730	580	7,740	181	168	97	34	27
20	2.0	24	985	580	6,780	527	5,160	162	142	63	29	23
21	1.8	24	828	495	7,080	487	2,980	144	122	55	22	21
22	1.7	46	648	447	5,100	447	1,600	129	105	45	22	22
23	1.9	266	544	1,010	3,100	415	3,420	125	95	120	60	21
24	2.0	1,140	467	1,890	3,150	375	5,760	120	84	72	105	25
25	2.0	872	407	3,320	3,860	343	3,640	106	88	158	44	45
26	2.1	2,070	367	2,710	3,540	304	1,800	200	78	262	33	f546
27	2.1	1,660	328	2,030	2,930	278	1,180	148	68	63	84	340
28	2.4	1,570	301	1,480	2,070	256	875	110	69	51	125	183
29	2.7	850	407	1,140	-	237	695	97	60	36	85	123
30	2.7	558	407	962	-	225	3,880	88	52	29	52	94
31	2.7	-	321	850	-	211	-	85	-	24	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	149.4	11	1.7	4.82	0.0047	0.005	296
November	9,795.0	2,070	1.4	326	.321	.36	19,430
December	30,789	5,400	108	993	.978	1.13	61,070
Calendar year 1940	137,596.8	7,010	1.4	376	.370	5.04	272,900
January	52,672	8,580	371	1,699	1.67	1.92	104,500
February	69,420	7,080	625	2,479	2.44	2.54	137,700
March	23,760	1,840	211	766	.755	.87	47,130
April	64,520	8,160	114	2,151	2.12	2.36	128,000
May	26,773	4,800	85	864	.851	.98	53,100
June	12,059	2,400	52	402	.396	.44	23,920
July	1,619	262	17	52.2	.051	.06	3,210
August	896.6	125	3.0	28.9	.028	.03	1,780
September	4,280	546	15	143	.141	.16	8,490
Water year 1940-41	296,733.0	8,580	1.4	813	.801	10.86	588,600

Peak discharge.- Jan. 2 (10:30 a.m.) 8,760 sec.-ft.; Feb. 21 (1 a.m.) 7,740 sec.-ft.; Apr. 18 (9:30 p.m.) 8,580 sec.-ft.
c Backwater from debris; discharge computed on basis of records for station at Poteau.
f Computed on basis of partly estimated gage-height record.

Poteau River at Poteau, Okla.

Location.- Water-stage recorder, lat. 35°03'35", long. 94°36'10", in SE¼SW¼ sec. 19, T. 7 N., R. 26 E., at St. Louis-San Francisco R. R. bridge, 1 mile northeast of Poteau and 2 miles upstream from Nail Creek. Datum of gage is 409.4 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 1,240 square miles.

Records available.- March 1938 to September 1941.

Extremes.- Maximum discharge during year, 9,260 second-feet Jan. 3 (gage height, 24.87 feet); minimum, 0.2 second-foot Nov. 8 (gage height, 1.60 feet).
1938-41: Maximum discharge, 68,200 second-feet Apr. 17, 1939 (gage height, 36.2 feet); minimum, that of Nov. 8, 1940.
Maximum stage known, 39.0 feet June 22, 1935 (discharge, 100,000 second-feet).

Remarks.- Records good except those for days of rapidly changing stage, which are fair.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 2-21)

1.6	0.2	2.6	135	10.0	2,340
1.7	4.5	3.0	226	12.0	3,000
1.8	11	3.5	364	15.0	4,230
1.9	18	4.0	500	18.0	5,600
2.0	27	5.0	817	21.0	7,100
2.1	40	6.0	1,150	24.0	8,600
2.3	75	8.0	1,760	25.0	9,370

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	2.0	470	4,770	986	2,140	224	5,750	149	61	27	50
2	8.0	1.5	368	8,840	1,930	1,640	210	4,720	373	52	22	36
3	6.6	1.0	303	8,770	5,190	1,360	205	2,690	386	45	22	27
4	6.0	.6	260	7,000	6,400	1,150	201	1,410	1,090	40	24	22
5	6.0	.6	226	3,670	4,820	952	185	1,020	561	37	16	462
6	8.7	.6	203	1,380	2,580	1,100	175	1,260	348	36	14	561
7	7.3	.4	185	918	1,670	1,840	178	1,930	255	32	12	346
8	6.0	.2	168	751	1,250	2,160	180	2,140	203	30	11	238
9	5.5	5.8	155	623	986	1,730	175	2,900	164	26	10	915
10	6.0	6.0	144	530	800	1,470	162	3,550	497	45	9.3	1,020
11	5.5	12	187	470	671	1,190	171	1,640	1,610	26	8.7	500
12	5.5	21	1,580	411	608	952	171	884	3,230	17	8.0	274
13	5.5	91	2,620	368	1,560	817	148	623	1,820	17	8.0	157
14	6.0	221	2,370	508	1,350	667	144	470	850	27	6.0	106
15	5.5	153	2,310	1,700	1,470	719	1,090	382	515	36	5.5	90
16	4.5	106	4,860	1,500	986	952	5,650	310	368	31	5.0	75
17	4.0	81	6,000	1,380	768	918	7,100	267	295	25	4.5	61
18	3.5	64	4,500	1,090	639	800	8,200	233	245	21	5.0	48
19	3.5	48	2,110	884	1,650	639	8,990	203	205	65	4.5	40
20	3.5	40	1,250	639	6,550	561	8,250	185	173	104	3.5	34
21	3.0	39	986	530	8,100	515	6,250	168	159	75	22	27
22	2.0	61	768	455	7,550	470	3,750	153	159	84	106	22
23	2.0	180	608	834	5,750	440	3,150	173	162	94	36	20
24	2.0	780	515	3,350	4,230	396	5,900	157	118	110	65	34
25	1.5	1,190	440	3,960	4,680	368	5,700	127	102	92	84	68
26	1.0	1,580	396	3,960	4,640	332	3,270	139	100	411	100	188
27	1.0	2,520	368	3,000	4,000	303	1,760	208	84	178	263	561
28	3.0	2,370	343	2,110	3,000	282	1,250	153	81	83	164	282
29	3.5	1,190	340	1,500	-	260	952	129	81	59	148	180
30	2.0	639	455	1,190	-	245	2,490	112	70	42	104	129
31	2.0	-	368	986	-	236	-	102	-	32	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	139.1	8.7	1.0	4.49	0.0036	0.004	276
November	11,404.7	2,520	.2	380	.306	.34	22,620
December	35,856	6,000	144	1,157	.933	1.08	71,120
Calendar year 1940	160,691.0	7,360	.2	439	.354	4.82	318,700
January	68,077	8,840	368	2,196	1.77	2.04	135,000
February	84,814	8,100	608	3,029	2.44	2.54	168,200
March	27,614	2,160	236	891	.719	.83	54,770
April	76,281	8,990	144	2,543	2.05	2.29	151,300
May	34,188	5,750	102	1,103	.890	1.03	67,810
June	14,453	3,230	70	482	.389	.43	28,670
July	2,033	411	17	65.6	.053	.06	4,030
August	1,386.0	263	3.5	44.7	.036	.04	2,750
September	6,573	1,020	20	219	.177	.20	13,040
Water year 1940-41	362,818.8	8,990	.2	994	.802	10.88	719,600

Peak discharge.- Jan. 3 (1 a.m.) 9,260 sec.-ft.; Feb. 21 (4 p.m.) 8,250 sec.-ft.; Apr. 19 (5 p.m.) 9,160 sec.-ft.

Fourche Maline near Red Oak, Okla.

Location.- Water-stage recorder, lat. 34°55', long. 95°09', in NW¼ sec. 13, T. 5 N., R. 20 E., at county highway bridge, 0.1 mile downstream from Little Fourche Maline and 5 miles southwest of Red Oak. Prior to Apr. 25, 1939, staff gage at same site and datum.

Drainage area.- 121 square miles.

Records available.- March 1939 to September 1941.

Extremes.- 1939: Maximum discharge during period March to September, 3,630 second-feet Apr. 16 (gage height, 16.6 feet, from graph based on gage readings); no flow at times.
1939-40: Maximum discharge during water year, 5,850 second-feet Apr. 11 (gage height, 17.47 feet); no flow Oct. 1-26.
1940-41: Maximum discharge during water year, 3,470 second-feet Apr. 16 (gage height, 16.53 feet); no flow at times.
Flood in June 1935 reached a stage of 25.4 feet, from floodmarks.

Remarks.- Records fair except those for extremely low flows, which are poor. Gage read twice daily prior to Apr. 25, 1939.

Cooperation.- Records for March to September 1939 were collected and computed by the Corps of Engineers, U. S. Army, and prepared for publication by the Geological Survey.

Discharge, in second-feet, 1939-41

1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	86	15	7	6	0	
2						-	61	13	15	5	0	
3						86	45	12	8	11	0	
4						69	22	10	5	9	0	
5						459	57	10	5	5	0	
6						219	445	8	16	4	0	
7						106	292	7	26	4	0	
8						71	123	8	20	4	0	
9						56	90	8	12	4	1	
10						47	66	7	e	4	3	
11						61	44	6	6	4	2	
12						64	33	5	7	3	1	
13						44	25	6	7	3	1	
14						34	27	6	6	2	1	
15						28	32	6	5	2	1	
16						30	2,210	6	5	2	1	
17						20	2,140	6	4	2	1	
18						12	435	7	4	2	0	
19						12	213	248	4	2	0	
20						14	134	159	4	2	0	
21						12	91	59	4	1	0	
22						11	67	36	6	1	0	
23						11	50	24	19	1	0	
24						11	41	18	29	1	0	
25						12	34	14	12	1	0	
26						14	30	11	15	1	0	
27						20	26	9	10	1	0	
28						254	22	7	8	0	0	
29						373	19	7	7	1	0	
30						239	17	6	7	1	0	
31						130	-	6	-	0	0	

Discharge, in second-feet, of Fourche Maline near Red Oak, Okla., 1939-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	h0.5	20	1.7	1.5	17	1.7	149	26	8.6	2.9	5.0
2	0	h.4	22	1.8	1.6	15	1.8	86	20	52	2.4	3.5
3	0	h.3	11	2.4	2.9	13	15	58	16	97	2.0	3.1
4	0	h.4	6.4	2.4	3.5	11	31	43	12	37	1.8	8.2
6	0	h.4	4.3	2.4	4.5	10	37	33	9.0	18	1.3	146
6	0	h.4	3.3	2.4	7.3	9.3	243	26	6.7	11	1.0	101
7	0	h.4	2.9	2.9	10	7.6	1,220	21	5.6	7.3	1.0	39
8	0	h.4	2.6	2.4	12	6.7	379	18	4.8	6.1	.8	21
9	0	h.3	2.2	2.2	9.3	6.1	139	17	5.6	5.0	.5	15
10	0	1.0	1.8	2.2	8.2	5.6	96	16	13	4.0	.4	10
11	0	5.3	1.6	2.4	9.0	6.4	3,100	13	50	3.5	.4	7.6
12	0	9.0	1.3	2.4	7.9	6.4	1,670	12	50	3.8	.4	5.3
13	0	3.1	1.1	2.6	6.7	5.6	280	9.7	31	16	.4	4.3
14	0	1.6	1.0	2.9	5.8	5.6	154	7.3	28	11	.7	3.8
15	0	1.5	.9	2.9	5.0	6.4	98	5.8	18	5.6	1.2	3.1
16	0	1.5	.9	2.4	4.5	6.1	70	6.1	15	3.8	1.1	2.2
17	0	2.4	.8	2.4	6.4	5.8	91	6.1	18	2.6	73	1.7
18	0	3.8	.7	2.2	76	5.0	134	127	96	1.8	320	1.5
19	0	5.3	.7	2.2	149	4.3	94	245	74	2.9	94	1.1
20	0	6.7	.6	2.0	90	3.8	64	77	34	447	32	1.1
21	0	4.5	.6	2.0	57	3.3	48	42	23	550	17	1.2
22	0	2.9	.7	1.8	39	3.3	37	30	16	116	9.3	1.3
23	0	2.0	1.3	1.8	28	2.9	31	22	11	50	6.4	1.5
24	0	1.7	1.7	1.8	23	2.9	26	313	9.0	27	5.0	1.7
25	0	1.6	4.8	1.7	22	2.6	23	185	6.4	17	4.0	2.4
26	a12	1.6	5.3	1.6	24	2.4	20	107	6.4	12	3.6	2.0
27	a35	1.3	3.8	1.5	23	2.2	28	66	5.0	8.4	3.5	1.6
28	18	1.5	2.6	1.5	21	2.2	91	105	9.4	6.4	4.0	1.3
29	4.0	1.7	2.2	1.5	20	2.2	2,070	91	89	5.0	8.4	1.1
30	1.3	4.3	1.8	1.5	-	2.0	372	58	20	4.0	10	.9
31	h.7	-	1.7	1.5	-	1.7	-	39	-	3.5	6.7	-

a No gage-height record; discharge computed from graph based on recorded range in stage and rainfall records.
h Computed from twice-daily readings of staff gage.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.6	22	1,590	72	116	12	641	9.3	2.4	0.7	1.7
2	.4	1.2	18	1,730	551	95	10	207	98	5.5	.4	2.9
3	.2	.9	17	304	876	88	10	113	101	2.4	.3	2.4
4	.2	.7	14	149	300	72	9.7	97	42	1.8	.2	1.8
5	.2	.6	12	99	169	58	9.0	541	23	2.0	.2	56
6	.2	.5	12	73	120	57	8.2	378	16	1.3	.1	120
7	.4	.4	11	62	92	62	8.6	144	13	1.1	.1	30
8	.2	.3	10	55	70	62	8.6	109	13	.9	0	14
9	.2	1.0	9.7	48	58	60	8.2	87	13	1.9	0	116
10	.2	2.9	9.0	42	50	55	7.6	62	45	4.0	.4	26
11	.2	7.3	12	36	43	53	7.3	49	120	1.7	.4	12
12	.2	3.8	40	33	39	44	7.0	37	82	1.1	.2	8.2
13	.2	2.0	69	30	181	42	6.1	28	39	.8	.1	7.6
14	.4	1.3	91	51	139	39	64	23	22	.7	.2	6.4
15	1.3	1.1	427	177	84	36	1,220	20	16	46	.2	6.1
16	.9	1.0	870	261	66	37	2,370	17	13	38	.2	5.8
17	.4	1.0	234	264	56	36	465	15	11	5.8	.1	5.0
18	.2	.9	120	134	48	31	757	14	9.0	2.2	.1	4.3
19	.1	.8	93	90	564	26	808	12	7.6	2.2	0	4.3
20	0	.7	76	71	2,100	24	614	10	6.7	2.0	0	3.5
21	0	5.0	62	60	918	22	199	9.0	6.1	1.5	0	2.9
22	0	23	53	54	313	22	130	8.2	5.8	1.1	26	1.8
23	0	20	45	187	234	21	196	9.7	5.6	.9	15	1.3
24	0	14	40	505	421	20	218	68	5.0	.6	1.6	5.6
25	0	22	37	264	535	19	130	65	4.3	.4	.8	6.1
26	0	435	36	169	339	17	91	26	3.8	.3	.5	4.3
27	0	207	35	116	258	16	69	17	3.5	.2	27	3.3
28	0	69	36	90	159	16	53	12	3.1	.1	28	2.2
29	0	40	34	73	-	14	45	10	2.9	.4	7.6	1.8
30	3.2	28	29	63	-	13	948	8.6	2.6	1.6	3.3	1.5
31	3.5	-	31	57	-	13	-	7.0	-	1.1	1.8	-

Peak discharge.- Jan. 2 (12:45 a.m.) 2,530 sec.-ft.; Apr. 16 (3 a.m.) 3,470 sec.-ft.

Monthly discharge, in second-feet, of Fourche Maline near Red Oak, Okla., 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
March, 3-31, 1939	2,519	459	11	86.9	0.718	0.77	5,000
April	6,977	2,210	17	233	1.93	2.15	13,840
May	750	248	5	24.2	.200	.23	1,490
June	291	29	4	9.7	.080	.09	577
July	89	11	0	2.9	.024	.03	177
August	12	3	0	.4	.0033	.004	24
September	0	0	0	0	0	0	0
The period	-	-	-	-	-	-	21,110
October 1939	71.0	35	0	2.29	.019	.02	141
November	67.8	9.0	.3	2.26	.019	.02	134
December	112.6	22	.6	3.63	.030	.03	223
Calendar year	-	-	-	-	-	-	-
January 1940	65.4	2.9	1.5	2.11	.017	.02	130
February	678.1	149	1.5	23.4	.193	.21	1,340
March	184.4	17	1.7	5.95	.049	.06	366
April	10,714.5	3,100	1.7	357	2.95	3.29	21,250
May	2,094.0	313	5.8	67.5	.558	.64	4,150
June	727.9	96	4.8	24.3	.201	.22	1,440
July	1,543.3	550	1.8	49.8	.412	.48	3,060
August	615.0	320	.4	19.8	.164	.19	1,220
September	398.5	146	.9	13.3	.110	.12	790
Water year 1939-40	17,272.5	3,100	0	47.2	.390	5.30	34,240
October 1940	13.4	3.5	0	.43	.0036	.004	26
November	893	435	.3	29.8	.246	.27	1,770
December	2,604.7	870	9.0	84.0	.694	.80	5,170
Calendar year 1940	20,532.2	3,100	0	56.1	.464	6.30	40,710
January 1941	6,937	1,730	30	224	1.85	2.13	13,760
February	8,885	2,130	39	317	2.62	2.73	17,620
March	1,286	116	13	41.5	.343	.40	2,550
April	8,491.3	2,370	6.1	283	2.34	2.61	16,840
May	2,844.5	641	7.0	91.8	.759	.88	5,640
June	743.3	120	2.6	24.8	.205	.23	1,470
July	132.0	46	.1	4.26	.035	.04	262
August	113.5	28	0	3.66	.030	.03	225
September	464.8	120	1.5	15.5	.128	.14	922
Water year 1940-41	33,408.5	2,370	0	91.5	.756	10.26	66,260

Frog Bayou near Mountainburg, Ark.

Location.- Water-stage recorder above concrete weir in spillway of Fort Smith Dam, lat. 35°39'40", long. 94°09'10", in NW¼NE¼ sec. 2, T. 11 N., R. 30 W., three-quarters of a mile upstream from Warloop Creek, 1½ miles upstream from Howard Fork, 2⅝ miles northeast of Mountainburg, and 3 miles downstream from Jones Fork. Datum of gage is 800.00 feet above mean sea level, datum of 1929 (levels by city of Fort Smith).

Drainage area.- 74.4 square miles (revised).

Records available.- July 1936 to September 1941.

Extremes.- Maximum discharge, 2,310 second-feet Apr. 19 (gage height, 26.58 feet), no flow Oct. 1 to Dec. 16, May 20 to June 10, June 19 to Sept. 30.
1936-41: Maximum discharge observed, 6,500 second-feet Feb. 18, 1938 (gage height, 28.2 feet); no flow during long periods in each year.

Remarks.- Records fair. Records of daily discharge given herein represent spillway overflow from Lake Fort Smith and do not include water diverted for municipal supply of Fort Smith. Record of monthly diversion furnished by city of Fort Smith.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

24.96	0	25.15	66	25.60	545
25.00	1.9	25.20	104	25.90	995
25.05	11	25.30	192	26.20	1,540
25.10	35	25.40	295		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	884	104	164	20	88	0			
2			0	545	173	155	20	73	0			
3			0	295	355	145	16	59	0			
4			0	202	274	128	16	47	0			
5			0	145	223	120	16	47	0			
6			0	120	182	128	16	47	0			
7			0	104	155	120	16	41	0			
8			0	80	128	104	16	35	0			
9			0	66	112	104	11	30	0			
10			0	53	96	104	11	20	0			
11			0	47	80	88	8.0	16	22			
12			0	47	80	80	8.0	11	30			
13			0	41	137	73	5.8	5.8	11			
14			0	53	128	59	16	5.8	8.0			
15			0	80	112	73	256	4.2	4.2			
16			112	96	104	66	700	3.0	1.9			
17			182	104	88	53	441	3.0	1.4			
18			120	96	88	47	343	1.4	.3			
19			96	88	120	47	1,290	1.1	0			
20			73	88	164	47	883	0	0			
21			53	80	164	41	493	0	0			
22			47	73	155	41	343	0	0			
23			35	120	145	35	285	0	0			
24			30	391	145	35	233	0	0			
25			25	319	137	30	182	0	0			
26			25	254	137	30	155	0	0			
27			16	202	155	25	120	0	0			
28			16	164	164	25	104	0	0			
29			11	145	-	20	88	0	0			
30			8.0	128	-	20	96	0	0			
31			25	112	-	20	-	0	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off (acre-feet)	Diversion (mean)†
October	0	0	0	0	0	7.6
November	0	0	0	0	0	7.5
December	874.0	182	0	28.2	1,730	7.6
Calendar year 1940	11,160.5	2,350	0	30.5	22,130	-
January	5,222	884	41	168	10,360	7.2
February	4,105	355	80	147	8,140	7.2
March	2,227	164	20	71.8	4,420	7.2
April	6,207.8	1,290	5.8	207	12,310	7.2
May	538.3	88	0	17.4	1,070	7.5
June	78.8	30	0	2.63	156	8.6
July	0	0	0	0	0	8.9
August	0	0	0	0	0	8.6
September	0	0	0	0	0	8.2
Water year 1940-41	19,252.9	1,290	0	52.7	38,190	7.8

† Diversion for municipal supply of Fort Smith.

Mulberry River near Mulberry, Ark.

Location.- Water-stage recorder, lat. 35°34', long. 94°01', in NW¼ sec. 6, T. 10 N., R. 28 W., a quarter of a mile upstream from Mill Creek, 5 miles northeast of Mulberry, and about 11 miles upstream from mouth. Datum of gage is 432.75 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 372 square miles.

Records available.- May 1938 to September 1941.

Extremes.- Maximum discharge during year, 6,330 second-feet Jan. 24 (gage height, 7.83 feet); minimum, 2.5 second-feet Aug. 27 (gage height, 0.70 foot).
1938-41: Maximum discharge, 12,600 second-feet Apr. 17, 1939 (gage height, 11.2 feet); no flow Sept. 24-28, 1939.
Maximum stage known, 22.0 feet in April 1927.

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

0.7	2.5	1.4	121	3.0	1,050
.8	6.2	1.5	160	3.5	1,310
.9	12.5	1.7	256	4.0	1,680
1.0	24	1.9	365	5.0	2,700
1.1	41	2.2	542	6.0	3,870
1.2	62	2.5	745	7.0	5,160
1.3	88				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.7	11.5	321	1,530	729	842	148	406	98	37	7.1	5.2
2	9.7	12.0	256	2,920	1,080	796	144	354	108	32	7.1	5.7
3	9.0	13.6	215	1,680	2,700	750	152	310	173	29	7.7	6.6
4	8.3	14.8	187	1,200	1,770	680	152	289	164	24	10.5	6.2
5	7.7	15.9	164	970	1,370	574	144	272	133	19.4	7.1	8.3
6	7.7	14.8	144	776	1,150	581	137	310	111	17.1	5.2	7.7
7	7.7	15.9	133	640	970	581	144	688	95	14.8	6.6	7.1
8	7.1	14.8	118	542	823	530	152	581	83	12.5	7.1	7.1
9	7.1	21	108	474	695	499	160	480	75	11.5	5.7	11.5
10	6.2	27	98	411	607	486	156	400	254	10.5	6.2	11.5
11	6.2	37	105	365	530	453	152	337	948	11.5	6.2	10.5
12	6.2	67	611	337	480	417	148	294	561	12.5	4.8	10.5
13	6.2	121	1,020	305	750	389	140	251	406	38	6.6	10.5
14	6.2	105	756	300	803	354	148	220	310	43	6.6	9.7
15	6.2	88	950	445	695	343	692	191	241	43	9.0	10.5
16	5.7	75	2,010	555	640	343	2,920	169	196	41	9.7	9.7
17	5.2	67	1,310	568	594	321	2,260	152	164	34	7.1	9.0
18	4.8	58	1,000	530	536	289	2,110	133	133	27	6.2	8.3
19	4.8	54	810	480	614	257	2,530	118	115	22	5.2	7.7
20	4.4	49	654	451	675	256	2,260	105	98	19.4	4.0	7.7
21	4.0	52	536	434	875	246	1,590	95	83	19.4	3.3	6.5
22	4.0	54	463	417	849	231	1,250	83	78	18.3	3.3	5.7
23	3.6	62	400	731	803	220	1,170	80	90	14.8	2.8	5.2
24	3.3	262	354	4,490	796	210	1,000	98	80	11.5	2.8	7.7
25	3.0	300	328	2,920	790	200	823	133	57	10.5	3.3	370
26	3.0	1,260	294	2,310	816	187	681	98	62	9.7	2.8	300
27	3.3	1,150	267	1,640	862	178	587	83	56	9.0	3.6	169
28	6.2	681	246	1,280	869	169	511	78	47	9.0	4.0	118
29	9.7	486	225	1,100	-	160	451	80	45	8.3	4.8	95
30	7.7	389	205	940	-	152	428	88	37	10.5	4.8	78
31	8.3	-	196	810	-	152	-	98	-	9.0	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	198.2	9.7	3.0	6.20	0.017	0.02	381
November	5,578.3	1,260	11.5	186	.500	.56	11,060
December	14,482	2,010	98	467	1.26	1.45	28,720
Calendar year 1940	104,972.7	5,740	2.8	287	.772	10.49	208,200
January	32,551	4,490	300	1,050	2.82	3.25	64,560
February	25,071	2,700	480	895	2.41	2.51	49,730
March	11,846	842	152	382	1.03	1.19	23,500
April	23,340	2,920	137	778	2.09	2.33	46,290
May	7,074	688	78	228	.613	.71	14,030
June	5,111	948	37	170	.457	.51	10,140
July	627.2	43	8.3	20.2	.054	.06	1,240
August	176.0	10.5	2.8	5.68	.015	.02	349
September	1,326.2	370	5.2	44.2	.119	.13	2,630
Water year 1940-41	127,374.9	4,490	2.8	349	.938	12.74	252,600

Petit Jean Creek near Booneville, Ark.

Location.- Water-stage recorder, lat. 35°06', long. 93°55', in NW¼ sec. 18, T. 5 N., R. 27 W., at bridge on State Highway 116, half a mile downstream from Fletcher Creek and 2¼ miles south of Booneville. Datum of gage is 423.39 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). Prior to May 24, 1939, wire-weight gage at same site and datum.

Drainage area.- 247 square miles.

Records available.- November 1938 to September 1941.

Extremes.- 1938-39: Maximum discharge during period November to September, 43,200 second-feet Apr. 16 (gage height, 23.42 feet, observed at crest), by slope-area and contracted-opening methods; no flow at times.
1939-40: Maximum discharge during water year, 2,580 second-feet Apr. 29 (gage height, 10.45 feet); no flow Oct. 1-9.
1940-41: Maximum discharge during water year, 7,640 second-feet Jan. 1 (gage height, 18.81 feet); minimum, 0.2 second-foot Oct. 24-27, Oct. 30 to Nov. 8.

Remarks.- Records good except those for periods of no gage-height record or extremely low flows, and those above 7,000 second-feet, which are poor.

Cooperation.- Records from November 1938 to September 1939 collected and prepared in cooperation with the Corps of Engineers, U. S. Army. Results of 3 discharge measurements made during water year 1939-40 furnished by Corps of Engineers.

Discharge, in second-feet, 1938-41

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	0.6	5.0	63	418	113	55	33	7.2	2.1	
2		-	57	5.5	62	330	95	44	40	7.2	1.2	
3		-	244	5.0	104	280	81	38	108	6.1	.7	
4		0.2	123	4.4	a350	408	97	35	53	4.4	.5	
5		30	67	9.8	a450	930	1,470	27	129	f3.3	.4	
6		5.0	47	5.5	a600	269	4,510	23	132	f2.6	.3	
7		628	18	4.1	a520	330	750	18	70	f2.1	.2	
8		156	11	3.9	a360	189	454	30	46	f1.6	.2	
9		51	6.9	124	a470	155	330	26	30	f1.2	.3	
10		16	5.0	93	a640	253	224	21	27	f.8	.2	
11		11	3.8	72	a560	178	174	18	16	f.6	.2	
12		4.7	2.6	59	a460	132	143	12	f53	.4	.2	
13		3.1	2.6	45	a310	109	109	13	f38	.3	.1	
14		2.1	1.9	41	a640	97	107	18	f30	.3	.1	
15		1.6	1.0	31	960	82	95	16	17	.2	.1	
16		1.5	.8	19	666	67	28,600	11	9.8	.2	.1	
17		.8	.8	27	478	63	11,600	38	6.1	.2	.1	
18		.6	.8	51	351	59	1,430	392	4.4	.1	.1	
19		1.2	.6	50	5,430	55	624	145	4.8	.1	0	
20		1.1	1.2	44	2,570	53	454	101	31	f.2	0	
21		1.5	1.6	37	624	54	340	77	12	f.1	.1	
22		1.2	1.4	34	418	48	262	61	7.2	f.1	.2	
23		.9	1.1	40	330	44	168	45	5.5	f.1	.2	
24		.4	1.1	122	320	38	155	39	4.4	f.1	.2	
25		.5	1.7	121	7,020	34	130	188	3.6	.1	.1	
26		.4	6.1	95	1,740	41	107	559	2.8	.1	.1	
27		.6	14	70	750	53	96	168	2.4	.1	.1	
28		.3	21	60	666	40	87	104	f104	6.4	.1	
29		.9	22	56	-	181	77	72	46	13	.1	
30		1.2	17	75	-	175	63	52	13	6.4	.1	
31		-	7.2	75	-	149	-	40	-	3.9	0	

a No gage-height record; discharge computed on basis of records for station near Blue Mountain.
f Computed on basis of partly estimated gage-height record.

Discharge, in second-feet, of Petit Jean Creek near Booneville, Ark., 1938-41--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.2	7.6	1.3	0.3	37	24	300	31	38	1.0	5.5
2	0	.2	15	1.2	.3	33	20	191	25	41	.8	384
3	0	.2	14	1.1	.4	29	32	141	20	57	4.4	100
4	0	.2	8.9	1.0	.4	24	84	110	16	39	1.5	38
5	0	.2	6.1	.9	.4	20	67	87	12	27	.8	20
6	0	.2	4.7	.8	.6	18	224	70	10	18	.6	12
7	0	.2	4.1	.8	.7	16	1,100	57	8.1	13	.4	8.5
8	0	.2	3.3	.8	.8	13	442	48	11	9.4	.3	6.4
9	0	.2	2.4	.6	.8	12	244	47	25	6.6	.3	4.7
10	f.2	1.3	1.7	.7	1.0	11	166	50	37	5.0	.5	3.8
11	f2.3	1.1	1.4	.8	3.4	11	636	39	33	4.1	111	2.8
12	f6.1	.4	1.2	.7	8.9	12	541	32	24	39	222	2.2
13	3.6	.3	1.1	.7	8.5	16	300	26	16	169	43	1.9
14	1.9	.2	.8	.7	7.2	19	207	22	12	30	31	1.7
15	1.0	.2	.7	.6	6.9	18	152	18	8.9	12	18	1.5
16	.6	.3	.6	.6	6.9	15	118	15	6.9	30	10	1.3
17	.5	.4	.4	.6	15	13	103	13	5.5	18	1,030	1.2
18	.4	.7	.4	.6	154	11	95	61	6.1	19	746	1.1
19	.4	1.1	.4	.4	217	10	665	80	11	491	231	1.1
20	.3	1.6	.4	.4	135	9.4	568	35	271	172	102	1.1
21	.3	1.0	.4	.4	97	10	253	24	82	54	59	1.1
22	.3	.8	.4	.4	74	11	170	18	27	24	38	1.1
23	.2	1.0	.8	.4	59	12	135	24	35	14	28	1.2
24	.2	1.0	2.0	.4	55	15	109	80	23	18	21	138
25	.2	.8	1.3	.4	55	26	92	160	14	8.9	18	44
26	15	.8	1.1	.4	54	38	82	150	8.9	5.8	15	17
27	3.5	.8	1.1	.4	53	40	85	89	5.8	5.2	20	9.4
28	1.9	.7	1.0	.4	48	36	102	75	61	3.6	14	5.8
29	.5	.7	.8	.4	42	48	1,620	68	21	2.5	9.8	3.9
30	.3	3.6	.9	.4	-	40	491	51	43	1.7	8.1	2.7
31	.2	-	1.2	.3	-	30	-	39	-	1.3	6.4	-

f Computed on basis of partly estimated gage-height record.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	0.2	78	4,950	310	330	54	240	43	156	1.3	10
2	1.5	.2	66	2,130	762	280	51	195	447	177	1.2	4.7
3	1.2	.2	58	682	740	262	62	122	122	38	.9	2.8
4	.8	.2	53	395	454	205	58	122	56	24	.8	1.8
5	.8	.2	49	290	382	168	47	104	33	13	.6	11
6	.8	.2	44	225	300	628	43	780	24	8.5	.5	18
7	1.3	.2	43	191	236	478	56	478	20	6.4	.4	13
8	.8	.2	39	166	186	454	75	290	17	4.7	.4	6.1
9	.6	6.4	35	143	160	362	67	181	14	3.8	.3	119
10	.6	44	32	126	146	310	57	122	1,220	3.0	.3	104
11	.5	356	104	114	131	244	48	92	638	8.4	.3	23
12	.4	66	734	107	156	200	42	75	240	22	1.5	12
13	.4	30	406	101	562	178	38	64	119	12	413	6.9
14	.4	18	271	132	262	156	45	52	82	6.4	52	4.2
15	.8	12	854	320	189	360	512	44	59	4.7	20	3.1
16	.8	9.4	1,110	197	164	373	798	38	45	5.2	16	2.1
17	.8	7.2	418	157	146	236	384	34	35	5.8	11	1.6
18	.6	6.1	300	126	131	183	930	31	27	6.9	6.9	1.4
19	.4	5.5	280	110	1,020	166	780	26	22	28	20	1.1
20	.3	4.4	207	108	1,790	156	517	22	21	4.7	13	.8
21	.3	14	163	103	722	145	330	20	22	3.0	5.5	.8
22	.3	20	139	101	638	128	271	16	16	2.1	3.9	.6
23	.3	163	122	512	504	117	678	140	71	1.6	4.2	.6
24	.2	84	109	1,600	666	109	596	127	36	1.4	3.8	870
25	.2	128	103	647	708	98	384	27	18	1.4	2.2	1,120
26	.2	840	96	930	666	86	280	17	14	1.2	1.5	110
27	.2	288	272	491	504	78	210	14	12	1.1	1.4	48
28	.3	150	326	373	395	71	168	13	8.9	1.2	4.7	28
29	.3	110	202	300	-	62	142	11	7.2	1.1	57	20
30	.2	92	146	262	-	56	227	19	6.4	.8	95	17
31	.2	-	131	227	-	55	-	18	-	1.1	26	-

Peak discharge.- Jan. 1, 1941 (3 p.m.) 7,640 sec.-ft.; Feb. 2, 1941 (12:30 a.m.) 3,290 sec.-ft.

Monthly discharge, in second-feet, of Petit Jean Creek near Booneville, Ark., 1938-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	-	-	-	-	-	-	-
November 4-30, 1938	921.8	628	0.2	34.1	0.138	0.14	1,830
December	689.8	244	.6	22.3	.090	.10	1,370
Calendar year	-	-	-	-	-	-	-
January 1939	1,484.2	124	3.9	47.9	.194	.22	2,940
February	27,912	7,020	62	997	4.04	4.21	55,360
March	5,314	930	34	171	.692	.80	10,540
April	52,945	28,600	63	1,765	7.15	7.98	105,000
May	2,486	559	11	80.2	.325	.37	4,930
June	1,059	132	2.4	35.3	.143	.16	2,100
July	69.5	13	.1	2.24	.0091	.01	138
August	8.4	2.1	0	.27	.0011	.001	17
September	0	0	0	0	0	0	0
Water year	-	-	-	-	-	-	184,200
October 1939	39.9	15	0	1.29	.0052	.006	79
November	20.6	3.6	.2	.69	.0028	.003	41
December	86.2	15	.4	2.78	.011	.01	171
Calendar year 1939	91,424.8	28,600	0	250	1.01	13.77	181,300
January 1940	19.6	1.3	.3	.63	.0026	.003	39
February	1,105.5	217	.3	38.1	.154	.17	2,190
March	653.4	48	9.4	21.1	.085	.10	1,300
April	8,917	1,620	20	297	1.20	1.34	17,690
May	2,220	300	13	71.6	.290	.33	4,400
June	910.2	271	5.5	30.3	.123	.14	1,810
July	1,367.1	491	1.3	44.1	.179	.21	2,710
August	2,791.9	1,030	.3	90.1	.365	.42	5,540
September	823.0	384	1.1	27.4	.111	.12	1,630
Water year 1939-40	18,954.4	1,620	0	51.8	.210	2.85	37,600
October 1940	18.4	1.9	.2	.59	.0024	.003	36
November	2,455.6	840	.2	81.9	.332	.37	4,870
December	6,990	1,110	32	225	.911	1.05	13,860
Calendar year 1940	28,271.7	1,620	.2	77.2	.313	4.26	56,080
January 1941	16,215	4,950	101	523	2.12	2.44	32,160
February	13,010	1,790	131	465	1.88	1.96	25,800
March	6,754	628	55	217	.879	1.01	13,360
April	7,948	930	38	265	1.07	1.20	15,760
May	3,554	780	11	114	.462	.53	7,010
June	3,495.5	1,220	6.4	117	.474	.53	6,930
July	554.5	177	.8	17.9	.072	.08	1,100
August	765.6	413	.3	24.7	.100	.12	1,520
September	2,561.6	1,120	.6	85.4	.346	.39	5,080
Water year 1940-41	64,282.2	4,950	.2	176	.713	9.68	127,500

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Petit Jean Creek near Blue Mountain, Ark.

Location.- Water-stage recorder, lat. 35°06', long. 93°40', in NE¼ sec. 16, T. 5 N., R. 25 W., 1.2 miles upstream from Cedar Creek, 1.6 miles downstream from Lick Creek, and 3½ miles southeast of Blue Mountain. Datum of gage is 349.24 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 495 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 7,460 second-feet Jan. 2 (gage height, 20.75 feet); minimum, 0.1 second-foot Nov. 8.
1939-41: Maximum discharge, 62,600 second-feet Apr. 16, 1939 (gage height, 29.95 feet), by slope-area method; minimum, 0.1 second-foot Oct. 25, 1939 and Nov. 8, 1940.

Remarks.- Records fair except those for days of rapidly changing stage and those below 10 second-feet, which are poor.

Cooperation.- Results of two discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	0.5	143	3,250	655	795	127	510	27	53	13	83
2	5.7	.4	114	7,040	1,380	690	120	432	418	248	29	41
3	4.3	.3	94	2,910	2,220	638	133	297	384	172	70	26
4	3.2	.2	82	1,140	1,360	539	185	227	176	75	23	16
5	2.6	.2	74	812	980	444	137	224	109	57	10	16
6	1.9	.2	67	620	812	1,100	113	1,180	78	41	7.0	16
7	1.6	.2	62	510	655	1,260	112	1,500	62	28	5.2	24
8	1.0	.1	61	444	539	1,020	180	795	52	20	4.7	26
9	.8	.4	56	373	444	885	188	554	46	17	3.9	26
10	.7	.9	50	318	396	742	176	396	487	15	3.6	51
11	.7	407	56	278	350	638	152	287	f1,580	16	4.1	128
12	.8	260	992	240	318	524	132	224	620	25	3.9	61
13	.9	91	1,000	218	980	470	116	178	318	39	85	36
14	.9	54	603	218	795	408	105	147	203	40	408	24
15	1.1	36	666	584	539	591	577	120	152	44	111	17
16	.9	27	2,360	496	457	900	2,060	102	120	44	54	13
17	.7	22	1,180	384	408	620	1,140	92	96	26	34	11
18	.7	19	672	307	350	483	1,300	80	80	18	25	9.5
19	.6	15	603	258	654	420	1,260	69	67	41	47	8.3
20	.6	13	510	240	3,300	384	1,260	60	57	84	30	7.7
21	.6	13	396	227	1,900	362	760	53	48	56	19	6.7
22	.6	15	328	222	1,420	318	586	46	44	28	24	5.9
23	.5	58	278	330	1,220	287	886	41	48	17	20	5.4
24	.5	258	240	2,850	1,140	258	1,300	177	62	13	26	392
25	.4	188	210	1,700	1,540	226	882	130	80	70	19	3,180
26	.4	883	193	1,860	1,380	f194	655	62	62	34	13	654
27	.4	849	308	1,300	1,220	f171	510	44	60	13	12	231
28	.5	384	760	900	960	f155	408	35	f37	16	12	141
29	.5	240	570	742	-	f141	339	30	28	20	12	96
30	.5	180	408	655	-	f133	318	28	21	46	34	72
31	.5	-	350	570	-	127	-	26	-	22	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	42.6	7.5	0.4	1.37	0.0028	0.003	84
November	4,015.4	883	.1	134	.271	.30	7,960
December	13,486	2,360	50	435	.879	1.01	26,750
Calendar year 1940	61,171.9	2,550	.1	167	.337	4.58	121,300
January	31,936	7,040	218	1,030	2.08	2.40	63,340
February	28,372	3,300	318	1,013	2.05	2.13	56,280
March	15,903	1,260	127	513	1.04	1.19	31,540
April	16,217	2,060	105	541	1.09	1.22	32,170
May	8,146	1,500	26	263	.531	.61	16,160
June	5,622	1,580	21	187	.378	.42	11,150
July	1,438	248	13	46.4	.094	.11	2,850
August	1,279.4	408	3.6	41.3	.083	.10	2,540
September	5,424.5	3,180	5.4	181	.366	.41	10,760
Water year 1940-41	131,881.9	7,040	.1	361	.729	9.90	261,600

f Computed on basis of partly estimated gage-height record.

Petit Jean Creek at Danville, Ark.

Location.- Water-stage recorder and concrete control, lat. 35°04', long. 93°24', in SE¼ sec. 25, T. 5 N., R. 23 W., at highway bridge at Danville, a quarter of a mile downstream from Dutch Creek and 1,800 feet upstream from Chicago, Rock Island & Pacific Ry. bridge. Datum of gage is 303.24 feet above mean sea level, datum of 1929.

Drainage area.- 760 square miles.

Records available.- June 1916 to September 1941.

Average discharge.- 25 years, 791 second-feet.

Extremes.- Maximum discharge during year, 6,350 second-feet Jan. 4 (gage height, 22.18 feet); minimum, 0.2 second-foot Oct. 24-27; minimum gage height, 2.13 Oct. 25.
1916-41: Maximum discharge, 70,800 second-feet Apr. 17, 1939 (gage height, 31.82 feet); no flow Nov. 6-8, 1924, Sept. 23-28, Oct. 5-9, 1935, July 23-26, 30, 31, Aug. 1 to Sept. 30, 1936.

Remarks.- Records good.

Cooperation.- Results of 3 discharge measurements furnished by Corps of Engineers, U.S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	1.7	309	k1,490	824	1,690	222	446	49	54	44	70
2	15	1.2	252	k3,800	1,240	1,330	210	516	1,340	142	32	92
3	12	1.1	216	k5,160	2,340	1,110	210	446	1,610	240	33	67
4	9.5	1.0	180	k5,800	3,040	940	302	362	796	180	64	44
5	7.6	1.0	158	k3,440	2,520	782	290	309	362	99	54	33
6	6.3	.9	136	k1,980	1,790	836	228	988	246	74	37	28
7	5.5	.8	124	k1,320	1,300	1,590	228	2,210	166	62	26	25
8	4.5	.8	111	k660	985	1,730	283	2,160	152	48	20	22
9	3.6	1.2	102	k666	782	1,500	309	1,370	126	41	17	27
10	3.0	2.3	94	572	656	1,260	296	895	494	34	15	30
11	2.7	6.3	94	488	572	1,030	270	558	1,750	32	12	33
12	2.3	326	352	432	516	852	246	418	2,060	60	12	94
13	2.1	276	1,320	376	852	712	228	335	1,230	51	49	74
14	1.5	112	1,320	362	1,320	626	216	276	600	58	322	49
15	1.4	69	940	488	1,060	586	460	240	376	55	322	37
16	1.0	54	1,350	712	782	880	1,300	210	263	55	142	28
17	.8	41	2,340	642	656	1,020	2,040	186	234	57	79	23
18	.7	32	1,970	550	572	768	1,690	165	192	41	52	18
19	.6	27	1,240	446	572	614	1,730	141	160	31	42	15
20	.5	24	940	390	1,410	558	1,750	121	133	30	49	12
21	.4	23	754	362	2,920	516	1,520	106	140	55	51	10
22	.3	26	600	376	3,120	488	1,030	96	116	72	38	8.5
23	.3	85	516	390	2,660	446	824	90	98	49	31	7.1
24	.2	362	446	1,080	2,200	404	1,230	76	88	34	31	16
25	.2	362	390	2,590	2,200	362	1,460	160	90	28	29	925
26	.2	586	358	2,760	2,430	328	1,110	147	102	201	31	2,260
27	.2	1,230	376	2,590	2,460	296	796	94	92	92	29	1,360
28	.3	1,090	670	2,040	2,130	276	572	70	93	41	29	376
29	.7	614	895	1,440	-	252	460	62	76	31	26	192
30	.8	404	740	1,080	-	234	418	57	57	30	20	142
31	1.2	-	572	880	-	222	-	52	-	42	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	104.4	19	0.2	3.37	0.0044	0.005	207
November	5,761.5	1,230	.8	192	.255	.28	11,430
December	19,864	2,340	94	641	.845	.97	39,400
Calendar year 1940	94,181.6	3,330	.2	257	.338	4.62	186,800
January	45,522	5,800	362	1,468	1.93	2.23	90,290
February	43,909	3,120	516	1,568	2.06	2.14	87,090
March	24,242	1,730	222	782	1.03	1.19	48,080
April	21,928	2,040	210	731	.962	1.07	43,490
May	13,342	2,210	52	430	.566	.65	26,460
June	13,331	2,060	57	444	.584	.65	26,440
July	2,119	240	28	68.4	.090	.10	4,200
August	1,757	322	12	56.7	.075	.09	3,480
September	6,117.6	2,260	7.1	204	.268	.30	12,130
Water year 1940-41	197,997.3	5,800	.2	545	.717	9.68	392,700

Peak discharge.- Jan. 4 (6 a.m.) 6,350 sec.-ft.; Jan. 25 (11 p.m.) 2,920 sec.-ft.; Feb. 4 (9 a.m.) 3,120 sec.-ft.; Feb. 22 (3 a.m.) 3,240 sec.-ft.
k Computed by using rate of change of stage as a factor.

Fourche La Fave River near Gravelly, Ark.

Location.- Water-stage recorder, lat. 34°52', long. 93°39', in NW¼ sec. 34, T. 3 N., R. 25 W., at bridge on State Highway 28, 1 mile downstream from Garner Creek, 1¾ miles east of Gravelly, and 6 miles upstream from Gaffords Creek. Datum of gage is 410.50 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 413 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 3,970 second-feet May 9 (gage height, 9.35 feet); minimum, 0.4 second-foot Oct. 25-27, Nov. 8, 9.
1939-41: Maximum gage height, 27.00 feet Apr. 16, 1939, from reading at flood crest (discharge not determined, figure published in Water-Supply Paper 887 probably too high); no flow Sept. 22-30, Oct. 1-9, 20-25, Nov. 4-9, 1939.

Remarks.- Records good except those below about 10 second-feet, which are poor.

Rating tables, water year 1940-41, except periods of backwater from trash (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 22)

Oct. 1 to Dec. 15				Dec. 16 to Sept. 30					
2.0	87	4.5	749	0.7	1.6	1.8	73	4.2	664
2.4	149	5.5	1,200	.8	3.6	2.1	112	5.0	1,010
3.0	274	5.9	1,400	1.0	10.5	2.5	173	6.0	1,580
3.7	468			1.2	21	3.0	282	6.0	2,900
				1.5	43	3.6	466		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	1.4	274	565	456	888	150	780	66	39	20	3.2
2	1.8	1.2	223	1,820	820	740	141	664	346	35	18	3.9
3	1.5	.9	185	1,220	2,620	646	141	522	539	33	21	3.0
4	1.2	.8	157	842	1,880	556	145	440	364	29	13.5	2.4
5	.9	.8	139	646	1,220	472	140	385	216	30	9.7	3.0
6	.8	.6	122	505	910	605	135	1,070	157	34	7.3	4.5
7	1.2	.5	117	424	721	752	146	1,640	124	29	6.0	4.6
8	1.2	.4	108	358	574	820	201	1,080	105	25	5.4	26
9	1.2	.8	100	305	488	800	232	2,830	92	21	4.6	68
10	1.0	1.3	91	265	424	702	210	1,520	679	18	3.6	46
11	1.0	4.2	98	236	364	592	193	910	2,340	17	3.0	37
12	.9	5.0	697	218	322	505	178	646	1,250	19	2.4	40
13	.9	9.4	1,300	197	456	440	165	505	628	24	3.0	33
14	1.0	19.5	833	188	646	388	157	391	424	24	3.3	28
15	1.4	17.5	694	206	539	382	174	311	308	18	3.6	27
16	1.3	e11	2,440	222	456	472	254	254	243	34	3.6	22
17	1.2	e9	1,700	228	388	488	488	214	197	83	2.3	19
18	1.0	e7	985	208	342	424	1,830	182	160	70	2.4	16
19	.9	e6	780	186	344	367	2,620	155	133	61	3.6	14
20	.8	e5	646	173	763	333	1,880	132	127	52	4.5	12.5
21	.8	17.5	522	160	1,160	305	1,220	115	156	46	4.5	11
22	.6	45	424	226	960	277	842	102	94	43	4.2	9.7
23	.5	331	364	556	960	254	1,280	92	81	29	4.8	8.5
24	.5	854	314	1,100	1,010	230	2,900	85	72	24	4.5	37
25	.4	548	275	1,430	1,400	210	1,640	79	65	21	4.8	1,050
26	.4	1,210	247	1,040	1,490	193	1,060	71	59	20	4.5	648
27	.4	1,380	247	888	1,370	186	780	65	57	16	4.8	277
28	.8	676	275	721	1,110	184	610	61	56	17.5	3.9	174
29	1.5	452	319	592	-	186	488	62	50	25	3.6	129
30	1.3	341	292	522	-	174	522	58	44	27	4.2	104
31	1.7	-	276	456	-	160	-	55	-	27	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	32.2	2.1	0.4	1.04	0.0025	0.003	64
November	5,955.8	1,380	.4	199	.482	.54	11,810
December	15,233	2,440	91	491	1.19	1.37	30,210
Calendar year 1940	63,151.8	2,740	.4	173	.419	5.68	125,300
January	16,706	1,820	160	539	1.31	1.50	33,130
February	24,193	2,620	322	864	2.09	2.18	47,990
March	13,631	888	160	440	1.07	1.23	27,040
April	20,922	2,900	135	697	1.69	1.88	41,600
May	15,476	2,830	55	499	1.21	1.39	30,700
June	9,221	2,340	44	307	.743	.83	18,290
July	990.5	83	16	32.0	.077	.09	1,960
August	169.2	21	2.4	6.10	.015	.02	375
September	2,851.9	1,050	2.4	95.1	.230	.26	5,660
Water year 1940-41	125,400.6	2,900	.4	344	.833	11.29	248,700

e Stage-discharge relation indefinite; discharge computed on basis of records for station near Nimrod.

Fourche La Fave River near Nimrod, Ark.

Location.- Water-stage recorder, lat. 34°57', long. 93°08', in SE¼ sec. 33, T. 4 N., R. 20 W., 3 miles southwest of Nimrod and 7¾ miles upstream from South Fourche La Fave River. Datum of gage is 295.53 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 684 square miles.

Records available.- March 1936 to September 1941.

Extremes.- Maximum discharge during year, 3,680 second-feet Feb. 4 (gage height, 9.35 feet); minimum, 0.3 second-foot Oct. 27.
1936-41: Maximum discharge, 36,100 second-feet Feb. 19, 1938 (gage height, 29.7 feet, site and datum then in use); no flow at times in 1936, 1939.

Remarks.- Records good except those below 100 second-feet, which are poor.

Cooperation. Results of two discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	1.1	464	618	691	1,520	265	716	84	68	18	11
2	2.2	1.1	362	1,960	1,180	1,220	238	953	388	100	25	11
3	1.8	1.1	308	2,360	2,450	1,030	274	840	636	200	24	10
4	1.7	1.2	261	1,570	3,330	875	372	666	600	86	39	8.8
5	1.7	1.5	216	1,100	2,230	722	342	571	479	60	35	10
6	1.7	1.5	186	834	1,570	767	298	982	317	46	23	9.2
7	3.2	1.5	176	666	1,180	953	274	2,530	234	38	18	9.2
8	2.8	1.5	168	559	953	1,180	93	2,230	181	34	15	8.4
9	2.4	3.4	148	474	761	1,100	317	1,790	152	34	12	13
10	2.2	4.7	140	414	642	1,260	347	3,060	308	34	12	17
11	2.0	11	131	362	559	953	337	1,830	2,360	29	9.2	11
12	1.7	28	506	327	496	604	312	1,140	2,890	486	6.7	17
13	1.5	36	1,390	298	754	571	288	840	1,650	229	7.0	33
14	1.2	25	1,700	274	840	588	265	654	917	113	12	34
15	1.2	17	1,170	308	868	582	265	530	636	93	24	32
16	.9	12	1,610	377	742	697	317	430	490	52	29	29
17	.8	11	2,970	430	630	729	377	367	398	36	20	26
18	.8	9.2	1,920	357	548	704	594	322	327	32	e14	24
19	.7	6.4	1,350	322	530	630	2,360	274	265	64	e18	23
20	.6	6.4	1,060	298	889	559	2,710	238	221	98	e165	20
21	.5	12	847	270	1,310	508	2,050	208	188	113	e94	17
22	.4	50	691	486	1,650	462	1,440	181	206	80	e40	15
23	.4	170	571	742	1,480	424	1,100	159	181	60	e28	13
24	.4	1,010	502	1,440	1,520	377	2,010	140	140	54	e22	41
25	.4	1,050	424	2,010	1,790	347	2,970	127	116	46	e14	324
26	.4	1,480	377	1,920	2,180	317	1,920	116	100	36	e12	736
27	.3	2,050	357	1,480	2,230	322	1,310	108	95	30	14	787
28	.4	1,650	435	1,220	1,920	342	989	95	93	28	15	393
29	.9	882	419	953	-	303	774	91	82	25	14	252
30	.8	604	406	807	-	279	654	84	73	22	11	181
31	.9	-	393	704	-	274	-	86	-	18	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	39.3	3.2	0.3	1.27	0.0019	0.002	78
November	9,138.6	2,050	1.1	305	.446	.50	18,130
December	21,662	2,970	131	699	1.02	1.18	42,970
Calendar year 1940	96,283.5	4,290	.3	263	.385	5.23	191,000
January	25,942	2,360	270	837	1.22	1.41	51,460
February	35,923	3,330	396	1,283	1.86	1.95	71,250
March	21,199	1,520	274	684	1.00	1.15	42,050
April	26,062	2,970	238	869	1.27	1.42	51,690
May	22,358	3,060	84	721	1.05	1.22	44,350
June	14,809	2,890	73	494	.722	.81	29,370
July	2,446	486	18	78.9	.115	.13	4,650
August	800.9	165	6.7	25.8	.038	.04	1,590
September	3,115.6	787	8.4	104	.152	.17	6,180
Water year 1940-41	193,495.4	3,330	.3	503	.735	9.98	364,000

e Computed on basis of twice-daily readings and rating curve for staff gage 1¼ miles upstream.

Bayou Meto near Stuttgart, Ark.

Location.- Wire-weight gage, lat. 34°27'15", long. 91°37'00", in SE¼ sec. 11, T. 3 S., R. 6 W., at highway bridge 5⅛ miles southwest of Stuttgart and 8 miles upstream from Crooked Creek. Datum of gage is 169.94 feet above mean sea level, datum of 1929.

Records available.- October 1935 to September 1941.

Extremes.- Maximum discharge observed during year, 1,080 second-feet Apr. 25 (gage height, 17.49 feet); no flow July 10-12.
1935-41: Maximum discharge observed, 6,550 second-feet Jan. 26, 27, 1937 (gage height, 25.50 feet); no flow at times during each year.

Remarks.- Records good except those below about 100 second-feet, which are fair. Flow affected by diversions for irrigation. During flows above 600 second-feet, Bayou Meto and Crooked Creek are interconnected above station. For records on Crooked Creek, below interconnection, see page 241. Gage read twice daily.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-22 and Apr. 3, 4)

Oct. 1 to Apr. 30				May 1 to Sept. 30			
5.4	0.7	7.5	64	4.9	0	5.7	6
5.6	1.7	8.0	93	5.0	.1	6.0	12
5.8	3.8	9.0	164	5.1	.3	6.5	29
6.0	7.0	11.0	330	5.2	.6	7.0	53
6.2	12	13.0	515	5.3	1.0	8.0	110
6.5	21	15.0	734	5.4	1.5	9.0	176
7.0	40	18.0	1,160	5.5	2.5	11.0	331

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	5.2	485	456	935	773	188	851	31	14	56	116
2	52	4.6	505	475	949	786	156	799	21	9.8	66	110
3	59	4.1	505	475	963	699	228	747	14	9	66	116
4	62	4	495	456	977	799	330	662	23	e	74	116
5	59	4	475	429	977	799	447	596	74	4.8	71	110
6	52	4.1	438	402	963	799	555	525	128	3.1	63	110
7	49	3.8	429	366	949	812	629	447	204	3.7	63	110
8	42	3.4	411	330	935	825	674	375	259	.2	66	98
9	34	4.1	393	285	907	825	69e	315	291	.1	60	80
10	28	13	375	252	879	812	69e	283	307	0	53	71
11	21	34	366	212	838	799	69e	283	323	0	43	71
12	20	52	357	180	812	786	674	291	339	0	25	68
13	17	56	393	148	773	747	651	299	366	.2	15	68
14	15	62	411	127	722	722	61e	299	393	16	8.8	68
15	16	66	429	113	674	686	607	291	420	50	11	66
16	14	72	525	106	618	674	565	283	438	86	12	60
17	11	93	596	99	565	640	555	275	43e	128	11	53
18	8.4	106	629	93	495	596	535	251	429	155	8	43
19	6.7	120	651	93	429	555	515	219	402	176	15	36
20	5.2	113	662	93	402	515	575	176	366	176	10	29
21	4.2	106	662	99	402	465	629	134	323	155	14	25
22	3.6	93	651	99	411	420	640	98	275	134	16	21
23	2.8	99	629	106	438	375	665	71	227	116	18	20
24	2.2	113	607	180	485	375	1,040	50	169	98	31	18
25	2	134	585	312	555	366	1,080	3e	122	92	40	20
26	1.5	196	545	525	629	357	1,060	33	66	9e	48	20
27	1.2	26e	525	710	698	339	1,050	27	63	104	48	20
28	.9	348	515	799	747	312	1,000	21	43	9e	66	20
29	4.8	411	495	879	-	276	963	27	29	9e	77	18
30	4.2	456	485	907	-	252	907	40	21	77	98	15
31	3.4	-	465	921	-	212	-	38	-	66	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	644.1	62	0.9	20.8	1,280
November	3,048.3	456	3.4	102	6,050
December	15,694	662	357	506	31,130
Calendar year 1940	88,429.3	1,060	0	242	175,400
January	10,727	921	93	346	21,280
February	20,127	977	402	719	39,920
March	18,498	825	212	597	36,690
April	19,850	1,080	156	662	39,370
May	8,644	851	21	279	17,540
June	6,624	438	14	221	13,140
July	1,975.9	176	0	63.7	3,920
August	1,368.8	116	e	44.2	2,710
September	1,796	116	15	59.9	3,560
Water year 1940-41	109,197.1	1,080	0	299	216,600

Crooked Creek near Humphrey, Ark.

Location.- Wire-weight gage, lat. 34°25'35", long. 91°40'00", in SE¼ sec. 20, T. 3 S., R. 6 W., at bridge on U. S. Highway 79, 100 feet upstream from St. Louis-Southwestern Ry. bridge, 2 miles east of Humphrey and 5⅝ miles upstream from mouth. Datum of gage is 169.94 feet above mean sea level, datum of 1929.

Records available.- October 1938 to September 1941. Prior to February 1940, high-water periods only.

Extremes.- Maximum discharge during year, 528 second-feet Apr. 26 (gage height, 16.68 feet); no flow at times.
1938-41: Maximum discharge observed, 1,780 second-feet Feb. 15, 1939 (gage height, 22.70 feet); no flow at times during each year.

Remarks.- Records poor. Crooked Creek and Bayou Meto are interconnected above station at high stages. Gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	27	45	330	207	17	287	0.3	0.4	0.1	2.4
2		0	23	45	319	207	22	237	.3	.3	.3	3.2
3		0	18	45	330	197	22	186	.2	.3	.3	3.4
4		0	14	47	352	186	32	128	.2	.3	.2	3.4
5		0	11	43	352	173	84	87	.1	.2	.1	2.8
6		0	7.2	37	341	158	128	62	.1	.2	.1	2.3
7		0	13	32	319	186	140	44	.1	.1	.1	1.9
8		0	14	28	297	207	134	36	.1	.1	0	1.4
9		0	16	22	267	217	128	34	.1	.2	0	1.2
10		a2	24	18	247	217	118	32	0	.1	0	1.2
11		a2	30	16	217	197	109	27	.1	.1	0	1.0
12		a3	30	14	173	173	92	22	.1	.2	0	.8
13		2.9	38	13	143	146	77	17	0	.5	0	.8
14		2.7	40	12	105	118	60	13	0	.5	0	.7
15		3.2	57	12	70	96	48	10	1.0	.4	0	.7
16		4.1	104	11	50	84	42	6.5	4.4	.2	0	.6
17		4.2	123	10	35	64	32	5.2	5.3	.2	0	.6
18		4.2	134	10	26	57	27	4.2	4.6	.1	0	.7
19		3.8	127	12	19	50	26	3.2	3.8	.2	.2	.7
20		3.4	105	12	24	42	80	2.7	3.2	.1	.1	.7
21		3.2	91	12	26	36	140	2.1	2.7	.1	0	.7
22		3.6	74	13	37	30	153	1.8	2.2	.1	0	.6
23		5.0	62	14	74	27	287	1.6	1.9	.1	0	.6
24		5.3	47	24	91	30	420	1.2	1.4	.3	0	.6
25		5.5	39	47	105	30	494	1.0	1.4	.3	0	.6
26		14	32	173	127	32	511	.8	1.2	.3	0	.6
27		22	32	207	165	34	511	.6	.9	.2	0	.5
28		27	30	257	186	32	462	.6	.8	.2	.7	.5
29		32	41	297	-	29	408	.4	.6	.2	.5	.4
30		34	52	319	-	24	341	.4	.5	.1	.6	.4
31		-	52	330	-	20	-	.4	-	.1	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	187.1	34	0	6.24	371
December	1,507.2	134	7.2	48.6	2,990
Calendar year	-	-	-	-	-
January	2,177	330	10	70.2	4,320
February	4,827	352	19	172	9,570
March	3,306	217	20	107	6,560
April	5,145	511	17	172	10,200
May	1,254.7	287	.4	40.5	2,490
June	37.6	5.3	0	1.25	75
July	6.7	.5	.1	.22	13
August	4.0	.7	0	.13	7.9
September	35.9	3.4	.4	1.20	71
Water year 1940-41	18,488.2	511	0	50.7	36,670

a No gage-height record; discharge computed on basis of records for station on Bayou Meto near Stuttgart.

Upper Tallahatchie River near New Albany, Miss.

Location.- Water-stage recorder, lat. 34°34', long. 88°54', in NE¼ sec. 8, T. 6 S., R. 4 E., Chickasaw meridian, at bridge on county road, 8 miles upstream from Cane Creek, and 9 miles northeast of New Albany.

Drainage area.- 23.9 square miles.

Records available.- February 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 6,250 second-feet July 2 (gage height, 12.14 feet), from rating curve extended above 1,900 second-feet; minimum daily, 8.0 second-feet Oct. 7, June 24, 26.

1939-41: Maximum discharge, 6,700 second-feet May 22, 1939 (gage height, 12.3 feet), from rating curve extended above 1,900 second-feet on basis of records for nearby stations and by slope-area studies; minimum daily, that of Oct. 7, 1940, June 24, 26, 1941.

Remarks.- Records good except those below 40 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	107	68	56	30	14	25	19	10	g9.0		
2	10	19	28	36	38	14	23	19	10	931		
3	9.5	14	26	22	35	14	28	19	220	250		
4	9.0	'13	24	18	30	31	67	19	37	549		
5	9.5	14	22	18	29	22	23	19	g14	122		
6	8.5	14	22	18	29	21	22	41	g11	g62		
7	8.0	14	107	18	27	28	22	76	g10	g31		
8	9.5	14	29	19	27	36	22	32	g10	g25		
9	9.0	15	24	19	25	28	21	g38	g10	g22		
10	9.0	48	23	19	23	26	21	h18	11	g18		
11	9.0	537	22	19	22	23	19	h17	10	g18		
12	9.0	34	36	19	21	22	18	h15	10	g25		
13	9.5	28	146	20	25	22	20	h14	9.5	g34		
14	9.5	24	38	20	23	22	20	h14	g13	32		
15	13	23	460	20	21	35	20	h12	g9.0	199		
16	12	23	125	20	22	31	18	h12	g9.5	-		
17	12	24	41	20	21	25	18	h13	g9.5	-		
18	12	22	38	19	19	25	19	h10	9.5	-		
19	13	21	37	19	18	25	20	h10	9.0	-		
20	12	22	38	19	24	24	33	h11	9.0	-		
21	12	22	35	18	21	24	18	h10	8.5	-		
22	12	23	31	18	18	23	18	15	16	-		
23	11	24	28	20	17	27	93	h12	h8.5	-		
24	10	29	27	49	19	26	33	h11	h8.0	-		
25	10	24	27	22	18	25	28	h10	h9.5	-		
26	10	47	28	149	18	20	22	h9.5	h8.0	-		
27	9.5	22	36	40	17	20	22	h9.5	h8.5	-		
28	9.5	19	29	34	16	20	21	h9.5	34	-		
29	32	20	27	31	-	19	22	h9.5	430	-		
30	11	30	23	30	-	19	20	h9.5	g12	-		
31	82	-	24	29	-	23	-	10	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	412.0	82	8.0	13.3	0.556	0.64
November	1,290	537	13	43.0	1.80	2.01
December	1,669	460	22	53.8	2.25	2.59
Calendar year 1940	14,783.5	1,070	8.0	40.4	1.69	23.01
January	878	149	18	28.3	1.18	1.36
February	653	38	16	23.3	.975	1.02
March	734	36	14	23.7	.992	1.14
April	776	93	18	25.9	1.08	1.20
May	543.5	76	9.5	17.5	.732	.84
June	984.0	430	8.0	32.8	1.37	1.53
July 1-15	2,327.0	931	9.0	155	6.49	3.62
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

Peak discharge.- Nov. 11 (6:45 a.m.) 2,200 sec.-ft.; Dec. 15 (7:30 p.m.) 1,730 sec.-ft.; June 29 (8:30 a.m.) 2,900 sec.-ft.; July 2 (8:15 p.m.) 6,250 sec.-ft.; July 4 (1:15 p.m.) 2,420 sec.-ft.; July 15 (2:30 p.m.) 1,540 sec.-ft.

g Computed from graph based on gage readings.
h Computed from staff-gage readings.

Tallahatchie River at Etta, Miss.

Location.- Water-stage recorder, lat. 34°28', long. 89°13', in SW¼ sec. 8, T. 7 S., R. 1 E., Chickasaw meridian, at bridge on State Highway 30, three-quarters of a mile northeast of Etta, 3¾ miles upstream from Puskus Creek, 4 miles downstream from Locks Creek, and 13 miles west of New Albany. Datum of gage is 278.57 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 526 square miles.

Records available.- September 1938 to September 1941 in reports of U. S. Geological Survey. November 1936 to February 1937 at same site and at datum 0.33 foot higher (discharge measurements only), in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 14,500 second-feet Dec. 17 (gage height, 18.81 feet); minimum observed, 4.8 second-feet Aug. 11.
1938-41: Maximum discharge, 29,900 second-feet Feb. 15, 1939 (gage height, 20.71 feet); minimum, 4.1 second-feet Oct. 3, 16, 1938.

Remarks.- Records good except those below 100 second-feet, and those for period of indefinite stage-discharge relation, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	2,010	2,120	338	332	219	692	148	34	1,730	g24	g52
2	13	719	1,560	2,260	384	211	380	139	33	420	g26	412
3	13	135	698	1,140	1,270	211	342	130	117	2,330	90	337
4	13	103	390	654	622	650	2,220	121	374	2,270	g36	188
5	12	85	286	420	410	387	1,430	114	g101	1,940	g20	g84
6	12	93	227	323	351	289	622	211	g46	719	g60	g83
7	12	67	1,550	286	304	1,930	390	1,950	g38	248	g21	g123
8	13	59	1,250	259	259	1,910	332	757	g32	157	g12	g43
9	13	57	523	243	219	1,270	295	817	g33	159	g10	g31
10	12	833	351	211	211	629	243	382	31	239	g8	g26
11	12	2,370	277	211	204	420	219	196	28	1,090	g19	g26
12	13	3,540	259	196	196	313	204	147	27	578	g34	g25
13	13	1,520	2,830	186	247	277	185	120	24	352	308	g24
14	12	423	2,910	181	709	227	167	108	31	826	262	g24
15	12	191	e1,460	188	323	295	157	93	35	600	1,670	g19
16	16	130	e5,050	189	251	1,960	153	84	25	802	276	20
17	16	113	12,200	178	235	823	143	76	22	254	g83	20
18	14	98	5,190	153	204	400	138	69	19	137	g36	20
19	14	90	1,420	137	189	304	129	61	16	112	458	19
20	13	81	715	131	237	268	714	58	14	98	220	18
21	13	78	542	128	433	323	363	57	15	105	g57	17
22	13	85	430	148	323	295	185	122	14	160	g31	17
23	12	83	361	204	259	572	1,430	164	25	78	g25	17
24	13	127	313	1,500	262	1,670	2,310	64	32	h46	g37	16
25	13	185	304	1,020	497	802	756	48	g22	h42	622	19
26	13	747	295	2,740	361	480	354	43	g13	h39	g80	21
27	13	626	362	4,320	332	370	251	40	g10	h27	g338	17
28	12	284	713	2,490	259	304	204	37	g10	h27	1,630	16
29	16	219	441	857	-	251	176	37	1,530	h28	387	16
30	138	196	295	510	-	227	154	36	3,480	h24	g116	16
31	60	-	251	400	-	318	-	35	-	125	g58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	578	138	12	18.6	0.035	0.04
November	15,397	3,540	57	513	.975	1.09
December	45,573	12,200	227	1,470	2.79	3.22
Calendar year 1940	253,443	22,000	12	692	1.32	17.93
January	22,201	4,320	128	716	1.36	1.57
February	9,883	1,270	189	353	.671	.70
March	18,605	1,960	211	600	1.14	1.31
April	15,338	2,310	129	511	.971	1.08
May	6,464	1,950	35	209	.397	.46
June	6,231	3,480	10	208	.395	.44
July	15,762	2,330	24	508	.966	1.11
August	7,054	1,670	8	228	.433	.50
September	1,766	412	16	58.9	.112	.12
Water year 1940-41	164,852	12,200	8	452	.859	11.64

e Stage-discharge relation indefinite; discharge computed on basis of one discharge measurement and gage heights.
g Computed from graph based on gage readings.
h Computed from wire-weight gage readings.

Sardis Reservoir near Sardis, Miss.

Location.- Water-stage recorder, lat. 34°23'57", long. 89°47'10", in gate house of dam on Tallahatchie River in NE¼ sec. 11, T. 8 S., R. 6 W., Chickasaw meridian, 7½ miles southeast of Sardis. Datum of gage is 220.00 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army); gage readings have been reduced to elevations above mean sea level.

Drainage area.- 1,545 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- September 1939 to September 1941.

Extremes.- 1939-40: Maximum elevation during water year, 248.45 feet July 24 (contents, 12,668,300,000 cubic feet); minimum, 224.3 feet Oct. 1 (contents, 880,000,000 cubic feet).

1940-41: Maximum elevation during water year, 247.68 feet Dec. 23 (contents, 11,994,700,000 cubic feet); minimum, 229.58 feet Sept. 30 (2,108,800,000 cubic feet).

Remarks.- Reservoir is formed by hydraulic-fill earth dam, with concrete spillway and outlet tunnel on opposite ends of dam. Storage began Aug. 26, 1939; dam completed Aug. 1, 1940. Capacity, 68,384,844,000 cubic feet at elevation 282.00 feet (crest of spillway) of which about 64,381,680,000 cubic feet is available for flood-control storage and about 4,003,164,000 cubic feet is permanent storage which will be maintained for incidental recreational purposes at elevation 235.0 feet (15 feet above sill of outlet tunnel). Water below elevation 220.0 feet cannot be withdrawn through outlet tunnel. Reservoir used only for flood control.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Capacity table (elevations, in feet, and contents, in billions of cubic feet)

220.0	0.3006	230.0	2.2259	250.0	14.0960	270.0	41.9831
222.0	.5022	235.0	4.0032	255.0	19.4626	275.0	51.9497
224.0	.8185	240.0	6.5122	260.0	25.6834	280.0	63.3972
227.0	1.4505	245.0	9.8402	265.0	33.3713	285.0	76.3041

Elevation and contents, 1939-41

Month	Elevation (feet)	Contents (million cubic feet)	Change in contents during month (equivalent mean second-feet)
Aug. 26, 1939a	-	0	-
Sept.30	224.3	0.8800	b+283
Oct. 31, 1939	224.8	.9826	+38.3
Nov. 30	226.9	1.4283	+172
Dec. 31	228.4	1.7929	+136
Calendar year 1939	-	-	-
Jan. 31, 1940	227.0	1.4505	-128
Feb. 29	233.3	3.3210	+747
Mar. 31	235.1	4.0472	+271
Apr. 30	241.0	7.1090	+1,181
May 31	237.97	5.3909	-641
June 30	240.40	6.7509	+525
July 31	246.52	11.0303	+1,598
Aug. 31	238.05	5.4321	-2,090
Sept.30	231.79	2.7846	-1,021
Water year 1939-40	-	-	+60.2
Oct. 31, 1940	234.17	3.6597	+327
Nov. 30	238.85	5.8538	+846
Dec. 31	246.81	11.2640	+2,020
Calendar year 1940	-	-	+300
Jan. 31, 1941	244.83	9.7151	-578
Feb. 28	242.77	8.2504	-605
Mar. 31	244.56	9.5163	+473
Apr. 30	241.84	7.6396	-724
May 31	236.19	4.5317	-1,160
June 30	236.52	4.6855	+59.3
July 31	237.30	5.0582	+139
Aug. 31	233.31	3.3248	-647
Sept.30	229.58	2.1088	-469
Water year 1940-41	-	-	-21.4

a Cofferdam closure made at 5:00 a.m. on Aug. 26, 1939.
b Change in contents during period from 5:00 a.m. Aug. 26 to midnight Sept. 30. Sept. 30.

Tallahatchie River near Sardis, Miss.

Location (revised).- Wire-weight gage, lat. 34°23', long. 89°53', in SW¼ sec. 19, T. 8 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51 (old), 3¼ miles upstream from Illinois Central R. R. bridge, 4 miles southeast of Sardis, 5¼ miles upstream from former site at Batesville, 9¼ miles downstream from Sardis Reservoir, and about 16 miles upstream from point of diversion of Panola-Quitman floodway. Datum of gage is 187.73 feet above mean sea level, datum of 1929.

Drainage area.- 1,680 square miles.

Records available.- June 1906 to December 1912 (published as Tallahatchie River at Batesville); July 1928 to September 1931, October 1938 to September 1941 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 4,030 second-feet Jan. 1 (gage height, 8.97 feet); minimum discharge, 24 second-feet at times during October and November; minimum gage height observed, -0.23 foot July 12.

1928-31, 1938-41: Maximum discharge observed, 39,000 second-feet June 20, 1939; minimum discharge, that of October and November 1940; minimum gage height observed, that of July 12, 1941.

An observed stage of 26.40 feet (revised) occurred on Jan. 15, 1932 (discharge, 65,300 second-feet).

Remarks.- Records good. Gage read twice daily. Flow completely regulated by Sardis Reservoir (see preceding page).

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 15				May 16 to Sept. 30			
-0.15	24	3.0	570	-0.2	27	1.9	340
.1	36	4.0	870	.0	38	3.5	900
.5	70	5.0	1,370	.3	60	5.5	1,740
.8	112	7.0	2,650	.7	102	6.9	2,560
2.0	350	8.6	3,750	1.0	150		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	33	270	3,400	2,030	1,850	3,050	1,610	1,790	30	2,100	60
2	36	28	140	3,680	2,090	1,850	2,980	1,610	1,740	30	2,100	96
3	34	26	65	3,350	2,150	1,850	2,980	1,610	1,790	32	2,040	900
4	32	26	78	3,350	2,090	1,910	2,910	1,550	1,740	30	1,980	1,450
5	31	26	63	3,260	2,030	1,850	2,910	1,550	1,700	30	1,930	1,480
6	30	26	65	3,260	2,030	1,790	2,910	1,550	1,560	30	1,880	1,430
7	29	25	230	3,260	2,030	1,050	2,910	1,550	940	30	1,880	1,430
8	28	25	71	3,260	2,030	1,730	2,840	1,550	270	27	1,840	1,380
9	28	29	53	3,260	1,970	1,910	2,840	1,610	160	27	1,790	1,380
10	27	98	46	3,190	1,970	1,850	2,840	1,550	109	27	1,740	1,340
11	27	370	42	3,190	1,970	720	2,840	1,550	90	27	1,740	1,340
12	26	74	57	3,190	1,970	330	2,770	1,790	69	42	2,220	1,300
13	26	45	290	3,120	1,970	210	2,770	2,420	60	790	2,350	1,260
14	26	38	69	3,120	2,030	200	2,770	2,630	60	1,520	2,350	1,260
15	26	34	106	3,050	1,970	840	2,840	2,630	52	1,610	2,220	1,220
16	26	32	430	3,050	1,970	2,700	2,770	2,560	48	1,660	2,100	1,180
17	25	30	520	3,050	1,970	2,630	2,770	2,490	45	1,700	2,040	1,160
18	25	29	1,150	2,980	1,910	690	2,700	2,350	42	1,660	2,040	1,140
19	24	28	1,970	2,980	1,970	310	2,700	2,280	42	1,700	2,420	1,100
20	24	28	2,280	2,910	1,970	200	2,910	2,220	38	1,740	2,040	1,060
21	24	28	2,350	2,210	1,970	150	2,630	2,160	38	1,840	1,980	1,020
22	24	29	2,350	2,030	1,910	102	2,700	2,160	35	2,160	1,930	980
23	24	41	2,350	2,030	1,910	112	3,750	2,160	35	2,220	1,880	720
24	24	200	2,350	2,210	1,910	121	3,050	2,100	35	2,220	1,790	560
25	24	750	2,350	2,090	1,910	106	2,490	2,040	32	2,220	1,660	510
26	24	1,910	2,350	2,770	1,910	570	1,790	2,040	32	2,220	615	510
27	24	3,120	2,420	2,150	1,910	2,210	1,610	1,930	32	2,350	315	510
28	24	3,050	2,560	2,030	1,850	3,330	1,610	1,880	32	2,350	220	510
29	28	910	2,420	1,970	-	3,540	1,610	1,880	32	2,280	124	475
30	36	390	2,350	2,030	-	3,540	1,610	1,880	30	2,220	90	475
31	30	-	2,350	2,030	-	3,470	-	1,840	-	2,160	69	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	854	38	24	27.5	0.016	0.02
November	11,478	3,120	25	383	.228	.25
December	34,191	2,560	42	1,103	.657	.76
Calendar year 1940	557,710	4,550	24	1,524	.907	12.35
January	87,420	3,680	1,970	2,820	1.68	1.94
February	55,400	2,150	1,850	1,979	1.18	1.23
March	43,721	3,540	102	1,410	.839	.97
April	79,860	3,750	1,610	2,662	1.58	1.77
May	60,730	2,630	1,550	1,959	1.17	1.34
June	12,678	1,790	30	423	.252	.28
July	36,982	2,350	27	1,193	.710	.82
August	51,473	2,420	69	1,660	.988	1.14
September	29,256	1,480	60	975	.580	.65
Water year 1940-41	504,043	3,750	24	1,381	.822	11.17

Tallahatchie River near Lambert, Miss.

Location.- Wire-weight gage, lat. 34°10'50", long. 90°12'55", in SW¼ sec. 29, T. 27 N., R. 1 E. Choctaw meridian, at county highway bridge a quarter of a mile downstream from Coldwater River, 4 miles southeast of Lambert, and 24½ miles downstream from point of diversion of Panola-Quitman floodway. Datum of gage is 124.00 feet above mean sea level, adjustment of 1912. Auxiliary staff gage for slope determination at Shine Turner Bridge on county road 5¼ miles downstream from reference gage. Datum of auxiliary gage is 126.61 feet above mean sea level, adjustment of 1912.

Drainage area.- 1,980 square miles (authority, Corps of Engineers, U. S. Army; does not include approximately 2,600 square miles, flow from which is diverted through Panola-Quitman floodway).

Records available.- October 1938 to September 1941 in reports of Geological Survey. January 1936 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 5,590 second-feet Apr. 27 (gage height, 24.50 feet); minimum observed, 167 second-feet Sept. 27, 29; minimum gage height, 6.24 feet Oct. 27, 28.

1938-41: Maximum discharge observed, 15,100 second-feet Feb. 20, 1939 (gage height, 34.64 feet); minimum discharge, 110 second-feet Nov. 2, 3, 1938 (gage height, 5.01 feet).

A stage of 36.8 feet (from floodmarks) occurred in January 1932 (probably affected by levee breaks above).

Remarks.- Records good before and fair after May 2, except those for period of indefinite stage-discharge relation, which are poor. Reference gage read twice daily. Auxiliary gage read once daily prior to Nov. 15, twice daily thereafter. Discharge computed by using fall between gages as a factor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	221	411	1,630	2,600	860	732	4,480	378	422	344	1,280
2	938	226	555	1,810	2,510	865	713	4,060	370	396	385	1,370
3	744	237	564	2,880	2,570	813	676	3,630	370	396	713	1,450
4	583	254	525	3,840	2,640	786	722	3,240	370	418	828	1,570
5	449	246	510	4,180	2,700	579	722	2,780	332	422	821	1,590
6	400	232	474	4,410	2,640	715	710	2,300	348	396	766	1,590
7	335	252	491	4,280	2,480	611	749	1,820	368	441	774	1,770
8	289	232	507	4,040	2,160	735	731	1,410	388	479	512	1,160
9	269	210	565	3,900	1,880	944	750	1,190	361	456	392	786
10	249	267	670	3,690	1,630	1,130	679	1,150	342	460	351	583
11	241	409	690	3,670	1,390	1,140	628	951	e280	456	331	432
12	216	411	881	3,400	1,210	1,260	596	976	e330	460	294	345
13	227	472	1,050	3,210	1,050	1,300	524	970	e350	403	286	310
14	211	630	1,310	2,930	877	1,190	540	950	e350	487	251	269
15	208	740	1,390	2,570	790	1,040	672	816	e320	606	249	240
16	235	743	1,850	2,180	702	946	419	805	e280	805	262	223
17	205	712	2,750	1,770	738	910	479	766	e240	1,030	325	227
18	205	530	3,290	1,510	770	878	495	737	e230	1,130	344	216
19	203	519	3,430	1,230	752	982	502	638	e230	1,230	433	210
20	200	463	3,720	1,060	741	1,130	580	538	e260	1,280	506	194
21	200	405	3,650	893	695	1,090	1,050	442	e250	1,160	638	196
22	200	357	3,460	806	689	1,070	1,470	387	e250	1,060	737	185
23	200	347	3,240	739	713	968	1,900	439	e260	976	844	184
24	200	313	3,040	707	741	939	3,430	446	e300	844	909	184
25	198	301	2,850	695	733	908	4,830	362	e300	673	878	184
26	195	318	2,640	962	821	952	5,450	435	e310	576	944	182
27	198	328	2,460	1,440	832	1,010	5,590	419	e330	502	865	167
28	198	225	2,250	2,100	844	1,040	5,380	386	389	448	872	172
29	211	326	2,130	2,470	-	985	5,070	374	422	400	976	167
30	208	435	2,000	2,640	-	907	4,810	356	418	372	1,070	172
31	213	-	1,800	2,810	-	824	-	378	-	364	1,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,749	1,120	195	314	0.159	0.18
November	11,361	743	210	379	.191	.21
December	55,153	3,720	411	1,779	.898	1.04
Calendar year 1940	398,055	4,090	195	1,088	.549	7.47
January	74,452	4,410	695	2,402	1.21	1.40
February	38,898	2,700	689	1,389	.702	.73
March	29,507	1,300	579	952	.481	.55
April	51,605	5,590	419	1,720	.869	.97
May	38,631	4,480	356	1,246	.629	.73
June	9,726	422	230	324	.164	.18
July	19,548	1,280	364	631	.319	.37
August	19,110	1,210	249	616	.311	.36
September	17,608	1,770	167	587	.296	.33
Water year 1940-41	375,348	5,590	167	1,028	.519	7.05

e Stage-discharge relation indefinite; discharge computed on basis of one discharge measurement and records for Coldwater River at Savage, Miss.

Tallahatchie River at Swan Lake, Miss.

Location.- Wire-weight gage, lat. 33°52'55", long. 90°16'45", in NE¼ sec. 10, T. 23 N., R. 1 W., Choctaw meridian, at county highway bridge, half a mile northeast of Swan Lake, 2 miles downstream from Cassidy Bayou, and 17 miles downstream from point where Panola-Quitman Floodway empties into Tallahatchie River. Datum of gage is 113.45 feet above mean sea level, datum of 1929. Auxiliary staff gage for slope determination, at highway bridge in Glendora, 3.8 miles downstream from reference gage. Datum of auxiliary gage is 112.34 feet above mean sea level, datum of 1929.

Drainage area.- 5,130 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- November 1938 to September 1941 in reports of Geological Survey. November 1929 to September 1938 (except low-water periods) in reports of Corps of Engineers, U. S. Army. Gage-height records collected at same site since November 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge observed during year, 10,400 second-feet Dec. 21; maximum gage height observed, 22.41 feet Dec. 21; minimum daily discharge, 475 second-feet Oct. 23, 24; minimum gage height observed, 2.89 feet Oct. 25.

1938-41: Maximum discharge observed, 43,200 second-feet Feb. 22, 1939 (gage height, 32.97 feet); minimum daily discharge, 470 second-feet Dec. 9, 1939 (gage height, 3.18 feet); minimum gage height observed, that of Oct. 25, 1940.

A stage of 37.0 feet occurred Jan. 15, 1932 (affected by break in levee).

Remarks.- Records fair. Reference gage read twice daily but only 8 a. m. gage readings were used in computing daily discharge. Auxiliary gage read once daily prior to Dec. 17, twice daily thereafter. Discharge computed by using fall between gages as a factor. Flow partly regulated by Sardis Reservoir (see p. 244).

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,610	1,180	3,690	7,170	7,470	3,620	4,960	8,730	2,630	f548	2,390	1,830
2	1,510	1,440	4,020	7,460	7,200	3,690	5,000	8,290	2,450	f534	2,600	1,530
3	1,350	1,530	3,870	8,520	7,030	3,500	4,860	7,880	2,370	551	3,080	1,650
4	1,230	1,370	3,840	8,810	7,200	3,570	4,910	7,400	2,180	546	3,220	1,790
5	1,050	1,150	3,340	8,890	7,330	4,270	5,460	6,820	2,160	706	3,140	2,290
6	835	952	2,830	9,780	6,950	4,380	5,270	6,570	2,120	804	2,820	2,760
7	733	894	2,230	9,700	6,730	5,270	5,280	6,120	2,140	781	2,670	2,880
8	670	838	2,620	9,450	6,390	6,450	5,050	5,570	2,070	757	2,590	2,670
9	654	800	3,210	8,890	6,220	7,030	4,960	5,030	1,570	696	2,400	2,610
10	572	922	3,450	8,740	5,670	7,380	4,830	4,780	1,120	733	2,170	2,280
11	530	2,030	3,030	8,420	5,320	7,060	4,570	4,400	897	793	2,150	2,290
12	522	2,970	2,680	8,080	5,180	6,900	4,270	4,270	821	771	2,030	2,210
13	534	4,190	2,990	8,170	4,780	6,150	4,180	3,740	711	575	2,050	1,710
14	535	4,270	4,460	7,840	4,230	5,250	3,660	3,420	604	1,100	2,470	1,650
15	551	3,260	5,650	7,480	4,190	4,320	3,850	3,420	715	1,100	3,120	1,550
16	522	3,080	6,340	7,070	4,260	4,300	3,760	3,500	588	1,510	2,940	1,470
17	516	2,450	7,770	6,920	3,930	5,050	3,610	3,460	530	2,920	2,580	1,440
18	516	2,110	8,810	6,480	3,840	5,580	3,640	3,220	594	2,830	2,450	1,410
19	510	1,730	9,600	5,970	3,640	5,770	3,610	3,290	600	2,510	2,580	1,350
20	510	1,480	9,950	5,770	3,530	5,250	3,980	3,270	588	2,400	2,540	1,360
21	498	1,360	10,400	5,120	3,880	4,610	5,010	3,260	585	2,570	2,750	1,270
22	481	1,160	9,610	4,910	3,960	3,850	5,630	2,970	546	2,570	2,880	1,160
23	475	1,110	8,960	4,530	4,010	3,230	6,410	2,620	546	2,670	2,640	1,190
24	475	1,090	8,190	4,310	3,810	3,390	6,940	2,460	528	2,750	2,630	1,160
25	480	1,300	8,000	4,440	3,440	4,180	8,010	2,750	552	2,810	2,710	1,090
26	641	1,410	7,610	4,780	3,800	4,560	8,950	2,600	527	2,880	2,670	945
27	695	1,940	7,260	6,050	3,810	4,460	9,590	2,880	533	2,500	2,560	862
28	689	2,720	7,270	7,220	3,770	3,930	9,820	3,060	681	2,610	2,000	752
29	634	3,650	7,640	7,800	-	4,330	9,540	2,990	718	2,910	1,880	755
30	688	3,860	7,890	8,510	-	4,820	9,050	2,800	f599	2,790	2,220	733
31	1,110	-	7,710	7,840	-	4,740	-	2,680	-	2,650	2,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22,354	1,610	475	721	0.141	0.16
November	58,246	4,270	800	1,942	.379	.42
December	184,920	10,400	2,230	5,965	1.16	1.34
Calendar year 1940	1,523,275	10,400	475	4,162	.811	11.06
January	225,120	9,780	4,310	7,265	1.42	1.63
February	141,570	7,470	3,440	5,056	.986	1.03
March	150,890	7,380	3,230	4,867	.949	1.09
April	168,460	9,620	3,610	5,615	1.09	1.22
May	133,950	8,730	2,460	4,321	.842	.97
June	33,273	2,630	527	1,109	.216	.24
July	52,905	2,920	534	1,707	.333	.38
August	79,400	3,220	1,880	2,561	.499	.58
September	48,647	2,880	733	1,622	.316	.35
Water year 1940-41	1,299,735	10,400	475	3,561	.694	9.41

f Computed on basis of partly estimated gage-height record.

Yazoo River at Greenwood, Miss.

Location.- Water-stage recorder, lat. 33°31'17", long. 90°11'03", in SW¼ sec. 10, T. 19 N., R. 1 E., Choctaw meridian, at bridge on U. S. Highways 49E and 82, in Greenwood, 0.4 mile downstream from Palousha Bayou and 3 miles downstream from confluence of Tallahatchie and Yalobusha Rivers. Datum of gage is 92.19 feet above mean sea level, datum of 1929.

Drainage area.- 7,450 square miles (from reports of Mississippi River Commission).

Records available.- January 1908 to June 1913 and October 1938 to September 1941 in reports of Geological Survey. January 1909 to December 1927 (discharge measurements only), January 1928 to September 1941 in reports of Mississippi River Commission. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 16,900 second-feet Dec. 24, 25, 27; maximum gage height, 23.70 feet Dec. 28; minimum discharge, 730 second-feet Oct. 28 (gage height, 4.02 feet).

1908-13, 1938-41: Maximum discharge observed, 39,100 second-feet Apr. 5, 1912 (discharge measurement); maximum gage height observed, 38.7 feet Apr. 6, 7, 1912 (present datum); minimum discharge, that of Oct. 28, 1940; minimum gage height observed, 1.0 foot, present datum, Oct. 17, 1908.

Maximum discharge determined, 72,900 second-feet Jan. 19, 1932 (gage height, 40.1 feet), from reports of Mississippi River Commission; maximum stage known, 41.2 feet in 1882, caused by overflow from Mississippi River (discharge not determined), from reports of Mississippi River Commission.

Remarks.- Records good. Discharge determined from "loop" curves defined by frequent discharge measurements. Flow partly regulated by Sardis Reservoir on Tallahatchie River (see p. 244).

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	3,410	7,730	15,300	10,300	5,610	8,920	10,300	g2,880	1,200	3,410	2,980
2	1,710	2,500	8,180	15,500	10,400	5,520	g8,660	9,770	g2,820	1,150	3,370	2,920
3	1,710	2,800	8,250	15,600	10,800	5,390	g8,660	9,270	g2,740	1,260	3,920	4,300
4	1,630	3,180	8,200	15,700	10,400	5,200	g8,930	8,840	2,740	2,070	4,220	4,470
5	1,550	3,330	7,990	15,800	10,300	5,240	8,650	8,380	2,690	2,500	4,100	3,830
6	1,420	3,230	7,660	15,900	10,300	5,800	8,480	7,940	2,660	2,050	3,970	3,830
7	1,300	2,870	7,610	15,900	10,300	8,140	8,360	7,440	2,610	2,000	4,300	3,730
8	1,180	2,450	7,540	15,800	10,100	9,090	8,570	6,920	2,540	2,060	3,590	3,590
9	g1,060	2,080	7,510	15,800	9,750	9,860	g8,400	6,470	2,450	2,070	3,270	3,400
10	g1,010	2,580	7,610	15,300	9,220	10,300	g8,180	6,110	2,180	1,850	3,000	3,910
11	g960	4,080	7,640	14,900	8,820	10,700	7,960	5,700	1,840	1,840	2,770	3,470
12	g910	5,120	7,570	14,500	8,020	11,100	7,630	5,260	1,540	1,990	2,650	3,210
13	g890	5,970	8,320	14,000	7,460	11,100	7,270	4,940	1,370	1,680	2,530	3,080
14	g860	6,670	8,340	13,500	6,920	10,400	6,820	4,600	1,270	1,900	2,480	2,620
15	840	6,600	9,420	12,900	6,440	9,750	6,340	4,300	1,250	1,890	3,100	2,280
16	830	g6,370	12,800	12,300	6,030	9,560	5,870	4,180	1,200	2,510	3,740	2,080
17	820	g6,090	13,200	11,600	5,740	9,540	5,430	4,130	1,190	3,280	3,830	1,960
18	820	5,730	13,700	10,800	5,520	10,500	5,100	4,040	1,140	4,030	3,690	1,890
19	810	5,370	14,200	10,100	5,310	11,200	4,870	3,960	1,100	4,340	3,660	1,820
20	800	4,900	14,700	9,300	5,260	11,100	5,110	3,840	1,090	4,260	3,530	1,760
21	780	4,360	15,200	8,700	5,570	10,900	5,600	g3,650	1,070	3,960	3,500	1,720
22	770	3,800	15,800	8,270	5,660	10,100	6,410	g3,580	1,060	3,700	3,480	1,670
23	760	3,400	16,400	7,930	5,820	9,500	7,200	g3,440	1,050	3,550	3,450	1,620
24	755	4,080	16,900	7,810	5,870	9,600	7,770	3,320	1,040	3,580	3,380	1,580
25	755	3,940	16,900	7,660	5,840	9,130	8,310	3,170	1,030	3,640	3,320	1,590
26	750	4,210	16,800	7,620	5,770	9,100	9,120	g3,170	1,040	3,470	3,270	1,530
27	740	4,330	16,900	8,080	5,700	9,030	9,950	g3,170	1,040	3,380	3,280	1,420
28	730	4,560	16,300	8,520	5,660	8,770	10,600	g3,100	1,520	3,310	3,160	1,310
29	735	5,060	15,700	9,120	-	8,520	10,900	g3,100	1,370	3,400	2,950	1,230
30	755	5,680	15,400	9,650	-	8,500	10,600	g3,030	1,270	3,500	2,750	1,170
31	940	-	15,200	10,000	-	8,780	-	g2,960	-	3,580	2,870	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	31,260	1,710	730	1,008	0.135	0.16
November	128,750	6,670	2,080	4,292	.576	.64
December	365,650	16,900	7,510	11,800	1.58	1.83
Calendar year 1940	2,630,630	19,800	730	7,188	.965	13.14
January	373,660	15,900	7,620	12,050	1.62	1.87
February	213,080	10,800	5,260	7,610	1.02	1.06
March	277,030	11,200	5,200	8,936	1.20	1.38
April	234,670	10,900	4,570	7,822	1.05	1.17
May	162,080	10,300	2,960	5,228	.702	.81
June	50,790	2,880	1,030	1,693	.227	.25
July	84,900	4,340	1,150	2,739	.368	.42
August	104,540	4,300	2,480	3,372	.453	.52
September	75,970	4,470	1,170	2,532	.340	.38
Water year 1940-41	2,102,380	16,900	730	5,760	.773	10.49

g Computed from graph based on gage readings.

Cane Creek near New Albany, Miss.

Location.- Water-stage recorder, lat. 34°34', long. 88°57', in SW¼ sec. 11, T. 6 S., R. 3 E., Chickasaw meridian, at bridge on county road, 5½ miles upstream from mouth and 6½ miles northeast of New Albany.

Drainage area.- 23.8 square miles.

Records available.- February 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 1,920 second-feet June 29 (gage height, 7.16 feet); minimum, 1.0 second-foot at times during October and June.
1939-41: Maximum discharge, 5,700 second-feet May 22, 1939 (gage height, 8.43 feet), from rating curve extended above 1,530 second-feet on basis of velocity-area study and records for nearby streams; minimum, 0.3 second-foot Sept. 13, 1939.

Remarks.- Records good except those below 10 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	133	58	59	21	13	g18	g8.9	2.5	2.8		
2	1.7	g6.1	21	51	26	13	g15	g8.9	2.5	103		
3	1.7	5.0	16	27	27	12	16	g8.3	171	359		
4	1.6	4.0	15	g21	19	25	34	g7.1	101	355		
5	1.5	3.7	14	16	18	13	g15	7.4	8.3	58		
6	1.3	3.3	13	15	17	15	g14	19	6.2	g29		
7	1.3	3.3	114	15	17	27	g13	92	4.8	g20		
8	1.5	3.3	29	15	16	49	g12	17	3.7	g14		
9	1.7	8.6	26	15	14	g26	g12	46	3.5	g12		
10	1.6	29	21	14	14	g21	g10	12	3.2	g25		
11	1.6	411	20	14	19	g18	g9.5	10	2.3	55		
12	1.5	33	21	14	11	g15	g9.2	8.9	2.3	g22		
13	1.3	15	232	12	15	g15	g7.4	7.7	1.9	73		
14	1.5	11	37	11	15	g15	g7.4	7.4	2.5	26		
15	2.1	11	1e7	12	14	30	g7.7	6.8	1.9	28		
16	2.5	9.e	679	12	14	40	g8.3	5.8	1.9	g14		
17	2.5	9.5	55	10	11	21	g7.7	5.0	1.9	g9.8		
18	2.5	8.6	41	9.2	10	18	7.7	5.0	1.7	g6.2		
19	1.9	7.7	33	8.6	10	18	7.1	4.8	1.3	-		
20	1.6	7.7	30	8.0	15	g17	29	4.5	1.2	-		
21	1.2	8.3	26	e.3	15	18	g10	4.0	1.0	-		
22	1.0	9.8	g22	11	13	20	g8.9	4.0	1.7	-		
23	1.0	10	20	11	14	55	140	4.5	1.8	-		
24	1.2	16	18	47	15	45	39	3.3	1.7	-		
25	1.2	14	19	g20	17	25	g22	3.2	1.9	-		
26	1.2	49	18	234	16	g20	g17	3.0	1.3	-		
27	1.1	19	23	42	15	g18	g14	2.8	1.0	-		
28	1.1	15	23	30	14	18	g12	2.8	2.4	-		
29	37	15	18	26	-	16	g11	3.0	714	-		
30	g3.9	17	17	24	-	18	g9.8	2.8	17	-		
31	g17	-	17	23	-	19	-	2.6	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	101.5	37	1.0	3.27	0.137	0.16
November	896.7	411	3.3	29.9	1.26	1.14
December	1,883	679	13	60.7	2.55	2.94
Calendar year 1940	12,706.7	974	1.0	34.7	1.46	19.83
January	835.1	234	8.0	26.9	1.13	1.30
February	435	27	10	15.5	.651	.68
March	691	55	12	22.3	.937	1.0e
April	543.7	140	7.1	18.1	.761	.85
May	328.5	92	2.6	10.6	.445	.51
June	1,069.4	714	1.0	35.6	1.50	1.67
July 1-18	1,211.8	359	2.e	67.3	2.83	1.69
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

g Computed from graph based on gage readings.

Cypress Creek near Etta, Miss.

Location.- Water-stage recorder, lat. 34°26', long. 89°17', in SE¼ sec. 27, T. 7 S., R. 1 W., Chickasaw meridian, at bridge on State Highway 30, 4½ miles southwest of Etta, about 5 miles upstream from mouth, and 16 miles east of Oxford.

Drainage area.- 28.5 square miles.

Records available.- January 1939 to September 1941.

Extremes.- Maximum discharge during year, 3,220 second-feet Dec. 16 (gage height, 9.93 feet), from rating curve extended above 2,100 second-feet; minimum, 1.8 second-feet July 2.
1939-41: Maximum discharge, 3,920 second-feet June 17, 1939 (gage height, 10.12 feet), from rating curve extended above 2,100 second-feet; minimum, 1.5 second-feet Oct. 24, 1939.

Remarks.- Records good above and fair below 10 second-feet, except those for periods of indefinite stage-discharge relation or fragmentary gage-height record, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	77	127	19	20	16	48	10	3.3	2.1	4.9	3.0
2	2.2	9.5	35	77	27	16	28	9.0	3.4	1.8	5.2	3.1
3	2.2	5.4	16	27	58	16	26	8.6	3.3	4.3	2.9	5.7
4	2.2	4.4	12	20	29	90	71	e.2	3.6	5.0	2.7	3.4
5	2.2	4.1	11	16	24	32	34	7.8	3.3	4.6	2.8	2.9
6	2.2	4.1	10	14	21	30	24	17	3.3	2.3	2.7	2.8
7	2.1	3.8	94	13	20	171	20	126	3.1	2.3	2.7	4.7
8	2.3	3.4	38	13	17	157	18	23	3.0	2.2	2.8	3.3
9	2.2	4.1	17	12	15	105	17	34	3.0	2.2	2.5	3.0
10	2.1	46	13	12	15	44	15	14	2.8	2.3	2.3	4.3
11	2.2	137	12	12	14	29	14	9.6	2.8	2.7	4.0	3.6
12	2.3	e4	12	12	14	24	13	8.2	2.7	3.0	e.0	2.8
13	2.2	11	147	11	19	22	12	7.4	2.7	9.1	11	f2.3
14	2.3	7.6	38	11	42	20	12	6.8	3.5	7.6	7.6	f2.3
15	2.4	7.2	210	11	18	31	11	6.0	3.0	3.5	13	f2.3
16	2.5	6.6	e1,270	11	15	169	11	5.6	2.9	3.4	4.0	f2.3
17	2.2	6.4	e85	11	14	48	11	5.3	3.0	3.0	3.0	f2.3
18	2.4	6.2	37	9.2	12	29	11	4.8	2.8	2.7	2.9	f2.3
19	2.4	5.9	28	8.0	12	24	11	4.1	2.8	3.0	52	f3.5
20	2.4	5.8	24	8.2	16	23	23	4.0	2.8	2.5	7.4	f2.3
21	2.4	5.9	20	8.6	24	26	15	3.8	2.5	2.7	3.8	f2.3
22	2.5	7.8	18	14	19	22	11	4.8	2.5	2.8	3.4	f2.3
23	2.4	6.8	17	19	16	57	117	22	2.4	2.7	3.3	f2.3
24	2.4	10	16	116	18	139	93	5.0	2.5	2.5	3.0	f3.5
25	2.4	11	15	37	26	50	24	3.8	2.4	2.7	2.9	f3.5
26	2.4	36	15	372	22	36	17	3.8	2.2	3.0	2.9	f3.5
27	2.4	20	21	223	22	30	14	3.5	2.4	2.5	50	f3.5
28	2.4	11	23	43	19	25	12	3.4	2.1	2.4	20	f2.3
29	6.4	9.4	17	32	-	22	11	3.3	5.7	2.3	5.3	f2.3
30	14	9.1	14	25	-	20	10	3.3	3.6	2.4	3.6	f2.3
31	8.4	-	13	22	-	32	-	3.1	-	2.9	3.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	93.5	14	2.1	3.02	0.106	0.12
November	565.5	137	3.4	18.8	.660	.74
December	2,425	1,270	10	78.2	2.74	3.16
Calendar year 1940	11,468.3	1,270	2.1	31.3	1.10	14.94
January	1,239.0	372	8.0	40.0	1.40	1.61
February	588	58	12	21.0	.737	.77
March	1,555	171	16	50.2	1.76	2.03
April	754	117	10	25.1	.881	.98
May	379.2	126	3.1	12.2	.428	.49
June	89.4	5.7	2.1	2.98	.105	.12
July	98.5	9.1	1.8	3.18	.112	.13
August	245.7	52	2.3	7.93	.278	.32
September	90.0	5.7	2.3	3.00	.105	.12
Water year 1940-41	8,122.8	1,270	1.8	22.3	.782	10.59

e Stage-discharge relation indefinite; discharge computed on basis of one discharge measurement and gage heights.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

North Tippah Creek near Ripley, Miss.

Location.- Water-stage recorder, lat. 34°44', long. 89°02', in SW¼ sec. 18, T. 4 S., R. 3 E., Chickasaw meridian, at bridge on State Highway 4, 2 miles upstream from Tippah Drainage Canal and 5½ miles west of Ripley.

Drainage area.- 20.0 square miles.

Records available.- February 1939 to September 1941.

Extremes.- Maximum discharge during year, 945 second-feet Dec. 16 (gage height, 10.47 feet); no flow Oct. 2-16, 21-23.
1939-41: Maximum discharge, 1,510 second-feet June 17, 1939 (gage height, 11.40 feet), from rating curve extended above 870 second-feet on basis of records for adjacent streams; no flow at times during September and October 1940.

Remarks.- Records good except those below 5 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	13	36	53	13	10	15	7.7	1.0	0.3	0.6	69
2	0	1.5	12	253	15	10	11	6.4	.8	11	1.1	18
3	0	1.0	8.1	45	24	9.9	13	5.6	2.8	46	1.0	8.6
4	0	1.0	6.7	28	14	21	62	5.0	4.0	68	.6	4.7
5	0	.9	5.8	20	13	10	20	4.5	1.6	8.2	.3	3.2
6	0	1.1	5.3	15	12	10	16	23	1.0	5.1	.3	2.2
7	0	1.1	36	14	10	21	14	130	.8	2.2	.3	1.3
8	0	1.1	12	12	9.5	145	12	24	.8	1.3	.2	1.6
9	0	1.5	8.3	10	8.5	46	10	19	.7	1.0	.2	1.3
10	0	8.4	6.5	9.3	8.1	28	9.1	12	.6	.9	.1	1.6
11	0	113	5.8	9.5	7.9	20	8.3	9.5	.6	88	.3	1.3
12	0	10	5.8	8.7	7.1	16	7.7	7.9	.5	55	.2	1.0
13	0	4.6	95	8.7	9.4	13	6.7	6.5	.5	42	5.1	.9
14	0	3.2	22	7.7	12	12	6.4	5.4	1.8	133	31	.8
15	0	2.6	96	9.3	8.1	18	6.4	4.7	.8	31	8.2	.6
16	0	2.6	428	8.7	8.1	35	6.4	4.0	.5	13	1.2	.6
17	.2	3.4	41	7.7	7.9	17	6.2	3.5	.5	5.6	.7	.6
18	.1	3.3	24	6.7	6.7	14	5.9	3.2	.3	3.0	.5	.6
19	.1	2.8	17	6.2	6.4	13	5.4	2.6	.3	2.4	30	.4
20	.1	2.6	16	6.4	9.3	12	59	2.4	.2	1.9	1.9	.4
21	0	2.9	13	6.0	10	11	16	2.2	.2	1.6	.9	.3
22	0	5.0	11	6.7	12	11	11	2.5	.2	1.4	1.1	.2
23	0	4.0	10	7.7	9.3	122	418	5.0	.8	1.1	.6	.2
24	.1	5.9	9.1	56	11	90	93	3.3	.2	1.1	5.3	.2
25	.2	5.4	8.9	20	14	36	36	2.1	.3	1.1	3.2	.3
26	.2	20	8.3	169	14	27	23	1.7	.2	1.0	1.1	.3
27	.3	9.5	14	49	14	20	17	1.5	.2	.9	144	.3
28	.3	5.8	16	28	11	16	13	1.3	.2	.8	33	.2
29	.4	4.9	12	22	-	13	10	1.4	3.0	.9	9.2	.2
30	2.6	5.3	9.3	18	-	12	8.9	1.1	1.3	.6	3.8	.1
31	1.1	-	8.9	16	-	14	-	1.1	-	.6	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5.8	2.6	0	0.19	0.0095	0.01
November	247.4	113	.9	8.25	.412	.46
December	1,007.8	428	5.3	32.5	1.62	1.87
Calendar year 1940	6,324.4	428	0	17.3	.865	11.76
January	937.3	253	6.0	30.2	1.51	1.74
February	305.3	24	6.4	10.9	.545	.57
March	852.9	145	9.9	27.5	1.38	1.59
April	946.4	418	5.4	31.5	1.58	1.76
May	310.1	130	1.1	10.0	.500	.58
June	26.7	4.0	.2	.89	.044	.05
July	530.0	133	.3	17.1	.855	.99
August	287.6	144	.1	9.28	.464	.53
September	121.0	69	.1	4.03	.202	.23
Water year 1940-41	5,578.3	428	0	15.3	.765	10.38

Peak discharge.- Dec. 16 (4:30 a.m.) 945 sec.-ft.; Jan. 2 (7:30 a.m.) 537 sec.-ft.; Apr. 23 (3:30 p.m.) 920 sec.-ft.

Note.- Owing to faulty intake action, discharge below about 2 second-feet computed from staff-gage readings or from graph based on gage readings and partial recorder graph.

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Potts Creek near Potts Camp, Miss.

Location.- Water-stage recorder, lat. 34°35'40", long. 89°20'00", on line between N½ of sections 5 and 6, T. 6 S., R. 1 W., Chickasaw meridian, at bridge on State Highway from Potts Camp to Cornersville, 1.2 miles north of Bethlehem, 1.7 miles upstream from mouth, 3.9 miles south of Potts Camp, and 6.2 miles northwest of Cornersville.

Drainage area.- 8.26 square miles.

Records available.- October 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 489 second-feet Dec. 15, Apr. 23; maximum gage height, 9.74 feet Apr. 23; no flow at times during October, November, June and July.

1939-41: Maximum discharge, 535 second-feet Apr. 4, 1940 (gage height, 9.99 feet); no flow for several periods during each year.

Flood of June 17, 1939, reached a stage of about 15 feet, from information furnished by local residents.

Remarks.- Records fair except those below 1 second-foot, which are poor.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2.4	4.1	27	3.9	4.1	3.9	2.7	0.1	0		
2		0	1.6	14	4.8	3.8	3.0	2.2	.1	0		
3		0	1.3	6.7	4.S	3.4	3.6	1.9	3.9	0		
4		0	1.3	4.8	3.9	6.5	3.4	1.9	.4	.1		
5		0	1.1	3.9	3.6	4.4	3.0	1.9	.2	0		
6		.1	1.1	3.6	3.6	5.0	2.7	S.8	.1	.1		
7		0	10	3.1	3.3	10	2.7	13	.1	0		
8		0	2.4	2.7	3.0	53	2.5	3.4	.1	0		
9		1.2	2.3	2.3	2.5	1S	2.4	3.4	.1	0		
10		2.1	1.S	2.3	2.4	10	2.3	2.0	.1	0		
11		23	1.6	2.2	2.3	6.7	2.0	1.6	.1	24		
12		1.2	7.7	2.2	2.3	5.7	1.S	1.4	.1	.5		
13		.6	20	2.0	7.3	4.S	1.8	1.3	0	34		
14		.6	3.9	1.9	5.2	4.6	1.6	1.2	.2	13		
15		.5	120	1.9	3.6	15	1.8	1.1	.1	9.1		
16		.4	55	1.8	3.1	1S	1.6	1.0	.1	1.6		
17		.5	11	1.4	2.8	8.5	1.6	.9	0	.7		
18		.4	6.5	1.3	2.7	6.5	1.5	.9	0	.5		
19		.4	5.2	1.3	2.7	5.7	1.4	.6	0	-		
20		.4	4.2	1.3	4.6	5.0	22	.6	0	-		
21		.5	3.8	1.3	4.4	4.6	5.5	.6	0	-		
22		.9	3.6	2.0	4.4	4.4	3.8	1.7	0	-		
23		.7	3.1	1.6	4.1	17	168	.6	0	-		
24		.9	3.0	14	5.5	13	29	.4	0	-		
25		.8	3.0	3.8	5.7	8.3	14	.4	0	-		
26		2.9	2.7	58	5.5	6.1	8.5	.3	0	-		
27		1.1	3.1	13	5.0	5.0	6.1	.2	0	-		
28		.9	2.5	7.4	4.6	4.4	4.6	.3	0	-		
29		.9	2.3	5.9	-	4.1	3.4	.3	0	-		
30		1.0	2.2	5.2	-	3.8	2.8	.2	0	-		
31		-	2.0	4.2	-	3.9	-	.1	0	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	0	0	0	0	0	0
November	44.4	23	0	1.48	.179	.20
December	293.4	120	1.1	9.46	1.15	1.33
Calendar year 1940	2,198.2	208	0	6.01	.72S	9.92
January	204.1	58	1.3	6.58	.797	.92
February	111.6	7.3	2.3	3.99	.483	.50
March	273.3	53	3.4	8.82	1.07	1.23
April	312.3	168	1.4	10.4	1.26	1.41
May	56.9	13	.1	1.84	.223	.26
June	5.8	3.9	0	.19	.023	.03
July 1-18	83.6	34	0	4.64	.562	.38
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

Bagley Creek near Abbeville, Miss.

Location.- Water-stage recorder, lat. 34°30'18", long. 89°24'53", in SW¼ sec. 4, T. 7 S., R. 2 W., Chickasaw meridian, at bridge on forest road, 1⅛ miles east of Bagley Tower, 2 miles upstream from mouth, 5 miles east of Abbeville, and 11 miles northeast of Oxford.

Drainage area.- 9.96 square miles.

Records available.- October 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 394 second-feet Dec. 15 (gage height, 9.40 feet), from rating curve extended above 300 second-feet; minimum, 0.4 second-foot Oct. 21, 22.

1939-41: Maximum discharge, that of Dec. 15, 1940; minimum, 0.3 second-foot Oct. 13, 1939.

Flood of June 17, 1939, reached a stage of about 11.4 feet, from floodmarks.

Remarks.- Records good except those below 5 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	4.0	8.1	15	7.9	6.5	8.3	4.9	0.9	0.8		
2	.8	1.4	5.0	14	9.6	6.5	7.0	4.6	.8	.7		
3	.6	1.1	4.1	9.6	10	6.3	7.6	3.9	.9	2.0		
4	.6	1.0	3.6	7.9	8.5	9.0	7.2	3.7	1.2	6.6		
5	.6	1.0	3.5	7.2	8.1	6.3	6.3	3.5	.9	1.5		
6	.6	1.0	3.1	6.5	7.9	6.4	5.8	7.7	.8	1.4		
7	.7	1.0	14	6.0	7.0	13	5.5	29	.8	1.1		
8	.6	1.0	7.0	5.7	6.5	38	5.8	7.2	.8	.8		
9	.6	2.3	5.1	5.3	6.3	20	5.3	18	.8	.8		
10	.6	5.5	4.7	5.3	5.7	14	4.7	6.5	.7	.8		
11	.6	18	4.3	5.3	5.2	11	4.7	5.0	.7	.8		
12	.6	4.8	6.4	5.0	5.0	8.9	4.4	4.0	.7	.7		
13	.6	3.2	31	4.9	8.3	8.1	4.3	3.4	.7	1.2		
14	.6	2.5	8.6	4.9	8.0	7.4	4.3	3.0	1.3	1.4		
15	.7	2.4	112	4.7	5.7	17	4.2	2.8	.9	1.1		
16	.8	2.6	79	4.4	5.3	25	4.2	2.4	.8	.9		
17	.7	2.4	19	4.3	5.2	14	4.0	2.3	.8	.9		
18	.7	2.4	14	4.0	5.0	12	4.0	2.3	.7	.8		
19	.6	2.3	11	3.8	4.9	11	3.7	2.1	.7	-		
20	.6	2.3	9.8	3.7	7.0	9.6	14	1.8	.6	-		
21	.5	2.3	8.1	3.7	7.0	11	6.0	1.5	.7	-		
22	.5	3.1	7.7	4.6	6.8	10	4.7	1.5	.8	-		
23	.5	3.1	7.2	4.2	6.0	20	106	2.0	.8	-		
24	.5	4.5	6.8	15	7.0	20	23	1.4	.7	-		
25	.6	4.0	6.7	7.2	7.6	14	14	1.3	.7	-		
26	.6	7.5	6.3	53	7.4	12	11	1.1	.7	-		
27	.6	4.5	8.5	16	7.0	11	8.5	1.0	.7	-		
28	.6	3.6	7.2	12	6.7	9.8	7.2	.9	.9	-		
29	1.3	3.3	6.1	11	-	8.7	6.3	1.0	1.4	-		
30	1.5	3.3	5.5	9.2	-	8.3	5.2	.9	.9	-		
31	1.3	-	5.3	8.7	-	8.9	-	1.0	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21.5	1.5	0.5	0.69	0.069	0.08
November	101.3	18	1.0	3.38	.339	.38
December	428.7	112	3.1	13.8	1.39	1.60
Calendar year 1940	2,512.1	202	.5	6.86	.689	9.39
January	272.1	53	3.7	8.78	.882	1.02
February	192.6	10	4.9	6.88	.691	.72
March	383.7	38	6.3	12.4	1.24	1.43
April	307.2	106	3.7	10.2	1.02	1.14
May	131.7	29	.9	4.25	.427	.49
June	24.8	1.4	.6	.83	.083	.09
July 1-18	24.3	6.6	.7	1.35	.136	.08
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

Clear Creek near Oxford, Miss.

Location.- Water-stage recorder, lat. 34°21', long. 89°40', in S½ sec. 30, T. 8 S., R. 4 W., Chickasaw meridian, at bridge on State Highway 6, 1½ miles upstream from Hudson Creek, 8.3 miles west of Oxford, and 9 miles upstream from mouth.

Drainage area.- 9.30 square miles.

Records available.- January 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 1,600 second-feet Dec. 15 (gage height, 7.14 feet); minimum, 3.1 second-feet May 10-12.

1939-41: Maximum discharge, 3,400 second-feet July 12, 1940 (gage height, 9.17 feet), from rating curve extended above 1,500 second-feet; minimum, 3.0 second-feet July 19-22, 1939.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	4.5	10	24	5.9	5.1	4.3	4.1	3.5	3.3		
2	3.6	4.1	4.6	5.5	7.1	5.1	4.1	4.1	3.5	3.8		
3	3.6	4.1	4.4	5.1	7.0	9.0	4.3	4.0	3.6	3.8		
4	3.6	4.1	4.1	5.0	6.1	22	4.3	3.9	3.6	3.5		
5	3.8	4.1	4.1	5.0	5.7	4.4	4.3	4.1	3.6	3.5		
6	3.8	4.1	4.1	5.0	5.6	11	4.2	4.2	3.6	3.5		
7	3.9	4.1	29	4.7	5.4	31	4.2	4.0	3.8	3.4		
8	3.8	4.0	5.3	4.7	5.1	30	4.2	4.2	3.8	3.4		
9	3.8	12	4.9	4.9	5.0	7.5	4.0	5.4	3.8	3.4		
10	3.6	8.1	4.9	4.7	4.9	5.9	3.9	3.1	3.8	3.3		
11	3.6	74	4.9	4.9	4.6	5.1	3.9	3.1	4.0	3.3		
12	3.6	4.6	30	4.9	4.3	5.1	3.9	3.1	4.0	3.3		
13	3.8	3.8	14	4.9	13	5.0	3.8	3.2	4.0	3.3		
14	3.6	3.8	5.6	4.7	5.3	4.7	3.8	3.2	4.0	3.3		
15	3.8	3.8	205	4.6	4.4	19	3.6	3.2	4.0	3.3		
16	3.8	3.8	15	4.6	4.4	9.1	3.5	3.2	4.0	3.3		
17	3.8	3.8	6.4	4.4	4.4	5.6	3.4	3.2	4.0	3.3		
18	3.8	3.8	5.9	4.2	4.4	5.6	3.4	3.2	4.0	-		
19	3.8	3.8	5.7	4.2	4.4	5.6	3.5	3.2	4.1	-		
20	3.8	3.8	5.6	4.1	6.4	5.6	6.3	3.3	4.1	-		
21	3.6	3.9	5.6	4.1	5.7	5.4	4.0	3.3	4.1	-		
22	3.6	4.0	5.6	4.7	5.4	5.4	3.9	3.3	4.1	-		
23	3.6	4.1	5.4	4.1	5.4	5.4	50	4.4	4.1	-		
24	3.6	4.4	5.3	26	5.7	5.6	5.4	4.2	4.1	-		
25	3.6	4.6	5.0	7.5	5.3	5.4	5.0	3.5	3.8	-		
26	3.6	12	5.0	39	5.3	5.4	4.7	3.4	4.4	-		
27	3.6	4.9	12	6.4	5.1	5.3	4.3	3.4	3.9	-		
28	3.6	4.3	5.5	5.9	5.1	5.0	4.1	3.4	3.8	-		
29	5.4	4.1	4.3	5.9	-	4.6	4.1	3.4	3.8	-		
30	4.2	5.5	4.3	5.7	-	4.4	4.1	3.5	3.6	-		
31	5.5	-	4.3	5.9	-	4.4	-	3.5	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	118.4	5.5	3.6	3.82	0.411	0.47
November	214.0	74	3.8	7.13	.767	.86
December	435.8	205	4.1	14.1	1.52	1.75
Calendar year 1940	3,140.6	246	3.2	8.58	.923	12.55
January	229.3	39	4.1	7.41	.797	.92
February	156.4	13	4.3	5.59	.601	.63
March	257.7	31	4.4	8.31	.894	1.03
April	170.5	50	3.4	5.68	.611	.68
May	112.3	5.4	3.1	3.62	.389	.45
June	116.5	4.4	3.5	3.88	.417	.47
July 1-17	58.0	3.8	3.3	3.41	.367	.23
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

Note.- Owing to faulty intake action discharge below about 35 second-feet computed from staff-gage readings or from graph based on gage readings and partial recorder graph.

Hudson Creek near Oxford, Miss.

Location.- Water-stage recorder, lat. 34°21, long. 89°41', in S½ sec. 25, T. 8 S., R. 5 W., Chickasaw meridian, at bridge on State Highway 6, three-quarters of a mile upstream from mouth, 1 mile north of Burgess, and 9½ miles west of Oxford.

Drainage area.- 9.35 square miles.

Records available.- January 1939 to July 1941 (discontinued).

Extremes.- Maximum discharge during period, 1,040 second-feet Dec. 15 (gage height, 8.06 feet); minimum observed, 0.1 second-foot Nov. 9, July 12.
1939-41: Maximum discharge, 1,550 second-feet Jan. 29, 1939 (gage height, 8.90 feet, from floodmarks), from rating curve extended above 830 second-feet; minimum, 0.1 second-foot at times during October, November, and December 1939, Nov. 9, 1940, and July 12, 1941.

Remarks.- Records good except those below 20 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.9	8.1	29	2.2	1.2	1.8	0.8	0.2	0.2		
2	.2	.2	2.0	8.3	6.8	1.3	1.7	.8	.2	.2		
3	.2	.2	1.2	4.8	5.0	1.6	2.0	.6	.4	.2		
4	.2	.2	1.0	3.4	2.6	7.3	1.5	.5	.4	.2		
5	.2	.2	1.0	3.4	2.2	1.0	1.3	.6	.4	.2		
6	.2	.2	.9	2.8	2.2	7.8	1.3	.5	.3	.2		
7	.4	.2	21	2.4	1.8	27	1.2	.4	.2	.2		
8	.2	.2	3.0	2.0	1.5	25	1.2	.6	.2	.3		
9	.2	11	1.5	1.4	1.5	d5.7	.9	1.4	.2	.4		
10	.2	3.2	1.2	1.4	1.5	d4.0	.9	.6	.2	.2		
11	.2	67	1.2	1.3	1.5	d3.4	.9	.4	.4	.2		
12	.2	2.4	20	1.2	1.5	2.8	.8	.4	.3	.2		
13	.2	d.6	22	1.2	9.4	2.6	.6	.4	.2	1.0		
14	.2	d.5	7.6	1.2	2.0	1.8	.6	.4	.2	.4		
15	.4	d.4	185	1.4	1.5	19	.6	.4	.2	.4		
16	.2	.4	21	1.2	1.4	9.6	.6	.2	.2	.4		
17	.2	.4	7.0	1.2	1.3	d3.4	.8	.2	.2	.4		
18	.2	.4	5.0	.8	1.0	d2.4	.6	.2	.2	.3		
19	.2	.4	3.2	.9	.9	1.8	.7	.2	.2	-		
20	.2	.3	d2.8	.9	3.3	1.5	8.8	.2	.2	-		
21	.2	.4	d2.6	.9	1.7	1.3	d2.2	.2	.2	-		
22	.2	.8	d2.2	3.7	1.3	1.5	d1.7	.2	.2	-		
23	.2	.4	d2.0	2.4	1.3	d2.6	52	.2	.2	-		
24	.2	.9	d2.0	32	3.2	d2.2	3.8	.2	.3	-		
25	.2	2.4	d2.0	8.2	1.7	d1.8	3.0	.2	.3	-		
26	.2	10	2.4	44	1.4	1.8	2.2	.2	.2	-		
27	.2	3.0	12	d5.2	1.3	1.7	1.4	.2	.2	-		
28	.2	1.5	13	d4.3	1.3	1.4	1.3	.2	.3	-		
29	5.8	.3	6.5	d3.8	-	1.3	1.0	.2	.4			
30	.4	.6	3.4	3.2	-	1.4	1.0	.2	.2	-		
31	2.4	-	3.2	2.8	-	1.7	-	.2	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14.6	5.8	0.2	0.47	0.050	0.06
November	109.6	67	.2	3.65	.390	.44
December	366.0	185	.9	11.8	1.26	1.45
Calendar year 1940	1,739.9	185	.2	4.75	.508	6.93
January	180.7	44	.8	5.83	.624	.72
February	64.3	9.4	.9	2.30	.246	.26
March	148.9	27	1.0	4.80	.513	.59
April	98.4	52	.6	3.28	.351	.39
May	12.0	1.4	.2	.39	.042	.05
June	7.5	.4	.2	.25	.027	.03
July 1-18	5.6	1.0	.2	.31	.033	.02
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year	-	-	-	-	-	-

d Doubtful gage-height record; discharge computed on basis of one or more gage readings by engineers during each period.
Note.- Owing to faulty intake action, discharge below about 50 second-feet computed from staff-gage readings or from graph based on gage readings and partial recorder record.

Yocona River near Enid, Miss.

Location.- Water-stage recorder, lat. 34°09', long. 89°55', in T. 11 S., R. 7 W. Chickasaw meridian, at bridge on U. S. Highway 51, 200 feet downstream from Tolliver Creek, 1 mile downstream from Bear Creek, 2 miles northeast of Enid, 2½ miles upstream from Illinois Central R. R. bridge, 6 miles upstream from drainage-canal diversion, and 24½ miles upstream from mouth. Datum of gage is 189.82 feet above mean sea level, datum of 1929.
Drainage area.- 560 square miles.
Records available.- July 1928 to September 1931 and October 1938 to September 1941 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge during year, 13,000 second-feet Dec. 16 (gage height, 18.00 feet); minimum, 48 second-feet Oct. 11; minimum gage height, 2.45 feet Sept. 30.
1928-31; 1938-41: Maximum discharge, 16,800 second-feet Mar. 30, 1939; minimum, 34 second-feet Sept. 28, 1931; minimum gage height, 0.78 foot Oct. 3, 1929.
A stage of 21.0 feet occurred on Jan. 14, 1932 (discharge, 27,000 second-feet).
Remarks.- Records good.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 30)

Oct. 1 to Dec. 15				Dec. 16 to Sept. 30					
2.8	48	6.0	940	2.45	52	5.0	660	17.0	7,970
3.3	131	7.0	1,360	2.7	68	7.0	1,420	17.5	10,000
4.0	270	8.0	1,850	3.0	104	10.0	2,900	17.9	12,400
4.5	400	10.0	2,910	3.5	198	13.0	4,700		
5.0	560	12.4	4,380	4.0	330	16.0	6,720		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	1,280	2,810	1,890	507	324	822	210	78	66	156	84
2	53	746	2,160	3,560	758	303	660	194	75	61	434	234
3	50	478	1,360	1,820	1,380	294	541	183	72	106	100	553
4	50	278	1,150	1,420	1,020	1,290	1,300	174	74	609	71	352
5	51	230	657	1,020	732	592	1,080	160	69	354	64	138
6	51	283	385	678	558	1,300	876	172	67	324	60	97
7	53	190	2,070	541	490	3,440	541	714	66	273	59	109
8	56	158	1,600	490	426	3,620	507	714	66	96	58	80
9	51	195	950	442	375	2,070	410	804	63	429	59	69
10	50	1,540	646	394	340	1,510	343	804	62	185	59	538
11	48	3,740	430	381	315	999	306	524	62	88	66	199
12	54	2,370	528	359	297	643	283	267	64	98	78	86
13	58	1,360	4,310	340	336	524	267	196	63	425	154	68
14	56	1,070	2,180	327	696	442	244	164	88	378	327	62
15	59	542	2,980	330	490	766	224	145	66	606	115	59
16	64	266	12,300	333	384	2,680	212	133	62	558	85	58
17	58	232	8,740	324	327	1,460	203	125	61	160	133	57
18	56	210	4,220	289	289	1,020	200	117	59	107	74	58
19	58	192	1,870	259	264	678	203	109	56	125	119	57
20	56	182	1,140	246	435	541	804	103	55	88	191	56
21	53	180	868	244	592	592	804	96	56	86	140	55
22	51	224	714	272	458	541	588	91	57	88	83	54
23	50	226	609	333	388	963	1,240	93	57	73	64	53
24	51	356	558	1,390	359	2,120	1,870	89	75	67	60	54
25	50	415	524	1,060	458	1,380	1,220	91	60	71	57	57
26	51	1,150	490	4,680	426	1,020	934	85	58	66	55	54
27	53	940	1,450	3,020	426	732	474	78	161	70	62	54
28	50	577	2,510	2,020	375	524	330	75	94	126	637	54
29	145	370	1,180	1,360	-	458	272	75	92	70	660	54
30	294	288	822	822	-	378	234	75	68	63	340	52
31	243	-	592	592	-	442	-	76	-	62	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,176	294	48	70.2	0.125	0.14
November	20,268	3,740	158	676	1.21	1.35
December	62,791	12,300	385	2,026	3.62	4.17
Calendar year 1940	310,616	12,300	48	849	1.52	20.63
January	31,236	4,680	244	1,008	1.80	2.07
February	13,901	1,380	264	496	.886	.92
March	33,646	3,620	294	1,085	1.94	2.23
April	17,962	1,870	200	599	1.07	1.19
May	6,936	804	75	224	.400	.46
June	2,106	161	55	70.2	.125	.14
July	5,977	609	61	193	.345	.40
August	4,754	660	55	153	.273	.32
September	3,555	553	52	118	.211	.24
Water year 1940-41	205,308	12,300	48	562	1.00	13.63

Peak discharge.- Dec. 13 (11 a.m.) 4,870 sec.-ft.; Dec. 16 (12 m.) 13,000 sec.-ft.; Jan. 26 (12 m.) 6,020 sec.-ft.

Long Creek at Courtland, Miss.

Location.- Water-stage recorder, lat. 34°13'40", long. 89°56'25", in sec. 9, T. 10 S., R. 7 W., Chickasaw meridian, at bridge on U. S. Highway 51, 1 mile south of Courtland, 5½ miles upstream from mouth, and 6 miles south of Batesville.

Drainage area.- 63.3 square miles.

Records available.- March 1940 to September 1941.

Extremes.- Maximum discharge during year, 3,540 second-feet Nov. 11 (gage height, 11.87 feet), from rating curve extended above 2,700 second-feet by velocity-area studies; minimum, 1.8 second-feet at times during September; minimum gage height observed, 3.65 feet July 8, 9.

1940-41: Maximum discharge, 5,440 second-feet July 12, 1940 (gage height, 14.82 feet), from rating curve extended above 2,700 second-feet by velocity-area studies; minimum, 1.8 second-feet at times during each year; minimum gage height observed, that of July 8, 9, 1941.

Remarks.- Records good except those below 10 second-feet and those above 2,700 second-feet, which are fair.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	20	313	927	14	13	24	6.7	3.2	2.2	53	2.2
2	3.8	3.1	30	267	166	11	16	5.8	3.1	2.3	61	16
3	3.4	2.6	18	74	189	11	23	6.1	3.1	2.2	4.5	228
4	3.2	2.8	14	40	56	11	24	5.6	3.1	3.2	3.1	233
5	3.2	28	12	27	40	8.8	14	5.5	2.8	2.4	2.8	2.8
6	3.0	13	10	21	34	166	12	6.1	2.6	2.2	2.5	2.0
7	2.5	3.4	450	18	26	308	11	6.1	2.8	5.7	2.4	2.0
8	2.5	3.4	46	16	20	409	11	5.5	2.8	2.0	2.5	2.0
9	2.5	108	23	14	17	66	9.7	4.9	2.8	2.0	2.4	2.2
10	2.4	238	16	12	14	38	8.4	4.0	8.5	2.2	2.8	6.1
11	2.4	1,070	13	13	12	20	7.9	4.0	2.6	21	2.4	3.7
12	2.4	30	180	12	11	14	6.7	3.8	2.6	11	2.4	2.4
13	2.4	7.9	630	12	44	11	6.4	4.3	2.6	67	119	2.2
14	2.4	5.8	52	11	36	8.4	6.4	3.7	3.2	9.7	112	2.2
15	2.8	5.5	883	11	12	224	6.1	3.8	2.6	313	13	2.2
16	2.4	5.5	778	11	12	296	6.1	3.7	2.6	56	4.9	2.0
17	2.2	5.5	67	10	11	45	5.8	3.7	2.6	6.1	4.0	2.0
18	2.4	5.5	39	8.8	10	26	6.1	3.7	2.6	4.3	3.8	2.0
19	2.4	5.5	30	7.9	9.7	21	6.4	3.4	2.4	4.3	139	1.8
20	2.2	5.5	23	7.4	82	20	306	3.4	2.4	4.0	7.9	1.8
21	2.3	6.1	19	7.4	50	24	17	3.4	2.4	8.7	3.0	1.8
22	2.3	7.0	15	23	21	13	11	3.2	2.5	7.4	3.1	2.0
23	2.3	7.4	14	16	16	156	567	5.5	3.1	3.8	2.4	2.0
24	2.3	16	13	475	26	89	79	8.5	6.1	5.8	2.4	2.0
25	2.2	60	14	61	26	33	26	5.2	3.7	3.1	2.4	2.0
26	2.2	123	14	1,030	21	22	16	3.2	2.8	3.0	2.3	1.9
27	2.2	28	396	81	20	18	12	3.2	2.4	69	26	1.9
28	2.3	18	522	42	16	14	9.2	3.0	14	28	143	1.8
29	167	14	82	30	-	12	7.9	3.1	9.7	15	37	1.9
30	32	14	37	24	-	12	7.0	3.2	2.3	4.6	3.5	1.8
31	19	-	25	19	-	54	-	3.2	-	4.6	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	290.4	167	2.2	9.37	0.148	0.17
November	1,862.5	1,070	2.6	62.1	.981	1.09
December	4,778	883	10	154	2.43	2.80
Calendar year	-	-	-	-	-	-
January	3,328.5	1,030	7.4	107	1.69	1.95
February	1,011.7	189	9.7	36.1	.570	.59
March	2,173.2	409	8.4	70.1	1.11	1.28
April	1,289.1	567	5.8	42.3	.668	.75
May	138.4	8.5	3.0	4.46	.070	.08
June	104.0	14	2.3	3.47	.055	.06
July	675.8	313	2.0	21.8	.344	.40
August	772.9	143	2.3	24.9	.393	.45
September	536.7	233	1.8	17.9	.283	.32
Water year 1940-41	16,941.2	1,070	1.8	46.4	.733	9.94

Peak discharge.- Nov. 11 (6:30 a.m.) 3,540 sec.-ft.; Dec. 12 (11:45 p.m.) 2,230 sec.-ft.; Dec. 15 (8 p.m.) 3,140 sec.-ft.; Jan. 1 (1 p.m.) 2,170 sec.-ft.; Jan. 26 (4 a.m.) 2,300 sec.-ft.; Apr. 23 (9:15 a.m.) 1,740 sec.-ft.

Note.- Faulty intake action below about 10 second-feet; discharge computed from wire-weight gage readings or from graph based on gage readings.

Coldwater River near Coldwater, Miss.

Location (revised).- Wire-weight gage, lat. 34°43', long. 89°59', in SW¼ sec. 19, T. 4 S., R. 7 W., Chickasaw meridian, at bridge on U. S. Highway 51, 1½ miles northwest of Coldwater, 3.0 miles downstream from Beartail Creek, and 3.8 miles upstream from Hickahala Creek. Datum of gage is 208.29 feet above mean sea level, datum of 1929.
Drainage area.- 617 square miles.
Records available.- July 1928 to September 1931 and October 1938 to September 1941 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge observed during year, 4,280 second-feet Jan. 4 (gage height, 13.95 feet); minimum discharge, 84 second-feet Aug. 13, Sept. 17-24; minimum gage height observed, 3.55 feet Aug. 13.
1928-31, 1938-41: Maximum discharge, 41,800 second-feet Jan. 9, 1930 (gage height, 18.86 feet); minimum, 69 second-feet Sept. 30, 1929; minimum gage height, 2.36 feet Aug. 21, 1929.
A stage of 21.0 feet occurred Jan. 21, 1935, from floodmark (discharge, 79,500 second-feet).
Remarks.- Records fair. Gage read twice daily.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, Dec. 13, 1940, to Sept. 30, 1941 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 12, Jan. 30 to Feb. 24)

3.6	84	9.0	475	13.3	1,450
4.0	102	10.5	640	13.4	1,600
5.0	157	12.0	880	13.6	2,200
6.0	222	12.5	1,000	13.8	3,300
7.0	297	13.0	1,200		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	102	102	142	265	222	208	157	145	92	88	181	515
2	98	106	167	1,110	194	181	151	133	97	88	355	222
3	98	102	152	3,040	329	169	151	f122	97	175	313	133
4	9e	102	142	3,560	436	187	181	f117	97	187	151	117
5	98	102	138	1,630	273	229	222	112	92	229	145	122
6	94	106	130	1,040	229	181	194	117	92	122	107	122
7	98	110	268	844	187	208	157	208	88	139	92	122
8	98	106	962	495	163	329	145	289	88	f122	169	127
9	94	110	670	273	145	355	133	355	88	f102	133	107
10	94	192	276	201	133	273	127	382	88	f88	92	122
11	94	242	182	181	127	215	122	208	92	157	92	107
12	94	504	182	169	127	175	122	145	97	616	92	92
13	94	237	696	163	139	157	117	117	122	445	84	88
14	94	162	1,150	157	250	139	117	107	102	465	102	88
15	98	157	1,070	157	236	151	112	102	97	790	265	88
16	102	118	1,340	163	181	373	112	102	92	742	236	88
17	98	114	1,810	157	163	436	112	102	92	475	139	84
18	98	110	2,520	151	145	289	112	97	88	337	133	84
19	98	110	1,520	145	133	215	145	97	88	281	409	84
20	98	110	975	139	139	175	710	92	88	337	758	84
21	94	110	742	133	181	157	1,150	92	88	181	580	84
22	94	114	400	133	215	151	682	92	88	163	273	84
23	94	116	243	169	222	181	774	92	88	133	163	84
24	94	118	194	455	215	436	2,420	97	92	102	201	84
25	94	122	175	880	236	418	3,240	107	92	92	133	88
26	94	152	169	1,070	265	281	1,930	102	92	88	102	92
27	94	202	175	1,450	265	222	975	97	102	102	382	88
28	94	187	243	1,520	243	181	495	92	117	273	1,450	92
29	102	157	382	1,070	-	157	243	92	97	297	1,900	92
30	118	147	321	654	-	145	169	88	92	194	1,400	92
31	110	-	243	337	-	139	-	88	-	257	862	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,022	118	94	97.5	0.158	0.18
November	4,429	504	102	148	.240	.27
December	17,779	2,520	130	574	.930	1.07
Calendar year 1940	117,630	6,820	94	321	.520	7.08
January	21,911	3,560	133	707	1.15	1.32
February	5,793	436	127	207	.335	.35
March	7,113	436	139	229	.371	.43
April	15,477	3,240	112	516	.836	.93
May	4,188	382	88	135	.219	.25
June	2,825	122	88	94.2	.153	.17
July	7,867	790	88	254	.412	.47
August	11,494	1,900	84	371	.601	.69
September	3,476	515	84	116	.188	.21
Water year 1940-41	105,374	3,560	84	289	.468	6.34

f Computed on basis of partly estimated gage-height record.

Coldwater River at Pratts Bridge, near Arkabutla, Miss.

Location.- Water-stage recorder, lat. 34°45'25", long. 90°08'35", in NW¼ sec. 10, T. 4 S., R. 9 W., Chickasaw meridian, at county highway bridge, 4¼ miles northwest of Arkabutla and 5 miles upstream from Cub Lake Bayou. Datum of gage is 188.26 feet above mean sea level, datum of 1929.
Drainage area.- 1,000 square miles (authority, Corps of Engineers, U. S. Army).
Records available.- October 1938 to September 1941 in reports of Geological Survey. April 1937 to September 1938 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge during year, 5,360 second-feet Jan. 4 (gage height, 10.04 feet); minimum observed, 71 second-feet June 11 (gage height, -0.28 foot), caused by construction work above station.
1938-41: Maximum discharge observed, 23,600 second-feet Feb. 4, 1939 (gage height, 12.50 feet); minimum observed, that of June 11, 1941.
A stage of 21.3 feet occurred in January 1935 (from floodmarks).
Remarks.- Records fair above and poor below 150 second-feet. Regulation during many periods of low flow caused by construction operations at Arkabutla Dam 1.8 miles above station.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 9)

0.35	109	7.0	805	9.7	2,620
1.0	153	6.0	1,030	9.8	2,900
2.0	223	8.5	1,240	9.9	3,400
4.0	403	9.0	1,610	10.0	4,800
6.0	645	9.4	2,080		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	181	247	388	919	363	255	373	153	136	403	1,940
2	153	170	255	1,370	542	317	290	272	153	132	748	1,760
3	150	167	272	3,270	530	281	255	223	156	132	580	1,400
4	146	164	239	5,080	955	290	281	202	160	256	393	926
5	142	f142	223	3,400	905	326	335	195	153	272	247	414
6	139	188	216	2,520	593	326	344	195	146	255	216	252
7	139	174	474	2,080	425	308	290	272	139	174	181	209
8	142	170	885	1,630	344	454	247	403	142	175	164	202
9	142	174	980	1,070	299	619	223	447	139	164	242	195
10	139	281	825	580	263	593	216	684	f109	139	216	174
11	139	542	506	383	247	425	209	600	f113	132	167	181
12	139	660	344	308	239	326	195	335	244	412	164	167
13	139	737	921	272	231	272	188	231	174	771	167	153
14	139	436	1,370	247	344	239	188	195	174	626	f132	146
15	139	272	1,440	247	577	223	181	f170	153	891	f195	142
16	146	231	2,630	247	425	367	178	f139	146	955	536	139
17	150	209	2,790	247	308	746	178	156	139	845	516	139
18	142	181	2,900	239	272	721	181	195	136	628	330	136
19	142	170	3,000	223	239	436	188	153	f136	593	487	136
20	142	164	2,730	f116	239	326	823	f122	153	554	885	136
21	142	167	2,280	273	290	272	1,300	181	128	447	955	136
22	142	170	1,630	216	425	255	1,340	160	125	261	955	136
23	139	188	998	223	403	256	1,910	160	128	272	633	132
24	139	195	567	650	373	447	3,050	156	128	231	554	132
25	139	202	373	1,090	373	737	4,520	181	153	195	436	139
26	139	272	299	1,390	436	606	3,300	170	150	188	281	136
27	139	363	299	1,820	436	425	2,680	164	150	170	335	136
28	142	363	363	2,010	414	326	2,080	160	160	195	1,320	136
29	153	299	506	2,240	-	272	1,310	153	167	383	1,560	136
30	178	255	580	2,010	-	239	662	156	150	383	1,820	136
31	195	-	458	1,560	-	231	-	160	-	308	2,010	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,523	195	139	146	0.146	0.17
November	7,857	737	142	263	.263	.29
December	31,600	3,000	216	1,019	1.02	1.18
Calendar year 1940	202,512	6,250	135	553	.553	7.54
January	37,401	5,080	118	1,206	1.21	1.39
February	12,046	955	231	430	.430	.45
March	12,023	746	223	388	.388	.45
April	27,397	4,520	178	913	.913	1.02
May	7,363	684	122	238	.238	.27
June	4,457	244	109	149	.149	.17
July	11,258	955	132	363	.363	.42
August	17,832	2,010	132	575	.575	.66
September	10,302	1,940	132	343	.343	.38
Water year 1940-41	184,089	5,080	109	504	.504	6.85

Peak discharge.- Dec. 16 (6 p.m.) 3,250 sec.-ft.; Jan. 4 (2-6 a.m.) 5,360 sec.-ft.; Apr. 25 (8 a.m.) 5,220 sec.-ft.
f Computed on basis of partly estimated gage-height record.

Coldwater River at Savage, Miss.

Location.- Wire-weight gage, lat. 34°38'00", long. 90°13'50", in SW¼ sec. 23, T. 5 S., R. 10 W., Chickasaw meridian, at county highway bridge, 1,000 feet downstream from Yazoo & Mississippi Valley R. R. bridge, a quarter of a mile west of Savage, 7½ miles upstream from Arkabutla Canal, and 9½ miles southeast of Tunica. Datum of gage is 169.28 feet above mean sea level, datum of 1929. Auxiliary staff gage for slope determination, half a mile downstream from Arkabutla Creek and 4½ miles downstream from reference gage. Datum of auxiliary gage is 163.38 feet above mean sea level, datum of 1929.

Drainage area.- 1,225 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- October 1908 to October 1912 and October 1938 to September 1941 in reports of Geological Survey. December 1935 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 3,590 second-feet Apr. 28 (gage height, 15.11 feet); no flow on Jan. 2 and Apr. 20 owing to backwater from Arkabutla Canal; minimum gage height observed, 1.18 feet Sept. 29.

1908-12, 1938-41: Maximum discharge observed, 25,100 second-feet Feb. 5, 1939; maximum gage height observed, 18.1 feet Apr. 18, 1910 (former site, present datum); no flow at times owing to backwater from Arkabutla Canal; minimum gage height, -3.2 feet Oct. 10-17, 26-28, 1908, Sept. 19, 20, 1909 (former site, present datum).

A stage of 20.0 feet occurred during January 1935 (from floodmarks).

Remarks.- Records fair. Both gages read twice daily. Stage-discharge relation affected at times by backwater from Arkabutla Canal. Discharge determined by using fall between gages at 8 a.m. as a factor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	522	249	288	675	1,900	482	304	2,760	205	135	332	1,300
2	373	216	290	c0	1,890	458	304	2,360	176	140	776	1,420
3	236	196	298	1,590	1,680	425	348	2,040	196	143	874	1,540
4	226	205	314	1,600	1,600	423	344	1,650	190	150	740	1,530
5	180	210	294	1,810	1,340	348	386	1,180	180	191	545	1,390
6	149	176	262	2,440	1,230	405	433	842	173	226	303	1,060
7	149	183	306	3,030	1,140	378	451	545	173	267	242	595
8	176	183	637	3,090	921	385	398	506	170	201	273	381
9	157	190	687	2,950	652	454	348	437	201	196	191	284
10	157	429	839	2,700	477	631	275	562	196	175	204	217
11	181	480	873	2,330	401	631	267	613	146	148	169	190
12	181	524	770	2,160	373	595	262	654	190	205	157	181
13	163	657	961	1,700	257	446	247	609	196	311	109	154
14	163	724	977	1,250	308	328	257	371	199	541	119	140
15	204	659	977	899	370	318	219	298	165	607	183	125
16	165	374	1,600	812	499	370	232	249	148	744	196	129
17	176	318	1,690	461	501	420	209	180	124	862	347	110
18	188	255	1,860	458	456	591	203	191	111	856	421	110
19	188	230	2,120	386	363	687	203	205	109	804	320	102
20	138	248	2,260	318	288	607	c0	195	114	740	629	117
21	176	219	2,350	262	321	490	1,300	205	109	656	807	129
22	163	212	2,560	302	349	383	1,350	215	107	541	856	129
23	163	219	2,570	291	457	339	1,810	209	109	404	880	116
24	163	235	2,440	287	489	334	2,240	216	121	302	789	110
25	163	233	2,170	890	479	458	2,450	203	120	248	729	112
26	163	257	1,860	832	491	613	2,900	203	120	231	536	117
27	163	321	1,560	1,380	508	697	3,500	199	134	189	337	104
28	171	393	1,270	1,520	490	613	3,590	185	155	200	777	101
29	175	418	1,160	1,600	-	474	3,400	186	155	176	1,080	101
30	161	370	834	1,700	-	386	3,050	205	155	325	1,140	127
31	253	-	715	1,790	-	331	-	190	-	369	1,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,986	522	138	193	0.158	0.18
November	9,583	724	176	319	.260	.29
December	37,792	2,570	262	1,219	.995	1.15
Calendar year 1940	250,114	4,320	0	683	.558	7.60
January	41,513	3,090	0	1,339	1.09	1.26
February	20,230	1,900	257	722	.589	.61
March	14,500	697	318	468	.382	.44
April	31,280	3,590	0	1,043	.851	.95
May	18,663	2,760	180	602	.491	.57
June	4,647	205	107	155	.127	.14
July	11,283	862	135	364	.297	.34
August	16,261	1,200	109	525	.429	.49
September	12,221	1,540	101	407	.332	.37
Water year 1940-41	223,959	3,590	0	614	.501	6.79

c Backwater from Arkabutla Canal, discharge determined as "0" on basis of negative slope for part of day.

Pigeonroost Creek near Byhalia, Miss.

Location.- Water-stage recorder, lat. 34°45', long. 89°42', on line between sec. 2 and 11, T. 4 S., R. 5 W., Chickasaw meridian, at bridge on county road between Byhalia and Wall Hill, 3 miles north of Wall Hill, 3¾ miles downstream from Cuffawa Creek Canal, 7½ miles south of Byhalia, and 10½ miles upstream from mouth. Prior to Mar. 19, 1940, staff gage at same site and datum.

Drainage area.- 116 square miles.

Records available.- March 1940 to September 1941.

Extremes.- 1940: Maximum discharge during period March to September, 5,480 second-feet June 29 (gage height, 9.96 feet); minimum, 20 second-feet July 21, 22, Sept. 22.
1940-41: Maximum discharge during water year, 5,320 second-feet Jan. 2 (gage height, 9.88 feet); minimum, 18 second-feet Sept. 14, 15.

Remarks.- Records good except those below 50 second-feet, which are fair. Staff gage read twice daily.

Discharge, in second-feet, 1940-41

1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	25	54	25	33	23	27
2						-	25	32	23	30	65	25
3						-	25	29	24	29	40	25
4						-	150	28	25	28	28	25
5						-	26	28	25	26	27	25
6						-	25	27	26	26	27	25
7						27	28	26	39	28	28	24
8						28	28	25	32	428	26	25
9						26	27	25	189	234	46	24
10						25	27	23	68	211	74	25
11						25	151	25	36	62	219	26
12						31	118	27	32	40	123	25
13						131	34	24	56	35	366	26
14						44	30	25	58	30	151	26
15						35	30	25	54	30	g28	25
16						32	30	25	35	29	124	26
17						30	30	25	30	29	g59	25
18						33	601	25	30	30	g27	25
19						40	280	25	30	126	g24	23
20						31	61	24	28	149	25	23
21						30	34	23	25	23	24	23
22						30	30	142	26	22	24	21
23						30	31	100	26	22	24	22
24						32	33	31	27	23	25	25
25						31	30	26	26	22	25	25
26						28	28	23	24	22	25	23
27						27	28	25	24	23	26	23
28						26	30	25	1,010	23	89	23
29						27	30	25	1,530	23	89	23
30						179	36	25	73	23	42	23
31						36	-	25	-	23	29	-

Peak discharge.- June 28 (5:15 p.m.) 3,230 sec.-ft.; June 29 (2:30 a.m.) 5,480 sec.-ft.
g Computed from graph based on gage readings.

Discharge, in second-feet, of Pigeonroost Creek near Byhalia, Miss., 1940-41--Continued

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	25	30	696	52	34	30	26	20	22	106	g21
2	24	25	28	1,970	242	34	29	25	21	23	76	g21
3	24	24	28	104	173	32	29	25	21	72	25	g22
4	23	23	28	47	46	36	28	25	20	137	23	g23
5	23	24	28	37	39	33	28	26	20	25	23	22
6	21	25	28	34	37	34	27	29	21	22	23	33
7	22	26	143	31	36	44	26	29	22	21	22	26
8	22	28	37	29	33	67	27	31	22	22	22	20
9	22	32	30	29	32	39	26	53	22	22	21	20
10	23	42	28	29	30	33	25	30	22	86	21	22
11	23	286	28	28	28	30	25	28	22	420	22	22
12	23	35	116	28	28	29	24	28	22	109	22	22
13	23	g27	349	30	40	28	24	25	22	346	22	21
14	23	g25	29	29	42	29	25	26	22	375	47	20
15	24	24	658	28	31	37	24	25	21	150	46	19
16	23	25	399	29	31	58	25	24	22	155	24	19
17	23	25	76	29	31	34	25	23	22	48	23	19
18	23	26	43	28	31	31	26	24	22	g21	22	19
19	22	25	38	27	32	30	28	23	22	53	143	20
20	21	25	35	27	37	32	248	23	22	g28	23	21
21	20	25	34	28	42	32	40	23	21	23	20	20
22	21	28	32	28	39	35	35	23	21	33	20	20
23	20	28	32	26	38	41	892	23	22	23	20	22
24	22	30	32	122	38	49	119	22	22	23	20	23
25	23	30	31	42	40	38	g30	22	23	22	22	23
26	22	42	30	432	g37	36	g28	21	44	23	21	23
27	23	29	33	89	36	32	27	20	25	23	754	23
28	23	27	36	56	36	30	27	20	23	27	165	23
29	25	27	34	54	-	28	28	20	23	23	g27	22
30	25	27	29	54	-	28	28	20	22	g57	g23	22
31	24	-	28	54	-	29	-	20	-	g43	g21	-

Peak discharge.- Dec. 15 (8 p.m.) 2,040 sec.-ft.; Jan. 1 (12 p.m.) 4,130 sec.-ft.; Jan. 2 (6:30 a.m.) 5,320 sec.-ft.; Apr. 23 (9:30 a.m.) 3,110 sec.-ft.; July 11 (7 p.m.) 1,720 sec.-ft.; Aug. 27 (1:30 p.m.) 2,600 sec.-ft.

g Computed from graph based on gage readings.

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
March 7-31, 1940	1,014	179	25	40.6	0.350	0.33
April	2,061	601	26	68.7	.592	.66
May	1,017	142	23	32.8	.283	.33
June	3,656	1,530	23	122	1.05	1.17
July	1,882	428	22	60.7	.523	.60
August	1,952	366	23	63.0	.543	.63
September	731	27	21	24.4	.210	.23
Water year	-	-	-	-	-	-
October 1940	704	25	20	22.7	.196	.23
November	1,090	286	23	36.3	.313	.35
December	2,730	658	28	88.1	.759	.88
Calendar year	-	-	-	-	-	-
January 1941	4,274	1,970	26	138	1.19	1.37
February	1,357	242	28	48.5	.418	.44
March	1,101	67	28	35.5	.306	.35
April	2,003	892	24	66.8	.576	.64
May	782	53	20	25.2	.217	.25
June	676	44	20	22.5	.194	.22
July	2,477	420	21	79.9	.689	.79
August	1,869	754	20	60.3	.520	.60
September	653	33	19	21.8	.188	.21
Water year 1940-41	19,716	1,970	19	54.0	.466	6.33

Yalobusha River at Graysport, Miss.

Location.- Water-stage recorder, lat. 33°49', long. 89°37', in E½ sec. 36, T. 23 N., R. 6 E., Choctaw meridian, at bridge on State Highway 8, half a mile north of Graysport, half a mile downstream from Butputter Creek, 4½ miles upstream from Redgrass Creek, 11 miles east of Grenada, and 11¼ miles upstream from Skuna River.

Drainage area.- 607 square miles.

Records available.- March 1940 to September 1941.

Extremes.- Maximum discharge during year, 8,470 second-feet Dec. 17 (gage height, 23.54 feet); minimum observed, 6.1 second-feet Sept. 25 (gage height, 5.00 feet).
1940-41: Maximum discharge, 18,500 second-feet Apr. 19, 1940 (gage height, 24.76 feet); minimum observed, that of Sept. 25, 1941.

Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 5 to July 4)

Oct. 1 to July 16

5.25	7.4	9.0	218	21.0	2,160
5.3	9.1	10.0	306	21.5	2,820
5.7	23	12.0	530	22.0	3,500
6.3	46	15.0	950	22.5	4,700
7.0	82	18.0	1,420	23.0	6,150
8.0	145	20.5	1,940	23.4	7,700

July 17 to Sept. 30

5.05	7.6	6.5	63
5.2	12	7.0	88
5.5	22	8.1	152
6.0	41		

Note.- Same as preceding table above 8.1 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	1,100	1,330	1,280	378	458	556	76	13	20	51	16
2	11	1,440	1,850	1,680	367	378	621	65	14	14	118	24
3	11	1,400	2,100	1,880	950	326	621	60	14	27	336	101
4	10	995	2,160	2,010	1,320	296	1,100	54	16	59	276	142
5	10	458	2,230	2,100	1,310	278	1,400	49	18	166	116	68
6	9.4	269	2,160	2,160	1,160	414	1,400	50	15	287	62	54
7	9.1	210	2,100	2,160	890	1,640	1,360	134	15	300	50	33
8	9.1	166	1,910	2,050	556	2,050	1,180	210	14	116	37	27
9	8.8	132	1,720	1,820	400	2,540	716	152	14	259	31	35
10	8.8	498	1,490	1,100	306	3,200	422	113	14	330	26	73
11	8.8	1,280	1,150	458	269	3,200	326	88	12	103	22	26
12	8.8	1,700	674	336	234	2,840	269	64	11	85	21	17
13	8.8	1,780	1,130	296	218	2,450	234	58	11	111	32	11
14	8.4	1,800	1,510	269	260	2,010	194	43	24	588	282	10
15	8.4	1,780	1,720	251	356	1,440	166	40	26	1,240	269	10
16	8.4	1,680	4,690	234	326	1,130	148	37	17	1,310	128	9.6
17	7.8	1,030	7,700	226	306	1,280	141	33	15	1,160	152	10
18	7.8	334	6,000	210	269	1,260	132	29	15	543	187	14
19	7.4	198	4,450	187	226	1,180	116	26	14	232	116	15
20	7.4	159	3,600	169	313	995	135	24	12	137	73	12
21	7.4	138	3,010	159	688	647	169	22	11	94	56	9.9
22	7.4	132	2,500	152	702	543	155	21	10	78	41	8.4
23	7.4	141	2,100	145	569	543	128	22	10	180	33	7.3
24	7.4	254	1,780	296	494	1,070	148	49	9.8	105	26	6.7
25	7.4	434	1,150	786	482	1,360	176	32	11	60	18	7.3
26	7.4	744	595	772	506	1,390	162	24	33	42	17	8.7
27	7.1	980	1,120	1,020	530	1,390	145	19	45	33	16	8.4
28	7.4	860	1,850	1,070	530	1,320	128	16	39	57	14	7.8
29	10	647	1,910	950	-	875	109	15	54	88	24	7.0
30	12	458	1,800	702	-	458	91	14	32	107	55	6.7
31	65	-	1,600	470	-	389	-	14	-	91	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	327.1	65	7.1	10.6	0.017	0.02
November	23,197	1,800	132	773	1.27	1.42
December	71,089	7,700	595	2,293	3.78	4.36
Calendar year	-	-	-	-	-	-
January	27,398	2,160	145	884	1.46	1.68
February	14,915	1,320	218	533	.878	.91
March	39,350	3,200	278	1,269	2.09	2.41
April	12,648	1,400	91	422	.695	.78
May	1,653	210	14	53.3	.088	.10
June	558.8	54	9.8	18.6	.031	.03
July	8,022	1,310	14	259	.427	.49
August	2,713	336	14	87.5	.144	.17
September	785.8	142	6.7	26.2	.043	.05
Water year 1940-41	202,656.7	7,700	6.7	555	.914	12.42

Note.- Discharge below 50 sec.-ft., when water was below intakes, and for periods of faulty intake action Nov. 18-21, Jan. 11, 12, Feb. 8-14, Mar. 30, Apr. 14 to May 4, May 9-13, computed from twice-daily wire-weight gage readings or from graph based on gage readings and partial recorder graph.

Yalobusha River at Grenada, Miss.

Location (revised).- Wire-weight gage, lat. 33°47', long. 89°48', in NE¼ sec. 7, T. 22 N., R. 5 E., Choctaw meridian, at bridge on U. S. Highway 51, in Grenada, 0.8 mile downstream from Illinois Central R. R. bridge, 1 mile downstream from Batupan River, 6 miles downstream from Skuna River, and 60 miles upstream from confluence with Tallahatchie River. Datum of gage is 152.27 feet above mean sea level, datum of 1929.

Drainage area.- 1,550 square miles.

Records available.- June to November 1906, July 1908 to March 1912, July 1928 to September 1931 and October 1938 to September 1941 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 19,200 second-feet Dec. 18 (gage height, 26.16 feet); minimum discharge, 63 second-feet Oct. 18-23; minimum gage height observed, 4.45 feet June 22, Sept. 30.

1906, 1908-12, 1928-31, 1938-41: Maximum discharge observed, 35,700 second-feet May 20, 1930 (gage height, 27.49 feet); minimum discharge, 35 second-feet Sept. 8, 19, 20, and Nov. 20, 1909 (gage height, 0.9 foot).

A stage of 28.4 feet occurred on Jan. 13, 1932 (discharge, 46,000 second-feet).

Remarks.- Records good above and fair below 100 second-feet. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-31, and Aug. 21 to Sept. 2)

Oct. 1 to Jan. 23				Jan. 24 to Sept. 30			
4.45	63	19.0	3,700	4.45	67	12.0	1,630
5.0	106	21.0	4,500	4.8	94	16.0	2,855
5.6	160	23.0	6,100	6.0	240	21.0	4,660
6.5	300	24.0	7,600	7.0	406	22.0	5,320
7.6	480	25.0	10,100	8.0	598	23.0	6,430
9.0	610	25.5	13,000	9.6	934	23.6	7,360
12.0	1,590	25.9	16,600				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	2,520	3,900	3,860	1,210	1,150	1,520	388	100	112	284	190
2	70	2,550	4,600	4,460	1,430	1,010	1,570	334	100	226	1,460	300
3	70	2,760	4,380	4,740	2,520	882	1,720	300	106	442	1,130	1,460
4	70	2,430	4,380	4,380	3,140	1,040	2,660	268	118	558	558	1,380
5	66	1,510	4,560	4,260	3,060	1,750	3,280	254	106	1,070	370	578
6	66	914	4,560	4,080	2,860	1,990	3,560	254	94	1,210	214	334
7	66	546	4,180	3,660	2,260	4,780	3,730	352	94	1,320	190	226
8	66	426	4,260	3,360	1,600	5,400	3,730	618	100	834	148	178
9	66	408	4,420	3,150	1,210	5,580	2,920	700	94	658	124	178
10	66	1,330	3,940	2,940	960	6,580	1,760	478	89	678	106	538
11	70	3,390	3,210	2,610	810	7,360	1,130	498	84	538	100	538
12	66	3,320	2,580	1,800	722	6,880	856	352	80	538	106	268
13	66	3,630	3,420	1,020	744	6,680	722	266	80	558	178	136
14	66	3,630	3,630	888	788	4,730	638	240	89	1,180	722	106
15	66	3,600	3,860	836	858	4,260	668	214	106	1,930	518	94
16	66	3,360	8,000	810	908	4,590	518	190	112	2,020	518	84
17	66	2,700	10,100	788	858	4,150	498	178	100	2,110	558	76
18	63	1,620	16,600	722	744	3,760	460	166	89	1,930	362	76
19	63	766	16,500	656	722	3,620	460	166	240	1,010	618	73
20	63	502	8,950	690	1,290	2,980	908	154	100	388	406	73
21	63	444	8,200	668	1,780	2,230	1,900	148	70	316	190	73
22	63	444	6,920	648	1,630	1,660	1,510	136	70	424	142	73
23	63	502	5,280	648	1,490	1,570	1,600	136	94	388	130	70
24	66	992	4,500	1,210	1,270	2,440	1,210	142	84	316	118	70
25	66	1,430	3,780	1,660	1,210	2,360	1,690	154	80	226	112	70
26	70	2,220	3,120	1,960	1,240	3,170	1,930	148	80	166	112	73
27	74	2,580	2,640	2,720	1,320	3,380	1,490	166	118	178	106	70
28	74	2,520	3,980	2,960	1,290	3,000	1,290	112	166	334	100	70
29	74	2,250	4,260	3,100	-	2,260	578	106	154	442	130	70
30	86	1,950	4,220	2,860	-	1,550	442	100	142	226	154	67
31	230	-	4,100	1,870	-	1,180	-	100	-	214	334	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,260	230	63	72.9	0.047	0.05
November	58,044	3,820	408	1,935	1.26	1.39
December	170,830	16,500	2,580	5,511	3.56	4.10
Calendar year 1940	790,729	27,300	63	2,160	1.39	18.98
January	69,590	4,740	546	2,245	1.45	1.67
February	40,224	3,140	722	1,437	.927	.97
March	103,452	7,360	882	3,337	2.15	2.48
April	47,120	3,730	442	1,571	1.01	1.13
May	7,820	700	100	252	.163	.19
June	3,139	240	70	105	.068	.08
July	22,540	2,110	112	727	.469	.54
August	10,188	1,460	100	329	.212	.24
September	7,592	1,460	67	253	.163	.18
Water year 1940-41	542,799	16,500	63	1,487	.959	13.08

Skuna River near Coffeeville, Miss.

Location.- Water-stage recorder, lat. 33°54'35", long. 89°38'30", in NW¼ sec. 35, T. 24 N., R. 6 E., Choctaw meridian, at bridge on county road 1 mile south of Gums, 3½ miles upstream from Turkey Creek, 5 miles south of Coffeeville, and 9½ miles upstream from mouth.

Drainage area.- 435 square miles.

Records available.- March 1940 to September 1941.

Extremes.- Maximum discharge during year, 10,300 second-feet Dec. 17 (gage height, 19.78 feet); minimum observed, 9.6 second-feet Oct. 19; minimum gage height, 3.41 feet Sept. 23-25.
1940-41: Maximum discharge, 16,100 second-feet Apr. 20, 1940 (gage height, 20.58 feet); minimum observed, that of Oct. 19, 1940; minimum gage height, that of Sept. 23-25, 1941.

Remarks.- Records good.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 5-31, Feb. 7-22, July 22-27)

3.4	11	6.0	170	17.0	2,150
3.5	13	7.5	317	17.5	2,510
3.7	19	9.5	557	18.0	3,100
4.0	31	11.5	946	18.5	4,300
4.5	57	13.0	1,120	19.0	6,200
5.0	90	16.0	1,750	19.5	8,600

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	581	1,040	350	245	265	308	108	25	16	18	33
2	14	1,100	1,860	677	250	210	407	97	24	15	30	27
3	14	905	4,080	1,140	585	188	350	86	25	17	39	61
4	14	220	2,430	1,340	1,020	377	882	79	28	346	38	138
5	13	112	1,160	1,020	880	767	1,500	72	25	623	25	97
6	13	97	383	505	443	732	2,350	77	22	518	19	54
7	13	77	531	339	317	1,460	1,440	207	21	275	17	49
8	13	72	1,020	285	265	3,910	479	361	22	140	27	46
9	13	70	1,200	250	225	4,460	328	215	23	74	21	42
10	12	350	699	215	192	2,590	265	255	19	85	17	181
11	12	1,120	350	197	174	1,540	225	230	18	148	16	69
12	11	1,600	271	179	161	599	192	124	19	80	27	25
13	11	2,060	644	170	156	350	170	87	18	47	72	20
14	11	1,920	1,260	161	197	285	148	70	33	133	39	16
15	11	627	1,850	156	383	295	136	61	32	275	69	14
16	10	204	3,350	156	295	790	124	53	29	285	136	13
17	10	148	8,600	156	225	1,300	116	48	23	431	100	13
18	10	120	8,480	144	192	1,460	112	44	20	229	50	12
19	9.6	104	4,210	128	170	706	104	42	18	84	35	12
20	10	90	2,080	116	197	361	294	40	16	49	29	12
21	10	85	1,060	108	295	328	722	38	16	36	21	12
22	10	90	552	108	361	372	644	36	15	78	22	12
23	10	104	395	108	285	383	360	34	16	44	17	11
24	10	220	317	152	235	710	842	36	20	34	14	11
25	10	407	275	264	245	1,300	1,340	40	19	28	14	11
26	11	665	255	407	328	1,620	1,080	34	17	25	12	12
27	11	1,000	549	1,020	328	816	328	30	16	69	12	12
28	11	984	1,040	1,560	306	372	201	28	20	90	12	12
29	11	440	1,280	1,340	-	275	166	28	16	29	158	12
30	16	255	1,240	467	-	230	128	26	17	20	250	12
31	68	-	592	295	-	220	-	25	-	19	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	416.6	68	9.6	13.4	0.031	0.04
November	15,727	2,080	70	524	1.20	1.34
December	63,053	8,600	265	1,711	3.93	4.53
Calendar year	-	-	-	-	-	-
January	13,513	1,560	108	436	1.00	1.15
February	8,966	1,020	166	320	.736	.77
March	29,161	4,450	188	941	2.16	2.49
April	15,709	2,360	104	524	1.20	1.34
May	2,711	361	25	87.5	.201	.23
June	632	33	15	21.1	.049	.05
July	4,342	623	15	140	.322	.37
August	1,420	250	12	45.8	.105	.12
September	1,041	181	11	34.7	.080	.09
Water year 1940-41	146,680.6	8,600	9.6	402	.924	12.82

Peak discharge.- Dec. 3 (9 a.m.) 4,600 sec.-ft.; Dec. 17 (8 to 11 p.m.) 10,300 sec.-ft.; Mar. 8 (8 to 12 p.m.) 8,200 sec.-ft.

Note.- Faulty intake action below 15 second-feet and for Nov. 16-25, Dec. 5-7, 10-12, Mar. 12-15, 19-21, Mar. 27 to Apr. 3, Apr. 7-11, Apr. 26 to May 6, July 29-31, Sept. 12-14; discharge computed from twice-daily staff-gage readings or from graph based on gage readings.

Sunflower River at Clarksdale, Miss.

Location.- Wire-weight gage, lat. 34°11'50", long. 90°34'30", in E½ sec. 23, T. 27 N., R 4 W., Choctaw meridian, at "4th Street" bridge on old U. S. Highway 61 in Clarksdale, 600 feet downstream from Yazoo & Mississippi Valley R.R. bridge and 2 miles downstream from Little Sunflower River. Prior to Apr. 4, 1940, staff gage at same site and datum. Datum of gage is 131.70 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army). Auxiliary staff gage for slope determination at bridge on county road 1 mile west of Boone and 7.2 miles downstream from reference gage at Clarksdale. Datum of auxiliary gage is 125.41 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 108 square miles (authority Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1940 (gage heights only) and October 1940 to September 1941 in reports of Geological Survey. February 1937 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- 1938-39: Maximum gage height observed during water year, 15.95 feet Mar. 31 minimum observed, 1.00 foot at times in October and November.
1939-40: Maximum gage height observed during water year, 9.80 feet Apr. 20; minimum observed, 1.15 feet at times in October.
1940-41: Maximum discharge observed during water year, 1,130 second-feet Apr. 25; maximum gage height observed, 11.22 feet Apr. 24; minimum discharge observed, 10 second-feet at times in October, November and July; minimum gage height observed, 1.30 feet Oct. 5.

Remarks.- Records fair above and poor below 50 second-feet. Both gages read twice daily. Discharge determined by using fall between gages at 8 a.m. as a factor.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge measurements, 1938-40

Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)
1938			1939		
Oct. 26	1.20	26	Dec. 13	1.72	25
1939			1940		
Jan. 18	4.91	220	Jan. 21	2.05	27
Feb. 5	14.74	1,150	Feb. 20	7.62	323
9	7.90	420	Mar. 6	1.95	26
18	12.66	1,120	14	5.54	86
Mar. 1	10.97	820	26	2.04	37
23	3.00	110	Apr. 5	2.12	57
31	15.95	970	15	2.90	107
Apr. 2	13.82	970	22	6.47	348
14	3.80	210	May 14	1.67	36
May 9	3.20	117	29	1.69	24
26	1.95	46	June 13	1.83	27
June 24	2.45	85	26	1.76	23
July 25	1.55	26	29	5.85	305
Aug. 24	1.22	19	July 25	1.75	24
Oct. 25	1.30	17	Aug. 26	1.37	15
Nov. 28	1.42	16	Sept. 11	1.46	14
			24	2.56	28

Gage height, in feet, 1938-40

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.05	1.00	1.45	1.50	15.03	10.85	15.10	3.48	1.80	10.62	1.50	1.20
2	1.05	1.00	1.50	1.45	14.46	8.80	13.35	3.23	1.80	9.45	1.45	1.20
3	1.00	1.00	1.59	1.58	15.40	6.88	11.05	3.10	1.81	7.35	1.40	1.20
4	1.00	1.00	1.59	3.72	15.64	5.92	8.50	3.00	1.92	5.46	1.40	1.20
5	1.00	1.00	1.51	7.11	14.77	5.04	6.68	2.85	1.95	4.60	1.40	1.20
6	1.00	1.02	1.50	7.87	13.65	4.51	8.31	1.96	1.93	3.89	1.40	1.19
7	1.00	1.27	1.50	6.50	12.44	4.15	9.65	1.81	1.88	3.38	1.40	1.11
8	1.00	1.20	1.50	4.76	10.38	3.83	8.46	1.94	1.85	3.01	1.35	1.10
9	1.00	1.15	1.50	3.36	8.27	3.71	6.78	2.88	1.85	2.78	1.30	1.10
10	1.00	1.10	1.50	2.72	7.18	3.65	5.48	3.05	1.84	2.58	1.30	1.09
11	1.00	1.03	1.50	2.41	5.65	3.60	4.70	2.87	1.73	2.50	1.30	1.01
12	1.00	1.00	1.50	2.75	4.49	3.50	4.38	2.68	1.61	2.42	1.25	1.01
13	1.00	1.00	1.55	6.18	3.88	3.38	4.17	2.53	1.61	2.30	1.25	1.10
14	1.00	1.00	1.60	7.42	5.37	3.30	3.86	2.38	1.72	2.25	1.25	1.19
15	1.00	1.05	1.60	6.37	11.98	3.21	3.68	2.22	1.79	2.20	1.25	1.21
16	1.00	1.14	1.60	4.83	13.94	3.19	3.97	2.06	1.75	2.05	1.25	1.25
17	1.00	1.34	1.60	4.33	13.67	3.08	6.17	2.00	1.70	1.90	1.25	1.31
18	1.00	1.70	1.50	4.80	12.47	3.00	6.31	1.95	1.65	1.80	1.32	1.78
19	1.00	1.59	1.50	4.38	10.73	3.00	5.48	1.95	1.65	1.67	1.35	1.38
20	1.00	1.41	1.52	3.62	9.66	3.00	5.08	1.95	1.60	1.51	1.28	1.25
21	1.00	1.42	1.68	3.07	7.84	3.00	4.88	1.95	1.51	1.49	1.25	1.20
22	1.00	1.31	1.74	2.75	7.10	3.00	4.64	1.95	1.50	1.41	1.25	1.15
23	1.00	1.30	2.26	2.91	6.63	3.00	4.25	1.93	1.69	1.45	1.25	1.15
24	1.00	1.23	2.39	4.74	5.15	2.91	3.91	1.91	2.35	1.45	1.25	1.15
25	1.00	1.17	2.21	4.65	5.75	2.95	3.95	1.99	2.40	1.45	1.25	1.15
26	1.00	1.10	1.89	3.90	8.52	3.38	3.80	2.00	2.00	1.45	1.25	1.15
27	1.00	1.10	1.71	3.23	9.62	5.75	4.27	2.05	1.75	1.45	1.20	1.20
28	1.00	1.15	1.65	3.04	10.97	6.08	4.38	2.05	1.99	1.45	1.20	1.20
29	1.00	1.28	1.60	7.16	-	10.65	4.07	1.98	6.81	1.45	1.20	1.76
30	1.00	1.40	1.53	13.83	-	15.23	3.73	1.90	10.01	1.45	1.24	2.01
31	1.00	-	1.50	15.28	-	15.85	-	1.85	-	1.50	1.20	-

Gage height, in feet, of Sunflower River at Clarksdale, Miss., 1938-40--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.35	1.30	1.52	1.99	1.99	2.31	2.79	3.53	1.56	3.89	1.45	1.42
2	1.30	1.30	1.50	1.90	2.00	2.29	2.53	3.44	1.52	5.15	1.46	1.40
3	1.30	1.30	1.50	1.85	2.02	2.18	2.40	2.93	1.49	6.66	1.64	1.44
4	1.30	1.30	1.50	1.85	2.28	2.05	2.28	2.66	1.47	6.23	1.62	1.42
5	1.30	1.30	1.50	1.80	2.47	2.00	2.14	2.49	1.44	5.03	1.59	1.42
6	1.30	1.35	1.50	1.81	3.17	1.95	2.19	2.32	1.44	4.15	1.48	1.40
7	1.25	1.35	1.50	1.89	3.49	1.90	4.02	2.18	2.63	4.15	1.44	1.39
8	1.25	1.35	1.50	1.90	3.29	1.89	4.65	2.06	2.76	4.21	1.45	1.39
9	1.20	1.35	1.50	1.90	5.34	1.81	3.79	1.95	1.91	4.02	1.59	1.40
10	1.20	1.40	1.50	1.93	6.97	1.80	3.19	1.88	1.93	3.95	1.91	1.43
11	1.15	1.47	1.50	2.07	6.53	1.87	3.28	1.79	1.98	3.22	2.07	1.43
12	1.15	1.53	1.52	2.76	5.12	2.90	3.80	1.75	1.90	2.75	2.04	1.41
13	1.15	1.57	1.68	2.86	3.99	4.97	3.60	1.71	1.92	2.92	1.86	1.42
14	1.15	1.48	1.61	3.02	3.37	5.31	3.17	1.66	2.02	3.52	1.82	1.43
15	1.15	1.45	1.60	3.11	3.02	3.78	2.88	1.68	1.89	3.16	1.72	1.41
16	1.15	1.41	1.60	2.76	2.75	2.59	2.67	1.61	2.04	2.65	1.63	1.39
17	1.15	1.45	1.60	2.51	3.93	2.30	2.63	1.60	1.83	2.68	1.57	1.41
18	1.20	1.52	1.60	2.38	7.30	2.16	4.54	1.61	1.76	3.34	1.61	1.42
19	1.20	1.50	1.60	2.25	8.59	2.12	8.39	1.58	1.74	2.88	2.49	1.40
20	1.25	1.45	1.60	2.10	7.25	2.05	9.57	1.55	1.88	2.37	2.58	1.40
21	1.30	1.40	1.60	2.01	5.69	2.00	8.14	1.53	2.62	2.65	1.98	1.41
22	1.29	1.31	1.63	2.00	4.26	2.00	6.09	1.50	3.19	2.17	1.64	1.41
23	1.21	1.31	2.22	2.00	3.46	2.00	4.66	1.53	2.34	2.02	1.53	1.50
24	1.20	1.45	2.10	1.95	2.99	1.96	3.75	1.62	2.14	1.88	1.49	2.27
25	1.25	1.54	2.54	1.90	2.78	2.00	3.22	1.61	1.89	1.73	1.39	2.03
26	1.25	1.50	2.56	1.90	2.60	2.00	2.86	1.61	1.73	1.53	1.38	1.71
27	1.25	1.50	3.05	1.90	2.51	2.06	2.62	1.67	1.58	1.42	1.40	1.57
28	1.21	1.45	2.66	1.90	2.50	2.63	2.44	1.66	2.26	1.44	1.48	1.50
29	1.25	1.45	2.30	1.86	2.44	2.48	2.38	1.68	5.74	1.46	1.44	1.48
30	1.30	1.45	2.02	1.90	-	3.09	2.42	1.64	4.99	1.42	1.44	1.45
31	1.30	-	2.00	1.91	-	3.23	-	1.58	-	1.41	1.45	-

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	12	33	164	66	48	46	69	16	16	16	14
2	10	12	39	434	89	48	39	57	16	16	62	14
3	10	12	29	606	298	48	48	47	14	16	94	16
4	10	10	25	356	149	42	50	44	12	17	114	21
5	10	12	21	165	104	37	47	46	12	58	59	25
6	10	12	20	128	109	63	38	44	12	36	50	25
7	12	12	55	96	75	115	38	38	14	18	23	18
8	10	12	73	74	59	88	34	37	12	15	20	16
9	10	16	49	60	56	112	34	37	12	15	16	16
10	10	20	34	40	52	67	32	33	12	12	16	18
11	10	21	37	34	53	68	31	30	12	12	14	f18
12	10	15	32	33	40	63	27	28	12	12	12	f16
13	10	15	72	38	38	46	27	26	12	14	12	f16
14	10	16	68	37	41	37	27	24	12	12	14	f16
15	10	16	60	39	39	58	24	24	16	10	16	f16
16	12	16	341	48	35	76	20	20	14	14	16	f14
17	10	16	448	53	35	69	20	20	12	10	16	f14
18	10	16	341	44	38	58	18	20	12	11	12	f14
19	10	16	232	38	40	56	16	20	12	16	19	f14
20	10	16	98	34	42	56	74	16	14	14	14	f14
21	10	16	74	32	46	44	109	16	16	12	12	f14
22	12	16	85	46	52	41	91	16	16	12	14	14
23	12	23	72	42	52	59	293	14	16	10	14	14
24	12	18	51	74	58	66	881	14	16	10	14	12
25	12	18	49	96	49	69	1,130	14	16	10	12	16
26	12	20	39	205	54	58	589	12	14	12	12	16
27	12	21	76	213	58	58	213	12	16	14	14	16
28	12	19	95	156	47	57	151	12	18	21	14	16
29	16	20	83	108	-	47	115	12	21	21	14	16
30	14	22	59	114	-	44	78	14	16	21	12	16
31	12	-	56	81	-	51	-	16	-	16	12	-

f Computed on basis of partly estimated gage-height record.

Monthly discharge, in second-feet, of Sunflower River at Clarksdale, Miss., water year October 1940 to September 1941

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	340	16	10	11.0	0.102	0.12
November	486	23	10	16.2	.150	.17
December	2,846	448	20	91.8	.850	.98
Calendar year 1940	23,923	580	10	65.4	.606	8.23
January	3,688	606	32	119	1.10	1.27
February	1,874	298	35	66.9	.619	.65
March	1,849	115	37	59.6	.552	.64
April	4,340	1,130	16	145	1.34	1.49
May	832	69	12	26.8	.248	.29
June	425	21	12	14.2	.131	.15
July	503	58	10	16.2	.150	.17
August	759	114	12	24.5	.227	.26
September	485	25	12	16.2	.150	.17
Water year 1940-41	18,427	1,130	10	50.5	.468	6.36

Sunflower River at Sunflower, Miss.

Location (revised).- Wire-weight gage, lat. 33°32'50", long. 90°32'35", in NE¼ sec. 6, T. 19 N., R. 3 W., Choctaw meridian, at birdge on U. S. Highway 49W (old), half a mile northwest of Sunflower, 2½ miles downstream from Jones Bayou, 19 miles upstream from Quiver River, 20½ miles downstream from former station near Ruleville, and 23 miles upstream from former station at Baird. Datum of gage is 92.85 feet above mean sea level, datum of 1929.

Drainage area.- 780 square miles (revised, authority, Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941 in reports of Geological Survey. February 1918 to September 1935 (gage heights only) and October 1935 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 3,490 second-feet Dec. 19 (gage height, 16.50 feet); minimum discharge, 173 second-feet Sept. 16-30; minimum gage height, 1.42 feet, 1.42 feet Oct. 17-19.

1938-41: Maximum discharge observed, 6,850 second-feet Apr. 3, 1939 (gage height, 25.00 feet); minimum discharge, that of Sept. 16-30, 1941; minimum gage height, that of Oct. 17-19, 1940.

Remarks.- Records good. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Revisions.- Revised figures of discharge in second-feet per square mile and run-off in inches for the water years 1939 and 1940, superseding those published in Water-Supply Papers 877 and 897 are given herein:

Month	1938-39		1939-40	
	Per square mile	Inches	Per square mile	Inches
October	0.287	0.33	0.296	0.34
November	.296	.33	.299	.33
December	.309	.36	.373	.43
Calendar year	-	-	1.47	19.91
January	1.98	2.28	.444	.51
February	5.29	5.51	1.89	2.04
March	2.42	2.79	1.33	1.54
April	4.53	5.05	1.98	2.21
May	.731	.84	.597	.69
June	.579	.65	.471	.52
July	.872	1.00	2.21	2.54
August	.314	.36	.497	.57
September	.295	.33	.274	.31
Water year	1.46	19.83	.885	12.03

Discharge, in second-feet, of Sunflower River at Sunflower, Miss., water-year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	222	372	1,010	862	1,030	466	525	1,750	246	233	246	209
2	216	442	1,250	1,830	952	452	480	1,390	246	233	272	209
3	210	414	1,340	2,580	1,070	424	452	1,110	233	246	259	209
4	204	386	1,250	2,870	1,270	410	452	880	233	246	259	209
5	198	316	1,070	2,890	1,390	382	452	742	233	246	246	209
6	198	274	916	2,790	1,390	424	438	630	233	259	259	197
7	198	253	844	2,550	1,270	1,050	424	540	221	285	259	197
8	192	228	790	2,270	1,110	2,160	410	525	221	326	259	197
9	192	222	808	1,900	970	2,710	396	480	221	326	259	197
10	192	274	880	1,570	826	2,790	382	452	221	326	246	197
11	192	604	826	1,270	710	2,630	368	410	221	312	233	197
12	192	1,120	758	1,030	615	2,320	354	396	221	298	221	197
13	192	1,350	970	862	585	1,960	340	382	221	298	221	197
14	192	1,310	1,440	742	495	1,570	326	352	209	424	221	185
15	192	1,140	1,850	646	452	1,270	312	340	221	600	221	185
16	192	950	2,610	585	438	1,010	312	312	221	1,070	221	173
17	186	780	3,230	540	396	916	298	312	209	1,270	221	173
18	186	636	3,460	510	382	844	298	298	209	1,360	209	173
19	186	540	3,460	466	368	790	298	285	209	1,270	221	173
20	192	456	3,310	452	410	742	525	285	209	1,110	221	173
21	192	428	3,050	424	480	678	1,290	272	209	916	221	173
22	192	372	2,710	396	570	615	1,620	272	209	758	221	173
23	192	372	2,270	396	585	585	1,620	272	209	630	221	173
24	192	710	1,830	424	585	726	1,830	246	209	510	221	173
25	192	990	1,490	424	555	970	2,190	246	209	424	209	173
26	192	1,160	1,110	525	525	1,050	2,480	246	209	368	209	173
27	192	1,180	970	808	495	970	2,580	246	221	340	209	173
28	192	1,070	898	1,160	480	862	2,500	246	221	312	209	173
29	192	934	880	1,340	-	758	2,290	246	221	298	209	173
30	204	808	862	1,290	-	862	2,110	246	233	272	209	173
31	222	-	808	1,180	-	585	-	246	-	272	209	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October 1940	6,078	222	186	196	0.251	0.29
November	20,091	1,350	222	670	.859	.96
December	48,950	3,460	758	1,579	2.02	2.33
Calendar year 1940	304,576	3,460	186	832	1.07	14.51
January 1941	37,582	2,890	396	1,212	1.55	1.79
February	20,374	1,390	368	728	.933	.97
March	33,781	2,790	382	1,090	1.40	1.61
April	28,352	2,580	298	945	1.21	1.35
May	14,657	1,750	246	473	.606	.70
June	6,608	246	209	220	.282	.32
July	15,838	1,360	233	511	.655	.76
August	7,121	272	209	230	.295	.34
September	5,586	209	173	186	.238	.27
Water year 1940-41	245,018	3,460	173	671	.860	11.89

Big Black River at Pickens, Miss.

Location.- Water-stage recorder, lat. 32°52'45", long. 89°58'05", in SW¼ sec. 14, T. 12 N., R. 3 E., Choctaw meridian, at bridge on U. S. Highway 51, half a mile southeast of Pickens, 6 miles downstream from Seneasha Creek, and 6 miles upstream from Cypress Creek. Datum of gage is 195.85 feet above mean sea level, datum of 1929 (U. S. Department of Agriculture bench mark, levels by Corps of Engineers, U. S. Army).
Drainage area.- 1,460 square miles.
Records available.- October 1938 to September 1941 in reports of Geological Survey. July 1936 to September 1938 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge during year, 13,900 second-feet Dec. 19 (gage height, 18.97 feet); minimum, 61 second-feet Oct. 26-29; minimum gage height, 3.22 feet June 14.
1938-41: Maximum discharge, 25,600 second-feet July 8, 1940 (gage height, 19.92 feet); minimum, 48 second-feet Nov. 4-12, 1939 (year incorrectly published as 1940 in Water-Supply Paper 897); minimum gage height, that of June 14, 1941.
Maximum stage known, 23.7 feet from information furnished by local residents, Dec. 29, 1928. Floods of 1892 and May 1930 reached a stage of about 23.5 feet, from information furnished by local residents.
Remarks.- Records fair.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 10, 11)

Oct. 1 to Nov. 11				Nov. 12 to Sept. 30					
3.45	64	7.0	540	3.25	84	8.0	920	17.7	5,550
3.8	90	8.5	870	3.5	108	10.0	1,470	18.1	6,500
4.4	147	10.0	1,270	4.0	164	12.0	2,130	18.3	7,400
5.0	216	10.8	1,510	4.5	227	14.0	2,870	18.5	9,000
6.0	364			5.5	386	16.0	3,850	18.9	13,400
				6.0	480	17.0	4,650		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	f117	262	1,910	3,500	1,320	920	1,410	309	103	309	f645	293
2	f99	798	3,500	3,250	1,380	845	1,440	285	102	317	870	262
3	93	1,330	4,290	3,150	2,390	755	1,470	262	102	234	f1,380	214
4	89	1,510	4,130	2,830	2,870	710	1,810	248	103	303	f1,350	194
5	85	1,070	3,920	2,390	2,790	665	2,420	248	101	1,040	f1,100	359
6	81	492	3,790	2,240	2,610	800	2,280	248	96	1,240	f800	580
7	78	293	4,210	2,200	2,460	3,140	1,990	293	91	1,260	1,020	540
8	76	223	4,970	2,060	2,420	4,650	1,710	580	103	1,560	1,380	351
9	73	192	4,860	1,560	2,020	4,750	1,350	690	104	1,470	1,290	255
10	72	232	3,990	1,160	1,350	4,130	1,040	540	94	780	870	450
11	72	1,190	2,910	995	1,040	3,790	895	404	91	470	500	580
12	72	2,420	1,920	895	895	3,550	780	309	86	825	342	334
13	70	2,610	2,830	825	800	3,450	690	248	84	1,180	285	220
14	70	2,530	3,850	780	780	3,500	620	220	158	1,810	255	182
15	70	2,460	4,730	755	845	3,500	560	201	188	2,500	394	152
16	68	2,200	7,750	735	995	3,250	520	188	365	2,530	1,120	131
17	66	1,380	9,550	735	1,020	2,240	480	176	520	2,460	1,350	117
18	67	710	12,800	735	895	1,990	450	170	480	2,170	1,260	108
19	67	520	13,400	710	755	1,950	431	164	309	1,950	945	102
20	66	431	11,700	645	920	1,920	755	158	214	1,950	920	97
21	64	377	10,100	600	1,560	2,350	970	146	176	2,130	1,320	101
22	64	351	8,100	560	1,850	2,790	895	140	145	f2,130	870	126
23	63	359	6,900	540	1,850	2,830	755	133	129	f1,990	540	110
24	63	2,090	5,950	800	1,780	3,030	645	129	118	f1,680	359	95
25	62	3,450	5,220	1,650	1,680	3,200	600	125	115	f1,440	262	102
26	61	3,730	4,370	2,130	1,320	3,150	540	119	114	f1,320	220	109
27	61	3,250	3,350	2,500	1,100	3,030	480	114	124	f1,040	188	102
28	61	2,500	4,970	2,640	995	2,870	431	109	164	f800	176	91
29	64	1,680	5,090	2,420	-	2,720	377	107	645	f645	164	88
30	84	1,160	4,650	2,130	-	2,500	342	104	560	f620	220	87
31	123	-	3,990	1,850	-	1,710	-	103	-	f800	285	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,321	123	61	74.9	0.051	0.06
November	41,800	3,730	192	1,393	.954	1.06
December	173,700	13,400	1,910	5,603	3.84	4.43
Calendar year 1940	949,246	24,300	61	2,594	1.78	24.20
January	49,970	3,500	540	1,612	1.10	1.27
February	42,690	2,870	755	1,525	1.04	1.08
March	80,685	4,750	665	2,603	1.78	2.05
April	29,136	2,420	342	971	.665	.74
May	7,270	690	103	235	.161	.19
June	5,784	645	84	193	.132	.15
July	40,953	2,530	234	1,321	.905	1.04
August	22,680	1,380	164	732	.501	.58
September	6,532	580	87	218	.149	.17
Water year 1940-41	503,521	13,400	61	1,380	.945	12.82

f Computed on basis of partly estimated gage-height record.

Big Black River near Bovina, Miss.

Location.- Wire-weight gage, lat. 32°20'51", long. 90°41'48", in SE¼ (revised) sec. 22, T. 16 N., R. 5 E., Washington meridian, at bridge on U. S. Highway 80, about 300 feet upstream from Clear Creek, 0.4 mile upstream from Yazoo & Mississippi Valley R. R. bridge, 2 miles east of Bovina, 12 miles upstream from Fourteenmile Creek, and 72 miles upstream from mouth. Datum of gage is 84.93 feet above mean sea level or 85.00 feet above mean Gulf level (levels by Corps of Engineers, U. S. Army; Corps of Engineers, U. S. Army, bench mark).
Drainage area.- 2,810 square miles.
Records available.- October 1938 to September 1941 in reports of Geological Survey. January 1936 to September 1938 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge observed during year, 15,500 second-feet Dec. 21, 22; maximum gage height observed, 34.12 feet Dec. 21; minimum discharge, 117 second-feet Oct. 28, 29, 31 (gage height, 7.97 feet).
1938-41: Maximum discharge, 26,000 second-feet July 14, 15, 17, 18, 1940; maximum gage height observed, 38.25 feet July 14, 1940; minimum discharge, 79 second-feet Nov. 4-6, 1939 (gage height, 7.70 feet).
Remarks.- Records good. Gage read twice daily, oftener during periods of rapidly changing stage.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 1-20)

Oct. 1 to Apr. 30				May 1 to Sept. 30	
7.95	117	18.0	2,820	8.4	176
8.5	207	21.0	4,030	8.8	241
9.0	294	25.0	6,020	9.4	353
10.0	483	28.0	7,850	10.0	475
11.0	695	30.0	9,800	10.4	563
13.0	1,200	32.0	12,300	Note.- Same as preceding	
15.0	1,800	34.1	15,500	table above 10.4 feet.	

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	676	6,300	14,800	3,280	1,870	5,850	745	224	373	1,590	296
2	190	1,500	6,250	14,800	5,310	1,680	4,970	651	215	453	3,280	353
3	207	870	5,850	14,200	7,070	1,440	4,350	585	215	607	3,650	433
4	207	503	5,380	13,100	6,590	1,290	4,260	541	207	651	3,400	920
5	198	1,020	4,680	11,800	6,590	1,140	4,260	563	207	1,200	2,750	1,380
6	181	1,350	4,590	10,400	6,830	1,100	4,310	770	196	2,090	2,190	1,120
7	173	1,470	5,690	8,900	6,830	4,600	4,590	695	196	2,360	2,120	563
8	173	1,230	6,650	7,380	6,770	5,910	4,680	563	198	2,060	1,770	413
9	157	795	6,540	5,910	6,650	6,130	4,830	497	198	1,900	1,440	607
10	157	720	6,540	3,990	6,590	6,420	4,640	475	191	1,770	1,260	1,530
11	157	2,160	6,710	2,930	5,220	6,710	3,950	585	224	1,870	1,380	1,070
12	149	3,400	6,950	2,260	4,170	6,950	2,860	695	215	1,710	1,320	497
13	149	3,040	9,400	1,740	2,780	7,200	1,960	673	224	1,230	1,040	475
14	141	2,970	9,400	1,410	1,870	7,500	1,470	563	207	1,320	795	607
15	141	2,930	9,500	1,230	1,440	7,640	1,200	475	191	1,840	519	497
16	141	2,930	11,800	1,200	1,260	7,440	1,020	433	198	2,160	413	373
17	141	2,890	12,600	1,380	1,260	6,830	920	373	651	2,530	353	277
18	133	2,750	13,100	1,320	1,260	6,020	845	353	870	2,970	433	259
19	133	2,460	13,900	1,260	1,320	5,170	1,050	334	629	3,160	970	224
20	133	1,800	14,800	1,120	1,560	5,220	2,860	315	585	3,900	1,380	207
21	133	1,070	15,500	1,070	2,360	9,800	2,670	315	629	3,730	1,440	198
22	125	720	15,500	995	2,930	9,400	2,750	296	475	2,670	1,100	191
23	125	585	15,300	945	3,360	8,900	3,360	277	334	2,260	1,040	183
24	125	6,030	15,300	1,100	3,520	9,100	3,690	277	277	2,190	1,200	183
25	125	6,420	15,300	1,530	3,480	9,100	3,400	259	241	2,320	970	183
26	125	6,420	14,700	2,000	3,200	8,900	2,890	259	224	2,260	673	191
27	125	6,070	14,200	2,890	2,780	8,700	2,190	241	207	2,060	475	191
28	125	5,800	13,900	3,280	2,430	8,250	1,680	241	215	2,220	373	183
29	117	5,750	13,100	3,400	-	7,710	1,230	241	393	2,430	541	176
30	125	5,690	13,000	3,400	-	7,070	920	224	393	2,710	353	176
31	125	-	14,000	3,360	-	6,360	-	224	-	2,190	315	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,643	207	117	150	0.053	0.06
November	82,019	6,420	503	2,734	.973	1.09
December	326,630	15,500	4,590	10,540	3.75	4.32
Calendar year 1940	1,770,654	26,000	117	4,838	1.72	23.44
January	145,100	14,800	945	4,681	1.67	1.92
February	108,710	7,070	1,260	3,882	1.38	1.44
March	191,550	9,800	1,100	6,179	2.20	2.54
April	89,855	5,850	845	2,995	1.07	1.19
May	13,738	770	224	443	.158	.18
June	9,433	870	191	314	.112	.12
July	63,194	3,900	373	2,039	.726	.84
August	40,533	3,650	315	1,308	.465	.54
September	13,956	1,530	176	465	.165	.18
Water year 1940-41	1,089,361	15,500	117	2,985	1.06	14.42

Homochitto River at Eddiceton, Miss.

Location.- Wire-weight gage, lat. 31°30', long. 90°47', in T. 6 N., R. 4 E., Washington meridian, at bridge on U. S. Highway 84, a quarter of a mile upstream from Mississippi Central R. R. bridge, three-quarters of a mile east of Eddiceton, three-quarters of a mile upstream from McCall Creek, and about 12 miles upstream from Middle Fork Creek.

Drainage area.- 180 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 18,200 second-feet Dec. 13 (gage height, 10.7 feet, from graph based on gage readings); minimum, 32 second-feet Oct. 8-14, 16-26.
1938-41: Maximum discharge, 30,900 second-feet Mar. 29, 1939 (gage height, 12.73 feet, from floodmark), from rating curve extended above 18,000 second-feet on basis of velocity-area studies; minimum observed, 25 second-feet Aug. 16, 17, 1939.

Remarks.- Records fair. Gage read twice daily, oftener during periods of rapidly changing stage.

Correction.- The minimum daily discharge for the water year 1940 was published incorrectly in Water-Supply Paper 897; correct figure is 32 second-feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	50	72	210	142	53	641	257	60	101	53	60
2	34	40	63	188	246	53	347	252	58	109	66	102
3	34	36	56	178	226	53	760	246	53	99	69	166
4	34	36	48	157	157	50	430	344	53	550	58	83
5	34	38	48	138	146	48	315	1,640	50	346	58	72
6	34	36	46	134	146	1,370	246	886	46	80	58	56
7	36	36	956	126	157	2,970	236	600	48	63	63	50
8	32	36	241	126	138	498	292	174	50	58	56	50
9	32	36	123	119	123	328	226	130	48	53	58	46
10	32	56	99	112	116	241	201	109	46	50	53	50
11	32	280	86	109	106	206	186	99	50	154	60	48
12	32	112	2,110	86	99	188	166	99	58	276	69	46
13	32	63	8,380	80	102	188	176	86	69	78	58	46
14	32	50	664	78	92	183	174	86	56	60	50	46
15	34	48	3,870	80	86	170	174	83	122	58	50	46
16	32	48	3,370	309	63	912	174	83	99	78	50	46
17	32	48	467	201	60	354	170	80	80	66	56	46
18	32	43	257	102	56	236	165	156	72	60	50	46
19	32	40	170	86	56	226	161	80	60	58	50	43
20	32	40	620	78	63	1,460	174	72	63	69	50	43
21	32	46	257	75	86	1,310	1,080	69	75	126	46	38
22	32	50	161	75	69	394	848	66	94	83	46	38
23	32	48	138	80	60	292	1,030	63	129	386	46	38
24	32	481	92	99	69	241	3,320	60	63	198	46	46
25	32	220	83	95	126	231	708	58	60	273	46	50
26	32	134	4,590	1,270	89	192	423	58	58	89	46	48
27	34	86	6,720	541	69	196	315	58	58	291	46	40
28	34	63	1,870	220	56	170	292	60	60	83	46	40
29	38	53	708	170	-	149	280	60	69	63	50	38
30	40	50	423	161	-	142	268	60	60	56	53	36
31	40	-	292	149	-	1,510	-	69	-	56	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,036	40	32	33.4	0.186	0.21
November	2,403	481	36	80.1	.445	.50
December	37,080	8,380	46	1,196	6.64	7.66
Calendar year 1940	136,269	9,470	32	372	2.07	28.13
January	5,632	1,270	75	182	1.01	1.16
February	3,004	246	56	107	.594	.62
March	14,614	2,970	48	471	2.62	3.02
April	14,004	3,320	161	467	2.59	2.89
May	6,243	1,640	58	201	1.12	1.29
June	1,967	129	46	65.6	.364	.41
July	4,174	550	50	135	.750	.86
August	1,656	69	46	53.4	.297	.34
September	1,609	166	38	53.6	.298	.33
Water year 1940-41	93,422	8,380	32	256	1.42	19.29

Homochitto River near Doloroso, Miss.

Location.- Water-stage recorder, lat. 31°19'53", long. 91°21'37", in sec. 10, T. 4 N., R. 2 W., Washington meridian, at bridge on U. S. Highway 61 (new), 1,200 feet downstream from Second Creek, 2.2 miles north of Doloroso, 10 miles upstream from mouth (through Armstrong canal), 16 miles north of Woodville, and 16 miles south of Natchez.

Drainage area.- 1,120 square miles.

Records available.- December 1939 to September 1941.

Extremes.- Maximum discharge during year, 27,300 second-feet Dec. 14 (gage height, 19.54 feet), from rating curve extended above 19,000 second-feet; minimum, 232 second-feet Oct. 16-25; minimum gage height observed, 2.46 feet Sept. 30.

1939-41: Maximum discharge, 35,300 second-feet July 4, 1940 (gage height, 21.23 feet), from rating curve extended above 20,000 second-feet by velocity-area studies; minimum, that of Oct. 16-25, 1940; minimum gage height observed, that of Sept. 30, 1941.

Flood of Apr. 7, 1938, reached a stage of 23.4 feet from information furnished by Corps of Engineers, U. S. Army.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	275	445	1,260	2,160	1,010	550	3,700	910	600	470	530	340
2	267	630	1,730	1,680	1,190	540	6,320	825	490	950	500	565
3	260	400	1,590	1,500	1,730	530	3,370	765	430	1,380	990	987
4	260	305	1,040	1,420	1,820	530	2,480	720	400	1,380	1,420	810
5	250	285	810	1,300	1,300	515	2,210	1,850	380	2,160	940	660
6	260	305	735	1,190	1,080	1,110	1,550	4,140	370	2,200	1,150	430
7	260	322	1,830	1,080	1,040	4,580	1,220	6,250	370	1,060	705	370
8	285	285	2,840	1,010	1,040	9,880	1,110	4,050	445	660	580	340
9	275	275	3,590	940	940	7,050	1,260	2,060	420	540	530	330
10	250	385	2,420	890	855	2,770	1,080	1,260	380	490	580	370
11	240	2,010	1,300	840	795	1,660	940	990	500	565	500	340
12	240	2,420	1,780	810	765	1,340	870	840	688	970	1,100	340
13	240	2,110	9,280	780	750	1,420	625	765	955	1,260	1,010	315
14	240	1,100	19,800	765	720	1,340	795	690	840	705	600	305
15	240	675	17,600	765	690	1,110	760	630	873	600	460	295
16	232	550	11,200	1,280	660	1,710	765	590	1,350	780	445	295
17	232	515	17,000	2,040	645	2,650	765	550	1,590	780	660	295
18	232	490	8,850	1,800	630	2,480	750	530	1,190	630	1,010	305
19	232	470	4,110	1,190	615	1,590	735	580	1,380	530	675	330
20	232	460	2,840	926	645	3,090	735	540	970	650	470	285
21	232	460	3,590	825	705	6,250	1,180	480	1,190	1,560	390	275
22	232	470	2,900	795	750	10,400	2,710	460	940	2,010	350	260
23	232	490	1,960	780	660	5,800	3,500	430	855	1,460	330	260
24	232	2,310	1,550	855	630	2,780	3,950	420	990	1,110	322	260
25	232	2,710	1,460	1,190	660	1,820	7,580	410	600	1,500	315	295
26	240	3,260	2,110	2,290	765	1,460	5,330	400	765	1,190	322	322
27	240	3,110	5,060	3,340	690	1,260	2,160	400	645	990	330	267
28	240	1,990	18,400	4,160	600	1,220	1,420	390	540	1,110	315	260
29	240	1,150	12,000	2,260	-	1,080	1,110	390	500	940	322	250
30	250	840	6,100	1,420	-	990	990	486	500	660	445	240
31	290	-	3,300	1,150	-	1,820	-	720	-	580	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,652	290	232	247	0.221	0.25
November	31,227	3,260	275	1,041	.929	1.04
December	170,035	19,800	735	5,485	4.90	5.65
Calendar year 1940	792,611	24,900	232	2,166	1.93	26.33
January	43,430	4,160	765	1,401	1.25	1.44
February	24,360	1,820	600	871	.778	.81
March	81,325	10,400	515	2,623	2.34	2.70
April	69,190	7,580	735	2,073	1.85	2.06
May	34,523	6,250	390	1,114	.995	1.15
June	22,246	1,590	370	742	.662	.74
July	31,810	2,200	470	1,026	.916	1.06
August	18,646	1,420	315	601	.537	.62
September	10,996	987	240	367	.328	.37
Water year 1940-41	538,460	19,800	232	1,475	1.32	17.89

Peak discharge.- Dec. 14 (4:30 p.m.) 27,300 sec.-ft.; Dec. 17 (9:30 p.m.) 19,400 sec.-ft.; Dec. 28 (12m.) 21,800 sec.-ft.

Note.- Because of silting of well discharge below about 700 second-feet prior to Apr. 1 and below about 1,500 second-feet thereafter computed from wire-weight gage readings or graph based on gage readings and partial recorder graph.

Prairie Dog Town Fork of Red River near Canyon, Tex.

Location.- Water-stage recorder, lat. 35°01', long. 101°54', 1¼ miles upstream from spillway of Palo Duro Club Dam, 2 miles downstream from confluence of Palo Duro and Tierra Blanca Creeks, and 4 miles northeast of Canyon, Randall County. Prior to May 31, controls were concrete and rock roadways, 50 feet below gage. Datum of gage is 3,455.0 feet above mean sea level, datum of 1929.

Records available.- January 1924 to October 1926, April 1938 to September 1941.

Extremes.- Maximum discharge during year, 3,890 second-feet June 7 (gage height, 10.30 feet); no flow at times.
1924-26, 1938-41: Maximum discharge, that of June 7, 1941; no flow at times.
Highest known flood prior to construction of Palo Duro Club Dam in May 1941 occurred May 30, 1937, when river reached a stage of 9.7 feet, from floodmarks.

Remarks.- Records good except those below 20 second-feet, which are fair. Flow partly regulated by several reservoirs upstream, the principal ones being that near Umbarger on Tierra Blanca Creek, 20 miles upstream (capacity, 18,150 acre-feet), completed June 1938, and Amarillo Reservoir on Palo Duro Creek, 13 miles upstream (capacity, about 3,200 acre-feet), completed in 1927. The larger part of the flood water originating above these reservoirs ordinarily will be retained in them. During 1941, both reservoirs filled and water passed over spillways.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	1,010	99	6.0	0.8
2								0	588	135	4.9	.6
3								0	362	364	2.8	.4
4								0	234	86	2.4	.4
5								0	265	68	2.0	.2
6								0	f929	65	1.2	.1
7								0	f3,540	59	1.1	.1
8								0	2,300	56	1.0	0
9								0	1,900	a39	.8	0
10								0	1,000	a33	.6	0
11								0	753	a24	.5	0
12								0	492	a19	.4	0
13								0	320	a16	.4	0
14								0	215	13	.3	0
15								0	f162	12	.3	0
16								0	146	11	.3	0
17								0	175	9.8	.2	0
18								0	244	7.9	.2	0
19								0	196	7.0	.1	0
20								0	135	5.4	.5	0
21								0	106	5.4	.6	0
22								0	86	5.4	.6	0
23								112	65	5.4	4.0	0
24								18	56	4.9	19	0
25								7.7	54	4.9	12	0
26								3.1	96	21	7.0	0
27								e.4	f158	7.9	6.0	0
28								e.3	210	4.3	4.3	0
29								e.3	171	2.8	3.2	a.2
30								c95	128	2.4	2.0	a.8
31								713	-	3.8	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	515.1	492	0	1.41	1,020
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	949.8	713	0	30.6	1,880
June	16,096	3,540	54	537	31,930
July	1,197.3	364	2.4	38.6	2,370
August	85.8	19	.1	2.77	170
September	3.6	.8	0	.12	7.1
Water year 1940-41	18,332.5	3,540	0	50.2	36,360

Peak discharge.- May 31 (7 p.m.) 1,270 sec.-ft.; June 7 (1:30 a.m.) 3,890 sec.-ft.; June 9 (1:30 p.m.) 2,610 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage and local information.

c Backwater from Palo Duro Club Dam; discharge computed on basis of rate of change of contents in reservoir below station.

e Discharge represents seepage through control.

f Computed on basis of partly estimated gage heights.

Prairie Dog Town Fork of Red River near Brice, Tex.

Location.- Water-stage recorder, lat. 34°38', long. 100°58', in Briscoe County, 1,200 feet upstream from county highway bridge, 1.2 miles upstream from Byrnes Creek, and 7⅞ miles southwest of Brice, Hall County.

Drainage area.- 5,650 square miles, of which about 4,330 square miles is probably non-contributing.

Records available.- December 1938 to September 1941.

Extremes.- Maximum discharge during year, 25,400 second-feet June 15 (gage height, 4.25 feet), from rating curve extended above 5,000 second-feet on basis of two slope-area computations at gage heights 3.7 and 4.8 feet; no flow at times.

1938-41: Maximum discharge, 30,300 second-feet Sept. 4, 1940, (gage height, 4.84 feet), from rating curve extended above 5,000 second-feet on basis of two slope-area computations; no flow at times.

Maximum stage known, 8.8 feet in August 1933, at site 1,200 feet below gage. Flood of May 1937 reached a stage of 8.3 feet at same site; data based on information furnished by local resident.

Remarks.- Records poor. Daily discharge published only to show distribution of flow. Auxiliary wire-weight gage located 1,200 feet below gage read once daily and oftener during high water. Due to shifting sands, recorder intakes rarely function at low and medium stages; discharge computed on basis of available recorder record and graph from auxiliary wire-weight gage readings. No diversions.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	48			0	0	0	22	262	701	0	0
2	0	0			0	0	0	1,780	1,000	1,340	0	0
3	0	0			0	0	0	1,640	492	2,210	0	0
4	0	0			0	0	0	1,420	326	551	0	0
5	0	0			0	0	0	756	3,790	286	0	0
6	0	0			0	0	0	314	4,000	149	0	0
7	0	0			0	0	0	107	2,890	124	0	0
8	0	0			0	0	0	48	3,690	76	367	0
9	0	0			0	0	0	14	6,990	28	138	0
10	0	0			0	0	0	6.0	830	22	403	0
11	0	0			0	0	0	72	1,010	34	24	0
12	0	0			0	0	0	18	710	80	0	0
13	0	0			0	0	0	0	755	68	0	0
14	0	0			0	0	0	0	1,700	54	63	0
15	0	0			0	0	0	0	3,940	35	8.2	0
16	0	0			0	0	0	0	731	45	0	0
17	0	0			0	0	0	0	181	23	0	1,930
18	0	0			0	0	0	0	140	.8	0	94
19	0	0			0	0	24	0	197	0	0	22
20	0	0			0	0	1.2	432	221	0	5.6	5.0
21	0	0			0	0	0	28	197	0	238	0
22	0	0			0	18	0	147	308	0	1,220	0
23	0	0			0	0	0	1,480	210	0	578	0
24	0	624			0	0	0	650	295	4.4	141	0
25	0	2,020			0	21	0	306	472	8.7	13	0
26	0	307			0	95	0	124	50	0	1.6	0
27	0	56			.2	62	0	56	28	0	550	0
28	0	.9			.1	26	0	23	61	0	134	0
29	0	0			-	5.8	184	3.2	823	0	0	232
30	0	0			-	1.6	122	7.5	609	0	0	143
31	248	-			-	0	-	75	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	248	24e	0	8.00	492
November	3,055.9	2,020	0	102	6,060
December	0	0	0	0	0
Calendar year 1940	10,160.1	2,020	0	27.8	20,150
January	0	0	0	0	0
February	.3	.2	0	.01	.6
March	229.4	95	0	7.40	455
April	331.2	184	0	11.0	657
May	9,528.7	1,780	0	307	18,900
June	36,928	6,990	28	1,231	73,250
July	5,341.9	2,210	0	188	11,590
August	3,864.4	1,220	0	125	7,700
September	2,426.0	1,930	0	80.9	4,810
Water year 1940-41	62,473.8	6,990	0	171	123,900

Peak discharge.- June 9 (7:30 a.m.) 22,100 sec.-ft.; June 15 (2 a.m.) 14,600 sec.-ft.; June 15 (7:30 p.m.) 25,400 sec.-ft.; Aug. 17 (1:30 p.m.) 13,500 sec.-ft.

Prairie Dog Town Fork of Red River near Estelline, Tex.

Location.- Water-stage recorder and wire-weight gage, lat. 34°35', long. 100°26', at bridge on U. S. Highway 287, 180 feet upstream from Fort Worth & Denver City Ry. bridge, 1.7 miles northwest of Estelline, Hall County, and 6.9 miles upstream from Baylor Creek. Datum of gage is 1,754.60 feet above mean sea level, datum of 1929.

Drainage area.- 6,970 square miles, of which about 4,500 square miles is probably non-contributing.

Records available.- January 1924 to September 1925, April 1938 to September 1941.

Extremes.- Maximum discharge during year, 56,000 second-feet June 9 (gage height, 8.86 feet); from rating curve extended above 14,000 second-feet; no flow at times.
1924-25, 1938-41: Maximum discharge, that of June 9, 1941; no flow at times.
Maximum stage known, about 14.0 feet, present site and datum, in May 1914, from information furnished by local resident.

Remarks.- Records poor. Daily discharge published only to show distribution of flow. No diversions. Wire-weight gage read twice daily.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	39	0.8	0	29	3.6	3.6	190	1,950	4,090	8.8	5.6
2	0	5.0	.8	0	36	1.2	0	8,260	1,820	2,120	12	2.4
3	0	2.4	.4	0	28	0	0	3,640	744	4,160	.3	.4
4	0	.6	.4	0	17	0	0	1,480	288	1,240	0	5.8
5	0	0	.4	0	5.6	0	0	476	3,690	708	0	2.4
6	0	0	.4	0	.4	2.6	0	149	3,260	666	0	.2
7	0	0	.4	.2	0	2.2	0	80	2,250	206	0	0
8	0	0	0	.2	0	0	0	60	1,090	128	0	0
9	0	0	.3	.2	0	0	0	41	17,900	99	124	2.4
10	0	0	0	0	0	0	0	86	5,950	293	283	.8
11	0	0	0	0	0	0	0	1,640	2,500	70	116	.2
12	0	0	0	0	0	0	0	570	1,980	638	33	0
13	0	0	0	0	0	0	0	56	780	146	7.6	46
14	0	0	0	.8	0	0	12	30	6,570	56	.8	20
15	0	0	0	.4	0	0	36	14	9,600	48	18	4.0
16	0	0	0	0	0	0	5.7	5.6	15,900	91	32	.8
17	0	0	1.6	0	0	0	0	3.2	1,370	59	10	1,330
18	0	0	1.2	0	0	0	0	2.0	496	25	.4	1,170
19	0	0	.8	0	0	0	47	4.8	280	6.4	0	162
20	0	0	.8	0	0	0	21	716	238	.2	0	99
21	0	0	.4	0	0	0	3.4	560	304	0	1,770	86
22	0	0	.4	0	0	0	0	302	613	0	1,650	62
23	0	0	.4	0	0	8.8	7.6	2,390	1,180	0	1,600	13
24	0	24	.4	0	9.6	11	3.6	163	273	0	566	10
25	0	6,920	.4	0	14	0	.2	763	1,190	20	275	2.8
26	0	456	.2	0	19	60	0	232	483	33	166	0
27	0	9.6	0	0	16	160	11	174	293	40	619	0
28	0	4.0	0	0	7.2	83	66	80	672	.4	112	0
29	0	3.2	0	0	-	48	3,480	30	4,600	0	50	0
30	0	.8	0	0	-	36	1,220	322	509	0	22	228
31	12	-	0	0	-	14	-	668	-	0	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12	12	0	0.39	24
November	7,464.6	6,920	0	249	14,810
December	10.5	1.6	0	.34	21
Calendar year 1940	24,575.7	6,920	0	67.1	48,760
January	1.8	.8	0	.06	3.6
February	181.8	36	0	6.49	361
March	430.4	160	0	13.9	854
April	4,917.1	3,480	0	164	9,750
May	23,187.6	8,260	2.0	748	45,990
June	88,773	17,900	236	2,959	176,100
July	14,943.0	4,160	0	482	29,640
August	7,489.9	1,770	0	242	14,860
September	3,253.8	1,330	0	108	6,450
Water year 1940-41	150,665.5	17,900	0	413	298,900

Peak discharge.- May 2 (9 a.m.) 29,600 sec.-ft.; June 9 (2 p.m.) 56,000 sec.-ft.; June 15 (9 a.m.) 18,900 sec.-ft.; June 16 (1:30 a.m.) 54,400 sec.-ft.; June 28 (11:45) p.m.)17,600 sec.-ft.

Red River near Terral, Okla.

Location.- Water-stage recorder, lat. 33°52'50", long. 97°56'15", at bridge on U. S. Highway 81, a quarter of a mile downstream from Chicago, Rock Island & Gulf Ry. bridge, 1.2 miles south of Terral, Jefferson County, and 3.2 miles downstream from Little Wichita River. Datrum of gage is 770.31 feet above mean sea level, datum of 1929.

Drainage area.- 28,280 square miles, of which about 5,440 square miles is probably non-contributing.

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge during year, 197,000 second-feet June 8 (gage height, 28.12 feet); minimum, 71 second-feet Oct. 24.
1938-41: Maximum discharge, that of June 8, 1941; minimum, 43 second-feet Mar. 15, 1939.
Maximum stage known prior to 1938, 27.2 feet, on present gage, May 19, 1935; floods of 1891 and May 1908 are reported to have reached about the same stage.

Remarks.- Records fair. Flow slightly regulated by Lake Kemp on Wichita River, in Baylor County, Tex.; principal diversion is for irrigation in the vicinity of Wichita Falls, Tex.

Cooperation.- Result of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	407	5,120	2,010	569	8,260	2,850	440	31,200	5,970	13,100	802	4,540
2	296	6,540	1,470	492	15,800	1,970	492	30,200	35,600	14,600	717	3,020
3	227	5,830	1,220	365	13,700	1,290	423	14,600	38,300	14,600	658	2,070
4	177	4,380	1,030	292	7,480	918	418	59,900	25,200	10,500	695	1,680
5	150	1,840	738	249	4,360	748	360	116,000	25,200	8,280	638	1,410
6	134	1,320	554	240	2,020	706	330	68,500	21,100	8,280	610	1,260
7	123	1,100	480	900	1,180	635	335	51,000	77,600	6,080	604	1,190
8	116	971	440	2,520	918	577	296	33,400	168,000	4,540	702	1,030
9	113	886	418	1,560	716	540	273	22,400	85,200	3,850	1,760	6,480
10	106	635	385	949	533	492	254	14,800	60,600	4,300	851	8,620
11	101	440	412	561	440	463	223	12,000	101,000	3,530	732	8,100
12	97	340	402	418	385	418	211	13,900	65,600	3,640	1,050	5,640
13	87	273	396	360	340	375	215	28,200	40,500	3,320	961	3,850
14	87	240	345	360	282	360	573	12,200	30,300	2,220	1,100	3,420
15	83	211	731	1,060	249	335	4,480	8,000	39,400	2,140	1,220	2,640
16	78	188	1,660	577	223	320	10,400	6,390	60,000	2,070	996	1,360
17	82	166	1,390	429	240	296	12,000	5,160	66,300	2,380	835	961
18	80	153	971	446	227	287	7,410	4,640	39,600	1,800	717	810
19	78	147	654	340	235	273	5,560	4,290	23,000	1,620	638	717
20	78	137	457	287	719	268	6,390	4,070	14,600	1,570	565	624
21	76	137	365	258	1,550	263	5,850	9,100	12,800	1,520	540	2,750
22	76	404	306	231	1,920	254	3,380	54,700	9,150	1,310	631	2,370
23	72	361	268	211	1,440	340	4,070	64,800	9,550	1,200	8,040	1,740
24	71	540	235	191	2,350	340	2,730	47,700	6,080	1,100	6,670	1,410
25	76	2,720	215	184	5,640	345	1,970	58,600	7,310	1,020	12,300	1,800
26	77	9,650	258	170	6,540	360	1,470	38,600	10,600	987	5,670	1,860
27	76	17,400	2,170	159	5,970	350	1,100	18,800	10,900	1,080	4,300	1,310
28	85	11,200	3,660	150	4,640	365	971	14,800	21,000	1,070	3,020	969
29	101	4,760	3,110	147	-	350	1,440	12,300	9,440	1,040	3,440	755
30	113	2,770	1,800	144	-	370	7,250	11,200	6,380	969	9,150	638
31	166	-	801	541	-	418	-	7,800	-	892	5,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,689	407	71	119	7,320
November	80,859	17,400	137	2,695	160,400
December	29,351	3,660	215	947	58,220
Calendar year 1940	444,332	17,400	46	1,214	881,400
January	15,360	2,520	144	495	30,470
February	88,357	15,800	223	3,156	175,300
March	17,876	2,850	254	577	35,460
April	81,314	12,000	211	2,710	161,300
May	879,050	116,000	4,070	28,360	1,744,000
June	1,126,280	168,000	6,080	37,640	2,234,000
July	124,608	14,600	892	4,020	247,200
August	76,402	12,300	540	2,465	151,500
September	74,924	8,620	624	2,497	148,600
Water year 1940-41	2,598,070	168,000	71	7,118	5,154,000

Peak discharge.- May 5 (4 a.m.) 134,000 sec.-ft.; May 23 (1 a.m.) 74,600 sec.-ft.; May 25 (7 p.m.) 82,500 sec.-ft.; June 8 (6 a.m.) 197,000 sec.-ft.; June 11 (2 p.m.) 119,000 sec.-ft.; June 16 (1:30 p.m.) 73,200 sec.-ft.

Note.- Discharge Oct. 18, Nov. 22, Dec. 28, Jan. 31 to Feb. 2, Feb. 20-25, May 3, 12, 14-21, 31, June 1, June 19 to Sept. 30 computed from graph based on gage readings (gage read twice daily; oftener during floods).

Red River near Gainesville, Tex.

Location.- Water-stage recorder, lat. 33°44', long. 97°10', in SW¼ sec. 36, T. 9 S., R. 1 E., at bridge on U. S. Highway 77, a quarter of a mile downstream from Gulf, Colorado & Santa Fe Ry. bridge, 5 miles downstream from Fish Creek, and 7 miles north of Gainesville. Datum of gage is 627.91 feet above mean sea level, datum of 1929.

Drainage area.- 29,460 square miles.

Records available.- May 1936 to March 1937, May 1938 to September 1941.

Extremes.- Maximum discharge during year, 168,000 second-feet June 9 (gage height, 24.15 feet); minimum, 100 second-feet Oct. 27.
1936-37, 1938-41: Maximum discharge, that of June 9, 1941; minimum observed, 48 second-feet Jan. 27, 1940 (result of discharge measurement).

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	382	178	3,400	1,290	5,010	5,320	646	20,300	12,200	8,060	1,280	6,540
2	362	906	2,350	845	23,600	3,890	614	33,300	11,600	19,500	1,130	5,040
3	374	6,120	1,690	728	24,900	3,040	548	26,300	44,700	26,300	990	4,070
4	362	6,500	f1,260	644	17,900	2,390	569	26,500	37,000	17,500	905	2,900
5	306	5,620	f1,040	526	9,980	1,900	541	54,800	28,400	10,500	915	2,160
6	274	2,880	g900	462	6,190	1,550	514	105,000	26,200	8,110	950	1,670
7	241	1,690	g800	440	3,900	1,460	614	78,400	39,600	7,750	850	1,270
8	219	1,300	692	512	2,640	1,340	576	46,900	82,500	6,720	1,260	1,120
9	197	1,320	626	1,300	1,930	1,180	555	26,600	154,000	5,040	975	1,230
10	190	1,210	585	2,250	1,460	1,020	484	17,500	123,000	4,360	870	8,740
11	184	1,040	558	1,620	1,200	882	435	16,200	92,700	4,260	1,740	12,200
12	175	840	552	1,070	1,040	780	406	16,600	105,000	4,070	1,200	9,990
13	169	638	552	800	854	697	390	26,300	55,300	3,700	980	5,910
14	163	496	552	697	776	630	382	21,200	37,200	3,790	1,200	4,260
15	157	420	994	614	736	590	3,610	12,200	45,600	3,610	1,130	3,520
16	151	378	2,440	612	632	555	12,100	g9,380	61,700	3,250	1,140	3,080
17	130	350	3,000	1,360	638	496	16,900	7,550	69,900	2,650	1,340	g2,240
18	124	318	2,160	915	638	472	22,000	6,190	65,600	2,560	1,120	g1,450
19	121	302	1,520	715	657	460	11,600	5,400	35,000	2,480	940	g1,090
20	118	310	1,080	622	845	445	7,320	5,020	25,000	2,240	835	g860
21	118	409	872	520	1,380	430	6,890	4,700	20,000	2,080	780	g770
22	118	1,180	713	450	1,910	420	8,850	24,100	16,400	2,080	770	g750
23	118	820	626	430	2,330	576	8,040	59,500	13,400	2,000	750	g2,600
24	112	f1,840	541	402	2,740	646	6,500	61,200	12,000	1,820	3,130	g2,320
25	109	f6,910	488	358	3,620	830	5,800	48,500	7,630	1,670	6,620	g1,910
26	103	f14,200	603	362	8,660	606	6,890	57,300	7,100	1,520	11,600	g1,790
27	100	16,100	854	354	11,800	562	5,630	34,800	15,500	1,380	5,890	g1,960
28	112	18,700	3,240	342	6,820	590	2,370	18,100	20,400	1,290	5,100	g1,910
29	121	10,800	4,230	326	-	562	2,080	15,400	28,600	1,320	4,640	g1,240
30	121	5,190	3,680	310	-	548	6,290	14,200	12,100	1,400	3,340	g1,070
31	130	-	2,330	464	-	583	-	13,400	-	1,360	7,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,661	382	100	183	11,230
November	108,965	18,700	178	3,632	216,100
December	44,928	4,230	488	1,449	89,110
Calendar year 1940	703,865	30,900	48	1,923	1,396,000
January	22,340	2,250	310	721	44,310
February	144,986	24,900	632	5,178	287,600
March	35,450	5,320	420	1,144	70,310
April	140,144	22,000	382	4,671	278,000
May	912,840	105,000	4,700	29,450	1,811,000
June	1,305,330	154,000	7,100	43,510	2,589,000
July	164,370	26,300	1,290	5,302	326,000
August	71,620	11,600	750	2,310	142,100
September	95,660	12,200	750	3,189	189,700
Water year 1940-41	3,052,294	154,000	100	8,362	6,054,000

f Computed on basis of partly estimated gage-height record.
g Computed from graph based on gage readings.

Red River near Colbert, Okla.

Location.- Water-stage recorder, lat. 33°49', long. 96°32', in SW¼ sec. 25, T. 8 S., R. 7 E., at Missouri-Kansas-Texas R. R. bridge, 2¾ miles southwest (revised) of Colbert and 10 miles downstream from Washita River. Datum of gage is 507.36 feet above mean sea level, datum of 1929.

Drainage area.- 38,700 square miles.

Records available.- October 1923 to September 1941. Gage-height records collected at same site since 1906 are contained in reports of U. S. Weather Bureau.

Average discharge.- 18 years, 5,061 second-feet.

Extremes.- Maximum discharge during year, 182,000 second-feet June 10 (gage height, 24.00 feet); minimum, 242 second-feet Oct. 25, 26 (gage height, 0.85 feet).
1923-41: Maximum discharge, 201,000 second-feet May 21, 1935; maximum gage height, that of June 10, 1941; minimum discharge, 75 second-feet Aug. 21, 1934 (gage height, 0.05 foot, present datum).
Maximum stage known, 35.5 feet May 26, 1908, from records of U. S. Weather Bureau.

Remarks.- Records good.

Cooperation.- Results of 21 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	621	305	6,680	7,380	1,020	8,700	1,560	16,300	13,900	13,000	2,240	5,650
2	541	305	4,940	6,950	16,400	7,120	1,380	33,400	13,400	12,600	2,180	8,200
3	559	295	3,770	3,530	34,000	6,710	1,140	37,900	30,900	20,300	2,060	5,700
4	541	1,640	3,350	2,610	26,300	4,670	1,100	21,400	54,000	24,800	1,960	4,600
5	541	4,300	2,870	2,200	16,700	3,880	1,060	42,400	34,300	19,800	1,900	3,760
6	577	4,300	2,700	1,920	10,500	3,350	1,060	78,200	30,200	15,400	1,900	3,350
7	529	3,180	2,360	1,720	7,120	2,870	1,330	110,000	31,800	12,200	2,060	3,190
8	487	2,210	1,990	3,700	5,450	2,610	2,200	71,000	65,000	11,200	3,830	2,820
9	481	1,840	1,720	4,690	4,340	2,610	2,060	45,300	116,000	h10,300	9,680	2,540
10	436	1,680	1,600	2,870	3,560	2,360	1,540	29,400	173,000	h7,950	4,620	3,740
11	414	1,520	1,600	3,300	3,060	2,130	1,280	22,800	134,000	6,950	2,360	16,500
12	387	1,330	1,490	3,460	2,750	1,920	1,190	19,300	113,000	6,450	2,180	21,300
13	370	1,160	1,440	2,520	2,280	1,780	1,100	17,900	97,400	6,700	2,610	14,200
14	360	1,040	1,350	2,060	2,060	1,660	1,020	33,300	83,800	6,700	2,360	9,700
15	350	902	2,310	1,780	1,850	1,540	10,300	17,300	55,000	6,950	2,120	6,950
16	345	777	5,640	1,660	1,720	1,490	20,700	12,900	68,000	7,700	2,120	5,200
17	330	712	5,980	1,540	1,600	1,380	24,900	10,800	86,900	6,950	2,010	4,500
18	325	654	4,570	1,440	1,540	1,330	37,900	8,800	92,400	4,900	2,010	3,850
19	315	628	3,770	1,720	1,490	1,280	27,800	7,920	70,000	4,210	2,060	2,890
20	300	614	3,060	1,600	1,710	1,240	18,600	7,920	36,100	4,120	1,960	2,300
21	285	718	2,440	1,380	4,100	1,190	13,400	9,100	26,000	3,680	1,800	2,060
22	265	1,280	2,060	1,330	4,940	1,140	13,400	10,800	22,400	3,430	1,700	1,850
23	260	2,140	1,720	1,330	4,220	1,190	26,300	39,800	18,800	3,270	1,700	1,700
24	252	2,340	1,540	1,240	5,840	1,240	20,000	64,000	15,800	3,120	1,800	1,900
25	247	2,410	1,380	1,140	7,420	1,380	12,600	53,000	14,200	2,820	1,700	3,270
26	247	14,400	2,200	1,060	7,420	1,330	9,400	55,000	11,200	2,680	6,270	2,820
27	247	24,200	5,840	1,020	11,700	1,380	7,370	50,000	10,400	2,540	12,200	2,610
28	255	23,300	5,640	978	10,900	1,280	6,080	23,800	17,300	2,420	9,100	2,680
29	275	18,800	5,190	918	-	1,190	5,030	17,900	23,800	2,300	9,100	2,820
30	256	10,900	5,840	895	-	1,140	11,100	15,500	20,600	2,240	7,080	2,610
31	280	-	5,710	872	-	1,100	-	14,400	-	2,180	4,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,708	621	247	378	23,220
November	129,880	24,200	295	4,329	257,600
December	103,680	6,680	1,380	3,345	205,600
Calendar year 1940	1,203,071	40,600	90	3,287	2,386,000
January	70,813	7,380	872	2,284	140,500
February	202,020	34,000	1,020	7,215	400,700
March	73,090	8,700	1,100	2,358	145,000
April	283,900	37,900	1,020	9,463	563,100
May	995,540	110,000	7,920	32,110	1,975,000
June	1,559,600	173,000	10,400	51,990	3,093,000
July	239,860	24,800	2,180	7,737	475,800
August	110,870	12,200	1,700	3,576	219,900
September	155,260	21,300	1,700	5,175	308,000
Water year 1940-41	3,936,221	173,000	247	10,780	7,807,000

h Computed from once-daily readings of staff gage.

Red River at Arthur City, Tex.

Location.- Water-stage recorder, lat. 33°53', long. 95°30', at bridge on U. S. Highway 271, at Arthur City, Lamar County. Datum of gage is 380.07 feet above mean sea level, datum of 1929.

Drainage area.- 43,110 square miles.

Records available.- January 1905 to December 1911, July 1936 to September 1941. Gage-height records collected at same site since 1891 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 183,000 second-feet June 12 (gage height, 31.27 feet); minimum, 350 second-feet Oct. 28 (gage height, 5.32 feet).
1936-41: Maximum discharge, 222,000 second-feet Feb. 19, 1938 (gage height, 34.3 feet, from graph based on gage readings), from rating curve extended above 100,000 second-feet; minimum observed, 170 second-feet Oct. 8, 9, 1939 (gage height, 3.8 feet).
Maximum stage known, 43.2 feet May 28, 1908, from records of U. S. Weather Bureau.

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	976	500	12,100	10,800	1,660	16,400	1,660	32,600	19,100	21,400	2,660	6,220
2	890	518	7,460	14,400	7,270	11,200	2,960	43,600	25,000	13,400	2,590	4,780
3	771	578	5,680	14,900	28,100	8,280	2,550	52,500	30,000	13,400	2,590	7,100
4	685	512	4,830	12,100	40,000	7,250	2,340	53,100	53,600	21,600	2,660	7,100
5	626	484	4,300	10,800	31,300	6,720	1,840	46,900	59,300	27,800	2,520	5,800
6	672	1,010	4,010	10,800	22,600	6,500	1,610	69,400	45,200	20,400	2,390	4,880
7	685	3,980	3,920	10,400	13,900	7,250	1,720	87,500	42,400	14,400	2,260	3,960
8	666	4,300	3,400	8,100	9,400	7,350	2,700	104,000	48,800	12,000	2,260	3,700
9	633	3,740	2,840	5,060	7,400	4,940	5,180	83,700	69,000	11,000	2,460	3,460
10	576	3,180	2,410	7,580	6,080	4,010	4,610	51,600	103,000	10,200	8,320	3,160
11	554	3,240	2,920	6,220	5,180	3,740	4,200	45,200	152,000	10,200	8,400	2,870
12	506	3,000	6,220	4,400	4,400	3,400	2,760	37,000	178,000	10,500	4,880	13,900
13	500	2,270	6,500	4,500	3,740	3,080	2,080	29,700	156,000	9,220	3,230	20,600
14	500	1,780	4,940	4,400	3,160	2,840	4,800	32,200	125,000	8,500	3,010	12,800
15	484	1,560	6,820	3,920	2,840	2,620	15,000	46,000	77,500	7,790	3,230	9,710
16	467	1,400	14,900	3,400	2,840	2,480	24,700	27,000	66,800	8,500	2,940	7,560
17	445	1,210	16,400	3,240	2,550	2,270	34,000	20,800	81,500	8,980	2,660	6,220
18	428	1,080	13,000	3,480	2,140	2,140	45,500	17,400	97,200	8,980	2,520	5,380
19	406	953	9,600	3,480	1,960	2,020	61,500	14,400	102,000	8,940	2,460	4,780
20	396	862	6,920	2,920	1,900	1,900	51,000	12,600	75,700	8,740	2,320	4,040
21	412	848	5,060	2,840	2,900	1,840	37,200	13,400	42,300	8,260	2,390	3,160
22	406	1,060	4,200	2,760	7,350	1,720	30,300	13,900	32,500	5,440	2,260	2,660
23	396	4,360	3,480	2,480	11,200	1,900	66,300	17,800	27,000	4,500	2,130	2,260
24	390	8,740	3,000	2,410	12,600	2,020	88,000	53,000	21,600	4,130	2,200	2,130
25	385	8,450	2,550	2,340	15,400	2,480	52,400	65,800	17,600	3,870	2,390	1,950
26	380	12,200	4,640	2,140	16,900	2,020	30,100	59,200	15,800	3,620	2,130	2,130
27	365	25,400	13,900	2,080	17,400	1,960	22,700	60,000	13,100	3,460	2,620	3,230
28	396	31,300	23,200	1,960	18,600	1,900	18,400	50,800	12,800	3,230	10,100	3,080
29	478	27,400	17,400	1,780	-	1,900	13,000	28,000	18,600	3,010	10,500	3,010
30	512	20,200	12,100	1,660	-	1,780	16,900	22,600	27,800	2,940	9,710	3,080
31	572	-	10,000	1,560	-	1,610	-	20,200	-	2,800	9,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,560	976	365	534	32,850
November	176,115	31,300	484	5,870	349,300
December	238,700	23,200	2,410	7,700	473,500
Calendar year 1940	2,306,874	51,000	239	6,303	580,000
January	168,910	14,900	1,560	5,449	335,000
February	300,770	40,000	1,660	10,740	596,600
March	127,520	16,400	1,610	4,114	252,900
April	648,010	88,000	1,610	21,600	1,285,000
May	1,311,900	104,000	12,600	42,320	2,602,000
June	1,836,200	178,000	12,800	61,210	3,642,000
July	301,210	27,800	2,800	9,716	597,400
August	122,010	10,500	2,130	3,936	242,000
September	164,710	20,600	1,950	5,490	326,700
Water year 1940-41	5,412,615	178,000	365	14,830	10,740,000

Note.- Discharge for period Oct. 2-21 computed from graph based on once-daily wire-weight gage readings.

Red River at Index, Ark.

Location.- Water-stage recorder, lat. 33°33', long. 94°02', in SW¼ sec. 7, T. 14 S., R. 28 W., at bridge on U. S. Highway 71, at Index, 2½ miles south of Ogden and 25 miles upstream from Little River. Datum of gage is 246.87 feet above mean sea level, datum of 1929.

Drainage area.- 46,580 square miles.

Records available.- July 1936 to September 1941. Gage-height records collected at same site since 1917 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 145,000 second-feet June 16 (gage height, 27.83 feet); minimum, 680 second-feet Oct. 26, 27.
1936-41: Maximum discharge, 297,000 second-feet Feb. 23, 1938 (gage height, 34.25 feet, observed at crest); minimum observed, 400 second-feet Sept. 12-14, 1936.

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,060	990	30,400	16,500	5,010	29,600	3,470	36,000	22,800	21,900	3,750	10,900
2	1,020	920	20,500	14,600	5,550	26,400	3,560	51,000	22,000	26,200	3,570	10,300
3	990	885	13,600	19,900	9,940	21,200	4,490	66,700	31,000	21,100	3,390	8,460
4	1,020	885	10,200	28,800	30,400	17,000	4,240	65,000	38,000	16,400	3,210	6,360
5	1,200	850	8,460	27,200	51,400	13,600	4,490	64,000	51,000	16,100	3,040	6,020
6	1,200	790	7,440	18,700	45,500	14,100	4,320	54,200	60,300	21,900	3,040	7,420
7	1,130	820	6,850	14,600	35,300	21,200	3,980	68,200	50,400	24,400	3,120	7,210
8	1,060	790	6,280	13,200	25,000	27,200	3,560	81,700	44,400	20,300	3,120	6,020
9	1,020	850	5,910	12,400	16,500	25,600	3,380	90,700	45,800	16,400	2,960	5,260
10	1,020	2,320	5,730	10,900	12,800	21,200	3,640	94,100	66,000	14,000	2,760	4,520
11	990	4,490	5,190	8,910	10,900	15,000	4,660	76,000	87,700	12,600	2,700	4,250
12	955	5,190	4,830	8,460	9,660	10,600	5,910	61,600	104,000	12,200	3,840	4,070
13	920	5,910	6,180	6,460	6,910	8,650	5,910	52,400	116,000	13,300	9,220	3,800
14	920	5,010	14,100	7,640	6,040	7,420	5,550	44,300	137,000	13,300	7,980	9,940
15	885	4,150	15,500	6,850	7,440	6,400	4,660	37,200	140,000	13,300	5,940	20,600
16	885	3,380	17,000	6,850	6,550	6,020	10,200	41,000	142,000	13,600	4,310	15,600
17	850	2,750	29,600	6,850	6,850	5,640	34,400	37,000	120,000	11,200	3,840	11,400
18	820	2,320	33,600	6,280	6,660	5,260	51,000	25,100	91,000	10,300	3,840	9,250
19	790	2,080	29,600	5,910	6,280	4,860	60,000	20,500	84,800	11,600	3,660	7,420
20	760	1,950	20,500	5,730	5,910	4,520	72,400	17,500	86,500	15,800	3,300	6,400
21	760	1,820	15,500	5,550	5,550	4,250	70,200	15,000	80,400	18,300	3,120	5,640
22	730	1,770	11,600	5,190	5,560	3,980	59,700	13,700	54,000	15,000	3,040	4,880
23	730	2,270	9,400	4,660	9,940	3,800	59,400	13,600	36,600	12,600	2,960	4,340
24	730	6,460	8,250	4,490	16,500	3,890	85,000	14,300	30,300	9,480	3,120	4,070
25	705	14,600	7,240	4,660	19,900	4,160	106,000	34,500	26,700	7,510	3,300	3,710
26	680	19,900	6,850	5,370	24,800	4,520	104,000	66,400	23,500	6,380	2,960	3,350
27	680	21,200	8,460	6,470	30,400	4,490	78,300	65,100	21,900	5,720	2,780	3,080
28	730	30,400	19,900	7,840	31,200	4,320	50,300	61,000	20,300	5,090	2,960	2,900
29	920	40,500	34,400	7,440	-	4,060	32,000	58,200	18,300	4,690	2,870	2,900
30	885	36,900	31,200	6,470	-	3,720	27,500	58,800	17,500	4,310	5,080	3,530
31	920	-	21,900	5,730	-	3,560	-	26,600	-	4,020	11,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	27,965	1,200	680	902	55,470
November	223,150	40,500	790	7,438	442,600
December	468,170	34,400	4,830	15,100	928,600
Calendar year 1940	3,151,064	68,500	415	8,609	6,250,000
January	312,610	26,800	4,490	10,080	620,100
February	458,750	51,400	5,010	16,380	909,900
March	336,240	29,600	3,560	10,850	666,900
April	966,220	106,000	3,380	32,210	1,916,000
May	1,491,400	94,100	13,600	48,110	2,958,000
June	1,870,200	142,000	17,500	62,340	3,709,000
July	419,000	26,200	4,020	13,520	831,100
August	124,000	11,200	2,700	4,000	246,000
September	203,620	20,600	2,900	6,787	403,900
Water year 1940-41	6,901,325	142,000	680	18,910	13,690,000

Red River at Garland, Ark.

Location.- Water-stage recorder, lat. 33°21', long. 93°42', in SE¼ sec. 17, T. 16 S., R. 25 W., at Garland. Datum of gage is 203.08 feet above mean sea level, datum of 1929.

Drainage area.- 51,500 square miles.

Records available.- October 1927 to December 1931, June 1934 to September 1941.

Average discharge.- 11 years (1927-31, 1934-41), 17,130 second-feet.

Extremes.- Maximum discharge during year, 130,000 second-feet June 17; maximum gage height, 27.11 feet June 18; minimum, 898 second-feet Oct. 28 (gage height, 1.57 feet).
1927-31, 1934-41: Maximum discharge, 327,000 second-feet Feb. 25, 1938; maximum gage height, 35.97 feet Feb. 24, 1938, just before break in levee above gage; minimum discharge, 400 second-feet Oct. 8-19, 1931.
Maximum stage known prior to 1938, 35.4 feet, present datum, in April 1927.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,620	g1,330	53,400	29,400	13,400	42,000	6,780	64,200	26,400	18,800	4,490	10,100
2	1,690	g1,280	46,400	23,600	12,100	40,500	7,550	69,800	22,200	22,200	4,170	11,200
3	1,630	1,270	37,500	21,900	16,200	37,000	8,770	81,500	23,000	24,400	3,850	10,700
4	1,570	1,230	27,600	27,200	32,500	30,700	10,300	89,600	31,200	20,800	3,930	9,190
5	1,510	1,210	20,500	32,500	58,200	24,800	10,500	92,300	40,500	16,900	3,700	7,550
6	1,510	1,200	15,000	31,200	68,200	21,600	9,640	86,000	56,800	16,600	3,480	6,590
7	1,570	1,130	12,600	26,000	62,600	26,400	8,560	80,600	60,300	20,800	3,250	7,750
8	1,570	1,100	11,900	21,600	51,600	35,500	7,550	66,900	51,600	22,600	3,250	7,950
9	1,440	1,250	11,200	18,800	41,500	39,000	6,970	92,300	44,200	19,800	3,320	6,970
10	1,370	1,400	10,500	16,900	31,600	37,500	6,970	97,000	46,900	16,600	3,180	6,040
11	1,340	g1,880	9,840	14,700	25,600	33,500	7,350	96,000	66,600	14,200	3,030	5,160
12	1,330	g4,330	8,980	12,800	21,200	28,000	7,550	82,400	82,400	13,100	2,820	4,650
13	1,310	g5,950	9,400	11,900	17,200	22,600	8,150	69,800	93,200	12,800	3,400	4,490
14	1,270	g10,500	17,900	11,400	13,900	18,200	8,150	59,600	105,000	13,100	7,350	4,170
15	1,260	g11,000	26,000	10,300	12,400	14,700	7,750	49,800	116,000	14,200	8,350	9,700
16	1,230	8,980	29,800	9,840	11,200	12,600	6,970	43,000	125,000	18,500	6,970	19,200
17	1,220	6,970	37,000	10,300	10,300	11,900	19,000	41,500	130,000	21,200	5,500	15,600
18	1,200	5,330	45,800	10,700	9,400	11,400	46,400	33,000	123,000	19,500	4,650	12,100
19	1,160	4,330	48,000	10,700	8,980	10,700	58,200	24,800	113,000	16,900	4,490	9,840
20	1,110	3,620	44,700	10,100	8,560	9,840	69,000	20,800	108,000	15,300	4,330	8,150
21	1,080	3,400	39,500	9,400	8,350	8,980	76,200	18,200	107,000	18,500	4,010	6,780
22	1,030	2,960	35,500	8,770	8,560	8,150	77,900	16,600	94,100	19,200	3,700	5,860
23	1,010	3,250	30,700	8,150	12,400	7,750	77,000	15,600	72,200	15,900	3,550	5,160
24	1,010	6,040	25,600	7,750	16,900	8,350	86,000	15,000	56,800	13,100	3,400	4,820
25	994	17,900	20,800	9,400	23,600	9,400	106,000	15,300	47,400	10,300	3,550	4,650
26	934	29,800	16,900	11,600	29,800	9,840	116,000	33,400	40,500	8,350	3,700	4,170
27	922	36,500	16,200	13,900	37,000	9,620	118,000	54,000	33,000	7,160	3,620	3,620
28	934	42,500	21,900	16,900	41,000	8,770	103,000	58,200	27,200	6,400	3,480	3,180
29	1,080	52,800	35,500	18,800	-	8,150	83,300	58,900	23,000	5,860	3,480	2,960
30	1,150	56,800	41,500	18,200	-	7,350	69,800	50,400	19,800	5,330	3,550	2,890
31	1,380	-	37,000	15,600	-	6,970	-	36,000	-	4,820	4,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	39,634	1,820	922	1,279	78,610
November	327,240	56,800	1,100	10,910	649,100
December	845,120	53,400	8,980	27,260	1,676,000
Calendar year 1940	5,224,824	86,400	922	14,280	10,360,000
January	500,310	32,500	7,750	16,140	992,400
February	704,250	68,200	8,350	25,150	1,397,000
March	601,970	42,000	6,970	19,420	1,194,000
April	1,235,510	118,000	6,780	41,180	2,451,000
May	1,732,500	97,000	15,000	55,890	3,436,000
June	1,986,300	130,000	19,800	66,210	3,940,000
July	473,220	24,400	4,820	15,270	938,600
August	128,200	8,350	2,820	4,135	254,300
September	221,190	19,200	2,890	7,373	438,700
Water year 1940-41	8,795,444	130,000	922	24,100	17,450,000

g Computed from graph based on twice-daily readings of wire-weight gage furnished by Corps of Engineers, U. S. Army.

Red River at Shreveport, La.

Location.- Water-stage recorder, lat. 32°31', long. 93°44', in SE¼ sec. 30, T. 18 N., R. 13 W., Louisiana meridian, at Illinois Central R. R. bridge at Shreveport and half a mile downstream from Cross Bayou. Datum of gage is 131.48 feet above mean sea level, datum of 1929.

Drainage area.- 59,300 square miles.

Records available.- July 1928 to September 1929 and October 1938 to September 1941 in reports of Geological Survey. October 1929 to September 1938 in reports of Corps of Engineers, U. S. Army. Daily gage heights since May 1873 and discharge intermittently 1872 to 1905 in reports of Mississippi River Commission.

Extremes.- Maximum discharge during year, 143,000 second-feet May 12 (gage height, 27.93 feet); minimum, 1,350 second-feet Oct. 29 (gage height, 1.39 feet).
1928-29, 1938-41: Maximum discharge, that of May 12, 1941; minimum, 792 second-feet Nov. 9, 1939 (gage height, 0.24 foot). Maximum stage known, 45.9 feet (present datum) in August 1849. Flood of May 26, 1930, reached a stage of 35.91 feet (discharge, 240,000 second-feet).

Remarks.- Records good.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,390	1,600	65,200	64,900	26,400	49,100	19,300	78,000	44,700	36,200	11,100	4,740
2	2,500	1,650	60,700	58,700	25,300	49,300	18,700	75,700	36,000	35,200	10,800	5,400
3	2,440	1,950	55,200	52,000	25,500	46,800	24,000	84,700	30,700	35,900	10,600	9,840
4	2,390	2,060	47,600	48,700	27,700	42,500	28,000	99,400	29,700	35,200	10,300	11,100
5	2,390	2,120	39,800	52,100	46,300	36,800	29,100	111,000	37,200	35,500	10,100	10,800
6	2,340	2,000	33,400	58,500	66,400	33,100	29,200	119,000	46,600	31,400	9,840	9,600
7	2,340	1,850	30,600	57,700	70,900	37,300	26,500	123,000	65,500	29,700	9,360	8,160
8	2,280	1,750	29,100	52,500	65,000	45,000	24,700	127,000	68,200	31,700	8,880	7,200
9	2,390	1,800	28,500	47,700	57,200	54,800	22,500	134,000	57,200	34,200	8,400	7,920
10	2,390	2,000	27,700	43,900	48,700	58,000	21,100	139,000	50,100	31,700	7,920	8,160
11	2,280	2,440	26,700	41,200	40,400	53,800	20,100	142,000	55,700	27,400	7,440	7,440
12	2,060	3,200	26,500	38,400	34,900	49,200	19,600	143,000	79,900	24,000	7,000	6,600
13	1,950	3,520	27,300	35,200	30,300	44,700	19,300	132,000	96,600	22,100	6,400	5,600
14	1,900	5,460	28,100	32,800	26,100	40,400	19,000	121,000	104,000	21,800	5,800	5,100
15	1,800	8,500	36,200	30,900	22,700	37,000	18,900	109,000	111,000	21,100	6,000	4,970
16	1,750	10,800	46,700	29,000	20,300	35,100	18,500	95,700	118,000	22,200	9,120	4,840
17	1,700	10,900	50,200	27,100	18,800	34,400	17,900	84,300	123,000	25,400	9,600	9,120
18	1,650	10,000	56,600	26,000	17,700	34,000	23,500	77,000	125,000	29,500	8,400	13,900
19	1,650	9,180	62,400	25,300	17,000	33,600	51,900	66,400	125,000	28,800	6,800	12,900
20	1,600	8,340	62,700	24,500	18,200	33,000	64,800	55,600	118,000	25,800	6,000	11,100
21	1,600	7,700	58,500	23,200	18,800	31,700	73,200	47,500	118,000	23,700	5,600	9,600
22	1,550	7,380	53,100	21,000	18,700	30,000	78,300	42,300	118,000	24,400	5,600	8,400
23	1,550	12,200	48,000	19,100	18,400	28,400	79,200	39,500	112,000	26,600	5,400	7,200
24	1,500	22,200	42,600	18,500	19,600	27,600	81,500	37,400	99,400	24,500	5,100	7,000
25	1,450	26,100	36,900	17,800	24,800	26,700	92,700	36,000	85,000	20,600	4,840	6,600
26	1,450	34,000	33,200	19,300	33,800	26,400	106,000	34,800	73,600	17,800	4,840	5,800
27	1,400	45,500	38,300	22,300	40,900	26,200	112,000	48,500	64,400	15,500	4,740	5,400
28	1,400	52,100	42,800	24,600	46,700	25,300	112,000	64,200	55,100	13,900	4,740	5,100
29	1,350	57,000	50,700	27,500	-	23,800	99,800	66,900	48,200	12,900	4,740	4,740
30	1,350	63,700	63,700	30,000	-	21,700	87,700	63,300	42,800	12,400	4,740	4,650
31	1,550	-	67,900	29,400	-	20,000	-	55,300	-	11,800	4,740	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	58,340	2,500	1,350	1,882	115,700
November	419,000	63,700	1,600	13,970	831,100
December	1,376,900	67,900	26,500	44,420	2,731,000
Calendar year 1940	7,301,220	94,400	1,350	19,950	14,482,000
January	1,099,800	64,900	17,800	35,480	2,181,000
February	927,500	70,900	17,000	33,120	1,840,000
March	1,135,500	58,000	20,000	36,630	2,252,000
April	1,439,000	112,000	17,900	47,970	2,854,000
May	2,652,500	143,000	34,800	85,560	5,261,000
June	2,338,600	125,000	29,700	77,950	4,639,000
July	793,900	38,200	11,800	25,610	1,575,000
August	224,940	11,100	4,740	7,256	446,200
September	228,980	13,900	4,650	7,633	454,200
Water year 1940-41	12,694,960	143,000	1,350	34,780	25,180,000

Note.- Discharge July 11 to Aug. 29 computed from graph based on twice-daily readings of the wire-weight gage.

Red River at Coushatta, La.

Location.- Wire-weight gage, lat. 32°01', long. 93°21', in NW¼ sec. 24, T. 12 N., R. 10 W., Louisiana meridian, at bridge on U. S. Highway 84 at Coushatta. Datum of gage is 95.85 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 61,640 square miles.

Records available.- October 1938 to September 1941 in reports of Geological Survey. Discharge observations August and November 1893, in reports of Mississippi River Commission. Gage heights August 1890 to June 1894, and gage heights and discharge observations since April 1937 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 158,000 second-feet May 11; maximum gage height, 31.18 feet May 13; minimum discharge, 1,690 second-feet Oct. 29-31 (gage height, 2.20 feet).

1937-41: Maximum discharge, 181,000 second-feet Mar. 1, 1938; maximum gage height, 34.30 feet Mar. 2-3, 1938; minimum discharge, 880 second-feet Nov. 10-11, 1939.

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Gage-height record and results of 13 discharge measurements furnished by Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Backwater curves used May 12-27, June 18 to July 3)

Oct. 1 to May 11						May 12 to Sept. 30			
2.3	1,800	10.5	16,500	24.0	98,100	6.0	5,320	16.0	35,300
3.3	3,000	12.5	22,600	28.0	134,000	8.0	7,350	19.0	53,300
4.5	4,770	14.0	28,600	30.4	158,000	10.5	14,800	23.0	84,700
6.5	8,280	17.0	45,000			12.0	18,800	26.5	117,000
8.5	12,100	20.0	65,100			14.0	26,000		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,130	1,910	69,600	74,200	32,600	51,300	26,800	97,200	69,600	c45,100	14,100	5,320
2	3,130	2,020	68,100	72,600	31,600	52,600	26,000	86,600	56,000	c41,200	13,600	5,320
3	3,130	1,960	62,900	69,600	30,600	51,300	25,600	86,600	46,100	c39,900	13,200	6,130
4	3,000	2,130	55,900	66,600	31,100	49,400	30,100	94,500	40,800	41,900	13,200	9,990
5	3,000	2,190	48,700	65,800	36,400	44,400	32,600	109,000	39,700	42,500	12,700	11,400
6	2,870	2,250	41,400	70,400	53,200	40,200	33,600	116,000	46,800	38,000	12,500	11,200
7	2,740	2,310	39,100	72,600	65,100	39,600	33,600	125,000	64,900	33,700	12,500	10,400
8	2,610	2,190	36,400	71,800	65,800	43,200	33,100	131,000	74,500	31,700	12,200	9,180
9	2,610	2,080	35,200	68,100	61,500	52,000	31,600	139,000	70,400	35,300	11,600	8,370
10	2,610	2,250	34,700	62,200	55,200	58,000	30,100	149,000	62,600	33,200	11,200	8,770
11	2,610	2,310	33,600	58,700	48,700	59,400	28,600	158,000	61,100	32,200	10,600	8,980
12	2,550	2,370	34,200	55,200	42,000	56,600	28,200	c157,000	71,200	29,500	10,200	8,370
13	2,490	2,870	34,700	52,600	37,400	53,200	27,800	c153,000	88,200	26,400	9,590	7,550
14	2,370	3,410	34,200	49,400	33,600	49,400	27,300	c142,000	98,200	25,100	8,980	6,740
15	2,310	4,930	36,400	47,400	30,100	45,600	26,800	c132,000	105,000	24,700	8,160	6,130
16	2,250	8,100	43,800	45,000	27,300	43,200	26,800	c122,000	111,000	24,700	8,160	5,720
17	2,130	10,600	48,700	43,200	26,000	42,600	26,000	c112,000	117,000	25,500	9,990	5,720
18	2,130	10,700	52,600	40,800	25,200	41,400	24,800	c102,000	119,000	29,000	10,600	9,590
19	2,020	10,200	59,400	39,600	24,000	41,400	34,200	c93,300	119,000	31,300	9,590	13,600
20	2,020	9,220	62,900	38,000	26,400	42,000	56,600	c82,100	118,000	29,900	8,770	13,200
21	1,960	8,280	62,200	36,400	27,300	41,400	66,600	c71,600	118,000	27,300	7,150	11,400
22	1,910	7,560	55,200	34,700	27,300	40,200	75,000	c62,300	117,000	25,100	6,940	10,200
23	1,910	12,300	55,200	31,600	27,300	38,000	76,600	c55,800	114,000	26,800	6,940	9,180
24	1,860	22,200	51,300	29,600	27,800	37,400	77,400	c51,300	106,000	28,100	6,740	8,160
25	1,800	28,600	47,400	28,600	28,600	36,400	82,300	c47,300	c98,600	26,000	6,330	7,960
26	1,800	31,600	45,000	28,200	34,700	35,800	95,400	c44,300	c81,000	22,500	5,930	7,550
27	1,740	43,200	47,400	28,600	41,400	35,200	104,000	c51,000	c70,000	19,700	5,720	6,940
28	1,740	52,600	48,700	30,100	47,400	34,700	109,000	72,000	c60,900	17,600	5,520	6,330
29	1,690	58,000	52,600	31,600	-	33,100	108,000	83,800	c54,300	16,300	5,320	5,930
30	1,690	65,100	61,500	33,600	-	31,100	112,000	84,700	c49,300	15,500	5,320	5,520
31	1,690	-	70,400	34,200	-	29,200	-	81,200	-	14,800	5,320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	71,500	3,130	1,690	2,306	141,800
November	415,440	65,100	1,910	13,850	824,000
December	1,529,400	70,400	33,600	49,340	3,034,000
Calendar year 1940	8,214,020	91,800	1,640	22,440	16,290,000
January	1,511,000	74,200	28,200	48,740	2,997,000
February	1,045,600	65,800	24,000	37,340	2,074,000
March	1,349,300	59,400	29,200	43,530	2,676,000
April	1,516,500	112,000	24,800	50,550	3,008,000
May	3,092,600	158,000	44,300	99,760	6,134,000
June	2,448,200	119,000	39,700	81,610	4,856,000
July	900,500	45,100	14,800	29,050	1,786,000
August	288,670	14,100	5,320	9,312	572,600
September	250,850	13,600	5,320	8,362	497,600
Water year 1940-41	14,419,560	158,000	1,690	39,510	28,600,000

c Discharge computed from backwater curves.

Red River at Alexandria, La.

Location.-Wire-weight gage, lat. 31°19', long. 92°27', in T. 4 N., R. 1 W., Louisiana meridian, at old bridge on U. S. Highway 165, between Alexandria and Pineville. Datum of gage is 44.24 feet above mean sea level, datum of 1929, or 44.18 feet above mean Gulf level, datum of Mississippi River Commission, levels by Corps of Engineers, U. S. Army).

Drainage area.- 65,900 square miles.

Records available.- October 1938 to September 1941 in reports of Geological Survey. Since January 1928 in reports of Mississippi River Commission. Discharge observations 1858 and intermittently 1879 to 1937, and gage heights since 1872, in reports of Mississippi River Commission. Discharge observations February 1929 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 132,000 second-feet May 15; maximum gage height, 38.04 feet May 17; minimum discharge, 2,100 second-feet October 26 to November 1; minimum gage height, 1.37 feet October 29-31.

1928-41: Maximum discharge observed, 194,000 second-feet Feb. 4, 1932 (gage height, 43.77 feet); minimum observed, 1,180 second-feet Aug. 28, 1934; minimum gage height observed, -1.08 feet Sept. 23, 1936.

Maximum discharge observed prior to 1928, 210,000 second-feet July 2, 1908 (gage height, 41.6 feet); minimum gage height observed, -3.7 feet Sept. 29, 1881 (discharge not determined).

Remarks.- Records good. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,660	2,100	84,200	90,000	37,000	55,700	34,600	92,900	86,200	68,500	18,400	6,750
2	3,520	2,310	84,600	92,800	36,400	59,300	32,700	92,200	78,000	62,700	17,400	7,020
3	3,400	2,420	84,100	92,800	36,300	61,200	31,300	91,600	68,900	56,200	16,500	8,420
4	3,280	2,540	79,600	87,800	36,400	61,100	30,600	91,500	60,400	55,900	16,500	9,570
5	3,280	2,540	74,100	85,800	36,900	58,900	32,000	106,000	53,200	54,900	16,700	10,900
6	3,150	2,540	67,000	83,900	43,300	54,900	34,100	115,000	48,700	53,100	16,300	13,300
7	3,150	2,540	60,500	85,000	60,400	52,800	35,400	113,000	53,400	48,400	15,900	14,300
8	3,030	2,540	55,800	85,100	69,500	54,900	35,600	117,000	65,200	43,400	16,600	13,700
9	2,900	2,650	53,300	82,900	72,100	59,500	35,400	119,000	73,900	40,100	17,100	12,400
10	2,900	2,790	52,000	79,400	67,800	66,800	34,600	122,000	76,600	39,100	16,100	11,100
11	2,800	3,690	51,000	74,300	62,500	72,000	33,100	125,000	77,200	39,000	14,900	10,300
12	2,700	4,640	51,100	69,100	56,300	72,600	32,000	127,000	77,300	38,300	14,000	10,200
13	2,700	5,520	55,400	64,600	50,100	69,400	31,000	128,000	82,600	36,600	13,200	10,000
14	2,700	5,520	59,500	60,900	44,300	65,400	30,300	129,000	91,700	35,200	12,300	9,570
15	2,700	5,390	59,500	57,500	38,800	61,200	30,000	130,000	98,600	34,000	11,500	8,780
16	2,590	5,080	59,500	54,700	34,500	57,100	29,500	130,000	105,000	32,800	10,600	8,000
17	2,490	5,220	66,500	52,200	30,900	54,300	29,200	128,000	110,000	32,200	9,700	7,090
18	2,380	7,760	70,500	50,800	28,200	52,400	28,600	125,000	113,000	31,800	9,780	6,220
19	2,380	10,200	73,800	49,000	26,200	51,100	27,800	121,000	116,000	32,500	10,900	6,260
20	2,380	11,000	76,000	47,100	27,900	50,700	40,600	116,000	118,000	34,000	11,100	9,880
21	2,280	10,600	75,200	45,000	34,300	51,600	59,600	109,000	119,000	35,700	10,200	13,400
22	2,280	9,780	74,500	42,700	38,400	51,800	72,500	100,000	120,000	36,400	9,800	13,600
23	2,180	9,200	72,500	40,600	39,600	51,400	79,800	90,500	120,000	35,200	7,740	12,600
24	2,180	22,800	69,000	38,300	39,500	50,300	83,500	82,000	120,000	35,200	7,180	12,000
25	2,180	52,400	64,500	36,400	39,800	48,900	85,400	73,500	116,000	35,200	6,970	11,200
26	2,100	64,600	63,000	35,200	40,400	46,700	88,000	65,400	111,000	33,100	6,970	10,400
27	2,100	70,000	64,300	34,700	44,800	44,000	91,000	58,700	104,000	29,600	7,260	9,880
28	2,100	75,500	70,400	35,200	50,200	41,900	93,000	57,100	95,000	26,200	7,270	9,120
29	2,100	80,000	73,900	36,000	-	40,600	93,900	72,100	83,500	23,200	7,090	8,360
30	2,100	82,500	77,000	36,100	-	38,800	94,100	85,700	75,300	21,300	6,920	7,350
31	2,100	-	84,500	36,800	-	36,500	-	89,500	-	19,800	6,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	81,790	3,660	2,100	2,638	162,200
November	566,370	82,500	2,100	18,880	1,123,000
December	2,106,800	84,600	51,000	67,960	4,179,000
Calendar year 1940	10,239,070	88,900	2,100	27,980	20,310,000
January	1,862,500	92,800	34,700	60,080	3,694,000
February	1,222,800	72,100	26,200	43,670	2,425,000
March	1,693,800	72,600	36,500	54,640	3,360,000
April	1,489,200	94,100	27,800	49,640	2,954,000
May	3,202,700	130,000	57,100	103,300	6,352,000
June	2,717,700	120,000	46,700	90,590	5,390,000
July	1,201,600	68,500	19,800	38,760	2,383,000
August	369,640	18,400	6,760	11,920	733,200
September	301,670	14,300	6,220	10,060	598,400
Water year 1940-41	16,816,570	130,000	2,100	46,070	33,350,000

Tierra Blanca Creek at reservoir near Umbarger, Tex.

Location.- Water-stage recorder just upstream from dam, lat. 34°55', long. 102°06', 2 miles south of Umbarger, Randall County, and 20 miles upstream from Palo Duro Creek. Prior to Aug. 30, 1940, staff gage at same site and datum. Datum of gage, 3,515.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,957 square miles, of which about 1,382 square miles is probably non-contributing.

Records available.- June 1938 to September 1941.

Extremes.- 1940-41: Maximum discharge during the year, 11,300 second-feet June 6, 1941 (gage height, 128.24 feet); maximum gage height, 130.43 feet, June 6, 1941; no flow at times.
Maximum discharge known prior to completion of dam, 6,100 second-feet May 30, 1937, by slope-area determination at dam site.

Remarks.- Records poor. Records given herein represent flow into reservoir. Discharge below about 3 second-feet computed from flow over weir in channel about 7 miles above dam; that above 3 second-feet determined by algebraic summation of release through conduit (computed from flow over weir), flow over spillway (computed from spillway rating curve), and change in contents in reservoir (computed from capacity curve and reduced to equivalent second-feet). Spillway crest is at gage height 127.0 feet. No adjustments made for evaporation or seepage losses. No floods occurred during periods of no records; discharge was zero at times and probably never exceeded 5 second-feet. Dam completed June 15, 1938. Reservoir capacity, 18,150 acre-feet. Reservoir used for recreational purposes. Staff gage in reservoir read once daily June 9, 1938, to Oct. 13, 1939; twice daily, Oct. 14, 1939, to Aug. 29, 1940.

Cooperation.- Reservoir gage-height records, reservoir capacity curve, and weir discharge records furnished by U. S. Soil Conservation Service.

Discharge, in second-feet, 1938-41

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-		
2										-		
3										-		
4										-		
5										-		
6										-		
7										-		
8										-		
9										-		
10										-		
11										-		
12										-		
13										-		
14										-		
15										12		
16										-		
17										-		
18										11		
19										11		
20										11		
21										12		
22										-		
23									22	-		
24										-		
25										-		
26										-		
27										-		
28										-		
29										-		
30										-		
31										-		

Note.- No records on days after June 9, 1938 when no figure of discharge appears.

Discharge, in second-feet, of Tierra Blanca Creek at reservoir near Umbarger, Tex., 1938-41--Cont.

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-		-				-	-	0.2		-	
2	-		-				-	-	.2		-	
3	-		-				-	-	.2		-	
4	-		-	e1.9			-	-	.1		-	
5	-		-				45	-	.1		-	
6	-		59				45	-	.1		-	
7	-		-	260			-	-	.1		-	
8	21		-	136			-	-	.1		-	
9	4.5		-	45			-	-	.1		13	
10	240		-	-			-	0.4	0		-	
11	706		-	-			-	.4	0		-	
12	542		-	-			-	.4	0		-	
13	113		-	-			-	.4	0		38	
14	-		-	-			-	.4	0		38	
15	-		-	-			-	.4	0		-	
16	-		-	-			-	.4	0		-	
17	-		-	-			-	.4	0		-	
18	-			-			-	.3	0		-	
19	-			-			-	.3	38		-	
20	-			-			-	.3	43		-	
21	-		e.9	-			-	.3	43		-	
22	-			-			-	.3	-		-	
23	-			-			-	.3	-		-	
24	-			-			-	.3	-		-	
25	-			-			-	.3	-		-	
26	-			-			-	.2	-		-	
27	-			-			-	.2	-		-	
28	-		e1.9	-			-	.2	-		-	
29	-			-			-	.2	-		-	
30	-			-			-	.2	-		-	
31	-			-			-	.2	-		-	

e No weir gage-height record; discharge estimated on basis of engineer's field notes.
Note.- No records on days when no figure of discharge appears.

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	0.1	1.3	1.2	1.6	1.0	0.3	0.4		-	-
2	-	-	.3	1.4	1.2	1.5	1.0	.3	.3		-	-
3	-	-	.3	1.5	1.2	1.5	1.0	.4	.3		-	-
4	-	-	.3	1.5	1.5	1.3	1.0	.3	.2		-	-
5	-	-	.3	1.5	1.8	1.2	1.0	.3	.1		4.5	-
6	-	-	.3	1.5	1.8	1.2	1.1	.2	.1		-	-
7	9.1	-	.3	1.5	1.6	1.4	1.3	.2	0		-	-
8	18	-	.3	1.5	1.4	1.4	1.5	.1	0		-	-
9	-	-	.3	1.5	1.5	.9	1.7	.2	0		-	-
10	-	-	.3	1.9	1.5	.8	1.7	.1	0		a2.1	-
11	-	-	.3	14	1.5	.8	1.5	0	0		-	-
12	-	-	.3	2.2	1.5	.9	1.7	.1	0		-	-
13	-	-	.3	1.9	1.2	1.0	1.5	.2	0		-	-
14	-	-	.3	1.5	1.7	1.0	1.1	.1	0		-	a1.5
15	-	-	.3	1.2	1.7	1.0	1.1	3.3	0		-	-
16	-	-	.4	.9	1.7	1.0	1.0	.1	0		-	-
17	-	-	.5	1.2	1.5	.8	1.0	.2	0		-	-
18	-	-	.6	1.0	1.5	.8	1.0	0	0		-	-
19	-	-	.5	.8	1.5	.7	1.0	0	0		-	-
20	-	-	.3	.8	1.3	.7	1.0	0	0		-	-
21	-	-	.3	.9	1.2	.8	.8	0	0		-	-
22	-	-	.3	1.0	1.2	.8	.8	3.3	0		-	-
23	-	-	.3	1.0	1.2	.8	.7	3.5	0		-	-
24	-	-	.3	.6	1.4	.8	.6	.7	0		-	-
25	-	-	.3	.8	1.5	.8	.6	.9	0		-	-
26	-	-	14	.9	1.5	1.0	.5	.9	0		-	-
27	-	-	.8	1.0	1.5	1.0	.5	.1	0		-	-
28	-	0	.8	1.3	1.7	1.0	.5	.6	0		-	-
29	-	.1	.8	1.5	1.5	1.0	.4	.7	-		-	-
30	-	.1	1.0	1.5	-	1.0	.4	.7	-		-	-
31	-	-	1.1	1.2	-	1.0	-	.5	-		-	-

a No weir gage-height record; discharge computed on basis of change in contents in reservoir.
Note.- No records on days when no figure of discharge appears.

Discharge, in second-feet, of Tierra Blanca Creek at reservoir near Umbarger, Tex., 1938-41--Cont.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0		0	0.4	0.3	1.2	1.1	122		-	-
2		0		0	.4	.7	1.0	1.4	99		-	-
3		0		0	.5	.4	1.0	1.9	24		-	-
4		0		0	.5	.4	.9	24	10		-	-
5		0		0	.4	.8	.9	10	486	e30	-	-
6		0		0	.4	.7	.8	5.2	5,830		-	-
7		0		0	.4	.4	.7	3.0	2,070		-	-
8		0		0	.4	.4	.6	1.8	617		-	-
9		0		0	.4	.3	.5	4.3	923	-	-	-
10		0		0	.4	.2	.4	3.3	589	-	-	-
11		0		0	.4	.2	.4	2.6	264	-	-	-
12		0		.1	.4	.3	.4	3.1	102	-	-	-
13		0		.2	.4	.3	.4	2.7	91	-	-	-
14		0		.2	.3	.3	.4	2.1	66	-	-	-
15		0		.2	.2	.3	.4	1.6	168	-	-	-
16	0	0	0	.2	.2	.3	.6	1.2	259	-	-	-
17		0		.2	.3	.4	.6	1.0	265	-	-	-
18		0		.2	.3	.5	.5	.9	75	-	-	-
19		0		.1	.3	.4	.3	.8	37	-	-	-
20		0		.1	.4	.4	.2	.9	26	-	-	-
21		0		.1	.4	.6	.2	2.0	12	-	37	-
22		0		.2	.5	.9	.2	6.7	16	-	28	-
23		0		.4	.6	1.0	.2	94	14	-	37	-
24		a1.2		.2	.6	1.6	.3	704	76	-	19	-
25		a.1		.2	.1	2.2	.4	1,260	220	-	-	-
26		a.4		.2	0	3.5	.5	3,010	337	-	-	-
27		a.2		.2	.1	3.0	.6	894	205	-	-	-
28		0		.2	.1	2.6	.8	64	62	-	-	225
29		0		.2	-	2.0	1.1	1,980	53	-	-	39
30		0		.2	-	1.6	1.2	3,320	33	-	-	62
31		-		.3	-	1.3	-	578	-	-	-	-

a No weir gage-height record; discharge computed from change in contents in reservoir.
e Reservoir gage-heights not representative of daily discharge; discharge averaged for the period.
Note.- No records on days when no figure of discharge appears.

Monthly discharge, in second-feet, 1938-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 8-13, 1938	1,626.5	706	-	271	3,230
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 1-9, 1939	462.4	260	-	50.3	897
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 10-31	6.8	.4	.2	.31	13
June 1-21	126.2	43	0	5.96	248
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-
October 1939	-	-	-	-	-
November	-	-	-	-	-
December	26.6	14	.1	.86	53
Calendar year	-	-	-	-	-
January 1940	52.5	14	.8	1.69	104
February	42.5	1.8	1.2	1.47	84
March	31.4	1.5	.7	1.01	62
April	30.0	1.7	.4	1.00	60
May	18.3	3.6	0	.59	36
June 1-28	1.4	.4	0	.05	2.8
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-
October 1940	0	0	0	0	0
November	1.9	1.2	0	.06	3.8
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1941	3.9	.4	0	.13	7.7
February	9.8	.6	0	.35	19
March	28.3	3.6	.2	.91	56
April	17.7	1.2	.2	.59	35
May	11,975.6	3,380	.8	386	23,760
June	13,141	5,830	10	438	26,060
July 1-8	240	-	-	30.0	476
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-

Tierra Blanca Creek seepage investigation

A series of discharge measurements was made on Aug. 31 and Sept. 28, 1941, on Tierra Blanca Creek, Texas, between Umbarger Reservoir near Umbarger and points 10.9 and 17.9 miles downstream in the vicinity of Canyon. The investigations were made during days of constant release from Umbarger Reservoir and the determinations of loss represent normal conditions except as noted. No tributaries were flowing or water being diverted during investigations.

Discharge measurements of Tierra Blanca Creek, Tex., between Umbarger Reservoir near Umbarger, Tex., and a point 10.9 miles downstream, August and September 1941, to determine seepage losses

Date	Location	Distance below initial point (miles)	Discharge, in second-feet		
			At section	Loss in reach	Total loss
Aug. 31	Lat. 34°55', long. 102°06', 600 feet downstream from Umbarger Reservoir, in NW¼ sec. 107, Block B-5, Houston and Great Northern R. R. Co. survey, about 2½ miles south of Umbarger.	0	4.54	-	-
31	NE¼ sec. 87, Block B-5, about 2⅝ miles southeast of Umbarger.	2.0	4.54	0.00	0.00
31	SW¼ sec. 72, Block B-5, about 3⅛ miles east-southeast of Umbarger.	3.8	4.34	.20	.20
31	NE¼ sec. 72, Block B-5, about 4⅜ miles south of Umbarger.	5.0	3.98	.36	.56
31	SE¼ sec. 58, Block B-5, 310 feet downstream from Gordon Cummings new dam about 5⅜ miles south of Umbarger	6.6	3.78	.20	.76
31	SE¼ sec. 37, Block B-5, about 2 miles south-southwest of Canyon, Tex.	9.2	3.75	.03	.79
31	NW¼ sec. 62, Block B-5, about ⅛ mile south of Canyon	10.9	2.92	.83	1.62
31	SW¼ sec. 112, Block B-6, International and Great Northern R. R. Co. Survey, 150 feet downstream from McSpadden's dam and about 1 mile southeast of Canyon.	17.9	†.01	-	-
Sept.28‡	Release from Umbarger Reservoir.	0	3.19	-	-
28	In SE¼ sec. 37, Block B-5, and about 2 miles south-southwest of Canyon, Tex.	9.2	2.57	.62	.62
28	In NW¼ sec. 62, Block B-5, and about ⅛ mile south of Canyon, Tex.	10.9	2.09	0.48	1.10
28	In NW¼ sec. 63, Block B-5, and about ⅝ mile south of Canyon, Tex.	12.6	1.55	.54	1.64
28	In SW¼ sec. 64, Block B-5, and about 1 mile south of Canyon, Tex.	15.8	1.51	.04	1.68
28	In SW¼ sec. 112, Block B-6, and about 1 mile southeast of Canyon, Tex.	17.9	.59	.92	2.60

† Estimated.
‡ Due to local rain since Aug. 31, seepage run was not continued until Sept. 28 which followed a period of practically constant release varying from 3.1 to 3.3 Sept. 24-28.

Note.- Flow in creek is release from Umbarger Reservoir. Discharge from reservoir varied from 2.8 to .9 sec.-ft. Aug. 20-29; at 1:40 p.m. Aug. 29, flow was increased from .9 to 4.4 sec.-ft. Constant discharge released Aug. 29-31. Field inspection revealed that constant discharge release occurred from initial point to 10.9 miles downstream but due to regulating, discharge was changing between 10.9 and 17.9 miles downstream from initial point. Measurement made 17.9 miles downstream indicated, however, that the minimum release was lost by seepage or by storage by numerous small dams in reach.

North Tule Creek at reservoir near Tulia, Tex.

Location.- Water-stage recorder, lat. 34°33', long. 101°42', just above dam, 1 mile upstream from mouth and 3.2 miles northeast of Tulia, Swisher County. Prior to Nov. 27, 1940, staff gage at same site and datum.

Drainage area.- 262 square miles, of which about 197 square miles is probably non-contributing.

Records available.- May 1939 to June 1940 (monthly figures only), November 1940 to September 1941.

Extremes.- 1940-41: Maximum discharge during period Nov. 27 to Sept. 30, 985 second-feet June 6 (gage height, 93.66 feet); maximum gage height, 93.79 feet, June 6; no flow at times.

Remarks.- Records poor. Records given herein represent flow into reservoir. Discharge below gage height 92.0 feet (spillway crest), determined from daily change in contents in reservoir; that above gage height 92.0 feet determined by algebraic summation of flow over spillway (computed from spillway rating curve) and change in contents in reservoir (computed from capacity curve and reduced to equivalent second-feet). No adjustments made for evaporation or seepage losses. Dam completed Jan. 15, 1939. Reservoir capacity, 654 acre-feet. Reservoir used for recreational purposes and water is rarely released through outlet gate. Staff gage read once daily Apr. 16 to Sept. 9, 1939, and twice daily Sept. 10, 1939 to Nov. 26, 1940.

Cooperation.- Gage-height record and reservoir capacity curve furnished by U. S. Soil Conservation Service.

Discharge, in second-feet, of North Tule Creek at reservoir near Tulia, Tex., water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0	0	0	0	0	0	0
2					0	0	0	12	0	0	0	0
3					0	0	0	41	0	2.8	0	0
4					0	0	0	77	0	6.0	0	0
5					0	0	0	2.5	71	0	0	0
6					0	0	0	0	598	9.3	0	0
7					0	0	0	0	82	21	0	0
8					0	0	0	0	8.4	10	0	1.8
9					0	0	0	.6	18	0	0	0
10					0	0	0	0	2.0	0	0	0
11					0	0	0	0	0	2.0	0	0
12					0	0	0	0	0	0	0	.6
13					0	0	0	0	0	0	0	0
14					0	0	0	0	0	0	0	0
15					0	0	0	0	16	0	0	0
16					0	0	0	0	1.0	0	0	0
17					0	0	0	0	0	0	0	3.6
18					0	0	0	0	0	0	0	0
19					0	0	0	0	0	0	0	0
20					0	0	0	0	0	0	1.1	0
21					0	.3	0	.5	0	0	3.9	0
22					0	1.3	0	0	0	0	5.4	0
23					.3	.2	0	94	0	0	1.1	0
24					0	0	0	24	0	0	0	0
25					0	1.3	0	.8	0	0	0	0
26					0	.3	0	0	0	0	0	0
27					0	0	.8	0	0	0	0	0
28					0	0	.2	0	0	0	0	2.7
29					-	0	.2	0	0	0	0	0
30					-	0	0	0	0	3.6	0	0
31					-	0	-	0	-	4.4	0	-

Monthly discharge, in second-feet, 1939-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 1939	-	-	0	0.87	54
June	-	-	0	3.13	186
July	-	-	0	.26	16
August	-	-	0	.19	12
September	-	-	0	0	0
The period	-	-	-	-	268
October 1939	-	-	0	.05	3.0
November	-	-	0	0	0
December	-	-	0	.01	.4
Calendar year	-	-	-	-	-
January 1940	-	-	0	.03	1.8
February	-	-	0	.08	4.4
March	-	-	0	0	0
April	-	-	0	.67	40
May	-	-	0	.05	2.8
June	-	-	0	0	0
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	52
October	-	-	-	-	-
November 27-30, 1940	0	0	0	0	0
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1941	0	0	0	0	0
February	.3	.3	0	.01	.6
March	3.4	1.3	0	.11	6.7
April	1.2	.8	0	.04	2.4
May	252.4	94	0	8.14	501
June	796.4	598	0	26.5	1,580
July	59.1	21	0	1.91	117
August	12.5	6.4	0	.40	25
September	8.7	3.6	0	.29	17
The period	-	-	-	-	2,250

Salt Fork of Red River at Mangum, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 34°52', long. 99°31', in SW¼SE¼ sec. 34, T. 5 N., R. 22 W., at bridge on State Highway 34, half a mile south of Mangum and 13 miles downstream from Fish Creek. Datum of gage is 1,490.87 feet above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Drainage area.- 1,390 square miles.

Records available.- April 1905 to June 1906, October 1937 to September 1941.

Extremes.- Maximum discharge during year, 32,500 second-feet June 8 (gage height, 12.20 feet), from rating curve extended above 25,000 second-feet by Manning formula; no flow at times.

1905-6, 1937-41: Maximum gage height observed, 14.7 feet June 16, 1938 (discharge not determined); no flow at times.

Maximum stage known, that of June 16, 1938, from information by local residents.

Remarks.- Records fair except those above 500 second-feet, which are poor.

Cooperation.- Results of 57 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	8.6	6.1	56	97	18	344	2,060	1,200	93	14
2		0	8.6	3.9	170	61	16	1,670	1,010	525	67	8.6
3		0	7.5	3.4	238	37	7.1	6,790	443	202	8.0	5.6
4		0	6.6	3.1	71	23	3.6	1,680	190	132	5.0	4.2
5		0	5.W	2.4	49	19	2.4	612	621	112	3.6	7.5
6		0	5.3	5.3	40	23	1.3	278	6,870	260	2.9	5.3
7		0	3.9	8.6	33	18	.7	214	1,960	829	3.9	1.4
8		0	3.9	11	27	16	.2	202	3,780	244	32	2.1
9		0	3.4	9.9	22	12	.2	128	11,000	128	100	3.9
10		0	2.1	9.9	18	8.6	0	100	5,110	66	61	2.4
11		0	2.4	23	16	7.5	0	223	807	38	16	1.3
12		0	4.6	16	14	5.3	0	259	360	76	5.0	1.7
13		0	3.4	19	11	3.9	6.7	196	278	261	3.4	4.2
14		0	2.4	23	5.3	2.9	426	112	488	112	2.6	2.2
15		0	3.9	19	5.0	2.1	7.1	66	2,080	71	2.9	3.1
16		0	5.0	42	2.9	2.1	173	42	1,540	49	1.7	4.2
17		0	5.3	28	2.2	1.9	120	30	753	66	.8	1,640
18		0	6.6	23	4.6	1.6	100	33	299	53	.5	414
19		0	8.6	16	9.9	1.6	272	58	185	216	1.0	84
20		0	8.0	11	18	1.7	207	4,990	145	40	.7	44
21		4.1	6.1	9.3	15	2.1	87	4,570	116	20	800	23
22		0	13	8.6	16	4.6	46	753	237	14	1,020	13
23		66	13	6.6	18	9.3	46	981	639	8.6	202	9.9
24		3.9	8.6	5.7	38	14	32	2,320	58	7.5	278	9.3
25		461	9.9	5.0	58	71	23	376	38	14	128	6.6
26		97	12	6.1	112	78	20	232	170	11	32	5.0
27		97	9.9	5.3	66	205	32	433	116	8.6	776	3.6
28		38	8.6	5.0	78	180	561	266	66	7.1	201	2.6
29		27	7.1	5.0	-	87	5,870	136	5,070	8.0	87	4.2
30		16	6.1	5.6	-	46	1,680	100	1,370	4.6	42	104
31		-	6.6	15	-	26	-	124	-	2.9	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	810.0	461	0	27.0	1,610
December	206.7	13	2.1	6.67	410
Calendar year 1940	5,366.7	796	0	14.7	10,690
January	360.6	42	2.4	11.6	716
February	1,213.9	238	2.2	43.4	2,410
March	1,070.2	205	1.6	34.5	2,120
April	9,758.3	5,870	0	325	19,360
May	28,318	6,790	30	913	56,170
June	48,059	11,000	38	1,602	95,320
July	4,808.3	1,200	2.9	155	9,540
August	4,001.0	1,020	.5	129	7,940
September	2,434.9	1,640	1.3	81.2	4,830
Water year 1940-41	101,041.1	11,000	0	277	200,400

Peak discharge.- Apr. 28 (11:45 p.m.) 23,300 sec.-ft.; May 3 (3 a.m.) 11,400 sec.-ft.; May 20 (9 p.m.) 17,400 sec.-ft.; June 6 (4 a.m.) 17,800 sec.-ft.; June 8 (9 p.m.) 32,500 sec.-ft.; June 9 (1 p.m.) 26,900 sec.-ft.

Note.- Discharge computed on basis of twice-daily readings of wire-weight gage Nov. 21 to Apr. 28, May 5-19, 22, 23, 25-31, June 2-5, 20-22, Aug. 25, 26, Aug. 29 to Sept. 16.

North Fork of Red River near Granite, Okla.

Location.- Water-stage recorder, lat. 34°58', long. 99°20', on line between secs. 20 and 29, T. 6 N., R. 20 W., at bridge on State Highway 9, 2½ miles east of Granite, 7 miles upstream from Lugert Dam, and 9 miles upstream from Elm Fork of North Fork of Red River. Datum of gage is 1,534.85 feet above mean sea level, datum of 1929.

Drainage area.- 2,540 square miles.

Records available.- June 1903 to December 1905 (gage heights only), January 1906 to March 1908, April 1938 to September 1941. April 1930 to September 1932 at site 7 miles downstream (published as North Fork of Red River at Lugert Dam).

Extremes.- Maximum discharge during year, 16,400 second-feet May 21 (gage height, 8.72 feet); no flow at times.
1930-32, 1938-41: Maximum discharge, that of May 21, 1941; no flow at times.
Flood of May 18, 1935, reached a stage of 9.8 feet, from information furnished by State Highway Department.

Remarks.- Records good.

Cooperation.- Results of 49 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	10	1.5	29	75	44	1,680	399	545	18	72
2		0	5.5	.7	57	71	33	529	1,770	302	11	53
3		0	2.4	.2	195	54	f25	2,560	1,090	450	110	45
4		0	.8	0	130	40	f19	5,150	487	163	58	38
5		0	.5	0	74	34	f14	1,210	358	105	35	35
6		0	.4	.2	60	36	f11	974	2,920	79	22	32
7		0	.3	.1	44	38	f8.5	347	2,080	1,320	19	26
8		0	f.2	0	34	39	f6.1	234	1,540	359	22	23
9		0	f.1	0	27	42	f4.3	159	7,110	167	92	21
10		0	0	.5	24	49	2.9	136	9,130	255	372	19
11		0	0	17	22	30	1.8	147	2,160	116	95	17
12		0	0	22	18	20	2.1	325	1,310	108	41	18
13		0	0	21	13	16	5.8	256	724	76	21	21
14		0	0	18	11	13	85	234	368	137	14	19
15		0	0	23	9.8	11	493	159	647	105	e.4	17
16		0	0	64	8.5	9.8	1,020	116	1,100	76	5.2	16
17		0	0	41	7.7	7.1	257	86	866	80	2.9	1,060
18		0	0	29	7.7	6.7	143	67	316	62	2.0	333
19		0	0	27	12	6.4	985	138	147	98	1.5	108
20		0	0	19	15	6.7	473	1,000	74	67	1.3	65
21		0	0	15	15	7.4	187	9,350	47	51	14	49
22		0	0	12	16	9.8	122	1,640	41	37	382	39
23		22	0	10	18	12	108	3,080	1,370	26	226	30
24		e.5	0	7.1	24	14	100	7,990	326	20	120	27
25		462	1.9	6.1	30	15	75	1,360	159	18	369	21
26		366	6.7	6.1	72	22	64	715	f244	18	148	20
27		174	5.8	6.7	110	125	69	1,360	f119	18	3,270	18
28		61	4.3	6.1	78	383	196	525	72	16	2,050	15
29		28	3.4	4.8	-	117	1,090	290	88	14	384	16
30		19	2.9	4.5	-	75	2,460	332	1,540	14	163	51
31		-	2.1	9.9	-	60	-	319	-	12	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	1,140.5	462	0	38.0	2,260
December	47.3	10	0	1.53	94
Calendar year 1940	3,488.3	906	0	9.53	6,920
January	372.5	64	0	12.0	739
February	1,161.7	195	7.7	41.5	2,300
March	1,444.9	383	6.4	46.6	2,870
April	8,104.5	2,460	1.8	270	16,080
May	42,468	9,350	67	1,370	84,230
June	38,602	9,130	41	1,287	76,570
July	4,914	1,320	12	159	9,750
August	8,171.3	3,270	1.3	264	16,210
September	2,324	1,060	15	77.5	4,610
Water year 1940-41	108,750.7	9,350	0	298	215,700

Peak discharge.- May 4 (12:30 p.m.) 7,180 sec.-ft.; May 21 (10:30 a.m.) 16,400 sec.-ft.; May 24 (9 a.m.) 13,500 sec.-ft.; June 9 (1 a.m.) 6,520 sec.-ft.; June 9 (12 p.m.) 12,800 sec.-ft.; Aug. 27 (8 p.m.) 8,550 sec.-ft.

f Computed on basis of partly estimated gage-height record.

North Fork of Red River near Headrick, Okla.

Location.- Water-stage recorder, lat. 34°38', long. 99°06', in center of N½ sec. 21, T. 2 N., R. 18 W., at bridge on U. S. Highway 62, 2½ miles east of Headrick and 13 miles upstream from Otter Creek. Datum of gage is 1,299.83 feet above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Drainage area.- 4,360 square miles.

Records available.- April 1938 to September 1941. April to July 1905 (gage heights only), at site a quarter of a mile downstream (published as "near Snyder, Okla."). July 1905 to May 1908, at Navajo dam site 10 miles upstream.

Extremes.- Maximum discharge during year, 27,400 second-feet June 10 (gage height, 10.85 feet); no flow Oct. 15-27, 29.
1938-41: Maximum discharge, that of June 10, 1941; no flow at times.
Maximum stage known, 16.1 feet sometime prior to 1927, from information by State Highway Department.

Remarks.- Records good. Low flow partly regulated by Lake Altus (capacity, about 2,000 acre-feet), 40 miles above station.

Cooperation.- Results of 49 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	1.0	64	9.0	26	123	89	2,660	1,090	1,970	95	345
2	14	.5	49	7.7	42	115	57	2,710	1,790	1,940	95	248
3	8.3	.1	40	7.3	60	77	41	6,870	3,020	1,270	123	186
4	6.7	.9	35	7.3	48	77	32	11,800	2,040	759	105	162
5	3.6	6.5	29	7.3	78	67	26	12,300	1,130	575	156	123
6	2.1	4.0	26	8.6	132	57	22	5,400	8,000	421	140	100
7	1.3	2.6	23	8.6	89	49	18	2,130	10,400	356	123	98
8	.4	1.6	20	9.3	72	50	15	1,030	4,600	740	207	91
9	.3	1.3	18	9.0	39	43	12	661	11,000	887	261	112
10	.3	.7	16	8.3	37	31	10	482	23,400	475	749	129
11	.4	.2	15	8.0	30	49	8.3	385	15,200	373	482	87
12	.3	.1	15	8.3	27	32	8.3	430	7,080	340	261	75
13	.2	a.1	14	9.0	21	37	8.3	800	3,210	284	175	72
14	.1	a.1	9.6	10	18	44	22	648	1,740	340	134	64
15	0	a.1	13	10	22	21	121	403	1,710	280	105	64
16	0	a.1	11	10	16	a17	480	329	3,490	289	91	64
17	0	a.1	15	9.6	14	a14	2,410	259	3,660	284	75	75
18	0	a.2	16	7.8	19	a9	1,480	275	2,340	253	69	1,390
19	0	.2	15	7.7	20	23	489	275	1,820	240	69	2,920
20	0	.2	12	9.6	20	15	1,650	342	1,360	303	67	984
21	0	.4	11	8.0	21	13	2,050	14,900	1,160	261	91	462
22	0	.4	10	7.0	23	13	612	14,900	1,040	223	129	303
23	0	119	10	6.5	27	15	319	10,800	1,390	169	366	212
24	0	90	9.0	6.2	34	13	208	14,900	3,860	140	543	157
25	0	134	9.6	5.7	40	13	152	9,190	2,180	126	294	110
26	0	1,120	11	4.9	46	16	126	2,670	1,980	110	253	98
27	0	1,280	12	4.9	50	21	102	1,450	3,170	105	324	87
28	.1	397	12	4.7	89	18	115	1,530	1,980	98	4,670	77
29	0	164	12	4.7	-	91	1,340	1,690	1,740	95	3,950	70
30	.1	95	10	4.7	-	182	2,900	1,200	2,740	89	1,160	136
31	3.0	-	10	12	-	105	-	1,050	-	87	544	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	60.2	19	0	1.94	119
November	3,420.4	1,280	.1	114	6,780
December	572.2	64	9.0	18.4	1,130
Calendar year 1940	15,267.9	1,290	0	41.7	30,280
January	241.7	12	4.7	7.80	479
February	1,160	132	14	41.4	2,300
March	1,450	182	9	46.8	2,880
April	14,922.9	2,900	8.3	497	29,600
May	124,519	14,900	275	4,017	247,000
June	129,320	23,400	1,040	4,311	256,500
July	13,882	1,970	87	448	27,530
August	15,906	4,670	67	513	31,550
September	9,081	2,920	64	303	18,010
Water year 1940-41	314,535.4	23,400	0	862	623,900

Peak discharge.- May 5 (1:30 a.m.) 16,100 sec.-ft.; May 21 (5:30 p.m.) 21,200 sec.-ft.; May 23 (7:30 p.m.) 15,200 sec.-ft.; May 24 (10:30 p.m.) 17,500 sec.-ft.; June 7 (12:15 a.m.) 13,400 sec.-ft.; June 10 (1 p.m.) 27,400 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage.

Elm Fork of North Fork of Red River near Mangum, Okla.

Location.- Water-stage recorder, lat. 34°56', long. 99°30', on line between secs. 10 and 11, T. 5 N., R. 22 W., at bridge on U. S. Highway 283, 3 miles north of Mangum, 5 miles downstream from Haystack Creek and 18 miles upstream from mouth. Datum of gage is 1,530.77 feet above mean sea level (Bureau of Reclamation bench mark).

Drainage area.- 834 square miles.

Records available.- April 1905 to March 1908, March 1930 to September 1931, April 1938 to September 1941.

Extremes.- Maximum discharge during year, 21,200 second-feet May 21 (gage height, 11.17 feet); no flow Oct. 23-25.
1930-31, 1938-41: Maximum discharge, that of May 21, 1941; no flow at times.
Flood in spring of 1921 reached a stage of 16.4 feet, present datum, from information by State Highway Department.

Remarks.- Records good to Apr. 30, fair thereafter.

Cooperation.- Results of 62 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	69	18	7.0	26	12	7.6	322	960	975	36	38
2	4.5	43	15	6.5	39	10	6.5	1,530	992	248	35	33
3	3.3	14	14	6.5	25	8.8	6.0	4,250	510	145	117	31
4	3.3	8.2	13	6.0	16	7.6	4.1	4,240	168	117	37	51
5	2.3	5.0	11	5.5	12	8.2	3.7	881	468	96	27	42
6	2.0	4.5	11	8.2	8.8	10	3.7	351	3,900	82	27	31
7	1.4	3.7	10	10	7.6	11	3.7	230	1,610	104	29	27
8	1.4	3.7	9.4	11	7.0	11	3.3	120	1,560	163	260	27
9	1.2	3.7	8.8	10	7.0	9.4	2.9	90	8,870	96	1,040	25
10	1.4	3.7	8.2	10	7.0	7.6	2.3	72	3,150	75	139	24
11	1.7	3.3	7.6	9.4	7.0	7.0	2.6	388	648	68	66	24
12	2.0	2.9	7.0	8.8	7.0	6.5	2.9	381	335	115	40	25
13	2.6	2.6	6.5	10	7.0	5.5	17	141	255	79	34	24
14	2.3	2.6	6.5	12	7.0	5.0	81	74	235	60	30	26
15	1.4	2.3	9.4	12	7.0	5.6	40	54	1,050	51	28	25
16	1.2	2.3	8.8	19	7.0	5.0	1,760	49	2,050	47	26	24
17	1.0	2.0	8.8	14	7.0	4.5	270	49	342	79	24	1,240
18	1.0	2.0	9.4	10	7.0	5.0	65	48	206	125	21	1,390
19	.8	3.3	10	9.4	10	5.0	1,310	145	162	94	20	104
20	.8	7.3	10	8.2	12	5.0	650	4,970	140	51	20	39
21	.5	292	9.4	7.0	12	5.5	83	6,910	127	51	322	33
22	.4	73	8.8	6.5	11	7.6	48	1,540	208	46	286	30
23	.1	87	8.8	7.0	13	11	37	4,100	1,930	46	124	27
24	0	112	8.2	7.0	16	11	36	1,320	350	39	62	25
25	0	1,320	10	7.0	18	11	28	620	223	40	53	23
26	0	948	15	7.0	21	12	27	330	215	40	39	20
27	0	120	11	7.0	18	14	26	490	165	37	2,050	19
28	.2	48	8.8	7.0	14	14	289	340	117	33	752	19
29	1.8	30	7.6	6.5	-	13	2,780	178	2,960	30	112	21
30	8.2	22	7.0	7.0	-	11	797	170	404	27	64	69
31	14	-	7.0	11	-	8.8	-	174	-	36	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	66.3	14	0	2.41	132
November	3,241.1	1,320	2.0	108	6,430
December	304.0	18	6.5	9.81	603
Calendar year 1940	12,607.1	1,320	0	34.4	25,000
January	273.5	19	5.5	8.82	542
February	356.4	39	7.0	12.7	707
March	268.5	14	4.5	8.66	533
April	8,393.3	2,780	2.3	280	16,650
May	34,557	6,910	48	1,115	68,540
June	34,510	8,870	117	1,144	68,050
July	3,292	975	27	106	6,530
August	5,967	2,050	20	192	11,840
September	3,516	1,390	19	117	6,970
Water year 1940-41	94,545.1	8,870	0	259	187,500

Peak discharge.- Apr. 29 (12:15 a.m.) 8,580 sec.-ft.; May 2 (11 p.m.) 8,000 sec.-ft.; May 21 (1 a.m.) 21,200 sec.-ft.; May 23 (4:45 a.m.) 8,100 sec.-ft.; May 24 (12:30 a.m.) 9,250 sec.-ft.; June 9 (6:30 p.m.) 20,400 sec.-ft.

Pease River near Crowell, Tex.

Location.- Water-stage recorder and wire-weight gage, lat. 34°06', long. 99°41', at bridge on State Highway 283, 4 miles upstream from Raggedy Creek, 7 miles upstream from Kansas City, Mexico & Orient Ry. bridge, and 8 miles north of Crowell, Foard County. Datum of gage is 1,330.44 feet above mean sea level (Texas State Highway bench mark).

Drainage area.- 2,937 square miles, of which about 533 square miles is probably non-contributing.

Records available.- January 1924 to September 1941.

Average discharge.- 16 years (1924-26, 1927-41), 242 second-feet.

Extremes.- Maximum discharge during year, 106,000 second-feet June 6 (gage height, 11.88 feet); no flow at times.
1924-41: Maximum discharge, that of June 6, 1941; maximum gage height, 13.0 feet, from graph based on gage readings, Sept. 18, 1936; no flow at times.
Maximum stage known, 19.6 feet June 4, 1891.

Remarks.- Records poor. Discharge computed on basis of recorder record and wire-weight gage readings. During low and medium stages, shifting sands frequently clog intakes. Daily discharge published only to show distribution of flow during year. No diversions. Wire-weight gage read once daily or oftener.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	35	15	0	43	33	25	705	17,600	516	12	51
2	0	21	7.2	0	36	29	18	17,300	1,240	450	6.8	257
3	0	12	3.0	0	34	23	14	17,700	279	822	5.0	53
4	0	7.9	1.4	0	36	15	11	2,140	115	840	3.3	30
5	0	7.2	1.1	0	30	14	7.5	1,910	6,800	398	4.3	51
6	0	3.8	.9	12	24	9.3	6.8	1,060	73,000	220	4.0	41
7	0	1.1	.7	14	16	9.7	6.8	590	6,780	166	7.5	28
8	0	.5	0	14	9.7	7.5	5.7	324	750	117	11	985
9	0	.4	.7	12	10	7.2	5.4	210	9,540	65	306	848
10	0	1.3	.5	7.9	9.3	6.1	3.8	166	8,880	41	161	108
11	0	1.4	.4	7.9	7.5	3.6	2.6	14,300	724	56	61	69
12	0	0	1.6	7.9	7.2	3.3	2.6	2,260	231	52	18	50
13	0	0	.2	9.3	5.4	2.6	3.0	694	177	46	11	52
14	0	0	0	8.8	3.8	2.3	622	470	163	81	9.3	54
15	0	0	1.1	7.2	3.0	2.3	349	310	7,080	57	7.5	62
16	0	0	1.8	5.7	2.8	1.8	171	248	21,900	43	6.1	63
17	0	0	1.4	3.8	2.8	1.4	85	228	2,270	36	3.8	51
18	0	.4	.5	1.8	5.4	4.0	47	412	962	32	1.8	209
19	0	.5	0	2.0	7.5	5.0	572	2,670	510	33	1.6	367
20	0	8.0	0	1.1	20	5.7	174	10,500	389	26	2.0	86
21	0	15	0	.5	11	7.2	126	12,300	300	20	14,400	56
22	0	32	0	.9	15	8.4	87	1,910	256	18	3,850	38
23	0	42	0	.7	33	12	63	10,200	331	15	5,750	29
24	0	56	0	.2	38	14	54	22,600	397	15	979	25
25	0	1,870	0	.5	36	17	50	3,900	305	28	464	21
26	0	1,010	.7	0	34	128	49	436	3,310	20	216	17
27	0	143	.5	.2	28	342	56	252	324	14	156	14
28	0	89	.2	.5	32	108	83	511	199	10	117	14
29	0	58	0	.5	-	80	8,240	317	147	7.2	117	19
30	1,010	25	0	.9	-	48	11,400	156	784	6.1	112	13,400
31	202	-	0	45	-	34	-	126	-	6.5	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,212.7	1,010	0	39.1	2,410
November	3,440.5	1,870	0	115	6,820
December	38.9	15	0	1.25	77
Calendar year 1940	45,970.6	11,100	0	126	91,180
January	165.3	45	0	5.33	328
February	542.4	43	2.8	19.4	1,080
March	984.4	342	1.4	31.8	1,950
April	22,340.2	11,400	2.6	745	44,310
May	126,905	22,600	126	4,094	251,700
June	165,943	73,000	115	5,531	329,100
July	4,256.8	840	6.1	137	8,440
August	26,881.0	14,400	1.6	867	53,320
September	17,148	13,400	14	572	34,010
Water year 1940-41	369,856.2	73,000	0	1,013	733,500

Peak Discharge.- May 11 (1:45 p.m.) 47,800 sec.-ft.; June 6 (11:30 a.m.) 106,000 sec.-ft.; June 9 (10:00 p.m.) 56,800 sec.-ft.; June 16 (4:00 a.m.) 59,800 sec.-ft.; Sept. 30 (4:00 p.m.) 52,300 sec.-ft.

Cache Creek near Walters, Okla.

Location.- Water-stage recorder, lat. 34°20', long. 98°17', in SE¼ sec. 19, T. 2 S., R. 10 W., at bridge on U. S. Highway 70 N., 1¾ miles east of Walters and 12 miles upstream from West Cache Creek. Datum of gage is 938.2 feet above mean sea level (Oklahoma State Highway Commission bench mark).

Drainage area.- 630 square miles.

Records available.- April 1938 to September 1941.

Extremes.- Maximum discharge during year, 11,300 second-feet June 8 (gage height, 28.18 feet); no flow Oct. 1-11.
1938-41: Maximum discharge, that of June 8, 1941; no flow at times.
Maximum stage known, about 30 feet in 1906, from information by local residents.

Remarks.- Records good except those for period of estimated gage height record, which are fair. Flow partially regulated by Lake Lawtonka (capacity, 42,300 acre-feet) on Medicine Bluff Creek, and by Lake Thomas (capacity, 8,300 acre-feet) on Little Medicine Bluff Creek.

Cooperation.- Results of 34 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.5	70	11	1,050	145	19	1,190	200	124	29	33
2	0	.1	56	11	1,880	119	19	337	938	126	30	22
3	0	2.1	43	12	1,100	100	19	361	1,820	131	32	17
4	0	3.5	36	11	322	86	19	657	390	121	31	15
5	0	1.8	32	10	184	69	19	2,480	204	110	30	13
6	0	.6	26	17	133	60	20	4,420	1,730	95	26	25
7	0	.3	23	23	103	58	17	2,560	9,110	81	24	29
8	0	.2	22	20	81	57	15	399	9,230	73	22	17
9	0	.3	18	16	67	54	15	250	3,260	69	140	72
10	0	.3	16	13	58	46	15	196	3,040	66	186	201
11	0	.3	15	11	53	42	16	177	3,580	61	55	77
12	.1	1.1	15	11	48	38	16	253	1,280	59	37	44
13	.1	1.2	15	11	43	34	15	395	873	58	31	30
14	.1	1.2	12	14	40	32	24	135	1,130	56	27	23
15	.1	1.1	17	107	36	30	55	87	1,270	54	25	22
16	.1	.7	15	129	32	29	337	66	2,550	53	23	25
17	.1	.4	13	47	30	28	150	55	3,350	51	21	24
18	.2	.3	14	30	29	27	121	46	1,130	59	20	23
19	.1	.3	13	28	52	26	149	39	624	56	18	23
20	.1	.4	11	22	200	25	344	54	498	46	18	21
21	.1	1.6	11	20	250	25	125	191	415	42	20	16
22	.1	34	10	20	108	25	78	566	352	40	20	13
23	.1	77	9.6	20	96	26	62	677	302	39	21	12
24	.1	67	9.3	19	433	25	59	2,340	290	38	19	18
25	.1	185	8.3	17	469	24	60	1,740	262	36	f17	22
26	.1	1,420	24	16	433	24	57	278	216	36	f16	130
27	.1	2,100	62	15	361	23	53	225	196	36	f16	36
28	.3	348	39	15	211	23	53	170	176	42	f46	19
29	.1	145	22	14	-	22	339	148	161	36	50	16
30	.2	98	13	14	-	21	1,210	133	141	32	104	15
31	3.1	-	11	144	-	20	-	156	-	31	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.4	3.1	0	0.17	11
November	4,492.3	2,100	.1	150	8,910
December	702.2	70	S.3	22.7	1,390
Calendar year 1940	16,710.6	2,100	0	45.7	33,150
January	868	144	10	28.0	1,720
February	7,902	1,880	29	282	15,670
March	1,363	145	20	44.0	2,700
April	3,500	1,210	15	117	6,940
May	20,771	4,420	39	670	41,200
June	47,718	9,230	141	1,591	94,650
July	1,957	131	31	63.1	3,880
August	1,205	186	16	38.9	2,390
September	1,053	201	12	35.1	2,090
Water year 1940-41	91,536.9	9,230	0	251	181,600

Peak discharge.- Nov. 27 (6 a.m.) 2,690 sec.-ft.; May 6 (9 p.m.) 4,860 sec.-ft.; May 24 (11:45 p.m.) 3,040 sec.-ft.; June 3 (6:30 a.m.) 2,230 sec.-ft.; June 8 (2:30 a.m.) 11,300 sec.-ft.; June 11 (6:30 a.m.) 3,990 sec.-ft.

f Computed from gage height estimated on basis of rainfall records and recorded range in stage.

Wichita River at Wichita Falls, Tex.

Location.- Wire-weight gage, lat. 33°54'30", long. 98°32'05", at Tenth Street bridge in Wichita Falls, 4 miles upstream from Fort Worth & Denver City Ry. bridge and about 7 miles upstream from Holliday Creek. Datum of gage is 924.3 feet above mean sea level, datum of 1929.

Drainage area.- 3,105 square miles, of which 1,988 square miles is above Lake Kemp Dam.

Records available.- March 1938 to September 1941. February 1900 to January 1902 and October 1910 to December 1911 (gage heights only), at site 4 miles downstream.

Extremes.- Maximum discharge observed during year, 15,500 second-feet June 4 (gage height, 22.71 feet); minimum observed, 26 second-feet Oct. 9.

1938-41: Maximum discharge observed, that of June 4, 1941; minimum discharge observed, 6.0 second-feet Feb. 21, 1939 (ice jam above station).

Maximum discharge known, 50,000 second-feet June 8, 1915, computed by Big Wichita River Irrigation Co.

Remarks.- Records good. Gage read twice daily, oftener during floods. Flow partly regulated by Lake Kemp (capacity, between 500,000 and 600,000 acre-feet). Since completion of dam in 1920 no flow has been permitted to pass over spillway. Water is diverted at dam (capacity of diversion reservoir, about 40,000 acre-feet), about 50 miles above station, for irrigation in the vicinity of Wichita Falls. Area available for irrigation, 42,000 acres.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	5,240	578	52	1,420	310	44	2,540	3,110	1,510	203	86
2	50	4,980	117	44	2,300	158	42	1,610	6,540	1,660	239	80
3	52	1,200	82	39	1,210	122	44	2,950	11,800	1,900	178	65
4	50	735	67	40	554	103	42	9,000	14,900	1,700	162	63
5	47	722	63	40	323	91	42	10,800	o7,450	1,560	146	63
6	49	680	58	82	128	71	42	9,320	3,980	1,510	243	59
7	47	596	61	342	80	63	38	7,980	6,250	1,460	279	54
8	39	279	56	332	76	63	36	6,240	7,450	1,460	239	52
9	30	122	56	130	63	63	42	2,900	5,400	1,460	247	1,590
10	33	91	63	76	59	56	42	3,550	6,900	1,420	275	2,310
11	35	89	65	59	59	52	67	3,080	6,400	1,370	263	698
12	36	74	63	50	56	49	59	3,290	5,330	887	235	365
13	44	65	54	49	54	49	59	3,510	4,490	533	215	186
14	44	58	50	45	96	50	154	2,750	4,170	394	211	122
15	40	54	101	42	91	52	2,330	2,430	4,170	271	203	101
16	34	59	149	54	56	54	2,700	2,480	4,240	196	207	82
17	36	52	101	42	49	50	1,360	2,430	3,680	175	223	71
18	38	54	80	36	44	47	764	2,320	3,080	182	196	69
19	38	54	69	32	56	45	680	2,320	2,750	189	146	65
20	40	52	61	34	58	45	352	2,320	2,540	259	136	74
21	47	58	50	36	63	45	122	4,360	2,320	247	315	69
22	44	82	49	33	111	45	80	5,450	2,210	192	575	59
23	47	741	47	29	232	52	63	5,520	2,210	178	462	50
24	44	638	45	29	1,220	56	54	4,360	2,320	172	617	78
25	42	806	44	39	1,400	67	84	3,800	2,270	295	785	67
26	44	2,050	80	33	848	54	63	3,740	1,800	323	357	61
27	44	1,110	223	33	659	59	44	3,680	1,750	311	267	63
28	58	575	128	33	575	119	61	3,460	1,610	336	399	76
29	61	478	82	32	-	63	294	3,180	1,560	291	219	74
30	63	432	63	32	-	56	1,700	3,020	1,510	231	119	76
31	2,560	-	52	288	-	45	-	2,860	-	203	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,887	2,560	30	125	7,710
November	22,276	5,240	52	743	44,180
December	2,854	575	44	92.1	5,660
Calendar year 1940	73,451	5,240	26	201	145,700
January	2,287	382	29	73.8	4,540
February	11,940	2,300	44	426	23,680
March	2,254	310	45	72.7	4,470
April	11,504	2,700	36	383	22,820
May	127,250	10,800	1,610	4,105	252,400
June	134,240	14,900	1,510	4,475	266,300
July	22,875	1,900	172	738	45,370
August	8,459	785	98	273	16,780
September	6,928	2,310	50	231	13,740
Water year 1940-41	356,754	14,900	29	977	707,600

o Backwater from return of overbank flow below station; discharge computed on basis of discharge measurements made following floods exceeding about 14,000 second-feet.

Little Wichita River near Archer City, Tex.

Location.- Water-stage recorder and concrete control, lat. 33°40', long. 98°36', at bridge on State Highway 79, 1.5 miles downstream from confluence of North and Middle Forks of Little Wichita River, and 4.8 miles north of Archer City, Archer County. Datum of gage is 934.72 feet above mean sea level, datum of 1929.

Drainage area.- 496 square miles.

Records available.- May 1932 to September 1941.

Extremes.- Maximum discharge during year, 4,350 second-feet June 11 (gage height, 24.77 feet); no flow at times.
1932-41: Maximum discharge, 13,000 second-feet Sept. 17, 1936 (gage height, 25.67 feet); no flow at times.

Remarks.- Records good except those above 400 second-feet in August and September, which are fair. No diversions above station.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.7	5.1	4.8	596	35	2.1	967	8.8	3.8	0	16
2		.2	2.7	3.3	1,390	18	1.8	807	408	475	0	8.5
3		.1	1.8	2.7	497	10	1.3	1,360	203	1,070	0	4.8
4		.1	1.3	1.3	62	6.9	.8	2,150	28	687	0	20
5		.1	1.0	1.2	24	5.1	.4	3,190	14	306	.1	3.8
6		0	.6	1.0	14	3.6	.2	c2,090	329	44	.6	1.8
7		0	.4	1.0	7.7	2.3	.2	c165	1,280	19	.1	1.0
8		0	.2	1.0	4.8	1.5	.2	27	1,140	10	.1	6.0
9		0	.2	.8	3.1	1.0	.1	25	346	5.1	.1	1,120
10		0	.2	.5	2.3	.6	.1	153	2,000	3.3	0	1,780
11		0	.2	.3	1.6	.4	0	63	4,010	19	0	1,040
12		0	.3	.2	1.2	.3	0	159	c2,160	35	0	85
13		0	.4	.2	1.0	.2	0	226	283	10	0	24
14		0	.5	.2	.8	.2	23	56	35	3.3	0	14
15		0	26	.2	.5	.1	1,010	20	1,410	1.6	0	7.7
16		0	84	.1	.4	.1	2,020	10	3,200	1.0	0	4.8
17		0	35	.2	.4	.1	2,080	6.0	3,080	.5	0	2.9
18		0	17	.2	.4	.1	313	3.8	1,690	.6	0	1.8
19		0	7.7	.1	1.4	.1	40	2.3	115	.6	0	1.3
20		0	3.6	.1	141	.1	34	1.9	28	1.0	0	.9
21		0	2.3	.1	157	0	19	1,200	17	.5	0	.4
22		7.3	1.9	0	70	0	22	2,630	10	.3	12	.3
23		633	1.3	0	287	1.6	141	3,090	6.9	.1	469	.2
24		543	.9	0	1,330	13	93	c2,420	501	.1	616	.2
25		420	.6	0	1,360	12	26	c1,360	1,100	.1	511	.2
26		1,000	53	0	363	13	14	c335	121	.1	57	.4
27		356	406	0	162	55	7.3	50	35	0	193	.2
28		46	174	0	80	46	26	24	17	0	1,110	.1
29		18	40	0	-	16	93	15	9.5	0	1,490	.1
30		10	16	0	-	7.3	535	9.0	5.6	0	689	0
31		-	8.1	19	-	3.6	-	5.6	-	0	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	3,034.5	1,000	0	101	6,020
December	892.3	406	.2	28.8	1,770
Calendar year 1940	31,391.6	2,460	0	85.8	62,270
January	38.5	19	0	1.24	76
February	6,558.6	1,390	.4	234	13,010
March	253.2	55	0	8.17	502
April	6,503.5	2,080	0	217	12,900
May	22,620.6	3,190	1.9	730	44,870
June	23,590.8	4,010	5.6	786	46,790
July	2,697.0	1,070	0	87.0	5,350
August	5,180.0	1,490	0	167	10,270
September	4,146.4	1,780	0	138	8,220
Water year 1940-41	75,515.4	4,010	0	207	149,800

Peak discharge.- Apr. 17 (7 a.m.) 2,250 sec.-ft.; May 5 (1 p.m.) 3,260 sec.-ft.; May 23 (4 p.m.) 3,200 sec.-ft.; June 11 (5 a.m.) 4,350 sec.-ft.; June 16 (6 p.m.) 3,400 sec.-ft.; Sept. 10 (4:30 p.m.) 1,880 sec.-ft.

c Backwater from return of overbank flow below station; discharge computed from backwater curve based on discharge measurements made following floods exceeding about 2,800 second-feet.

Washita River near Clinton, Okla.

Location (revised).- Water-stage recorder, lat. 35°31', long. 98°57', in center of sec. 11, T. 12 N., R. 17 W., half a mile north of Clinton, three-quarters of a mile upstream from Beaver Creek, and 3 miles downstream from Barnitz Creek. Datum of gage is 1,467.60 feet above mean sea level, datum of 1929. Wire-weight gage at site 1 mile downstream during period May 14, 1940, to Mar. 18, 1941, where station was temporarily located during highway bridge construction. Datum of gage was 1,463.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,990 square miles; at temporary site, 2,070 square miles.

Records available.- October 1935 to September 1941.

Extremes.- Maximum discharge during year, 12,500 second-feet June 10 (gage height, 22.86 feet); minimum, 1.2 second-feet Oct. 25-27.
1935-41: Maximum discharge observed, 26,900 second-feet June 5, 1936 (gage height, 28.50 feet), from rating curve extended above 13,000 second-feet; minimum discharge, that of Oct. 25-27, 1940.

Remarks.- Records good except those obtained at temporary site, which are fair. Temporary gage read twice daily.

Cooperation.- Results of 31 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	106	19	9.7	9.0	9.4	16	g1,320	582	g392	g285	143
2	5.1	97	16	8.7	9.7	9.4	15	938	1,890	462	g137	119
3	6.0	76	17	8.2	10	9.0	14	g932	1,180	474	g113	103
4	4.0	20	12	6.2	12	9.0	14	6,000	471	g284	90	94
5	3.7	7.6	13	6.0	11	9.7	12	4,060	348	g237	84	87
6	3.5	7.3	13	6.2	11	11	12	g1,240	650	g216	78	79
7	3.5	5.6	12	7.3	11	12	11	2,010	545	g202	72	74
8	3.2	5.3	12	7.3	10	11	10	820	457	g196	97	70
9	3.0	5.8	8.2	7.0	10	10	10	318	1,900	g332	100	67
10	3.2	5.1	7.3	6.5	9.7	10	10	g1,290	6,640	g316	87	64
11	3.3	4.0	7.3	7.6	9.0	10	10	609	6,810	g202	79	62
12	2.6	2.2	9.0	7.6	8.7	9.7	10	1,760	2,530	g387	65	63
13	2.2	4.0	8.4	7.3	8.2	9.7	11	g553	1,880	g284	60	65
14	3.0	3.7	8.4	8.7	7.9	10	544	g320	g920	g177	57	62
15	2.6	3.2	8.4	9.0	7.3	9.4	g1,070	g209	g650	159	59	59
16	2.8	4.0	9.0	9.4	5.3	8.4	g1,110	g174	g650	159	70	58
17	2.5	4.0	8.2	8.2	7.6	7.3	g600	g130	g560	148	51	339
18	2.2	3.8	8.4	6.2	7.9	7.3	g113	g115	g429	137	48	860
19	1.7	3.7	8.4	7.6	7.6	7.8	g2,760	g234	g335	127	45	g140
20	1.9	4.0	8.4	8.4	9.4	7.8	2,990	2,110	g277	121	44	g67
21	1.7	6.2	8.7	7.6	9.0	7.6	g359	8,680	g241	114	65	g62
22	1.5	49	8.4	7.3	9.0	8.3	138	5,060	g209	109	51	g62
23	1.7	91	7.6	7.3	8.2	11	g114	2,700	g917	104	64	g61
24	1.6	66	7.6	6.8	8.4	11	g99	2,900	1,490	98	101	g58
25	1.7	57	6.5	6.8	11	11	g67	6,030	g530	105	159	g55
26	1.2	649	8.7	6.2	11	12	g80	1,350	g337	99	84	g55
27	1.2	228	8.2	5.8	11	14	g75	1,620	g264	180	865	g52
28	1.9	76	7.9	5.5	10	14	g89	1,740	g260	290	2,930	g52
29	1.8	43	9.0	6.0	-	14	g149	860	g244	g137	1,530	g54
30	2.1	26	11	7.6	-	15	g818	732	g508	g104	289	g52
31	2.8	-	9.7	8.2	-	18	-	785	-	g94	187	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	84.3	6.0	1.2	2.72	167
November	1,663.7	849	2.2	62.1	3,700
December	306.7	19	6.5	9.89	608
Calendar year 1940	33,249.5	8,690	1.2	90.8	65,950
January	226.2	9.7	5.5	7.36	453
February	259.9	12	5.3	9.28	516
March	323.8	18	7.3	10.4	642
April	11,350	2,990	10	378	22,510
May	57,639	8,660	115	1,859	114,300
June	34,724	6,810	209	1,157	68,870
July	6,446	474	94	208	12,790
August	8,046	2,930	44	260	15,960
September	3,238	660	52	108	6,420
Water year 1940-41	124,509.6	8,660	1.2	341	246,900

Peak discharge.- May 4 (9 p.m.) 9,320 sec.-ft.; May 21 (2:30 a.m.) 11,000 sec.-ft.; May 22 (5:30 p.m.) 5,750 sec.-ft.; May 25 (10 a.m.) 6,000 sec.-ft.; June 10 (12 m.) 6,050 sec.-ft.; June 10 (11:30 p.m.) 12,500 sec.-ft.

g Computed from graph based on twice-daily readings of wire-weight gage.

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Washita River at Carnegie, Okla.

Location.- Water-stage recorder, lat. 35°07', long. 98°36', on line between secs. 5 and 6, T. 7 N., R. 13 W., at bridge on U. S. Highway 54, 0.3 mile upstream from power dam of Southwestern Light & Power Co. and half a mile north of Carnegie. Datum of gage is 1,273.80 feet above mean sea level, datum of 1929.

Drainage area.- 3,170 square miles.

Records available.- November 1937 to September 1941.

Extremes.- Maximum discharge during year, 9,050 second-feet June 6, 7 (gage height, 12.29 feet); minimum observed, 13 second-feet Oct. 23-25.
1937-41: Maximum discharge, that of June 6, 7, 1941; minimum, 6.8 second-feet Nov. 3, 1939.
Maximum stage known, 18.4 feet, date unknown.

Remarks.- Records good except those below 400 second-feet and those for period of no gage-height record, which are fair.

Cooperation.- Results of 30 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	21	38	27	27	69	30	1,380	1,110	465	172	348
2	28	19	66	26	65	61	30	1,420	1,290	751	193	251
3	26	25	60	28	111	50	30	1,350	1,360	984	325	211
4	24	106	51	25	83	43	32	3,000	1,810	772	215	186
5	22	61	46	25	62	42	31	6,310	1,200	628	186	172
6	20	40	43	25	51	40	29	7,880	4,530	428	161	158
7	20	28	41	25	39	40	28	8,240	8,820	360	148	148
8	20	25	39	25	31	40	27	2,510	6,030	336	306	137
9	e19	23	38	25	29	38	26	1,600	3,100	315	316	134
10	e18	22	35	25	27	37	25	1,250	5,120	290	165	130
11	e16	20	35	26	26	36	25	1,390	5,360	420	168	110
12	e17	20	35	26	25	34	24	1,560	6,480	406	140	97
13	e18	20	33	27	23	33	25	1,640	7,820	300	140	104
14	e17	19	32	197	23	31	46	1,370	4,770	488	120	100
15	e17	19	34	133	24	31	520	645	3,100	378	114	97
16	e17	19	33	51	24	30	}	535	2,530	276	107	94
17	e18	19	31	36	24	30	}	425	1,530	256	107	101
18	e17	18	32	33	24	29	}	390	1,100	242	123	290
19	e17	18	31	30	55	28	}	332	974	283	107	734
20	e16	21	31	29	60	29	a1,900	430	724	242	88	663
21	e14	28	31	27	45	29	}	2,400	628	200	114	238
22	e14	33	31	28	31	29	}	4,900	548	186	130	e163
23	e13	36	31	25	30	29	355	8,170	518	172	140	e129
24	e13	257	31	25	34	29	233	7,580	1,040	162	107	e131
25	e13	282	31	24	81	29	193	5,480	1,720	158	97	e128
26	e14	395	31	24	92	29	163	3,500	1,380	158	114	e108
27	15	768	33	24	87	29	143	3,700	865	168	200	e94
28	16	683	39	24	77	29	138	3,280	865	162	333	e92
29	19	243	31	23	-	29	186	2,120	648	227	1,340	e89
30	18	129	28	23	-	29	488	1,680	458	315	2,220	e177
31	20	-	27	24	-	29	-	1,090	-	208	1,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	565	30	13	18.2	1,120
November	3,617	883	18	121	7,170
December	1,178	88	27	38.0	2,340
Calendar year 1940	53,203	4,050	9	145	105,500
January	1,111	197	23	35.8	2,200
February	1,310	111	23	46.8	2,600
March	1,090	69	28	35.2	2,160
April	16,127	-	24	538	31,990
May	86,057	8,170	332	2,776	170,700
June	76,828	8,820	458	2,561	152,400
July	10,714	984	158	346	21,250
August	9,416	2,220	88	304	18,680
September	5,614	734	89	187	11,140
Water year 1940-41	213,627	8,820	13	585	423,800

Peak discharge.- May 5 (8 p.m.) 9,030 sec.-ft.; May 23 (2 p.m.) 8,330 sec.-ft.; June 6 (10:30 p.m.) 9,050 sec.-ft.; June 7 (1 p.m.) 9,050 sec.-ft.; June 10 (7:30 p.m.) 5,960 sec.-ft.; June 15 (5 a.m.) 8,320 sec.-ft.

a No gage-height record; discharge computed on basis of rainfall records and records for stations near Clinton and Tabler.

e Stage-discharge relation indefinite; discharge computed on basis of twice-daily readings of auxiliary staff gage below dam.

Washita River near Tabler, Okla.

Location.- Water-stage recorder, lat. 34°58', long. 97°51', at county highway bridge in SW¼SW¼ sec. 21, T. 6 N., R. 6 W., 1 mile downstream from Little Washita River, 5 miles south of Tabler, and 7¾ miles upstream from Winter Creek.

Drainage area.- 4,760 square miles (revised).

Records available.- April 1940 to September 1941.

Extremes.- Maximum discharge during year, 14,200 second-feet June 7 (gage height, 28.02 feet); minimum daily, 26 second-feet at times in October and November.
1940-41: Maximum discharge, that of June 7, 1941; minimum daily, those of October, November 1940.
Maximum stage known, 30.6 feet Apr. 7, 1927 (from highwater mark pointed out by observer), partly caused by release of ponded water by failure of railroad embankment on Little Washita River.

Remarks.- Records good except those for periods when recorder was not operating, which are fair. Low flow regulated by power plant at Chickasha, 8 miles above station.

Cooperation.- Results of 32 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	40	491	102	156	255	104	1,680	2,420	g1,030	526	1,270
2	65	27	293	122	193	199	112	3,430	2,580	2,080	451	1,370
3	72	60	213	103	194	176	112	1,860	g1,640	1,290	412	745
4	56	38	151	95	189	168	96	2,540	g1,610	g810	356	g501
5	46	50	151	74	199	155	83	6,130	g1,710	g1,030	292	501
6	39	36	133	107	182	155	121	5,820	8,150	g1,060	346	403
7	36	55	119	96	199	154	92	5,720	11,900	g914	394	274
8	43	52	117	103	158	151	78	5,170	8,420	761	650	319
9	26	87	113	96	150	148	83	4,690	7,820	669	g403	790
10	41	66	114	113	123	130	94	4,550	10,600	604	g283	441
11	39	54	98	99	134	143	108	3,830	8,260	583	403	g292
12	41	54	100	87	120	104	90	2,670	7,700	562	412	g283
13	39	35	104	112	116	106	123	2,640	6,500	541	301	g266
14	27	62	95	94	103	124	392	2,410	5,540	625	250	g250
15	40	45	99	110	110	119	550	2,010	6,000	625	283	242
16	40	44	120	262	111	114	2,050	1,720	6,170	g461	258	189
17	27	66	108	400	75	103	1,200	g1,170	6,170	604	250	179
18	26	26	89	238	104	106	2,550	g956	6,230	541	250	214
19	26	34	113	157	161	108	4,110	g790	3,780	g481	165	181
20	62	146	115	139	164	103	3,890	g608	2,180	g471	210	210
21	26	227	119	122	178	98	2,760	g1,030	g1,720	g422	218	319
22	26	123	96	115	158	98	2,260	g1,270	g1,640	g432	213	625
23	26	202	114	101	192	126	2,220	5,480	g1,470	422	210	501
24	26	123	107	95	206	111	1,520	5,270	g1,080	384	216	g412
25	26	779	111	113	180	103	g818	4,160	1,260	310	216	g310
26	27	1,460	90	61	198	100	g608	4,420	1,470	346	205	g226
27	50	643	177	95	212	109	g492	4,560	1,640	328	252	g190
28	27	630	141	107	180	105	g396	4,880	1,860	301	192	g189
29	26	617	100	78	-	110	g614	5,110	1,340	283	194	g188
30	27	836	98	103	-	126	1,300	4,620	1,150	310	243	226
31	62	-	*134	108	-	112	-	2,980	-	274	416	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,217	77	26	39.3	2,410
November	6,717	1,460	26	224	13,320
December	4,223	491	89	136	8,380
Calendar year	-	-	-	-	-
January	3,827	400	74	123	7,590
February	4,445	212	75	159	8,820
March	3,999	255	98	129	7,930
April	29,026	4,110	78	968	57,570
May	104,164	6,130	608	3,360	206,600
June	130,010	11,900	1,080	4,334	257,900
July	19,554	2,080	274	631	38,780
August	9,470	650	165	305	18,780
September	12,104	1,370	179	403	24,010
Water year 1940-41	328,756	11,900	26	901	652,100

Peak discharge.- May 2 (1 a.m.) 4,510 sec.-ft.; May 5 (2:30 a.m.) 6,460 sec.-ft.; May 23 (5 p.m.) 7,330 sec.-ft.; June 7 (3 a.m.) 14,200 sec.-ft.; June 16 (11 p.m.) 6,960 sec.-ft.
g Recorder not operating; discharge computed from graph based on at least once-daily readings of wire-weight gage.

Washita River near Pauls Valley, Okla.

Location.- Water-stage recorder, lat. 34°46', long. 97°15', near center of sec. 1, T. 3 N., R. 1 W., 2½ miles northwest of Pauls Valley, 5½ miles downstream from Owl Creek, and 7½ miles upstream from Washington Creek. Datum of gage is 856.14 feet above mean sea level, datum of 1929.

Drainage area.- 5,390 square miles.

Records available.- March 1938 to September 1941. May to December 1899 (gage heights only) at site about 9 miles downstream.

Extremes.- Maximum discharge during year, 22,000 second-feet June 10 (gage height, 30.60 feet), from rating curve extended above 16,000 second-feet; minimum daily, 32 second-feet Oct. 26, 27.

1938-41: Maximum discharge, that of June 10, 1941; minimum daily, 24 second-feet Oct. 3-5, 1939.

Maximum stage known, that of June 10, 1941. Flood of May 1908 reached a similar stage.

Remarks.- Records good except those for period of fragmentary gage-height record, which are fair. Some regulation at low flow by power plant at Chickasha, 82 miles above station.

Cooperation.- Results of 33 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	45	69e	141	155	231	141	1,570	4,240	1,380	411	292
2	67	46	671	148	384	238	145	1,280	6,040	1,940	411	441
3	108	60	479	145	328	246	138	2,940	5,890	4,350	555	1,230
4	87	69	338	122	246	238	129	2,300	3,110	2,670	555	1,170
5	76	50	262	131	210	224	129	3,910	2,380	1,500	524	1,170
6	66	46	206	155	217	210	129	4,200	4,960	1,260	482	846
7	69	54	185	217	210	204	132	4,680	8,860	1,330	421	620
8	58	48	179	155	210	198	132	4,950	12,600	1,230	421	502
9	53	56	161	128	204	191	155	5,040	12,100	1,090	568	3,750
10	47	55	147	123	204	185	126	5,040	16,700	964	754	2,240
11	47	58	142	119	f185	173	110	4,680	19,100	892	555	964
12	48	81	139	116	f179	173	119	4,420	13,800	823	441	598
13	37	88	136	130	f155	161	129	3,190	11,300	800	471	461
14	47	60	123	130	f161	173	174	2,740	9,600	1,770	524	373
15	50	62	130	123	f145	142	1,750	2,660	8,780	1,190	471	354
16	46	59	139	133	f139	144	1,600	2,180	8,040	892	382	318
17	48	54	130	134	f135	147	1,610	1,950	7,320	916	364	318
18	37	61	125	146	136	147	1,880	1,430	6,990	731	373	266
19	42	55	140	358	304	142	2,340	1,060	6,820	754	345	258
20	47	71	130	280	787	138	3,610	960	6,460	708	345	266
21	37	72	114	231	338	139	3,610	930	3,600	642	292	232
22	33	80	128	173	262	143	3,110	1,060	2,460	642	292	215
23	40	288	129	167	204	138	2,380	1,530	1,980	598	300	283
24	53	299	126	148	254	133	2,260	4,950	1,890	555	292	588
25	35	306	116	142	318	131	1,800	5,430	1,600	555	283	576
26	32	1,570	130	130	280	148	1,020	5,080	1,400	534	300	482
27	32	1,720	179	123	280	140	782	4,510	1,720	461	318	392
28	36	782	290	132	246	135	630	4,460	1,590	471	373	283
29	37	658	185	116	-	130	599	4,510	1,790	451	336	249
30	41	591	179	118	-	134	2,300	4,730	1,700	431	336	274
31	56	-	161	139	-	131	-	4,860	-	402	266	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,564	108	32	50.5	3,100
November	7,544	1,720	45	251	14,960
December	6,397	698	114	206	12,690
Calendar year 1940	111,765	6,570	31	305	221,700
January	4,753	358	116	153	9,430
February	6,876	787	135	246	13,640
March	5,207	246	130	168	10,330
April	33,169	3,610	110	1,106	65,790
May	103,230	5,430	930	3,330	204,800
June	194,620	19,100	1,400	6,494	386,400
July	32,932	4,350	402	1,062	65,320
August	12,761	754	266	412	25,310
September	20,011	3,750	215	667	39,690
Water year 1940-41	429,264	19,100	32	1,176	851,500

Peak discharge.- May 10 (8 a.m.) 5,120 sec.-ft.; May 25 (2 p.m.) 5,430 sec.-ft.; June 2 (12 p.m.) 6,610 sec.-ft.; June 8 (7:30 a.m.) 13,200 sec.-ft.; June 10 (10 p.m.) 22,000 sec.-ft.; Sept. 9 (4:15 p.m.) 5,550 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Note.- Discharge computed from graph based on twice-daily readings of wire-weight gage Oct. 22-30, Apr. 17, 25-28, May 18-21, June 2, 3, 8-11, 25-28, July 1, 19-22, Aug. 7, Aug. 18 to Sept. 2, Sept. 6-8, 12-18.

Washita River near Durwood, Okla.

Location.- Water-stage recorder, lat. 34°14', long. 96°58', in SE¼ of sec. 3 (revised), T. 4 S., R. 3 E., at Mulkey Bridge on State Highway 18, 1⅛ milee downstream from Caddo Creek and 4 miles (revised) north of Durwood. Datum of gage is 650.57 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 7,310 square miles.

Records available.- August 1928 to September 1941.

Average discharge.- 13 years, 1,306 second-feet.

Extremes.- Maximum discharge during year, 21,000 second-feet June 13 (gage height, 31.56 feet); minimum, 59 second-feet Oct. 25, 26 (gage height, 3.14 feet).
1928-41: Maximum discharge, 68,000 second-feet Feb. 17, 1938 (gage height, 41.20 feet, from floodmarks); minimum observed, 17 second-feet Aug. 14, 1934 (gage height, 2.77 feet).
Maximum stage known, 44.37 feet Oct. 31, 1941 (discharge, 85,000 second-feet). Flood of May 1908 reached a stage of 42 feet.

Remarks.- Records good.

Cooperation.- Results of 24 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	87	824	694	2,620	1,010	289	6,190	5,060	2,310	581	400
2	102	79	794	660	5,480	878	284	3,830	8,600	2,200	555	360
3	109	83	854	592	4,180	806	284	3,240	8,550	2,810	581	389
4	83	79	683	460	2,120	728	279	4,060	7,010	4,350	606	944
5	113	79	564	407	1,210	683	264	3,940	3,830	g3,270	715	1,250
6	94	87	477	465	977	683	258	5,240	4,590	g2,060	664	1,180
7	113	106	413	3,780	812	715	406	5,060	g9,920	g1,690	638	1,040
8	106	87	350	2,290	728	709	542	5,180	11,300	g1,650	1,600	728
9	102	98	335	1,010	657	651	412	5,300	12,000	g1,580	806	5,540
10	106	113	314	689	606	600	338	5,890	15,400	g1,460	806	12,300
11	90	125	314	586	574	542	316	6,070	18,200	g1,250	845	7,440
12	83	102	345	526	529	510	279	5,420	19,600	g1,250	754	g2,170
13	79	90	319	487	510	473	258	g4,950	20,800	g1,320	651	1,070
14	83	90	340	498	454	454	473	g3,880	19,400	g2,170	561	782
15	94	109	1,460	514	418	436	5,540	g3,180	17,000	4,240	600	637
16	79	117	1,380	493	400	442	10,300	2,940	15,500	g2,230	625	581
17	79	98	735	439	383	389	5,540	2,530	12,500	g1,380	574	531
18	83	102	614	439	366	377	5,830	g2,230	9,300	1,280	492	498
19	76	94	536	392	443	366	7,600	g1,870	7,700	1,010	473	466
20	76	112	466	402	3,120	360	5,180	g2,590	7,060	944	460	423
21	69	824	434	526	2,760	354	4,890	6,300	6,670	911	442	402
22	69	423	402	450	1,460	349	g4,890	3,120	g4,710	845	430	402
23	76	564	360	397	1,210	343	5,830	g2,290	g3,500	838	394	371
24	62	542	350	345	2,170	343	g4,590	3,000	g3,100	780	394	371
25	62	3,230	345	330	1,870	338	g3,590	5,360	g2,720	734	394	471
26	66	8,900	392	314	2,000	332	g2,700	5,830	g2,480	722	377	671
27	79	4,100	1,850	289	1,870	321	1,930	5,480	g2,260	709	460	581
28	87	2,400	1,770	279	1,320	327	1,490	4,830	g2,260	651	574	526
29	121	1,240	977	274	-	305	2,030	4,530	g2,290	625	504	460
30	83	915	735	284	-	300	7,370	4,480	2,310	606	454	402
31	94	-	620	425	-	294	-	4,650	-	593	442	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,712	121	62	87.5	5,380
November	25,075	8,900	79	836	49,740
December	20,352	1,850	314	657	40,370
Calendar year 1940	294,569	12,000	37	805	584,400
January	19,736	3,780	274	637	39,150
February	41,247	5,480	366	1,473	81,810
March	15,418	1,010	294	497	30,580
April	83,982	10,300	258	2,799	166,600
May	133,460	6,190	1,870	4,305	264,700
June	265,620	20,800	2,260	8,854	526,800
July	48,468	4,350	593	1,563	96,130
August	18,452	1,600	377	595	36,600
September	43,386	12,300	360	1,446	86,050
Water year 1940-41	717,908	20,800	62	1,967	1,424,000

Peak discharge.- Nov. 26 (3:15 a.m.) 9,560 sec.-ft.; Apr. 16 (9 a.m.) 10,900 sec.-ft.; Apr. 30 (7 p.m.) 8,550 sec.-ft.; June 2 (10 a.m.) 8,900 sec.-ft.; June 13 (8 a.m.) 21,000 sec.-ft.; Sept. 10 (10 p.m.) 13,100 sec.-ft.

g Computed from graph based on gage readings.

Pond Creek near Fort Cobb, Okla.
(Known locally as Cobb Creek)

Location.- Water-stage recorder, lat. 35°08', long. 98°27', in NW¼SE¼ sec. 26, T. 8 N., R. 12 W., 100 feet downstream from bridge on county road, 2.7 miles north of Fort Cobb, and 5 miles upstream from mouth. Prior to Aug. 30, 1940, wire-weight gage at bridge 100 feet upstream and at same datum.

Drainage area.- 320 square miles.

Records available.- March 1940 to September 1941.

Extremes.- 1940: Maximum discharge during period March to September, 3,290 second-feet July 2 (gage height, 15.61 feet, present site); minimum observed, 6.2 second-feet Aug. 2.
1940-41: Maximum discharge during water year, 1,820 second-feet Apr. 18 (gage height, 14.97 feet); minimum, 7.5 second-feet Oct. 7, 8.
Flood of June 15, 1937, reached a stage of 19.3 feet, from information by local residents.

Remarks.- Records good except those for periods of rapidly changing stage, which are fair. Gage read twice-daily prior to Aug. 30, 1940.

Cooperation.- Results of 37 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1940-41

1940

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	22	29	14	77	7.5	7.2
2						-	22	26	24	1,610	6.4	8.2
3						-	22	24	42	477	6.6	38
4						22	22	24	a28	80	6.9	80
5						22	22	22	a18	36	19	185
6						22	19	20	13	29	47	74
7						22	45	19	12	25	19	23
8						20	30	22	13	23	11	17
9						20	26	28	12	22	52	14
10						22	25	25	13	22	22	12
11						22	402	19	15	18	12	11
12						23	76	19	13	23	11	11
13						22	38	18	13	14	9.6	11
14						20	35	17	13	17	8.8	9.4
15						20	32	16	13	16	10	8.6
16						20	29	18	12	15	12	8.4
17						22	32	24	12	14	11	8.2
18						20	30	19	12	13	18	7.5
19						20	28	18	10	11	10	6.8
20						22	26	17	10	10	8.7	6.7
21						22	26	16	10	26	8.6	6.6
22						22	25	16	10	19	8.2	9.6
23						22	24	17	13	14	8.0	15
24						22	24	19	52	12	7.4	14
25						22	24	17	19	11	6.8	12
26						22	24	16	12	9.6	88	11
27						23	24	16	10	9.2	55	10
28						22	114	18	9.4	8.4	11	9.7
29						22	90	17	9.4	8.4	9.2	9.4
30						22	36	16	9.4	7.8	9.2	9.1
31						23	-	15	-	7.8	8.1	-

a No gage-height record; discharge interpolated.

Discharge, in second-feet, of Pond Creek near Fort Cobb, Okla., 1940-41--Continued
1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	18	28	31	58	38	31	395	39	26	17	10
2	9.1	13	26	28	71	37	32	134	203	28	22	9.9
3	8.2	11	26	27	48	35	30	79	68	26	14	9.5
4	7.9	11	26	26	38	32	28	954	44	24	13	9.5
5	8.1	12	26	26	36	32	28	504	43	23	11	9.5
6	7.9	12	25	29	34	39	28	206	879	22	11	9.3
7	7.7	13	26	35	32	40	28	93	968	23	10	8.7
8	7.8	14	25	34	30	35	28	f94	145	22	151	9.5
9	7.9	15	24	33	30	34	28	f88	767	20	27	18
10	8.1	17	25	30	30	32	28	f107	503	19	17	16
11	9.0	18	27	29	30	30	27	f116	199	50	14	13
12	9.7	17	28	29	30	30	27	431	94	29	13	12
13	9.2	17	26	31	29	30	31	f98	52	22	17	14
14	8.5	e17	24	289	27	30	92	f54	46	21	20	15
15	8.6	e17	27	68	28	31	195	43	179	20	18	13
16	9.1	e17	34	42	28	30	352	41	152	19	16	13
17	9.7	17	32	38	28	29	86	39	60	19	14	16
18	10	17	32	32	29	28	873	37	44	22	13	41
19	9.6	18	32	30	43	29	682	f134	40	26	13	21
20	9.0	23	30	31	53	30	246	79	36	20	13	16
21	9.1	38	28	31	41	31	73	583	36	17	15	14
22	9.4	31	27	30	38	32	57	130	36	16	16	13
23	9.8	30	27	29	39	32	72	181	34	15	14	12
24	10	42	26	29	51	32	66	114	32	13	13	13
25	11	64	26	28	68	30	51	84	30	18	13	51
26	12	208	29	28	57	32	46	104	30	18	12	20
27	13	44	38	27	48	42	45	53	39	16	13	16
28	14	28	35	27	40	37	50	40	34	14	16	16
29	16	29	31	28	-	32	135	36	29	12	14	17
30	13	28	30	28	-	31	443	41	28	11	12	26
31	18	-	30	31	-	30	-	36	-	11	11	-

Peak discharge.- Apr. 18 (9:30 a.m.) 1,820 sec.-ft.; Apr. 19 (7 p.m.) 1,040 sec.-ft.; May 4 (5 p.m.) 1,270 sec.-ft.; May 21 (8 a.m.) 934 sec.-ft.; June 7 (6 a.m.) 1,640 sec.-ft.; June 9 (6:30 p.m.) 1,140 sec.-ft.

f Computed on basis of partly estimated gage-height record.

e Stage-discharge relation indeterminate; discharge interpolated.

Note.- Discharge computed from gage-height graph based on fragmentary recorder record and twice-daily readings of staff gage Apr. 19, May 1-7, 12, 20-24, May 30 to Aug. 11, Aug. 28 to Sept. 4, Sept. 18-29.

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
March 4-31, 1940	605	23	20	21.6	1,200
April	1,394	402	19	46.5	2,760
May	607	29	15	19.6	1,200
June	466.2	52	9.4	15.5	925
July	2,685.2	1,610	7.8	86.6	5,330
August	528.0	88	6.4	17.0	1,050
September	653.4	185	6.6	21.8	1,300
The period	-	-	-	-	13,760
October 1940	309.5	18	7.7	9.98	614
November	856	208	11	28.5	1,700
December	876	38	24	28.3	1,740
Calendar year	-	-	-	-	-
January 1941	1,234	289	26	39.8	2,450
February	1,114	71	27	39.8	2,210
March	1,012	42	28	32.6	2,010
April	3,938	873	27	131	7,810
May	5,098	954	36	164	10,110
June	4,889	968	28	163	9,700
July	642	50	11	20.7	1,270
August	593	151	10	19.1	1,180
September	481.9	51	8.7	16.1	956
Water year 1940-41	21,043.4	968	7.7	57.7	41,750

Caddo Creek near Ardmore, Okla.

Location.- Wire-weight gage, lat. 34°15', long. 97°06'; on west line of NW¼ sec. 4, T. 4 S., R. 2 E., 5 miles north of Ardmore and 10 miles upstream from mouth. Datum of gage is 709.48 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 280 square miles.

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year, 3,930 second-feet Nov. 26 (gage height, 22.2 feet, from graph based on gage readings); no flow Oct. 27.
1936-41: Maximum discharge, 26,000 second-feet Feb. 16, 1938 (gage height, 27.94 feet), from rating curve extended above 10,000 second-feet; no flow at times during water years 1938, 1939, 1940 and 1941.

Remarks.- Records fair. Gage read twice daily, oftener during rises.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	2.0	61	90	1,100	162	22	479	30	23	4.5	1.0
2	.2	.6	66	127	1,410	137	22	272	108	27	4.1	.8
3	.1	.4	44	75	655	125	21	232	116	48	3.8	.7
4	.1	.2	40	61	325	107	20	192	46	27	3.4	.6
5	.1	.2	31	61	224	90	19	176	32	22	3.3	.5
6	.1	.1	30	54	176	101	19	137	377	19	6.4	.4
7	.1	.1	23	480	169	125	43	113	451	16	4.8	.4
8	.1	.1	20	291	125	107	30	101	145	14	4.9	.4
9	.1	.7	19	176	107	84	27	79	79	12	25	702
10	.1	1.4	17	134	90	90	22	90	1,700	10	10	2,010
11	.1	1.6	17	108	73	68	20	90	804	9.5	5.9	199
12	.1	.8	23	96	68	a68	19	84	331	9.5	4.6	45
13	.1	.6	57	90	64	68	19	79	357	11	4.6	30
14	.1	.6	59	96	73	a60	119	60	465	349	3.9	21
15	.2	.4	a57	114	56	a48	1,550	52	1,910	406	3.5	16
16	.2	.4	a286	96	52	a41	2,080	46	861	52	3.6	14
17	.1	.6	134	78	48	44	485	41	249	33	2.1	12
18	.1	1.0	108	69	46	48	1,180	38	149	21	1.9	9.5
19	.1	.9	90	54	48	41	939	32	113	16	2.6	8.0
20	.1	1.3	75	46	680	39	306	32	90	12	2.4	6.8
21	.1	423	61	42	320	38	189	1,050	73	10	2.6	5.5
22	.1	48	54	40	334	36	202	208	64	8.7	2.8	4.7
23	.1	283	46	36	216	36	703	142	285	27	1.8	4.1
24	.1	62	42	33	575	41	404	154	64	12	1.6	4.7
25	.1	1,670	38	31	430	38	224	90	46	8.7	1.6	36
26	.1	2,400	195	30	437	38	169	73	41	21	1.3	15
27	0	303	603	28	341	32	162	60	38	10	1.8	7.1
28	.2	141	307	26	208	30	143	52	39	7.1	2.0	5.3
29	1.0	96	176	23	-	27	125	43	36	5.9	11	4.1
30	.6	69	127	22	-	26	1,490	38	27	5.2	3.5	3.7
31	2.2	-	108	207	-	24	-	34	-	4.7	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	7.0	2.2	0	0.226	0.00081	0.0009	14
November	5,509	2,400	.1	184	.657	.73	10,930
December	3,014	603	17	97.2	.347	.40	5,980
Calendar year 1940	53,132.8	5,830	0	145	.518	7.06	105,400
January	2,914	480	22	94.0	.336	.39	5,780
February	8,450	1,410	46	302	1.08	1.12	16,760
March	2,019	162	24	65.1	.232	.27	4,000
April	10,803	2,080	19	360	1.29	1.44	21,430
May	4,369	1,050	32	141	.504	.58	8,670
June	9,146	1,910	27	305	1.09	1.21	18,140
July	1,257.3	406	4.7	40.6	.145	.17	2,490
August	137.1	25	1.3	4.42	.016	.02	272
September	3,168.3	2,010	.4	106	.379	.42	6,280
Water year 1940-41	50,793.7	2,400	0	139	.496	6.75	100,700

a No gage-height record; discharge computed from graph based on adjacent gage readings and rainfall records.

Blue River near Blue, Okla.

Location.- Wire-weight gage, lat. 33°59', long. 96°15', at south edge of SW¼ sec. 34, T. 6 S., R.,10 E. at bridge on U. S. Highway 70, 2 miles southwest of Blue and 4½ miles upstream from Caddo Creek. Datum of gage is 498.36 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 477 square miles.

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year, 5,170 second-feet Apr. 23 (gage height, 23.97 feet); minimum observed, 26 second-feet Oct. 13-15, 21, 22, 24.
1936-41: Maximum discharge, 29,400 second-feet Feb. 17, 1938 (gage height, 31.81 feet), from rating curve extended above 9,000 second-feet; no flow (estimated) Sept. 15, 16, 1936.

Remarks.- Records fair. Low flow regulated by reservoir at Oklahoma State Fish Hatchery, 17 miles above station. Gage read twice daily, oftener during rises.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 14				Dec. 15 to Sept. 30					
4.0	26	7.0	310	3.9	26	7.0	316	19.0	2,680
4.3	41	8.0	440	4.2	44	9.0	576	21.0	3,640
4.6	59	10.0	709	4.5	64	11.0	849	23.0	4,540
5.0	85	12.0	995	5.0	99	13.0	1,170	24.0	5,170
5.5	129	14.0	1,350	5.5	141	15.0	1,540		
6.0	184			6.0	194	17.0	1,990		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	36	114	870	152	290	115	2,800	132	92	54	57
2	31	36	101	1,350	797	253	115	1,380	151	92	143	47
3	31	38	89	958	927	241	107	546	326	141	60	44
4	31	34	85	322	502	229	107	780	293	107	57	44
5	29	34	82	253	303	205	99	1,250	151	99	50	41
6	28	34	82	217	241	205	99	685	132	85	47	38
7	31	31	78	205	217	205	141	400	242	85	47	38
8	31	29	74	414	194	194	253	316	452	78	55	36
9	30	43	71	342	172	194	303	279	242	76	396	37
10	27	72	71	241	161	194	172	2,340	1,750	76	169	44
11	28	59	74	205	161	172	132	1,200	2,420	74	99	224
12	27	47	97	194	151	161	123	502	1,400	85	64	104
13	26	38	129	183	151	161	115	355	418	88	57	60
14	26	36	110	183	141	151	115	265	253	85	78	50
15	26	34	544	183	141	151	1,060	229	272	85	92	44
16	34	34	866	194	132	151	3,780	205	368	99	64	41
17	34	34	414	183	132	151	3,250	194	254	92	54	41
18	28	36	200	161	132	141	2,780	183	183	88	47	38
19	27	41	151	151	132	132	2,420	172	151	71	47	36
20	27	41	132	141	210	132	1,540	260	151	68	44	35
21	26	74	123	141	753	132	612	344	132	64	44	34
22	26	256	115	141	368	141	1,180	429	123	60	44	32
23	27	301	107	132	394	141	4,710	253	115	60	44	30
24	26	130	107	132	816	132	3,160	183	151	57	47	33
25	28	245	115	132	933	132	757	205	115	57	50	41
26	28	667	438	132	835	123	440	183	115	54	47	38
27	28	1,240	1,720	132	669	123	381	151	107	54	61	35
28	37	515	1,110	123	420	123	355	141	107	54	313	32
29	52	173	390	115	-	115	344	132	107	50	285	31
30	34	129	217	115	-	115	1,030	132	99	47	118	30
31	38	-	183	115	-	115	-	123	-	50	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	933	52	26	30.1	0.063	0.07	1,850
November	4,519	1,240	29	151	.317	.35	8,960
December	8,189	1,720	71	264	.553	.54	16,240
Calendar year 1940	99,210	7,760	11	271	.568	7.74	196,800
January	8,360	1,350	115	270	.566	.65	16,580
February	10,337	933	132	369	.774	.81	20,500
March	5,105	290	115	165	.346	.40	10,130
April	29,795	4,710	99	993	2.08	2.32	59,100
May	16,617	2,800	123	536	1.12	1.29	32,960
June	10,912	2,420	99	364	.763	.85	21,640
July	2,377	141	47	76.7	.161	.19	4,710
August	2,847	398	44	91.8	.192	.22	5,650
September	1,435	224	30	47.8	.100	.11	2,850
Water year 1940-41	101,426	4,710	26	278	.583	7.90	201,200

Muddy Boggy Creek near Farris, Okla.

Location.- Wire-weight gage, lat. 34°16', long. 95°55', in NW¼ sec. 26, T. 3 S., R. 13 E., at bridge on State Highway 3, 1¼ miles downstream from McGee Creek and 2¾ miles northwest of Farris. Datum of gage is 446.58 feet above mean sea level, datum of 1929.

Drainage area.- 1,120 square miles.

Records available.- November 1937 to September 1941.

Extremes.- Maximum discharge during year, 18,400 second-feet Apr. 16 (gage height, 36.3 feet, from graph based on gage readings); minimum, 0.4 second-foot Oct. 26, 27 (gage height, 0.18 foot).

1937-41: Maximum discharge, 52,500 second-feet Feb. 17, 1938 (gage height, 43.10 feet); no flow at times during 1939 and 1940 water years.

Remarks.- Records good except those for extremely low flows and those for days of rapidly changing stage, which are fair. Gage read twice daily or oftener.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 21

0.1	0.2	0.9	9.5
.2	.5	1.1	15
.3	1.0	1.3	22
.4	1.5	1.5	37
.5	2.5	1.7	64
.7	5.5		

Note.- Same as following table above 1.9 feet.

Feb. 22 to Sept. 30

0.3	2.2	2.0	109	14.0	2,960
.4	2.8	2.5	184	17.0	4,200
.5	3.5	3.0	259	20.0	5,580
.7	5.0	4.0	409	24.0	7,590
.9	8.0	5.0	568	28.0	10,100
1.1	15	7.0	946	31.0	12,400
1.3	25	9.0	1,420	34.0	15,200
1.5	46	11.0	2,000	36.0	17,800
1.7	70				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	70	139	3,020	109	839	44	8,450	27	17	2.8	53
2	1.3	26	102	3,710	2,580	586	41	4,380	173	448	18	32
3	1.2	25	82	4,500	4,980	469	39	1,030	487	476	17	22
4	1.2	21	67	5,400	3,470	394	39	893	294	640	10	16
5	1.1	18	55	3,710	1,310	334	35	7,410	124	239	6.0	13
6	1.1	24	42	565	664	304	34	4,680	94	72	5.5	8.6
7	1.2	20	42	384	469	259	57	1,320	72	44	4.7	8.8
8	1.5	18	41	882	354	229	395	640	483	30	23	4.4
9	2.1	26	35	893	274	244	676	424	595	22	169	4.3
10	1.7	102	32	483	214	274	364	2,510	807	18	349	3.8
11	1.4	37	42	319	176	214	184	3,620	3,570	17	109	3.2
12	1.3	26	264	229	146	169	116	1,920	2,610	16	59	328
13	1.2	21	329	184	132	132	88	706	1,200	14	39	91
14	1.2	37	567	184	364	116	1,360	334	354	44	32	36
15	1.0	30	2,990	274	543	109	12,600	229	162	52	30	22
16	1.0	24	5,150	409	199	94	16,600	162	109	407	68	16
17	.9	21	3,450	907	124	88	12,600	116	82	103	39	12
18	.9	19	1,330	673	102	85	9,000	94	65	51	27	8.9
19	.7	16	510	329	102	82	5,760	75	53	36	18	6.2
20	.5	16	334	199	2,800	78	5,710	70	44	24	14	4.8
21	.6	31	244	146	6,700	72	4,660	68	36	18	13	3.9
22	.5	609	184	124	6,500	71	2,670	58	30	15	10	3.2
23	.5	1,890	146	109	4,980	71	6,380	51	25	13	8.9	2.8
24	.5	1,240	124	109	4,240	68	5,060	158	22	10	10	2.9
25	.5	709	102	154	5,200	64	2,000	227	27	8.6	7.8	2.9
26	.4	2,880	1,060	259	3,830	53	967	109	32	6.7	5.5	2.8
27	.4	3,440	5,220	184	2,450	56	622	80	31	5.5	4.7	2.7
28	1.0	3,090	3,800	139	1,480	52	469	55	28	4.6	277	2.7
29	1.5	1,500	1,650	116	-	48	379	41	22	3.9	567	2.7
30	1.3	309	611	102	-	48	5,020	36	18	3.4	279	2.7
31	175	-	409	94	-	45	-	31	-	2.8	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	206.1	175	0.4	6.65	0.0059	0.007	409
November	16,295	3,440	16	543	.485	.64	32,320
December	29,153	5,220	32	940	.839	.97	57,820
Calendar year 1940	251,872.8	17,500	0	688	.614	8.36	499,700
January	28,790	5,400	94	929	.829	.96	57,100
February	54,482	6,700	102	1,946	1.74	1.81	108,100
March	5,759	839	45	186	.166	.19	11,420
April	97,169	16,600	34	3,239	2.89	3.22	192,700
May	39,978	8,450	31	1,290	1.15	1.33	79,300
June	11,676	3,570	18	389	.347	.39	23,160
July	2,861.5	640	2.8	92.3	.082	.09	5,680
August	2,316.9	567	2.8	74.7	.067	.08	4,600
September	720.3	328	2.7	24.0	.021	.02	1,430
Water year 1940-41	289,405.8	16,600	.4	793	.708	9.61	574,000

Clear Boggy Creek near Wapanucka, Okla.

Location.- Wire-weight gage, lat. 34°22', long. 96°19', in NE¼ sec. 23, T. 2 S., R. 9 E., at bridge on State Highway 61, 4 miles downstream from Delaware Creek, 6 miles east of Wapanucka, and 11 miles west of Atoka.
Drainage area.- 520 square miles.
Records available.- June 1940 to September 1941.
Extremes.- 1940: Maximum discharge during period June to September, 8,850 second-feet July 21 (gage height, 20.6 feet, from graph based on gage readings); minimum observed, 14 second-feet Sept. 29.
1940-41: Maximum discharge during water year, 9,600 second-feet Jan. 2 (gage height, 21.0 feet, from graph based on gage readings); minimum observed, 9 second-feet Oct. 24, 26.
Remarks.- Records good. Gage read twice daily at low stages and hourly at medium and high stages.
Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, 1940-41

1940

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	94	60	31	16	3,030	51	348	18
2	-	934	53	28	17	5,910	44	2,070	19
3	-	999	48	26	18	4,480	40	1,120	18
4	104	1,050	44	196	19	991	37	1,050	18
5	87	641	42	428	20	396	308	192	17
6	83	192	37	460	21	252	5,080	107	16
7	66	126	34	145	22	192	5,950	79	17
8	56	104	33	53	23	144	4,280	63	18
9	595	81	31	38	24	936	1,190	54	20
10	1,560	74	31	30	25	1,190	262	48	20
11	3,420	66	29	23	26	258	182	42	18
12	597	55	26	21	27	144	135	38	17
13	350	246	28	20	28	104	104	35	16
14	396	100	26	18	29	408	86	110	16
15	308	83	39	17	30	252	73	52	16
					31	-	66	35	-

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	25	202	1,840	622	396	81	4,190	80	60	26	32
2	16	56	153	6,380	2,700	328	84	1,250	92	58	26	27
3	15	35	126	6,320	2,520	295	80	483	328	114	40	25
4	15	22	110	674	866	273	80	652	125	92	26	24
5	14	17	91	372	444	222	73	915	86	56	24	22
6	13	14	94	529	350	212	69	526	80	48	23	21
7	12	12	86	1,040	295	202	183	306	492	44	23	21
8	12	12	79	1,540	212	212	1,070	252	377	43	173	22
9	11	13	80	632	212	232	453	262	125	39	256	23
10	10	20	73	350	192	202	232	1,850	730	34	76	192
11	10	54	73	295	182	182	182	1,570	2,460	36	42	175
12	11	48	175	273	162	153	162	316	1,820	39	27	67
13	11	40	293	252	162	144	144	235	328	38	33	36
14	14	32	335	222	235	135	243	173	202	516	45	29
15	16	24	1,150	212	162	135	3,660	148	182	949	36	27
16	14	17	2,320	212	135	135	4,910	125	164	104	27	26
17	13	17	951	222	126	126	3,050	110	125	60	27	26
18	14	16	350	192	126	118	784	125	111	45	25	25
19	12	15	273	162	155	116	2,730	173	98	40	24	24
20	11	19	222	126	2,610	108	3,730	202	92	30	22	24
21	11	584	192	135	3,140	102	1,750	362	80	29	23	23
22	10	1,970	162	126	1,120	108	555	511	75	28	22	22
23	10	642	153	135	741	108	2,080	708	57	27	24	22
24	9	616	135	135	1,900	107	1,340	618	56	26	29	22
25	10	527	126	144	2,080	105	645	148	58	26	32	22
26	9	3,080	690	126	1,120	97	396	118	56	25	26	23
27	11	3,180	3,100	110	1,000	93	350	104	64	24	214	27
28	12	2,260	1,960	104	518	90	295	92	60	24	413	24
29	12	410	492	97	-	88	262	86	63	22	202	22
30	162	243	328	94	-	86	4,960	80	62	22	63	22
31	46	-	273	97	-	83	-	80	-	23	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
June 4-30, 1940	26,307	5,910	56	974	1.87	1.88	52,180
July	22,713	5,950	37	733	1.41	1.63	45,050
August	6,006	2,070	26	194	.373	.43	11,910
September	1,798	460	16	59.9	.115	.13	3,570
The period	-	-	-	-	-	-	112,700
October 1940	562	162	9	18.1	.035	.04	1,110
November	14,020	3,180	12	467	.898	1.00	27,810
December	14,847	3,100	73	479	.921	1.06	29,450
January 1941	23,148	6,380	94	747	1.44	1.66	45,910
February	24,087	3,140	126	860	1.65	1.72	47,780
March	4,993	396	83	161	.310	.36	9,900
April	34,633	4,960	69	1,154	2.22	2.48	68,690
May	16,770	4,190	80	541	1.04	1.20	33,260
June	8,728	2,460	56	291	.560	.62	17,310
July	2,721	949	22	87.8	.169	.19	5,400
August	2,094	413	22	67.5	.130	.15	4,150
September	1,097	192	21	36.6	.070	.08	2,180
Water year 1940-41	147,700	6,380	9	405	.779	10.56	293,000

Kiamichi River near Belzoni, Okla.

Location.- Water-stage recorder, lat. 34°12', long. 95°29', in SE¼ sec. 14, T. 4 S., R. 17 E., 1¾ miles northwest of Belzoni and 6 miles downstream from Cedar Creek. Datum of gage is 389.91 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 1,420 square miles.
Average discharge.- 11 years, 1,516 second-feet.
Records available.- December 1925 to September 1931, October 1935 to September 1941.
Extremes.- Maximum discharge during year, 26,000 second-feet Apr. 16 (gage height, 32.55 feet); minimum, 2.8 second-feet Oct. 28 (gage height, 3.76 feet).
1925-31, 1935-41: Maximum discharge, 83,700 second-feet Feb. 18, 1938 (gage height, 44.00 feet), from rating curve extended above 46,000 second-feet on basis of slope-area computation at 61,400 second-feet; no flow at times.
Maximum stage known, 44.2 feet in October 1915, from information by local residents.
Remarks.- Records good except those for extremely low flows and for days of rapidly changing stage, which are fair.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

3.7	1	4.2	39	6.0	641	25.0	16,300
3.8	4	4.4	70	8.0	1,640	32.0	25,100
3.9	9	4.6	113	11.0	3,550		
4.0	17	4.9	206	15.0	6,480		
4.1	28	5.3	351	20.0	10,900		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	13	781	5,110	1,060	2,400	290	13,600	298	90	15	118
2	9.0	11	618	10,800	4,960	1,870	269	6,180	3,060	74	13	86
3	9.8	8.5	519	7,530	9,820	1,590	262	2,840	3,560	67	195	65
4	9.0	7.5	443	3,340	9,200	1,330	252	2,060	1,730	60	213	49
5	8.0	7.0	419	2,170	4,670	1,130	230	4,410	956	56	143	39
6	7.5	6.0	335	1,590	2,910	1,740	216	5,470	728	68	102	32
7	7.0	5.5	519	1,280	2,130	1,840	241	2,970	1,100	56	74	28
8	6.0	5.0	419	1,100	1,620	2,000	300	1,820	806	47	62	18
9	6.0	11	319	956	1,250	1,480	255	1,280	551	45	60	19
10	8.0	24	280	806	1,080	1,260	230	2,390	4,430	42	50	30
11	11	53	809	708	931	1,060	224	2,240	8,180	47	43	30
12	11	45	3,080	618	806	906	213	1,160	4,730	38	46	24
13	9.0	30	4,070	569	731	781	199	831	2,610	53	40	21
14	8.0	19	3,690	543	1,040	708	3,090	664	1,440	90	39	21
15	8.0	15	4,860	664	1,330	664	18,100	519	981	104	45	22
16	7.0	86	9,410	1,100	956	641	25,000	455	731	78	55	24
17	6.5	140	7,220	1,200	781	618	19,000	391	578	68	39	21
18	6.5	108	3,700	906	686	618	21,300	339	463	56	31	17
19	5.5	90	2,360	708	641	578	18,400	294	383	198	43	14
20	5.5	76	1,700	596	4,120	515	12,400	258	319	171	42	11
21	5.5	78	1,280	535	10,400	483	5,970	269	269	116	35	9.0
22	5.5	813	1,030	560	5,480	459	3,810	255	224	90	36	8.0
23	5.0	1,590	831	686	3,900	435	16,900	199	196	70	90	6.5
24	5.0	2,130	731	1,290	5,040	415	16,900	192	224	58	108	9.0
25	4.0	2,820	641	3,020	6,580	391	9,930	178	206	46	58	11
26	3.7	6,130	1,860	2,360	5,530	367	4,110	168	248	37	70	11
27	3.1	6,300	4,480	1,870	4,560	359	2,640	156	171	32	80	9.0
28	4.0	3,160	2,490	1,530	3,300	335	1,870	152	135	30	62	7.5
29	9.0	1,530	1,640	1,200	-	304	1,460	140	124	25	87	6.0
30	16	1,030	1,130	1,000	-	286	6,920	135	108	19	113	4.5
31	17	-	1,000	906	-	286	-	126	-	15	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	235.1	17	3.1	7.58	0.0053	0.006	466
November	25,341.5	6,130	5.0	845	.595	.66	50,260
December	62,664	9,410	280	2,021	1.42	1.64	124,300
Calendar year 1940	346,327.6	14,100	3.1	946	.666	9.07	687,000
January	57,251	10,800	535	1,847	1.30	1.50	113,600
February	95,542	10,400	641	3,412	2.40	2.50	189,500
March	27,849	2,400	286	898	.632	.73	55,240
April	190,981	25,000	199	6,366	4.48	5.00	378,900
May	52,141	13,600	126	1,682	1.18	1.36	103,400
June	39,539	8,180	108	1,318	.928	1.04	78,420
July	2,046	198	15	66.0	.046	.05	4,060
August	2,184	213	31	70.5	.050	.06	4,330
September	770.5	118	4.5	25.7	.018	.02	1,530
Water year 1940-41	556,544.1	25,000	3.1	1,525	1.07	14.57	1,104,000

Peak discharge.- Apr. 16 (5 a.m.) 26,000 sec.-ft.; Apr. 18 (3:30 p.m.) 25,600 sec.-ft.; Apr. 23 (5 p.m.) 21,400 sec.-ft.; May 1 (1 p.m.) 14,300 sec.-ft.

Little River near Idabel, Okla.

Location.- Wire-weight gage, lat. 33°56', long. 94°49', in NE¼ sec. 19, T. 7 S., R. 24 E., 3 miles north of Idabel and 13 miles downstream from Glover Creek. Datum of gage is 318.52 feet above mean sea level, datum of 1929.

Drainage area.- 1,100 square miles.

Records available.- October 1929 to September 1931, October 1935 to September 1941.

Extremes.- Maximum discharge during year, 14,000 second-feet Apr. 25 (gage height, 29.90 feet, from graph based on gage readings); minimum observed, 15 second-feet Sept. 23 (gage height, 2.30 feet).
1929-31, 1935-41: Maximum discharge, 77,200 second-feet Feb. 18, 1938 (gage height, 39.3 feet, from floodmarks), from rating curve extended above 30,000 second-feet; no flow at times.

Remarks.- Records good except those for days of rapidly changing stage, which are fair. Gage read twice daily or oftener.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 11 and Sept. 24-30)

2.3	15	3.6	130	13.0	3,000
2.5	22	4.0	210	17.0	4,700
2.7	30	5.0	440	21.0	6,600
2.9	40	6.0	691	25.0	9,240
3.1	54	8.0	1,270	28.0	11,900
3.3	79	10.0	1,930	30.0	14,100

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	62	1,740	1,180	1,330	2,590	960	7,800	170	170	63	81
2	152	73	1,350	3,400	2,890	1,940	1,200	7,090	1,450	160	63	64
3	154	86	1,100	4,840	6,600	1,660	981	4,720	5,360	150	150	55
4	150	98	851	3,570	7,930	1,420	851	2,880	6,070	130	130	58
5	118	110	743	2,410	6,590	1,210	743	2,310	4,850	130	113	58
6	94	103	691	1,770	4,190	1,120	639	2,960	2,300	122	96	52
7	89	96	665	1,440	2,780	1,480	587	3,570	1,310	113	79	49
8	106	94	1,090	1,220	2,030	2,110	793	2,740	1,320	96	75	41
9	101	122	993	1,070	1,660	2,300	971	1,940	1,210	89	72	39
10	89	182	776	941	1,280	1,780	931	1,440	2,130	82	69	35
11	78	1,130	1,200	821	1,110	1,480	795	1,210	8,240	75	63	33
12	63	3,680	5,970	717	1,000	1,270	691	1,150	12,700	89	58	30
13	56	2,640	10,900	665	881	1,090	613	881	11,800	122	55	28
14	53	1,650	10,500	665	821	941	535	717	8,040	200	51	27
15	48	998	8,070	1,010	769	881	3,370	587	4,190	140	45	24
16	46	734	9,050	1,640	743	911	8,130	535	2,020	104	43	22
17	42	561	10,800	1,680	717	941	10,200	486	1,180	104	39	21
18	39	463	8,870	1,410	639	821	8,940	394	892	96	32	20
19	36	417	5,830	1,130	587	743	10,600	325	717	956	32	19
20	33	348	3,370	962	587	665	13,100	279	561	1,100	34	18
21	31	302	2,180	851	784	639	11,000	244	440	771	34	17
22	29	924	1,680	841	1,370	613	7,710	210	394	464	39	16
23	28	4,930	1,360	994	1,480	665	7,150	190	302	279	161	15
24	26	9,150	1,030	1,530	1,870	769	11,600	170	279	200	198	37
25	26	8,420	1,000	2,360	3,110	743	13,500	150	268	170	96	58
26	28	6,830	1,200	2,870	3,780	613	10,900	140	279	122	56	84
27	28	8,640	2,880	2,860	4,080	535	7,170	130	302	96	63	47
28	35	7,370	3,190	2,440	3,440	613	4,120	122	325	82	72	36
29	41	4,880	2,250	2,010	-	587	2,220	122	325	76	75	31
30	45	2,930	1,780	1,690	-	535	4,670	233	244	66	73	28
31	53	-	1,280	1,460	-	486	-	210	-	61	89	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,099	182	26	67.7	0.062	0.07	4,160
November	68,003	9,150	62	2,267	2.06	2.30	134,900
December	104,359	10,900	665	3,367	3.06	3.53	207,100
Calendar year 1940	541,935	16,900	26	1,481	1.35	18.32	1,075,000
January	52,447	4,840	665	1,692	1.54	1.78	104,000
February	64,948	7,930	587	2,320	2.11	2.20	128,800
March	34,151	2,590	486	1,102	1.00	1.15	67,740
April	145,670	13,500	535	4,856	4.41	4.92	288,900
May	45,935	7,800	122	1,482	1.35	1.56	91,110
June	79,668	12,700	170	2,656	2.41	2.69	158,000
July	6,615	1,100	61	213	.194	.22	13,120
August	2,318	198	32	74.8	.068	.08	4,600
September	1,143	84	15	38.1	.035	.04	2,270
Water year 1940-41	607,386	13,500	15	1,664	1.51	20.54	1,205,000

Little River near Horatio, Ark.

Location.- Water-stage recorder, lat. 38°55', long. 94°23', in NW¼ sec. 11, T. 10 S., R. 32 W., 1¼ miles upstream from Canney Creek, 2 miles southwest of Horatio, and about 28 miles upstream from Cossatot River.

Drainage area.- 2,690 square miles.

Records available.- December 1930 to September 1941.

Average discharge.- 10 years (1931-41), 3,648 second-feet.

Extremes.- Maximum discharge during year, 23,900 second-feet Apr. 24 (gage height, 26.90 feet); minimum, 41 second-feet Oct. 27 (gage height, 3.86 feet).
1930-41: Maximum discharge, 110,000 second-feet Jan. 25, 1938 (gage height, 36.93 feet), from rating curve extended above 60,000 second-feet; minimum, 1 second-foot Aug. 18 to Sept. 1, 1934; minimum gage height, 3.09 feet Aug. 25-27, 1934.
Maximum stage known, 38 feet sometime in August 1915.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Cooperation.- Result of one discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	311	105	4,460	2,510	3,140	6,700	2,790	21,000	486	a486	a201	186
2	267	102	3,140	3,690	6,000	5,220	2,790	19,100	1,650	a370	a183	201
3	226	102	2,510	7,020	13,700	4,250	2,510	14,300	8,200	a370	a168	177
4	198	110	2,020	7,110	17,100	3,610	2,160	9,100	10,900	a438	a216	141
5	174	150	1,750	5,560	15,100	3,070	1,950	5,520	9,400	a405	287	118
6	156	168	1,510	4,090	11,800	3,290	1,690	5,760	6,590	362	260	113
7	141	156	1,510	3,210	7,920	5,170	1,570	7,200	3,690	304	a219	108
8	130	141	1,690	2,720	5,310	6,390	1,570	6,750	2,510	267	a189	102
9	121	162	1,950	2,370	4,010	5,670	1,810	5,050	2,440	247	a177	147
10	113	283	1,810	2,090	3,290	4,570	1,950	3,770	2,720	229	a168	207
11	110	1,090	1,630	1,810	2,790	3,850	1,750	2,930	12,300	210	a156	171
12	113	4,890	5,200	1,630	2,440	3,210	1,570	2,510	18,600	207	a144	141
13	110	5,490	14,000	1,510	2,160	2,720	1,420	2,160	16,500	300	a133	121
14	102	3,690	15,500	1,450	1,950	2,440	1,300	1,750	14,400	3,600	a127	102
15	102	2,300	15,400	1,690	1,950	2,230	2,070	1,510	11,300	7,740	118	97
16	89	1,570	18,800	2,370	1,810	2,300	7,340	1,240	6,150	4,250	110	94
17	76	1,180	20,700	2,930	1,690	2,370	11,400	1,090	3,290	2,090	99	89
18	72	918	17,600	2,790	1,570	2,300	12,800	918	2,440	1,180	97	79
19	67	782	14,300	2,370	1,450	2,020	18,900	836	1,950	3,160	92	72
20	65	678	10,200	2,020	1,480	1,810	18,200	730	1,570	4,250	82	67
21	60	628	6,200	1,810	2,090	1,750	17,000	653	1,270	2,510	84	60
22	54	949	4,180	1,690	3,140	1,690	15,400	593	1,090	1,630	89	56
23	51	10,100	3,290	2,790	3,700	1,690	16,600	541	890	1,030	133	51
24	47	17,900	2,790	4,170	4,600	2,160	22,800	490	a762	704	168	79
25	45	16,000	2,440	5,400	7,200	2,230	21,900	438	a704	532	270	116
26	42	14,200	2,930	6,570	8,840	1,680	19,100	393	a653	421	238	121
27	42	15,300	5,400	7,470	9,500	1,630	16,100	351	a648	377	174	147
28	54	13,700	6,210	6,570	8,500	1,570	11,800	325	a653	351	144	204
29	76	11,100	5,050	5,220	-	1,630	6,350	329	a678	307	174	263
30	79	7,560	3,690	4,330	-	1,570	9,970	314	653	273	213	219
31	102	-	2,860	3,610	-	1,810	-	366	-	238	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	3,395	311	42	110	0.041	0.05	6,730
November	131,504	17,900	102	4,383	1.63	1.82	260,600
December	200,720	20,700	1,510	6,475	2.41	2.78	398,100
Calendar year 1940	1,304,682	33,600	42	3,565	1.33	18.06	2,588,000
January	110,590	7,470	1,450	3,567	1.33	1.53	219,400
February	154,230	17,100	1,450	5,508	2.05	2.14	305,900
March	92,800	6,700	1,570	2,994	1.11	1.28	184,100
April	254,560	22,800	1,300	8,485	3.15	3.51	504,900
May	118,017	21,000	314	3,807	1.42	1.64	234,100
June	145,087	18,600	486	4,836	1.80	2.01	287,800
July	38,838	7,740	207	1,253	.466	.54	77,030
August	5,123	287	82	165	061	.07	10,160
September	3,549	263	51	128	.048	.05	7,630
Water year 1940-41	1,258,713	22,800	42	3,449	1.28	17.42	2,497,000

a No gage-height record; discharge computed from gage-height graph constructed on basis of record for preceding and following days, recorded range of stage, and rainfall records.

Mountain Fork River near Eagletown, Okla.

Location.- Water-stage recorder, lat. 34°03', long. 94°37', in SW¼ sec. 7, T. 6 S., R. 26 E., 1 mile west of Eagletown and 8.7 miles above mouth. Datum of gage is 333.95 feet above mean sea level (Texas, Oklahoma & Eastern R. R. bench mark; levels by Corps of Engineers, U. S. Army).

Drainage area.- 784 square miles.

Records available.- March 1924 to December 1925, October 1929 to September 1931, October 1935 to September 1941.

Extremes.- Maximum discharge during year, 14,500 second-feet June 11 (gage height, 11.40 feet); minimum, 9.9 second-feet Oct. 26 (gage height, 1.38 feet).

1924-25, 1929-31, 1935-41: Maximum discharge observed, 69,300 second-feet Jan. 24, 1938 (gage height, 25.00 feet), from rating curve extended above 28,000 second-feet; no flow at times.

Maximum stage known, 26.4 feet in August 1915, from information by local residents.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge in second-feet)

1.4	10	2.4	114	4.2	890	7.0	4,390
1.6	18	2.7	185	4.6	1,210	8.0	6,450
1.8	30	3.0	285	5.0	1,610	10.0	11,000
2.0	48	3.4	445	5.5	2,190	12.0	16,000
2.2	75	3.8	645	6.0	2,860		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	27	1,100	670	1,040	1,890	976	4,860	150	114	58	70
2	40	25	885	2,840	2,980	1,560	766	3,000	2,230	106	54	58
3	35	24	715	2,450	9,470	1,300	667	2,070	4,630	95	44	44
4	31	30	612	1,780	5,040	1,140	590	1,560	2,920	87	38	35
5	28	33	535	1,350	3,280	953	550	1,300	1,560	165	37	30
6	26	32	463	1,100	2,320	876	500	1,450	1,000	131	32	30
7	27	31	520	904	1,830	1,280	418	1,920	778	95	28	30
8	26	30	535	814	1,400	1,400	490	1,560	656	80	26	109
9	25	44	505	689	992	1,300	505	1,210	555	74	23	182
10	25	185	440	601	976	1,180	472	976	2,260	54	21	131
11	26	2,180	574	535	841	1,050	432	790	12,200	46	20	93
12	24	2,160	6,880	476	748	904	388	628	5,170	48	18	75
13	22	1,130	5,800	436	672	869	356	550	2,650	95	16	55
14	20	717	3,280	422	700	730	354	468	1,720	212	16	46
15	20	520	3,960	472	772	684	1,980	388	1,200	392	16	50
16	18	396	9,340	689	645	706	2,960	352	911	400	15	44
17	17	320	5,100	712	575	827	2,860	292	718	348	15	38
18	17	268	3,140	645	530	742	9,870	257	606	240	14	34
19	16	232	2,260	580	481	662	5,460	232	476	592	24	29
20	15	200	1,780	525	553	634	5,070	203	388	694	30	25
21	14	191	1,350	481	1,860	623	3,280	185	324	530	26	22
22	13	630	1,090	539	1,680	596	2,370	172	271	356	40	20
23	12	7,320	915	3,030	1,620	570	7,540	155	232	209	60	18
24	12	5,290	802	2,730	2,130	590	9,520	135	197	158	52	24
25	10	2,980	712	3,200	3,000	580	4,480	120	194	122	44	38
26	10	6,450	805	2,930	3,140	530	2,860	108	180	101	38	84
27	10	5,280	820	2,580	3,000	490	2,010	95	165	114	37	107
28	14	2,860	766	2,010	2,380	545	1,500	91	160	108	79	218
29	20	1,890	684	1,660	-	585	1,190	95	142	97	129	155
30	22	1,400	640	1,350	-	540	4,810	106	124	75	138	114
31	25	-	565	1,160	-	1,280	-	127	-	63	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	666	46	10	21.5	0.027	0.03	1,320
November	42,875	7,320	24	1,429	1.82	2.03	85,040
December	57,577	9,340	440	1,857	2.37	2.73	114,200
Calendar year 1940	454,257	17,000	10	1,241	1.58	21.55	900,900
January	40,360	3,200	422	1,302	1.66	1.91	80,050
February	54,655	9,470	481	1,952	2.49	2.59	108,400
March	27,616	1,890	490	891	1.14	1.31	54,780
April	78,224	9,870	354	2,607	3.33	3.72	155,200
May	25,455	4,860	91	821	1.05	1.21	50,490
June	44,767	12,200	124	1,492	1.90	2.12	88,790
July	6,001	694	46	194	.247	.28	11,900
August	1,285	138	14	41.4	.053	.06	2,550
September	2,008	218	18	66.9	.085	.09	3,980
Water year 1940-41	381,489	12,200	10	1,045	1.33	18.08	756,700

Cossatot River near De Queen, Ark.

Location.- Water-stage recorder, lat. 34°03', long. 94°13', on south edge of SE¼ sec. 20, T. 8 S., R. 30 W., at highway bridge, just downstream from Hale Creek and 7 miles east of De Queen. Datum of gage is 335.60 feet above mean sea level (unadjusted).

Drainage area.- 361 square miles.

Records available.- January 1938 to September 1941.

Extremes.- Maximum discharge during year, 10,100 second-feet July 14 (gage height, 15.08 feet); minimum, 9 second-feet Oct. 21-23, Sept. 24.
1938-41: Maximum discharge, 36,300 second-feet Jan. 24, 1938, Apr. 16, 1939 (gage height, 19.70 feet); minimum, 1.6 second-feet Sept. 30, Oct. 1, 1939 (gage height, 1.78 feet).

Remarks.- Records good.

Cooperation.- Results of 24 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	38	400	250	362	745	322	3,960	90	73	66	16
2	12	38	330	618	1,890	570	274	1,910	406	62	52	15
3	12	37	266	670	5,650	475	256	1,190	1,220	55	48	14
4	12	34	227	490	2,610	400	250	800	620	47	41	13
5	12	32	199	400	1,560	338	227	570	371	41	39	17
6	12	27	178	346	1,100	414	206	870	266	36	45	25
7	12	24	165	298	745	620	213	1,040	213	33	45	22
8	15	22	213	258	530	720	306	770	185	30	38	47
9	22	27	199	227	430	670	362	530	168	28	55	41
10	18	56	185	199	362	570	346	390	1,070	26	70	31
11	17	793	213	177	322	460	314	314	5,200	25	56	24
12	17	768	2,510	161	282	380	274	266	2,060	28	46	22
13	15	346	2,450	151	258	338	234	227	1,040	61	37	21
14	13	234	1,630	148	234	306	206	185	595	4,140	33	21
15	12	171	1,560	199	213	282	206	158	400	2,540	42	19
16	12	133	4,160	250	185	330	227	139	326	950	42	18
17	12	109	2,290	250	170	314	227	124	254	460	35	16
18	12	91	1,370	242	156	282	453	110	190	306	31	14
19	11	80	1,010	220	148	266	1,220	96	150	228	28	13
20	11	70	895	199	206	258	950	84	127	236	25	12
21	10	68	810	185	274	250	670	75	110	176	22	11
22	9	529	415	192	314	227	550	67	108	129	24	10
23	9	7,600	362	227	330	227	2,140	60	96	101	31	10
24	10	3,410	330	371	595	250	3,300	55	86	82	26	20
25	10	1,560	298	670	1,220	242	1,660	51	169	69	23	47
26	10	3,410	298	950	1,310	213	1,040	47	162	62	22	239
27	11	2,370	306	980	1,160	213	670	47	117	115	22	130
28	15	1,250	274	745	980	213	460	45	101	101	22	88
29	19	770	258	570	-	192	371	52	102	78	22	66
30	19	530	250	460	-	178	2,940	62	84	62	20	52
31	29	-	234	390	-	386	-	77	-	55	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	423	29	9	13.6	0.038	0.04	839
November	24,627	7,600	22	821	2.27	2.53	48,850
December	23,805	4,160	178	768	2.13	2.46	47,220
Calendar year 1940	218,975	11,300	9	598	1.66	22.57	434,300
January	11,493	980	148	371	1.03	1.19	22,800
February	23,596	5,650	148	843	2.34	2.44	46,800
March	11,309	745	178	365	1.01	1.16	22,430
April	20,876	3,300	206	696	1.93	2.15	41,410
May	14,171	3,960	45	457	1.27	1.46	28,110
June	16,106	5,200	84	537	1.49	1.66	31,950
July	10,437	4,140	25	337	.934	1.08	20,700
August	1,125	70	18	36.3	.101	.12	2,230
September	1,096	239	10	36.5	.101	.11	2,170
Water year 1940-41	159,064	7,600	9	436	1.21	16.40	315,500

Saline River near Dierks, Ark.

Location.- Water-stage recorder, lat. 34°06', long. 94°05', in W½ sec. 3, T. 8 S., R. 29 W., at bridge on U. S. Highway 70, 3½ miles upstream from Holly Creek and 4 miles southwest of Dierks.
Drainage area.- 122 square miles.
Records available.- May 1938 to September 1941.
Extremes.- Maximum discharge during year, 11,000 second-feet July 14 (gage height, 18.75 feet), from rating curve extended above 5,000 second-feet by logarithmic plotting; minimum observed, 0.1 second-foot Oct. 1-27.
1938-41: Maximum discharge, that of July 14, 1941; minimum, 0.1 second-foot at times during water years 1940 and 1941.
Maximum stage known, 21.9 feet sometime in 1920, from information by local resident.
Remarks.- Records good except those below 10 second-feet and those for days of rapidly changing stage, which are fair.
Cooperation.- Records collected and prepared in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to July 14

3.6	0	4.7	55	8.0	1,160
3.7	.2	5.0	94	9.0	1,750
3.8	1.0	5.4	146	11.0	3,060
3.9	1.8	5.8	216	13.0	4,750
4.0	4.4	6.2	313	15.0	6,700
4.2	13	6.6	463		
4.4	26	7.0	648		

July 15 to Sept. 30

3.9	1.0
4.0	3.2
4.2	12
4.4	24
4.6	444

Note.- Same as preceding table above 4.6 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	158	102	155	233	121	1,050	17	24	9.8	1.0
2	.1	.2	119	150	1,910	197	95	623	436	18	8.5	1.0
3	.1	.2	97	124	1,650	175	93	394	443	15	9.4	1.0
4	.1	.2	84	108	848	142	90	295	193	20	20	138
5	.1	.4	74	97	548	117	72	263	115	17	25	45
6	.1	3.9	63	82	398	258	62	567	78	13	15	42
7	.1	3.9	110	74	295	371	141	394	60	11	11	28
8	.1	3.1	111	67	229	360	270	280	52	8.4	8.5	16
9	.1	5.3	84	60	182	298	189	203	44	6.6	6.7	12
10	.1	6.6	72	53	154	248	146	146	782	5.3	8.0	10
11	.1	180	90	48	132	188	120	114	1,230	4.4	8.5	10
12	.1	83	923	46	116	152	99	104	508	7.0	6.7	9.4
13	.1	40	618	44	111	132	84	80	273	53	5.8	7.2
14	.1	25	436	46	95	112	68	62	186	4,300	4.5	5.4
15	.1	17	601	174	80	120	72	50	130	1,360	3.6	4.1
16	.1	12	828	141	71	156	77	40	108	760	3.0	3.0
17	.1	10	535	115	65	116	68	35	78	378	3.2	2.5
18	.1	8.8	394	94	60	94	69	30	62	226	3.0	2.1
19	.1	8.4	378	81	58	88	90	24	52	203	2.8	1.9
20	.1	6.6	263	68	156	86	121	20	40	140	2.8	1.4
21	.1	7.0	214	64	140	85	97	17	42	102	2.8	1.2
22	.1	427	178	68	128	74	141	14	46	78	4.1	1.0
23	.1	5,210	150	86	130	77	1,090	13	33	56	3.2	1.0
24	.1	1,090	132	183	307	90	823	11	28	44	2.8	3.6
25	.1	674	120	161	354	69	472	9.7	30	33	2.3	58
26	.1	1,240	136	398	418	58	313	9.2	28	27	2.3	46
27	.1	628	143	343	350	60	222	8.8	25	25	1.9	23
28	.4	382	117	263	286	62	163	8.4	22	22	1.7	14
29	.2	266	104	210	-	50	130	10	62	17	1.7	11
30	.2	203	94	171	-	44	1,780	11	35	14	1.2	8.9
31	.4	-	85	146	-	128	-	14	-	12	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	3.9	0.4	0.1	0.13	0.0011	0.001	7.7
November	10,541.8	5,210	.2	351	2.88	3.21	20,910
December	7,506	923	63	242	1.98	2.28	14,890
Calendar year 1940	59,223.4	5,210	.1	162	1.33	18.05	117,500
January	3,867	398	44	125	1.02	1.18	7,670
February	9,426	1,910	58	337	2.76	2.87	18,700
March	4,440	371	44	143	1.17	1.35	8,810
April	7,378	1,780	62	246	2.02	2.25	14,650
May	4,900.1	1,050	8.4	158	1.30	1.50	9,720
June	5,238	1,230	17	175	1.43	1.60	10,390
July	7,999.7	4,300	4.4	258	2.11	2.43	15,870
August	190.8	25	1.0	6.15	.050	.06	378
September	508.7	138	1.0	17.0	.139	.16	1,010
Water year 1940-41	62,000.0	5,210	.1	170	1.39	18.89	123,000

Peak discharge.- July 14 (2:30 p.m.) 11,000 sec.-ft., Nov. 23 (4 a.m.) 9,960 sec.-ft.

Sulphur River near Darden, Tex.

Location.- Water-stage recorder, lat. 33°15', long. 94°37', at bridge on U. S. Highway 67, 0.5 mile upstream from St. Louis Southwestern Ry. bridge and 1 mile southwest of Darden, Bowie County. Datum of gage is 220.6 feet above mean sea level, datum of 1929.

Drainage area.- 2,754 square miles.

Records available.- October 1923 to September 1941. Gage-height records collected in this vicinity since 1909 are contained in reports of U. S. Weather Bureau.

Average discharge.- 18 years, 2,041 second-feet.

Extremes.- Maximum discharge during year, 60,600 second-feet May 3 (gage height, 31.50 feet); minimum, 1.5 second-feet Oct. 30.
1923-41: Maximum discharge, 92,900 second-feet Jan. 25, 1938 (gage height, 34.9 feet, from floodmarks), from rating curve extended above 70,000 second-feet; no flow at times.

Remarks.- Records fair. Discharge for periods of changing stage computed using rate of change of stage as a factor. No diversions.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	58	17,400	20,100	2,620	4,540	1,180	16,200	286	277	g143	750
2	18	51	13,200	16,200	2,690	5,350	1,070	26,200	1,080	296	g79	450
3	10	40	10,100	12,000	3,470	5,940	1,750	56,200	1,100	233	g87	256
4	6.8	104	7,970	9,370	4,290	6,260	1,910	57,300	1,480	136	g167	143
5	5.3	118	6,590	7,130	5,060	6,040	2,050	44,500	2,180	97	g82	83
6	4.7	143	4,500	5,780	6,720	5,340	2,150	31,200	3,140	g97	g84	54
7	4.5	118	2,920	4,190	7,970	5,440	2,020	22,200	5,570	g209	g76	39
8	4.0	104	1,800	2,700	7,670	6,040	1,610	16,800	7,820	269	g64	29
9	3.7	129	990	1,670	6,950	9,110	1,360	14,000	8,720	g179	g64	25
10	3.6	220	615	1,080	5,540	18,800	1,640	12,800	8,720	g108	g66	22
11	3.5	292	467	725	3,920	22,200	1,640	11,000	9,120	g95	g59	18
12	3.4	613	525	495	2,500	18,000	1,640	9,620	10,100	474	54	16
13	3.2	1,530	790	390	1,700	14,000	1,270	8,720	11,300	380	52	13
14	3.4	2,000	1,680	362	1,130	11,600	1,110	8,720	22,800	728	33	11
15	3.8	2,360	2,660	352	750	8,120	920	9,620	26,900	1,820	28	10
16	3.7	2,720	3,760	550	480	5,670	600	9,370	23,700	2,060	410	9.2
17	3.5	2,350	4,960	616	340	3,790	400	8,520	20,100	2,390	700	8.5
18	3.2	1,560	7,350	616	287	2,420	330	7,670	16,800	2,840	686	7.7
19	2.9	890	16,800	546	242	1,670	314	5,700	14,000	4,040	530	7.2
20	2.7	585	18,700	486	370	1,170	333	3,220	11,300	6,060	310	6.8
21	2.7	340	14,500	431	371	810	362	1,530	9,100	9,040	194	6.2
22	2.5	222	11,000	400	371	590	404	848	7,670	11,300	114	5.8
23	2.4	606	9,120	305	450	980	2,150	455	6,300	10,100	94	5.4
24	2.2	1,520	7,670	260	1,030	1,220	4,250	381	4,420	8,520	128	8.9
25	2.0	2,450	6,240	269	1,430	1,380	6,070	442	2,070	7,550	432	20
26	1.9	3,860	5,260	1,250	2,140	1,530	7,500	360	1,110	6,710	820	32
27	1.8	8,880	5,340	2,280	2,910	1,500	26,100	260	965	4,960	610	33
28	1.7	17,400	5,160	3,110	3,710	1,460	22,900	159	900	2,070	470	49
29	1.7	20,800	5,310	3,710	-	1,110	17,400	114	645	953	350	166
30	1.7	20,800	10,400	4,320	-	950	15,000	97	390	493	342	242
31	65	-	19,400	4,000	-	1,500	-	84	-	261	352	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	210.5	65	1.7	6.79	418
November	92,863	20,800	40	3,095	184,200
December	223,177	19,400	467	7,199	442,700
Calendar year 1940	854,305.6	20,800	1.0	2,334	1,694,000
January	105,693	20,100	260	3,409	209,600
February	77,111	7,970	242	2,754	152,900
March	174,560	22,200	590	5,631	346,200
April	127,433	26,100	314	4,248	252,800
May	384,290	57,300	84	12,400	762,200
June	239,786	26,900	286	7,993	475,600
July	84,745	11,300	95	2,734	168,100
August	7,680	820	28	248	15,230
September	2,526.7	750	5.4	84.2	5,010
Water year 1940-41	1,520,075.2	57,300	1.7	4,165	3,015,000

g Computed from graph based on once-daily gage readings furnished by U. S. Weather Bureau.

Cypress Creek near Jefferson, Tex.

Location.- Water-stage recorder, lat. 32°45', long. 94°29', at Farrell Bridge on Jefferson-Harleton Highway, 8 miles west of Jefferson, Marion County, and 14 miles upstream from Black Cypress Creek.

Drainage area.- 848 square miles.

Records available.- July 1924 to September 1941.

Average discharge.- 17 years, 556 second-feet.

Extremes.- Maximum discharge during year, 3,720 second-feet Jan. 2 (gage height, 15.80 feet); minimum, 1.7 second-feet Oct. 23-27.
1924-41: Maximum discharge, 26,100 second-feet May 20, 1930 (gage height, 25.37 feet, from floodmarks), from rating curve extended above 16,000 second-feet; no flow at times.

Remarks.- Records good. No diversions.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.4	38	1,050	3,390	349	1,020	884	1,570	116	1,380	102	172
2	3.7	60	1,070	3,720	474	1,050	840	1,930	137	667	92	92
3	3.4	78	1,070	3,300	598	1,070	1,110	1,930	179	499	82	60
4	3.0	120	1,050	2,820	634	1,100	1,260	1,850	186	383	75	72
5	2.9	168	998	2,520	652	1,100	1,200	1,890	182	407	69	74
6	3.1	182	884	2,250	688	1,170	1,200	2,520	217	407	63	60
7	3.9	158	760	2,050	724	1,620	1,350	3,100	312	349	59	46
8	4.4	116	598	1,890	780	1,970	1,520	3,010	503	237	57	39
9	4.7	98	444	1,730	820	2,050	1,520	2,670	616	148	62	38
10	4.4	137	329	1,550	862	2,010	1,350	2,520	616	106	73	44
11	4.1	182	283	1,350	884	2,180	1,150	2,460	742	92	68	44
12	3.9	217	301	1,120	862	3,020	928	2,250	760	186	61	38
13	3.4	225	451	884	800	3,500	742	2,100	760	339	58	33
14	3.1	241	500	724	670	3,100	580	2,050	780	395	56	29
15	2.7	249	578	634	500	2,670	472	1,970	820	371	63	28
16	2.5	241	897	580	383	2,250	407	1,850	963	407	75	27
17	2.4	197	1,070	532	319	1,970	359	1,730	1,260	458	54	27
18	2.3	151	1,100	486	283	1,730	329	1,550	1,550	516	43	26
19	2.0	116	1,120	472	265	1,480	310	1,350	1,810	548	54	24
20	2.0	92	1,150	472	310	1,290	319	887	2,010	580	50	21
21	1.9	82	1,170	500	383	1,050	371	546	2,250	598	40	19
22	1.8	89	1,200	516	444	820	395	316	2,370	616	37	17
23	1.7	230	1,230	486	500	865	422	225	2,460	616	37	16
24	1.7	504	1,200	431	670	1,120	706	182	2,250	598	35	30
25	1.7	706	1,170	383	840	1,150	884	158	2,010	616	40	83
26	1.7	884	1,260	349	928	1,050	950	140	1,810	652	54	89
27	1.7	974	2,010	349	974	950	950	123	1,590	616	109	83
28	4.5	998	2,600	339	998	906	928	112	1,810	476	154	74
29	13	998	2,460	339	-	906	950	109	2,310	264	190	89
30	20	1,020	2,920	329	-	884	1,120	112	1,930	154	225	106
31	18	-	2,520	339	-	906	-	120	-	116	233	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	134.0	20	1.7	4.32	266
November	9,551	1,020	38	318	18,940
December	35,423	2,920	283	1,143	70,260
Calendar year 1940	123,685.6	2,920	1.7	338	245,300
January	36,834	3,720	329	1,188	73,060
February	17,594	998	265	628	34,900
March	47,957	3,500	820	1,547	95,120
April	25,506	1,520	310	850	50,590
May	43,330	3,100	109	1,398	85,940
June	35,309	2,460	116	1,177	70,030
July	13,997	1,380	92	452	27,760
August	2,470	233	35	79.7	4,900
September	1,600	172	16	53.3	3,170
Water year 1940-41	269,705.0	3,720	1.7	739	534,900

Bayou Bodcau near Sarepta, La.

Location.- Water-stage recorder, lat. 32°54', long. 93°29', in sec. 15, T. 22 N., R. 11 W., Louisiana meridian, at bridge on State Highway 70, 2 miles west of Sarepta and 9⅝ miles upstream from Caney Creek. Datum of gage is 173.76 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 515 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 7,470 second-feet May 7 (gage height, 19.88 feet); minimum, 0.4 second-foot Oct. 1-6; (gage height, 2.28 feet).

1939-41: Maximum discharge, 12,600 second-feet July 6, 1940 (gage height, 22.16 feet); minimum, 0.1 second-foot Aug. 3-15, 1939; minimum gage height, 1.98 feet Aug. 10, 1939.

Flood of May 22-23, 1930, exceeded 25.0 feet. Flood of 1905 may have reached a stage of 27.0 feet, according to local residents.

Remarks.- Records good except those below 10 second-feet, which are fair. Water used by paper mill at Springhill is pumped from wells and discharged later as waste into the bayou about 8 miles above station. This discharge is not continuous but is stored in a reservoir and is released whenever the flow of bayou is sufficient to dilute effluent from mill.

Rating tables, water year 1940-41, except days of rapidly changing stage (gage-height, in feet, and discharge, in second-feet)

Oct. 1 to May 7

2.3	0.5	4.4	99	13.8	1,630
2.5	4.3	5.0	145	15.2	2,210
2.7	9.8	6.2	262	16.0	2,760
2.9	17.0	8.2	500	17.4	4,140
3.1	26	10.6	826	19.0	6,120
3.9	67	12.0	1,110	19.7	7,170

May 8 to Sept. 30

2.3	1.7	3.8	58	10.0	771
2.5	5.6	4.2	84	12.0	1,150
2.7	12.0	5.0	150	13.0	1,390
2.9	18	6.2	267	13.8	1,630
3.5	42	7.8	454		

Note.- Same as preceding table above 13.1 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	5.7	1,810	4,150	523	1,150	782	3,060	83	43	106	2.0
2	.4	3.9	1,680	4,260	753	1,160	k890	3,300	65	38	134	1.7
3	.4	2.6	1,560	4,560	919	1,130	k1,920	3,520	55	35	158	2.2
4	.4	2.2	1,500	4,450	k1,360	1,080	k2,630	3,410	56	31	169	3.3
5	.4	2.2	1,450	3,990	k1,750	1,040	2,880	k4,800	72	26	167	2.8
6	.4	2.2	1,420	3,430	1,830	k1,160	2,820	k6,130	106	23	122	2.3
7	.8	2.2	1,490	2,900	1,810	k1,630	2,480	7,250	152	19	81	9.1
8	.8	2.2	1,510	2,460	1,720	k2,840	k2,010	6,980	192	16	52	11
9	.8	6.6	1,480	2,150	1,580	k3,970	k1,730	k6,560	185	15	35	9.1
10	.6	38	1,440	1,900	1,450	4,030	1,540	5,300	188	15	26	8.8
11	.5	54	1,400	1,670	1,350	3,700	1,330	5,080	241	15	20	6.8
12	.5	71	1,380	1,490	1,290	3,800	1,160	4,680	391	17	16	5.6
13	.5	88	1,460	1,330	1,280	4,160	1,070	k3,720	454	26	13	4.7
14	.5	94	1,430	1,210	1,250	3,910	997	k3,060	337	49	11	4.0
15	.6	124	1,420	1,140	1,200	3,400	960	k2,440	201	204	10	3.5
16	.6	180	1,460	1,070	1,120	2,820	919	k2,040	206	392	13	3.0
17	.6	236	1,500	992	1,000	2,370	869	k1,760	299	459	15	2.8
18	.6	287	1,600	919	904	2,080	815	k1,490	391	404	14	2.3
19	.6	321	1,740	828	816	1,810	757	1,330	459	313	11	2.3
20	.5	332	1,820	733	816	1,620	703	1,140	460	238	8.5	2.2
21	.5	326	1,840	640	750	1,460	610	950	403	275	6.5	1.9
22	.5	309	1,840	562	704	1,300	490	733	429	402	5.6	1.6
23	.6	643	1,840	512	674	1,230	424	479	488	614	5.1	1.6
24	.6	871	1,820	494	700	1,190	600	288	457	676	4.7	3.5
25	.6	k1,440	1,790	486	747	1,190	k954	143	350	584	4.2	4.9
26	.8	1,660	k2,040	496	841	1,180	k1,530	102	224	436	3.8	3.5
27	1.0	1,820	k3,120	501	966	1,150	1,640	80	134	321	3.3	3.0
28	1.1	1,900	k4,970	520	1,060	1,090	1,670	68	90	181	3.0	2.8
29	1.8	1,920	5,390	529	-	974	k2,530	118	63	92	3.8	2.7
30	1.8	1,890	k4,620	525	-	862	2,870	108	50	59	3.1	2.8
31	3.4	-	k3,910	510	-	805	-	88	-	72	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	23.8	3.4	0.4	0.77	0.0015	0.002	47
November	14,633.8	1,920	2.2	488	.948	1.06	29,030
December	63,730	5,390	1,380	2,056	3.99	4.60	126,400
Calendar year 1940	264,686.9	12,100	.4	723	1.40	19.11	525,000
January	51,407	4,560	486	1,658	3.22	3.71	102,000
February	31,183	1,830	523	1,114	2.16	2.25	61,850
March	61,291	4,160	805	1,977	3.84	4.43	121,600
April	42,580	2,980	424	1,419	2.76	3.07	84,460
May	79,177	7,250	68	2,554	4.96	5.72	157,000
June	7,271	488	50	242	.470	.53	14,420
July	6,090	676	15	196	.381	.44	12,080
August	1,227.1	169	2.5	39.6	.077	.09	2,430
September	117.8	11	1.6	3.93	.0076	.009	234
Water year 1940-41	358,731.5	7,250	.4	983	1.91	25.91	711,600

k Computed by using rate of change of stage as a factor.

Bayou Dorcheat near Minden, La.

Location.- Water-stage recorder, lat. 32°36', long. 93°20', in SE¼ sec. 30, T. 19 N., R. 9 W., Louisiana meridian, at bridge on U. S. Highway 80, three-quarters of a mile upstream from Louisiana & Arkansas R.R. bridge and 3 miles west of Minden. Datum of gage is 133.75 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,090 square miles.

Records available.- July 1928 to September 1929, October 1938 to September 1941 in reports of Geological Survey. October 1929 to September 1931, December 1935 to September 1938, in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 16,000 second-feet May 8 (gage height, 19.63 feet); minimum discharge, 2 second-feet on many days in October; minimum gage height, 2.03 feet Sept. 23, 30.
1928-29, 1938-41: Maximum discharge, that of May 8, 1941; minimum, 1 second-foot Aug. 19, and on many days in October 1939.
Maximum stage known, 22.95 feet May 21, 1930 (discharge, 63,000 second-feet, estimated).

Remarks.- Records good above 20 second-feet, fair below.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	4	2,880	11,700	1,640	2,300	1,680	2,820	415	145	208	12
2	12	4	2,880	12,700	1,880	2,350	1,600	3,490	445	121	220	12
3	12	4	2,820	13,000	2,200	2,400	1,880	3,700	415	100	196	12
4	12	4	2,820	12,000	2,400	2,400	2,250	3,560	350	91	177	12
5	12	4	2,820	10,400	2,500	2,450	2,500	5,070	290	83	154	12
6	12	4	2,820	8,650	2,650	2,600	2,940	10,200	231	83	196	13
7	12	4	3,120	7,110	2,880	3,630	3,770	15,000	229	74	325	12
8	10	4	3,420	6,150	3,000	4,350	4,590	16,000	231	61	490	12
9	8	4	3,490	5,350	3,060	5,350	5,130	14,700	222	52	620	12
10	8	4	3,360	4,690	3,060	5,790	5,020	13,200	211	45	585	11
11	6	35	3,180	4,200	3.120	6,020	4,590	11,200	325	80	400	12
12	5	67	3,300	3,840	3,120	6,940	4,120	9,450	475	137	238	12
13	4	98	3,560	3,490	3,000	8,050	3,630	7,850	445	192	146	12
14	3	129	3,700	3,240	2,820	7,850	3,120	6,440	555	445	100	14
15	3	160	3,840	3,000	2,550	6,940	2,650	5,460	702	538	79	13
16	3	160	4,050	2,760	2,250	5,900	2,300	4,690	1,080	720	67	13
17	3	180	4,270	2,500	1,960	5,020	2,000	4,120	1,440	855	58	13
18	3	210	4,420	2,250	1,680	4,200	1,780	3,560	1,120	890	48	13
19	3	240	4,500	2,040	1,410	3,630	1,570	3,060	855	755	43	12
20	4	260	4,590	1,880	1,680	3,180	1,440	2,500	825	620	37	12
21	3	280	4,590	1,740	2,000	2,820	1,180	2,000	920	490	31	12
22	2	280	4,500	1,600	2,160	2,500	920	1,680	955	388	28	11
23	2	702	4,350	1,540	2,120	2,200	738	1,480	920	532	24	11
24	2	1,680	4,050	1,680	2,200	2,000	855	1,310	772	985	22	11
25	2	2,080	3,770	1,740	2,350	1,880	1,050	1,150	585	1,280	19	12
26	2	2,250	3,910	1,740	2.350	1,780	1,240	1,020	430	1,380	16	13
27	2	2,450	5,460	1,820	2,300	1,680	1,440	872	290	1,180	15	12
28	2	2,650	8,250	1,850	2,300	1,500	1,680	738	228	668	13	12
29	2	2,760	10,200	1,820	-	1,540	1,880	668	183	290	13	11
30	2	2,820	10,700	1,740	-	1,500	2,200	570	159	193	12	11
31	2	-	10,700	1,680	-	1,540	-	475	-	169	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	170	12	2	5.5	0.0050	0.006	337
November	19,531	2,820	4	651	.597	.67	38,740
December	140,320	10,700	2,820	4,526	4.15	4.79	278,300
Calendar year 1940	392,577	10,700	2	1,073	.984	13.41	778,600
January	139,900	13,000	1,540	4,513	4.14	4.77	277,500
February	66,640	3,120	1,410	2,380	2.18	2.27	132,200
March	112,390	8,050	1,500	3,625	3.33	3.83	222,900
April	71,743	5,130	738	2,391	2.19	2.45	142,300
May	158,033	16,000	475	5,098	4.68	5.39	313,500
June	16,301	1,440	159	543	.498	.56	32,330
July	13,642	1,380	45	440	.404	.47	27,060
August	4,592	620	12	148	.136	.16	9,110
September	362	14	11	12.1	.011	.01	718
Water year 1940-41	743,624	16,000	2	2,037	1.87	25.38	1,475,000

Note.- Stage-discharge relation indefinite Oct. 1 to Nov. 14; discharge computed on basis of four discharge measurements, gage-heights, record of operation of gravel digger, weather records, and records for nearby streams.

Cypress Bayou near Keithville, La.

Location.- Water-stage recorder, lat. 32°18', long. 93°50', in SW¼ sec. 8, T. 15 N., R. 14 W., Louisiana meridian, at bridge on U. S. Highway 171 immediately downstream from Texas & Pacific R. R. bridge, 2 miles south of Keithville, and 6 miles upstream from confluence with Boggy Batou. Datum of gage is 162.13 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 60 square miles.

Records available.- November 1938 to September 1941.

Extremes.- Maximum discharge during year, 8,050 second-feet Dec. 27 (gage height, 11.55 feet); no flow Oct. 10-27.
1938-41: Maximum discharge, that of Dec. 27, 1940; no flow for long periods. Maximum stage known, 18.0 feet, from 1933 floodmark.

Remarks.- Records fair.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to June 17

0.6	0	1.7	4.8	6.4	214	9.3	770
.9	.3	1.9	7.4	7.3	285	9.6	1,020
1.1	.8	2.3	15	8.3	389	9.8	1,320
1.3	1.6	3.4	44	8.6	450	10.0	1,850
1.5	3.0	4.2	78	8.9	550	11.0	5,850

June 18 to Sept. 30

1.2	0.2	2.4	12
1.4	.5	3.2	36
1.6	2.0	4.1	73
1.8	3.4	5.0	126
2.0	5	6.4	214
2.2	8		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	2.0	34	836	16	41	123	6.7	18	5	2.3	0.4
2	.2	8.2	58	2,190	318	34	37	7.6	13	3.9	2.0	.4
3	.2	3.0	34	427	474	32	157	6.8	10	3.2	3.0	.3
4	.1	1.3	22	132	111	29	147	28	6.7	9	74	.2
5	.1	.7	17	66	50	24	38	2,760	4.4	8	8	.4
6	.1	.5	14	46	40	167	24	2,280	4.8	3.6	3.4	.4
7	.1	.3	2,360	35	52	2,220	54	869	2,500	2.9	3.1	.5
8	.1	.3	1,610	30	41	808	15	132	1,370	2.4	3.2	.4
9	.1	.5	225	26	28	212	12	36	119	1.9	3.0	.4
10	0	1.4	66	23	21	89	11	43	48	1.7	2.4	.4
11	0	12	50	20	18	48	10	60	1,650	1.6	1.9	.5
12	0	21	588	20	17	33	9	26	821	2.8	1.6	.7
13	0	8.2	930	19	16	29	9	16	81	54	1.5	.7
14	0	3.2	442	39	15	25	8.4	11	25	203	1.5	.4
15	0	1.7	185	147	12	22	7.6	8.5	27	80	1.4	.4
16	0	1.3	773	89	11	23	7.3	7.4	313	26	1.2	.3
17	0	1.0	303	84	11		7.6	6.8	1,240	6	1.0	.3
18	0	.8	76	40	11		7.9	6.3	216	3.9	1.2	.2
19	0	.7	73	26	18		7.4	5.9	35	39	1.6	.2
20	0	.5	73	20	1,150		8.8	5.5	23	119	1.0	.4
21	0	.8	48	19	684		9	4.8	28	17	.8	.4
22	0	1.0	35	19	150		7.0	4.3	10	5	.8	.3
23	0	2,840	29	19	120	a45	6.8	4.1	6	3.3	1.2	.2
24	0	6,250	25	115	695		10	3.6	4.6	2.4	3.0	.8
25	0	2,710	23	123	795		12	3.3	4.0	2.1	1.3	3.9
26	0	828	669	52	188		8.0	3.2	4.0	206	1.0	5
27	0	284	5,850	42	102		6.4	2.9	5	214	.8	3.6
28	.1	58	1,530	28	58		5.4	3.2	125	29	.7	2.1
29	.1	33	259	21	-		5.3	13	50	6	.6	1.5
30	.1	26	86	19	-	13	5.6	60	14	3.7	.7	1.2
31	.4	-	52	17	-	70	-	26	-	2.8	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1.9	0.4	0	0.06	0.0010	0.001	3.8
November	13,099.4	6,250	.3	437	7.28	8.12	25,980
December	16,539	5,850	14	534	8.90	10.25	32,800
Calendar year 1940	50,126.3	6,250	0	137	2.28	31.07	99,430
January	4,789	2,190	17	154	2.57	2.97	9,500
February	5,222	1,150	11	186	3.10	3.24	10,360
March	4,504	2,220	13	145	2.42	2.79	8,930
April	776.5	157	5.3	25.9	.432	.48	1,540
May	6,450.9	2,760	2.9	208	3.47	4.00	12,800
June	8,775.5	2,500	4.0	293	4.88	5.44	17,410
July	1,068.2	214	1.6	34.5	.575	.66	2,120
August	129.7	74	.5	4.18	.070	.08	257
September	26.9	5	.2	.90	.015	.02	53
Water year 1940-41	61,383.0	6,250	0	168	2.80	38.05	121,800

a No gage-height record; discharge computed on basis of records for Boggy Bayou near Keithville, La.

Boggy Bayou near Keithville, La.

Location.- Staff gage, lat. 32°23', long. 93°50', in SE¼ sec. 17, T. 16 N., R. 14 W., Louisiana meridian, at bridge on U. S. Highway 171, 3 miles north of Keithville and 5 miles upstream from confluence with Cypress Bayou. Datum of gage is 145.13 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 108 square miles.
Records available.- December 1938 to September 1941.
Extremes.- Maximum discharge during year, 8,290 second-feet Dec. 27 (gage height, 18.95 feet); no flow on many days.
1938-41: Maximum discharge, 8,290 second-feet Feb. 3, 1939, and Dec. 27, 1940; maximum gage height observed, 19.0 feet Feb. 3, 1939; no flow for long periods.
Maximum stage known, 26.7 feet from 1933 floodmark.
Remarks.- Records fair above 20 second-feet, poor below. Gage read twice daily.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41, except day when changing discharge affected stage-discharge relation (gage height, in feet, and discharge, in second-feet)

9.0	0	11.0	35	15.3	345	16.8	1,590
9.5	5	12.0	74	15.6	450	17.2	2,530
10.0	10	12.6	105	15.9	590	18.0	5,090
10.2	13	14.2	212	16.2	800	19.0	8,290
10.6	22	15.0	285	16.5	1,110		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		5	50	1,690	42	70	78	8	17	28	2	0
2		13	105	3,220	541	50	54	20	10	13	2	0
3		8	74	780	722	42	105	16	8	10	2	2
4		4	42	301	291	37	157	34	8	12	3	6
5		2	30	144	118	30	62	3,090	7	10	2	7
6		2	28	88	74	131	28	2,920	10	8	2	4
7		1	4,250	66	78	2,140	20	990	266	7	2	1
8		1	3,200	54	70	1,280	17	300	565	6	2	1
9		1	651	44	44	460	14	105	363	5	2	0
10		2	212	37	34	184	12	412	300	5	3	0
11		3	118	32	26	83	11	540	1,780	4	4	0
12		8	325	28	24	50	10	124	915	4	3	0
13		8	1,640	30	22	42	10	40	226	9	2	0
14		6	1,100	37	20	35	9	20	50	50	1	0
15		4	470	83	18	30	8	15	28	32	1	0
16		3	990	99	16	28	e	12	145	34	0	0
17		2	587	83	15	26	8	11	428	25	0	0
18		2	228	58	15	22	8	10	311	10	0	0
19		2	170	34	25	19	8	9	74	12	0	0
20		2	131	25	2,050	32	8	8	35	20	0	0
21		2	88	22	3,530	111	8	8	150	50	0	0
22		10	66	22	410	83	8	7	118	54	0	0
23		k1,560	50	26	212	58	8	7	48	12	0	0
24		5,730	40	93	847	99	10	6	19	7	2	1
25		3,650	36	198	1,050	70	20	5	12	8	4	5
26		1,410	762	220	415	44	12	5	9	58	2	20
27		633	6,370	184	184	32	8	5	13	25	1	20
28		212	2,400	83	105	25	7	5	228	8	0	7
29		83	600	50	-	20	6	14	392	5	0	4
30		50	220	39	-	17	6	70	163	3	0	3
31		-	124	34	-	26	-	42	-	3	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	0	0	0	0	0	0	0
November	13,419	5,730	1	447	4.14	4.62	26,620
December	25,157	6,370	28	812	7.52	8.66	49,900
Calendar year 1940	60,210	6,370	0	165	1.53	20.73	119,400
January	7,904	3,220	22	255	2.36	2.72	15,680
February	10,998	3,530	15	393	3.64	3.79	21,810
March	5,376	2,140	17	173	1.60	1.85	10,660
April	728	157	6	24.3	.225	.25	1,440
May	8,858	3,090	5	286	2.65	3.05	17,570
June	6,698	1,780	7	223	2.06	2.31	13,290
July	537	58	3	17.3	.160	.18	1,070
August	42	4	0	1.4	.013	.01	83
September	81	20	0	2.7	.025	.03	161
Water year 1940-41	79,79e	6,370	0	219	2.03	27.47	158,300

k Stage-discharge relation affected by changing stage; discharge shown is result of discharge measurement.

Saline Bayou near Lucky, La.

Location.- Wire-weight gage, lat. 32°15', long. 92°59', in SW¼SW¼ sec. 27, T. 15 N., R. 6 W., Louisiana meridian, at bridge on State Highway 99½, a third of a mile downstream from Six Mile Creek and 1 mile east of Lucky.
Drainage area.- 157 square miles.
Records available.- June 1940 to September 1941.
Extremes.- 1940: Maximum discharge observed during period June to September, 4,080 second-feet June 18 (gage height, 9.35 feet); minimum discharge, 12 second-feet Sept. 12-20; minimum gage height, 2.22 feet Sept. 14, 20.
1940-41: Maximum discharge during water year, 5,070 second-feet May 6 (gage height, 9.84 feet, from graph based on gage readings); minimum, 13 second-feet Oct. 2-6, 10-13; minimum gage height, 2.28 feet Oct. 5, 6, 15, 21, 22.
Remarks.- Records fair. Gage read twice daily.

Discharge, in second-feet, 1940-41

1940

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	110	104	24	11	172	88	500	13	21	920	355	101	13
2	-	148	92	21	12	204	136	455	13	22	684	300	51	15
3	-	134	108	23	13	106	197	348	12	23	500	198	33	15
4	-	155	180	19	14	50	487	205	12	24	314	135	26	39
5	-	226	165	18	15	71	1,460	111	12	25	176	97	24	36
6	-	289	90	17	16	1,040	1,030	69	13	26	106	60	22	24
7	-	300	53	16	17	3,320	641	50	13	27	67	36	21	17
8	-	209	54	16	18	3,540	455	44	12	28	55	30	23	16
9	-	165	410	15	19	2,530	365	61	12	29	66	28	31	15
10	89	121	623	15	20	1,300	386	112	12	30	74	110	37	14
										31	-	174	31	-

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	42	340	730	120	355	234	59	72	38	16	20
2	13	35	234	845	217	272	279	66	59	42	15	53
3	13	29	203	875	352	236	379	59	43	150	203	63
4	13	24	192	1,050	393	214	473	61	33	130	383	39
5	13	21	165	860	417	195	450	740	27	140	311	31
6	13	23	142	653	422	202	430	3,520	24	116	242	26
7	15	24	266	503	337	560	351	2,960	69	54	242	26
8	15	23	752	361	247	800	245	1,250	155	37	270	23
9	14	26	862	268	198	1,180	242	786	100	29	197	30
10	13	79	1,020	222	167	950	230	605	59	24	116	42
11	13	135	736	193	145	698	169	438	175	23	68	46
12	13	150	622	173	131	530	132	379	190	28	46	30
13	13	115	965	160	123	363	108	314	178	46	34	24
14	13	72	1,300	153	118	282	91	213	104	87	28	22
15	13	47	1,160	160	111	242	78	146	113	87	27	23
16	13	35	895	217	104	220	69	106	230	67	28	27
17	13	31	690	293	98	207	64	84	329	49	27	25
18	13	29	525	288	95	197	61	72	348	33	28	22
19	13	28	445	250	95	180	59	62	270	25	24	21
20	13	28	356	180	426	184	59	53	161	23	24	20
21	13	28	290	148	772	256	64	46	96	22	23	18
22	13	36	258	135	793	287	75	40	75	23	21	18
23	13	425	220	131	852	295	85	35	67	23	21	17
24	14	1,640	188	142	737	270	106	31	59	21	23	27
25	14	1,520	172	152	623	222	142	28	42	22	22	61
26	14	1,750	331	153	530	194	130	25	33	22	20	66
27	15	1,300	1,700	165	482	169	97	24	29	24	20	36
28	15	925	3,860	169	442	152	59	25	33	30	19	27
29	16	664	2,210	156	-	137	46	54	39	21	23	23
30	16	475	1,240	131	-	123	41	79	64	18	20	22
31	23	-	890	120	-	141	-	83	-	17	19	-

Monthly discharge, in second-feet, 1940-41

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
June 10-30, 1940	15,384	3,540	50	733	4.67	3.64	30,510
July	8,627	1,460	28	278	1.77	2.04	17,110
August	4,234	623	21	137	.873	1.00	8,400
September	512	39	12	17.1	.109	.12	1,020
The period	-	-	-	-	-	-	57,040
October 1940	432	23	13	13.9	0.089	0.10	857
November	9,759	1,750	21	325	2.07	2.31	19,360
December	23,429	3,860	142	756	4.82	5.55	46,470
Calendar year	-	-	-	-	-	-	-
January 1941	10,046	1,050	120	324	2.06	2.38	19,930
February	9,547	852	95	341	2.17	2.26	18,940
March	10,333	1,160	123	333	2.12	2.45	20,500
April	5,040	473	41	168	1.07	1.19	10,000
May	12,443	3,520	24	401	2.55	2.95	24,680
June	3,266	348	24	109	.694	.77	6,480
July	1,471	150	17	47.5	.303	.35	2,920
August	2,560	383	15	82.6	.526	.61	5,080
September	928	66	17	30.9	.197	.22	1,840
Water year 1940-41	89,254	3,860	13	245	1.56	21.14	177,100

Black Lake Bayou near Castor, La.

Location.- Wire-weight gage, lat. 32°16', long. 93°13', in NW¼ sec. 20, T. 15 N., R. 8 W., Louisiana meridian, at bridge on State Highway 417, 1 mile downstream from Brookish Bayou, 3 miles northwest of Castor and 7 miles southeast of Ringgold.

Drainage area.- 429 square miles.

Records available.- May 1940 to September 1941.

Extremes.- Maximum discharge during year, 11,300 second-feet May 8 (gage height, 12.17 feet); minimum, 17 second-feet Oct. 22 (gage height, 2.28 feet, from graph based on gage readings).
1940-41: Maximum discharge, that of May 8, 1941; minimum, that of Oct. 22, 1940.

Remarks.- Records good. Gage read twice daily.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 30				Dec. 31 to Sept. 30			
2.4	18	7.3	555	2.9	31	6.0	236
3.0	30	7.7	770	3.4	45	6.4	312
3.6	55	8.3	1,210	3.8	61	5.8	420
4.4	85	9.0	1,850	4.4	93	7.4	655
5.2	136	10.0	2,990	5.0	133	7.9	915
5.8	185	10.5	3,760	5.6	185	8.3	1,210
6.2	232	11.0	4,960				
6.5	287	11.5	6,700	Note.- Same as preceding table above 8.1 feet.			
6.9	400	12.0	9,550				

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	38	1,970	3,220	833	1,070	417	176	190	217	111	34
2	23	61	1,630	2,760	833	987	462	159	185	201	91	38
3	20	62	1,360	2,660	903	903	578	155	168	202	105	49
4	21	49	1,160	4,950	915	800	750	172	146	514	392	82
5	21	40	975	4,470	928	715	885	1,280	125	586	646	93
6	20	37	856	2,980	1,000	686	994	2,960	104	538	730	80
7	21	40	1,100	2,200	1,130	980	1,020	5,370	107	498	800	96
8	21	47	1,650	1,750	1,160	1,360	1,040	9,500	147	455	903	101
9	21	51	1,670	1,470	1,080	1,510	980	4,780	149	298	891	81
10	20	76	1,530	1,240	922	2,150	844	2,890	140	167	720	92
11	20	139	1,520	1,060	811	2,520	682	2,130	184	122	554	95
12	20	176	2,080	928	720	2,080	646	1,670	324	118	402	80
13	18	175	2,430	828	637	1,590	452	1,380	434	208	266	88
14	19	162	2,290	755	570	1,400	379	1,110	483	357	185	100
15	18	145	2,060	720	510	1,150	317	855	570	455	151	79
16	18	126	2,090	760	452	980	274	668	725	558	139	71
17	18	107	2,170	800	430	867	242	502	833	594	120	65
18	18	90	2,040	800	396	750	226	368	855	554	103	56
19	19	79	1,880	770	390	673	211	290	785	476	89	45
20	19	71	1,670	756	822	642	203	242	745	379	78	40
21	18	70	1,470	730	1,380	673	216	211	725	308	73	37
22	18	83	1,310	673	1,270	678	249	185	682	233	68	34
23	18	1,130	1,150	602	1,270	655	290	164	530	203	64	31
24	18	3,070	1,010	546	1,480	664	322	146	362	256	68	38
25	18	3,150	905	522	1,710	673	331	129	329	362	55	85
26	19	2,620	1,180	530	1,620	650	344	115	270	408	56	132
27	18	2,470	2,600	637	1,400	594	362	104	208	462	49	119
28	19	2,780	3,090	800	1,220	518	359	101	183	498	47	80
29	20	2,760	5,130	960	-	466	294	141	166	448	44	57
30	21	2,310	6,970	1,000	-	414	216	192	185	244	40	46
31	21	-	4,140	954	-	396	-	194	-	147	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	607	24	18	19.6	0.046	0.05	1,200
November	22,214	3,150	37	740	1.72	1.93	44,060
December	63,096	6,970	856	2,035	4.74	5.47	125,100
Calendar year	-	-	-	-	-	-	-
January	43,830	4,950	522	1,414	3.30	3.80	86,940
February	26,782	1,710	390	956	2.23	2.32	53,120
March	30,284	2,520	396	977	2.28	2.63	60,070
April	14,485	1,040	203	483	1.13	1.26	28,730
May	38,339	9,500	101	1,237	2.88	3.32	76,040
June	11,039	856	104	368	.858	.96	21,900
July	11,066	594	118	357	.832	.96	21,950
August	8,085	903	36	261	.608	.70	16,040
September	2,124	132	31	70.8	.165	.18	4,210
Water year 1940-41	271,951	9,500	18	745	1.74	23.58	539,400

Ouachita River near Mountain Pine, Ark.

Location.- Water-stage recorder, lat. 34°36', long. 93°12', in NW¼NW¼ sec. 1, T. 2 S., R. 21 W., three-quarters of a mile downstream from Mill Creek, 2 miles downstream from Blakely Creek, and 4 miles northwest of Mountain Pine. Datum of gage is 404.29 feet above mean sea level (unadjusted).

Drainage area.- 1,100 square miles.

Records available.- June 1936 to September 1941.

Extremes.- Maximum discharge during year, 31,300 second-feet Nov. 23 (gage height, 20.10 feet); minimum, 36 second-feet Oct. 22 (gage height, 2.56 feet).
1936-41: Maximum discharge, 94,900 second-feet Apr. 17, 1939 (gage height, 34.54 feet); minimum, 11 second-feet Sept. 14, 1936 (gage height, 2.06 feet).
Maximum stage known, about 37 feet in May 1923 (discharge, 109,000 second-feet).

Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 28

2.5	29	4.0	396	S.0	4,280
2.7	52	4.4	589	10.0	7,260
2.9	82	5.0	956	12.0	10,800
3.1	119	5.5	1,320	15.0	17,400
3.3	164	6.0	1,770	18.0	25,100
3.6	249	7.0	2,920		

Nov. 29 to Sept. 30

2.9	S3	4.5	700
3.1	125	5.0	1,020
3.4	207	5.5	1,400
3.7	311	6.0	1,850
4.0	435	7.0	2,940

Note.- Same as preceding table above 7.2 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	86	1,320	565	1,320	2,580	530	2,880	204	186	370	220
2	53	82	1,060	738	2,140	2,150	604	3,240	772	169	338	204
3	53	79	850	1,660	5,910	1,850	4,710	2,150	1,240	166	292	180
4	50	74	748	1,620	7,730	1,570	2,100	1,660	1,320	268	239	150
5	47	72	640	1,280	4,710	1,320	1,360	1,400	980	820	223	204
6	46	74	618	1,060	3,060	1,480	1,090	4,420	712	440	304	868
7	47	74	585	880	2,250	2,050	950	6,360	550	307	217	1,280
8	47	72	629	790	1,800	2,360	1,090	4,420	450	236	166	680
9	46	86	585	688	1,440	2,250	1,120	3,720	394	201	138	640
10	44	132	535	618	1,240	1,950	1,020	3,060	603	166	121	1,020
11	42	589	495	555	1,090	1,660	920	2,000	5,540	164	105	676
12	42	463	975	510	950	1,400	820	1,480	5,760	166	93	465
13	41	400	3,860	470	1,090	1,240	718	1,160	2,820	213	87	362
14	40	458	3,580	445	1,800	1,090	646	950	1,660	233	103	296
15	39	351	2,580	525	1,620	1,090	618	790	1,160	246	112	256
16	38	279	3,720	760	1,240	1,200	602	688	920	304	103	223
17	38	237	5,460	1,160	1,060	1,240	602	596	754	315	91	198
18	37	207	3,720	1,120	950	1,120	790	525	624	246	83	172
19	38	185	2,700	950	880	980	3,800	470	530	264	107	158
20	37	167	2,200	820	1,400	880	4,420	422	445	296	267	142
21	37	167	1,800	730	2,760	820	2,880	382	399	354	270	125
22	37	342	1,440	730	2,760	790	2,050	346	382	327	370	114
23	37	25,100	1,200	1,550	2,470	718	2,860	315	350	366	573	103
24	37	10,300	1,060	4,000	2,700	688	6,660	300	319	350	530	1,090
25	38	4,560	920	4,000	3,580	646	6,060	270	281	274	370	6,210
26	38	6,360	820	3,580	4,140	607	3,440	242	253	220	278	3,310
27	39	7,260	754	3,180	4,000	585	2,360	233	260	177	242	1,660
28	42	4,420	694	2,580	3,310	575	1,800	220	270	148	1,100	1,020
29	71	2,420	652	2,000	-	580	1,440	210	239	155	580	724
30	69	1,700	634	1,660	-	590	1,400	207	207	145	354	565
31	66	-	612	1,440	-	560	-	204	-	189	270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	1,386	71	37	44.7	0.041	0.05	2,750
November	66,796	25,100	72	2,227	2.02	2.26	132,500
December	47,446	5,460	495	1,531	1.39	1.60	94,110
Calendar year 1940	341,207	25,100	37	932	.847	11.53	676,800
January	42,664	4,000	445	1,376	1.25	1.44	84,620
February	69,400	7,730	880	2,479	2.25	2.35	137,700
March	38,619	2,580	560	1,246	1.13	1.31	76,600
April	59,460	6,660	530	1,982	1.80	2.01	117,900
May	45,320	6,360	204	1,462	1.33	1.53	89,890
June	30,398	5,760	204	1,013	.921	1.03	60,290
July	8,111	820	145	262	.238	.27	16,090
August	8,496	1,100	83	274	.249	.29	16,850
September	23,515	6,210	103	784	.713	.80	46,640
Water year 1940-41	441,611	25,100	37	1,210	1.10	14.94	875,940

Ouachita River near Malvern, Ark.

Location.- Water-stage recorder, lat. 34°23', long. 52°51', in NW¼ sec. 16, T. 4 S., R. 17 W., at Rockport Bridge, 2 miles northwest of Malvern and 6 miles downstream from Remmel Dam. Datum of gage is 227.83 feet above mean sea level, adjustment of 1912.

Drainage area.- 1,570 square miles.

Records available.- March 1903 to April 1905, June 1922 to September 1924, March 1937 to September 1941. January 1925 to March 1937, at site at Remmel Dam, 6 miles upstream, published as Ouachita River at Remmel Dam, near Malvern, Ark.

Extremes.- Maximum discharge during year, 16,500 second-feet Nov. 23, May 6 (gage height, 13.7 feet); minimum, 59 second-feet, Aug. 25, 26, 31 (gage height, 0.70 foot); minimum daily, 83 second-feet Aug. 10.
1903-5, 1922-24, 1937-41: Maximum discharge, 140,000 second-feet May 15, 1923 (gage height, 30.3 feet); minimum observed, 40 second-feet Dec. 18-20, 1904.

Remarks.- Records good. Flow regulated by power plants above station.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

0.7	59	2.0	375	5.0	2,110	10.0	8,700
.8	73	2.5	555	6.0	3,000	12.0	12,700
1.0	105	3.0	770	7.0	4,060		
1.2	150	3.5	1,030	8.0	5,360		
1.5	225	4.0	1,340	9.0	6,910		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	448	1,250	2,640	2,910	2,250	2,820	1,550	2,640	111	356	241	110
2	755	909	2,820	2,640	2,550	2,550	1,400	3,310	964		95	214
3	1,070	358	2,910	2,510	3,000	2,820	1,430	2,520	651		112	755
4	576	980	2,910	2,130	3,100	2,820	1,400	1,940	484		244	884
5	648	1,020	2,910	613	3,500	2,820	1,350	3,480	1,000	a256	312	1,100
6	165	860	2,910	2,000	3,500	5,270	464	10,700	780		296	974
7	485	995	3,200	2,290	3,500	3,200	1,260	10,250	1,110		266	232
8	701	1,250	2,550	2,810	2,820	3,100	1,990	8,510	536	346	254	698
9	661	1,240	2,910	2,300	2,460	2,550	1,990	5,180	1,130	305	128	1,200
10	785	471	3,000	2,220	2,820	2,820	2,030	1,990	1,250	282	83	967
11	1,380	712	3,000	2,050	2,910	2,820	1,990	1,910	4,870	86	357	613
12	1,270	635	2,910	663	2,910	2,910	1,990	3,400	5,350	147	391	1,140
13	347	787	2,910	1,500	2,820	2,910	1,550	2,030	4,180	131	454	534
14	696	522	2,910	1,840	2,820	2,820	1,870	2,030	2,460	970	173	89
15	971	491	2,910	1,600	2,820	3,000	2,030	2,030	1,670	670	333	1,120
16	560	442	3,000	1,690	2,460	2,550	2,030	2,030	2,030	630	84	859
17	1,130	209	3,000	1,590	2,910	2,820	2,110	1,910	1,680	624	105	1,290
18	1,040	557	3,000	1,110	2,910	2,910	1,990	1,440	202	654	239	1,520
19	953	932	3,000	450	2,910	2,910	2,030	848	122	207	85	1,350
20	334	937	2,910	976	2,910	2,820	1,410	559	269	170	115	936
21	782	660	2,820	1,530	2,820	2,820	1,450	453	290	551	109	232
22	677	616	2,640	1,450	2,820	2,730	2,020	421	384	339	112	345
23	895	6,980	2,910	1,470	2,550	2,280	3,550	449	599	561	112	340
24	943	6,740	2,730	2,110	2,910	2,360	3,200	243	680	640	115	1,580
25	1,190	4,190	2,550	1,170	2,910	2,100	2,640	120	704	452	108	1,560
26	1,310	11,400	3,000	2,380	3,500	2,110	3,500	266	646	331	115	2,820
27	428	4,360	3,000	2,160	3,500	2,140	2,280	231	623	149	113	2,820
28	1,400	4,550	2,820	2,070	3,200	1,600	2,110	250	184	345	424	2,024
29	1,080	3,190	2,280	2,270	-	865	2,730	132	87	486	716	2,820
30	968	4,170	2,730	2,390	-	386	2,730	270	433	190	595	2,530
31	1,850	-	3,000	2,480	-	1,270	-	182	-	238	217	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26,498	1,850	165	855	52,560
November	62,413	11,400	209	2,080	123,800
December	88,790	3,200	2,280	2,864	176,100
Calendar year 1940	474,798	18,400	134	1,297	941,700
January	57,572	2,910	450	1,857	114,200
February	82,090	3,500	2,250	2,932	162,800
March	79,901	5,270	386	2,577	158,500
April	60,074	3,550	464	2,002	119,200
May	71,724	10,700	120	2,314	142,300
June	35,479	5,350	87	1,183	70,370
July	11,396	970	86	368	22,600
August	7,103	716	83	229	14,090
September	33,656	2,820	89	1,122	66,760
Water year 1940-41	616,696	11,400	83	1,690	1,223,000

a No gage-height record; discharge computed on basis of power plant records for Remmel Dam furnished by Arkansas Power & Light Co.

Ouachita River at Monroe, La.

Location.- Wire-weight gage, lat. 32°30', long. 92°07', in T. 18 N., R. 3 E., Louisiana meridian, at bridge on U. S. Highway 80 at Monroe, 0.4 mile upstream from Illinois Central R. R. bridge and 5½ miles upstream from lock and dam 4. Datum of gage is 31.46 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 15,400 square miles.

Records available.- October 1938 to September 1941 in reports of Geological Survey. 1884 to 1891 (gage heights), 1892 to 1927 (gage heights and discharge observations) and January 1928 to September 1941 (daily discharges) in reports of Mississippi River Commission. Discharge observations 1929-38 in reports of Corps of Engineers, U. S. Army. Daily gage heights since June 1884 in reports of Weather Bureau.

Extremes.- Maximum discharge during year, 40,400 second-feet March 17-20 (from loop rating curve); maximum gage height, 31.2 feet Jan. 9; minimum discharge not determined (pool stage); minimum gage height observed, 13.2 feet July 23.

1938-41: Maximum discharge, 60,800 second-feet Mar. 8-11, 1939 (from loop rating curve); maximum gage height, 41.3 feet Mar. 12-15, 1939; minimum discharge not determined (pool stage); minimum gage height observed, 13.08 feet June 22, 1939.

Maximum stage known, 49.7 feet Feb. 2, 3, 1932 (discharge, 101,000 second-feet, estimated).

Remarks.- Records fair above 10,000 second-feet, poor below. Stage-discharge relation below a gage-height of about 15 feet affected by operation of lock and dam 4. Gage read once daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	19,300	31,300	23,800	27,600	36,100	23,100	24,400	3,940	3,290	578
2	-	-	19,600	32,300	23,800	27,600	35,300	23,600	22,900	3,750	3,100	942
3	-	-	20,000	33,600	24,600	27,600	34,500	24,200	21,100	3,550	2,950	1,450
4	†480	-	20,300	34,700	25,000	28,200	33,800	24,700	19,700	3,370	2,830	1,770
5	-	-	20,800	35,700	25,600	28,800	33,400	25,300	15,500	3,200	2,730	1,780
6	-	†3,280	21,400	36,200	26,100	28,800	32,900	26,300	11,800	3,030	2,810	1,760
7	-	-	22,500	36,500	26,600	29,600	32,500	27,100	10,400	2,870	3,800	1,620
8	†979	-	23,700	36,500	27,200	30,600	32,200	28,200	9,280	2,700	3,960	1,400
9	-	-	24,100	36,500	27,700	31,800	31,900	29,500	8,090	2,550	3,810	1,210
10	-	-	24,300	35,900	28,300	33,100	31,700	31,300	7,300	2,380	3,670	1,220
11	-	-	24,800	35,400	28,700	34,600	31,500	33,500	6,610	2,160	3,510	1,310
12	-	-	24,900	34,900	29,100	36,100	31,100	34,900	6,030	2,100	3,350	1,420
13	-	-	25,300	34,200	29,400	37,800	31,000	35,700	5,680	2,120	2,960	1,540
14	-	-	25,400	33,400	29,600	39,100	30,700	36,100	5,430	2,280	1,950	1,640
15	-	†5,280	25,600	32,700	29,600	39,900	30,500	36,100	5,310	4,700	1,300	1,750
16	-	5,600	25,700	32,000	29,600	40,300	30,100	36,000	5,210	6,710	1,090	1,860
17	†694	-	25,800	31,200	29,600	40,400	29,700	35,700	5,140	7,830	1,010	1,930
18	-	-	26,000	30,300	29,200	40,400	29,200	35,100	5,070	8,860	980	1,960
19	-	†4,150	26,200	29,400	28,800	40,400	28,700	34,600	5,020	9,920	978	1,860
20	-	-	26,300	28,600	29,000	40,400	28,400	34,400	4,980	10,700	977	1,610
21	-	-	26,500	27,800	28,600	40,100	27,800	33,900	4,960	11,200	976	1,220
22	†858	-	26,800	27,100	28,100	39,900	27,100	33,300	4,900	10,900	989	1,260
23	-	-	27,100	26,400	27,800	39,800	26,500	32,900	4,850	9,500	990	1,380
24	-	-	27,200	26,000	27,400	39,700	25,600	32,300	4,790	7,760	974	1,470
25	-	-	27,600	25,500	27,400	39,400	24,400	31,700	4,740	6,630	918	1,510
26	-	17,800	27,700	25,000	27,400	38,500	23,500	30,900	4,670	6,280	812	1,460
27	-	18,500	29,200	24,600	27,400	38,200	22,700	30,000	4,560	5,970	623	1,410
28	-	18,800	30,000	24,300	27,600	37,800	22,400	29,200	4,440	5,660	579	1,420
29	-	18,900	30,300	24,100	-	37,400	22,500	28,000	4,290	5,350	565	1,580
30	-	19,000	30,600	23,900	-	37,000	22,600	26,900	4,120	4,800	559	4,360
31	-	-	30,900	23,800	-	36,600	-	25,700	-	4,040	560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	-	-	-	-	-	-	-
November 26-30	93,000	-	-	-	-	-	184,500
December	785,900	30,900	19,300	25,350	1.65	1.90	1,559,000
Calendar year	-	-	-	-	-	-	-
January	949,800	36,500	23,800	30,640	1.99	2.29	1,884,000
February	773,000	29,600	23,800	27,610	1.79	1.87	1,533,000
March	1,107,500	40,400	27,600	35,730	2.32	2.67	2,197,000
April	880,300	36,100	22,400	29,340	1.91	2.13	1,746,000
May	950,400	36,100	23,100	30,660	1.99	2.30	1,885,000
June	250,270	24,400	4,120	8,342	.542	.60	496,400
July	166,810	11,200	2,100	5,381	.349	.40	330,900
August	59,600	3,960	559	1,923	.125	.14	118,200
September	47,680	4,360	578	1,589	.103	.12	94,570
The period	-	-	-	-	-	-	12,020,000

† Discharge measurement.

Note.- Discharge for period June 7 to Sept. 30 obtained from discharge hydrograph based on 20 discharge measurements and gage-height record.

Little Missouri River near Murfreesboro, Ark.

Location.- Water-stage recorder, lat. 34°03', long. 93°43', in SE¼ sec. 13, T. 8 S., R. 28 W., 1¼ miles downstream from Muddy Fork, 2 miles southwest of Murfreesboro, and 4 miles upstream from Prairie Creek. Datum of gage is 324.28 feet above mean sea level, datum of 1929.

Drainage area.- 380 square miles.

Records available.- October 1927 to September 1930, July 1937 to September 1941.

Extremes.- Maximum discharge during year, 34,900 second-feet Nov. 23 (gage height, 17.03 feet), from rating curve extended above 20,000 second-feet; minimum, 8.0 second-feet Oct. 4-6, 18-20 (gage height, 1.80 feet).

1927-30, 1937-41: Maximum discharge observed, 37,900 second-feet Jan. 24, 1938 (gage height, 17.50 feet), from rating curve extended above 20,000 second-feet; minimum discharge, 3.5 second-feet Sept. 28, 1939 (gage height, 1.64 feet).

Maximum stage known, about 21 feet in April 1927, from information furnished by Arkansas State Highway Department.

Remarks.- Records good.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 12 to July 14)

Oct. 1 to Feb. 2, June 11 to Sept. 30

1.8	8.0	2.6	160	5.0	1,870	13.0	15,400
1.9	14	2.8	235	6.0	2,920	14.0	18,700
2.0	25	3.2	435	7.0	4,170		
2.2	59	3.6	685	9.0	7,220		
2.4	102	4.0	990	12.0	13,100		

Feb. 3 to June 10

2.2	59	3.8	885
2.3	80	4.4	1,420
2.4	105	5.0	2,000
2.6	166	6.0	3,050
2.8	244	7.0	4,260
3.0	343	8.0	5,650
3.4	587		

Note.- Same as preceding table below 2.2 and above 8.3 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	39	502	295	474	790	333	3,890	70	88	59	16
2	9.5	41	391	462	4,330	678	333	2,030	2,620	69	54	16
3	9.0	36	325	418	5,420	601	2,000	1,320	1,860	59	50	32
4	8.5	27	276	340	2,470	503	970	953	775	73	43	105
5	8.0	22	240	295	1,660	412	656	919	466	71	41	88
6	8.0	18	211	253	1,180	1,200	516	2,620	322	54	50	191
7	10	15	293	223	894	1,780	610	2,100	258	45	41	105
8	10	16	315	199	693	1,560	1,060	1,370	253	38	33	67
9	9.5	42	253	178	568	1,140	700	1,420	236	33	28	69
10	12	43	223	160	491	902	574	877	1,060	30	25	203
11	13	444	207	151	418	700	479	635	4,560	26	23	110
12	12	335	817	141	366	587	406	497	1,740	33	22	77
13	10	160	1,280	135	349	503	343	389	870	59	26	59
14	9.5	105	918	144	312	424	291	312	602	1,670	49	46
15	9.5	79	910	266	263	418	277	253	435	1,480	88	38
16	9.0	63	1,990	375	231	568	291	215	355	1,160	55	33
17	9.0	54	1,330	325	219	1,180	286	184	276	538	36	30
18	8.5	48	966	271	195	354	430	160	207	355	28	27
19	8.0	43	998	231	188	322	479	137	160	937	23	23
20	8.5	38	748	207	748	307	535	122	141	502	23	21
21	8.5	38	608	192	635	296	442	105	113	315	22	18
22	9.0	56	520	188	568	268	691	92	102	215	28	16
23	9.0	18,700	446	244	561	268	5,800	82	95	160	24	14
24	9.0	3,650	386	562	1,100	349	3,380	76	93	124	21	136
25	9.5	1,780	350	629	1,100	277	1,900	70	81	124	21	1,100
26	9.0	3,520	370	1,310	1,370	231	1,230	65	69	280	23	355
27	9.0	1,920	430	1,070	1,180	223	877	59	84	195	20	195
28	14	1,160	396	808	970	231	656	54	102	126	18	132
29	23	800	365	650	-	195	522	54	156	95	23	97
30	20	615	325	544	-	177	4,660	57	126	75	22	77
31	38	-	295	468	-	244	-	76	-	67	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	349.5	38	8.0	11.3	0.030	0.03	693
November	33,907	18,700	15	1,130	2.97	3.31	67,250
December	17,684	1,990	207	570	1.50	1.73	35,080
Calendar year 1940	161,498.6	18,700	7.1	441	1.16	15.79	320,300
January	11,734	1,310	135	379	.997	1.15	23,270
February	28,953	5,420	188	1,034	2.72	2.83	57,430
March	17,688	1,780	177	571	1.50	1.73	35,080
April	31,727	5,800	277	1,058	2.78	3.10	62,930
May	21,193	3,890	54	684	1.80	2.08	42,040
June	18,287	4,560	69	610	1.61	1.80	36,270
July	9,098	1,670	28	293	.771	.89	18,050
August	1,037	88	18	33.5	.088	.10	2,060
September	3,496	1,100	14	117	.308	.34	6,930
Water year 1940-41	195,153.5	18,700	8.0	535	1.41	19.09	387,100

Saline River near Rye, Ark.

Location.- Water-stage recorder, lat. 33°42', long. 92°02', on line between secs. 3 and 4, T. 12 S., R. 9 W., 4 miles southwest of Rye, 5 miles upstream from Hudgin Creek, and 12 miles upstream from former gaging station near Warren.

Drainage area.- 2,040 square miles.

Records available.- August 1937 to September 1941.

Extremes.- Maximum discharge during year, 9,050 second-feet Apr. 28 (gage height, 21.60 feet); minimum, 24 second-feet Oct. 28 (gage height, 4.34 feet).
1937-41: Maximum discharge, 42,300 second-feet Jan. 27, 1938 (gage height, 28.0 feet, from graph based on gage readings); minimum observed, 9.8 second-feet Oct. 18, 1938 (gage height, 3.96 feet).
Maximum stage known, 30.5 feet in April 1927.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	163	2,640	1,810	3,620	3,740	1,190	e,360	247	160	158	93
2	60	131	2,740	2,680	3,960	3,740	1,150	8,070	231	158	152	111
3	50	112	2,780	3,460	4,920	3,740	2,020	7,550	222	163	137	136
4	46	86	2,630	3,620	5,440	3,740	3,790	6,730	208	163	123	128
5	42	68	2,040	3,350	5,560	3,740	4,370	5,180	223	150	124	122
6	41	66	1,270	2,780	5,500	4,000	4,610	3,740	849	137	152	112
7	39	63	1,350	2,080	5,240	6,220	4,670	3,840	1,510	131	249	103
8	39	57	2,220	1,390	4,790	7,320	4,730	3,900	1,760	128	316	106
9	39	64	2,260	1,120	4,370	7,710	4,610	3,680	1,630	160	268	98
10	38	148	2,040	970	4,070	7,790	4,490	3,460	1,010	116	218	91
11	38	340	1,760	849	3,900	7,550	4,430	3,240	640	110	184	89
12	38	702	1,680	782	3,740	7,170	4,310	3,140	494	114	168	79
13	37	718	2,700	718	3,300	6,730	4,190	3,140	453	289	134	73
14	35	610	3,680	670	2,480	6,170	4,070	3,240	440	565	122	71
15	34	480	3,740	670	1,710	5,630	3,790	3,400	536	466	117	65
16	32	340	3,900	750	1,390	5,370	3,140	3,620	798	1,230	96	58
17	30	376	4,250	970	1,350	5,040	2,080	3,840	815	934	83	55
18	29	427	4,310	1,010	1,350	4,430	1,470	4,070	670	625	76	52
19	28	352	4,070	934	1,270	3,520	1,350	4,130	536	508	75	51
20	28	276	4,130	866	1,740	2,740	1,470	3,080	440	414	70	51
21	27	235	3,570	798	3,080	2,350	1,680	1,470	376	340	65	48
22	27	214	3,240	782	3,620	2,080	1,810	782	328	316	62	45
23	26	539	2,880	798	3,790	1,810	2,900	610	287	276	58	43
24	26	1,730	2,400	970	3,740	2,260	5,560	508	237	262	64	45
25	26	1,900	2,040	1,430	3,570	2,480	7,320	440	241	237	62	44
26	25	1,760	1,720	1,860	3,460	2,440	8,260	388	222	218	57	42
27	25	2,120	2,030	2,740	3,570	2,170	8,810	352	206	235	55	37
28	26	2,400	2,780	3,240	3,680	1,760	9,050	316	188	294	55	33
29	33	2,540	2,780	3,520	-	1,470	8,930	294	175	241	58	33
30	63	2,580	2,400	3,680	-	1,270	8,690	281	168	186	76	35
31	147	-	2,040	3,680	-	1,150	-	266	-	161	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,244	147	25	40.1	0.020	0.02	2,470
November	21,597	2,580	57	720	.353	.39	42,840
December	84,070	4,310	1,270	2,712	1.33	1.53	166,800
Calendar year 1940	377,830	8,770	25	1,032	.506	6.88	749,400
January	54,977	3,680	670	1,773	.869	1.00	109,000
February	98,210	5,560	1,270	3,508	1.72	1.79	194,800
March	127,330	7,790	1,150	4,107	2.01	2.32	252,600
April	128,940	9,050	1,150	4,298	2.11	2.35	255,700
May	95,117	8,360	266	3,068	1.50	1.73	188,700
June	16,140	1,760	168	538	.264	.29	32,010
July	9,487	1,230	110	306	.150	.17	18,820
August	3,703	316	55	119	.058	.07	7,340
September	2,148	136	33	71.6	.035	.04	4,260
Water year 1940-41	642,963	9,050	25	1,762	.863	11.70	1,275,000

Bayou Bartholomew near Beekman, La.

Location.- Wire-weight gage, lat. 32°52', long. 91°52', in NW¼ sec. 28, T. 22 N., R. 6 E., Louisiana meridian, at bridge on State Highway 204, 4 miles south of Beekman and 7 miles north of Bastrop. Datum of gage is 70.688 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).
Drainage area.- 1,645 square miles.
Records available.- August 1928 to September 1929 and October 1938 to September 1941 in reports of Geological Survey. November 1929 to September 1931 in reports of Corps of Engineers, U. S. Army. Gage heights as follows: August 1928 to October 1931 (fragmentary), in files of Corps of Engineers, U. S. Army; August 1932 to September 1941 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge observed during year, 5,470 second-feet March 11 (gage height, 18.81 feet); minimum, 117 second-feet Oct. 26-30; minimum gage height, 1.14 feet Oct. 28.
1928-29, 1938-41: Maximum discharge observed, 8,570 second-feet July 16, 1940; maximum gage height, 24.79 feet Mar. 2, 3, 1939; minimum discharge not determined; minimum gage height, 1.04 feet Nov. 9, 1939.
Maximum stage known. 26.75 feet Apr. 17, 1927, from floodmark (affected by Mississippi River Crevasse flow).
Remarks.- Records fair. Gage read twice daily.
Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 7 to July 18 and Sept. 4-29)

1.2	123	6.0	920	11.0	2,380
2.0	225	7.2	1,180	15.0	3,870
3.0	386	9.0	1,720	18.8	5,470

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	141	129	1,130	3,190	2,240	2,450	3,410	1,850	776	212	776	199
2	135	123	1,150	3,410	2,350	2,420	3,260	1,750	704	212	776	199
3	135	123	1,210	3,600	2,700	2,350	3,190	1,620	632	212	722	225
4	135	123	1,290	3,910	2,880	2,280	3,110	1,530	578	212	650	225
5	129	129	1,410	4,430	3,110	2,180	3,030	1,500	524	199	596	225
6	123	135	1,530	4,710	3,340	2,280	2,960	1,500	471	199	560	199
7	129	129	1,820	4,750	3,530	3,030	2,880	1,470	437	212	524	186
8	135	129	2,140	4,710	3,570	3,790	2,740	1,470	403	254	488	186
9	135	135	2,210	4,630	3,490	4,630	2,630	1,470	369	302	437	186
10	135	173	2,240	4,510	3,340	5,280	2,520	1,440	335	318	386	173
11	135	286	2,280	4,390	3,190	5,470	2,380	1,440	318	318	369	173
12	141	239	2,310	4,230	2,960	5,380	2,280	1,470	302	302	335	173
13	135	212	2,380	4,110	2,850	5,150	2,180	1,500	286	286	286	173
14	135	186	2,380	3,950	2,670	4,970	2,110	1,530	270	318	270	173
15	135	186	2,420	3,830	2,520	4,750	1,980	1,530	270	420	254	186
16	135	186	2,600	3,720	2,420	4,630	1,880	1,560	270	318	239	173
17	129	199	2,700	3,600	2,310	4,470	1,780	1,590	286	318	225	173
18	123	199	2,810	3,450	2,210	4,350	1,690	1,590	286	437	225	160
19	123	199	2,920	3,260	2,110	4,270	1,590	1,590	286	668	212	160
20	123	186	3,000	3,110	2,070	4,270	1,880	1,590	270	830	199	154
21	123	173	3,000	2,960	2,070	4,390	2,110	1,560	254	920	199	141
22	123	199	2,960	2,780	2,070	4,470	2,070	1,530	239	1,000	186	147
23	123	403	2,880	2,670	2,070	4,510	1,910	1,500	239	1,020	186	147
24	123	848	2,810	2,600	2,180	4,510	1,940	1,440	225	960	186	147
25	123	1,060	2,740	2,520	2,280	4,430	1,910	1,350	225	884	186	147
26	117	1,110	2,740	2,450	2,350	4,350	1,910	1,290	212	812	173	141
27	117	1,130	3,030	2,420	2,380	4,250	1,980	1,180	225	758	173	135
28	117	1,150	3,220	2,380	2,450	4,070	1,980	1,090	225	704	173	141
29	117	1,130	3,220	2,350	-	3,910	1,940	1,020	225	686	186	141
30	117	1,130	3,150	2,310	-	3,760	1,940	920	225	704	199	135
31	123	-	3,110	2,240	-	3,600	-	848	-	740	199	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,969	141	117	128	0.078	0.09	7,870
November	11,739	1,150	123	391	.238	.27	23,280
December	74,790	3,220	1,130	2,413	1.47	1.69	148,300
Calendar year 1940	584,414	8,570	117	1,597	.971	13.22	1,159,000
January	107,180	4,750	2,240	3,457	2.10	2.42	212,600
February	73,710	3,570	2,070	2,632	1.60	1.67	146,200
March	124,630	5,470	2,180	4,020	2.44	2.82	247,200
April	69,170	3,410	1,590	2,306	1.40	1.56	137,200
May	44,718	1,850	848	1,443	.877	1.01	88,700
June	10,367	776	212	346	.210	.23	20,560
July	15,735	1,020	199	508	.309	.36	31,210
August	10,575	776	173	341	.207	.24	20,980
September	5,123	225	135	171	.104	.12	10,160
Water year 1940-41	551,706	5,470	117	1,512	.919	12.48	1,094,000

Bayou D'Arbonne near Dubach, La.

Location.- Wire-weight gage, lat. 32°41', long. 92°39', in sec. 35, T. 20 N., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 167, 1½ miles south of Dubach and 8 miles upstream from Middle Fork of Bayou D'Arbonne.
Drainage area.- 348 square miles.
Records available.- June 1940 to September 1941.
Extremes.- 1940: Maximum discharge during period June to September, 6,260 second-feet June 18 (gage height, 19.50 feet, from graph based on gage readings); minimum, 3.9 second-feet Sept. 26 (gage height, 4.65 feet, from graph based on gage readings).
1940-41: Maximum discharge during water year, 11,300 second-feet May 6 (gage height, 21.08 feet, from graph based on gage readings); minimum, 0.5 second-foot Oct. 16, 19, 20, 22-24, 26-29; minimum gage height, 4.03 feet Oct. 28, 29.
Remarks.- Records good. Gage read twice daily.

Discharge, in second-feet, 1940-41

1940

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	e200	560	146	79	16	3,040	307	205	8.5
2	e150	542	162	63	17	4,520	223	156	7.2
3	e100	863	395	53	18	6,060	179	128	6.9
4	84	994	352	51	19	4,140	421	141	6.4
5	78	878	396	44	20	2,640	485	143	6.4
6	71	611	232	36	21	2,330	580	195	6.0
7	97	464	141	30	22	1,770	828	229	5.2
8	115	428	117	26	23	1,190	580	174	4.5
9	105	370	300	22	24	644	298	105	4.8
10	96	346	664	19	25	420	203	82	4.2
11	156	e440	688	15	26	338	158	69	3.9
12	143	458	544	13	27	289	125	57	4.6
13	123	403	420	12	28	231	102	67	6.0
14	105	382	368	10	29	563	94	134	4.8
15	399	377	288	9.2	30	737	91	134	4.0
					31	-	158	125	-

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	1.3	972	3,360	497	751	462	158	190	102	106	17
2	2.e	1.9	831	7,090	778	706	503	262	159	90	77	28
3	2.3	2.2	707	5,910	1,190	587	1,070	371	129	116	103	33
4	2.2	2.2	596	3,750	1,300	521	1,240	314	105	448	425	34
5	2.0	2.8	574	2,620	1,380	462	1,190	1,670	93	329	636	21
6	1.8	6.0	566	2,040	1,330	527	958	9,470	79	243	632	40
7	1.8	6.2	983	1,640	1,210	1,450	782	6,700	71	156	799	40
8	1.7	5.6	1,370	1,300	1,000	3,190	698	4,060	118	116	908	24
9	1.5	5.2	1,490	1,060	775	3,530	632	2,560	173	90	881	18
10	1.4	38	1,510	836	626	2,730	584	1,910	187	73	460	16
11	1.1	72	1,360	694	554	2,090	509	1,430	542	62	275	70
12	1.0	116	1,390	617	491	1,640	405	1,080	852	59	187	85
13	.8	110	1,540	564	452	1,300	340	750	938	173	141	47
14	.8	92	2,110	524	415	1,030	294	534	825	384	116	32
15	.6	78	2,120	538	377	796	265	408	515	534	94	23
16	.5	56	1,940	608	352	689	244	326	363	581	84	18
17	.6	40	1,780	638	335	626	229	286	568	614	70	14
18	.6	34	1,560	569	317	548	220	257	623	575	68	13
19	.5	34	1,310	518	310	500	213	235	485	385	61	12
20	.5	32	1,150	470	764	491	329	210	413	209	51	11
21	.6	31	1,020	412	1,050	617	335	185	346	151	43	9.2
22	.5	32	847	380	1,100	629	252	163	449	173	37	7.4
23	.5	159	701	366	994	575	223	144	314	270	34	6.1
24	.5	793	617	671	978	551	363	128	216	311	30	5.8
25	.6	1,170	551	882	1,050	500	412	115	167	354	28	5.4
26	.5	1,360	676	969	1,030	440	343	101	143	473	29	5.2
27	.5	1,840	2,460	884	937	396	286	90	119	530	26	4.4
28	.5	1,740	8,480	790	844	363	220	98	114	332	21	4.0
29	.5	1,490	6,060	694	-	304	182	92	116	262	18	6.1
30	.6	1,200	3,480	622	-	310	162	150	114	243	20	10
31	.8	-	2,380	554	-	326	-	192	-	175	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
June 1940	30,914	6,060	71	1,030	2.96	3.30	61,320
July	12,948	994	91	418	1.20	1.38	25,680
August	7,357	688	57	237	.681	.79	14,590
September	565.6	79	3.9	18.9	.054	.06	1,120
The period	-	-	-	-	-	-	102,700
October 1940	34.1	3.5	0.5	1.10	0.0032	0.004	68
November	10,350.4	1,740	1.3	345	.991	1.11	20,530
December	53,131	8,480	551	1,714	4.93	5.68	105,400
January 1941	42,560	7,090	366	1,373	3.95	4.55	84,420
February	22,436	1,380	310	801	2.30	2.40	44,500
March	29,175	3,530	304	941	2.70	3.12	57,870
April	13,945	1,240	162	465	1.34	1.49	27,660
May	34,449	9,470	90	1,111	3.19	3.68	68,330
June	9,523	935	71	317	.911	1.02	18,890
July	8,613	614	59	278	.799	.92	17,080
August	6,470	908	16	209	.601	.69	12,830
September	659.6	85	4.0	22.0	.063	.07	1,310
Water year 1940-41	231,346.1	9,470	.5	634	1.82	24.73	458,900

Middle Fork of Bayou D'Arbonne near Bernice, La.

Location.- Wire-weight gage, lat. 32°46', long. 92°39', in SW¼ sec. 35, T. 21 N., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 167, 4 miles south of Bernice and about 8 miles upstream from mouth.
Drainage area.- 192 square miles.
Records available.- June 1940 to September 1941.
Extremes.- 1940: Maximum discharge during period June to September, 695 second-feet June 18 (gage height, 7.00 feet); no flow Sept. 18-30.
1940-41: Maximum discharge during water year, 5,180 second-feet May 7 (gage height, 9.36 feet, from graph based on gage readings); no flow Oct. 1 to Nov. 8.
Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read twice daily.

Discharge, in second-feet, 1940-41

1940

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	160	29	16	16	320	61	71	.1
2	-	217	45	12	17	314	54	45	.1
3	-	324	16	8.2	18	643	43	32	0
4	-	349	22	5.7	19	608	36	25	0
5	-	358	24	5.4	20	575	38	18	0
6	-	344	16	4.6	21	548	47	12	0
7	21	258	9.6	2.7	22	422	54	49	0
8	15	170	11	1.8	23	356	52	34	0
9	15	134	130	1.6	24	182	36	17	0
10	18	120	236	1.3	25	131	24	11	0
11	32	113	172	1.0	26	102	14	7.8	0
12	42	98	162	.7	27	73	9.2	5.0	a0
13	46	110	147	.4	28	57	7.4	70	a0
14	35	100	130	.3	29	111	5.1	55	a0
15	102	70	114	.2	30	144	5.8	41	0
					31	-	7.8	26	0

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	494	2,150	338	416	217	95	66	58	73	5.7
2		0	441	3,120	444	396	232	145	53	40	46	5.7
3		0	419	1,980	575	322	614	215	53	67	261	5.6
4		0	367	1,920	619	260	534	251	45	128	586	9.6
5		0	375	1,480	797	232	451	1,420	34	145	557	7.2
6		0	393	1,020	890	299	436	2,300	27	193	506	12
7		0	461	806	770	996	461	4,400	45	171	566	9.8
8		0	490	662	624	1,460	586	2,300	58	94	762	8.6
9		1.5	476	544	483	2,110	506	1,180	72	52	598	16
10		6.6	490	438	375	1,720	398	890	94	39	268	34
11		8.0	586	358	290	1,090	313	619	266	28	141	42
12		8.6	833	306	252	815	234	522	483	32	104	36
13		8.6	1,080	275	227	676	178	372	315	151	70	19
14		7.4	984	256	210	548	167	244	200	336	55	15
15		32	960	248	196	458	149	185	133	454	48	12
16		a40	984	303	185	388	138	158	152	527	50	8.4
17		a28	940	310	175	349	128	139	272	630	38	6.2
18		16	842	303	167	313	121	125	274	539	35	5.1
19		11	788	301	169	284	131	111	261	406	26	4.8
20		12	656	264	269	275	192	95	226	198	22	4.5
21		9.2	570	216	342	324	148	79	253	136	19	4.0
22		26	526	198	360	328	125	65	304	134	16	a3.0
23		143	441	190	413	344	127	54	226	163	15	a2.0
24		334	349	274	534	358	190	48	202	188	14	a1.6
25		422	293	614	630	334	203	43	193	200	13	1.1
26		456	340	388	586	272	210	38	117	180	12	.9
27		454	1,150	362	486	227	220	42	68	126	12	.8
28		448	2,150	349	455	204	200	66	58	110	12	a1.0
29		468	3,710	344	-	185	141	42	54	84	8.4	a1.2
30		506	2,300	349	-	177	108	47	48	133	7.6	1.4
31		-	1,380	362	-	199	-	57	-	146	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
June 7-30, 1940	4,912	643	16	205	1.07	0.96	9,740
July	3,419.3	358	5.1	110	.573	.66	6,780
August	1,782.4	236	5.0	57.5	.299	.35	3,540
September	62.1	16	0	2.07	.011	.01	123
The period	-	-	-	-	-	-	20,180
October 1940	0	0	0	0	0	0	0
November	3,447.9	506	0	115	0.599	0.67	6,840
December	26,248	3,710	293	847	4.41	5.08	52,060
January 1941	20,670	3,120	190	667	3.47	4.00	41,000
February	11,841	890	167	423	2.20	2.29	23,490
March	16,359	2,110	177	528	2.75	3.17	32,450
April	7,856	614	108	262	1.36	1.52	15,580
May	16,347	4,400	38	527	2.74	3.17	32,420
June	4,647	483	27	155	.807	.90	9,220
July	5,958	630	28	192	1.00	1.15	11,820
August	4,947.8	762	6.8	160	.833	.96	9,810
September	284.2	42	.8	9.47	.049	.06	564
Water year 1940-41	118,606.9	4,400	0	325	1.69	22.97	235,300

a No gage-height record; discharge computed on basis of records for Dornie Bayou near Lillie.

Cornie Bayou near Lillie, La.

Location.- Wire-weight gage, lat. 32°53', long. 92°39', in sec. 22, T. 22 N., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 167, 2 miles upstream from Little Cornie Bayou and 3 miles south of Lillie.
Drainage area.- 475 square miles.
Records available.- June 1940 to September 1941.
Extremes.- Maximum discharge during year, 15,100 second-feet May 7 (gage height, 17.48 feet); minimum, 0.2 second-foot Sept. 8 (gage height, 0.43 foot).
1940-41: Maximum discharge, that of May 7, 1941; minimum, that of Sept. 8, 1941.
Remarks.- Records good except those below 10 second-feet in October and November, which are fair. Gage read twice daily. Some regulation by Cornie Lake about 6 miles above station.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 7

0.6	1	1.4	10	4.0	116
.8	2	1.7	16	5.0	175
1.0	4	2.3	35	6.0	248
1.2	6	2.7	52		

Note.- Same as following table above 5.7 feet

May 8 to Sept. 30

0.5	0.4	5.0	178	14.0	2,790
.7	2.1	6.0	248	14.4	3,520
.9	4.3	7.4	381	15.0	5,140
1.1	7.3	8.8	553	15.8	7,890
1.3	11	10.0	757	16.7	11,600
1.8	23	11.6	1,120		
2.1	33	12.3	1,360		
2.9	67	13.0	1,760		
4.0	123	13.5	2,180		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	1	1,020	3,900	761	1,120	315	1,000	47	96	112	0.9
2	33	1	1,030	3,780	856	1,040	399	797	48	87	149	.7
3	33	1	1,050	4,080	952	943	644	605	52	85	240	.6
4	28	1	1,000	5,510	1,200	866	860	547	51	112	365	.7
5	26	1	916	4,140	1,500	741	1,040	1,100	47	121	546	.6
6	24	1	820	2,730	1,970	724	1,470	2,270	41	160	553	.4
7	24	1	789	2,060	2,040	1,220	3,700	11,000	48	183	468	.3
8	20	1	639	1,610	1,830	2,140	2,460	11,800	85	160	416	.2
9	21	1	763	1,360	1,310	3,950	1,610	6,370	91	122	356	.4
10	20	2	728	1,140	1,130	4,490	1,330	3,090	153	88	288	1.4
11	18	3	868	975	952	4,220	1,100	2,040	303	71	203	1.7
12	17	4	1,280	818	952	2,760	975	1,520	340	74	145	1.6
13	16	3	1,320	638	608	2,000	831	1,180	299	119	120	1.2
14	15	2	1,480	486	461	1,560	674	925	307	333	105	1.0
15	14	2	1,540	494	392	1,260	489	648	322	410	100	.9
16	13	1	1,630	496	358	1,130	348	425	431	463	82	.7
17	13	15	1,760	531	328	858	270	275	550	591	72	.7
18	11	33	1,800	465	298	877	229	220	492	739	64	.6
19	4	26	1,770	478	280	585	201	181	392	781	16	.6
20	2	28	1,730	522	392	553	236	163	380	672	6.2	.5
21	1	17	1,600	489	592	632	196	142	412	483	3.3	.4
22	1	26	1,500	412	757	619	179	78	449	342	1.4	.4
23	1	93	1,400	368	934	656	185	42	383	270	2.1	.3
24	1	242	1,180	408	1,040	567	306	37	283	406	1.9	.3
25	1	261	1,040	430	1,120	522	351	36	200	561	1.6	.3
26	1	269	965	454	1,150	518	443	35	152	513	1.6	.3
27	1	281	1,310	502	1,160	455	694	33	118	342	1.4	.3
28	1	603	2,060	579	1,140	373	1,090	37	100	230	1.0	.3
29	1	835	5,840	668	-	340	1,310	46	84	159	1.0	.4
30	1	988	8,000	737	-	307	1,220	46	88	131	.9	.7
31	1	-	5,330	769	-	298	-	46	-	108	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	398	35	1	12.8	0.027	0.03	789
November	3,743	988	1	125	.263	.29	7,420
December	54,158	8,000	639	1,747	3.68	4.24	107,400
Calendar year	-	-	-	-	-	-	-
January	42,029	5,510	368	1,356	2.85	3.29	83,360
February	26,463	2,040	280	945	1.99	2.07	52,490
March	38,324	4,490	298	1,236	2.60	3.00	76,010
April	25,155	3,700	179	838	1.76	1.97	49,890
May	46,734	11,800	33	1,508	3.17	3.66	92,700
June	6,748	550	41	225	.474	.53	13,380
July	9,012	781	71	291	.613	.71	17,880
August	4,423.1	553	.7	143	.301	.35	8,770
September	19.4	1.7	.2	.65	.0014	.002	38
Water year 1940-41	257,206.5	11,800	.2	705	1.48	20.14	510,100

Bayou Desiard at Monroe, La.

Location.- Wire-weight gage, lat. 32°33', long. 92°08', in sec. 13, T. 18 N., R. 3 E., Louisiana meridian, at city of Monroe pumping station, 100 feet east of east levee of Ouachita River and 1 mile north of Monroe. Datum of gage is at mean sea level, datum of 1929 (levels by city of Monroe).

Records available.- February 1939 to September 1941 (elevations only).

Extremes.- Maximum elevation observed during year, 68.48 feet Dec. 7, 27, 28; minimum observed, 66.57 feet Sept. 30.
1939-41: Maximum elevation observed, 69.00 feet Apr. 24, 1939; minimum observed, 65.11 feet Dec. 22, 1939.

Remarks.- Daily elevations computed from twice-daily gage readings. Bayou Desiard, which is a source of water supply for city of Monroe, is a long narrow lake formed by an old channel of Bayou Bartholomew. It is dammed off from Bayou Bartholomew, at its north end, by a levee and from Ouachita River, at its west end, by a levee and flood gates.

Cooperation.- Record collected in cooperation with city of Monroe.

Elevation, in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67.12	67.04	68.21	68.43	68.03	68.20	68.32	68.31	67.76	67.34	67.33	67.00
2	67.10	67.58	68.30	68.42	68.06	68.19	68.31	68.30	67.73	67.33	67.33	67.04
3	67.10	67.14	68.30	68.42	68.10	68.18	68.37	68.29	67.74	67.32	67.40	67.02
4	67.10	67.12	68.26	68.42	68.10	68.16	68.23	68.26	67.73	67.31	67.39	67.02
5	67.07	67.11	68.20	68.40	68.10	68.16	68.25	68.32	67.70	67.26	67.39	67.00
6	67.07	67.11	68.19	68.40	68.12	68.14	68.25	68.32	67.66	67.24	67.39	66.98
7	67.06	67.12	68.46	68.40	68.14	68.30	68.25	68.30	67.63	67.24	67.39	66.96
8	67.05	67.08	68.42	68.40	68.15	68.29	68.27	68.28	67.69	67.23	67.40	66.96
9	67.04	67.08	68.40	68.36	68.16	68.28	68.25	68.24	67.66	67.22	67.40	66.90
10	67.04	67.18	68.40	68.32	68.15	68.28	68.25	68.20	67.62	67.22	67.37	66.90
11	67.03	67.30	68.40	68.31	68.14	68.27	68.23	68.20	67.66	67.22	67.37	66.90
12	67.02	67.36	68.40	68.27	68.13	68.14	68.23	68.15	67.64	67.30	67.34	66.86
13	67.01	67.45	68.40	68.25	68.12	68.39	68.22	68.13	67.62	67.33	67.31	66.85
14	67.02	67.44	68.40	68.23	68.12	68.36	68.23	68.10	67.60	67.38	67.28	66.85
15	67.02	67.43	68.40	68.19	68.08	68.35	68.16	68.08	67.60	67.41	67.26	66.85
16	67.01	67.42	68.40	68.17	68.05	68.36	68.16	68.04	67.64	67.41	67.24	66.78
17	67.00	67.42	68.40	68.19	68.04	68.34	68.15	68.03	67.69	67.44	67.22	66.76
18	66.99	67.40	68.40	68.16	68.03	68.36	68.14	68.00	67.63	67.44	67.20	66.75
19	66.98	67.40	68.39	68.14	68.02	68.34	68.11	67.97	67.63	67.44	67.17	66.74
20	66.98	67.39	68.39	68.10	68.10	68.31	68.16	67.92	67.62	67.44	67.14	66.72
21	66.97	67.38	68.38	68.10	68.12	68.34	68.22	67.90	67.62	67.45	67.11	66.69
22	66.97	67.29	68.37	68.09	68.12	68.33	68.24	67.83	67.58	67.46	67.08	66.68
23	66.96	67.62	68.28	68.02	68.13	68.32	68.28	67.82	67.54	67.44	67.07	66.63
24	66.96	67.78	68.25	68.00	68.16	68.32	68.32	67.79	67.52	67.47	67.05	66.62
25	66.95	68.07	68.30	68.08	68.18	68.33	68.33	67.78	67.49	67.47	67.05	66.65
26	66.95	68.10	68.31	68.05	68.19	68.33	68.33	67.76	67.46	67.45	67.05	66.65
27	66.95	68.13	68.48	68.05	68.20	68.32	68.34	67.73	67.43	67.44	67.02	66.61
28	66.94	68.16	68.48	68.04	68.20	68.31	68.34	67.74	67.40	67.44	67.02	66.61
29	66.95	68.20	68.42	68.02	-	68.29	68.34	67.72	67.38	67.43	67.02	66.59
30	66.95	68.28	68.41	68.00	-	68.27	68.32	67.80	67.37	67.40	67.01	66.57
31	66.95	-	68.42	68.02	-	68.34	-	67.78	-	67.38	67.01	-

Boeuf River near Girard, La.

Location.- Staff gage, lat. 32°29', long. 91°48', on line between sec. 1, T. 17 N., R. 6 E., and sec. 6, T. 17 N., R. 7 E., Louisiana meridian, at Illinois Central R. R. bridge, 200 feet downstream from bridge on U. S. Highway 80 and half a mile east of Girard. Datum of gage is 51.68 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941 in reports of Geological Survey. Daily gage heights as follows: 1886 to 1894 in reports of Weather Bureau; September 1925 to December 1931 (unpublished) in files of Corps of Engineers, U. S. Army; since January 1932 to September 1941, in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 1,820 second-feet Dec. 8, 9 (gage height, 11.60 feet); minimum, 66 second-feet Oct. 5-11 (gage height, 0.90 foot).

1938-41: Maximum discharge observed, 2,580 second-feet Apr. 30 and May 1, 1940 (gage height, 15.0 feet); minimum discharge, 30 second-feet Oct. 28 to Nov. 7, 1939; minimum gage height, 0.90 foot at times in 1939 and 1940.

Maximum stage known, 29.5 feet May 7, 1927 (affected by Mississippi River Crevasse flow).

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23		Nov. 24 to Sept. 30			
0.9	66	1.0	85	7.0	960
2.2	250	1.5	133	10.0	1,480
3.2	400	2.3	230	11.6	1,820
		3.8	448		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	129	1,560	1,390	848	977	944	1,100	133	103	480	85
2	80	122	1,580	1,340	912	944	896	1,010	133	103	432	90
3	80	108	1,560	1,340	1,010	912	848	944	128	103	416	90
4	80	108	1,540	1,350	1,130	864	816	880	122	103	385	85
5	73	106	1,520	1,410	1,220	816	800	832	122	103	355	85
6	66	94	1,500	1,440	1,280	832	800	832	117	108	341	85
7	66	94	1,710	1,480	1,340	960	784	768	117	112	341	85
8	66	94	1,820	1,520	1,370	1,150	784	720	117	122	327	85
9	66	108	1,800	1,540	1,390	1,320	784	656	112	133	299	85
10	66	150	1,760	1,560	1,390	1,430	784	592	117	144	257	80
11	73	150	1,710	1,560	1,350	1,500	768	528	138	155	230	80
12	80	157	1,670	1,540	1,300	1,560	736	480	144	167	204	80
13	80	164	1,650	1,500	1,230	1,600	688	432	144	179	191	80
14	80	164	1,620	1,440	1,130	1,670	640	385	133	230	167	80
15	80	178	1,620	1,350	1,040	1,690	592	341	128	285	155	80
16	80	192	1,650	1,250	960	1,730	544	313	122	313	138	80
17	80	220	1,650	1,160	880	1,730	496	285	117	416	133	80
18	80	250	1,650	1,060	800	1,710	448	257	112	496	122	80
19	80	265	1,620	977	736	1,670	416	243	117	560	112	85
20	80	280	1,620	896	752	1,600	592	217	117	608	108	85
21	80	280	1,600	832	752	1,560	928	204	112	672	103	85
22	80	295	1,580	768	768	1,480	1,100	191	117	736	98	85
23	80	400	1,540	720	800	1,430	1,160	179	112	768	94	80
24	80	1,320	1,480	736	864	1,370	1,200	167	106	784	94	90
25	80	1,600	1,440	704	944	1,340	1,230	155	108	752	90	85
26	80	1,650	1,410	704	994	1,280	1,250	144	103	688	85	85
27	80	1,600	1,560	704	1,010	1,250	1,250	144	103	624	85	85
28	80	1,560	1,620	720	1,010	1,180	1,230	138	103	576	94	85
29	80	1,540	1,580	736	-	1,110	1,200	133	108	528	90	85
30	94	1,540	1,520	768	-	1,040	1,150	144	108	512	85	85
31	115	-	1,440	816	-	994	-	133	-	496	85	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,445	115	66	78.9	4,850
November	14,920	1,650	94	497	29,590
December	49,580	1,820	1,410	1,599	98,340
Calendar year 1940	317,944	2,560	66	869	630,600
January	35,311	1,560	704	1,139	70,040
February	29,210	1,390	736	1,043	57,940
March	40,699	1,730	816	1,313	80,730
April	25,858	1,250	416	862	51,290
May	13,547	1,100	133	437	26,870
June	3,572	144	103	119	7,080
July	11,679	784	103	377	23,160
August	6,196	480	85	200	12,290
September	2,515	90	80	83.8	4,990
Water year 1940-41	235,532	1,820	66	645	467,200

Bayou La Fourche near Crew Lake, La.

Location.- Staff gage, lat. 32°30', long. 91°55', in SW¼ sec. 36, T. 18 N., R. 5 E., Louisiana meridian, at bridge on U. S. Highway 80, 1.1 miles upstream from Illinois Central R. R. bridge and 2¾ miles west of Crew Lake. Datum of gage is 56.12 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- December 1938 to September 1941.

Extremes.- Maximum discharge during year, 4,040 second-feet Nov. 28, 29 (gage height, 6.60 feet); minimum, 3 second-feet July 2 (gage height, 0.80 foot).
1938-41: Maximum discharge, 7,490 second-feet Apr. 13, 14, 1940 (gage height, 7.5 feet); minimum, 1 second-foot on many days.
Maximum stage known, 9.30 feet in December 1931, from floodmark.

Remarks.- Records good above 50 second-feet, poor below. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

0.9	5	2.4	70	3.9	275	5.3	1,340
1.1	10	2.9	112	4.3	415	5.7	2,020
1.3	16	3.3	157	4.7	620	6.1	2,820
1.9	41	3.6	205	4.9	800	6.5	3,780

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	16	3,780	2,820	415	920	800	990	20	6	81	12
2	5	21	3,520	2,620	460	860	700	920	20	4	67	15
3	5	21	3,280	2,520	660	700	700	860	20	7	61	21
4	4	22	3,040	2,320	1,130	535	560	560	20	7	64	24
5	4	22	2,820	2,220	1,420	485	510	485	20	9	67	27
6	4	22	2,620	2,120	1,750	535	510	438	18	8	61	30
7	4	23	2,820	2,220	2,020	1,840	510	375	16	8	58	34
8	4	23	3,040	2,220	2,220	3,280	510	305	14	7	52	34
9	4	24	3,520	2,220	2,220	3,520	510	133	14	7	46	27
10	4	36	3,520	2,220	2,220	3,280	510	122	14	7	41	23
11	4	49	3,520	2,220	2,020	3,040	485	117	18	9	36	21
12	4	61	3,280	2,220	1,750	3,040	460	112	24	13	36	18
13	4	74	3,280	2,120	1,500	3,040	395	90	30	21	36	15
14	4	90	3,040	1,840	1,340	3,280	290	61	30	41	34	14
15	4	108	3,040	1,580	1,200	3,280	238	49	28	64	34	11
16	4	112	2,820	1,420	750	3,040	179	38	27	98	34	8
17	4	112	2,820	1,200	620	3,040	145	30	32	139	32	7
18	4	108	2,820	920	485	2,820	108	25	34	196	27	7
19	4	103	2,620	800	438	2,820	103	22	30	238	23	7
20	4	98	2,620	620	700	2,620	510	19	27	275	20	7
21	4	94	2,620	510	800	2,620	990	17	28	290	18	7
22	4	94	2,420	415	860	2,820	1,500	16	30	262	16	7
23	4	133	2,220	375	920	2,320	1,840	15	28	215	14	8
24	4	510	2,020	358	920	2,020	2,220	14	26	187	12	11
25	4	2,620	2,020	375	990	2,020	2,020	13	23	196	12	7
26	4	3,520	1,930	438	990	1,930	2,020	11	19	205	12	7
27	4	3,780	2,120	485	990	1,580	1,840	10	14	187	12	7
28	4	4,040	2,620	510	920	1,340	1,840	9	13	179	12	7
29	4	4,040	2,820	510	-	1,200	1,660	8	11	151	13	7
30	4	4,040	3,040	460	-	1,060	1,270	10	8	117	13	7
31	6	-	2,820	438	-	920	-	15	-	94	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	129	6	4	4.2	256
November	24,016	4,040	16	801	47,640
December	88,470	3,780	1,930	2,854	175,500
Calendar year 1940	548,388	7,490	3	1,498	1,088,000
January	43,314	2,820	358	1,397	85,910
February	32,708	2,220	415	1,168	64,880
March	65,805	3,520	485	2,123	130,500
April	25,933	2,220	103	864	51,440
May	5,889	990	8	190	11,680
June	656	34	8	21.9	1,300
July	3,247	290	4	105	6,440
August	1,056	81	12	34.1	2,090
September	437	34	7	14.6	867
Water year 1940-41	291,660	4,040	4	799	578,500

Tensas River at Tendal, La.

Location.- Staff gage, lat. 32°26', long. 91°22', in NW¼ sec. 29, T. 17 N., R. 11 E., Louisiana meridian, at logging railroad bridge 1,000 feet upstream from bridge on U. S. Highway 80 at Tendal, and 3 miles east of Waverly. Datum of gage is 50.08 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941 in reports of Geological Survey. December 1935 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 1,600 second-feet Nov. 27 (gage height, 16.50 feet); minimum discharge, 4 second-feet Sept. 2, 3; minimum gage height, 6.36 feet Oct. 12-14.

1938-41: Maximum discharge observed, 2,440 second-feet July 15, 1940 (gage height, 19.56 feet); minimum discharge, that of Sept. 2, 3, 1941.

Maximum stage known, 34.02 feet May 15, 1927 (affected by Mississippi River Crevasse flow).

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	15	1,360	1,010	436	371	371	254	61	30	82	5
2	27	16	1,340	900	449	332	397	230	57	27	76	4
3	26	16	1,190	795	596	280	423	182	51	23	74	4
4	24	16	1,100	736	855	254	410	160	47	26	70	7
5	23	16	1,020	666	885	242	384	149	45	33	68	10
6	22	16	967	596	840	242	371	182	47	32	66	11
7	21	17	933	540	780	332	345	280	51	30	68	13
8	20	18	899	527	722	436	319	345	48	29	62	16
9	20	20	882	501	680	736	280	319	51	29	51	17
10	18	36	865	488	652	810	254	306	51	32	42	16
11	18	52	933	462	624	765	242	267	51	29	34	16
12	16	60	1,070	410	596	722	216	182	51	26	33	15
13	16	65	1,050	371	554	652	194	160	50	24	30	15
14	14	65	1,020	230	449	554	160	149	47	39	30	15
15	15	65	1,050	218	319	501	149	127	44	60	28	15
16	16	65	1,260	218	230	449	127	107	45	84	28	15
17	16	65	1,400	218	218	423	117	97	42	105	27	15
18	16	65	1,290	206	218	371	112	97	34	120	26	15
19	16	51	1,170	218	206	332	107	92	29	120	23	15
20	16	27	1,050	267	206	358	107	92	28	112	23	16
21	16	27	951	267	242	436	194	92	33	90	19	17
22	15	28	870	230	384	554	358	88	34	90	16	14
23	15	65	810	218	488	666	423	79	33	98	14	13
24	15	500	694	254	475	680	475	74	28	90	11	13
25	15	1,320	652	423	462	638	501	74	26	88	8	12
26	15	1,540	624	501	449	582	514	70	23	90	7	12
27	14	1,580	825	554	436	527	514	70	29	88	6	12
28	14	1,500	970	540	397	462	488	70	34	90	6	12
29	14	1,420	1,110	488	-	410	410	74	34	90	5	12
30	14	1,340	1,150	449	-	410	280	70	34	90	5	11
31	14	-	1,150	436	-	384	-	66	-	88	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	550	29	14	17.7	1,090
November	10,086	1,580	15	336	20,010
December	31,655	1,400	624	1,021	62,790
Calendar year 1940	192,773	2,410	14	527	382,400
January	13,937	1,010	206	450	27,640
February	13,848	885	206	495	27,470
March	14,911	810	242	481	29,580
April	9,244	514	107	308	18,340
May	4,604	345	66	149	9,130
June	1,238	61	23	41.3	2,460
July	2,002	120	23	64.6	3,970
August	1,043	82	5	33.6	2,070
September	383	17	4	12.8	760
Water year 1940-41	103,501	1,580	4	284	205,300

Bayou Macon near Delhi, La.

Location.- Staff gage, lat. 32°27', long. 91°29', in SE¼ sec. 18, T. 17 N., R. 10 E., Louisiana meridian, at Illinois Central R. R. bridge, 150 feet downstream from U. S. Highway 80 and 1 mile east of Delhi. Datum of gage is 50.07 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1941 in reports of Geological Survey. October 1935 to September 1938 in reports of Corps of Engineers, U. S. Army. Daily gage heights as follows: 1885 to 1899 in reports of Weather Bureau; September 1925 to December 1931 (unpublished) in files of Corps of Engineers, U. S. Army; January 1932 to September 1941 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 2,620 second-feet Nov. 26 (gage height, 15.03 feet); minimum discharge, 119 second-feet Sept. 21-30; minimum gage height, 0.90 foot Sept. 23-30.

1938-41: Maximum discharge, 3,760 second-feet Feb. 28 to Mar. 2, 1939; maximum gage height observed, 19.05 feet July 14, 1940; minimum discharge, 47 second-feet Sept. 28, 29, 1939; minimum gage height, 0.4 foot on many days in 1939.

Maximum stage known, 34.6 feet May 10, 11, 1927 (affected by Mississippi River Crevasse flow).

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Records collected and prepared in cooperation with the Corps of Engineers, U. S. Army.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22		Nov. 23 to Sept. 30			
0.9	127	0.9	119	8.0	1,270
1.4	213	2.0	268	12.0	2,040
1.8	283	4.0	582	15.0	2,620

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	230	1,690	1,810	905	1,020	1,330	1,010	358	164	390	138
2	135	230	1,560	1,670	1,060	990	1,310	973	343	158	358	138
3	127	213	1,440	1,590	1,350	956	1,290	956	328	164	328	138
4	127	213	1,360	1,590	1,610	922	1,270	939	313	171	343	152
5	135	213	1,270	1,590	1,770	888	1,250	990	298	171	343	138
6	143	204	1,200	1,570	1,790	905	1,220	1,080	283	184	343	138
7	152	204	1,500	1,560	1,730	1,250	1,180	1,090	283	184	343	132
8	152	195	1,860	1,500	1,630	1,710	1,150	1,080	268	198	328	126
9	152	204	2,040	1,460	1,540	2,060	1,130	1,020	268	198	313	126
10	160	230	2,060	1,400	1,420	2,220	1,090	973	254	198	283	132
11	160	248	2,000	1,350	1,310	2,240	1,060	905	268	198	254	132
12	160	283	1,880	1,310	1,200	2,160	1,010	854	254	226	240	132
13	160	265	1,750	1,250	1,130	2,080	956	803	240	254	240	132
14	160	248	1,610	1,220	1,080	1,940	922	752	226	268	212	132
15	169	248	1,540	1,180	1,020	1,820	888	718	226	283	212	132
16	178	248	1,540	1,180	956	1,730	854	684	212	358	198	132
17	169	248	1,560	1,160	922	1,670	820	650	212	438	198	132
18	160	230	1,590	1,150	888	1,610	803	616	212	454	184	126
19	160	230	1,570	1,110	888	1,560	769	582	198	438	184	126
20	160	230	1,540	1,060	939	1,540	905	566	198	390	184	126
21	160	248	1,480	1,020	1,010	1,610	1,090	550	198	374	171	119
22	160	248	1,420	990	1,080	1,690	1,250	518	184	374	171	119
23	152	486	1,350	956	1,130	1,770	1,330	502	184	422	164	119
24	160	1,810	1,290	1,040	1,130	1,770	1,290	470	171	422	164	119
25	160	2,470	1,250	1,080	1,130	1,750	1,290	438	171	422	158	119
26	160	2,620	1,270	1,130	1,090	1,670	1,270	422	164	406	158	119
27	160	2,550	1,670	1,150	1,080	1,570	1,180	406	164	406	152	119
28	160	2,350	1,940	1,090	1,040	1,500	1,200	390	164	406	152	119
29	160	2,140	2,040	1,060	-	1,400	1,110	390	164	438	145	119
30	160	1,840	2,000	990	-	1,330	1,060	390	164	454	145	119
31	178	-	1,920	939	-	1,310	-	374	-	454	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,824	178	127	156	9,570
November	21,376	2,620	195	713	42,400
December	50,190	2,060	1,200	1,619	99,550
Calendar year 1940	382,720	3,330	89	1,046	759,100
January	39,155	1,810	939	1,263	77,660
February	33,828	1,790	888	1,208	67,100
March	48,641	2,240	888	1,569	96,480
April	33,277	1,330	769	1,109	66,000
May	22,091	1,090	374	713	43,820
June	6,970	358	164	232	13,820
July	9,675	454	158	312	19,190
August	7,203	390	145	232	14,290
September	3,850	152	119	128	7,640
Water year 1940-41	281,080	2,620	119	770	557,500

Dugdemona River near Jonesboro, La.

Location.- Water-stage recorder, lat. 32°13', long. 92°48', in sec. 8, T. 14 N., R. 4 W., Louisiana meridian, at bridge on State Highway 13, 2 miles downstream from Potts and Big Creeks, and 6 miles southwest of Jonesboro.

Drainage area.- 351 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 7,210 second-feet May 7 (gage height, 15.06 feet); minimum, 5.8 second-feet Oct. 5 (gage height, 3.28 feet).
1938-41: Maximum discharge, that of May 7, 1941; minimum, 3.9 second-feet Dec. 17, 18, 1939; minimum gage height, 3.09 feet Sept. 21, 1939.

Remarks.- Records good except those for period of no gage-height record, which are fair. Water used by a paper mill at Hodge is pumped from wells and discharged into the stream about 7 miles above station. This discharge is not continuous but is stored in a reservoir and is released whenever the river flow is sufficient to materially dilute this effluent.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 8)

Oct. 1 to Dec. 28						Dec. 29 to Sept. 30					
3.7	13	7.5	216	10.8	790	3.5	10	8.0	263	12.0	1,600
4.0	23	8.2	271	11.4	1,090	3.7	15	8.8	344	12.6	2,260
4.4	38	9.0	361	12.0	1,550	4.0	24	9.6	469	13.2	3,190
5.2	78	9.6	452	12.5	2,100	4.4	41	10.2	619	14.0	4,800
6.0	122	10.2	592			5.2	81	10.8	850	14.8	6,590
						7.0	189	11.4	1,170		

Note.- Same as following table above 12.9 feet.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	16	h1,170	1,650	219	975	384	66	117	84	36	12
2	11	18	h940	1,370	316	762	509	58	132	100	25	15
3	8.9	16	h752	1,160	573	578	857	54	103	110	117	17
4	6.4	13	h617	995	886	465	1,650	56	69	156	301	22
5	6.6	12	533	950	1,000	399	1,760	328	56	252	212	34
6	8.9	17	434	980	1,030	390	1,790	2,410	45	232	237	45
7	10	19	516	935	920	908	1,580	6,760	48	144	224	36
8	8.9	17	1,210	792	711	2,210	1,190	4,400	96	87	187	25
9	8.4	19	3,260	613	556	3,100	868	2,320	115	65	198	21
10	9.1	23	3,210	481	450	2,790	622	1,580	117	55	192	18
11	7.0	34	2,530	398	373	1,960	485	1,190	141	46	159	16
12	7.1	54	1,920	344	316	1,420	376	841	169	43	111	14
13	8.8	91	1,730	307	273	1,100	292	553	170	60	82	13
14	8.5	101	1,630	283	245	850	232	381	229	86	53	12
15	9.4	88	1,490	278	228	635	192	271	209	224	36	13
16	7.8	64	1,420	368	210	504	161	195	406	277	28	13
17	6.8	46	1,360	533	191	430	140	142	685	248	24	13
18	9.4	36	1,180	645	177	384	126	114	805	157	23	12
19	9.7	h31	1,010	675	172	349	120	97	685	94	22	11
20	9.2	a30	875	619	461	334	114	84	575	64	17	11
21	9.6	a30	727	477	1,260	458	110	75	398	71	17	9.8
22	10	a38	595	366	2,290	604	110	67	278	119	16	9.8
23	10	a72	507	312	2,360	750	112	57	319	78	16	8.9
24	10	a281	429	300	1,970	832	116	50	373	56	15	9.8
25	11	d3,190	373	394	1,790	750	128	44	338	55	14	12
26	11	d4,800	482	467	1,600	575	162	38	222	144	11	12
27	11	d3,750	3,210	458	1,540	441	185	33	129	222	10	11
28	11	h2,790	6,130	399	1,170	360	138	32	103	156	11	11
29	11	h2,040	6,310	337	-	303	98	34	87	66	11	10
30	8.6	h1,480	4,030	282	-	260	76	39	68	43	11	11
31	9.2	-	2,370	240	-	253	-	60	-	51	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	285.3	11	6.4	9.20	0.026	0.03	566
November	19,216	4,800	12	641	1.83	2.04	38,110
December	52,950	6,310	373	1,708	4.87	5.61	105,000
Calendar year 1940	211,347.2	6,310	6.4	577	1.64	22.40	419,200
January	18,408	1,650	240	594	1.69	1.95	36,510
February	25,087	2,560	172	825	2.35	2.45	45,790
March	26,129	3,100	253	843	2.40	2.77	51,850
April	14,683	1,790	76	489	1.39	1.56	29,120
May	22,429	6,760	32	724	2.06	2.38	44,490
June	7,287	805	45	243	.692	.77	14,450
July	3,645	277	43	118	.336	.39	7,230
August	2,427	301	10	78.3	.223	.26	4,810
September	478.3	45	8.9	15.9	.045	.05	949
Water year 1940-41	191,024.6	6,760	6.4	523	1.49	20.26	378,900

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for station near Winnfield and Saline Bayou near Lucky.
h Computed from graph based on gage readings.

Dugdemona River near Winnfield, La.

Location.- Wire-weight gage, lat. 31°58', long. 92°39', in sec. 34, T. 12 N., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 167, 300 feet upstream from Chicago & Rock Island R. R. bridge, 4 miles north of Winnfield, and about 7 miles downstream from Big Creek.

Drainage area.- 659 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 9,680 second-feet Nov. 25 (gage height, 19.46 feet); minimum, 7.0 second-feet Oct. 10, 11 (gage height, 1.83 feet).
1939-41: Maximum discharge, that of Nov. 25, 1940; minimum, 4.3 second-feet Oct. 25, 1939; minimum gage height, 1.60 feet Aug. 19, Sept. 27-29, 1939.

Remarks.- Records good. Gage read twice daily. Water used by a paper mill at Hodge is pumped from wells and discharged into the stream about 30 miles above the station. This discharge is not continuous but is stored in a reservoir and is released whenever the river flow is sufficient to materially dilute the effluent.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.9	8.3	6.5	307	15.4	2,630
2.2	16	8.5	524	16.2	3,400
2.6	30	10.0	746	17.0	4,560
3.0	50	12.0	1,160	18.4	7,240
3.7	91	13.5	1,590	19.3	9,300
5.0	180	14.5	2,050		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	23	3,890	5,780	625	2,520	876	199	113	349	150	20
2	16	20	3,250	4,490	729	2,230	791	161	166	238	95	109
3	14	22	2,810	3,470	1,000	1,950	872	129	177	556	317	462
4	13	23	2,450	2,840	1,010	1,720	1,000	109	169	755	698	439
5	12	25	2,140	2,400	1,040	1,510	1,070	324	162	563	739	368
6	11	24	1,860	2,070	1,090	1,370	1,220	961	145	347	751	295
7	11	22	1,730	1,820	1,090	1,690	1,360	1,300	162	278	804	194
8	9.8	20	1,700	1,610	1,100	1,980	1,520	1,490	484	279	719	140
9	8.5	18	1,630	1,440	1,140	2,300	1,690	3,560	518	277	624	117
10	7.4	54	1,590	1,310	1,180	2,490	1,820	5,350	326	230	522	93
11	7.2	156	1,640	1,230	1,180	2,760	1,810	4,490	373	168	477	72
12	7.9	210	2,130	1,150	1,140	3,320	1,660	3,400	510	119	447	59
13	9.0	182	3,720	1,050	1,050	3,220	1,440	2,690	417	103	403	50
14	9.2	182	4,490	957	920	2,780	1,220	2,190	375	133	314	40
15	9.0	178	4,250	853	789	2,370	1,000	1,800	494	114	204	32
16	8.5	149	3,790	815	649	2,040	796	1,480	1,200	293	138	28
17	7.7	134	3,330	900	524	1,760	682	1,200	1,820	507	100	23
18	7.4	123	2,920	908	436	1,510	608	924	1,940	445	71	21
19	7.4	108	2,570	924	391	1,300	303	634	1,880	352	53	21
20	7.9	85	2,300	914	862	1,140	371	357	1,780	321	43	21
21	8.3	70	2,080	872	1,260	1,160	280	206	1,620	300	36	20
22	7.9	64	1,900	842	1,440	1,180	264	151	1,470	331	33	18
23	7.4	460	1,730	834	1,580	1,170	242	123	1,330	407	30	16
24	7.5	3,740	1,570	842	1,730	1,160	258	106	1,170	474	27	17
25	8.1	9,060	1,410	884	2,070	1,110	239	93	974	539	24	21
26	8.1	9,300	1,460	949	2,650	1,030	228	79	782	590	22	30
27	9.0	7,990	2,420	987	2,940	982	233	70	600	554	21	42
28	9.2	6,840	4,230	872	2,810	961	218	64	582	452	20	48
29	9.8	5,740	5,670	748	-	949	211	70	649	318	19	60
30	10	4,760	6,780	678	-	908	215	77	594	258	16	55
31	14	-	6,820	646	-	888	-	91	-	222	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	300.2	17	7.2	9.68	0.015	0.02	595
November	49,782	9,300	18	1,659	2.52	2.81	98,740
December	90,260	6,820	1,410	2,912	4.42	5.09	179,000
Calendar year 1940	389,940.2	9,300	7.2	1,065	1.62	22.00	773,400
January	46,085	5,780	646	1,487	2.26	2.60	91,410
February	34,425	2,940	391	1,229	1.86	1.94	68,280
March	53,458	3,320	888	1,724	2.62	3.02	106,000
April	24,197	1,820	211	807	1.22	1.37	47,990
May	35,878	5,350	64	1,093	1.66	1.91	67,200
June	22,982	1,940	113	766	1.16	1.30	45,580
July	10,872	755	103	351	.533	.61	21,560
August	7,931	804	14	256	.388	.45	15,730
September	2,931	462	16	97.7	.148	.17	5,810
Water year 1940-41	377,101.2	9,300	7.2	1,033	1.57	21.29	747,900

Bayou Castor near Grayson, La.

Location.- Wire-weight gage, lat. 32°05', long. 92°12', in sec. 30, T. 13 N., R. 3 E., Louisiana meridian, at bridge on State Highway 110, 6 miles upstream from Bayou Beaucoup and 6½ miles northwest of Grayson.

Drainage area.- 270 square miles.

Records available.- May 1940 to September 1941.

Extremes.- Maximum discharge during year, 5,800 second-feet Nov. 26 (gage height, 13.20 feet) from rating curve extended above 1,700 second-feet; minimum, 1 second-foot Oct. 8-31; minimum gage height, 1.10 feet Oct. 11, 16, 18-28.
1940-41: Maximum discharge, that of Nov. 26, 1940; minimum, 1 second-foot Sept. 13-25, 30, Oct. 8-31, 1940; minimum gage height, 1.08 feet Sept. 23, 1940.

Remarks.- Records good except those below 10 second-feet or above 2,000 second-feet, which are fair. Gage read twice daily.

Rating table, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

1.2	1.4	2.6	25	8.2	385	11.2	1,780
1.4	3.2	2.9	34	9.0	512	11.6	2,680
1.6	5.3	3.5	59	9.6	654	12.4	3,860
1.8	7.8	5.0	130	10.0	805	13.1	5,540
2.0	11	6.2	203	10.4	1,030		
2.3	17	7.2	281	10.8	1,350		

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	3	825	1,090	290	574	226	52	73	17	112	3
2	4	5	682	835	322	493	252	37	83	60	93	7
3	4	11	576	692	378	448	292	30	107	92	57	17
4	3	12	504	586	339	397	336	26	132	36	82	23
5	3	10	430	491	325	340	366	93	152	30	e4	24
6	2	17	380	411	325	286	422	372	160	44	34	34
7	2	23	398	341	338	342	541	412	125	47	58	55
8	1	24	547	285	360	455	546	358	69	52	22	59
9	1	23	637	233	375	547	497	316	35	48	21	46
10	1	26	1,070	183	370	798	433	294	22	29	23	27
11	1	39	1,610	141	342	1,150	365	283	31	18	20	16
12	1	54	1,370	115	297	946	292	294	68	14	16	13
13	1	57	1,220	100	247	744	222	304	74	12	12	10
14	1	65	1,040	102	190	600	151	278	49	24	9	8
15	1	90	899	88	138	486	98	211	54	27	8	7
16	1	110	782	107	104	404	66	120	114	22	10	6
17	1	123	676	152	89	328	53	56	168	24	9	5
18	1	129	583	188	81	264	45	30	138	38	6	5
19	1	110	520	209	78	206	43	22	104	70	6	5
20	1	75	470	224	310	170	199	18	105	62	6	4
21	1	46	444	242	479	236	338	15	164	29	e	4
22	1	43	404	259	486	290	401	13	179	19	9	4
23	1	129	357	262	518	306	329	12	188	21	6	3
24	1	1,800	316	253	626	306	294	10	179	44	5	5
25	1	4,880	270	230	855	316	266	9	187	62	4	6
26	1	5,590	390	253	899	326	200	9	145	57	5	13
27	1	3,840	1,930	281	796	338	138	8	147	47	5	11
28	1	2,170	3,480	285	670	336	111	8	132	48	4	8
29	1	1,410	3,780	299	-	310	100	9	62	39	3	6
30	1	1,010	2,700	306	-	262	78	111	29	55	3	5
31	1	-	1,570	311	-	229	-	181	-	93	3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	44	4	1	1.4	0.005	0.01	87
November	21,924	5,590	3	731	2.71	3.02	43,490
December	31,060	3,780	270	1,002	3.71	4.28	61,610
Calendar year	-	-	-	-	-	-	-
January	9,554	1,090	88	308	1.14	1.32	18,950
February	10,627	899	78	380	1.41	1.46	21,080
March	13,231	1,150	170	427	1.58	1.82	26,240
April	7,700	546	43	257	.952	1.06	15,270
May	3,991	412	e	129	.478	.55	7,920
June	3,245	188	22	108	.400	.45	6,440
July	1,280	93	12	41.3	.153	.18	2,540
August	743	112	3	24.0	.089	.10	1,470
September	439	59	3	14.6	.054	.06	871
Water year 1940-41	103,838	5,590	1	284	1.05	14.31	206,000

Bayou Funny Louis near Trout, La.

Location.- Wire-weight gage, lat. 31°43', long. 92°13', in sec. 36, T. 9 N., R. 2 E., Louisiana meridian, at bridge on U. S. Highway 84, 3 miles northwest of Trout and about 12 miles upstream from mouth.

Drainage area.- 93.5 square miles.

Records available.- April 1939 to September 1941.

Extremes.- Maximum discharge during year, 2,170 second-feet May 31 (gage height, 16.18 feet); minimum, 0.4 second-foot Oct. 23, 25-28 (gage height, 1.35 feet).
1939-41: Maximum discharge, that of May 31, 1941; minimum, 0.1 second-foot at times in 1939 and 1940; minimum gage height, 1.19 feet Sept. 22, 23, 1939.

Remarks.- Records fair except those below 1 second-foot, which are poor. Gage read twice daily.

Rating tables, water year 1940-41 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 23						Nov. 24 to Sept. 30					
1.4	0.6	2.0	5.5	3.8	54	1.5	1.8	2.5	17	8.7	442
1.5	1.0	2.2	8.5	4.4	86	1.6	2.5	3.1	32	10.2	608
1.6	1.5	2.5	14	5.0	124	1.7	3.4	3.4	42	11.4	806
1.7	2.2	3.0	26	5.4	152	1.8	4.5	3.7	55	13.2	1,180
1.8	3.1	3.4	37			2.0	7.2	4.3	87	15.0	1,730
						2.2	10	6.0	206	16.0	2,100

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	1.8	49	107	40	50	276	15	1,780	6.9	26	2.5
2	1.4	1.4	44	85	582	40	187	12	1,050	392	18	16
3	1.3	1.4	38	83	1,020	34	93	9.8	136	371	470	23
4	1.2	.7	33	92	636	31	67	13	56	347	1,050	23
5	1.0	.6	27	85	250	28	44	610	37	324	549	13
6	.9	.7	33	70	121	25	30	1,830	28	43	190	9.1
7	.8	.7	253	54	152	30	24	1,470	48	22	52	6.4
8	.8	.6	582	48	112	40	21	933	107	14	39	5.0
9	.8	.8	404	41	78	36	14	297	47	10	29	10
10	.8	21	211	35	56	30	14	73	28	9.3	22	47
11	.6	25	95	33	47	27	12	57	317	48	19	12
12	.7	33	301	29	38	23	11	47	308	526	85	5.5
13	.7	22	1,450	27	35	22	9.3	35	137	452	37	3.4
14	.7	9.4	1,510	26	32	24	8.2	27	56	559	19	3.1
15	.6	4.8	1,100	26	29	25	7.5	20	345	198	12	2.7
16	.6	4.8	568	274	26	72	6.1	16	1,350	526	9.3	3.4
17	.5	4.1	238	463	26	59	5.5	13	791	490	8.2	3.4
18	.5	2.9	145	244	23	38	5.3	11	232	107	6.9	2.8
19	.5	2.4	95	108	21	28	10	9.5	85	104	6.4	2.2
20	.5	2.2	70	64	523	182	380	8.2	52	182	5.8	1.9
21	.5	2.1	54	50	612	467	552	6.9	142	503	5.0	1.7
22	.5	2.4	47	50	353	268	704	6.2	52	1,300	4.6	1.6
23	.4	152	43	38	134	149	285	5.5	29	1,060	4.1	1.4
24	.5	1,990	36	37	107	87	338	5.0	21	310	3.8	101
25	.5	1,850	35	41	162	59	279	4.1	17	128	3.6	74
26	.4	1,350	620	118	134	43	133	3.8	13	79	3.6	20
27	.4	582	1,880	327	91	41	58	3.6	11	398	3.2	11
28	.4	172	1,820	193	67	40	37	4.3	9.8	99	2.9	5.5
29	.7	88	1,400	94	-	33	26	5.5	8.8	74	2.9	4.4
30	.8	60	751	60	-	26	19	847	8.2	50	2.9	3.2
31	.8	-	171	46	-	99	-	2,120	-	43	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	22.6	1.8	0.4	0.73	0.0078	0.009	45
November	6,388.8	1,990	.6	213	2.28	2.54	12,670
December	14,103	1,880	27	455	4.87	5.61	27,970
Calendar year 1940	68,401.3	1,990	.4	187	2.00	27.20	135,700
January	3,048	463	26	98.3	1.05	1.21	6,050
February	5,507	1,020	21	197	2.11	2.19	10,920
March	2,156	467	22	69.5	.743	.86	4,280
April	3,655.9	704	5.3	122	1.30	1.45	7,250
May	8,518.4	2,120	3.6	275	2.94	3.39	16,900
June	7,301.8	1,780	8.2	243	2.60	2.90	14,480
July	8,775.2	1,300	6.9	283	3.03	3.49	17,410
August	2,692.7	1,050	2.5	86.9	.929	1.07	5,340
September	419.2	101	1.4	14.0	.150	.17	831
Water year 1940-41	62,588.6	2,120	.4	171	1.83	24.89	124,100

Tangipahoa River at Robert, La.

Location.- Water-stage recorder, lat. 30°30', long. 90°22', in sec. 25, T. 6 S., R. 8 E., St. Helena meridian, at bridge on U. S. Highway 190, 1 mile west of Robert, 6 miles east of Hammond, and 2 miles downstream from Chappepeela Creek.

Drainage area.- 646 square miles.

Records available.- October 1938 to September 1941.

Extremes.- Maximum discharge during year, 11,200 second-feet Dec. 18 (gage height, 16.48 feet); minimum, 317 second-feet Oct. 31 (gage height, 3.22 feet).
1938-41: Maximum discharge, that of Dec. 18, 1940; minimum observed, 264 second-feet on several days in October 1939; minimum gage height observed, 2.95 feet Oct. 25, 1939.
Maximum stage known, 27.1 feet in 1921 from floodmark.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	388	353	392	1,900	778	502	632	635	632	346	448	419
2	372	397	407	2,350	727	487	980	577	621	372	407	526
3	365	397	432	2,890	736	476	1,140	537	580	489	494	758
4	358	353	476	2,020	780	471	954	513	487	588	693	750
5	358	337	461	1,510	752	461	824	500	435	644	1,960	677
6	349	335	432	1,260	724	476	716	513	397	977	1,820	523
7	356	335	427	1,100	716	1,210	618	537	377	713	1,200	440
8	356	335	471	983	705	2,350	559	569	377	523	783	407
9	351	331	572	899	694	2,760	529	521	372	448	691	387
10	351	358	618	850	652	2,150	510	481	363	412	691	377
11	346	594	556	803	615	1,510	487	458	351	407	569	370
12	342	1,100	526	761	586	1,110	471	442	344	430	643	370
13	337	786	1,310	730	575	1,030	458	419	340	529	879	370
14	353	529	3,160	713	569	1,140	453	407	344	931	738	363
15	340	440	5,170	1,220	553	1,000	435	397	353	954	580	360
16	337	402	7,530	1,970	550	931	424	387	409	713	507	360
17	387	377	9,860	2,360	534	893	424	375	604	758	471	358
18	430	363	10,800	2,330	521	830	424	375	798	896	455	375
19	424	356	7,060	1,630	510	769	419	387	919	783	466	375
20	419	358	3,580	1,220	505	736	432	372	992	702	427	358
21	417	358	2,320	1,020	502	761	435	365	722	761	400	349
22	414	358	1,980	911	500	783	730	356	604	780	390	340
23	412	360	1,660	841	497	766	1,640	344	607	666	372	342
24	412	402	1,380	800	513	738	2,060	337	521	604	368	351
25	410	414	1,230	795	521	708	2,740	335	492	521	358	368
26	407	416	1,620	821	534	660	2,730	337	448	497	372	375
27	390	432	3,700	960	537	626	1,690	437	430	766	368	358
28	356	450	4,870	1,410	523	602	1,110	397	414	1,190	363	349
29	326	424	4,790	1,230	-	588	861	360	390	827	358	340
30	320	400	4,080	1,020	-	572	724	365	368	610	351	335
31	322	-	3,070	870	-	561	-	456	-	502	365	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,502	430	320	371	0.574	0.66
November	12,852	1,100	331	428	.663	.74
December	84,940	10,800	392	2,740	4.24	4.89
Calendar year 1940	414,149	10,800	320	1,132	1.75	23.84
January	40,677	2,890	713	1,312	2.03	2.34
February	16,909	780	497	604	.935	.97
March	28,657	2,760	461	924	1.43	1.65
April	26,609	2,740	419	894	1.38	1.54
May	13,493	635	335	435	.673	.78
June	15,091	992	340	503	.779	.87
July	20,539	1,190	346	663	1.03	1.18
August	19,187	1,960	351	619	.958	1.10
September	12,430	758	335	414	.641	.72
Water year 1940-41	303,086	10,800	320	830	1.28	17.44

Amite River near Denham Springs, La.

Location.- Water-stage recorder, lat. 30°28', long. 90°59', in sec. 2, T. 7 S., R. 2 E., St. Helena meridian, at bridge on U. S. Highway 190, 1,000 feet downstream from Comite River, 3 miles southwest of Denham Springs, and 15 miles east of Baton Rouge. Datum of gage is 0.37 foot below mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,330 square miles.

Records available.- September 1938 to September 1941.

Extremes.- Maximum discharge during year, 20,800 second-feet Dec. 17 (gage height, 24.32 feet); minimum, 332 second-feet Oct. 31; minimum gage height, 4.94 feet Sept. 30.
1938-41: Maximum discharge, that of Dec. 17, 1941; minimum, 279 second-feet Nov. 18, 1938 (gage height, 4.56 feet).
Maximum stage known, 35.4 feet, from floodmark, Mar. 15, 1921.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	573	395	707	k3,860	1,300	733	1,400	708	2,250	596	943	477
2	527	403	750	k3,930	1,170	674	2,200	666	1,800	602	751	474
3	497	420	1,100	k3,760	1,210	636	2,140	637	1,610	688	679	539
4	471	403	1,140	k2,390	1,450	613	1,900	608	977	698	k1,760	751
5	456	376	896	1,940	1,510	594	1,460	731	1,150	647	k3,980	1,030
6	439	368	740	1,650	1,310	607	1,230	1,970	1,000	792	4,430	943
7	431	355	724	1,480	1,260	k3,190	1,130	2,140	748	820	3,920	806
8	420	355	1,270	1,360	1,380	k6,690	1,210	1,670	799	682	k3,040	650
9	411	355	1 190	1,260	1,340	7,860	981	1,430	1,060	564	k1,520	560
10	411	k1,180	1 60	1,170	1,140	k7,440	874	1,090	935	530	1,100	512
11	406	k5,530	30	1,090	993	k3,580	820	866	698	554	881	491
12	392	k5,230	14	1,020	907	k2,010	785	745	596	779	1,030	483
13	367	k3,030	k1,150	968	846	1,820	741	663	564	906	1,000	551
14	384	k1,490	k8,790	943	812	2,530	701	628	564	1,100	1,130	509
15	381	885	k13,000	1,090	777	2,000	679	592	839	1,170	874	466
16	373	648	17,500	k1,980	760	1,660	656	564	1,180	877	704	458
17	371	554	20,400	k3,510	727	1,520	644	545	1,520	884	647	455
18	366	503	18,500	3,800	700	1,470	634	536	1,740	1,440	656	455
19	360	476	14,000	k2,460	677	1,420	618	524	2,200	947	640	455
20	358	459	k8,620	1,750	674	1,510	628	515	2,830	745	618	438
21	355	448	k6,550	1,350	664	2,270	634	506	2,190	779	564	427
22	350	453	k4,760	1,160	658	2,570	1,150	503	1,590	1,550	524	416
23	350	503	k2,860	1,060	652	2,270	1,940	488	1,780	1,310	491	407
24	348	536	2,200	1,020	760	1,810	2,860	486	1,210	924	466	410
25	345	607	2,110	1,160	882	1,520	3,140	474	954	920	458	418
26	340	1,650	k3,920	1,690	907	1,330	2,000	488	806	992	449	466
27	340	2,190	k7,820	2,250	921	1,210	1,360	488	1,000	1,050	469	452
28	340	1,620	k10,900	3,490	826	1,130	1,050	474	1,050	1,280	551	441
29	338	1,090	12,000	3,320	-	1,100	863	477	806	2,580	521	413
30	335	829	k10,300	2,280	-	1,040	775	512	663	2,770	474	402
31	345	-	k6,940	1,580	-	1,000	-	1,250	-	1,640	494	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,200	573	335	394	0.296	0.34
November	33,341	5,530	355	1,111	.835	.93
December	187,231	20,400	707	6,040	4.54	5.24
Calendar year 1940	877,260	20,400	335	2,397	1.80	24.52
January	61,771	3,930	943	1,993	1.50	1.73
February	27,213	1,510	652	972	.731	.76
March	65,807	7,860	594	2,123	1.60	1.84
April	37,203	3,140	618	1,240	.932	1.04
May	24,174	2,140	474	780	.586	.68
June	37,109	2,830	564	1,237	.930	1.04
July	31,816	2,770	530	1,026	.771	.89
August	35,764	4,430	449	1,154	.868	1.00
September	15,755	1,030	402	525	.395	.44
Water year 1940-41	569,384	20,400	335	1,560	1.17	15.93

k Computed using rate of change of stage and backwater from return of overbank storage as factors.

Atchafalaya River at Krotz Springs, La.

Location.- Water-stage recorder, lat. 30°32', long. 91°44', in T. 6 S., R. 7 E., Louisiana meridian, at highway bridge on State Highway 7, half a mile north of Krotz Springs, 10 miles upstream from mouth of Bayou Courtableau, and 42 miles downstream from confluence of Red River and Old River (head of Atchafalaya River). Datum of gage is at mean Gulf level, datum of Corps of Engineers, U. S. Army (levels by Corps of Engineers, U. S. Army).

Records available.- October 1934 to September 1941.

Extremes.- Maximum discharge during year, 218,000 second-feet May 1 (gage height, 24.86 feet); minimum, 20,000 second-feet Oct. 29, 31, Nov. 3; minimum gage height, 3.01 feet Oct. 23.

1934-41: Maximum discharge, 443,000 second-feet Feb. 28, 1937 (gage height, 37.80 feet), discharge measurement; minimum, 17,400 second-feet Nov. 4, 1939; minimum gage height, 2.28 feet Nov. 5, 1939.

Maximum stage known, 38.5 feet above mean Gulf level May 15, 1927, at Missouri Pacific R. R. bridge half a mile downstream.

Remarks.- Records excellent.

Gage height at 8 a.m., in feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.59	3.49	11.34	16.94	15.93	14.42	16.36	24.70	15.71	21.28	11.67	5.04
2	4.44	3.28	11.68	17.10	16.30	14.79	16.10	24.78	15.48	20.73	11.37	5.10
3	4.31	3.24	12.04	17.08	16.62	15.04	15.74	24.74	15.08	19.91	11.04	4.89
4	4.28	3.33	12.56	17.07	16.89	15.00	15.39	24.61	14.60	19.01	10.84	4.85
5	4.32	3.50	12.98	16.99	17.21	14.78	15.14	24.52	14.04	18.12	10.27	4.96
6	4.47	3.41	13.27	16.84	17.53	14.49	14.97	24.58	13.40	17.07	9.63	5.23
7	4.54	3.24	13.35	16.76	18.06	14.75	14.90	24.30	12.76	16.10	9.07	5.72
8	4.41	3.18	13.49	16.93	18.75	14.61	14.96	24.07	12.51	15.18	8.73	6.20
9	4.37	3.22	13.56	17.29	19.33	14.38	15.03	23.64	12.45	14.41	8.39	6.47
10	4.34	3.86	13.54	17.61	19.72	14.16	15.05	23.19	12.49	13.73	8.22	6.49
11	4.24	4.33	13.46	17.86	19.97	14.05	15.04	22.61	12.71	13.36	8.04	6.34
12	4.07	4.57	13.40	18.14	19.69	13.96	15.00	22.18	13.10	13.36	7.80	6.18
13	3.95	4.83	13.87	18.44	19.67	13.86	14.99	21.86	13.82	13.51	7.43	6.34
14	3.80	5.01	14.37	18.77	19.22	13.72	15.08	21.71	14.42	13.71	7.00	6.58
15	3.68	5.10	14.45	19.02	18.69	13.57	15.32	21.59	15.30	13.96	6.60	7.00
16	3.35	5.19	14.60	19.20	18.05	13.55	15.82	21.25	16.37	14.17	6.00	7.22
17	3.16	5.22	14.68	19.16	17.38	13.59	16.48	20.88	17.67	14.40	5.51	7.41
18	3.12	5.19	14.39	18.88	16.63	13.57	17.11	20.48	18.91	14.54	5.14	7.80
19	3.14	5.20	14.26	18.48	15.86	13.66	17.56	20.18	20.12	14.58	4.85	8.22
20	3.18	5.41	14.20	18.04	15.19	13.90	18.03	19.80	21.14	14.77	4.67	8.40
21	3.10	5.59	14.34	17.57	14.59	14.50	18.36	19.42	21.92	14.91	4.54	8.50
22	3.04	5.79	14.56	17.01	14.15	15.45	19.08	18.98	22.48	15.23	4.51	8.84
23	3.08	5.77	14.75	16.39	13.87	15.70	19.73	18.60	22.85	15.38	4.49	9.35
24	3.14	5.88	15.03	15.79	13.67	15.90	20.51	18.00	23.00	15.28	4.54	9.63
25	3.22	7.25	15.25	15.24	13.55	16.16	21.38	17.43	22.99	14.85	4.68	9.73
26	3.28	9.15	15.60	14.81	13.50	16.40	22.20	16,90	22.90	14.32	4.84	9.52
27	3.28	10.18	15.97	14.67	13.59	16.61	22.84	16.32	22.76	13.73	4.98	9.20
28	3.23	10.58	16.67	14.69	13.95	16.76	23.46	15.87	22.56	13.21	5.08	8.91
29	3.24	10.95	17.01	14.75	-	16.80	24.05	15.58	22.22	12.72	5.10	8.68
30	3.30	11.18	16.96	15.17	-	16.71	24.46	15.40	21.83	12.30	5.07	8.43
31	3.25	-	16.88	15.60	-	16.64	-	15.82	-	11.96	5.00	-

Discharge, in second-feet, of Atchafalaya River at Krotz Springs, La., for water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30,600	21,700	77,200	120,000	112,000	97,700	111,000	216,000	104,000	166,000	74,200	32,500
2	29,300	20,500	79,300	119,000	116,000	101,000	108,000	215,000	101,000	158,000	72,000	32,600
3	27,700	20,400	82,100	118,000	120,000	102,000	105,000	213,000	97,200	147,000	70,500	31,800
4	27,200	21,400	85,700	118,000	123,000	102,000	102,000	211,000	93,000	135,000	68,200	32,000
5	27,600	22,200	89,000	118,000	125,000	99,600	100,000	210,000	88,400	124,000	64,100	34,000
6	28,400	21,800	90,700	117,000	127,000	97,300	99,000	209,000	83,200	112,000	59,900	37,500
7	28,700	22,200	91,500	117,000	132,000	97,700	99,600	206,000	80,000	102,000	56,700	40,100
8	29,000	22,900	91,800	120,000	140,000	95,900	101,000	202,000	79,200	94,100	54,300	42,500
9	28,900	23,500	91,800	124,000	146,000	93,400	102,000	196,000	79,800	88,200	52,400	43,700
10	28,800	27,800	91,200	128,000	150,000	91,800	102,000	190,000	81,200	83,500	51,300	43,400
11	27,900	30,500	90,100	131,000	151,000	90,900	102,000	183,000	84,600	81,200	50,100	42,200
12	27,000	32,000	89,400	134,000	149,000	89,900	102,000	178,000	89,300	82,400	48,600	41,300
13	26,300	33,800	93,000	138,000	145,000	88,900	102,000	175,000	95,400	86,000	46,300	41,900
14	25,300	34,700	95,400	141,000	139,000	87,700	103,000	172,000	102,000	88,800	43,600	43,600
15	24,400	34,900	95,400	143,000	132,000	86,800	106,000	170,000	110,000	92,900	40,700	45,700
16	23,000	35,200	95,700	144,000	124,000	86,900	112,000	166,000	122,000	95,700	37,500	46,900
17	22,600	35,100	95,200	142,000	115,000	87,300	118,000	162,000	137,000	97,600	34,700	48,500
18	23,200	34,700	93,700	138,000	107,000	87,700	125,000	158,000	152,000	98,500	32,500	51,500
19	22,900	34,800	92,700	132,000	100,000	89,000	130,000	153,000	166,000	99,000	31,000	54,300
20	22,700	35,800	92,600	126,000	94,700	92,000	135,000	149,000	178,000	101,000	30,400	55,800
21	22,000	36,000	93,700	120,000	90,500	101,000	140,000	144,000	188,000	102,000	30,300	56,700
22	21,000	36,200	96,100	114,000	87,900	109,000	148,000	139,000	195,000	105,000	30,600	59,200
23	20,600	36,400	98,600	107,000	86,200	112,000	156,000	133,000	199,000	106,000	30,600	62,200
24	20,500	39,000	102,000	101,000	85,200	114,000	165,000	128,000	200,000	104,000	31,100	63,900
25	20,800	52,200	104,000	97,500	84,600	116,000	175,000	121,000	198,000	99,600	31,900	64,200
26	21,000	63,400	107,000	95,700	84,500	117,000	185,000	115,000	195,000	94,600	33,000	62,700
27	20,600	69,300	111,000	95,800	86,100	118,000	193,000	110,000	192,000	89,700	33,600	60,600
28	20,300	71,900	118,000	96,500	91,400	119,000	201,000	106,000	187,000	85,600	33,900	58,700
29	20,200	74,100	121,000	99,500	-	118,000	208,000	103,000	181,000	81,800	33,300	57,100
30	20,400	75,600	120,000	104,000	-	115,000	214,000	103,000	174,000	78,700	32,000	55,800
31	20,600	-	120,000	109,000	-	113,000	-	105,000	-	76,100	32,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	759,500	30,600	20,200	24,500	1,506,000
November	1,120,000	75,600	20,400	37,330	2,221,000
December	2,994,900	121,000	77,200	96,610	5,940,000
Calendar year 1940	34,235,300	266,000	20,200	93,540	67,910,000
January	3,708,000	144,000	95,700	119,600	7,355,000
February	3,244,100	151,000	84,500	115,900	6,435,000
March	3,117,500	119,000	86,800	100,600	6,183,000
April	3,949,600	214,000	99,000	131,700	7,834,000
May	5,041,000	216,000	103,000	162,600	9,999,000
June	4,032,300	200,000	79,200	134,400	7,998,000
July	3,156,000	166,000	76,100	101,800	6,260,000
August	1,371,300	74,200	30,300	44,240	2,720,000
September	1,442,900	64,200	31,800	48,100	2,862,000
Water year 1940-41	33,937,100	216,000	20,200	92,980	67,310,000

Bayou Cocodrie near Clearwarer, La.

Location.- Water-stage recorder, lat. 31°00', long. 92°23', in sec. 4, T. 1 S., R. 1 E., Louisiana meridian, just below bridge on State Highway 26, seven-eighths of a mile downstream from Rock Island Railroad bridge, 1½ miles east of Clearwater, 4 miles south of Meeker, and 5 miles downstream from Hurricane Creek. Datum of gage is 40.00 feet above mean Gulf level (datum of Corps of Engineers, U. S. Army).

Drainage area.- 227 square miles.

Records available.- May 1922 to January 1925 (published as Bayou Cocodrie near Meeker, La.) and October 1937 to September 1941.

Extremes.- Maximum discharge during year, 1,740 second-feet Dec. 14; maximum gage height, 18.67 feet Dec. 15; minimum discharge, 83 second-feet Oct. 28 (gage height, 5.52 feet).

1922-25, 1937-41: Maximum gage height observed, 21.50 feet, site then in use, present datum, Apr. 9, 1938; negative flow Nov. 13-15, 1922, probably caused by heavy rains in basin below station.

Remarks.- Records good.

Discharge, in second-feet, water year October 1940 to September 1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	363	202	934	1,050	689	378	466	491	793	662	567	313
2	338	322	925	1,030	683	362	452	476	816	654	551	312
3	312	406	917	1,010	676	346	444	460	807	673	562	335
4	286	419	903	994	669	328	435	447	789	694	585	376
5	255	412	887	973	657	307	425	c438	768	686	621	400
6	223	402	871	952	647	288	412	c504	748	672	638	396
7	194	384	870	933	639	286	397	c780	736	654	671	378
8	189	364	881	914	628	280	382	859	736	636	691	357
9	150	341	886	894	615	269	364	854	736	616	690	336
10	134	331	877	874	602	260	342	837	731	600	682	315
11	123	372	875	855	587	246	320	820	806	588	667	300
12	115	408	940	835	572	238	296	801	855	607	652	287
13	110	456	1,360	814	559	258	269	779	876	616	643	269
14	106	471	1,710	796	545	264	242	759	868	617	632	248
15	103	466	1,700	781	530	267	216	737	854	629	618	228
16	99	454	1,380	798	516	303	195	716	847	641	600	215
17	97	441	1,210	814	502	326	176	695	860	644	583	218
18	95	425	1,190	822	488	347	163	673	864	637	568	250
19	94	409	1,160	814	474	360	155	650	854	624	552	276
20	91	392	1,140	799	467	412	174	630	844	609	533	272
21	89	374	1,120	781	457	484	195	609	832	604	517	255
22	88	356	1,100	763	448	539	255	590	817	605	498	231
23	87	342	1,080	746	436	559	462	571	797	611	482	208
24	86	541	1,060	741	429	558	542	552	777	620	467	268
25	86	789	1,040	737	420	549	554	533	757	622	450	456
26	84	924	1,120	746	411	537	554	517	736	621	434	576
27	84	970	1,220	751	401	529	546	505	716	620	418	585
28	83	974	1,240	749	390	517	534	497	702	617	400	575
29	84	959	1,170	739	-	501	521	502	688	604	380	559
30	86	945	1,110	724	-	488	506	c502	678	596	358	544
31	106	-	1,070	707	-	479	-	c548	-	582	333	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,420	363	83	143	0.630	0.72
November	15,051	974	202	502	2.21	2.47
December	33,946	1,710	870	1,095	4.82	5.56
Calendar year 1940	185,353	1,830	83	506	2.23	30.37
January	25,936	1,050	707	837	3.69	4.25
February	15,137	689	390	541	2.38	2.48
March	11,863	559	238	383	1.69	1.94
April	10,994	554	155	366	1.61	1.80
May	19,332	859	438	624	2.75	3.17
June	23,688	876	678	790	3.48	3.88
July	19,461	694	582	628	2.77	3.19
August	17,043	691	333	550	2.42	2.79
September	10,338	585	208	345	1.52	1.69
Water year 1940-41	207,209	1,710	83	568	2.50	33.94

c Backwater from rainfall below gaging station; discharge computed on basis of temporary curve defined by discharge measurements.

In addition to the records of stream flow obtained at gaging stations in the lower Mississippi River Basin and reported in the preceding pages, measurements of flow were made at other points, as indicated in the following table:

Miscellaneous discharge measurements in lower Mississippi River Basin during water year October 1940 to September 1941

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Meramec River Basin				
Mar. 6	Racing Spring...	Racing Creek.....	SE¼ sec. 21, T. 37 N., R. 1 E., at Shirley, Mo.	2.28
White River Basin				
May 14	Montague Spring..	Tory Creek.....	NE¼ sec. 27, T. 26 N., R. 22 W., at Montague, Mo., 2 miles southwest of Highlandville, Mo.	2.81
Nov. 16	Swan Creek.....	White River.....	SE¼ sec. 33, T. 23 N., R. 20 W., at Forsyth, Mo.	8.72
Sept.14	Current River....	Black River.....	SW¼ sec. 9, T. 29 N., R. 3 W., ½ mile above confluence with Jacks Fork and 5 miles northeast of Eminence, Mo.	*298
15	....do.....	....do.....	NE¼ sec. 18, T. 29 N., R. 2 W., ½ mile below Blair Creek and 9 miles east of Eminence, Mo.	*442
15	....do.....	....do.....	NW¼ sec. 16, T. 29 N., R. 2 W., 300 feet below Powder Mill Ferry and 10 miles east of Eminence, Mo.	*480
15	....do.....	....do.....	SE¼ sec. 21, T. 29 N., R 2 W., 11 miles east of Eminence, Mo.	*564
15	....do.....	....do.....	NE¼ sec. 28, T. 29 N., R. 2 W., 11 miles east of Eminence, Mo.	*574
15	....do.....	....do.....	NE¼ sec. 4, T. 28 N., R. 2 W., 11 miles east of Eminence, Mo.	*594
Aug. 21	....do.....	....do.....	NE¼ sec. 35, T. 29 N., R. 2 W., 300 feet below Carr Creek and 2 miles southwest of Deslet, Mo.	*568
Sept.16	....do.....	....do.....	SE¼ sec. 35, T. 29 N., R. 2 W., 0.3 mile below Carr Creek and 2 miles southwest of Deslet, Mo.	*603
Aug. 21	....do.....	....do.....	SW¼ sec. 6, T. 28 N., R. 1 W., at Black's Ferry, 3½ miles south of Deslet, Mo.	*614
Sept.16	....do.....	....do.....	....do.....	*591
Aug. 22	....do.....	....do.....	SE¼ sec. 9, T. 28 N., R. 1 W., 5 miles southeast of Deslet, Mo.	*610
Sept.16	....do.....	....do.....	....do.....	*594
Aug. 22	....do.....	....do.....	NW¼ sec. 34, T. 28 N., R. 1 W., 4 miles northwest of Van Buren, Mo.	*603
Sept.18	....do.....	....do.....	....do.....	*605
Aug. 22	....do.....	....do.....	SE¼ sec. 4, T. 27 N., R. 1 W., 3 miles northwest of Van Buren, Mo.	*627
Sept.17	....do.....	....do.....	....do.....	*596
Aug. 22	....do.....	....do.....	SW¼ sec. 11, T. 27 N., R. 1 W., 1½ miles northwest of Van Buren, Mo.	*657
Sept.17	....do.....	....do.....	SE¼ sec. 14, T. 27 N., R. 1 W., 3/4 mile northwest of Van Buren, Mo.	*616
Aug. 22	....do.....	....do.....	SW¼ sec. 13, T. 27 N., R. 1 W., at Van Buren, Mo.	*641
Sept.17	....do.....	....do.....	....do.....	*594
17	....do.....	....do.....	NW¼ sec. 24, T. 27 N., R. 1 W., at Van Buren, Mo.	*649
Aug. 22	....do.....	....do.....	SW¼ sec. 24, T. 27 N., R. 1 W., at Van Buren, Mo.	*663
23	....do.....	....do.....	SW¼ sec. 32, T. 27 N., R. 1 E., 3 miles southeast of Van Buren, Mo.	*695
Sept.17	....do.....	....do.....	....do.....	*690
12	Jacks Fork.....	Current River.....	NW¼ sec. 36, T. 28 N., R. 6 W., 3/4 mile below Rymer's Ranch and 6 miles northwest of Birch Tree,Mo.	*28.3
12	....do.....	....do.....	Corner secs. 8 and 9, 16 and 17, T. 28 N., R. 5 W., 5 miles southwest of Alley, Mo.	*30.0
12	....do.....	....do.....	SW¼ sec. 9, T. 28 N., R. 5 W., about 7 miles above Alley Spring Missouri State Park.	*26.4
12	....do.....	....do.....	NW¼ sec. 10, T. 28 N., R. 5 W., 500 feet above Allen Creek and 3½ miles southwest of Alley, Mo.	*30.1
13	....do.....	....do.....	SE¼ sec. 25, T. 29 N., R. 5 W., 150 feet above highway bridge at Alley, Mo.	*32.8
13	....do.....	....do.....	SE¼ sec. 25, T. 29 N., R. 5 W., 800 feet above Alley Spring at Alley, Mo.	*30.6
13	....do.....	....do.....	NW¼ sec. 30, T. 29 N., R. 4 W., 3/4 mile below Alley Spring at Alley, Mo.	*98.5
15	....do.....	....do.....	NE¼ sec. 28 T. 29 N., R. 4 W., ½ mile above Mahan's Creek and 1 mile northwest of Eminence, Mo.	*108
13	....do.....	....do.....	NW¼ sec. 20, T. 29 N., R. 3 W., 500 feet below Shawnee Creek and 3 miles northwest of Eminence, Mo.	*114

* Measurement made by Corps of Engineers, U. S. Army.

Miscellaneous discharge measurements in lower Mississippi River Basin during water year October 1940 to September 1941--Continued

White River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Sept.13	Jacks Fork.....	Current River.....	SW¼ sec. 16, T. 29 N., R. 3 W., 3/4 mile above confluence with Current River and 4 miles northeast of Eminence, Mo.	*118
13	Alley Spring.....	Jacks Fork.....	SE¼ sec. 25, T. 29 N., R. 5 W., at Alley, Mo., 5 miles west of Eminence, Mo.	*70.0
13	Mahans Creek.....	....do.....	SW¼ sec. 27, T. 29 N., R. 4 W., 1,000 feet above confluence with Jacks Fork and 1 mile northwest of Eminence. Mo.	*3.5
14	Shawnee Creek....	....do.....	SE¼ sec. 30, T. 29 N., R. 3 W., at bridge on State Highway 106, 2⅝ miles east of Eminence, Mo.	*1.84
14	Little Shawnee Creek.	....do.....	SW¼ sec. 20, T. 29 N., R. 3 W., ⅛ mile above confluence with Jacks Fork and 3 miles northeast of Eminence, Mo.	*3.5
14	Blair Creek.....	Current River.....	NW¼ sec. 18, T. 29 N., R. 2 W., 200 feet above confluence with Current River and 8⅛ miles east of Eminence, Mo.	*3.6
15	Powder Mill Springs.	....do.....	NW¼ sec. 16, T. 29 N., R. 2 W., at bridge on State Highway 106, 10 miles east of Eminence, Mo.	*6.4
15	Blue Spring.....	....do.....	NE¼ sec. 21, T. 29 N., R. 2 W., 12 miles east of Eminence, Mo.	*90.4

* Measurement made by Corps of Engineers, U. S. Army.

Arkansas River Basin

May 24	Cimarron River...	Arkansas River.....	SW¼ sec. 33, T. 30 S., R. 34 W., near Satanta, Kans.	S,180
26	....do.....	....do.....	....do.....	1,560
Sept. 9	Neosho River.....	....do.....	Burlington, Kans.....	16,900
10	....do.....	....do.....	....do.....	18,400
Aug. 3	Spring River.....	Neosho River.....	Sec. 34, T. 33 S., R. 25 E., about 3½ miles north of Galena, Kans.	165
Jan. 14	....do.....	....do.....	Sec. 30, T. 34 S., R. 25 E., 1 mile below dam at Lowell, Kans.	112
May 28	Shoal Creek.....	Spring River.....	SW¼ sec. 7, T. 25 N., R. 31 W., 1,500 feet above county road bridge and 1 mile north of Neosho, Mo.	175
July 2	....do.....	....do.....	....do.....	137
Aug. 7	....do.....	....do.....	....do.....	83.5
4	....do.....	....do.....	Sec. 35, T. 34 S., R. 25 E., about 4 miles east of Lowell, Kans.	128
May 28	Hickory Creek....	Shoal Creek.....	SW¼ sec. 8, T. 25 N., R. 31 W., 300 feet below bridge on State Highway 71, at Neosho, Mo.	16.9
July 2	....do.....	....do.....	....do.....	19.0
Aug. 7	....do.....	....do.....	....do.....	11.6
Mar. 3	Kelly Springs....	Indian Creek.....	SE¼ sec. 18, T. 23 N., R. 32 W., 1 mile southwest of Goodman, Mo.	.41
3	Camp Beaver Spring.	....do.....	NW¼ sec. 12, T. 22 N., R. 33 W., at Anderson, Mo.	4.12
Apr. 18	Buffalo Creek....	Elk River.....	NW¼ sec. 3, T. 22 N., R. 34 W., 1 mile northeast of Tiff City, Mo., and 4 miles upstream from mouth.	†a12,600
19	Big Cabin Creek..	Neosho River.....	NE¼ sec. 35, T. 24 N., R. 20 E., 8 miles upstream from mouth and 8 miles south of Vinita, Okla.	†b37,600
19	Spavinaw Creek...	....do.....	S½ sec. 15, T. 22 N., R. 21 E., a quarter of a mile downstream from Spavinaw Lake and half a mile south of Spavinaw, Okla.	†c86,400
Oct. 2	Canadian River...	Arkansas River.....	NW¼ sec. 12, T. 18 N., R. 17 W., at bridge on State Highway 14, 1 mile north of Taloga, Okla.	*2.77
16	....do.....	....do.....	....do.....	0
25	....do.....	....do.....	....do.....	0
Nov. 1	....do.....	....do.....	....do.....	*14.8
14	....do.....	....do.....	....do.....	0
27	....do.....	....do.....	....do.....	*352
Dec. 3	....do.....	....do.....	....do.....	*128
17	....do.....	....do.....	....do.....	*28.5
31	....do.....	....do.....	....do.....	*114
Jan. 14	....do.....	....do.....	....do.....	*224
22	....do.....	....do.....	....do.....	*124
Feb. 4	....do.....	....do.....	....do.....	*977
11	....do.....	....do.....	....do.....	*82.9
18	....do.....	....do.....	....do.....	*23.1
28	....do.....	....do.....	....do.....	*331
Mar. 11	....do.....	....do.....	....do.....	*67.6

* Measurement made by Corps of Engineers, U. S. Army.
† Determined by slope-area method.
a Drainage area, 82 square miles.
b Drainage area, 455 square miles.
c Drainage area, 400 square miles.

Miscellaneous discharge measurements in lower Mississippi River Basin during water year October 1940 to September 1941--Continued

Arkansas River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Mar. 19	Canadian River...	Arkansas River.....	NW¼ sec. 12, T. 18 N., R. 17 W., at bridge on State Highway 14, 1 mile north of Taloga, Okla.	*2.61
28	....do.....	....do.....	....do.....	*46.9
Apr. 11	....do.....	....do.....	....do.....	0
17	....do.....	....do.....	....do.....	*639
25	....do.....	....do.....	....do.....	*81.7
May 2	....do.....	....do.....	....do.....	*3,660
5	....do.....	....do.....	....do.....	*19,400
6	....do.....	....do.....	....do.....	*9,460
7	....do.....	....do.....	....do.....	*6,340
16	....do.....	....do.....	....do.....	*724
22	....do.....	....do.....	....do.....	*1,040
24	....do.....	....do.....	....do.....	*29,600
25	....do.....	....do.....	....do.....	*26,300
26	....do.....	....do.....	....do.....	*17,400
June 1	....do.....	....do.....	....do.....	*30,000
7	....do.....	....do.....	....do.....	*15,100
June 8	....do.....	....do.....	....do.....	*27,500
10	....do.....	....do.....	....do.....	*24,200
11	....do.....	....do.....	....do.....	*24,200
12	....do.....	....do.....	....do.....	*11,500
23	....do.....	....do.....	....do.....	*4,920
24	....do.....	....do.....	....do.....	*2,140
30	....do.....	....do.....	....do.....	*4,280
July 3	....do.....	....do.....	....do.....	*857
8	....do.....	....do.....	....do.....	*4,250
22	....do.....	....do.....	....do.....	*8,650
26	....do.....	....do.....	....do.....	*82,600
27	....do.....	....do.....	....do.....	*23,500
29	....do.....	....do.....	....do.....	*6,500
Aug. 6	....do.....	....do.....	....do.....	*2,650
14	....do.....	....do.....	....do.....	*1,100
21	....do.....	....do.....	....do.....	*537
22	....do.....	....do.....	....do.....	*21,400
23	....do.....	....do.....	....do.....	*8,020
Sept. 2	....do.....	....do.....	....do.....	*627
9	....do.....	....do.....	....do.....	*2,270
16	....do.....	....do.....	....do.....	*157
24	....do.....	....do.....	....do.....	*132,000
26	....do.....	....do.....	....do.....	*22,100
30	....do.....	....do.....	....do.....	*19,300
Oct. 15	....do.....	....do.....	....do.....	*3,320

* Measurement made by Corps of Engineers, U. S. Army.

Mississippi River Delta

Oct. 7	House Creek.....	Bayou Boeuf.....	Lat. 31°06', long. 92°31', in SW¼ sec. 31, T. 2 N., R. 1 W. Louisiana meridian, 40 feet above Missouri Pacific R.R. Bridge, 60 feet below U. S. Highway 165, and 4.2 miles north of railroad station at Forest Hill, La.	4.10
22	Bayou Teche.....	Gulf of Mexico.....	Lat. 30°30'20", long. 92°00'45", 5.6 miles above Leonville, La., at point where State Highway 238 crosses Bayou Teche.	248
22	....do.....	....do.....	Lat. 30°16'05", long. 91°53'50", at highway bridge in Breaux Bridge, La.	272
22	....do.....	....do.....	Lat. 30°07'25", long. 91°49'30", at highway bridge in St. Martinsville, La.	121

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