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PART 7

LOWER MISSISSIPPI RIVER BASIN

Prepared by
WATER RESOURCES BRANCH
DIVISION OF SURFACE WATER

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



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ILLUSTRATION

Figure 1. Gaging-station structures: A, Arkansas River at Little Rock, Ark.; B, Red River near Colbert, Okla.; C, Red River at Garland, Ark.....	Page
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SURFACE WATER SUPPLY OF LOWER MISSISSIPPI RIVER BASIN, 1944

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, 1944. 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 10,000 gaging stations in the 48 States and also at many in the Territories of Alaska and Hawaii. In July 1944, 5,340 gaging stations, including those in Hawaii, were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made during the water year 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, under the heading "Cooperation," in the introductory matter that precedes the gaging-station records in each volume. In the present volume, the section on cooperation of the second kind appears on page 12.

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" is an abbreviation for "cubic feet per second." 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 structure.

"Contents" is a term applied to the volume of water in a reservoir, not including water in bank storage unless so indicated.

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 in figure 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to those 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 and notes by engineers and observers are used in applying the gage heights to the rating tables. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

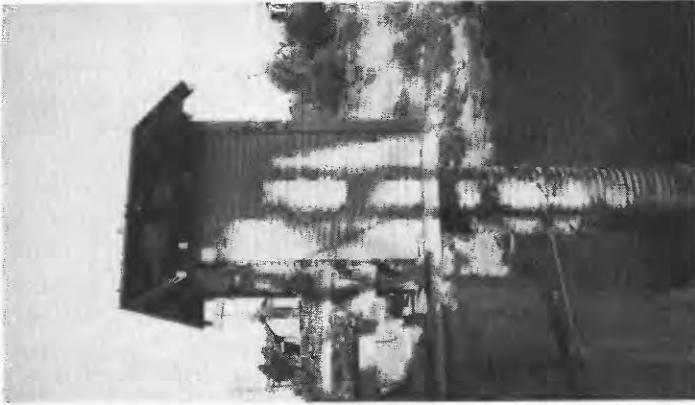
At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite 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 from 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. For those stations at which the stage-discharge relation is affected by ice, the days included in the periods of ice effect either are indicated in the table by symbols referring to a footnote that states this fact or are given in a general note following the table. The days on which discharge measurements were made during or between periods of ice effect, shortly before the first period, or shortly after the last period are similarly indicated by a footnote.

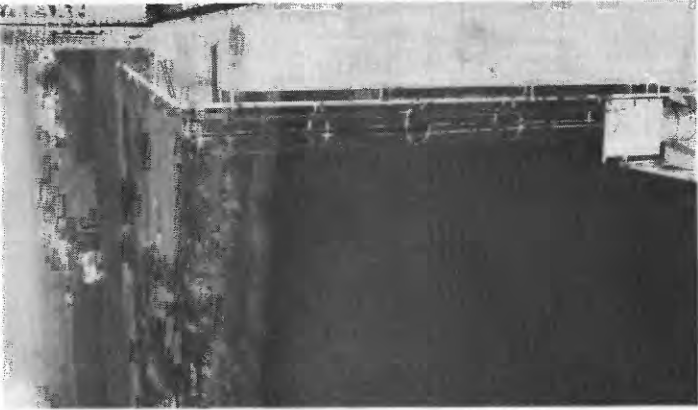
For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating



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.

FIGURE 1.—GAGING-STATION STRUCTURES.

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 as 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 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 a station at which the drainage area of the stream is less than 10 or more than 10,000 square miles or at which, on most days, the peak discharge exceeds the mean discharge by less than 10 percent.

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. 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 periods of rapidly changing stage 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.

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, 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 some 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.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. Records of daily discharge prior to February 9, 1942, were computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. To convert war time to standard time, subtract 1 hour.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements 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 error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more accurate than the daily records.

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 or reservoirs or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless its inclusion is indicated. 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 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.

Part 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 offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:

Albany, N. Y., 528 Federal Building.
 Asheville, N. C., 220 Post Office Building.
 Atlanta, Ga., 410 Grand Theater Bldg.
 Augusta, Maine, Statehouse.
 Baton Rouge, La., 124 Geology Building, Louisiana State University.
 Boston, Mass., 339 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., 105 Engineering Building, University of Maryland.
 Columbia, S. C., 207 Creason Building.
 Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
 Harrisburg, Pa., 490 Education Building.
 Hartford, Conn., 203 Federal Building.
 Indianapolis, Ind., 205 Underwriters Building.
 Jackson, Miss., 208 Millsaps Building.
 Knoxville, Tenn., 337 Post Office Building.
 Louisville, Ky., 531 Federal Building.
 Madison, Wis., 666 State Office Building.
 Montgomery, Ala., 507 Post Office Building.
 Morgantown, W. Va., 406 Mineral Industries Building.
 New Philadelphia, Ohio, Muskingum Watershed Conservancy District Building.
 Ocala, Fla., 304 Post Office Building.
 Pittsburgh, Pa., 515 Plaza Building.
 Raleigh, N. C., 242 Education Building.
 St. Paul, Minn., 1427 New Post Office Building.
 Trenton, N. J., 228 Federal Building.
 Urbana, Ill., 14 Post Office Annex, Elm Street.
 Washington, D. C., Federal Works Agency Building.
 Williamsburg, Ky., Kentucky Highway Building.

West of the Mississippi River:

Albuquerque, N. Mex., 723 North Second Street.
 Austin, Tex., 302 West Fifteenth Street.
 Bismarck, N. Dak., 1301 State Capitol.
 Boise, Idaho, 429 Federal Building.
 Denver, Colo., 310 Denham Building.
 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., 349 Statehouse.
 Los Angeles, Calif., 429-F United States Post Office and Courthouse.
 Oklahoma City, Okla., 535 State Capitol.
 Pierre, S. Dak., City Hall.
 Portland, Oreg., 606 Post Office Building.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 St. Louis, Mo., 1002 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., 207 Federal 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.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

Stream-flow data for the years 1884-1901, 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 September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884-92.
14th A, pt. 2	Monthly discharge.....	1888-93.
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.....	1895.
W 11.....	Gage heights.....	
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge...	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 tribu- taries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
W 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tribu- taries.	1898.
20th A, pt. 4	Monthly discharge.....	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.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 8. The data for any particular gaging station will, in general, be found in the reports covering the years during 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, and 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. 8), contains, for the area covered by that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record have been collected. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1944
(For basins included see pp. 5-6).

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, 149	48, 149	49	49	49, 50	50	50	50	50	51	51	51	51
1901 i...	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 m...	82	b82, 83	83	m82, 83	83	83	83	84	84	85	85	85	85	85
1903 n...	97	b97, 98	98	97	k99, 99, n100	99	k99, 99	99	100	100	100	100	100	100
1904 o...	0124, p125, q126	q126, 127	128	129	k128, 128	128, r131	k128, 131	132	132	133, s134	134	135	135	135
1905 r...	0126, p126, q127	q127, 128	129	130	k129, 129	129, r131	k129, 129	130	130	131, s132	131	132	132	132
1906 s...	0127, p127, q128	q128, 129	130	131	k130, 130	130, r131	k130, 130	131	131	132, s133	132	133	133	133
1907 t...	0128, p128, q129	q129, 130	131	132	k131, 131	131, r131	k131, 131	132	132	133, s134	133	134	134	134
1908 u...	0129, p129, q130	q130, 131	132	133	k132, 132	132, r131	k132, 132	133	133	134, s135	134	135	135	135
1909 v...	0130, p130, q131	q131, 132	133	134	k133, 133	133, r131	k133, 133	134	134	135, s136	135	136	136	136
1910 w...	0131, p131, q132	q132, 133	134	135	k134, 134	134, r131	k134, 134	135	135	136, s137	136	137	137	137
1911 x...	0132, p132, q133	q133, 134	135	136	k135, 135	135, r131	k135, 135	136	136	137, s138	137	138	138	138
1912 y...	0133, p133, q134	q134, 135	136	137	k136, 136	136, r131	k136, 136	137	137	138, s139	138	139	139	139
1913 z...	0134, p134, q135	q135, 136	137	138	k137, 137	137, r131	k137, 137	138	138	139, s140	139	140	140	140
1914 aa...	0135, p135, q136	q136, 137	138	139	k138, 138	138, r131	k138, 138	139	139	140, s141	140	141	141	141
1915 ab...	0136, p136, q137	q137, 138	139	140	k139, 139	139, r131	k139, 139	140	140	141, s142	141	142	142	142
1916 ac...	0137, p137, q138	q138, 139	140	141	k140, 140	140, r131	k140, 140	141	141	142, s143	142	143	143	143
1917 ad...	0138, p138, q139	q139, 140	141	142	k141, 141	141, r131	k141, 141	142	142	143, s144	143	144	144	144
1918 ae...	0139, p139, q140	q140, 141	142	143	k142, 142	142, r131	k142, 142	143	143	144, s145	144	145	145	145
1919 af...	0140, p140, q141	q141, 142	143	144	k143, 143	143, r131	k143, 143	144	144	145, s146	145	146	146	146
1920 ag...	0141, p141, q142	q142, 143	144	145	k144, 144	144, r131	k144, 144	145	145	146, s147	146	147	147	147
1921 ah...	0142, p142, q143	q143, 144	145	146	k145, 145	145, r131	k145, 145	146	146	147, s148	147	148	148	148
1922 ai...	0143, p143, q144	q144, 145	146	147	k146, 146	146, r131	k146, 146	147	147	148, s149	148	149	149	149
1923 aj...	0144, p144, q145	q145, 146	147	148	k147, 147	147, r131	k147, 147	148	148	149, s150	149	150	150	150
1924 ak...	0145, p145, q146	q146, 147	148	149	k148, 148	148, r131	k148, 148	149	149	150, s151	150	151	151	151
1925 al...	0146, p146, q147	q147, 148	149	150	k149, 149	149, r131	k149, 149	150	150	151, s152	151	152	152	152
1926 am...	0147, p147, q148	q148, 149	150	151	k150, 150	150, r131	k150, 150	151	151	152, s153	152	153	153	153
1927 an...	0148, p148, q149	q149, 150	151	152	k151, 151	151, r131	k151, 151	152	152	153, s154	153	154	154	154
1928 ao...	0149, p149, q150	q150, 151	152	153	k152, 152	152, r131	k152, 152	153	153	154, s155	154	155	155	155
1929 ap...	0150, p150, q151	q151, 152	153	154	k153, 153	153, r131	k153, 153	154	154	155, s156	155	156	156	156
1930 aq...	0151, p151, q152	q152, 153	154	155	k154, 154	154, r131	k154, 154	155	155	156, s157	156	157	157	157
1931 ar...	0152, p152, q153	q153, 154	155	156	k155, 155	155, r131	k155, 155	156	156	157, s158	157	158	158	158
1932 as...	0153, p153, q154	q154, 155	156	157	k156, 156	156, r131	k156, 156	157	157	158, s159	158	159	159	159
1933 at...	0154, p154, q155	q155, 156	157	158	k157, 157	157, r131	k157, 157	158	158	159, s160	159	160	160	160
1934 au...	0155, p155, q156	q156, 157	158	159	k158, 158	158, r131	k158, 158	159	159	160, s161	160	161	161	161
1935 av...	0156, p156, q157	q157, 158	159	160	k159, 159	159, r131	k159, 159	160	160	161, s162	161	162	162	162
1936 aw...	0157, p157, q158	q158, 159	160	161	k160, 160	160, r131	k160, 160	161	161	162, s163	162	163	163	163
1937 ax...	0158, p158, q159	q159, 160	161	162	k161, 161	161, r131	k161, 161	162	162	163, s164	163	164	164	164
1938 ay...	0159, p159, q160	q160, 161	162	163	k162, 162	162, r131	k162, 162	163	163	164, s165	164	165	165	165
1939 az...	0160, p160, q161	q161, 162	163	164	k163, 163	163, r131	k163, 163	164	164	165, s166	165	166	166	166
1940 ba...	0161, p161, q162	q162, 163	164	165	k164, 164	164, r131	k164, 164	165	165	166, s167	166	167	167	167
1941 bb...	0162, p162, q163	q163, 164	165	166	k165, 165	165, r131	k165, 165	166	166	167, s168	167	168	168	168
1942 bc...	0163, p163, q164	q164, 165	166	167	k166, 166	166, r131	k166, 166	167	167	168, s169	168	169	169	169
1943 bd...	0164, p164, q165	q165, 166	167	168	k167, 167	167, r131	k167, 167	168	168	169, s170	169	170	170	170
1944 be...	0165, p165, q166	q166, 167	168	169	k168, 168	168, r131	k168, 168	169	169	170, s171	170	171	171	171

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply

paper 89. 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 71-82 contained in Water-Supply

paper 89. Tables of monthly discharge for 1900 in 22d Annual Report, part 4.

h Mississippian and Schuykill 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 Chesapeake River to Potomac River, inclusive.

r Potomac River to Chesapeake Bay, inclusive.

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.

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 alphabetically, some by States and some by drainage basins.

Reports containing compilations of records of discharge by States and drainage basins

Report	Period	Water-Supply Paper
STATE		
Alabama, Water powers of, with an appendix on stream measurements in Mississippi.	1895-1903	107
California, Water resources of, part 1, Stream measurements in Sacramento River Basin.	1887-1912	298
California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.	1878-1912	299
California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.	1891-1912	300
California, southern, Surface water supply of Pacific slope of.....	1890-1918	447
California, Surface water supply of Sacramento River Basin.....	1895-1927	597-E
California, Surface water supply of San Joaquin River Basin.....	1895-1927	636-D
California, southern, Surface water supply of Pacific slope basins in..	1894-1927	636-E
California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.	1895-1927	637-A
Colorado, Water resources of.....	1884-1900	74
Georgia, Water resources of.....	1895-1905	197
Massachusetts, Surface waters of.....	1845-1915	415
Nebraska, Surface water supply of.....	1894-1906	230
Oregon, Surface water supply of.....	1878-1910	370
Texas, Summary of records of surface waters of.....	1898-1937	850
Vermont, Surface waters of.....	1871-1916	424
Washington, Summary of hydrometric data in.....	1878-1919	492
Washington, Summary of records of surface waters of.....	1919-35	870
Wisconsin, northern, Water power of.....	1895-1905	156
Wyoming, Surface waters of, and their utilization.....	1894-1921	469
DRAINAGE BASIN		
Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization..	1888-1914	395
Colorado River, upper (Colo., Utah), and its utilization.....	1897-1927	617
Colorado River Basin (Ariz., Calif., Colo., Utah, Wyo.), Surface waters at base stations in.	1891-1938	918
Columbia River Basin, upper (Mont., Idaho), Surface waters of.....	1898-1938	916
Great Salt Lake Basin, Water powers of.....	1889-1920	517
Green River (Colo., Utah, Wyo.) and its utilization.....	1894-1926	618
Kennebec River Basin (Maine), Water resources of.....	1890-1906	198
Milk River. See St. Mary and Milk Rivers.....		
Missouri and St. Mary River Basins (Mont.), Surface waters of.....	1881-1938	917
New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of..	1895-1920	536
Penobscot River Basin (Maine), Water resources of.....	1904-9	279
Potomac River Basin (D. C., Md., W. Va.).....	1895-1906	192
Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of.....	1888-1913	358
St. Mary and Milk Rivers (Mont., Canada), Water supply of.....	1898-1917	491
St. Mary River. See St. Mary and Milk Rivers; Missouri and St. Mary River Basin.		
Susquehanna River Basin (Pa., Md.), Hydrography of.....	1890-1904	109

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 following table contains a list of these reports.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Alabama.....	1895-1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas.....	1887-1922	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Colorado.....	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado. ¹	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut...	1900-1927	Bull. 44, Water resources of Connecticut..	State Geological and Natural History Survey.
Do.....	1912-33	5th biennial report ²	State Water Commission.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
Illinois.....	1908-11	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1900-1934	Stream-flow data of Illinois.....	Division of Waterways.
Indiana.....	1923-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1873-1932	Stream-flow records of Iowa.....	State Planning Board.
Do.....	1873-1940	Water-Supply Bull. 1, Summaries of yearly and flood flow relating to Iowa streams.	Iowa Geological Survey.
Do.....	1941-42	Water-Supply Bull. 2, Surface water resources of Iowa.	Do.

¹ Contains records of yearly discharge only.

² Contains records of monthly discharge in second-feet per square mile.

State reports containing compilations of records of discharge--Continued

State	Period	Report	Issued by
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	.....	Do.
Do.....	1924-28	Report of Division of Water Resources.....	State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	.....	Do.
Do.....	1939-41	.....	Do.
Kentucky.....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana.....	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report ²	Maine Water Power Commission.
Maryland.....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Do.....	1892-1943	Bull. 1, Summary of records of surface waters of Maryland and the Potomac River Basin.	Department of Geology, Mines, and Water Resources.
Minnesota.....	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri.....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Bureau of Geology and Mines.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Missouri Geological Survey and Water Resources.
Montana.....	1899-1911	5th biennial report.....	Office of the State Engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska.....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Hampshire.....	1899-1922	Annual and statistical report, vol. 12 ³ ...	Public Service Commission.
New Jersey....	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
Do.....	1934-40	Special Rept. 9, Surface water supply of New Jersey.	Do.
New Mexico....	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.....	1889-1923	Bull. 34, Discharge records of North Carolina streams. ³	Department of Conservation and Development.
Do.....	1899-1936	Bull. 39, Discharge records of North Carolina streams. ⁴	Do.
North Dakota..	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Do.....	1882-1944	Supplement B, 4th biennial report.....	State Water Conservation Commission.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 111, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania..	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island..	1929-41	7th annual report.....	Department of Public Works.
Tennessee.....	1874-1924	Bull. 34, Water resources of Tennessee ³ ...	Department of Education.
Do.....	1920-30	Bull. 40, Surface waters of Tennessee ³ ...	Do.
Utah.....	1889-1905	5th biennial report.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.
Virginia.....	1895-1927	Bull. 31, Water resources of Virginia....	Virginia Geological Survey.
Do.....	1927-42	Bull. 4, Surface water supply of Virginia (Potomac, Rappahannock, and York River Basins).	Virginia Conservation Commission.
Do.....	1927-42	Bull. 5, Surface water supply of Virginia (James River Basin).	Do.
Do.....	1927-42	Bull. 6, Surface water supply of Virginia (Roanoke and Chowan River Basins).	Do.
Do.....	1927-42	Bull. 7, Surface water supply of Virginia (New, Tennessee, and Big Sandy River Basins).	Do.
Washington....	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin.....	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

² Contains records of monthly discharge in second-feet per square mile.

³ Contains records of weekly discharge.

⁴ Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

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, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Rhode Island, 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 special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following lists 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.
914	Texas floods of 1938 and 1939.
987-A	Floods of September 1939 in Colorado River Basin below Boulder Dam.
987-B	Flood of July 5, 1939, in eastern Kentucky.

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, 1944, by the Corps of Engineers, U. S. Army. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period
Arkansas River.....	Sallisaw, Okla.....	1940-44.
Atchafalaya River.....	Simmesport, La.....	1851, 1858, 1873, 1880-1927†, 1928-44†.
Bayou DeView.....	Morton, Ark.....	1937-44†.
Big Black River.....	Kilmichael, Miss.....	1936-44.
Do.....	Ragin, Miss.....	1929-31, 1935-44.
Do.....	West, Miss.....	1936-44.
Bird Creek.....	Pawhuska, Okla.....	1944.
Black Bayou.....	Rodessa, La.....	1939-44.
CACHE River.....	Patterson, Ark.....	1937-44†.
Caney Creek.....	Copan, Okla.....	1944.
Caney River.....	Bartlesville, Okla.....	1943-44.
Canadian River.....	Calvin, Okla.....	1944.
Coldwater River.....	Sarah, Miss.....	1944.
Hatchie River.....	Rialto, Tenn.....	1939-44†.
Hominy Creek.....	Skiatook, Okla.....	1944.
Little Missouri River.....	Narrows dam site, Ark.....	1943-44.
Little River.....	Brumswick, Okla.....	1944.
Loosahatchee River.....	Brunswick, Tenn.....	1939-44†.
Mississippi River.....	Arkansas City, Ark.....	1884-1927†, 1928-44†.
Do.....	Carrollton, La.....	1851, 1852, 1879-1927†, 1928-44†.
Do.....	Columbus, Ky.....	1857-1927†, 1928-44†.
Do.....	Helena, Ark.....	1879-1927†, 1928-44†.
Do.....	Natchez, Miss.....	1858, 1890-92, 1927, 1934-35†, 1936-44†.
Do.....	Red River Landing, La.....	1851, 1881-1927†, 1928-44†.
Do.....	Tarbert Landing, Miss.....	1911-13, 1928-29, 1932-35†, 1936-44†.
Old River.....	Torras, La.....	1851, 1858, 1888-1927†, 1928-44†.

† Results of discharge measurements only, published in reports of Mississippi River Commission.

‡ Daily discharge, published in reports of Mississippi River Commission.

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

Stream	Location	Period
Ouachita River.....	Arkadelphia, Ark.....	1929-44.
Do.....	Camden, Ark.....	1929-44.
Do.....	Cold Spring Bar, Ark.....	1928-44.
Do.....	Mount Ida, Ark.....	1929-44.
Panola-Quitman floodway.....	Batesville, Miss.....	1944.
Polecat Creek.....	Heyburn Station, Okla.....	1943-44.
Pompey ditch.....	Crenshaw, Miss.....	1944.
Quiver River.....	Doddsville, Miss.....	1938-44.
St. Francis Bay.....	Riverfront, Ark.....	1928-32†, 1935-44†.
St. Francis River.....	Lake City, Ark.....	1933-44†.
Do.....	Farkin, Ark.....	1928-44†.
Do.....	St. Francis, Ark.....	1935-44†.
Tippah River.....	Potts Camp, Miss.....	1943-44.
Verdigris River.....	Inola, Okla.....	1943-44.
Wallace Lake.....	North of Stonewall, La.....	1939-44.
White River.....	Clarendon, Ark.....	1879-1927†, 1928-44†.
Wolf River.....	Raleigh, Tenn.....	1936-44†.
Yalobusha River.....	Whaley, Miss.....	1944.

† Results of discharge measurements only, published in reports of Mississippi River Commission.

‡ Daily discharge, published in reports of Mississippi River Commission.

Note.- The Soil Conservation Service of the U. S. Department of Agriculture has collected records of runoff from the following areas in the lower Mississippi River Basin: Beginning in 1931, from 9 areas of less than 40 acres each near Guthrie, Okla.; beginning in 1938, from 6 areas of less than 25 acres each near Bentonville, Ark.; 4 areas of less than 40 acres each near Falcon, Colo.; 4 areas of less than 65 acres each near Muskogee, Okla.; and 3 areas of less than 130 acres each near Vega, Tex.; beginning in 1940, from 9 areas of less than 10 acres each near Cherokee, Okla. These records are not published but are available in the files of the Soil Conservation Service.

COOPERATION

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

Arkansas (except station on White River at Beaver): State Flood Control Commission, J. P. Morrow, chairman; Arkansas Geological Survey, J. W. Kimzey, State geologist.

Colorado: Office of the State Engineer, M. C. Hinderlider, State engineer; Colorado Water Conservation Board, C. H. Stone, director.

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

Kentucky: Department of Highways, R. G. Williams, commissioner, succeeded by J. S. Watkins.

Louisiana: Louisiana Department of Public Works, D. L. Pyburn, director.

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

Missouri and station on White River at Beaver, Ark.: Missouri Geological Survey and Water Resources, E. L. Clark, 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 Planning and Water Resources, Don McBride, director; Oklahoma City Water Department, M. B. Cunningham, superintendent.

Tennessee: Tennessee Department of Conservation, P. S. Mathes, 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 180 gaging stations, of which 25 were in Arkansas, 11 in Colorado, 2 in Illinois, 17 in Kansas, 17 in Louisiana, 13 in Mississippi, 25 in Missouri, 6 in New Mexico, 52 in Oklahoma, 1 in Tennessee, and 11 in Texas.

Financial assistance was also furnished by the Weather Bureau of the United States Department of Commerce, the Bureau of Reclamation of the United States Department of Interior, and the Federal Works Agency.

Assistance in collecting records was rendered by the following organizations:

Arkansas: Arkansas Power & Light Co.

Mississippi: Vicksburg Bridge Co.

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

New Mexico: Bureau of Reclamation.

Texas: City of Amarillo; Lone Star Steel Co.

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 water. 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., Medicine Lodge River near Kiowa, Kans., Crooked Creek near Nye, Kans., 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 Kentucky--J. V. B. Wells; in Louisiana--R. E. Marsh prior to October 14, 1944, and E. B. Rice thereafter; in Mississippi--E. B. Rice (acting); in Missouri (except for Elk River at Tiff City), in Kansas (except for Medicine Lodge River near Kiowa and Crooked Creek near Nye), and for White River at Beaver, Ark., and Mississippi River at Chester and at Thebes, Ill.--H. C. Beckman; in New Mexico--Berkeley Johnson; in Tennessee (except for Mississippi River at Memphis)--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, hydraulic engineer in charge, and F. J. Flynn, associate engineer, section of reports.

MISSISSIPPI RIVER MAIN STEM

Mississippi River at St. Louis, Mo.

Location.-- Water-stage recorder, lat. 36°37'44", long. 90°10'54", at foot of Washington Avenue, just downstream from west pier of Eads Bridge, St. Louis, 15.0 miles downstream from Missouri River, and 180.0 miles upstream from Ohio River. Datum of gage is 379.94 feet above mean sea level, datum of 1929, and 379.50 feet above mean Gulf level.

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

Records available.-- Discharge: March 1933 to September 1944 in reports of Geological Survey. Since 1866 (occasional discharge measurements) in reports of Mississippi River Commission.

Gage heights: March 1933 to September 1944 in reports of Geological Survey. Since January 1861 in reports of Mississippi River Commission. Since January 1890 in reports of U. S. Weather Bureau.

Average discharge.-- 11 years (1934-44), 154,500 second-feet.

Extremes.-- Maximum discharge during year, 844,000 second-feet Apr. 30 (gage height, 39.14 feet); minimum, 66,000 second-feet Jan. 20, Feb. 20; minimum gage height, 0.27 foot Jan. 20.

1933-44: Maximum discharge, that of Apr. 30, 1944; 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, from floodmarks (discharge, 1,300,000 second-feet, computed by Corps of Engineers, U. S. Army). Flood of April 1785 may have reached a stage of 42.0 feet.

Remarks.-- Records excellent. Seventy-one discharge measurements made during year. Flow partly regulated by many reservoirs and navigation dams on upper Mississippi River, by diversion through Chicago Sanitary and Ship Canal from Lake Michigan into Illinois River, and by Fort Peck Reservoir on upper Missouri River.

Cooperation.-- One discharge measurement and assistance in making 21 others furnished by Corps of Engineers, U. S. Army.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.96	3.93	2.72	0.91	2.31	12.29	17.28	36.84	26.15	27.18	12.66	19.25
2	1.90	3.59	2.97	.91	2.72	12.40	16.54	36.39	27.93	26.66	11.04	16.70
3	2.01	3.08	3.22	.88	2.60	13.48	15.89	36.21	27.52	26.19	9.43	14.11
4	2.58	2.76	3.05	.42	2.76	13.71	14.52	37.97	27.11	25.88	8.31	14.08
5	2.65	2.52	2.64	.40	3.16	14.22	13.14	37.02	27.00	25.77	8.41	13.99
6	3.02	2.72	2.25	.38	2.83	14.89	12.41	35.92	26.44	25.66	7.93	12.88
7	2.74	3.21	2.10	.35	2.44	15.82	12.07	34.79	25.24	25.38	8.28	11.57
8	2.48	5.38	1.97	.37	1.99	15.33	12.17	33.90	24.04	25.07	9.45	10.27
9	2.26	6.09	2.15	.42	1.48	13.44	12.68	33.59	23.92	24.60	10.80	9.05
10	2.15	6.94	2.45	.44	1.35	11.40	12.43	33.33	23.88	23.63	10.96	7.62
11	1.99	6.16	3.05	.49	1.30	10.06	14.91	33.24	23.01	22.28	10.23	6.61
12	1.85	6.04	3.01	.40	1.43	9.50	24.91	32.90	22.14	21.40	8.91	5.97
13	1.55	6.32	3.92	.31	.92	9.02	28.70	31.56	22.99	20.28	7.86	4.92
14	1.87	5.78	3.32	.40	.69	9.56	30.31	28.88	23.77	19.49	6.59	4.59
15	2.10	5.38	3.12	.38	.58	10.27	31.09	26.61	23.86	18.82	5.45	4.47
16	2.58	5.77	2.14	.33	.47	14.52	31.24	24.79	23.91	18.19	5.53	4.30
17	2.51	5.76	1.68	.32	.57	16.39	30.83	23.54	24.12	17.56	8.05	4.39
18	2.36	4.72	1.67	.29	.59	22.28	30.33	22.91	24.23	17.17	7.33	5.39
19	2.32	4.10	1.47	.42	.43	24.80	29.72	22.51	24.13	16.48	7.08	3.98
20	2.28	3.89	1.37	.28	.36	26.20	29.07	22.15	24.18	16.03	6.96	3.56
21	2.71	3.91	1.10	.37	.60	26.05	28.37	21.57	24.60	15.65	7.63	3.48
22	3.64	3.97	.99	.33	.66	25.23	28.41	21.38	25.43	15.46	7.86	4.94
23	3.83	3.75	.98	.39	1.58	24.05	31.59	21.48	26.29	14.87	8.48	5.36
24	4.20	3.31	1.01	.42	2.63	21.21	33.13	21.48	27.00	14.40	8.30	5.53
25	6.04	3.07	1.04	.37	3.79	18.80	34.33	22.49	27.50	13.89	7.57	5.89
26	6.20	3.11	1.26	.36	4.25	17.21	35.54	23.59	27.89	13.47	8.10	6.13
27	4.42	3.28	1.29	.35	7.22	17.40	36.49	24.67	27.99	13.06	8.87	5.41
28	3.62	3.19	1.08	.35	10.11	17.87	37.30	26.02	27.99	12.29	10.08	4.28
29	4.18	2.75	.94	.36	11.89	18.81	36.32	26.73	27.92	12.20	12.94	5.02
30	4.54	2.78	.90	.35	-	19.53	37.11	27.69	27.69	11.64	16.83	5.59
31	4.25	-	.92	1.42	-	18.06	-	27.76	-	13.16	18.80	-

MISSISSIPPI RIVER MAIN STEM

15

Discharge, in second-feet, of Mississippi River at St. Louis, Mo., water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77,800	92,200	88,200	71,400	84,200	182,000	244,000	834,000	429,000	403,000	180,000	280,000
2	77,800	89,000	89,800	71,400	87,400	188,000	233,000	774,000	422,000	389,000	161,000	239,000
3	79,400	85,800	90,600	70,600	86,600	198,000	220,000	761,000	410,000	378,000	144,000	206,000
4	83,400	83,400	89,000	87,400	87,400	201,000	202,000	741,000	400,000	371,000	136,000	206,000
5	85,800	83,400	85,800	87,400	89,800	209,000	188,000	676,000	393,000	369,000	136,000	200,000
6	86,600	84,200	83,400	87,400	87,400	220,000	180,000	646,000	382,000	369,000	132,000	184,000
7	84,200	93,000	81,800	66,700	84,200	232,000	177,000	611,000	360,000	367,000	138,000	169,000
8	81,800	109,000	81,800	67,400	79,400	220,000	179,000	586,000	344,000	362,000	152,000	155,000
9	79,400	120,000	82,600	67,400	76,200	194,000	185,000	583,000	348,000	354,000	164,000	142,000
10	78,600	123,000	85,800	67,400	75,400	171,000	183,000	583,000	346,000	337,000	162,000	128,000
11	77,000	118,000	89,800	68,200	74,600	158,000	238,000	559,000	325,000	314,000	155,000	120,000
12	75,400	118,000	89,800	67,400	75,400	152,000	399,000	526,000	315,000	298,000	142,000	113,000
13	73,800	118,000	93,800	66,700	71,400	148,000	474,000	461,000	333,000	279,000	131,000	104,000
14	76,200	114,000	89,800	67,400	69,800	155,000	507,000	414,000	346,000	268,000	119,000	102,000
15	79,400	111,000	86,600	66,700	69,000	162,000	524,000	378,000	346,000	258,000	112,000	100,000
16	82,600	114,000	78,600	66,700	68,200	216,000	535,000	344,000	350,000	248,000	113,000	98,700
17	82,600	112,000	76,200	66,700	69,000	268,000	510,000	328,000	352,000	242,000	118,000	100,000
18	81,800	104,000	76,200	66,700	68,200	341,000	493,000	316,000	354,000	236,000	130,000	105,000
19	81,000	98,700	74,600	67,400	66,700	389,000	480,000	312,000	352,000	228,000	126,000	95,400
20	81,800	97,000	73,000	66,700	66,700	414,000	464,000	306,000	354,000	223,000	127,000	92,200
21	85,800	97,000	71,400	66,700	68,200	407,000	441,000	297,000	358,000	218,000	133,000	93,800
22	92,200	97,000	71,400	66,700	68,200	386,000	459,000	297,000	369,000	217,000	137,000	104,000
23	94,600	95,400	70,600	67,400	69,000	360,000	524,000	297,000	389,000	209,000	142,000	109,000
24	101,000	92,200	71,400	67,400	66,600	306,000	580,000	300,000	406,000	202,000	139,000	111,000
25	114,000	90,600	71,400	67,400	95,400	268,000	630,000	319,000	414,000	187,000	133,000	115,000
26	113,000	91,400	73,800	66,700	104,000	248,000	675,000	339,000	424,000	194,000	139,000	117,000
27	97,000	92,200	73,800	67,400	134,000	255,000	733,000	362,000	426,000	188,000	149,000	109,000
28	93,000	90,600	73,000	66,700	160,000	262,000	761,000	389,000	426,000	180,000	162,000	102,000
29	97,800	88,200	71,400	67,400	179,000	275,000	818,000	403,000	424,000	177,000	197,000	110,000
30	99,600	87,400	71,400	71,400	-	268,000	834,000	410,000	417,000	176,000	248,000	112,000
31	96,200	-	71,400	78,600	-	258,000	-	424,000	-	189,000	284,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,690,600	114,000	73,800	86,790	5,337,000
November.....	2,989,700	123,000	83,400	99,660	5,930,000
December.....	2,478,200	93,800	70,600	79,940	4,915,000
Calendar year 1943	80,337,100	833,000	70,600	220,100	159,300,000
January.....	2,108,900	78,600	66,700	69,030	4,188,000
February.....	2,501,400	179,000	66,700	86,260	4,981,000
March.....	7,711,000	414,000	148,000	248,700	15,290,000
April.....	13,070,000	834,000	177,000	435,700	25,920,000
May.....	14,571,000	834,000	297,000	470,000	28,900,000
June.....	11,316,000	429,000	316,000	377,200	22,440,000
July.....	8,440,000	403,000	176,000	272,300	16,740,000
August.....	4,640,000	284,000	112,000	149,700	9,203,000
September.....	4,022,100	260,000	92,200	134,100	7,978,000
Water year 1943-44	76,538,900	834,000	66,700	209,100	151,800,000

Note.- Daily discharge computed from daily mean gage heights, not from 8 a.m. gage heights.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MISSISSIPPI RIVER MAIN STEM

Mississippi River at Chester, Ill.

Location.- Staff gage, lat. 37°54'00", long. 89°49'50" in SW $\frac{1}{4}$ sec. 24, T. 7 S., R. 7 W., 3rd principal meridian, 0.4 miles downstream from highway bridge at Chester, 8.3 miles downstream from Kaskaskia River, and 109.5 miles upstream from Ohio River. Datum of gage is 341.05 feet above mean sea level, datum of 1929.

Drainage area.- 712,600 square miles (authority, Mississippi River Commission).

Records available.- Discharge: July 1942 to September 1944 in reports of Geological Survey. Since 1873 (occasional discharge measurements) in reports of Mississippi River Commission.

Gage heights: July 1942 to September 1944 in reports of Geological Survey. Since May 1891 in reports of Mississippi River Commission and U. S. Weather Bureau.

Extremes.- Maximum discharge during year 842,000 second-feet May 2 (gage height, 37.4 feet); minimum 67,400 second-feet Jan. 22 (gage height, 2.0 feet).

1942-44: Maximum discharge (exclusive of flow through levee breaks upstream from station), 873,000 second-feet May 24, 1943 (gage height, 38.08 foot); minimum, that of Jan. 22, 1944.

1891-1944: Maximum gage height, 38.08 feet May 24, 1943; minimum, -4.0 Jan. 3, 1900.

Maximum stage known, 39.8 feet June 30, 1844 (discharge, 1,350,000 second-feet; computed by Corps of Engineers, U. S. Army).

Remarks.- Records excellent. Fifty-five discharge measurements made during year. Gage read daily at 6:30 a.m., 8 a.m., and 4 p.m. Flow partly regulated by many reservoirs and navigation dams on upper Mississippi River, by diversion through Chicago Sanitary and Ship Canal from Lake Michigan into Illinois River, and by Fort Peck Reservoir on upper Missouri River.

Cooperation.- Gage-height record furnished by U. S. Weather Bureau and Corps of Engineers, U. S. Army. The Corps of Engineers, U. S. Army, assisted in making eight discharge measurements.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	5.7	4.3	2.7	3.1	12.9	17.6	36.8	26.9	26.4	13.9	19.1
2	3.9	5.4	4.4	2.7	3.8	12.9	16.7	37.3	27.1	25.9	13.3	18.5
3	3.9	5.1	4.6	2.7	4.3	13.5	16.4	37.3	27.0	25.6	12.0	18.3
4	4.0	4.8	4.7	2.7	4.2	14.2	15.4	37.2	26.7	25.3	10.7	14.8
5	4.4	4.4	4.6	2.4	4.3	14.2	14.5	37.0	26.5	24.9	9.9	14.8
6	4.6	4.4	4.3	2.3	4.5	14.8	13.3	36.4	26.2	24.6	9.7	14.4
7	4.7	4.6	3.9	2.3	4.3	15.5	12.7	35.6	25.6	24.6	9.5	13.5
8	4.3	5.4	3.8	2.3	4.0	15.7	12.4	34.7	24.6	24.5	9.8	12.3
9	4.3	6.4	3.7	2.3	3.6	15.1	12.6	33.9	23.6	24.1	11.1	11.3
10	4.1	7.6	3.9	2.5	3.2	13.4	13.0	33.7	23.5	23.6	12.0	10.0
11	3.9	7.9	4.2	2.4	3.0	11.8	13.9	33.3	23.2	22.8	11.8	8.9
12	3.8	7.5	4.6	2.4	2.8	10.9	19.6	33.0	22.5	21.8	11.3	8.4
13	3.7	7.3	4.8	2.3	2.8	10.3	25.2	32.6	22.0	20.9	10.4	7.6
14	3.6	7.6	5.2	2.3	2.7	10.0	27.5	31.5	22.6	19.9	9.3	6.7
15	3.7	7.0	4.9	2.3	2.5	10.5	28.7	29.8	23.1	19.2	8.3	6.5
16	4.1	6.7	4.6	2.3	2.4	11.6	29.4	27.6	23.2	18.7	7.5	6.3
17	4.3	7.0	3.8	2.2	2.4	15.5	29.7	25.5	23.2	18.1	7.5	6.1
18	4.3	6.7	3.6	2.2	2.4	18.9	29.7	24.0	23.4	17.7	7.9	6.3
19	4.1	6.1	3.5	2.2	2.4	22.4	29.3	23.0	23.5	17.2	8.8	6.7
20	4.0	5.6	3.3	2.2	2.3	24.0	28.8	22.5	23.4	16.7	8.6	5.8
21	4.1	5.4	3.2	2.2	2.3	25.3	28.4	22.0	23.5	16.3	8.6	5.5
22	4.6	5.4	3.0	2.2	2.5	25.0	27.8	21.5	24.0	16.1	9.1	5.5
23	5.2	5.3	2.9	2.2	2.6	24.3	29.0	21.5	24.6	15.8	9.5	6.5
24	5.5	5.2	3.0	2.2	2.6	22.9	30.7	21.6	25.2	15.4	9.9	6.9
25	6.2	4.9	3.0	2.3	4.4	20.3	31.9	21.6	25.8	14.9	9.6	7.2
26	7.2	4.7	3.0	2.3	5.4	18.3	33.0	22.5	26.2	14.5	9.2	7.5
27	7.2	4.7	3.1	2.3	6.2	17.4	34.2	23.5	26.5	14.3	9.8	7.5
28	5.9	4.8	3.1	2.3	9.9	17.4	35.3	24.4	26.7	13.8	10.6	6.9
29	5.3	4.7	2.9	2.3	11.4	17.8	36.0	25.2	26.8	13.3	11.5	6.2
30	5.7	4.4	2.8	2.3	-	18.4	36.6	25.9	26.7	13.0	14.7	6.7
31	6.0	-	2.7	2.6	-	18.0	-	26.5	-	13.2	17.6	-

MISSISSIPPI RIVER MAIN STEM

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Discharge, in second-feet, of Mississippi River at Chester, Ill., water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78,800	95,400	97,100	71,600	78,800	188,000	259,000	836,000	434,000	414,000	192,000	283,000
2	79,600	91,600	97,100	72,300	84,400	189,000	244,000	836,000	436,000	404,000	182,000	270,000
3	79,600	87,100	98,900	72,300	88,000	197,000	235,000	830,000	429,000	396,000	164,000	235,000
4	82,000	85,300	99,800	72,300	88,000	207,000	219,000	824,000	420,000	385,000	149,000	213,000
5	85,300	84,400	98,000	70,200	89,800	206,000	204,000	812,000	414,000	381,000	141,000	210,000
6	88,000	86,200	85,300	69,500	90,700	216,000	192,000	759,000	404,000	377,000	139,000	200,000
7	88,000	88,900	82,000	69,500	89,900	227,000	186,000	721,000	397,000	373,000	137,000	185,000
8	85,300	99,400	81,200	68,800	85,200	225,000	183,000	686,000	399,000	367,000	144,000	170,000
9	83,600	110,000	81,200	68,800	82,000	213,000	190,000	664,000	355,000	357,000	159,000	155,000
10	82,000	122,000	82,000	70,200	79,600	189,000	194,000	626,000	353,000	343,000	168,000	142,000
11	80,400	123,000	84,400	69,500	78,000	172,000	218,000	600,000	347,000	325,000	164,000	129,000
12	78,800	120,000	88,000	69,500	77,200	161,000	231,000	582,000	335,000	304,000	168,000	122,000
13	78,000	119,000	89,800	69,500	78,800	155,000	431,000	560,000	331,000	288,000	146,000	114,000
14	77,200	119,000	92,500	68,800	76,500	153,000	484,000	520,000	345,000	275,000	133,000	106,000
15	78,800	113,000	90,700	68,800	75,100	159,000	528,000	470,000	353,000	266,000	121,000	103,000
16	82,000	110,000	86,200	68,800	73,700	182,000	548,000	418,000	357,000	257,000	114,000	101,000
17	83,600	112,000	80,400	68,100	73,700	238,000	539,000	377,000	361,000	250,000	114,000	100,000
18	84,400	109,000	78,000	68,100	73,700	304,000	523,000	351,000	365,000	245,000	121,000	103,000
19	86,800	103,000	77,200	68,100	73,000	363,000	518,000	335,000	369,000	238,000	129,000	104,000
20	82,000	98,400	75,800	68,100	72,300	396,000	507,000	327,000	371,000	233,000	127,000	97,400
21	82,800	96,400	74,400	68,100	71,600	418,000	497,000	320,000	377,000	230,000	128,000	94,400
22	88,000	96,400	73,700	68,100	74,400	410,000	490,000	314,000	399,000	225,000	134,000	97,400
23	93,400	95,400	73,000	68,100	73,700	393,000	528,000	316,000	406,000	221,000	139,000	105,000
24	97,400	95,400	73,700	68,100	76,500	359,000	579,000	320,000	414,000	215,000	142,000	109,000
25	105,000	92,500	73,700	68,800	90,700	312,000	626,000	324,000	418,000	209,000	137,000	111,000
26	113,000	90,700	73,700	69,500	99,400	275,000	682,000	341,000	423,000	201,000	134,000	117,000
27	112,000	90,700	74,400	69,500	110,000	261,000	706,000	359,000	425,000	197,000	141,000	117,000
28	98,400	91,600	74,400	70,200	143,000	263,000	742,000	381,000	425,000	189,000	152,000	110,000
29	94,400	90,700	73,000	70,200	172,000	272,000	759,000	398,000	427,000	185,000	170,000	105,000
30	96,400	88,000	72,300	70,900	-	279,000	824,000	410,000	420,000	181,000	212,000	110,000
31	96,400	-	71,600	75,100	-	273,000	-	426,000	-	186,000	255,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,719,400	113,000	77,800	87,720	5,394,000
November	3,004,500	123,000	84,400	100,800	5,959,000
December	2,503,500	92,500	71,760	80,760	4,966,000
Calendar year 1943	82,847,300	854,000	71,600	227,000	164,300,000
January	2,159,400	75,100	68,100	69,660	4,283,000
February	2,519,700	172,000	71,600	86,890	4,998,000
March	7,855,000	418,000	153,000	258,400	15,980,000
April	13,166,000	824,000	183,000	438,900	28,110,000
May	16,042,000	836,000	314,000	517,500	31,820,000
June	11,659,000	436,000	331,000	388,600	23,130,000
July	8,717,000	414,000	181,000	281,200	17,290,000
August	4,645,000	255,000	114,000	149,800	9,213,000
September	4,218,200	283,000	94,400	140,600	8,567,000
Water year 1943-44	79,208,700	836,000	68,100	216,400	157,100,000

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mississippi River at Thebes, Ill.

Location.— Water-stage recorder, lat. 37°13'00", long. 89°27'50", in NW¼ sec. 17, T. 15 S., R. 3 W., third principal meridian, on railroad bridge at Thebes, 8.4 miles downstream from Cape Girardeau, Mo., and 43.7 miles upstream from Ohio River. Prior to Oct. 12, 1943, wire-weight gage at same site. Datum of gage is 300.00 feet above mean sea level, Corps of Engineers, U. S. Army, datum of 1929. From Oct. 1, 1941, to Sept. 30, 1943, datum of gage was 0.07 foot higher.

Drainage area.— 717,200 square miles (authority, Corps of Engineers, U. S. Army).

Records available.— Discharge: April 1941 to September 1944. March 1933 to February 1938 and October 1939 to April 1941 at site 8.4 miles upstream, published as Mississippi River at Cape Girardeau, Mo., in reports of Geological Survey. From June 1903 to June 1939 Corps of Engineers, U. S. Army, and Mississippi River Commission made 657 discharge measurements at Thebes which were referred to Grays Point gage, 2.6 miles upstream, and are contained in reports of those organizations.

Gage heights: April 1941 to September 1944. March 1933 to February 1938 and October 1939 to September 1941 at site 8.4 miles upstream, published as Mississippi River at Cape Girardeau, Mo., in reports of Geological Survey. January 1880 to August 1896 at Grays Point, 2.6 miles upstream, and since May 1896 at Cape Girardeau in reports of Mississippi River Commission. February 1891 to February 1894 and since December 1904 at Cape Girardeau in reports of U. S. Weather Bureau.

Extremes.— Maximum discharge during year, 812,000 second-feet May 6 (gage height, 39.05 feet); minimum, 69,300 second-feet Jan. 6; minimum gage height, 7.64 feet Jan. 22. 1941-44: Maximum discharge, 893,000 second-feet May 27, 1943 (gage height, 40.26 feet); minimum, 60,700 second-feet Aug. 25, 1941 (gage height, 6.60 feet).

1879-1944: At Grays Point, maximum gage height, 342.39 feet above mean sea level datum of 1929, May 27, 28, 1943; minimum gage height, 301.38 feet above mean sea level, datum of 1929, Jan. 15, 1909 (discharge 20,000 second-feet, computed by Corps of Engineers, U. S. Army).

Maximum stage known, 345.14 feet above mean sea level, datum of 1929, at Grays Point, from floodmarks (discharge, 1,350,000 second-feet, computed by Corps of Engineers, U. S. Army) July 4, 1844.

Remarks.— Records excellent. During year, 94 discharge measurements were made. Stage-discharge relation affected by backwater from Ohio River. Flow partly regulated by many reservoirs and navigation dams on upper Mississippi River, by diversion through Chicago Sanitary and Ship Canal from Lake Michigan into Illinois River, and by Fort Peck Reservoir on upper Missouri River.

Cooperation.— One discharge measurement and assistance in making fifty-six others furnished by Corps of Engineers, U. S. Army.

Gage height at 8 a.m., in feet, water year, October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.53	11.12	9.73	8.33	8.11	17.57	23.92	38.45	29.33	29.23	17.64	21.66
2	9.47	10.99	9.66	8.33	8.61	18.34	23.61	38.95	29.73	29.04	17.96	22.35
3	9.45	10.61	9.72	8.33	9.18	18.63	23.10	38.86	29.62	28.62	17.10	21.27
4	9.51	10.31	9.80	8.33	9.46	19.29	25.74	39.75	29.76	28.16	16.10	19.49
5	9.63	10.01	10.02	8.25	9.44	19.78	22.27	38.59	29.51	27.80	15.09	18.77
6	9.87	9.82	9.94	8.04	9.63	19.88	21.43	38.65	29.30	27.58	14.58	18.65
7	10.13	9.95	9.59	7.76	9.73	20.61	20.67	38.88	28.94	27.45	14.46	18.09
8	10.18	10.15	9.52	7.92	9.51	21.20	19.86	38.44	28.24	27.30	14.38	17.30
9	10.00	11.02	9.20	7.85	9.23	21.21	19.18	39.10	27.31	27.05	14.88	16.39
10	9.78	12.02	9.16	7.74	8.90	20.39	18.82	37.72	26.63	26.73	15.94	15.48
11	9.66	12.78	9.30	8.04	8.56	19.16	20.58	37.26	26.42	26.13	16.44	14.52
12	9.54	12.78	9.60	8.00	8.44	18.09	22.29	36.84	25.95	25.35	16.14	13.75
13	9.48	12.54	9.89	7.99	8.38	17.40	27.25	36.44	25.20	24.53	15.58	13.24
14	9.44	12.50	10.07	7.88	8.38	16.92	30.31	36.03	25.26	23.75	14.86	12.51
15	9.18	12.41	10.34	7.83	8.05	16.59	31.76	35.33	25.85	22.97	14.02	11.91
16	9.29	12.08	10.14	7.81	7.89	16.68	33.25	33.97	25.10	22.40	13.14	11.74
17	9.54	11.93	9.76	7.77	7.84	17.77	33.99	32.18	26.13	21.89	12.74	11.57
18	9.76	12.06	9.09	7.70	7.88	21.14	34.43	29.89	26.23	21.38	12.72	11.45
19	9.70	11.82	8.93	7.69	7.91	24.32	34.45	28.07	26.35	21.05	13.18	11.71
20	9.60	11.20	8.83	7.68	7.87	26.83	34.25	26.83	26.35	20.64	13.72	11.66
21	9.58	10.78	8.63	7.68	7.77	28.29	33.96	26.08	26.29	20.25	13.52	11.12
22	9.62	10.63	8.57	7.65	7.82	29.02	33.55	25.48	26.62	19.93	13.74	10.85
23	10.05	10.60	8.45	7.67	8.04	29.00	33.73	25.03	27.03	19.75	14.08	11.17
24	10.55	10.54	8.43	7.68	8.11	28.37	34.95	24.96	27.58	19.48	14.34	11.81
25	10.85	10.37	8.40	7.68	8.39	26.79	35.78	24.92	28.11	19.14	14.53	12.13
26	11.56	10.10	8.47	7.71	10.45	24.87	36.46	25.22	28.55	18.82	14.22	12.32
27	12.30	9.86	8.49	7.69	11.22	23.43	37.25	25.94	28.89	18.51	13.86	12.59
28	12.04	10.02	8.59	7.71	12.28	22.67	37.62	25.77	29.15	18.16	14.62	12.50
29	10.99	10.08	8.65	7.70	15.48	23.16	36.23	27.69	29.28	17.70	15.31	11.90
30	10.69	9.94	8.53	7.65	-	23.78	38.30	28.35	29.35	17.48	16.58	11.51
31	10.93	-	8.38	7.73	-	24.04	-	28.81	-	17.15	19.74	-

MISSISSIPPI RIVER MAIN STEM

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Discharge, in second-feet, of Mississippi River at Thebes, Ill., water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	81,600	99,500	84,300	72,300	78,800	193,000	274,000	749,000	437,000	433,000	193,000	268,000
2	81,200	96,300	84,300	72,300	83,400	199,000	261,000	782,000	449,000	423,000	192,000	275,000
3	81,400	93,200	84,600	72,300	88,600	203,000	250,000	800,000	451,000	411,000	178,000	250,000
4	81,700	90,200	86,600	72,200	89,000	216,000	237,000	781,000	447,000	402,000	161,000	222,000
5	83,900	88,300	87,600	70,700	89,000	220,000	222,000	750,000	441,000	393,000	148,000	214,000
6	85,500	87,300	85,800	69,700	91,100	225,000	207,000	790,000	436,000	387,000	143,000	210,000
7	88,200	90,200	84,000	69,300	90,800	237,000	196,000	800,000	425,000	383,000	140,000	199,000
8	88,000	93,600	82,100	69,800	87,900	241,000	186,000	759,000	408,000	379,000	139,000	183,000
9	86,000	104,000	81,300	69,600	85,000	232,000	192,000	730,000	386,000	375,000	149,000	169,000
10	84,400	115,000	81,600	70,200	81,600	221,000	197,000	701,000	371,000	368,000	163,000	153,000
11	82,600	122,000	83,400	71,400	80,100	193,000	231,000	686,000	365,000	356,000	167,000	140,000
12	81,900	121,000	87,300	71,400	78,600	181,000	287,000	650,000	356,000	336,000	162,000	131,000
13	81,100	119,000	89,600	71,300	78,500	164,000	400,000	626,000	341,000	320,000	154,000	123,000
14	80,200	118,000	93,200	70,600	76,900	158,000	469,000	606,000	346,000	303,000	140,000	114,000
15	79,900	116,000	94,700	71,400	74,000	159,000	515,000	572,000	357,000	288,000	129,000	108,000
16	81,500	111,000	92,300	71,200	72,300	169,000	549,000	517,000	359,000	277,000	119,000	106,000
17	83,400	111,000	86,900	71,500	71,700	201,000	554,000	456,000	360,000	267,000	115,000	104,000
18	85,000	111,000	85,500	71,200	72,200	263,000	557,000	398,000	363,000	258,000	117,000	104,000
19	83,900	107,000	80,700	71,400	72,800	332,000	552,000	366,000	364,000	250,000	124,000	106,000
20	83,100	101,000	78,900	71,500	73,000	391,000	542,000	348,000	364,000	244,000	127,000	104,000
21	83,100	96,900	77,500	71,900	72,000	427,000	523,000	333,000	364,000	237,000	126,000	100,000
22	86,100	95,300	76,800	71,200	73,600	439,000	493,000	328,000	371,000	232,000	130,000	99,500
23	89,800	95,300	75,800	71,500	76,000	439,000	516,000	326,000	383,000	226,000	136,000	106,000
24	94,900	94,300	74,700	71,200	76,600	402,000	566,000	328,000	394,000	222,000	140,000	114,000
25	99,000	92,000	74,600	71,200	81,600	347,000	600,000	334,000	409,000	215,000	142,000	119,000
26	110,000	90,000	74,200	71,200	97,400	304,000	621,000	345,000	421,000	208,000	138,000	121,000
27	114,000	88,400	74,300	71,700	105,000	288,000	663,000	359,000	432,000	204,000	140,000	123,000
28	108,000	89,100	75,000	72,400	124,000	276,000	709,000	379,000	436,000	199,000	147,000	119,000
29	97,800	90,000	75,000	72,300	166,000	274,000	706,000	397,000	436,000	192,000	160,000	111,000
30	96,700	87,100	73,500	73,100	-	286,000	718,000	411,000	435,000	188,000	187,000	109,000
31	98,800	-	72,900	74,900	-	281,000	-	425,000	-	185,000	236,000	-
	Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	
October							2,741,700	114,000	79,900	88,440	5,438,000	
November							3,013,000	122,000	87,100	100,400	5,978,000	
December							2,536,700	94,700	72,900	81,600	5,029,000	
Calendar year 1943							86,757,700	886,000	72,900	237,700	172,100,000	
January							2,213,500	74,900	69,300	71,400	4,390,000	
February							2,485,300	166,000	71,700	86,700	4,950,000	
March							8,161,000	439,000	158,000	263,300	16,190,000	
April							12,993,000	718,000	186,000	433,100	25,770,000	
May							16,832,000	800,000	326,000	543,000	33,390,000	
June							11,905,000	451,000	341,300	396,800	23,610,000	
July							9,161,000	433,000	185,000	295,500	18,170,000	
August							4,642,000	236,000	115,000	149,700	9,207,000	
September							4,403,600	275,000	99,500	146,800	8,734,000	
Water year 1943-44							81,086,700	800,000	69,300	221,500	160,800,000	

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MISSISSIPPI RIVER MAIN STEM

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, 1 1/2 miles downstream from Wolf River, 1.3 miles downstream from Beale Street gage, and 70 miles upstream from St. Francis 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), and 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 1944 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.

Average discharge.- 10 years (1934-44), 430,300 second-feet.

Extremes.- Maximum discharge during year, 1,289,000 second-feet May 5 (gage height, 37.11 feet); minimum, 120,000 second-feet Dec. 27 (gage height, 0.90 foot).

1934-44: 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, -1.15 feet 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 good. Computation of records based on 90 discharge measurements made during year.

Cooperation.- 72 discharge measurements furnished by Corps of Engineers, U. S. Army. Gage-height records collected in cooperation with U. S. Weather Bureau.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.39	3.38	3.48	3.53	3.01	20.00	29.36	36.39	19.91	18.47	8.28	6.83
2	3.11	3.06	3.11	3.66	3.30	21.38	29.73	36.67	20.41	18.70	7.84	7.66
3	2.77	3.08	2.85	3.81	3.60	22.94	30.11	36.80	20.69	18.81	7.84	9.22
4	2.70	3.33	2.70	4.12	4.17	24.24	30.49	36.98	21.42	18.61	8.02	10.94
5	2.39	3.38	2.54	4.58	4.90	25.19	30.84	37.08	21.84	18.11	8.13	12.28
6	2.24	3.65	2.42	4.92	5.58	25.64	31.07	37.01	22.10	17.48	7.88	12.64
7	2.35	3.79	2.44	5.75	5.49	26.24	31.25	36.80	22.00	16.88	6.98	11.91
8	2.20	3.38	2.82	7.40	5.54	26.62	31.42	36.60	21.70	16.44	6.02	11.16
9	2.16	3.40	2.87	8.45	6.47	26.98	31.66	36.45	21.28	16.18	5.50	10.94
10	2.26	3.99	2.56	8.90	5.60	27.34	31.62	36.42	20.53	15.91	5.29	10.23
11	2.31	4.23	2.43	8.92	4.66	27.60	31.24	36.37	19.64	15.54	5.62	9.38
12	2.25	4.22	2.51	8.87	4.44	27.76	30.53	36.26	18.76	15.26	5.90	9.39
13	2.10	4.81	2.38	8.97	5.06	27.86	29.02	36.04	17.95	15.07	6.14	7.18
14	2.04	5.18	2.39	9.15	7.04	27.80	28.10	35.68	17.54	14.77	6.87	6.66
15	2.05	5.68	2.66	9.16	8.63	27.70	28.01	35.17	16.71	14.40	6.51	6.48
16	1.97	6.17	2.98	8.49	9.08	27.55	28.64	34.55	16.11	14.10	6.01	5.88
17	2.01	6.27	3.18	6.32	9.09	27.30	29.40	33.87	15.92	13.76	5.53	5.17
18	1.85	6.11	3.50	4.50	9.49	26.68	30.19	33.10	15.98	12.95	5.56	4.46
19	1.80	5.44	3.29	3.62	8.82	26.10	31.00	32.20	16.10	12.25	6.06	3.91
20	2.33	5.09	3.08	3.58	9.02	25.44	31.77	30.97	16.22	11.87	4.94	3.41
21	2.89	5.22	2.58	3.72	9.98	25.00	32.53	29.21	16.19	11.40	5.28	3.20
22	2.61	5.20	2.08	3.81	11.68	25.12	33.26	27.01	16.28	10.93	5.71	3.19
23	2.10	5.09	1.82	3.77	13.48	26.86	34.01	24.80	16.57	10.64	5.80	2.97
24	1.95	4.79	1.51	3.73	14.56	26.73	34.58	22.72	16.26	10.41	5.76	2.62
25	1.94	4.39	1.31	3.86	15.35	27.55	34.96	21.08	16.11	10.09	5.65	2.48
26	2.36	4.17	1.12	4.00	16.23	28.24	35.22	20.09	16.30	9.84	6.03	2.83
27	2.93	4.05	.94	3.99	17.16	28.82	35.61	19.51	16.94	9.85	6.45	3.17
28	3.17	3.90	.99	3.77	18.20	29.09	35.80	19.18	17.37	9.73	6.24	3.61
29	3.23	3.58	1.16	3.42	19.25	29.31	35.97	19.07	17.78	9.32	5.71	3.93
30	3.82	3.54	1.59	3.10	-	29.21	36.15	19.23	18.13	9.07	5.84	4.14
31	3.95	-	2.70	2.95	-	29.24	-	19.54	-	8.81	6.40	-

MISSISSIPPI RIVER MAIN STEM

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Discharge, in thousands of second-feet, of Mississippi River at Memphis, Tenn., water year
October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	160	163	166	166	628	964	1,261	599	542	252	231
2	156	155	156	171	171	678	982	1,287	602	552	243	254
3	151	157	152	175	175	743	1,000	1,272	619	555	246	291
4	149	161	149	180	186	793	1,019	1,284	636	545	250	332
5	144	163	147	188	197	829	1,034	1,284	650	529	252	364
6	143	167	145	196	205	854	1,043	1,278	654	510	243	367
7	145	168	146	215	207	875	1,053	1,267	650	494	225	342
8	141	162	148	248	209	888	1,058	1,256	636	482	207	323
9	141	164	149	269	221	905	1,063	1,250	619	473	199	313
10	143	174	147	275	203	914	1,048	1,250	592	467	196	293
11	143	177	145	275	188	918	1,015	1,250	562	455	203	271
12	142	179	143	277	184	923	968	1,244	532	446	207	248
13	140	189	144	280	201	923	910	1,234	510	438	213	225
14	139	197	145	286	239	914	875	1,212	498	426	221	217
15	139	207	150	286	269	905	880	1,185	470	415	215	211
16	138	215	155	266	277	892	910	1,154	455	401	205	199
17	138	216	159	221	280	880	950	1,123	452	388	196	186
18	135	211	160	188	282	850	996	1,083	455	364	192	175
19	136	198	160	178	269	825	1,034	1,039	458	344	186	164
20	146	194	155	178	280	797	1,073	977	464	335	186	157
21	152	196	146	180	306	785	1,103	901	464	320	192	153
22	147	195	138	182	352	793	1,133	813	467	309	198	153
23	139	192	134	182	399	829	1,169	728	467	302	199	150
24	137	186	129	180	432	867	1,190	657	467	295	199	145
25	138	179	126	184	461	897	1,201	609	464	288	197	145
26	146	176	123	186	488	923	1,217	582	473	282	207	148
27	154	174	121	184	520	946	1,228	565	491	284	213	155
28	156	170	122	178	558	954	1,234	558	507	280	207	164
29	161	165	125	173	592	959	1,239	558	520	273	199	171
30	170	165	134	168	-	954	1,250	568	532	269	207	178
31	170	-	153	166	-	959	-	575	-	262	219	-

Month	Thousands of second- foot-days	Discharge in thousands of second-feet			Runoff in thousands of acre- feet
		Maximum	Minimum	Mean	
October.....	4,540	170	135	146.6	9,005
November.....	5,412	216	155	180.4	10,730
December.....	4,469	163	121	144.2	8,864
Calendar year 1943.....	194,357	1,384	121	532.5	385,500
January.....	6,481	286	166	209.1	12,850
February.....	8,517	592	166	293.7	16,890
March.....	26,798	959	626	884.5	53,150
April.....	31,839	1,250	876	1,061	65,150
May.....	31,284	1,284	558	1,009	82,050
June.....	15,945	854	452	531.5	31,630
July.....	12,325	555	262	397.6	24,450
August.....	6,575	252	186	212.1	13,040
September.....	6,725	367	145	224.2	13,340
Water year 1943-44.....	160,910	1,284	121	439.6	319,100

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mississippi River near Vicksburg, Miss.

Location.- Water-stage recorder, lat. 32°18'45", long. 90°54'25", in T. 16 N., R. 3 E. Washington meridian, at combined highway and railway bridge of Vicksburg Bridge Co., 1½ miles downstream from Yazoo diversion canal 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 1944 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 September 1944 in reports of Geological Survey. December 1871 to September 1929, daily readings at Kleinston gage (at mouth of Yazoo diversion canal), 1½ miles upstream from present site, and since October 1929, daily readings at gage on Yazoo diversion canal, 1,600 feet upstream from Kleinston gage), in reports of Mississippi River Commission. December 1871 to October 1919, at gage half a mile upstream from 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.- 13 years (1931-44), 526,100 second-feet.

Extremes.- Maximum discharge during year, 1,609,000 second-feet May 13; maximum gage height, 43.13 feet May 15; minimum discharge, 155,000 second-feet Jan. 1; minimum gage height, -2.57 feet Dec. 31.

1930-44: 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 diversion canal gage), approximately 56.0 feet on Geological Survey gage, May 4, 1927.

Remarks.- Records excellent. Computation of records based on 221 discharge measurements made during year.

Cooperation.- 171 discharge measurements furnished by Corps of Engineers, U. S. Army.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.34	-0.24	0.79	-2.55	1.19	18.20	33.61	39.43	30.69	19.81	8.96	4.98
2	1.96	+0.67	.52	-2.21	.90	19.13	35.66	39.77	29.62	20.02	h8.7	4.55
3	1.49	1.71	.31	-1.35	.72	20.32	33.72	40.10	28.91	20.15	h8.4	5.05
4	.96	1.73	+2.0	-4.3	.68	21.66	33.80	40.48	28.51	20.24	h8.0	5.51
5	.42	1.26	-.04	+4.1	.80	23.07	33.80	40.92	28.25	20.39	h7.6	6.13
6	.00	.87	-.28	.86	1.22	24.44	33.84	41.20	28.02	20.40	h7.3	7.40
7	-.32	1.13	-.54	1.17	1.78	25.69	33.95	41.57	27.87	20.32	h7.2	9.07
8	-.57	1.51	-.79	1.73	2.43	26.49	34.04	41.84	27.64	20.01	7.19	10.47
9	-.81	1.30	-1.03	2.27	3.13	27.04	34.10	42.36	27.43	19.51	7.04	11.31
10	-.89	1.33	-1.13	2.90	3.52	27.47	34.20	42.50	27.19	18.92	6.51	11.36
11	-.69	1.17	-1.08	3.92	3.83	27.83	34.47	42.81	26.88	18.35	5.69	11.04
12	-.52	.99	-1.06	5.08	4.20	28.10	34.54	42.95	26.39	17.83	h5.0	10.66
13	-.41	1.09	-1.02	5.99	4.54	28.26	34.60	42.99	25.77	17.33	h4.4	10.10
14	-.41	1.58	-1.07	6.25	4.90	28.44	34.67	42.97	25.03	16.86	h4.3	9.38
15	-.53	1.55	-1.16	6.44	5.07	28.56	34.68	43.08	24.24	16.41	h4.3	8.53
16	-.73	1.79	-1.27	6.48	5.57	28.63	34.72	43.00	23.51	16.00	h4.4	7.53
17	-.94	2.12	-1.28	6.60	6.66	28.62	34.80	43.09	22.96	15.60	h4.6	6.60
18	-1.10	2.62	-1.19	6.61	7.88	28.63	35.06	42.93	22.71	15.18	h4.8	5.80
19	-1.25	2.95	-.90	6.28	8.73	28.90	35.14	42.80	22.61	14.77	h4.6	5.05
20	-1.32	3.23	-.54	5.32	9.20	29.14	35.42	42.52	22.45	14.30	h4.2	4.22
21	-1.36	3.23	-.26	4.03	9.66	29.10	35.88	42.13	22.10	13.70	h3.8	3.33
22	-1.41	2.93	-.07	2.82	10.10	29.28	36.24	42.00	21.61	12.97	h3.5	2.57
23	-1.23	2.52	+0.4	2.00	10.78	29.71	36.60	41.67	21.04	12.36	h3.3	1.85
24	-.75	2.28	-.25	1.63	11.78	29.91	36.95	41.12	20.49	11.88	3.25	1.32
25	-.48	2.19	-.65	1.47	12.96	30.16	37.30	40.48	19.96	11.39	3.55	1.00
26	-.69	2.07	-1.10	1.39	14.28	30.49	37.61	39.50	19.61	10.65	3.80	.71
27	-1.04	1.87	-1.48	1.29	15.57	31.08	38.09	38.25	19.24	10.42	3.88	.37
28	-1.28	1.66	-1.75	1.31	16.53	31.84	38.42	36.79	19.00	10.08	3.83	.08
29	-.99	1.26	-2.07	1.40	17.43	32.73	38.65	35.13	19.12	9.77	3.93	.12
30	-.98	1.01	-2.35	1.49	-	33.21	39.04	33.49	19.51	9.49	4.20	.41
31	-.60	-	-2.53	1.43	-	33.48	-	32.00	-	9.20	4.32	-

h U. S. Weather Bureau gage reading.

Discharge, in thousands of second-feet, of Mississippi River near Vicksburg, Miss.,
water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	185	196	156	206	640	1,177	1,420	852	605	330	248
2	197	205	194	167	203	674	1,172	1,426	830	611	g326	258
3	190	210	192	182	201	715	1,168	1,441	820	614	g322	266
4	185	208	192	194	201	761	1,168	1,452	816	619	g311	272
5	182	201	190	205	206	809	1,168	1,468	812	619	g301	286
6	175	197	187	212	214	863	1,168	1,484	809	619	g296	315
7	172	201	182	218	225	911	1,168	1,511	806	611	g296	348
8	167	203	178	225	238	934	1,168	1,538	802	599	296	376
9	164	203	175	233	248	954	1,168	1,560	798	577	288	395
10	164	201	173	244	254	965	1,177	1,570	788	555	276	395
11	172	197	170	266	258	977	1,181	1,592	778	539	262	390
12	175	194	169	294	264	981	1,186	1,604	757	526	g252	379
13	180	205	170	311	270	985	1,191	1,609	741	516	g248	361
14	178	210	169	315	278	989	1,196	1,608	715	503	g248	343
15	173	212	173	315	288	997	1,196	1,576	699	488	g248	322
16	169	220	173	317	305	997	1,200	1,543	680	476	250	303
17	167	225	175	317	330	997	1,200	1,532	661	466	g252	288
18	167	233	182	317	348	997	1,205	1,516	658	458	g252	278
19	165	240	189	307	361	985	1,210	1,484	655	451	g246	262
20	158	242	194	296	370	969	1,220	1,426	649	444	g238	246
21	164	240	197	256	381	961	1,244	1,415	640	430	g233	233
22	164	233	196	229	397	981	1,249	1,405	628	411	g227	220
23	165	227	187	220	418	997	1,258	1,338	616	399	223	210
24	172	223	182	218	449	1,013	1,268	1,278	596	386	229	203
25	175	221	175	218	483	1,025	1,293	1,234	582	376	233	196
26	169	218	172	216	518	1,038	1,318	1,181	571	365	237	194
27	162	214	169	214	552	1,058	1,348	1,118	563	354	238	190
28	162	206	167	214	588	1,075	1,369	1,050	560	348	237	189
29	172	201	165	214	605	1,131	1,384	981	579	343	240	194
30	183	199	162	214	-	1,177	1,405	919	593	339	242	201
31	185	-	161	210	-	1,186	-	874	-	334	242	-

Month	Thousands of second-foot- days	Discharge in thousands of second-feet			Runoff in thousands of acre-feet
		Maximum	Minimum	Mean	
October.....	5,390	210	162	173.9	10,690
November.....	6,374	242	185	212.5	12,640
December.....	5,556	197	161	179.2	11,020
Calendar year 1943	232,624	1,643	161	637.3	461,400
January.....	7,504	317	156	242.1	14,980
February.....	9,659	605	201	333.1	19,160
March.....	29,742	1,186	640	959.4	58,990
April.....	36,823	1,405	1,168	1,227	73,040
May.....	43,143	1,609	874	1,392	85,570
June.....	21,054	852	560	701.8	41,760
July.....	14,981	619	334	483.3	29,710
August.....	8,119	350	223	261.9	16,100
September.....	8,361	395	189	278.7	16,580
Water year 1943-44	196,706	1,609	156	537.4	390,100

g Computed from graph based on gage readings.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mississippi River near Baton Rouge, La.

Location.- Water-stage recorder, lat. 30°30'25", long. 91°11'55", in T. 6 S., R. 12 E. Louisiana meridian, at bridge on U. S. Highways 71 and 190, 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: 1929 (discharge measurements only) and since 1931 in reports of Mississippi River Commission (1931-38, daily discharge computed on basis of data obtained at several ranges between mouth of Old River and New Orleans and published as Mississippi River below Baton Rouge, La.).

Gage heights: June 1940 to September 1944 in reports of Geological Survey. 1828-71 occasional readings, and since January 1872, daily gage heights, at gage of Corps of Engineers, U. S. Army, 4 miles downstream from present site, in reports of Mississippi River Commission.

Extremes.- Maximum gage height during year, 41.9 feet May 21 (affected by diversion through Atchafalaya River); minimum, 2.8 feet Dec. 18.

1940-44: Maximum gage height, that of May 21, 1944; minimum, 1.8 feet Oct. 20, 1940.

Maximum gage height observed, 47.8 feet May 15, 1927; minimum observed, 0.45 foot Nov. 14, 1894. Both maximum and minimum observations were made at site 4 miles 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.

S J
v

Gage height at S a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.7	3.8	4.5	3.1	5.0	16.6	32.7	36.9	36.9	19.6	8.0	5.0
2	5.7	3.9	4.5	3.7	5.0	17.4	32.9	37.2	35.9	19.6	7.7	4.9
3	5.6	3.9	4.4	3.7	5.1	18.3	33.2	37.5	34.8	19.7	7.4	5.0
4	5.1	4.3	4.1	3.7	5.0	19.4	33.3	37.7	33.8	19.7	7.2	5.2
5	4.8	4.2	3.9	4.0	5.1	20.7	33.3	38.2	32.9	19.7	7.1	5.5
6	4.5	4.2	3.9	4.3	5.0	22.2	33.4	38.4	32.1	19.8	6.8	5.9
7	4.4	5.0	3.8	4.7	5.0	23.4	33.4	38.8	31.4	19.8	6.6	6.3
8	4.0	4.4	3.8	5.7	5.2	24.4	33.5	39.1	30.8	19.7	6.4	7.0
9	3.7	4.0	4.0	5.2	5.9	25.3	33.5	39.5	30.4	19.5	6.3	7.8
10	3.5	3.9	3.9	5.1	5.7	26.0	33.6	39.9	30.0	19.2	6.2	8.6
11	3.6	4.0	3.9	5.3	6.1	26.8	33.8	40.2	29.6	18.7	6.2	9.0
12	3.7	4.1	3.8	5.7	5.7	27.3	33.7	40.6	29.3	18.2	5.9	8.9
13	4.3	4.1	3.8	7.1	6.0	27.7	33.8	40.9	28.5	17.6	5.5	8.7
14	4.2	4.3	3.9	7.8	6.6	27.9	33.9	41.1	28.2	17.1	5.2	8.4
15	4.3	4.5	3.9	8.0	7.0	28.1	34.0	41.3	27.7	16.5	4.9	8.0
16	4.1	4.6	3.5	8.0	7.5	28.4	34.0	41.5	27.0	15.9	4.9	7.5
17	4.0	4.5	3.3	8.1	7.8	28.6	34.0	41.7	26.3	15.3	4.8	7.1
18	3.7	4.5	3.1	8.2	8.3	28.6	34.1	41.7	25.7	14.7	4.8	6.7
19	3.6	4.5	3.1	8.3	9.0	29.2	34.3	41.8	25.0	14.1	4.9	6.4
20	3.6	4.6	3.1	8.3	9.8	29.5	34.3	41.8	24.6	13.5	5.0	6.0
21	3.7	4.7	3.3	8.0	10.6	29.4	34.5	41.8	24.2	13.0	5.1	5.8
22	3.7	4.9	3.6	7.5	11.0	29.5	34.8	41.8	23.9	12.4	5.1	5.3
23	3.6	4.9	3.9	6.9	11.3	29.9	35.1	41.8	23.5	11.8	5.0	4.9
24	3.8	4.8	4.3	6.6	11.6	30.0	35.3	41.6	22.8	11.2	4.8	4.6
25	3.6	4.8	5.3	6.2	12.2	30.1	35.5	41.4	22.1	10.7	4.7	4.4
26	3.6	4.9	4.9	6.2	13.0	30.3	35.7	41.1	21.5	10.2	4.8	4.5
27	3.3	4.9	4.6	5.9	14.0	30.6	35.9	40.7	21.0	9.8	4.8	4.6
28	3.3	5.0	4.8	5.6	15.0	31.0	36.2	40.2	20.4	9.4	4.8	4.6
29	3.3	5.0	3.8	5.3	16.0	31.5	36.4	39.6	20.0	9.0	4.8	4.4
30	3.4	4.8	3.8	5.3	-	32.1	36.6	38.8	19.8	8.6	4.8	3.8
31	3.7	-	3.6	5.2	-	32.4	-	37.9	-	8.2	5.0	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mississippi River near New Orleans, La.

Location.- Water-stage recorder, lat. 29°56'45", long. 90°10'15", in T. 13 S., R. 10 E. St. Helena meridian, at Huey P. Long Bridge, 5 miles west of New Orleans, 22 miles downstream from Bonnet Carre spillway, 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: Since 1928 (except 1937) and intermittently during 1851, 1852, 1879-1927 in reports of Mississippi River Commission (published as Mississippi River at Carrollton, La.).

Gage heights: November 1934 to September 1944 in reports of Geological Survey. Since 1872, at gage of Corps of Engineers, U. S. Army, 2½ miles downstream from present site, in reports of Mississippi River Commission. May 1873 to December 1922, at gage of U. S. Weather Bureau at foot of Canal Street, 11 miles downstream from present site, and since January 1923, at gage of Corps of Engineers, U. S. Army, in reports of U. S. Weather Bureau.

Extremes.- Maximum gage height during year, 19.5 feet May 20 (affected by diversion through Atchafalaya River); minimum, 0.5 foot Dec. 30.

1934-44: Maximum gage height, that of May 20, 1944; 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 2½ 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 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 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	1.8	2.1	1.3	1.2	5.4	14.7	16.8	16.8	8.1	3.1	2.2
2	3.2	2.0	2.5	1.9	1.1	5.6	14.7	17.1	16.3	8.0	2.9	2.0
3	3.1	2.2	2.4	1.2	1.1	6.1	14.9	17.2	15.7	8.0	2.8	1.8
4	2.9	2.4	2.0	1.0	1.2	6.7	15.0	17.3	15.2	8.0	2.8	1.9
5	2.8	2.4	1.8	.9	1.1	7.4	15.0	17.6	14.7	8.0	2.5	2.0
6	3.0	2.4	1.7	.9	1.2	8.2	15.1	17.6	14.3	7.8	2.3	2.3
7	2.8	2.9	1.3	1.2	1.3	8.9	15.1	17.8	14.0	7.8	2.2	2.5
8	2.7	1.5	1.3	1.9	1.6	9.5	15.2	17.8	13.7	7.7	2.0	2.6
9	2.4	1.3	1.2	1.4	2.0	9.8	15.2	18.1	13.5	7.7	2.1	3.1
10	2.2	1.0	1.2	1.4	2.0	10.3	15.3	18.3	13.3	7.5	2.3	3.6
11	2.0	1.2	1.2	1.6	2.0	11.2	15.4	18.5	13.0	7.4	2.4	3.3
12	1.9	1.2	1.4	1.9	1.5	11.4	15.2	18.7	13.1	7.3	2.5	3.4
13	2.4	1.4	1.4	3.3	1.6	11.6	15.2	18.8	12.8	7.1	2.4	3.2
14	2.0	1.7	1.9	2.8	2.2	11.7	15.3	19.0	12.6	6.9	2.3	3.2
15	2.1	2.0	2.0	2.4	2.1	11.8	15.4	19.1	12.3	6.5	2.1	2.8
16	2.2	3.2	1.5	2.2	2.2	12.0	15.4	19.1	12.1	6.4	2.0	2.7
17	2.1	2.3	1.4	2.0	2.1	12.2	15.4	19.2	11.8	6.0	2.0	2.5
18	2.0	2.1	1.3	1.9	2.0	12.2	15.4	19.3	11.4	5.7	2.0	2.4
19	2.0	2.0	1.1	2.0	2.1	12.7	15.6	19.3	11.1	5.3	1.9	2.5
20	2.4	2.1	1.1	1.8	2.3	12.7	15.6	19.4	10.8	4.9	1.9	2.5
21	2.4	1.8	1.2	1.8	2.8	12.8	15.7	19.4	10.4	4.5	2.3	2.6
22	2.4	1.9	1.0	1.6	3.2	13.0	15.8	19.2	10.2	4.2	2.2	2.5
23	2.4	1.7	1.3	1.4	3.4	13.2	15.9	19.3	9.9	4.0	2.1	2.5
24	2.4	1.7	1.5	1.7	3.6	13.4	16.0	19.1	9.7	3.8	2.2	2.6
25	2.0	1.6	2.2	1.8	3.8	13.5	16.0	19.0	9.5	3.6	2.3	2.6
26	1.8	1.6	1.7	2.0	4.2	13.6	16.1	18.8	9.1	3.4	2.4	3.1
27	1.2	1.8	1.5	2.2	4.5	13.5	16.2	18.6	8.9	3.3	2.4	3.2
28	1.1	2.0	2.1	2.0	4.8	13.6	16.3	18.3	8.6	3.2	2.5	3.1
29	1.2	2.3	1.3	1.7	5.1	14.0	16.5	18.0	8.4	3.1	2.6	2.8
30	1.3	2.2	1.6	1.6	-	14.2	16.8	17.6	8.3	3.1	2.7	1.9
31	1.7	-	1.7	1.4	-	14.5	-	17.2	-	3.1	2.6	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MERAMEC RIVER BASIN

Meramec River near Steelville, Mo.

Location.- Water-stage recorder, lat. 37°59'55", long. 91°21'40", in NE¼ sec. 21, T. 38 N., R. 4 W., at St. Louis-San Francisco Railway bridge, 400 feet upstream from county highway bridge, 0.8 mile upstream from Whittenburg Creek, and 1½ miles north of Steelville. Datum of gage is 681.58 feet (revised) above mean sea level, datum of 1929.

Drainage area.- 781 square miles (revised).

Records available.- December 1922 to September 1944.

Average discharge.- 21 years (1923-44), 573 second-feet.

Extremes.- Maximum discharge during year, 7,190 second-feet May 10 (gage height, 10.02 feet); minimum, 107 second-feet Aug. 20 (gage height, 1.28 feet).

1922-44: Maximum discharge, 47,600 second-feet June 26, 1935 (gage height, 23.39 feet, site then in use); minimum, 74 second-feet July 22, 1934 (gage height, 0.35 foot, site then in use).

Maximum stage known, 26.5 feet (site in use December 1922 to October 1942) Aug. 20, 1915 (discharge, 60,000 second-feet, by slope-area method).

Remarks.- Records good.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 29)

1.3	111	2.8	488	5.5	2,240
2.0	281	3.3	740	6.5	3,130
2.5	377	4.4	1,420	8.0	4,730

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	180	160	198	158	2,320	390	978	918	152	134	182
2	166	176	160	196	162	1,420	357	828	616	150	142	164
3	164	178	158	188	162	1,070	338	1,390	468	146	140	148
4	162	178	156	200	160	918	320	2,490	390	142	134	136
5	162	174	158	204	160	828	304	1,390	335	136	132	130
6	h164	178	164	204	156	740	292	1,040	307	134	126	128
7	h162	194	166	202	154	928	283	858	283	132	122	122
8	h156	216	168	198	154	684	273	769	264	132	120	120
9	h156	240	166	190	152	567	275	2,260	255	136	119	120
10	h156	224	172	188	156	502	394	4,680	245	140	115	119
11	h156	210	176	182	162	451	1,390	1,790	240	154	115	122
12	h162	200	176	178	158	447	1,500	1,230	236	148	115	126
13	h162	192	174	168	156	502	1,130	978	226	136	113	126
14	h154	186	172	164	170	476	858	798	220	132	113	124
15	h174	184	168	168	164	440	918	695	216	h154	115	124
16	h172	178	158	166	160	403	978	611	210	h154	111	120
17	h170	172	164	162	168	380	769	h552	202	h154	115	117
18	h168	174	158	160	226	640	663	h538	198	148	115	115
19	h168	170	156	158	283	1,390	586	h432	194	146	111	111
20	h168	168	154	156	273	1,200	515	410	188	142	111	111
21	h180	170	156	156	260	1,420	463	403	186	136	120	124
22	h174	168	156	166	264	1,560	455	394	184	134	124	120
23	h168	162	154	160	278	1,660	974	414	182	134	138	117
24	h194	158	150	158	269	1,200	1,560	377	176	138	134	117
25	200	160	156	160	266	948	1,040	368	172	h142	130	117
26	198	160	156	158	472	769	858	345	166	158	146	117
27	200	160	156	164	440	642	2,130	354	164	142	152	120
28	190	158	178	164	513	562	1,390	528	160	134	150	154
29	182	158	186	164	2,320	505	1,040	443	156	134	148	182
30	178	158	200	162	-	468	858	1,390	156	132	160	198
31	188	-	202	164	-	421	-	1,260	-	132	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	5,320	200	154	172	0.220	0.25	10,550
November	5,384	240	158	179	.229	.26	10,680
December	5,134	202	150	166	.213	.25	10,180
Calendar year 1943	223,662	17,500	145	613	1.785	10.66	445,600
January	5,402	204	156	174	.223	.26	10,710
February	5,576	2,320	152	296	.379	.41	17,010
March	26,252	2,320	380	847	1.08	1.24	52,070
April	23,299	2,130	273	777	.995	1.11	46,210
May	30,983	4,680	345	999	1.28	1.48	61,450
June	7,913	918	156	264	.338	.38	15,700
July	4,384	158	132	141	.181	.21	8,700
August	3,986	166	111	129	.168	.19	7,910
September	3,931	198	111	131	.168	.19	7,800
Water year 1943-44	130,564	4,680	111	357	.457	6.23	259,000

Peak discharge.- Mar. 1 (12:30 a.m.) 3,330 sec.-ft.; Apr. 27 (8 a.m.) 3,030 sec.-ft.; May 4 (6 a.m.) 3,230 sec.-ft.; May 10 (6:30 a.m.) 7,190 sec.-ft.

† Computed on basis of revised drainage area.

‡ Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Meramec River near Sullivan, Mo.

Location.- Wire-weight gage, lat. 38°09'30", long. 91°06'30", in SE¼ sec. 35, T. 40 N., R. 2 W., at Sappington Highway bridge, 3½ miles downstream from Brazil Creek and 4 miles southeast of Sullivan. Datum of gage is 581.82 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,475 square miles (revised).

Records available.- September 1921 to September 1933, November 1943 to September 1944.

Average discharge.- 12 years (1921-33), 1,189 second-feet.

Extremes.- Maximum discharge during period, 19,000 second-feet May 4 (gage height, 17.0 feet, estimated by observer from floodmark); minimum observed, 224 second-feet Sept. 22 (gage height, 1.42 feet).

1921-33, 1943-44: Maximum discharge observed, 35,300 second-feet (revised) June 2, 1927 (gage height, 22.89 feet); minimum, 160 second-feet Sept. 22-30, Oct. 2, 3, 1932; minimum gage height, 1.38 feet Sept. 28, 29, 1932.

Maximum stage known, 33.5 feet (revised) in August 1915, from information by local residents (discharge, 90,000 second-feet).

Revisions.- The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede those published in the water-supply papers indicated.

Water-Supply Paper	Water year	Date	Gage height (feet)	Discharge (second-feet)
547.....	1922	Apr. 17	16.80	18,400
567.....	1923	Mar. 16	14.15	12,600
587.....	1924	Apr. 9	17.25	19,400
607.....	1925	Dec. 20	16.00	16,500
627.....	1926	Nov. 8	14.60	13,400
647.....	1927	June 2	22.89	35,300
667.....	1928	June 11	20.30	27,500
687.....	1929	May 7	18.20	22,000
702.....	1930	Jan. 14	18.20	22,000
747.....	1933	May 14	22.00	32,700

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

Revisions.- Revised figures of discharge for high-water periods in the water years 1922, 1924-1930, and 1933 are given herein. They supersede those published in Water-Supply Papers 547, 587, 607, 627, 647, 667, 687, 702, and 747.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1921-22		1926-27		1927-28	
Mar. 31.....	15,100	Apr. 1.....	29,800	June 10.....	23,900
Apr. 1.....	15,100	2.....	32,400	11.....	21,500
17.....	13,800	14.....	13,800	1928-29	
18.....	16,700	15.....	20,700	May 7.....	21,500
1923-24		16.....	17,000	1929-30	
Apr. 9.....	12,800	May 25.....	27,600	Jan. 14.....	20,700
May 29.....	15,600	26.....	27,000	15.....	18,400
30.....	15,100	June 1.....	17,000	1932-33	
1924-25		2.....	34,200	Apr. 16.....	21,000
Dec. 19.....	11,400	3.....	21,000	17.....	17,500
20.....	16,000	1927-28		May 14.....	29,500
1925-26		Apr. 6.....	22,300	15.....	29,000
Nov. 8.....	13,200	7.....	19,400	16.....	19,400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		480	327	396	344	4,250	1,100	1,800	1,500	314	278	278
2		480	327	396	344	3,130	1,050	2,510	1,320	314	278	278
3		436	312	396	344	2,320	980	8,230	940	302	278	266
4		416	312	416	327	1,990	940	12,200	885	302	278	244
5		396	312	456	327	1,860	900	4,150	775	302	266	234
6		396	327	436	327	1,740	850	2,780	671	289	266	234
7		458	327	436	327	1,680	810	2,120	621	289	266	234
8		503	327	416	312	1,560	780	2,060	550	278	255	234
9		550	327	396	312	1,270	750	5,760	527	289	255	234
10		550	344	378	327	1,160	830	8,230	527	305	244	234
11		480	378	360	327	1,050	3,850	5,050	484	315	244	234
12		436	378	360	312	1,100	4,350	2,920	484	325	244	234
13		416	378	360	312	1,100	2,920	2,580	464	315	244	234
14		396	378	344	327	1,100	2,250	1,990	464	302	244	234
15		396	360	344	327	1,050	2,320	1,680	444	289	244	234
16		378	312	327	312	995	2,250	1,500	426	278	244	234
17		360	312	327	327	885	1,850	1,320	407	269	244	234
18		360	344	327	396	1,680	1,360	1,220	407	314	256	234
19		360	327	312	503	2,440	1,320	1,100	390	328	234	234
20		344	327	327	550	2,640	1,220	1,050	390	314	234	234
21		344	327	327	526	3,200	1,160	1,270	373	302	234	234
22		344	327	327	550	3,340	1,050	1,100	373	289	244	224
23		327	312	312	550	3,340	3,280	2,250	358	278	255	234
24		327	327	312	550	3,100	4,250	1,580	342	278	266	234
25		327	312	312	600	2,500	2,550	1,100	342	278	244	234
26		327	312	312	1,080	2,200	2,120	995	328	289	244	234
27		327	327	327	1,130	1,900	3,340	1,160	328	302	266	234
28		327	360	327	1,190	1,600	3,340	1,270	328	302	266	278
29		327	378	344	2,510	1,400	2,440	1,270	314	289	266	314
30		327	416	360	-	1,300	1,920	1,220	314	289	266	375
31		-	416	344	-	1,200	-	1,990	-	278	278	-

Note.- No gage-height record Nov. 24 to Apr. 9, July 1, 10-13; discharge computed on basis of weather records and records for station near Steelville.

Monthly discharge, in second-feet, of Meramec River near Sullivan, Mo., 1921-33, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
September 9-30, 1921.....	18,270	1,860	375	830	0.563	0.46	36,240
Water year	-	-	-	-	-	-	-
October 1921	22,720	3,000	375	733	.497	.57	45,060
November	46,555	10,500	345	1,551	1.05	1.17	92,500
December	45,755	4,800	590	1,411	.957	1.10	86,750
Calendar year	-	-	-	-	-	-	-
January 1922	18,025	860	435	581	.394	.45	35,750
February	20,460	1,470	435	731	.496	.52	40,580
March	104,400	15,100	715	3,368	2.28	2.63	207,100
April	175,070	16,700	1,980	5,769	3.91	4.36	343,300
May	39,690	5,080	650	1,220	.868	1.00	76,720
June	17,355	1,200	485	572	.358	.43	34,040
July	18,821	1,800	392	607	.412	.48	37,330
August	14,704	2,100	278	474	.321	.37	29,160
September	12,359	675	317	412	.279	.31	24,510
Water year 1921-22	551,682	16,700	278	1,457	.988	13.39	1,055,000
October 1922	14,013	1,740	317	452	.306	.35	27,790
November	13,288	540	392	445	.300	.33	26,560
December	24,933	3,720	376	804	.545	.63	49,450
Calendar year 1922	470,926	16,700	278	1,290	.875	11.86	934,100
January 1923	31,985	3,400	500	1,032	.700	.81	63,440
February	41,000	5,000	630	1,464	.993	1.03	81,320
March	80,980	10,100	650	2,612	1.77	2.04	160,600
April	45,450	6,400	720	1,448	.982	1.10	86,140
May	61,095	8,310	675	1,971	1.34	1.54	121,200
June	62,820	9,870	870	2,094	1.42	1.58	124,600
July	15,703	1,020	345	507	.344	.40	31,150
August	12,849	1,080	350	414	.281	.32	25,490
September	11,030	540	317	368	.249	.28	21,880
Water year 1922-23	413,126	10,100	317	1,132	.767	10.41	819,400
October 1923	11,407	540	304	368	.249	.29	22,630
November	12,036	500	360	401	.272	.30	23,870
December	46,982	7,710	392	1,516	1.03	1.19	93,190
Calendar year 1923	451,317	10,100	304	1,182	.801	10.88	855,500
January 1924	14,396	630	392	464	.315	.36	28,530
February	23,665	1,960	500	816	.553	.60	46,940
March	30,348	5,100	462	979	.664	.77	60,190
April	54,840	12,800	585	1,828	1.24	1.38	108,800
May	72,460	15,600	426	2,337	1.58	1.82	145,700
June	62,950	5,100	1,080	2,098	1.42	1.58	124,900
July	43,415	7,350	500	1,400	.949	1.09	86,110
August	32,318	6,180	426	1,045	.707	.82	64,100
September	21,950	4,360	345	732	.496	.55	45,540
Water year 1923-24	426,757	15,600	304	1,166	.791	10.75	846,500
October 1924	11,163	468	300	360	.244	.28	22,140
November	10,374	445	320	346	.235	.26	20,590
December	51,164	16,000	300	1,650	1.12	1.29	101,500
Calendar year 1924	429,033	16,000	300	1,172	.795	10.80	851,000
January 1925	20,448	1,020	490	660	.447	.52	40,560
February	26,845	1,860	670	959	.650	.68	53,250
March	20,242	1,060	490	653	.443	.51	40,150
April	34,188	2,850	468	1,140	.773	.86	67,810
May	26,036	1,620	445	840	.569	.66	51,640
June	11,699	825	320	390	.264	.29	25,200
July	10,903	865	264	352	.239	.28	21,630
August	8,305	445	200	268	.182	.21	16,470
September	16,514	3,400	200	550	.373	.42	32,760
Water year 1924-25	247,879	16,000	200	679	.460	6.26	491,700
October 1925	28,819	2,220	490	930	.631	.73	67,160
November	51,210	13,200	400	1,707	1.16	1.29	102,600
December	38,745	6,400	445	1,250	.847	.98	76,850
Calendar year 1925	293,952	13,200	200	805	.546	7.43	583,100
January 1926	17,494	865	400	564	.382	.44	34,700
February	44,185	5,200	670	1,578	1.07	1.11	87,640
March	41,140	2,710	770	1,327	.900	1.04	81,600
April	54,830	4,530	815	1,828	1.24	1.38	108,800
May	22,641	1,740	467	730	.495	.57	44,910
June	13,071	593	328	436	.296	.33	25,930
July	6,801	328	235	284	.193	.22	17,460
August	10,419	865	235	336	.222	.26	20,870
September	14,984	1,390	271	499	.338	.38	29,720
Water year 1925-26	346,359	13,200	235	949	.643	8.73	687,000

Monthly discharge, in second-feet, of Meramec River near Sullivan, Mo., 1921-33, 1943-44--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1926	38,235	4,150	430	1,233	0.836	0.96	75,840
November	54,040	4,550	610	1,601	1.22	1.36	107,900
December	26,875	1,650	565	867	.588	.68	53,310
Calendar year 1926	346,715	5,200	235	950	.644	8.73	687,800
January 1927	64,136	6,200	498	2,069	1.40	1.61	127,200
February	40,816	2,740	805	1,461	.991	1.03	81,150
March	78,515	9,950	655	2,542	1.72	1.98	156,300
April	248,610	32,400	2,000	8,287	5.52	6.27	493,100
May	140,630	27,600	1,430	4,543	3.08	3.56	279,300
June	139,750	34,200	1,110	4,658	3.16	3.53	277,200
July	24,705	955	705	797	.540	.62	49,000
August	22,991	1,160	498	742	.503	.58	45,600
September	15,121	755	350	437	.296	.33	26,050
Water year 1926-27	895,023	34,200	350	2,447	1.66	22.50	1,771,000
October 1927	32,955	2,050	478	1,063	.721	.83	65,370
November	65,354	9,950	499	2,178	1.48	1.65	129,600
December	85,740	13,500	930	2,701	1.83	2.11	166,100
Calendar year 1927	955,922	34,200	350	2,619	1.78	24.09	1,896,000
January 1928	34,250	2,050	635	1,008	.683	.79	61,980
February	34,790	2,310	710	1,200	.814	.88	69,000
March	40,700	3,390	760	1,313	.890	1.03	80,730
April	119,790	22,300	930	3,993	2.71	3.02	237,600
May	44,460	4,350	870	1,434	.972	1.12	88,190
June	178,450	23,900	1,170	5,948	4.03	4.50	354,000
July	35,645	2,790	710	1,150	.780	.90	70,700
August	28,985	1,660	635	935	.634	.73	57,490
September	15,482	710	362	449	.304	.34	26,740
Water year 1927-28	709,601	23,900	362	1,939	1.31	17.90	1,408,000
October 1928	12,157	465	342	392	.266	.31	24,110
November	12,804	585	364	427	.289	.32	25,400
December	16,161	870	410	521	.353	.41	32,050
Calendar year 1928	568,674	23,900	342	1,554	1.05	14.35	1,128,000
January 1929	24,627	2,790	385	794	.538	.62	48,850
February	16,840	1,570	435	601	.407	.42	33,400
March	45,593	6,530	535	1,471	.997	1.15	90,430
April	85,590	13,600	870	2,846	1.93	2.15	169,400
May	158,890	21,500	810	5,125	3.47	4.00	315,200
June	49,170	3,150	750	1,639	1.11	1.24	97,550
July	17,092	1,120	364	551	.374	.45	35,900
August	15,699	1,580	303	506	.545	.60	31,140
September	10,646	535	303	355	.241	.27	21,120
Water year 1928-29	465,069	21,500	303	1,274	.864	11.72	922,500
October 1929	25,332	4,650	303	817	.564	.64	50,250
November	29,074	4,250	455	969	.657	.73	57,670
December	41,912	6,300	410	1,352	.917	1.06	85,130
Calendar year 1929	520,265	21,500	303	1,425	.966	13.11	1,032,000
January 1930	101,510	20,700	1,020	3,275	2.22	2.56	201,300
February	67,910	12,900	900	2,425	1.64	1.71	134,700
March	67,190	11,300	900	2,167	1.47	1.70	133,300
April	21,346	900	578	712	.463	.54	42,340
May	14,984	578	359	433	.327	.38	29,720
June	10,208	402	278	340	.231	.26	20,250
July	8,054	318	231	260	.176	.20	15,970
August	7,514	298	208	242	.164	.19	14,900
September	11,809	840	219	394	.267	.30	25,420
Water year 1929-30	406,843	20,700	208	1,115	.756	10.27	807,000
October 1930	10,167	690	243	398	.222	.26	20,170
November	9,338	426	260	311	.211	.24	18,550
December	13,398	660	298	432	.293	.34	26,570
Calendar year 1930	343,428	20,700	208	941	.638	8.68	681,200
January 1931	10,506	580	298	359	.230	.27	20,840
February	15,207	1,020	298	407	.407	.42	33,540
March	24,236	1,520	402	792	.530	.61	46,070
April	28,389	2,240	475	946	.641	.72	56,310
May	32,720	1,910	660	1,055	.715	.82	64,900
June	19,490	1,720	298	650	.441	.49	38,660
July	10,227	1,520	203	330	.224	.26	20,280
August	6,667	260	196	222	.151	.17	13,620
September	8,345	500	190	278	.188	.21	16,550
Water year 1930-31	190,490	2,240	190	522	.354	4.81	377,800

Monthly discharge, in second-feet, of Meramec River near Sullivan, Mo., 1921-33, 1943-44--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October 1931	7,805	375	205	252	0.171	0.20	15,480
November	16,565	2,780	230	546	.370	.41	32,460
December	19,538	1,130	417	624	.423	.49	38,560
Calendar year 1931	201,095	2,780	190	561	.374	5.07	398,900
January 1932	46,480	3,060	650	1,499	1.02	1.18	92,190
February	22,205	1,020	600	766	.519	.56	44,040
March	24,333	2,060	438	785	.532	.61	48,260
April	12,658	575	335	422	.286	.32	25,110
May	9,041	396	245	292	.198	.23	17,930
June	7,879	438	205	263	.178	.20	16,630
July	6,034	550	180	259	.176	.20	15,940
August	11,208	1,990	180	362	.245	.28	22,230
September	5,735	295	160	191	.129	.14	11,380
Water year 1931-32	191,081	3,060	160	522	.354	4.82	379,000
October 1932	7,075	460	160	228	.155	.18	14,030
November	10,627	575	260	354	.240	.27	21,030
December	16,560	2,510	230	534	.362	.42	32,850
Calendar year 1932	181,835	3,060	160	497	.337	4.59	360,700
January 1933	30,762	2,320	375	992	.673	.78	61,020
February	12,200	700	335	456	.296	.31	24,200
March	20,691	1,680	460	667	.452	.52	41,040
April	75,370	21,000	700	2,512	1.70	1.90	149,500
May	159,476	29,500	855	5,144	3.49	4.02	316,300
June	16,867	1,190	355	562	.381	.43	33,460
July	10,407	417	295	356	.228	.26	20,640
August	16,467	2,510	295	531	.360	.42	32,660
September	10,768	910	245	359	.243	.27	21,360
Water year 1932-33	387,269	29,500	160	1,061	.719	9.78	768,100
October	-	-	-	-	-	-	-
November 1943	11,895	550	327	396	.268	.30	23,590
December	10,550	416	312	340	.231	.27	20,930
Calendar year	-	-	-	-	-	-	-
January 1944	11,094	456	312	368	.243	.28	22,000
February	15,670	2,510	312	540	.366	.39	31,080
March	60,020	4,250	885	1,956	1.31	1.51	119,000
April	58,620	4,350	750	1,954	1.32	1.47	116,300
May	85,055	12,200	995	2,744	1.86	2.14	168,700
June	16,076	1,500	314	556	.363	.40	31,890
July	9,227	328	278	298	.202	.23	18,300
August	7,903	278	234	255	.173	.20	15,680
September	7,403	373	224	247	.167	.19	14,680
The period	-	-	-	-	-	-	582,200

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1½ miles upstream from Calvey Creek. Datum of gage is 448.24 feet above mean sea level, datum of 1929.

Drainage area.- 2,673 square miles (revised).

Records available.- October 1939 to September 1944.

Extremes.- Maximum discharge during year, 19,200 second-feet May 11 (gage height, 17.10 feet); minimum, 289 second-feet Sept. 20; minimum gage height, 2.81 feet Aug. 19-21. 1939-44: Maximum discharge, 65,600 second-feet Dec. 30, 1942 (gage height, 30.12 feet); minimum, 256 second-feet Aug. 23, 24, 1941 (gage height, 2.47 feet). Maximum stage known, 36.1 feet (revised) in August 1915, from floodmark a quarter of a mile below gage adjusted for slope in water surface (discharge, 125,000 second-feet).

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467	596	467	561	561	5,090	1,500	4,370	4,140	468	409	368
2	467	596	467	561	561	7,890	1,430	6,500	2,580	468	409	368
3	467	643	467	567	555	5,850	1,320	17,200	1,960	458	393	368
4	462	637	467	573	544	a3,900	1,200	16,700	1,540	446	398	368
5	451	619	467	596	527	a3,400	1,170	16,500	1,320	446	393	413
6	441	602	489	613	522	a3,100	1,100	6,640	1,170	430	372	408
7	455	680	489	b578	522	a3,000	1,030	4,490	1,060	419	352	368
8	425	719	489	a690	516	a2,900	997	3,910	997	452	341	347
9	425	1,230	483	726	511	a2,400	964	10,700	932	458	341	320
10	420	1,080	516	726	516	2,220	2,190	15,600	867	419	330	316
11	420	920	522	674	516	1,880	11,700	17,700	867	430	315	315
12	415	815	539	625	505	1,750	13,700	11,600	810	543	309	341
13	446	732	544	607	494	1,790	13,000	5,850	786	469	309	350
14	456	680	561	607	505	1,880	8,850	4,140	753	446	309	320
15	489	637	573	602	505	1,920	4,970	5,160	741	h419	309	315
16	516	607	544	573	505	1,790	4,970	2,580	710	h414	309	315
17	511	584	516	550	516	1,620	4,610	2,260	680	h414	309	320
18	505	567	555	511	544	2,000	3,370	2,000	655	h398	309	309
19	489	580	560	500	596	3,690	2,670	1,790	637	h414	294	299
20	478	539	533	494	965	7,750	2,260	1,620	607	h419	294	289
21	489	527	511	489	1,270	6,910	1,960	1,920	822	h424	325	299
22	478	522	500	483	1,190	7,050	7,330	2,670	692	h419	320	299
23	500	511	539	483	1,190	7,330	14,600	2,260	589	a414	320	309
24	573	505	500	478	1,390	5,980	15,400	2,960	572	h409	325	309
25	613	500	516	478	1,390	4,370	14,000	2,400	548	h409	341	309
26	613	494	478	478	1,510	3,260	5,460	2,130	531	h566	347	304
27	674	489	478	483	1,810	2,670	4,610	3,260	520	h419	357	304
28	674	483	500	489	2,240	2,220	9,640	3,690	502	h419	368	341
29	650	483	516	483	2,640	2,000	8,450	3,060	491	631	357	396
30	619	478	539	489	-	1,750	4,370	8,620	485	446	357	454
31	607	-	544	533	-	1,620	-	4,490	-	414	368	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	15,675	674	415	506	0.189	0.22	31,090
November	19,025	1,230	478	634	.237	.26	37,740
December	15,859	573	467	512	.192	.22	31,460
Calendar year 1943	855,486	46,100	415	2,338	1.375	111.88	1,693,000
January	17,290	726	478	558	.209	.24	34,290
February	25,616	2,640	494	893	.330	.36	50,810
March	110,880	7,890	1,620	3,577	1.34	1.54	219,900
April	165,821	15,400	964	5,527	2.07	2.31	328,900
May	192,820	17,700	1,620	6,220	2.33	2.69	382,500
June	29,563	4,140	485	985	.368	.41	58,640
July	13,799	631	399	445	.186	.19	27,370
August	10,589	409	294	342	.128	.15	21,000
September	10,120	454	289	337	.126	.14	20,070
Water year 1943-44	627,057	17,700	289	1,713	.641	8.73	1,244,000

† Computed on basis of revised drainage area.

a No gage-height record; discharge computed on basis of records for Meramec River near Eureka and Big River at Byrnesville.

b Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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.- 3,788 square miles (revised).

Records available.- August 1903 to July 1906, October 1921 to September 1944.

Average discharge.- 23 years (1921-44), 2,971 second-feet.

Extremes.- Maximum discharge during year, 26,100 second-feet Apr. 25 (gage height, 17.26 feet); minimum, 413 second-feet Sept. 27 (gage height, 0.72 foot).

1921-44: Maximum discharge, 69,600 second-feet Dec. 30, 1942 (gage height, 31.78 feet); minimum, 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 Aug. 22, 1915, from floodmarks, present site and datum (discharge, 175,000 second-feet, by slope-area method).

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	586	835	633	760	751	5,290	2,290	6,000	5,010	620	550	h556
2	572	858	656	775	760	8,940	2,140	6,900	h3,940	606	512	536
3	572	898	605	775	760	7,930	2,000	17,900	h2,590	597	506	524
4	553	903	598	782	752	6,000	1,810	24,900	h2,340	580	500	518
5	546	903	605	782	731	5,010	1,720	21,300	h2,000	568	506	518
6	540	903	633	812	717	4,460	1,620	15,600	h1,760	h574	494	542
7	540	943	640	835	710	4,070	1,540	6,900	h1,580	h568	466	518
8	534	967	654	888	710	3,940	1,490	5,570	h1,440	554	450	488
9	528	1,270	654	935	710	3,820	1,440	15,200	h1,400	641	450	455
10	528	1,490	682	911	717	3,000	1,850	20,700	h1,310	561	438	438
11	534	1,270	710	872	717	2,500	13,800	19,600	h1,270	561	438	444
12	528	1,140	717	828	703	2,400	19,600	18,100	h1,180	726	488	472
13	566	1,060	752	768	696	2,400	17,900	8,620	1,110	711	1,070	733
14	572	975	752	752	710	2,400	10,400	6,450	1,070	627	790	648
15	619	927	752	752	703	2,450	7,200	4,730	1,050	597	683	594
16	640	865	775	752	710	2,340	6,300	3,820	1,020	561	574	548
17	661	812	805	710	717	2,140	6,150	3,340	960	548	518	524
18	654	775	775	717	738	2,500	4,970	2,890	914	542	488	500
19	647	745	768	696	805	4,200	3,820	2,670	899	530	h482	477
20	633	731	738	675	951	7,980	3,340	2,450	855	542	h472	455
21	647	717	710	675	1,490	9,740	2,890	2,340	952	662	h460	460
22	640	710	682	668	1,620	9,100	9,080	3,220	1,180	761	h574	433
23	654	689	633	668	1,490	10,100	21,900	3,110	1,220	641	h466	428
24	724	682	682	675	1,620	8,460	23,900	3,700	937	561	h450	433
25	790	661	647	675	1,720	6,300	24,700	3,460	841	530	h428	438
26	820	654	647	682	2,000	4,730	12,100	2,720	776	662	h500	428
27	872	647	628	696	2,090	3,940	6,450	3,340	718	754	h561	418
28	927	647	675	696	2,400	3,220	9,580	4,730	683	597	h506	466
29	895	647	689	696	3,220	2,890	12,100	3,820	662	561	h500	530
30	865	633	717	696	-	2,670	7,350	9,040	641	568	h492	620
31	850	-	738	710	-	2,500	-	5,850	-	548	h530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	20,237	927	528	653	0.172	0.20	40,140
November	25,947	1,490	633	865	.228	.25	51,470
December	21,580	805	598	690	.182	.21	42,410
Calendar year 1943	1,200,011	54,400	454	3,288	1.868	111.79	2,380,000
January	23,344	935	668	753	.199	.23	46,300
February	32,598	3,220	696	1,117	.295	.32	64,260
March	147,470	10,100	2,140	4,757	1.26	1.45	292,500
April	241,330	24,700	1,440	8,044	2.12	2.36	478,700
May	256,970	24,900	2,340	8,289	2.19	2.52	509,700
June	42,608	5,010	641	1,420	.375	.42	84,510
July	18,629	761	550	601	.169	.18	36,950
August	16,512	1,070	428	528	.139	.16	32,550
September	15,122	753	418	504	.133	.15	29,990
Water year 1943-44	861,747	24,900	418	2,354	.621	8.45	1,709,000

† Computed on basis of revised drainage area.

h. Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Dry Fork near St. James, Mo.

Location.- Wire-weight gage, lat. 37°57'55", long. 91°34'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 38 N., R. 6 W., at bridge on State Highway 68, 2 miles southeast of St. James and 5.5 miles upstream from mouth. Datum of gage is 787.24 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 370 square miles.

Records available.- November 1943 to September 1944 (records of discharge above 200 second-feet only).

Extremes.- Maximum discharge during period, 3,890 second-feet May 9 (gage height, 11.55 feet, from graph based on gage readings).

Flood of December 1942 reached a stage of about 24.5 feet, from information by local residents.

Remarks.- Records good. Gage read once daily between 7.3 and 8.1 feet, twice daily between 8.1 and 10 feet, and bihourly above. Station established to determine high-water discharge.

Discharge, in second-feet, 1944

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Feb. 27	308	Mar. 18	478	Apr. 12	305	May 9	1,720
28	662	19	250	23	282	10	1,250
29	778	21	272	26	212	11	250
Mar. 1	450	22	286	27	766	30	1,430
2	234	23	223	May 1	282	31	304
4	203	Apr. 11	370	3	264		

Courtois Creek at Berryman, Mo.

Location.- Wire-weight gage, lat. 37°55'00", long. 91°06'10", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 37 N., R. 2 W., at bridge on State Highway 8, 300 feet downstream from Lost Creek and $\frac{1}{2}$ mile west of Berryman. Datum of gage is 733.21 feet above mean sea level, datum of 1929.

Drainage area.- 173 square miles.

Records available.- November 1943 to September 1944 (records of discharge above 400 second-feet only).

Extremes.- Maximum discharge during period, 14,300 second-feet May 3 (gage height, 10.62 feet).

Remarks.- Records fair. Gage read once daily below 4.2 feet, twice daily between 4.2 and 6.0 feet, and bihourly above. Station established to determine high-water discharge.

Discharge, in second-feet, 1944

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Feb. 29	518	Apr. 12	624	May 3	7,330	May 10	874
Mar. 1	446	13	408	4	1,280	11	636
2	410	23	1,130	5	752	12	530
21	396	24	636	6	564	13	408
22	481	25	436	7	497	22	528
23	474	27	436	8	408	23	423
Apr. 11	1,520	May 2	866	9	1,740		

Huzzah Creek at Dillard, Mo.

Location.- Staff gage, lat. 37°44'25", long. 91°12'25", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 35 N., R. 2 W., 600 feet downstream from James Branch, 1,500 feet downstream from bridge on State Highway 49, and $\frac{1}{2}$ mile east of Dillard. Datum of gage is 872.24 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 92 square miles.

Records available.- November 1943 to September 1944 (records of discharge above 250 second-feet only).

Extremes.- Maximum discharge during the period, 3,690 second-feet May 3 (gage height, 5.3 feet, from graph based on gage readings).

Remarks.- Records fair. Gage read once daily below 2.2 feet and twice daily above. Station established to determine high-water discharge.

Discharge, in second-feet, 1944

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Feb. 28	317	Mar. 22	355	Apr. 24	255	May 8	275
29	437	Apr. 11	410	May 3	2,150	9	921
Mar. 1	330	23	363	4	330	10	330

Bourbeuse River near Spring Bluff, Mo.

Location.- Wire-weight gage, lat. 36°18'40", long. 91°16'45", in NE $\frac{1}{4}$ sec. 8, T. 41 N., R. 3 W., at county highway bridge, 1 mile downstream from Boone Creek, 3.5 miles northwest of Spring Bluff, and 9.5 miles northwest of Sullivan. Datum of gage is 626.34 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 608 square miles.

Records available.- November 1943 to September 1944 (records of discharge above 1,000 second-feet only).

Extremes.- Maximum discharge during period, 13,700 second-feet May 10 (gage height, 23.63 feet).

Flood of August 1915 reached a stage of 35.7 feet, from information by local residents.

Remarks.- Records good. Gage read once daily between 5.0 and 7.5 feet, twice daily between 7.5 and 15 feet, and bihourly above. Station established to determine high-water discharge.

MERAMEC RIVER BASIN

Discharge, in second-feet, of Bourbeuse River near Spring Bluff, Mo., 1944

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Feb. 27	1,070	Mar. 7	1,620	Apr. 10	2,020	Apr. 24	4,010	May 4	2,640
29	2,610	18	2,740	11	9,330	25	1,210	5	1,100
Mar. 1	2,840	19	4,740	12	4,000	27	5,850	9	8,100
2	2,040	20	2,080	13	1,460	28	3,380	10	9,120
3	1,580	21	2,990	15	2,020	29	1,070	11	1,540
4	1,310	22	2,490	16	1,350	May 1	3,950	27	1,780
5	1,170	23	1,660	22	3,520	2	3,080	28	1,210
6	1,280	24	1,140	23	9,280	3	3,680	30	1,860
								31	1,390

Peak discharge.- Apr. 11 (9 a.m.) 10,200 sec.-ft.; Apr. 22 (10 p.m.) 9,560 sec.-ft.; Apr. 23 (10 a.m.) 10,400 sec.-ft.; May 4 (4 a.m.) 13,700 sec.-ft.

Bourbeuse River at Union, Mo.

Location.- Water-stage recorder, lat. 38°26'45", long. 90°59'30", in SW $\frac{1}{4}$ 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. Prior to June 12, 1944, wire-weight gage at same site and datum.

Drainage area.- 798 square miles (revised).

Records available.- June 1921 to September 1944.

Average discharge.- 23 years, 649 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet May 11 (gage height, 13.0 feet), from floodmark; minimum, 35 second-feet Sept. 26, 27; minimum gage height, 0.96 foot Oct. 12, 13, 16.

1921-44: 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 to June 11; fair thereafter. Gage read once daily.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	108	71	80	152	2,010	370	1,970	1,730	75	41	51
2	52	90	71	80	157	2,870	314	4,900	960	70	43	51
3	49	90	71	81	142	2,340	273	6,660	639	69	59	61
4	49	95	71	85	124	2,080	265	4,590	432	67	51	94
5	46	101	71	88	124	1,320	250	3,230	333	65	43	133
6	45	101	85	81	138	1,320	236	1,430	277	65	41	109
7	45	181	71	142	138	1,100	210	960	224	65	40	92
8	44	147	71	280	133	1,620	193	995	202	72	39	78
9	44	210	65	210	128	1,100	185	2,340	202	70	38	73
10	44	514	65	210	120	736	179	6,790	195	h69	41	68
11	44	715	d66	198	128	546	5,310	10,100	195	h69	43	65
12	41	236	69	160	111	459	8,720	2,260	164	h78	44	63
13	41	191	73	107	107	424	7,120	2,010	159	58	46	57
14	44	174	109	107	103	626	1,690	1,030	153	58	46	54
15	76	147	138	124	111	722	1,350	806	148	56	48	49
16	41	128	115	124	111	628	1,850	559	144	55	48	48
17	44	96	122	124	115	508	1,620	533	135	53	45	47
18	44	92	99	107	120	660	1,100	438	130	52	45	44
19	44	96	92	107	133	2,410	820	360	130	52	45	42
20	44	92	85	96	104	4,180	666	250	124	51	41	41
21	41	88	81	86	855	2,960	546	444	164	65	44	42
22	60	88	85	85	1,060	3,230	4,420	1,100	122	59	46	41
23	63	76	71	85	771	2,870	9,340	694	h108	51	45	40
24	93	78	74	81	1,320	1,930	10,400	862	h101	49	44	40
25	76	78	68	81	708	1,240	7,040	848	h92	53	41	36
26	108	78	68	78	496	862	1,430	546	h89	94	44	36
27	156	78	71	74	599	736	2,210	476	h89	53	49	37
28	133	d75	71	92	496	569	5,980	1,970	73	56	48	48
29	133	d75	81	88	890	496	3,320	1,540	78	58	46	71
30	125	71	78	88	-	424	1,390	4,480	77	48	h46	71
31	125	-	76	88	-	413	-	2,260	-	44	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2,046	156	41	66.0	0.083	0.20	4,060
November	4,387	715	71	146	.183	.80	8,700
December	2,496	138	65	80.5	.101	.12	4,950
Calendar year 1943	252,990	17,200	41	693	1.868	11.79	501,800
January	3,519	280	74	114	.143	.16	6,980
February	9,774	1,320	103	337	.422	.46	19,390
March	43,387	4,180	413	1,400	1.75	2.02	86,060
April	78,802	10,400	179	2,627	3.29	3.67	156,500
May	67,211	10,100	250	2,168	2.72	3.14	133,500
June	7,679	1,730	77	256	.321	.36	15,230
July	1,999	94	44	61.3	.077	.09	3,770
August	1,593	59	38	44.9	.065	.06	2,760
September	1,782	133	36	59.4	.074	.08	3,530
Water year 1943-44	224,375	10,400	36	613	.766	10.46	445,000

+ Computed on basis of revised drainage area.

d Doubtful gage-height record; discharge interpolated.

h Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big River at Byrnesville, Mo.

Location.- Water-stage recorder, lat. 36°21'45", long. 90°39'05", in SE $\frac{1}{4}$ sec. 12, T. 42 N., R. 3 E., at county highway bridge at Byrnesville, 4 miles upstream from Head Creek. Datum of gage is 433.62 feet above mean sea level, datum of 1929.

Drainage area.- 917 square miles. (revised).

Records available.- May 1922 to September 1944.

Average discharge.- 22 years, 793 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet Apr. 24 (gage height, 18.30 feet); minimum, 75 second-feet Sept. 26 (gage height, 2.40 feet).
1922-44: Maximum discharge, 31,700 second-feet Mar. 12, 1935 (gage height, 24.65 feet); minimum, 25 second-feet Aug. 30, 1936; minimum gage height, 1.50 feet Aug. 14, 1934.

Maximum stage known, 30.2 feet in August 1915, from floodmarks (discharge, 80,000 second-feet, by slope-area method).

Remarks.- Records excellent.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Aug. 13					Aug. 14 to Sept. 30				
2.4	98	4.2	462	15.0	7,690	2.5	84	3.5	257
2.7	113	5.0	795	16.5	9,580	2.7	108	3.8	334
3.0	162	6.5	1,550	18.0	12,200	3.1	174	4.0	394
3.4	237	9.0	3,020						
3.8	334	12.5	5,460						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	179	151	193	162	2,170	598	1,160	410	149	127	146
2	123	226	149	197	167	1,820	518	1,230	366	146	126	146
3	123	218	149	197	162	1,340	473	5,400	337	142	123	129
4	124	220	144	201	162	1,160	438	9,010	310	137	121	117
5	121	214	148	203	152	1,180	392	3,420	287	134	118	112
6	121	205	151	205	152	1,030	351	1,940	273	136	110	107
7	122	201	151	208	151	958	337	1,440	259	130	95	100
8	123	233	162	203	149	864	323	1,440	248	131	99	95
9	123	363	169	184	148	704	323	8,040	241	124	100	92
10	117	346	170	179	152	578	397	6,270	239	154	99	86
11	121	282	169	172	146	499	6,540	3,220	233	184	98	92
12	123	241	181	170	142	558	7,900	1,940	226	214	512	248
13	131	222	186	162	143	558	3,320	1,500	220	179	892	375
14	138	229	183	156	143	538	1,770	1,210	220	157	388	259
15	156	218	179	156	138	488	1,720	1,130	218	144	315	203
16	152	201	154	156	149	480	1,340	910	210	138	207	161
17	146	186	146	156	154	397	1,060	772	201	131	163	139
18	151	177	149	156	172	864	864	661	192	128	148	125
19	146	170	151	159	197	1,600	726	598	181	126	201	114
20	146	162	157	159	216	1,940	661	538	174	127	154	105
21	146	162	159	156	218	2,350	578	492	195	326	136	98
22	144	160	157	152	228	1,980	538	363	226	133	103	103
23	142	154	143	152	235	2,900	7,800	760	462	165	112	100
24	149	151	149	151	235	2,050	12,000	887	237	144	112	107
25	179	149	149	149	287	1,440	7,300	640	193	134	116	100
26	216	152	146	152	394	1,110	2,170	518	179	136	120	84
27	216	149	152	159	434	910	1,940	455	165	136	117	87
28	212	148	169	154	385	795	2,470	818	165	132	116	110
29	199	151	179	162	1,180	704	1,720	484	162	128	120	129
30	184	149	193	162	682	1,340	1,340	1,540	154	128	126	217
31	179	-	188	165	-	704	-	558	-	127	142	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,596	216	117	148	0.161	0.19	9,120
November	6,018	363	149	201	.219	.24	11,940
December	4,973	193	143	160	.174	.20	9,860
Calendar year 1943	266,541	22,100	104	730	†.796	†10.81	528,700
January	5,296	208	149	171	.186	.21	10,480
February	6,751	1,130	135	233	.254	.27	13,390
March	36,301	3,020	397	1,174	1.28	1.48	72,180
April	69,839	12,000	323	2,328	2.54	2.83	138,500
May	58,519	8,040	455	1,888	2.06	2.37	116,100
June	7,320	462	154	244	.266	.30	14,520
July	4,683	326	126	151	.165	.19	9,290
August	5,546	892	95	179	.195	.22	11,000
September	4,088	375	84	136	.148	.17	8,110
Water year 1943-44	214,010	12,000	84	585	.638	8.67	424,500

Peak discharge - Apr. 11 (5:30 a.m.) 7,190 sec.-ft.; Apr. 12 (11:30 a.m.) 8,480 sec.-ft.; Apr. 24 (7:30 p.m.) 12,350 sec.-ft.; May 3 (10:30 a.m.) 6,540 sec.-ft.; May 4 (10 a.m.) 9,730 sec.-ft.
May 9 (11:30 a.m.) 9,730 sec.-ft.

† Computed on basis of revised drainage area.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MAYFIELD CREEK BASIN

Mayfield Creek at Lovelaceville, Ky.

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

Drainage area.- 211 square miles.

Records available.- April 1938 to September 1944.

Extremes.- Maximum discharge during year, 5,190 second-feet Apr. 11 (gage height, 17.0 feet); minimum daily, 6.1 second-feet Aug. 14, 15; minimum gage height, 2.50 feet Jan. 13, 14.

1938-44: Maximum discharge, 9,440 second-feet May 11, 1943 (gage height, 18.34 feet); minimum daily, 5.7 second-feet Sept. 11, 12, 1943.

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

Remarks.- Records fair above 1,000 second-feet and poor below.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	9.7	10	11	9.7	287	148	153	20	12	9.7	15
2	9.2	9.7	10	12	9.7	135	406	110	18	11	136	41
3	9.2	9.7	10	22	10	92	236	123	16	11	19	84
4	8.7	9.7	10	20	10	1,850	158	744	15	11	10	30
5	8.2	10	10	14	10	504	117	1,770	14	11	8.7	48
6	8.2	10	19	11	9.7	485	92	452	19	11	7.7	32
7	8.7	17	18	10	11	380	76	277	18	11	6.9	12
8	8.7	26	18	9.7	11	157	81	213	14	11	6.9	9.2
9	9.7	21	13	9.7	14	100	327	270	14	104	6.5	8.2
10	8.7	17	11	9.7	18	81	1,110	548	14	45	6.5	8.2
11	8.2	13	12	9.7	14	74	4,490	236	14	14	6.5	8.7
12	8.2	11	12	9.2	12	69	2,390	151	13	11	6.5	10
13	9.2	9.7	10	9.7	11	62	411	103	14	11	6.5	9.2
14	9.7	9.7	10	10	14	56	287	74	39	11	6.1	8.7
15	9.2	9.2	10	10	15	55	587	59	22	9.7	6.1	8.7
16	9.7	9.2	12	10	13	54	327	50	14	9.7	6.9	8.7
17	9.7	9.2	12	9.7	320	61	182	46	12	9.2	108	8.2
18	9.7	9.2	10	9.2	457	358	122	41	12	9.2	20	8.2
19	9.2	9.2	10	9.7	84	1,600	87	36	12	9.2	11	8.2
20	9.2	9.2	10	9.7	40	1,410	66	34	11	9.7	7.3	8.2
21	9.7	9.2	10	9.7	29	297	62	29	12	9.7	6.5	8.2
22	9.7	9.2	10	9.7	119	190	56	28	12	9.2	6.9	7.7
23	9.7	9.2	9.7	9.7	276	167	660	28	22	8.7	20	7.7
24	11	9.7	9.2	10	75	164	634	401	604	8.7	17	7.7
25	11	9.7	9.2	10	311	135	257	468	36	8.7	14	8.2
26	11	9.7	11	9.7	604	107	180	103	19	9.2	13	7.7
27	11	9.2	11	10	117	1,910	716	66	14	9.7	15	7.7
28	10	9.2	12	9.7	1,370	505	358	86	13	10	15	9.2
29	10	9.2	14	9.7	2,200	803	267	52	13	9.7	13	11
30	10	9.2	12	9.7	-	406	217	26	14	17	13	11
31	10	-	11	9.7	-	198	-	19	-	11	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	292.1	11	8.2	9.42	0.045	0.05
November.....	331.9	26	9.2	11.1	.053	.06
December.....	353.1	19	9.2	11.4	.054	.06
Calendar year 1943.....	46,983.9	7,210	5.7	129	.611	8.29
January.....	333.6	22	9.2	10.8	.051	.06
February.....	6,194.1	2,200	9.7	214	1.01	1.09
March.....	12,750	1,910	54	411	1.95	2.25
April.....	15,177	4,490	56	506	2.40	2.68
May.....	6,796	1,770	19	219	1.04	1.20
June.....	1,084	604	11	36.1	.171	.19
July.....	453.3	104	8.7	14.6	.069	.08
August.....	551.2	136	6.1	17.8	.084	.10
September.....	460.5	84	7.7	15.4	.073	.08
Water year 1943-44.....	44,776.8	4,490	6.1	122	.578	7.90

Peak discharge.- Feb. 29 (2 a.m.) 3,230 sec.-ft.; Mar. 4 (12:30 p.m.) 2,700 sec.-ft.; Mar. 19 (10 p.m.) 2,780 sec.-ft.; Mar. 27 (4 p.m.) 3,030 sec.-ft.; Apr. 11 (6 a.m.) 5,190 sec.-ft.; May 5 (8 a.m.) 2,180 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou de Chien near Clinton, Ky.

Location.-- Wire-weight gage, lat. 36°38', long. 86°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 1944.

Extremes.-- Maximum discharge during year, 2,470 second-feet Feb. 28 (gage height, 13.3 feet, from graph based on gage readings); minimum daily, 6.4 second-feet Oct. 1-7; minimum gage height observed, 2.07 feet Dec. 23, 24.

1939-44: Maximum discharge, 2,550 second-feet Mar. 13, 1940 (gage height, 13.4 feet, from graph based on gage readings); minimum daily, 4 second-feet May 29, 1943 (affected by backwater from Mississippi River).

Remarks.-- Records poor except those above 250 second-feet, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	8.4	8.7	11	12	85	42	c33	14	9.4	10	11
2	6.4	9.0	8.7	16	11	30	139	c28	10	9.7	9.0	11
3	6.4	8.4	8.7	44	12	44	53	c30	8.4	9.7	10	12
4	6.4	8.4	8.7	18	11	994	39	250	7.7	9.0	9.4	12
5	6.4	8.4	8.4	14	11	121	32	267	12	9.0	8.7	37
6	6.4	9.4	39	12	11	181	27	44	11	9.0	8.4	13
7	6.4	21	14	11	11	101	30	42	11	9.0	8.0	10
8	6.7	19	13	11	13	35	62	32	12	9.0	8.0	10
9	7.1	9.7	12	11	22	34	256	46	12	9.0	7.7	9.7
10	7.1	8.7	14	11	16	30	708	72	12	18	7.1	10
11	6.7	8.4	12	11	14	31	1,700	32	11	9.7	7.7	18
12	7.1	8.7	11	11	12	30	354	13	12	11	7.7	12
13	7.1	8.7	11	11	12	30	108	11	13	12	7.7	10
14	7.1	8.7	11	9.7	14	28	124	11	80	9.0	7.7	9.4
15	7.1	8.7	11	10	13	24	256	11	45	9.4	7.7	9.4
16	7.1	8.7	11	9.7	15	25	72	11	14	9.0	37	10
17	7.1	8.7	10	11	509	50	53	9.7	11	8.7	139	10
18	7.1	8.7	9.0	11	444	94	49	9.7	11	8.4	11	9.7
19	7.7	8.4	9.0	11	67	953	42	8.4	9.0	8.7	8.4	9.7
20	7.7	8.4	9.0	11	20	215	46	9.7	9.0	9.0	9.4	8.4
21	7.4	8.7	11	11	20	67	54	13	9.7	8.4	9.4	8.4
22	7.4	8.7	10	11	218	49	48	18	9.0	8.4	26	8.7
23	7.7	8.4	8.7	11	108	76	350	14	11	7.7	10	8.4
24	7.7	8.4	8.7	11	22	56	98	1,260	12	8.7	10	9.0
25	7.7	8.4	11	11	169	47	58	832	11	9.0	10	8.4
26	8.7	8.7	14	12	108	49	c50	85	11	8.4	26	7.7
27	8.7	8.7	13	12	24	754	c120	49	11	11	25	8.4
28	8.4	8.4	19	12	894	134	c90	39	9.7	11	11	9.4
29	8.4	8.7	16	12	956	389	c60	21	10	9.0	11	9.0
30	7.7	8.7	13	12	--	98	c45	14	11	162	10	9.0
31	8.0	--	11	12	--	36	--	18	--	18	24	--

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	225.3	8.7	6.4	7.27	0.106	0.12
November	282.3	21	8.4	9.41	.137	.15
December	374.6	39	8.4	12.1	.177	.20
Calendar year 1943	16,256.5	1,340	4	44.5	.650	8.80
January	392.4	44	9.7	12.7	.185	.21
February	3,769	956	11	130	1.90	2.05
March	4,890	994	24	158	2.31	2.65
April	5,165	1,700	27	172	2.51	2.80
May	3,333.5	1,260	8.4	108	1.58	1.81
June	450.5	80	7.7	14.4	.210	.23
July	447.3	152	7.7	14.4	.210	.24
August	502.0	139	7.1	16.2	.236	.27
September	328.7	37	7.7	11.0	.161	.18
Water year 1943-44	20,140.6	1,700	6.4	55.0	.803	10.91

c Stage-discharge relation affected by backwater from Mississippi River; discharge computed on basis of 1 discharge measurement, weather records, and records for stations on nearby streams.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Average discharge.— 23 years, 479 second-feet.

Extremes.— Maximum discharge during year, 11,700 second-feet Apr. 24 (gage height, 23.6 feet, from graph based on gage readings); minimum observed, 23 second-feet Aug. 15, 21 (gage height, 1.10 feet).

1921-44: 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 10.0 feet and twice daily above.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 15 to Jan. 2, Jan. 8-27)

Oct. 1 to Jan. 7

Jan. 8 to Sept. 30

1.5	50	1.1	23	4.5	480	20.5	6,380
2.0	100	1.5	56	7.5	1,090	22.0	7,610
2.5	155	2.3	136	10.0	1,710	22.5	8,330
		3.0	219	12.0	2,360	23.1	9,930
		3.5	295	18.0	4,970		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	111	75	122	90	3,050	620	620	169	75	45	85
2	61	111	75	122	90	1,500	580	580	158	70	45	70
3	65	106	75	122	90	1,030	480	540	158	63	42	58
4	62	106	75	128	90	860	421	520	147	60	40	52
5	59	100	75	128	90	800	383	500	136	56	38	51
6	59	100	90	128	85	800	347	460	130	53	37	46
7	58	122	85	122	85	1,010	312	421	125	51	34	43
8	53	138	100	120	85	942	285	402	120	49	33	42
9	55	138	85	115	85	740	225	700	110	51	30	41
10	54	138	95	115	90	620	347	1,250	110	53	29	39
11	53	138	95	110	90	540	4,720	900	100	53	27	38
12	54	128	95	110	90	520	5,570	640	100	70	26	41
13	70	128	90	105	90	480	2,680	560	95	70	25	45
14	90	122	90	105	90	421	1,500	1,090	65	70	25	54
15	90	116	90	105	90	365	1,140	1,210	279	55	25	60
16	90	116	85	100	90	347	740	900	181	57	24	57
17	80	111	85	100	105	329	680	600	147	60	29	51
18	75	106	80	95	181	295	560	460	120	56	39	48
19	75	100	80	95	219	620	500	440	105	60	29	44
20	70	100	85	95	206	1,400	460	383	95	58	25	43
21	75	95	80	95	206	1,210	460	347	110	53	23	42
22	70	95	85	95	206	984	402	347	85	50	26	41
23	75	90	80	90	206	820	5,560	279	85	45	33	39
24	90	90	80	90	263	700	9,900	263	90	43	33	38
25	122	85	75	90	440	600	5,420	233	80	41	34	37
26	155	85	80	90	402	560	1,980	219	75	52	37	37
27	144	85	80	85	402	560	1,420	206	70	49	40	37
28	133	80	90	100	800	820	1,210	219	70	45	42	40
29	128	80	106	100	2,870	780	963	219	65	47	41	46
30	122	80	122	95	-	800	720	193	75	48	41	49
31	116	-	122	90	-	700	-	181	-	46	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-foot
October	2,573	155	53	83.0	0.210	0.24	5,100
November	3,200	138	80	107	.271	.30	6,350
December	2,725	122	75	87.9	.223	.26	5,400
Calendar year 1943	171,477	17,800	39	470	1.19	16.16	340,100
January	3,262	128	85	105	.266	.31	6,470
February	7,926	2,870	85	273	.691	.75	15,720
March	25,183	3,050	295	812	2.06	2.37	49,950
April	50,665	9,900	295	1,689	4.28	4.78	100,500
May	15,962	1,230	181	512	1.30	1.50	31,460
June	3,485	279	65	116	.294	.33	6,910
July	1,719	75	41	55.5	.141	.16	3,430
August	1,069	64	23	34.2	.087	.10	2,100
September	1,413	85	37	47.1	.119	.13	2,800
Water year 1943-44	119,072	9,900	23	325	.823	11.23	236,200

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Fork Obion River near Greenfield, Tenn.

Location.- Water-stage recorder, lat. 36°07'15", long. 86°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 Middle Fork 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 1944.

Average discharge.- 15 years, 484 second-feet.

Extremes.- Maximum discharge during year, 5,000 second-feet Apr. 13 (gage height, 14.31 feet); minimum, 61 second-feet Aug. 21; minimum gage height, 3.87 feet Oct. 1.
1929-44: 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 Aug. 21, 1944; minimum gage height observed, 1.5 feet several days in August and September 1930.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	93	95	123	116	1,980	528	534	111	87	112	358
2	74	98	97	150	115	1,700	433	309	104	84	117	275
3	75	160	103	724	118	1,670	710	262	99	83	98	212
4	75	101	102	631	117	1,460	403	1,560	96	84	84	137
5	76	94	99	295	112	930	295	1,840	125	85	80	150
6	78	100	123	224	131	596	242	1,620	97	83	79	128
7	78	875	166	162	177	464	230	1,480	86	83	78	106
8	80	715	121	166	160	308	672	1,090	92	83	75	93
9	80	236	366	155	1,330	249	1,360	433	87	102	72	86
10	80	136	268	140	1,260	224	1,530	337	87	88	111	83
11	79	113	275	144	1,180	212	4,280	256	86	80	79	524
12	79	105	182	150	1,020	212	4,500	206	87	138	70	419
13	80	100	133	131	418	184	5,000	182	166	114	70	160
14	85	98	114	123	282	182	4,050	160	220	68	59	121
15	88	98	103	135	316	177	2,620	150	764	76	116	104
16	88	109	85	160	249	172	1,320	137	188	73	76	95
17	87	115	84	166	1,300	177	512	129	124	72	75	91
18	86	106	85	155	1,790	182	337	121	110	73	70	88
19	88	102	89	155	1,700	1,430	275	114	104	73	65	86
20	88	101	95	155	1,670	1,980	448	111	99	71	62	85
21	89	101	98	144	1,840	2,280	403	107	97	76	61	84
22	88	100	100	136	1,980	4,050	282	108	100	73	838	86
23	87	97	95	135	1,620	3,400	1,110	105	98	70	624	80
24	88	94	81	134	1,080	1,940	1,380	103	94	68	517	79
25	99	94	108	131	650	1,010	1,160	268	91	67	144	79
26	102	95	236	128	890	418	911	462	90	78	182	117
27	94	97	236	128	870	1,540	1,620	172	89	95	850	122
28	95	97	182	131	1,720	1,480	1,620	126	88	95	469	233
29	93	97	262	126	3,000	1,460	1,580	111	88	76	144	1,540
30	92	96	166	120	-	1,380	1,340	103	88	973	101	1,580
31	93	-	134	119	-	1,140	-	102	-	308	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,636	102	72	85.0	0.197	0.23
November	4,623	875	93	154	.357	.40
December	4,483	366	81	145	.336	.39
Calendar year 1943	142,269	8,260	70	390	.905	12.28
January	5,694	724	119	184	.427	.49
February	27,211	3,000	112	938	2.18	2.35
March	34,598	4,050	172	1,116	2.59	2.99
April	41,151	5,000	230	1,372	3.18	3.55
May	12,598	1,840	102	406	.942	1.09
June	3,854	764	85	128	.297	.33
July	3,699	973	67	119	.276	.32
August	5,765	850	61	186	.432	.50
September	7,401	1,580	79	247	.573	.64
Water year 1943-44	153,713	5,000	61	420	.974	13.28

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

OBION RIVER BASIN

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. Datum of gage is 261.23 feet above mean Gulf level.

Drainage area.- 1,880 square miles.

Records available.- July 1929 to September 1944.

Average discharge.- 15 years, 2,123 second-feet.

Extremes.- Maximum discharge during year, 16,900 second-feet Apr. 13 (gage height, 16.57 feet); minimum, 230 second-feet Oct. 7-9, 12; minimum gage height, 0.38 foot Aug. 21.

1929-44: Maximum discharge, 99,500 second-feet Jan. 24, 1937 (gage height, 25.4 feet, from floodmarks); minimum (under conditions of no backwater), that of Oct. 7-9, 12, 1943; minimum gage height, -0.04 foot Sept. 1, 1936; during period of backwater from Mississippi River a minimum daily discharge of 15 second-feet occurred on Feb. 4, 1937; reverse flow of 57 second-feet was measured by current meter on that date.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	271	314	592	376	10,400	6,450	4,550	684	g274	684	782
2	254	280	322	538	376	12,700	5,100	3,920	g700	g267	524	836
3	246	296	322	833	376	12,700	4,200	3,440	g524	g267	447	1,140
4	246	314	322	1,560	376	11,800	3,530	3,360	g447	g260	364	944
5	238	296	322	1,380	367	10,400	3,220	g3,920	g597	f260	342	836
6	238	305	412	1,180	376	9,320	2,910	g8,650	g492	260	334	732
7	230	556	520	f1,070	385	7,300	2,630	g11,800	g447	260	297	508
8	230	1,540	484	g910	421	5,550	2,630	g11,400	g357	260	282	417
9	250	1,440	520	g700	787	4,300	2,790	g9,550	g534	267	267	364
10	238	1,070	814	f574	1,560	3,530	3,000	g7,750	g527	304	364	334
11	238	930	f776	502	1,760	3,160	5,770	g5,700	g327	282	320	312
12	230	852	g814	466	1,910	2,790	14,000	g4,300	g320	267	297	524
13	238	646	g738	448	1,910	2,410	16,900	f3,440	g312	267	282	604
14	238	484	g628	421	1,880	1,840	15,400	2,950	g748	297	267	540
15	238	421	f566	403	1,820	1,340	13,600	2,470	g1,600	282	297	477
16	238	385	449	403	1,680	980	11,800	1,840	g1,680	282	282	402
17	246	367	358	421	2,180	716	9,550	1,280	g1,340	267	282	357
18	246	367	439	430	2,680	636	6,850	908	g1,000	260	274	327
19	246	349	421	430	2,820	1,870	4,950	588	g7,000	260	252	304
20	246	340	376	430	3,370	2,590	3,920	477	g508	252	244	290
21	254	340	349	430	4,300	3,010	3,360	447	g402	252	237	282
22	254	331	358	430	5,550	3,050	f417	g372	g372	252	244	274
23	254	322	368	421	6,450	9,200	2,910	g477	g357	252	748	267
24	254	322	349	412	7,080	7,750	2,910	g1,140	g342	244	668	260
25	262	314	349	412	6,250	6,650	2,950	g1,120	g312	244	652	260
26	271	314	412	403	5,250	5,700	3,160	g928	g297	244	572	274
27	271	314	556	403	4,850	5,550	3,440	g536	g297	260	1,220	604
28	271	314	610	403	5,400	5,400	74,300	g764	g282	290	1,340	477
29	271	314	682	403	6,850	6,850	f6,250	f668	g274	274	980	668
30	271	314	738	394	-	7,520	5,550	524	g274	487	782	1,200
31	271	-	664	385	-	7,520	-	f452	-	1,140	764	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	7,712	271	230	249	0.132	0.15
November.....	14,708	1,540	271	490	.261	.29
December.....	15,331	814	314	495	.263	.30
Calendar year 1943.....	540,844	22,600	230	1,482	.788	10.71
January.....	18,187	1,560	365	587	.312	.36
February.....	79,360	7,080	367	2,737	1.46	1.57
March.....	176,362	12,700	636	5,689	3.03	3.49
April.....	177,080	16,900	2,630	5,903	3.14	3.50
May.....	100,074	11,800	417	3,228	1.72	1.98
June.....	16,343	1,600	274	545	.290	.32
July.....	9,334	1,140	244	301	.160	.18
August.....	14,909	1,340	237	481	.256	.29
September.....	15,596	1,200	260	520	.277	.31
Water year 1943-44.....	644,996	16,900	230	1,762	.937	12.74

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

g Computed from graph based on twice-weekly or daily gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Rutherford Fork 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 1944.

Average discharge.- 15 years, 210 second-feet.

Extremes.- Maximum discharge during year, 4,680 second-feet Apr. 11 (gage height, 16.60 feet); minimum, 16 second-feet on several days in October; minimum gage height, 1.67 feet Oct. 6.

1929-44: 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 except those for periods of no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	20	23	52	36	d479	157	g104	f36	19	27	f397
2	17	37	23	108	36	d211	d229	g97	d42	19	22	f100
3	17	42	23	644	37	d153	d344	g118	25	18	20	100
4	16	27	23	281	37	d393	f197	1,590	23	19	19	35
5	17	24	23	130	36	d309	124	1,590	d203	18	19	70
6	16	38	33	82	f40	a200	101	485	f47	18	18	35
7	16	874	36	63	f54	a140	94	f218	25	19	18	27
8	17	362	39	57	122	a100	d989	g131	23	20	18	24
9	18	130	351	53	1,880	h83	d1,770	g115	23	20	18	22
10	18	52	f119	45	1,040	a72	d2,370	g150	23	20	19	22
11	16	36	f161	49	341	h69	d4,520	g92	21	21	18	373
12	17	31	67	48	123	a70	d2,200	g58	20	20	17	f32
13	18	29	47	43	69	a64	d666	g53	209	19	17	f27
14	19	27	41	41	f70	a60	d239	d54	224	19	18	24
15	19	24	37	42	f98	h57	d407	g43	568	18	64	22
16	19	27	57	51	73	a56	218	g41	64	18	22	21
17	19	27	51	53	d2,470	a60	158	g35	31	18	19	21
18	19	26	51	51	2,600	h64	118	g36	24	19	19	20
19	20	24	37	48	1,770	a2,000	99	g32	20	19	19	20
20	19	24	29	47	d990	a2,000	d234	f31	19	20	19	19
21	19	23	32	44	d435	a900	183	29	20	22	18	30
22	19	22	33	41	d644	h450	123	28	21	21	692	19
23	19	23	32	41	d407	a300	d1,120	29	21	21	f120	19
24	20	23	30	40	197	a200	d655	29	19	21	217	20
25	20	23	38	40	d225	a150	f218	243	18	21	36	19
26	21	23	103	38	d421	f122	d1,000	f255	19	28	57	24
27	21	23	105	38	d407	d1,280	d1,730	f112	20	26	615	42
28	21	23	108	39	d1,660	d344	g576	42	20	24	f108	123
29	21	22	153	40	d1,800	d1,130	f197	26	21	21	34	2,600
30	21	23	88	39	-	d574	g130	23	20	f498	26	597
31	21	-	61	36	-	f246	-	d65	-	f66	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	577	21	16	18.6	0.092	0.11
November	2,109	874	20	70.3	.346	.39
December	2,054	351	23	66.3	.327	.38
Calendar year 1943	59,546	5,110	14	163	.803	10.92
January	2,424	644	36	78.2	.385	.44
February	18,118	2,600	36	625	3.08	3.32
March	12,336	2,000	55	398	1.96	2.26
April	21,146	4,520	94	705	3.47	3.27
May	5,956	1,590	23	192	.946	1.09
June	1,869	568	18	62.3	.307	.34
July	1,150	498	18	37.1	.183	.21
August	2,428	692	17	78.3	.386	.44
September	4,944	2,600	19	165	.813	.91
Water year 1943-44	75,111	4,520	16	205	1.01	13.76

Peak discharge.- Feb. 17 (4:30 p.m.) 3,790 sec.-ft.; Feb. 29 (4 a.m.) 3,200 sec.-ft.; Apr. 11 (11:30 a.m.) 4,680 sec.-ft.; Apr. 26 (12 p.m.) 3,100 sec.-ft.; May 5 (1:30 a.m.) 2,600 sec.-ft.; Sept. 29 (2:30 a.m.) 3,610 sec.-ft.

a No gage-height record; discharge interpolated or computed on basis of weather records and records for South Fork Obion River near Greenfield.

d Doubtful gage-height record; discharge computed on basis of gage heights, weather records, and records for South Fork Obion River near Greenfield.

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

g Computed from graph based on gage readings.

h Computed from staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Fork 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, 4½ miles upstream from Hoosier Creek, and 11 miles upstream from confluence with South Fork Obion River. 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 1944.

Average discharge.- 15 years, 555 second-feet.

Extremes.- Maximum discharge during year, 8,950 second-feet Apr. 11 (gage height, 17.77 feet); minimum, 82 second-feet Oct. 5; minimum gage height, 5.22 feet July 6.
1929-44: Maximum discharge, 49,200 second-feet Jan. 22, 1937 (gage height, 22.0 feet, from floodmarks); minimum, that of Oct. 5, 1943; minimum gage height observed, 3.38 feet July 27, 1929.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	92	101	115	107	6,950	278	225	279	99	98	127
2	86	94	102	119	107	3,760	323	209	117	98	a95	391
3	86	95	102	335	109	897	297	195	110	98	a90	508
4	84	94	101	225	108	2,460	209	2,400	108	97	a90	129
5	84	94	101	146	107	1,790	180	5,650	115	96	112	185
6	86	98	151	129	110	710	165	7,350	109	95	f96	114
7	86	358	136	120	116	790	298	7,350	103	96	a95	98
8	86	296	118	118	116	410	1,050	2,460	101	95	a90	94
9	87	154	117	117	196	278	1,680	843	102	126	a90	93
10	87	118	126	113	196	225	2,520	1,690	102	a105	a95	92
11	86	107	132	112	159	195	8,350	490	100	a100	f99	98
12	84	103	124	113	140	186	6,950	269	100	a100	a95	127
13	86	102	116	112	121	178	3,020	203	249	122	a90	113
14	87	101	111	110	121	164	736	172	355	108	a90	98
15	89	101	108	111	136	158	1,750	155	490	a100	a85	94
16	90	104	105	113	141	154	742	143	260	a95	a85	94
17	90	108	101	111	1,600	164	360	134	136	a90	f98	93
18	90	103	99	111	f2,460	171	278	126	112	a90	a95	91
19	90	101	102	112	825	2,260	234	121	105	a90	a90	91
20	90	100	104	113	323	4,000	450	117	104	a90	a85	90
21	90	99	107	112	234	1,800	390	114	104	a95	a85	90
22	90	98	108	111	1,990	530	251	118	103	a90	f97	89
23	90	98	107	111	1,470	390	1,710	111	100	a90	155	88
24	91	98	103	110	440	360	2,160	749	101	a85	124	88
25	92	98	108	110	703	260	782	704	98	a85	f94	87
26	93	99	131	109	1,400	217	902	183	98	a90	404	327
27	93	100	130	109	570	2,220	2,920	141	98	f116	625	122
28	94	100	129	109	2,520	1,620	1,290	146	98	a105	185	100
29	93	100	151	109	7,150	1,690	440	124	98	a100	109	169
30	92	101	129	108	-	990	278	114	100	718	97	176
31	92	-	118	107	-	410	-	210	-	134	149	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,750	94	84	88.7	0.181	0.21
November	3,514	358	92	117	.239	.27
December	3,577	151	99	115	.235	.27
Calendar year 1943	116,541	9,150	84	319	.651	8.83
January	3,960	335	107	125	.255	.29
February	23,775	7,150	107	920	1.67	1.80
March	36,577	6,950	154	1,180	2.41	2.78
April	40,983	8,350	165	1,366	2.79	3.11
May	33,006	7,350	111	1,065	2.17	2.51
June	4,255	490	98	142	.290	.32
July	3,698	718	85	119	.243	.28
August	3,987	625	85	129	.263	.30
September	4,156	508	87	139	.264	.32
Water year 1943-44	164,138	8,350	84	448	.914	12.46

Peak discharge.- Feb. 29 (8 p.m.) 7,550 sec.-ft.; Mar. 4 (2 p.m.) 3,300 sec.-ft.; Mar. 20 (1 p.m.) 4,500 sec.-ft.; Apr. 11 (1 p.m.) 8,950 sec.-ft.; Apr. 27 (10 a.m.) 3,150 sec.-ft.; May 7 (8 a.m.) 7,950 sec.-ft.

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

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Fork 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 1944.

Average discharge.- 15 years, 661 second-feet.

Extremes.- Maximum discharge during year, 6,260 second-feet Feb. 18 (gage height, 16.60 feet); minimum, 75 second-feet Aug. 21 (gage height, 3.74 feet).
1929-44: 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, 67 second-feet Oct. 9, 1941; minimum gage height observed, 1.58 feet July 9, 1929.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	108	140	340	192	g2,120	3,560	616	g445	g96	108	f2,000
2	99	192	143	f891	194	g1,400	f2,850	568	g240	g93	104	f474
3	99	157	152	f2,340	200	g820	f2,740	413	g198	g99	105	192
4	93	124	147	f1,280	190	g1,130	f1,490	1,830	g185	g202	121	148
5	89	118	140	g742	181	f820	950	3,710	g160	g157	f289	192
6	93	g171	202	g500	240	616	f2,180	g64	g162	g119	124	363
7	93	g2,120	228	g402	257	872	556	f1,540	g142	g113	100	436
8	92	g1,870	179	g360	933	500	f2,220	820	g138	g110	93	159
9	92	g924	240	340	4,400	402	4,300	533	g134	g121	89	127
10	90	456	247	299	5,650	371	4,210	522	g147	g148	87	116
11	87	299	382	309	5,120	371	4,520	371	g279	g138	87	116
12	87	243	253	299	4,120	f350	4,640	299	g299	g269	87	118
13	86	g228	202	259	2,720	f329	3,520	289	g211	f245	87	110
14	100	f203	178	245	1,010	309	2,260	f234	g495	116	90	104
15	94	196	162	329	820	299	1,160	f205	g1,240	100	132	100
16	96	205	142	511	565	289	690	188	g267	99	93	96
17	99	185	137	478	f3,040	309	511	171	g167	94	83	94
18	98	176	145	362	5,890	299	445	159	g143	96	80	93
19	93	189	142	360	4,940	2,610	392	147	g155	92	78	92
20	98	164	152	319	4,030	3,790	f640	140	g127	92	78	92
21	93	162	157	279	4,030	f2,180	533	134	g121	98	76	89
22	93	155	157	261	3,120	g1,160	392	183	g119	92	184	87
23	93	148	147	251	g2,260	g1,310	f2,760	142	g113	89	176	85
24	94	147	130	236	g1,560	f1,040	4,640	142	g106	87	104	85
25	105	145	504	230	g1,040	690	5,540	243	g106	86	89	83
26	102	145	1,280	226	2,790	533	4,400	140	g104	92	109	85
27	105	147	742	228	3,630	f1,920	4,780	130	g102	106	1,070	86
28	108	143	1,090	240	3,160	f2,330	3,700	130	g99	118	302	93
29	106	145	1,100	226	3,160	3,870	f2,040	119	g98	104	122	590
30	105	142	511	211	-	4,210	1,130	121	g98	241	113	259
31	106	-	392	202	-	3,950	-	f203	-	138	f1,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inchea
October.....	2,993	108	86	96.5	0.168	0.19
November.....	9,787	2,120	108	326	.568	.83
December.....	9,923	1,280	130	320	.557	.64
Calendar year 1943.....	153,390	5,480	70	420	.732	9.95
January.....	13,585	2,340	202	438	.763	.88
February.....	69,435	5,880	181	2,394	4.17	4.50
March.....	41,199	4,210	289	1,329	2.32	2.87
April.....	72,253	5,540	392	2,408	4.20	4.68
May.....	16,402	3,710	119	529	.922	1.06
June.....	6,379	1,240	98	213	.371	.41
July.....	3,850	269	86	124	.216	.25
August.....	5,510	1,070	76	178	.310	.36
September.....	6,764	2,000	83	225	.392	.44
Water year 1943-44.....	258,060	5,880	76	705	1.23	16.71

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

^g Computed from graph based on daily gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

OBION RIVER BASIN

South Fork 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, Lauderdale County, 1 mile downstream from Black Creek, and 12 miles upstream from confluence with North Fork. Datum of gage is 256.71 feet above mean Gulf level.

Drainage area.- 1,080 square miles.

Records available.- July 1929 to September 1944.

Average discharge.- 15 years, 1,204 second-feet.

Extremes.- Maximum discharge during year, 10,400 second-feet Feb. 17 (gage height, 18.01 feet); minimum, 143 second-feet Aug. 21, 22; minimum gage height, 4.70 feet Aug. 22, from graph based on gage readings.

1929-44: 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 good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	178	188	265	635	314	g5,150	4,040	5,700	388	178	203	849
2	178	208	269	603	308	g4,900	4,180	5,150	564	174	174	1,160
3	174	308	265	1,520	308	g4,800	4,340	4,040	283	174	164	883
4	174	263	271	1,860	314	g4,700	4,600	4,180	241	198	164	353
5	169	219	265	2,010	308	g4,500	4,800	4,180	224	436	188	340
6	f189	214	271	1,960	301	g4,040	4,700	4,040	259	236	289	308
7	f164	724	327	1,410	308	g3,140	4,040	4,500	236	188	183	372
8	169	1,290	353	1,000	496	g1,910	3,320	4,340	208	178	164	480
9	169	1,720	422	738	2,630	g1,290	3,700	4,040	203	178	156	253
10	169	1,720	436	571	3,140	g980	4,700	3,920	208	219	151	208
11	169	1,130	495	480	4,180	g792	8,900	2,900	208	219	151	203
12	164	686	565	465	4,900	g619	9,650	1,910	289	193	151	224
13	164	495	436	436	g4,900	g525	9,400	1,230	327	295	151	203
14	164	408	380	394	g5,800	g450	8,160	864	480	295	g151	193
15	174	366	340	380	f5,150	g450	6,900	635	1,260	193	g151	188
16	174	353	308	465	5,280	g436	5,880	465	1,440	174	174	f183
17	174	340	283	603	7,900	f422	5,150	408	995	169	160	f183
18	174	327	271	571	g6,400	436	4,040	353	465	164	g151	183
19	174	314	271	510	g9,400	3,010	2,320	314	301	164	g147	183
20	174	301	277	450	g9,400	4,180	1,720	289	259	164	g147	178
21	174	295	289	436	g8,650	4,600	1,520	271	230	164	g143	f169
22	174	289	295	394	g8,400	5,020	1,180	265	219	164	f151	169
23	174	295	295	380	g8,400	4,900	1,480	289	214	164	f188	164
24	174	277	283	366	g7,650	4,500	1,860	259	203	160	224	160
25	178	271	301	353	g6,450	3,920	2,060	253	193	156	169	160
26	188	271	758	353	f5,550	2,980	2,500	320	193	156	f156	160
27	183	271	1,200	340	4,900	3,600	3,800	253	188	164	f212	160
28	183	271	1,130	340	f6,020	3,060	4,700	241	183	174	720	186
29	188	265	1,200	340	g5,550	3,600	6,050	247	178	183	378	1,480
30	188	265	1,350	340	-	3,700	6,450	253	178	267	208	1,160
31	188	-	940	327	-	3,920	-	224	-	271	234	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,410	188	164	175	0.162	0.19
November	14,334	1,720	188	478	.443	.49
December	14,791	1,350	269	477	.442	.51
Calendar year 1943	318,639	13,600	157	873	.808	10.96
January	21,060	2,010	327	679	.629	.73
February	133,562	9,400	301	4,605	4.26	4.60
March	90,560	5,150	422	2,921	2.70	3.12
April	136,130	9,650	1,180	4,538	4.20	4.60
May	56,333	5,700	224	1,917	1.68	1.94
June	10,807	1,440	178	360	.333	.37
July	6,212	436	156	200	.185	.21
August	6,153	720	143	198	.183	.21
September	11,095	1,480	160	370	.343	.38
Water year 1943-44	506,437	9,650	143	1,384	1.28	17.44

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

g Computed from graph based on twice-weekly or more frequent gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Middle Fork 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 1944.

Average discharge.- 15 years, 466 second-feet.

Extremes.- Maximum discharge during year, 6,800 second-feet Feb. 18 (gage height, 13.93 feet); minimum, 70 second-feet Aug. 13, 14; minimum gage height, 1.94 feet Oct. 5-10. 1929-44: 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 fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	94	105	174	117	1,450	689	256	259	88	114	610
2	90	131	105	366	117	807	928	219	124	88	91	531
3	87	132	105	1,340	117	370	955	210	109	91	78	352
4	84	118	105	759	117	1,140	735	2,350	105	94	74	162
5	83	108	105	551	116	571	435	3,450	137	94	79	295
6	83	156	121	299	123	397	273	1,610	131	91	75	125
7	83	1,580	131	214	131	343	230	1,160	95	91	74	103
8	84	1,080	131	183	422	239	1,710	473	95	91	73	90
9	84	759	343	166	4,700	202	4,550	425	98	91	72	88
10	83	397	239	153	3,480	180	3,820	759	101	91	72	88
11	84	198	282	146	2,020	174	5,250	296	101	91	72	96
12	84	144	199	145	1,500	172	4,880	222	101	90	72	95
13	86	128	159	142	388	165	3,220	188	262	88	70	91
14	84	120	141	134	264	159	1,390	166	266	87	84	90
15	86	118	130	138	264	156	663	152	1,920	86	82	87
16	87	120	118	148	239	152	416	144	508	86	83	87
17	88	120	109	153	3,910	152	307	136	212	97	83	84
18	88	117	105	155	6,550	152	264	130	145	88	75	83
19	87	114	108	153	5,680	4,370	230	125	117	88	73	82
20	88	113	110	149	5,250	5,900	454	124	105	88	72	82
21	88	112	114	144	4,120	4,280	316	118	100	90	73	82
22	88	110	117	138	2,130	2,570	273	117	100	88	79	79
23	88	108	116	132	1,130	1,030	1,720	117	99	83	130	78
24	90	108	114	131	571	639	1,260	116	98	92	176	75
25	92	107	131	126	492	492	860	g114	94	84	99	75
26	94	107	214	127	1,000	325	1,830	g164	92	87	121	75
27	95	107	239	125	1,050	1,310	4,150	g148	91	84	261	75
28	95	107	334	128	2,160	663	2,070	g130	90	113	352	139
29	95	107	343	125	3,240	2,390	1,310	g120	88	95	290	2,400
30	94	107	290	121	-	1,420	426	114	88	306	141	930
31	94	-	219	118	-	1,210	-	112	-	152	183	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	2,727	95	83	88.0	0.215	0.25
November.....	6,917	1,580	94	231	.563	.63
December.....	5,182	343	105	167	.407	.47
Calendar year 1943.....	118,811	8,350	74	326	.795	10.77
January.....	7,084	1,340	118	229	.559	.64
February.....	51,198	6,350	116	1,765	4.30	4.64
March.....	33,580	5,900	152	1,083	2.64	3.05
April.....	45,634	5,250	230	1,521	3.71	4.14
May.....	18,969	3,450	112	451	1.10	1.27
June.....	5,932	1,920	88	198	.493	.54
July.....	3,053	306	82	98.5	.240	.28
August.....	3,473	352	70	112	.275	.32
September.....	7,529	2,400	75	251	.612	.68
Water year 1943-44.....	186,278	6,350	70	509	1.24	16.91

Peak discharge.- Feb. 9 (1 p.m.) 5,250 sec.-ft.; Feb. 18 (8 a.m.) 6,600 sec.-ft.; Mar. 20 (3 a.m.) 6,120 sec.-ft.; Apr. 9 (3 p.m.) 4,700 sec.-ft.; Apr. 11 (10 p.m.) 5,450 sec.-ft.; Apr. 27 (3 p.m.) 4,550 sec.-ft.

g Computed from graph based on daily gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

HATCHIE RIVER BASIN

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 Railroad 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 1944.

Average discharge.- 15 years, 2,099 second-feet.

Extremes.- Maximum discharge during year, 29,400 second-feet Mar. 31 (gage height, 18.20 feet); minimum observed, 123 second-feet July 25 (gage height, 1.28 feet). 1929-44: Maximum discharge, 43,400 second-feet Jan. 20, 1935 (gage height, 20.00 feet); minimum, 78 second-feet Sept. 2, 1943 (gage height, 0.63 foot).

Remarks.- Records good except those for May 15 to June 27 and those for period of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	186	284	1,640	680	12,100	26,600	5,310	420	153	700	1,760
2	193	186	276	1,430	620	12,400	21,700	4,970	440	152	700	2,200
3	186	200	276	2,060	580	11,100	16,100	4,490	470	150	520	2,450
4	180	207	284	2,530	580	9,500	12,400	4,490	490	152	317	2,570
5	173	214	292	2,850	580	8,070	9,220	4,650	470	164	244	f2,700
6	169	252	317	2,980	600	7,260	7,410	4,490	420	207	200	2,800
7	165	780	353	2,980	620	6,330	6,330	4,350	355	222	180	f2,750
8	163	1,480	371	2,910	1,230	5,690	6,700	4,210	276	193	169	2,100
9	161	2,180	400	2,620	6,100	5,130	10,800	4,350	268	173	155	1,210
10	171	2,490	410	2,100	7,410	4,650	8,700	4,350	252	168	148	720
11	160	2,620	460	1,530	7,410	4,070	8,700	4,350	268	168	132	540
12	160	2,620	520	1,230	7,730	3,250	7,410	4,070	292	200	136	f450
13	159	2,130	580	1,130	7,570	f2,620	6,570	3,650	371	317	186	400
14	158	1,250	540	1,130	8,470	a2,100	6,110	f2,700	520	430	166	353
15	161	720	440	1,070	8,270	a1,600	5,690	1,640	540	580	222	317
16	173	560	362	1,090	7,410	a1,300	5,490	978	500	540	214	284
17	186	540	308	1,450	7,570	a1,100	5,130	760	430	344	180	252
18	173	540	284	1,790	7,900	a1,100	4,650	640	362	229	155	236
19	170	500	276	1,940	7,570	a1,400	4,070	560	292	173	137	222
20	168	450	276	1,910	7,900	f2,660	3,370	520	252	155	134	207
21	168	400	292	1,700	7,730	3,370	2,910	470	222	148	142	207
22	168	371	308	1,430	7,570	3,730	2,070	460	207	147	152	200
23	166	344	308	1,180	9,220	4,210	6,140	440	193	153	173	193
24	166	328	300	1,000	10,800	4,650	6,350	440	186	136	186	160
25	166	308	470	890	9,220	5,310	6,110	430	186	127	163	170
26	168	300	934	824	8,470	5,490	6,700	430	186	126	155	165
27	170	292	1,620	780	7,900	6,110	7,410	430	173	158	f160	160
28	172	292	2,060	824	8,270	7,900	6,830	430	165	173	f522	161
29	173	292	2,240	846	10,800	17,200	6,350	430	160	222	1,300	260
30	173	292	2,270	802	-	23,800	5,690	420	155	460	1,430	684
31	160	-	2,130	740	-	28,700	-	420	-	700	1,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	5,289	200	158	171	0.120	0.14
November.....	23,302	2,620	196	777	.543	.61
December.....	20,241	2,270	276	653	.457	.53
Calendar year 1943	476,061	11,400	80	1,304	.912	12.38
January.....	49,386	2,980	740	1,593	1.11	1.28
February.....	176,780	10,800	580	6,096	4.26	4.60
March.....	213,960	28,700	1,100	6,902	4.83	5.56
April.....	240,300	26,600	2,700	8,010	5.60	6.25
May.....	70,328	5,310	420	2,269	1.59	1.83
June.....	9,501	540	155	317	.222	.26
July.....	7,420	700	126	235	.167	.19
August.....	16,678	1,430	132	344	.241	.28
September.....	26,901	2,800	160	897	.627	.70
Water year 1943-44	854,086	28,700	126	2,334	1.63	22.22

a Computed on basis of weather records and lagging recorder record.

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

Note.- Discharge computed from graph based on twice-weekly gage readings May 15 to June 27, and from daily gage readings June 28 to Aug. 21, Aug. 29 to Sept. 4, Sept. 8-11, 24-28.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Hatchie River near Stanton, Tenn.

Location.- Water-stage recorder, lat. 35°31'25", long. 89°21'05", at bridge on U. S. Highway 70, 5 miles downstream from Nashville, Chattanooga & St. Louis Railway 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 1944.

Average discharge.- 15 years, 2,661 second-feet.

Extremes.- Maximum discharge during year, 28,900 second-feet Apr. 3 (gage height, 17.94 feet); minimum, 252 second-feet July 26, 27, 28; minimum gage height, 1.95 feet Oct. 17.

1929-44: Maximum discharge observed, 59,000 second-feet Jan. 22, 1935 (gage height, 20.35 feet); minimum, 243 second-feet Sept. 3, 1943 (gage height, 1.40 feet).

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	496	325	496	2,010	960	10,300	20,500	7,200	740	298	494	1,280
2	448	340	480	2,110	920	9,700	26,700	6,750	700	298	584	1,670
3	452	348	480	2,350	863	10,300	27,800	6,180	760	282	640	1,820
4	400	348	480	2,490	825	11,300	22,500	6,180	760	282	660	2,010
5	366	355	480	2,490	789	11,300	16,400	6,990	720	282	584	1,950
6	378	370	480	2,420	771	10,600	12,400	6,750	720	290	478	1,950
7	362	480	496	2,420	771	9,700	10,300	6,350	720	290	414	1,820
8	355	901	528	2,450	920	8,520	9,700	6,000	640	305	366	1,210
9	348	1,380	560	2,530	2,950	7,700	11,600	5,550	566	320	335	1,210
10	332	1,580	577	2,570	4,670	6,990	11,600	6,000	530	328	312	1,210
11	325	1,700	611	2,640	4,700	6,180	15,100	6,180	494	312	298	2,170
12	325	1,790	645	2,640	4,500	5,700	14,700	5,050	478	298	290	1,670
13	325	1,920	681	2,600	6,000	5,150	12,000	4,570	478	290	275	1,080
14	325	2,010	699	2,350	7,700	4,750	10,000	4,150	478	305	282	780
15	318	2,110	717	1,920	7,700	4,410	8,250	4,050	566	335	305	660
16	318	1,980	681	1,550	7,980	4,050	7,200	3,870	700	414	305	594
17	311	1,460	611	1,380	10,300	3,790	6,550	3,720	760	530	305	530
18	318	980	560	1,350	15,100	3,350	6,000	3,460	680	530	320	494
19	332	807	512	1,490	12,700	3,200	5,550	2,880	602	446	305	462
20	332	753	496	1,640	11,300	3,460	5,280	1,920	530	366	282	430
21	325	717	480	1,760	11,300	3,460	5,050	1,300	478	328	268	414
22	318	663	480	1,850	10,300	3,150	4,750	1,050	450	298	275	396
23	318	611	496	1,850	9,700	3,060	4,570	934	414	282	282	382
24	311	594	496	1,790	8,600	3,060	4,570	868	398	268	282	366
25	311	560	512	1,580	8,250	3,100	4,950	824	374	260	298	358
26	311	544	594	1,330	9,700	3,200	7,980	802	358	260	305	350
27	311	528	825	1,150	12,400	3,460	8,800	780	335	260	298	342
28	311	512	1,130	1,040	11,600	3,870	8,520	760	335	260	290	342
29	318	512	1,520	1,000	11,600	6,530	8,800	740	320	260	290	580
30	318	496	1,760	1,000	-	11,300	8,250	740	312	275	500	548
31	318	-	1,920	1,000	-	15,500	-	780	-	320	934	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October		10,635	496	311	343	0.177
November		27,674	2,110	325	922	.475
December		21,483	1,920	480	693	.357
Calendar year 1943		534,882	17,100	243	1,739	.896
January		58,780	2,640	1,000	1,695	.977
February		136,069	15,100	771	6,761	3.43
March		200,230	15,500	3,060	6,459	3.32
April		326,370	27,800	4,570	10,880	5.61
May		113,368	7,200	740	3,657	1.88
June		16,376	760	312	546	.281
July		9,872	530	280	318	.164
August		11,866	934	268	392	.197
September		32,120	2,210	342	1,071	.552
Water year 1943-44		1,024,833	27,800	260	2,800	1.44

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WOLF RIVER BASIN

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 3½ miles downstream from Grissum Creek. Datum of gage is 300.82 feet above mean sea level, datum of 1929.

Drainage area.- 531 square miles.

Records available.- July 1929 to September 1944.

Average discharge.- 15 years, 619 second-feet.

Extremes.- Maximum discharge during year, 11,900 second-feet Mar. 29 (gage height, 11.10 feet); minimum, 122 second-feet July 24-26 (gage height, 3.75 feet).
1929-44: 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, 100 second-feet Sept. 16, 17, 1942; minimum gage height observed, 2.24 feet Aug. 12-14, 1930.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	156	183	419	195	2,290	2,580	722	348	136	362	1,260
2	144	161	183	538	189	1,830	1,910	466	309	132	316	1,130
3	144	161	183	802	189	1,580	1,960	328	225	131	302	760
4	139	161	183	625	183	1,600	1,630	745	183	219	219	722
5	136	161	183	722	183	1,420	1,330	1,950	195	238	172	1,370
6	136	172	195	617	195	1,130	1,230	2,210	270	150	161	1,720
7	136	362	207	558	201	825	1,010	1,680	362	139	178	1,620
8	136	466	201	450	1,000	604	1,420	1,530	362	139	183	1,340
9	136	434	207	336	6,910	460	5,270	1,250	434	137	161	902
10	136	404	213	264	6,700	362	4,300	773	518	144	144	450
11	136	450	238	244	5,130	316	3,900	404	390	150	139	264
12	136	433	231	244	2,940	253	4,130	296	264	144	139	257
13	137	419	225	231	1,760	270	2,610	257	483	138	144	231
14	137	270	225	231	1,250	257	1,830	231	673	135	150	219
15	137	231	213	244	648	250	1,360	219	500	132	150	207
16	138	219	195	257	518	244	936	207	322	130	144	195
17	139	213	183	257	910	244	592	207	225	129	138	183
18	139	207	178	276	1,740	238	404	195	169	128	136	165
19	139	207	178	302	2,020	486	336	183	172	126	129	178
20	144	201	178	309	2,740	802	450	178	166	126	134	178
21	144	195	183	302	3,150	970	460	166	158	126	144	207
22	144	195	189	296	2,670	1,440	362	166	156	125	161	178
23	144	189	189	276	4,050	1,700	3,670	166	156	124	283	172
24	144	189	189	250	3,150	1,380	5,860	166	150	122	250	166
25	144	183	290	231	2,110	936	2,580	207	144	122	166	166
26	144	183	419	225	1,890	592	1,890	172	144	122	156	166
27	144	183	362	219	3,430	820	2,770	166	139	195	264	166
28	150	183	466	225	2,700	3,020	2,090	178	139	376	195	166
29	150	183	538	225	2,610	10,260	1,480	276	138	257	172	199
30	150	183	466	219	-	9,250	1,010	302	138	283	213	225
31	150	-	483	213	-	5,250	-	376	-	362	540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Pers square mile	Runoff in inches
October	4,377	150	136	141	0.266	0.31
November	7,404	483	156	247	.465	.52
December	7,756	538	178	250	.471	.54
Calendar year 1943	160,048	9,760	104	438	.825	11.20
January	10,806	825	213	349	.657	.76
February	61,561	6,910	183	2,123	4.00	4.31
March	51,109	10,260	238	1,649	3.11	3.58
April	61,369	5,860	335	2,046	3.65	4.30
May	16,372	2,210	165	628	.994	1.15
June	8,050	673	138	268	.505	.56
July	5,119	376	122	165	.311	.36
August	6,145	540	129	198	.373	.43
September	15,170	1,720	166	506	.963	1.06
Water year 1943-44	255,238	10,260	122	697	1.31	17.88

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Francis River near Patterson, Mo.

Location.- Water-stage recorder, lat. 37°11'40", long. 90°30'10", in NE $\frac{1}{4}$ 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 1944.

Average discharge.- 23 years, 1,064 second-feet.

Extremes.- Maximum discharge during year, 20,600 second-feet Apr. 23 (gage height, 19.05 feet); minimum, 12 second-feet Aug. 20, 21.

1921-44: 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 fair.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 28 to Feb. 26, Sept. 20-30)

Oct. 1 to Feb. 29						Mar. 1 to Sept. 30					
2.0	62	4.0	484	10.0	4,920	1.7	6	3.2	282	10.0	4,850
2.2	81	4.8	790	10.9	5,850	1.8	15	4.0	510	10.9	5,850
2.4	105	5.4	1,090	13.0	8,770	1.9	26	5.0	850	13.0	8,770
3.0	208	6.5	1,820			2.0	39	5.5	1,080	14.8	11,600
3.4	297	8.0	3,040			2.2	70	6.0	1,370		
						2.3	187	8.0	2,930		

Discharge, in second-feet, water year October 1943 to September 1944												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	g118	95	189	143	4,750	1,220	1,310	364	62	31	34
2	80	g114	95	193	144	2,930	1,000	1,280	336	66	30	34
3	76	g116	92	191	143	1,980	890	1,340	299	51	27	34
4	73	114	92	184	139	1,620	775	2,750	254	46	26	30
5	71	111	92	184	139	1,620	706	2,260	230	42	25	30
6	70	110	114	184	136	1,440	638	1,590	209	39	24	29
7	67	123	123	186	134	1,620	572	1,220	187	36	20	26
8	66	134	123	187	136	1,640	540	1,000	166	35	20	24
9	65	139	125	180	136	1,140	510	990	168	34	19	24
10	64	162	126	171	133	912	655	2,260	146	32	19	23
11	64	193	133	164	136	792	7,460	1,820	140	34	18	24
12	63	178	134	160	138	740	8,220	1,280	138	31	17	45
13	69	164	134	165	133	723	3,110	1,000	130	29	16	56
14	76	153	134	146	141	723	1,960	1,560	261	27	15	57
15	77	143	136	143	141	655	1,510	1,310	269	26	15	51
16	77	136	136	138	139	621	1,250	980	170	26	24	45
17	74	128	131	136	176	572	1,030	830	140	26	20	42
18	72	123	126	133	225	689	870	706	124	27	15	42
19	72	122	120	131	250	1,510	775	588	116	32	13	42
20	72	117	118	130	271	2,580	740	510	101	32	12	42
21	75	114	116	128	292	2,660	672	480	92	30	12	39
22	79	111	114	126	311	2,840	638	450	86	29	13	36
23	79	108	111	123	319	2,340	11,600	480	79	27	13	32
24	96	105	108	120	340	1,680	10,800	638	72	26	15	31
25	g130	104	106	118	434	1,250	3,650	706	68	26	16	30
26	g133	102	105	117	769	1,000	2,340	556	65	30	22	29
27	a145	100	106	123	1,440	1,510	2,340	465	64	33	24	29
28	a150	97	128	130	1,370	1,370	2,930	480	62	40	26	31
29	a146	97	150	134	7,890	1,370	1,980	465	64	39	27	36
30	a140	95	158	143	-	2,180	1,510	392	68	35	31	39
31	g130	-	178	144	-	1,620	-	378	-	31	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2,733	150	63	88.2	0.092	0.11	5,420
November	3,731	193	95	124	.130	.14	7,400
December	3,759	178	92	121	.127	.15	7,460
Calendar year 1943	395,789	58,400	56	1,084	1.13	15.40	785,000
January	4,689	193	117	151	.158	.18	9,300
February	16,298	7,890	133	562	.698	.63	32,330
March	48,977	4,750	572	1,680	1.65	1.90	97,140
April	72,911	11,600	510	2,430	2.54	2.83	144,600
May	32,074	2,750	378	1,035	1.08	1.24	63,620
June	4,677	364	62	156	.163	.16	9,280
July	1,074	62	26	34.6	.036	.04	2,130
August	639	34	12	20.6	.022	.03	1,270
September	11,066	57	23	35.5	.037	.04	2,110
Water year 1943-44	192,628	11,600	12	526	.550	7.47	382,100

Peak discharge.- Feb. 29 (1 p.m.) 10,600 sec.-ft.; Apr. 11 (10:30 p.m.) 13,800 sec.-ft.; Apr. 23 (8 p.m.) 20,600 sec.-ft.

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

g Computed from graph based on gage readings.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

ST. FRANCIS RIVER BASIN

Wappapello Reservoir at Wappapello, Mo.

Location.-- Water-stage recorder, lat. 36°55'42", long. 90°17'04", in NW 1/4 sec. 3, T. 26 N., R. 7 E., at Wappapello Dam on St. Francis River, 0.8 mile southwest of Wappapello. Datum of gage is 347.71 feet above mean sea level.

Drainage area.-- 1,310 square miles.

Records available.-- April 1941 to September 1944. July 1940 to March 1941 in files of the Corps of Engineers, U. S. Army, Memphis, Tenn.

Extremes.-- Maximum contents during year, 222,700 acre-feet Apr. 29 (gage height, 25.35 feet); minimum, 41,340 acre-feet Oct. 12 (gage height, 7.49 feet).
1941-44: Maximum contents, 368,400 acre-feet May 22, 1943 (gage height, 34.37 feet); minimum, since initial filling to conservation pool level, 40,750 acre-feet Oct. 30, 1942 (gage height, 7.15 feet).

Remarks.-- Reservoir is formed by earth-fill dam. Closure of channel at dam began July 10, 1940; river began to flow through outlet structure July 24, 1940. Stop logs placed in outlet structure and storage began Apr. 1, 1941; conservation pool level reached Apr. 20, 1941. Capacity at bottom of outlet tunnels (gage height, -9.0 feet), 4,000 acre-feet; at conservation pool level (gage height, 7.0 feet), 36,600 acre-feet; at spillway crest (gage height, 47.0 feet), 625,000 acre-feet; at maximum pool level (gage height, 62.4 feet), 1,034,000 acre-feet. Figures given herein represent total contents. Under normal operating conditions reservoir surface will not be drawn below conservation pool level, which is maintained for purposes of conservation and recreation. Storage above this level used for flood control.

Cooperation.-- Records furnished by Corps of Engineers, U. S. Army.

Gage height at 8 a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.07	7.70	7.60	7.74	7.73	11.79	11.17	25.12	18.04	10.37	9.50	9.01
2	8.00	7.71	7.60	7.76	7.73	12.29	11.08	24.91	17.64	10.51	9.50	8.96
3	7.95	7.70	7.60	7.60	7.76	12.30	10.91	24.80	17.20	10.26	9.51	8.87
4	7.87	7.69	7.59	7.80	7.75	12.20	10.76	24.72	16.74	10.21	9.51	8.72
5	7.81	7.68	7.59	7.81	7.72	12.09	10.58	24.78	16.29	10.23	9.45	8.70
6	7.77	7.68	7.67	7.81	7.72	11.99	10.40	24.72	15.86	10.22	9.40	8.69
7	7.72	7.78	7.67	7.82	7.71	11.90	10.13	24.53	15.35	10.22	9.35	8.69
8	7.69	7.78	7.67	7.86	7.70	11.78	10.10	24.30	14.80	10.18	9.35	8.69
9	7.66	7.78	7.69	7.85	7.77	11.60	10.02	24.20	14.26	10.13	9.34	8.63
10	7.63	7.75	7.69	7.84	7.73	11.37	9.93	24.10	13.74	10.04	9.32	8.56
11	7.60	7.76	7.72	7.83	7.82	11.13	11.91	24.11	13.18	10.04	9.32	8.43
12	7.56	7.78	7.73	7.82	7.77	10.98	14.57	24.01	12.60	10.08	9.29	8.50
13	7.70	7.79	7.72	7.81	7.72	10.75	16.25	23.82	12.03	10.07	9.28	8.52
14	7.75	7.78	7.71	7.81	7.79	10.66	16.69	23.71	11.49	10.07	9.17	8.55
15	7.77	7.78	7.72	7.81	7.79	10.43	17.40	23.61	11.19	10.02	9.17	8.56
16	7.61	7.79	7.70	7.80	7.78	10.32	17.79	23.42	10.78	9.96	9.18	8.50
17	7.66	7.77	7.70	7.80	7.85	10.19	18.02	23.20	10.64	9.94	9.35	8.44
18	7.62	7.75	7.70	7.79	7.98	10.06	18.28	22.93	10.70	9.86	9.38	8.32
19	7.61	7.74	7.70	7.78	8.02	10.07	18.48	22.66	10.74	9.87	9.17	8.33
20	7.59	7.73	7.69	7.78	8.07	10.45	18.75	22.30	10.57	9.86	9.10	8.34
21	7.58	7.73	7.69	7.77	8.11	10.80	18.92	21.97	10.60	9.88	8.98	8.36
22	7.58	7.72	7.69	7.76	8.16	11.08	19.95	21.62	10.62	9.81	9.00	8.38
23	7.56	7.71	7.68	7.75	8.21	11.39	20.00	21.27	10.64	9.75	9.02	8.38
24	7.63	7.70	7.67	7.73	8.26	11.41	22.79	20.92	10.46	9.67	9.05	8.19
25	7.70	7.69	7.66	7.72	8.36	11.35	24.09	20.60	10.49	9.67	9.03	8.13
26	7.70	7.68	7.67	7.71	8.78	11.20	24.48	20.29	10.48	9.70	8.99	8.14
27	7.70	7.65	7.67	7.69	9.00	11.10	24.79	19.93	10.51	9.74	9.00	8.14
28	7.69	7.65	7.70	7.77	9.39	11.10	25.04	19.63	10.53	9.74	8.94	8.18
29	7.68	7.66	7.71	7.77	10.18	11.20	25.30	19.27	10.56	9.69	8.81	8.30
30	7.68	7.62	7.72	7.76	-	11.13	25.26	18.89	10.58	9.71	8.84	8.15
31	7.70	-	7.72	7.79	-	11.20	-	18.49	-	9.48	9.02	-

Monthly gage height and contents, water year October 1943 to September 1944

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	8.12	44,990	-
Oct. 31.....	7.70	42,520	-2,460
Nov. 30.....	7.62	42,070	-450
Dec. 31.....	7.72	42,630	+560
Calendar year 1943.	-	-	-83,270
Jan. 31.....	7.79	43,020	+390
Feb. 29.....	10.18	59,300	+16,280
Mar. 31.....	11.20	67,360	+8,060
Apr. 30.....	25.26	221,400	+154,040
May 31.....	18.49	137,200	-84,200
June 30.....	10.58	62,420	-74,780
July 31.....	9.48	54,180	-8,240
Aug. 31.....	9.02	50,640	-3,520
Sept. 30.....	8.15	45,180	-5,460
Water year 1943-44.	-	-	+200

† Gage height at 8 a.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Francis River at Wappapello, Mo.

Location.- Water-stage recorder, lat. 36°55'41", long. 90°15'55", in NW¼ sec. 2, T. 28 N., R. 7 E., at county highway bridge, 0.5 mile southeast of Wappapello and 1.25 miles downstream from Wappapello Dam. Datum of gage is 325.15 feet (revised) above mean sea level, datum of 1929.

Drainage area.- 1,310 square miles.

Records available.- October 1940 to September 1944 in reports of Geological Survey. December 1937 to September 1942 in reports of Corps of Engineers, U. S. Army. April 1920 to December 1937 in files of Corps of Engineers, U. S. Army, Memphis, Tenn.

Extremes.- Maximum discharge during year, 3,320 second-feet (regulated) Mar. 3 (gage height, 11.21 feet); minimum, 2 second-feet (regulated) Aug. 24 (gage height, -5.53 feet); minimum daily, 21 second-feet (regulated) Aug. 24.
1920-44: Maximum discharge, 80,200 second-feet Mar. 12, 1935 (gage height, 30.5 feet), from rating curve extended above 41,000 second-feet, determined by Corps of Engineers, U. S. Army; no flow July 20-24, 1940, May 16, 1941, result of closure of outlet gates at dam.

Remarks.- Records good. Flow regulated by Wappapello Reservoir (see preceding page).

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

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31			Jan. 1 to Sept. 30		
-3.7	170		-5.3	20	0.0
-3.0	250		-5.0	42	2.0
-2.4	328		-4.0	136	6.0
			-3.0	250	8.0
			-2.0	380	11.2
					3,320

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	238	204	239	227	2,440	2,160	3,020	2,920	542	59	156
2	308	232	204	250	227	3,140	2,080	3,060	2,880	259	34	328
3	299	238	204	253	227	3,320	1,960	3,100	2,860	263	33	422
4	270	232	204	263	222	3,210	1,820	3,100	2,820	60	119	534
5	250	227	198	270	222	2,780	1,700	3,100	2,820	33	239	103
6	232	227	232	270	222	2,690	1,570	3,060	2,860	33	244	30
7	222	263	222	270	216	2,700	1,440	3,060	2,860	108	165	26
8	210	276	222	262	222	2,720	1,370	3,020	2,860	264	36	100
9	204	270	227	276	233	2,580	1,390	3,100	2,860	341	32	202
10	186	263	232	276	227	2,410	1,330	3,100	2,820	276	28	347
11	181	263	238	276	244	2,200	1,230	3,060	2,820	39	90	263
12	170	263	238	276	233	2,030	414	3,020	2,780	30	170	39
13	222	263	238	270	227	1,880	236	2,990	2,760	31	232	29
14	232	263	238	270	239	1,740	169	2,990	2,490	103	267	29
15	232	263	238	263	239	1,610	80	2,960	2,190	204	40	124
16	227	276	232	256	233	1,510	42	2,960	1,610	226	38	256
17	204	266	227	256	265	1,410	35	2,920	516	292	38	269
18	198	266	227	250	308	1,330	33	2,920	91	39	318	312
19	204	250	227	250	315	1,340	31	2,990	600	31	462	46
20	186	250	227	244	328	1,600	33	3,130	229	31	341	31
21	192	244	222	244	354	1,820	159	3,170	48	105	260	32
22	186	244	222	239	367	2,050	997	3,130	41	210	39	154
23	181	238	222	233	394	2,270	1,560	3,100	597	210	31	322
24	204	232	216	227	408	2,330	1,350	3,060	260	195	21	316
25	227	227	216	227	478	2,320	1,250	3,020	48	37	92	222
26	232	227	216	222	632	2,190	1,160	3,020	40	33	182	210
27	232	222	216	222	734	2,140	1,130	3,020	49	34	262	210
28	222	222	227	233	944	2,110	1,110	3,060	49	103	375	210
29	222	222	238	233	1,450	2,160	1,300	3,020	39	198	44	258
30	227	210	238	227	-	2,160	2,660	3,020	375	457	33	367
31	232	-	232	227	-	2,160	-	2,960	-	530	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	6,912	328	170	223	13,710
November.....	7,357	276	210	245	14,590
December.....	6,944	238	198	224	13,770
Calendar year 1943.....	526,533	7,560	26	1,443	1,044,000
January.....	7,804	282	222	252	15,480
February.....	10,637	1,450	216	367	21,100
March.....	68,350	3,320	1,330	2,205	135,600
April.....	31,768	2,660	31	1,059	63,010
May.....	94,210	3,170	2,920	3,039	186,900
June.....	46,362	2,920	39	1,545	91,960
July.....	5,337	542	30	172	10,590
August.....	4,865	462	21	140	9,640
September.....	5,946	534	26	198	11,790
Water year 1943-44.....	295,982	3,320	21	809	587,100

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Francis River at Marked Tree, Ark.

Location.— Water-stage recorder, lat. 35°31'58", long. 90°25'25", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 NW $\frac{1}{4}$ sec. 35, 3 miles upstream from base gage. 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 1944. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.— Maximum discharge during year, 3,970 second-feet Apr. 11 (gage height, 11.03 feet); minimum, 114 second-feet Sept. 26.

1934-44: Maximum discharge, 7,120 second-feet Feb. 6, 7, 1937; maximum gage height, 18.88 feet Feb. 7, 1937; minimum discharge, 63 second-feet Oct. 13, 1941.

Remarks.— Records good. Discharge computed by using fall as determined from auxiliary gage 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. Flow regulated by Wappapello Reservoir (see p. 50) and by siphons at dam of Poinsett County Drainage District 7.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	766	925	1,070	268	1,140	2,800	3,210	3,420	2,780	2,140	1,000	750
2	597	765	960	560	1,100	2,930	3,160	3,260	2,730	2,080	1,030	607
3	199	200	195	1,660	1,060	2,860	3,140	2,720	2,730	1,970	1,030	591
4	a145	a125	144	1,600	1,040	3,060	3,040	2,380	2,700	1,930	1,030	538
5	a150	a120	142	1,210	940	3,110	3,020	2,650	2,680	1,840	955	210
6	a130	400	910	1,160	320	3,140	2,970	3,260	2,700	1,450	910	149
7	a270	470	1,120	1,110	195	3,130	2,920	3,250	2,680	1,390	850	460
8	a330	920	1,100	350	250	3,120	3,280	3,200	2,660	1,350	850	1,000
9	a135	290	1,090	270	915	2,940	3,870	3,160	2,660	1,350	841	975
10	a130	360	1,000	1,740	1,560	3,020	3,790	3,270	2,630	1,330	750	740
11	a300	1,050	310	1,690	1,560	3,020	3,920	3,210	2,610	1,330	275	193
12	1,010	990	220	520	1,520	2,970	3,920	3,160	2,280	1,330	390	142
13	1,100	270	1,060	222	1,510	2,970	3,920	2,880	2,460	1,400	973	340
14	1,060	153	1,110	203	1,490	2,930	3,880	3,050	2,460	1,440	910	1,010
15	1,000	910	1,060	320	1,490	2,980	3,380	2,970	2,460	1,250	325	938
16	960	1,070	610	1,750	1,450	2,920	3,160	3,000	2,460	1,210	310	603
17	840	750	190	1,770	2,100	2,690	3,020	2,940	2,460	1,060	938	171
18	320	178	260	1,510	2,350	2,970	2,910	2,940	2,420	435	660	131
19	360	148	960	1,160	2,120	3,170	2,820	2,930	2,420	1,090	210	150
20	868	840	1,110	1,120	2,090	3,510	2,820	2,960	2,400	1,190	169	890
21	690	260	960	930	1,970	3,600	2,870	2,920	2,400	1,160	163	632
22	310	440	260	270	1,170	3,600	2,870	2,890	2,420	1,130	440	217
23	790	1,110	163	196	1,720	3,580	3,110	2,890	2,420	1,040	1,040	125
24	320	1,110	160	190	1,320	3,600	3,610	2,810	2,370	1,000	1,010	121
25	330	1,060	240	290	2,340	3,340	3,710	2,840	2,370	928	965	118
26	668	700	1,060	1,160	2,800	3,210	3,710	2,820	2,310	850	715	440
27	690	180	1,160	1,210	2,780	3,260	3,710	2,820	2,290	877	211	983
28	186	151	1,210	1,210	2,650	3,180	3,210	2,900	2,270	925	159	607
29	a135	420	1,170	1,210	2,100	3,240	3,460	2,360	2,220	965	510	171
30	180	1,060	1,170	1,170	-	3,250	3,530	2,650	2,180	965	1,040	600
31	920	-	870	1,140	-	3,240	-	2,780	-	1,000	1,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16,069	1,100	130	518	31,970
November.....	17,425	1,110	120	581	34,560
December.....	23,155	1,210	142	747	45,930
Calendar year 1943.....	668,483	3,680	120	1,896	1,366,000
January.....	29,069	1,770	190	938	57,660
February.....	45,800	2,800	195	1,671	90,350
March.....	97,370	3,600	2,800	3,141	193,100
April.....	99,960	3,920	2,820	3,332	198,300
May.....	91,160	3,420	2,560	2,941	180,800
June.....	74,630	2,780	2,180	2,488	148,000
July.....	39,398	2,140	435	1,271	78,140
August.....	21,659	1,040	159	669	42,960
September.....	14,603	1,010	118	493	29,360
Water year 1943-44.....	570,248	3,920	118	1,558	1,131,000

a No gage-height record; discharge computed on basis of record of siphon operations 7 miles upstream and occasional readings of wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

St. Francis River floodway near Marked Tree, Ark.

Location.- Staff gage, lat. 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 1944.

Extremes.- Maximum discharge during year, 16,800 second-feet Apr. 22 (gage height, 25.4 feet); no flow at times.

1927-31, 1934-44: Maximum discharge, 48,300 second-feet Jan. 26-28, 1937; no flow at times during 1934-37, 1939-44.

Remarks.- Records fair except those below 1,000 second-feet, which are poor. Gage read TWICE daily. Flow diverted from St. Francis River, bypasses Marked Tree, and returns to St. Francis River immediately below Parkin. Flow regulated by Wappapello Reservoir (see p. 50).

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0			0	0	1,760	4,300	8,770	3,470	140		
2	0			10	0	1,890	4,300	5,060	3,470	10		
3	0			0	0	2,300	4,300	7,720	3,290	0		
4	0			0	0	2,980	4,300	8,060	3,290	0		
5	0			0	0	3,380	4,300	8,060	3,290	0		
6	0			0	0	3,820	4,060	7,390	3,290	0		
7	0			0	0	4,300	4,060	7,070	2,960	0		
8	0			0	10	4,820	4,300	6,760	2,790	0		
9	0			86	293	5,360	4,660	6,170	2,630	0		
10	0			0	210	5,680	4,620	6,170	2,470	0		
11	10			0	210	5,980	5,380	5,890	2,170	0		
12	0			0	210	5,980	5,980	5,890	2,170	0		
13	0			46	210	5,980	6,960	5,890	2,170	0		
14	0			293	210	5,980	8,760	5,620	2,170	0		
15	0			293	210	5,380	11,100	5,360	2,030	0		
16	0			0	145	5,380	11,900	5,360	1,690	0		
17	0			0	475	5,380	13,500	5,110	1,760	0		
18	0			0	572	5,380	14,300	5,110	1,760	0		
19	0			0	669	5,680	15,200	5,110	1,760	0		
20	0			0	865	5,680	16,000	4,870	1,630	0		
21	0			0	965	5,380	16,400	4,870	1,500	0		
22	0			0	1,520	5,380	16,800	4,870	1,380	0		
23	0			0	1,520	5,380	16,000	4,950	1,380	0		
24	0			145	1,520	5,380	15,200	4,650	1,260	0		
25	0			293	1,520	5,100	14,300	4,240	1,260	0		
26	0			46	1,070	4,820	13,500	4,240	1,150	0		
27	0			0	1,070	4,560	11,900	3,860	940	0		
28	0			0	1,180	4,300	11,900	3,660	740	0		
29	0			0	1,900	4,300	10,300	3,660	560	0		
30	0			-	-	4,300	9,510	3,660	260	0		
31	0			0	-	4,300	-	3,470	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10	10	0	0.3	20
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1943	596,490	8,750	0	1,634	1,183,000
January	1,211	293	0	39.1	2,400
February	16,554	1,900	0	571	32,830
March	146,310	5,980	1,760	4,720	290,200
April	288,180	16,800	4,060	9,606	571,600
May	174,260	8,770	3,470	5,621	345,600
June	60,880	3,470	260	2,029	120,800
July	150	140	0	4.8	298
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1943-44	687,555	16,800	0	1,879	1,364,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ST. FRANCIS RIVER BASIN

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, benchmark).

Records available.— October 1926 to September 1944.

Average discharge.— 18 years, 212 second-feet.

Extremes.— Maximum discharge during year, 1,950 second-feet Apr. 13 (gage height, 10.36 feet); minimum observed, 15 second-feet Aug. 20, Sept. 26.
1926-44: Maximum discharge, 2,760 second-feet (included some overflow from levee breaks on St. Francis River) Apr. 21, 1927 (gage height, 15.1 feet); minimum observed, 8 second-feet Sept. 1, 1943.

Remarks.— Records poor. Gage read once daily below 8 feet and twice daily above.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	35	36	d43	32	387	162	162	178	68	50	30
2	25	38	37	43	31	252	148	155	170	68	41	38
3	28	30	37	48	36	193	201	155	162	67	41	37
4	25	30	36	48	33	234	152	155	162	68	39	31
5	22	d31	34	50	28	289	141	170	155	62	37	34
6	21	d32	37	49	36	234	134	170	155	62	35	34
7	21	38	42	47	35	252	127	155	148	61	34	42
8	20	41	46	50	33	270	141	148	141	64	32	37
9	24	40	41	66	42	201	347	141	134	61	29	32
10	23	33	39	48	38	178	977	141	127	68	26	29
11	22	37	42	46	44	155	1,820	193	120	66	27	28
12	d23	35	39	44	44	155	1,920	162	127	64	26	30
13	24	35	37	67	31	148	1,950	148	127	61	27	27
14	32	35	37	60	84	134	1,850	148	134	60	23	26
15	27	31	45	90	39	134	1,290	141	134	55	23	24
16	35	36	31	39	36	127	925	141	134	54	25	24
17	27	35	b30	59	61	120	629	141	127	54	22	22
18	25	35	*b40	38	d90	120	450	134	120	54	21	24
19	25	34	b55	34	120	134	327	134	114	47	16	22
20	24	34	61	38	84	178	289	127	108	49	15	22
21	27	34	65	38	74	234	289	127	102	53	16	21
22	25	32	39	38	79	178	252	134	102	47	24	18
23	25	33	50	34	79	170	234	127	96	44	21	18
24	33	33	43	34	79	155	289	134	90	45	20	18
25	34	33	65	35	74	141	234	162	79	42	20	17
26	33	35	62	37	84	134	201	148	79	46	21	15
27	33	36	46	36	114	134	201	141	74	46	23	20
28	32	32	56	36	127	327	185	252	68	44	21	19
29	29	36	48	35	429	234	178	201	74	40	20	27
30	28	36	48	35	-	217	162	193	74	45	20	24
31	34	-	47	35	-	193	-	185	-	52	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	835	35	20	26.9	1,660
November.....	1,033	41	30	34.4	2,050
December.....	1,371	65	30	44.2	2,720
Calendar year 1943.....	46,468	1,350	8	127	92,180
January.....	1,380	90	34	44.5	2,740
February.....	2,115	429	28	73.0	4,800
March.....	5,012	387	120	194	11,920
April.....	16,215	1,950	127	540	32,160
May.....	4,825	252	127	156	9,570
June.....	3,615	178	66	120	7,170
July.....	1,717	68	40	55.4	3,410
August.....	820	50	15	28.5	1,630
September.....	790	42	15	28.3	1,570
Water year 1943-44.....	40,729	1,950	15	111	80,800

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of adjusted gage readings or interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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, benchmark).

Records available.- October 1926 to September 1944.

Average discharge.- 18 years, 402 second-feet.

Extremes.- Maximum discharge during year, 5,010 second-feet Apr. 14 (gage height, 12.8 feet, from graph based on gage readings); minimum observed, 28 second-feet Aug. 21. 1926-44: Maximum discharge, 7,520 second-feet (included some overflow from levee breaks on St. Francis River) Apr. 25, 1927; maximum gage height, 16.80 feet Jan. 25, 1937; minimum discharge, 8 second-feet Sept. 13-18, 1932.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	38	35	39	46	1,320	450	450	257	99	53	38
2	40	38	35	47	47	807	393	393	242	99	46	43
3	45	35	35	47	47	549	412	395	242	89	45	49
4	40	37	35	50	47	469	469	357	213	85	43	47
5	40	35	35	46	451	763	375	357	199	82	43	53
6	40	37	45	46	55	719	323	340	199	78	43	50
7	35	39	40	45	47	807	289	323	186	78	45	50
8	35	35	440	52	49	942	289	323	168	80	42	47
9	40	35	39	64	56	633	633	289	161	74	39	43
10	40	37	38	66	56	450	1,900	289	149	83	39	43
11	35	35	39	47	55	375	3,680	357	147	82	42	40
12	40	36	37	37	55	340	4,640	431	149	80	40	39
13	40	37	37	67	50	306	4,900	375	147	76	42	38
14	45	35	36	42	47	273	4,950	340	149	74	40	36
15	45	40	b35	42	53	257	4,800	306	159	66	40	36
16	50	40	b40	43	49	242	3,830	273	173	64	42	35
17	45	36	*43	42	76	227	3,080	257	171	83	40	36
18	45	37	50	39	149	227	2,100	257	149	63	37	34
19	40	37	36	38	173	242	1,270	227	142	61	32	34
20	35	37	36	40	163	412	1,080	213	131	61	29	34
21	40	36	37	38	149	675	1,030	199	121	61	28	34
22	40	39	39	43	145	591	851	199	125	58	37	32
23	40	36	38	46	131	469	763	199	123	56	36	31
24	45	35	47	40	127	393	1,320	227	123	56	34	32
25	45	34	39	43	125	357	988	357	115	53	30	29
26	40	35	42	43	156	323	763	257	109	55	32	31
27	40	36	43	43	242	323	719	199	107	56	35	31
28	40	36	47	45	489	591	633	763	103	56	32	31
29	35	36	50	45	1,420	807	549	431	97	d56	35	40
30	35	34	40	43	-	633	469	323	105	55	31	35
31	36	-	40	46	-	591	-	289	-	56	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,251	50	35	40.4	2,480
November.....	1,097	40	34	36.6	2,180
December.....	1,228	50	35	39.6	2,440
Calendar year 1943	77,210	3,530	34	212	153,200
January.....	1,414	67	37	45.6	2,800
February.....	4,355	1,420	45	150	8,640
March.....	16,113	1,320	227	520	31,960
April.....	47,948	4,950	269	1,598	95,100
May.....	9,993	763	199	322	19,620
June.....	4,667	257	97	156	9,260
July.....	2,155	99	53	69.5	4,270
August.....	1,188	53	28	38.3	2,360
September.....	1,151	53	29	38.4	2,280
Water year 1943-44	92,560	4,950	28	253	183,600

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by backwater from aquatic vegetation Oct. 1-31; discharge computed on basis of weather records and records for stations on nearby streams. Discharge Nov. 15 computed on assumption that gage was read 0.10 foot too low.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ST. FRANCIS RIVER BASIN

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, 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 1928 to September 1944.

Average discharge.- 18 years, 333 second-feet.

Extremes.- Maximum discharge during year, 2,780 second-feet Apr. 13 (gage height, 15.41 feet); no flow Sept. 8-11, 14-28.

1928-44: Maximum discharge, 4,350 second-feet Jan. 24, 25, 1937 (gage height, 18.15 feet); no flow Sept. 8-11, 14-28, 1944.

Remarks.- Records fair. Gage read once daily below 8 feet and twice daily above. An auxiliary ditch, Little River ditch 66-A (see following page), receives part of flow through cut-offs above stage 6.4 feet. Above stage 13 feet the low, narrow bank between main and auxiliary ditches is submerged, and the two unite to form one stream in vicinity of gage. To segregate discharge of each ditch, the division line between the two is taken as the top of bank that separates them at low stages.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.6	1.2	10	4.8	909	373	313	119	16	1.0	0.1
2	.6	1.1	1.4	10	4.8	846	299	245	105	15	.6	.1
3	.6	1.2	1.7	10	4.8	703	233	209	92	15	.4	2.0
4	.7	.5	1.6	10	4.5	529	209	209	78	14	.4	.2
5	.6	.4	1.2	10	3.6	583	175	209	70	12	.3	.6
6	.4	.5	2.6	10	2.0	565	154	245	62	10	.6	.1
7	.4	.6	3.2	9	5	511	144	257	54	10	.6	.1
8	.3	1.5	3.0	14	5	529	134	233	47	9	.4	0
9	.2	1.5	3.9	7	10	421	164	197	45	9	.3	0
10	.2	6	4.1	9	8	285	439	221	45	9	.3	0
11	.2	7	4.2	24	7	221	1,410	867	42	9	.3	0
12	.2	6	3.7	28	17	186	2,570	995	39	8	.2	.1
13	.6	4.1	4.4	17	8	164	2,770	846	37	6	.3	.1
14	.6	3.9	4.2	d12	8	144	2,670	683	39	6	.3	0
15	.4	2.7	5	7	16	134	2,570	565	43	5	.2	0
16	.9	2.4	b2	20	10	129	2,440	511	44	4.2	.2	0
17	.7	2.2	b2	9	15	119	2,250	475	47	3.3	.2	0
18	.6	1.7	nb2	7	18	110	1,860	405	38	2.8	.1	0
19	.4	1.7	b5	6	110	114	1,340	299	32	1.8	.1	0
20	.6	1.7	b7	7	114	175	951	209	28	2.0	.1	0
21	.6	1.8	9	7	110	475	723	154	25	2.8	.1	0
22	.5	1.6	10	7	100	583	511	257	26	1.6	.8	0
23	.6	1.7	b6	5	82	493	369	285	29	1.2	.2	0
24	.6	1.5	b3	5	70	357	529	186	34	1.0	.1	0
25	.7	1.5	3.0	5	62	257	951	154	28	.4	.1	0
26	.9	1.4	16	5	70	209	973	134	25	1.6	.1	0
27	.8	1.6	8	5	154	175	951	110	22	1.4	.1	0
28	.6	1.5	7	4.8	233	197	867	105	20	1.8	.1	0
29	.6	1.4	7	5	511	299	723	100	19	.6	.1	.1
30	.5	1.4	6	4.5	-	313	475	110	17	2.3	.1	.1
31	.6	-	9	d4.6	-	405	-	119	-	2.5	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	16.9	0.9	0.2	0.55	34
November.....	62.8	7	.4	2.09	125
December.....	147.4	16	1.2	4.75	292
Calendar year 1943	52,551.4	2,060	.2	143	103,800
January.....	293.9	28	4.5	9.48	583
February.....	1,777.5	511	2.0	61.3	3,530
March.....	11,140	909	110	359	22,100
April.....	30,247	2,770	134	1,008	59,990
May.....	9,907	995	100	320	19,650
June.....	1,552	119	17	45.1	2,680
July.....	184.3	16	.4	5.95	366
August.....	8.9	1.0	.1	.29	18
September.....	3.6	2.0	0	.12	7.1
Water year 1943-44	55,141.3	2,770	0	151	109,400

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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, 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.- January 1927 to September 1944.

Average discharge.- 17 years, 45.3 second-feet.

Extremes.- Maximum discharge observed during year, 873 second-feet Apr. 13 (gage height, 15.33 feet); no flow on many days.

1927-44: Maximum discharge, 2,340 second-feet (included some overflow from levee breaks on Mississippi River) Apr. 25, 1927; maximum gage height, 18.13 feet Jan. 25, 1937; no flow on many days.

Remarks.- Records fair. Gage read once daily below 8 feet and twice daily above. See "Remarks" under Little River ditch 66 (above).

Discharge, in second-feet, of Little River ditch 66-A near Kennett, Mo.,
water year October 1943 to September 1944

Day	Mar.	Apr.	May	Day	Mar.	Apr.	May	Day	Mar.	Apr.	May	Day	Mar.	Apr.	May
1	49	0	0	9	0	0	0	17	0	597	0	25	0	56	0
2	42	0	0	10	0	0	0	18	0	399	0	26	0	62	0
3	8	0	0	11	0	210	36	19	0	162	0	27	0	64	0
4	0	0	0	12	0	763	69	20	0	56	0	28	0	36	0
5	0	0	0	13	0	873	40	21	0	12	0	29	0	12	0
6	0	0	0	14	0	819	13	22	0	0	0	30	0	0	0
7	0	0	0	15	0	765	0	23	0	0	0	31	0	-	0
8	0	0	0	16	0	713	0	24	0	0	0				
				Second-foot-days				Maximum				Minimum			
												Mean			
												Runoff in			
												acre-feet			
October.....				0				0				0			
November.....				0				0				0			
December.....				0				0				0			
Calendar year 1943.....				5,562				765				15.2			
January.....				0				0				0			
February.....				0				0				0			
March.....				99				49				3.2			
April.....				5,609				873				187			
May.....				158				69				5.1			
June.....				0				0				0			
July.....				0				0				0			
August.....				0				0				0			
September.....				0				0				0			
Water year 1943-44.....				5,666				873				16.0			

Little River ditch 251 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°58'40", in NW 1/4 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 1944.

Average discharge.- 17 years (1927-44), 647 second-feet.

Extremes.- Maximum discharge during year, 4,820 second-feet Apr. 12 (gage height, 15.6 feet, from graph based on gage readings); minimum, 84 second-feet Sept. 22-23.

1926-44: 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 good. Gage read once daily below 8 feet and twice daily above.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	155	163	217	180	1,830	1,060	1,000	592	256	163	132
2	147	163	163	217	180	1,690	940	880	554	256	155	172
3	155	155	172	226	180	1,430	821	821	610	246	147	163
4	155	155	163	226	180	1,310	763	850	484	246	140	132
5	155	147	163	217	180	1,400	705	850	458	236	140	125
6	155	147	180	217	180	1,370	648	910	434	236	140	125
7	147	155	180	217	180	1,310	592	910	410	226	132	112
8	147	172	180	226	180	1,310	592	850	386	226	132	112
9	147	172	189	4342	208	1,180	676	792	386	226	125	105
10	147	198	189	277	198	970	1,340	850	386	236	125	105
11	147	208	189	246	198	821	2,780	1,690	386	226	125	100
12	140	198	189	236	198	763	4,380	1,870	364	217	125	105
13	147	189	189	163	198	705	4,760	1,690	364	208	118	105
14	155	180	189	198	208	648	4,590	1,500	364	208	118	100
15	155	180	163	342	226	620	4,430	1,310	386	198	112	100
16	163	180	b160	217	208	592	4,270	1,240	386	198	112	100
17	155	172	b160	198	226	554	3,910	1,180	386	189	112	94
18	155	172	b200	198	246	537	3,580	1,120	364	189	112	94
19	155	172	246	189	458	537	2,470	940	342	189	112	89
20	155	172	217	189	537	705	1,800	792	320	180	112	89
21	155	163	189	189	510	1,210	1,460	676	298	180	105	89
22	155	163	198	189	484	1,340	1,400	880	320	180	118	84
23	155	172	189	189	434	1,240	1,120	910	342	172	118	84
24	155	163	208	189	410	1,060	1,370	734	342	172	112	84
25	163	163	298	180	386	880	1,800	676	320	163	112	84
26	163	163	256	180	410	763	1,830	620	298	172	132	84
27	163	163	208	180	676	705	1,800	564	298	172	125	84
28	155	163	208	180	880	763	1,660	564	277	172	118	84
29	155	163	208	180	1,430	940	1,460	537	277	163	112	100
30	140	163	208	180	-	970	1,180	564	266	172	112	94
31	155	-	217	172	-	1,120	-	592	-	172	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,751	163	140	153	9,420
November.....	5,081	208	147	169	10,080
December.....	6,031	298	160	195	11,950
Calendar year 1943.....	183,510	3,330	140	503	364,900
January.....	6,566	342	163	212	13,020
February.....	10,169	1,430	180	351	20,170
March.....	31,283	1,530	537	1,009	62,050
April.....	59,887	4,760	592	1,996	118,800
May.....	29,362	1,870	537	947	56,240
June.....	11,310	592	266	377	22,430
July.....	6,282	256	163	203	12,460
August.....	3,833	163	105	124	7,600
September.....	3,130	172	84	104	6,210
Water year 1943-44.....	177,685	4,760	84	485	352,400

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on assumption gage was read 1 foot too low.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ST. FRANCIS RIVER BASIN

Little River ditch 259 near Kennett, Mo.

Location.- Wire-weight gage, lat. 36°14'10", long. 89°59'35", 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 1944.

Average discharge.- 17 years (1927-44), 92.2 second-feet.

Extremes.- Maximum discharge during year, 1,540 second-feet Apr. 12 (gage height, 11.27 feet); no flow on many days.

1926-44: Maximum discharge, 4,140 second-feet (included some overflow from levee breaks on Mississippi River) Apr. 29, 1927 (gage height, 15.57 feet); no flow on many days in 1936, 1944.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.3	0.6	2.1	0.7	453	75	59	23	8	0.1	0
2	.5	.5	.6	2.1	.8	194	75	52	21	7	0	0
3	.5	.5	.5	2.9	.8	137	72	52	22	7	0	0
4	.4	.1	.5	2.7	1.0	407	67	48	17	6	0	0
5	.3	0	.5	2.3	.9	437	59	59	14	5	0	0
6	.2	0	.5	2.1	.8	242	56	52	11	5	0	0
7	.2	.0	1	2.0	.9	268	52	45	11	4	0	0
8	.1	.1	1	1.2	.9	159	59	36	11	4	0	0
9	0	.5	2	1.5	1.7	115	674	31	10	3	0	0
10	0	.8	2.4	1.6	1.4	90	1,200	28	8	3	0	0
11	0	1	3.4	1.8	1.3	76	1,490	29	8	3	0	0
12	0	1	3.2	1.8	.7	72	1,540	36	9	2	0	0
13	.2	1	3.2	1.6	1.0	63	1,490	36	8	2	0	0
14	.2	1	2.7	1.1	1.2	56	1,200	30	8	2	0	0
15	.3	.9	2.4	1.4	1.3	52	983	30	30	1	0	0
16	.3	.9	1.8	1.0	1.3	48	569	37	24	1	0	0
17	.3	.9	2.1	1.4	20	48	335	33	22	1	0	0
18	.3	.8	2.7	1.3	80	44	255	28	19	.5	0	0
19	.3	.8	2.3	1.2	48	80	206	24	16	.5	0	0
20	.3	.8	2.7	1.3	24	218	194	22	11	.5	0	0
21	.3	.8	2.4	1.2	15	148	170	17	10	.4	0	0
22	.3	.8	2.1	1.2	90	115	137	18	11	.3	.5	0
23	.3	.7	1.5	1.1	105	100	125	17	10	.2	1	0
24	.3	.7	1.6	1.1	43	95	115	17	10	.2	0	0
25	.3	.7	2.4	1.1	28	80	110	18	10	.1	0	0
26	.3	.7	3.2	1.1	63	72	90	17	10	.1	0	0
27	.3	.6	3.2	1.2	43	72	148	16	10	.1	0	0
28	.3	.6	3.7	1.0	255	72	105	19	10	.1	0	0
29	.3	.6	2.3	.9	804	100	80	25	10	.1	0	.1
30	.3	.6	2.1	.9	-	115	67	24	9	.1	0	.1
31	.3	-	2.0	.7	-	95	-	24	-	.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8.3	0.6	0	0.27	16
November.....	18.7	1	0	.62	37
December.....	62.6	3.7	.5	2.02	124
Calendar year 1943.....	13,273.8	882	0	36.4	26,330
January.....	45.9	2.9	.7	1.48	91
February.....	1,634.7	804	.7	56.4	3,240
March.....	4,323	453	44	139	8,570
April.....	11,801	1,540	52	393	23,410
May.....	979	59	16	31.6	1,940
June.....	403	30	8	13.4	799
July.....	67.3	8	.1	2.17	133
August.....	.7	.5	-	.02	1.4
September.....	.2	.1	0	.01	.4
Water year 1943-44.....	19,344.4	1,540	0	52.9	38,360

d Doubtful gage-height record; discharge interpolated.

e Field observation of no flow made on this day.

Note.- Stage-discharge relation affected by backwater from aquatic vegetation Oct. 1 to Dec. 9, July 1 to Sept. 30; discharge computed on basis of 3 field observations, weather records, and records for Little River ditch 66.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

White River at Beaver, Ark.

Location.- Wire-weight gage, lat. 36°28'20", long. 93°45'55", in sec. 20, T. 21 N., R. 28 W., at Missouri & North Arkansas Railway bridge, a quarter of a mile east of Beaver and 2½ 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.

Records available.- July 1909 to December 1910, May 1923 to September 1944.

Average discharge.- 22 years, 1,558 second-feet.

Extremes.- Maximum discharge during year, 31,300 second-feet June 16 (gage height, 22.3 feet, from graph based on gage readings); minimum, 54 second-feet Oct. 11.

1909-10, 1923-44: Maximum discharge, 105,000 second-feet (revised) May 12, 1943 (gage height, 42.33 feet); minimum, 3.0 second-feet Aug. 31, Sept. 1, 1936.

Revisions.- The maximum discharge for the water year 1927 has been revised to 80,200 second-feet Apr. 16, 1927 (gage height, 37.0 feet), superseding figure previously published. The maximum discharge for the water year 1943 has been revised as shown above.

Remarks.- Records good. Gage read twice daily.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1927, superseding those published in Water-Supply Paper 647, are given herein:

Apr. 15 66,100
16 69,400

Month	Maximum	Minimum	Mean	Per square mile	Runoff in inches
April 1927.....	69,400	2,250	13,400	*10.55	*11.77
Water year 1926-27.....	69,400	182	3,650	*2.87	*38.98

* Based on drainage area of 1,270 square miles.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	178	88	443	578	15,100	1,460	2,640	616	479	173	300
2	82	168	86	327	548	6,920	1,230	4,870	533	427	179	408
3	98	233	85	375	494	4,480	1,160	5,660	479	377	162	432
4	85	204	84	375	443	3,260	1,080	7,200	427	353	137	320
5	79	191	86	375	419	3,040	946	4,350	402	320	130	300
6	81	178	91	443	375	3,040	946	3,150	377	288	119	262
7	74	191	92	443	375	2,500	881	2,300	353	258	175	227
8	66	178	92	419	520	2,500	1,300	1,910	402	254	262	214
9	61	168	104	397	1,080	1,910	2,930	4,080	453	213	214	184
10	58	191	114	375	1,320	1,730	13,600	2,200	506	204	162	162
11	55	178	144	355	1,840	1,460	9,340	3,040	1,020	184	164	147
12	56	154	144	335	1,410	1,380	10,300	2,100	1,910	168	178	137
13	72	144	154	316	1,080	1,300	5,660	1,640	1,310	157	167	126
14	68	133	233	316	929	1,230	3,740	1,560	4,080	149	140	115
15	76	133	248	316	779	1,580	2,930	1,160	13,000	141	160	106
16	71	129	248	298	929	4,100	2,400	1,020	28,300	134	144	100
17	67	125	248	281	853	12,300	2,000	881	9,000	125	119	94
18	68	118	233	281	1,080	8,700	1,640	759	3,500	116	102	89
19	91	116	218	264	2,560	6,080	1,390	730	3,040	110	91	77
20	94	114	204	264	2,590	12,100	1,300	644	3,040	108	80	80
21	114	111	191	264	2,020	17,100	1,160	588	3,150	102	77	74
22	109	107	191	248	1,750	9,820	1,160	560	1,820	96	72	69
23	111	104	178	248	1,500	6,920	1,160	533	1,300	93	69	66
24	178	100	178	264	1,410	5,390	1,020	506	1,080	89	69	64
25	204	97	166	264	1,320	4,220	1,230	479	946	87	70	62
26	264	96	166	248	1,240	3,380	1,160	479	919	311	167	59
27	298	94	166	264	2,020	2,710	1,080	453	759	157	121	62
28	248	91	316	298	3,740	2,400	946	479	672	142	375	74
29	218	90	335	375	7,480	2,000	1,080	479	588	142	644	80
30	204	88	494	641	-	1,730	1,230	588	533	167	482	80
31	191	-	520	641	-	1,640	-	701	-	150	363	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	3,597	298	55	116	0.094	0.11	7,130
November	4,198	233	88	140	.113	.13	8,330
December	5,896	520	84	190	.153	.18	11,690
Calendar year 1943	549,848	80,400	39	1,506	1.22	16.54	1,091,000
January	10,823	641	248	349	.282	.33	21,470
February	42,683	7,480	375	1,472	1.19	1.28	84,660
March	151,620	17,100	1,230	4,891	3.95	4.55	300,700
April	77,449	13,600	881	2,582	2.09	2.33	153,600
May	55,299	7,200	453	1,784	1.44	1.66	109,700
June	84,415	28,300	353	2,814	2.27	2.53	167,400
July	6,087	479	87	196	.158	.18	12,070
August	5,564	644	59	179	.145	.17	11,040
September	4,570	432	57	152	.123	.14	9,060
Water year 1943-44	452,201	28,300	55	1,236	.998	13.59	896,800

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

White River near Reeds Spring, Mo.

Location.- Water-stage recorder, lat. 36°37'20", long. 93°25'20", in NE $\frac{1}{4}$ sec. 9, T. 22 N., R. 23 W., at bridge on State Highway 13, 5 $\frac{1}{2}$ 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. Prior to Oct. 2, 1943, wire-weight gage at same site and datum.

Drainage area.- 3,617 square miles.

Records available.- February 1938 to September 1944.

Extremes.- Maximum discharge during year, 30,100 second-feet Apr. 11 (gage height, 15.33 feet); minimum, 251 second-feet Sept. 26 (gage height, 0.82 foot).

1938-44: Maximum discharge, 163,000 second-feet May 11, 1943 (gage height, 44.9 feet, from floodmark); minimum, 145 second-feet Sept. 27, 1939 (gage height, 0.09 foot).

Maximum stage known, 48.0 feet Apr. 15, 1927, from floodmark.

Remarks.- Records good.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 21						Mar. 22 to Sept. 30					
1.6	317	3.0	1,380	8.5	10,400	0.8	244	2.5	1,280	7.5	8,060
1.8	400	4.5	3,080	11.0	17,100	1.1	364	3.5	2,200	9.5	13,000
2.1	576	5.5	4,450	14.4	27,200	1.4	512	5.0	3,810	14.5	27,900
2.4	805	7.0	7,030			1.9	815	6.0	5,240		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	632	1,000	421	2,030	1,490	26,900	3,940	3,450	2,050	1,120	580	998
2	707	1,070	426	1,860	1,490	19,700	3,690	6,100	1,810	998	922	922
3	604	1,080	405	1,810	1,440	10,900	3,340	7,640	1,640	945	915	864
4	550	1,160	396	1,760	1,350	8,280	3,120	10,600	1,360	871	915	878
5	458	1,150	405	1,760	1,270	6,840	3,010	8,280	1,240	795	749	789
6		1,090	452	1,760	1,200	6,460	2,800	5,920	1,120	743	2,330	864
7	400	1,100	435	1,860	1,140	6,100	2,700	4,770	1,080	688	1,200	938
8	396	1,140	435	1,860	3,300	5,570	6,280	4,070	998	668	829	775
9	366	1,130	464	1,750	5,920	5,070	8,060	3,940	1,240	632	836	686
10	355	1,070	563	1,650	4,910	4,600	11,100	4,200	1,320	591	762	609
11	344	985	868	1,600	4,450	4,010	27,900	5,240	1,360	574	656	551
12	336	949	1,140	1,490	4,010	3,730	27,900	5,080	1,860	529	534	501
13	431	868	1,190	1,380	3,340	3,470	16,800	4,200	2,700	512	614	469
14	537	805	1,120	1,290	2,900	3,210	10,800	3,690	2,600	474	638	449
15	563	764	1,090	1,220	2,600	3,470	8,280	3,230	7,320	480	560	425
16	576	707	1,100	1,160	2,420	8,950	7,430	2,900	22,100	463	529	396
17	570	684	1,070	1,100	2,600	14,600	6,100	2,700	21,500	444	523	378
18	537	646	985	1,060	3,210	18,600	5,080	2,400	5,740	420	480	355
19	505	625	940	1,030	3,730	13,200	4,480	2,200	4,620	396	444	338
20	493	597	877	985	5,400	18,300	4,200	2,000	4,920	382	401	330
21	661	570	823	949	4,910	27,200	3,940	1,860	6,460	378	373	309
22	814	550	780	913	4,300	24,200	3,570	2,400	4,920	360	360	293
23	985	524	730	886	4,010	17,400	3,570	1,860	3,340	347	355	281
24	1,300	505	692	868	3,600	13,200	3,340	1,900	2,700	342	360	270
25	1,700	499	646	859	3,600	10,400	3,230	2,600	2,250	347	369	266
26	1,850	493	639	850	2,730	8,500	3,230	2,700	2,000	908	486	259
27	1,540	482	632	895	4,010	7,050	3,120	2,150	1,760	1,600	960	274
28	1,440	447	1,110	931	9,600	6,100	2,900	1,900	1,540	1,450	1,080	351
29	1,270	447	1,980	1,020	20,000	5,400	2,900	2,050	1,360	908	1,120	401
30	1,140	431	2,030	1,150	-	4,770	3,120	2,300	1,200	718	1,240	430
31	1,050	-	2,080	1,440	-	4,340	-	2,300	-	650	1,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	23,356	1,700	336	753	0.208	0.24	46,290
November	23,568	1,160	431	786	.217	.24	46,750
December	26,926	2,080	596	869	.240	.28	53,410
Calendar year 1943	1,774,871	172,000	278	4,853	1.34	18.26	3,520,000
January	41,186	2,030	850	1,329	.367	.42	81,690
February	116,430	20,000	1,140	4,015	1.11	1.20	230,900
March	320,500	27,200	3,210	10,340	2.86	3.30	635,700
April	200,380	27,900	2,700	6,679	1.85	2.06	397,400
May	116,630	10,600	1,860	3,762	1.04	1.20	231,500
June	115,008	22,100	998	3,867	1.07	1.19	230,100
July	20,631	1,500	342	666	.184	.21	40,920
August	23,220	2,330	355	749	.207	.24	46,060
September	15,649	998	259	522	.144	.16	31,040
Water year 1943-44	1,044,464	27,900	259	2,854	.789	10.74	2,072,000

g Computed from graph based on wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., at bridge on State Highway 78 in Forsyth, 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.

Records available.— January to September 1926, February 1930 to September 1944.

Average discharge.— 14 years (1930-44), 4,489 second-feet.

Extremes.— Maximum discharge during year, 34,600 second-feet Mar. 22 (gage height, 14.76 feet); minimum, 98 second-feet (regulated) July 13; minimum gage height, 1.79 feet Sept. 10; minimum daily discharge, 148 second-feet (regulated) Sept. 24, 1926, 1930-44: Maximum discharge, 193,000 second-feet May 12, 1943 (gage height, 42.0 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 Apr. 16, 1927, from floodmark (discharge, 212,000 second-feet, by computation of flow over dam).

Remarks.— Records good. Low flow regulated by hydroelectric plant of Empire District Electric Co., 2 miles above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	511	1,220	552	2,790	1,450	28,900	5,910	3,980	2,500	1,660	586	989
2	456	444	428	e1,790	2,600	28,500	e5,730	5,550	2,440	e616	1,100	1,600
3	e253	548	624	1,920	1,810	16,600	4,220	6,830	2,210	648	1,270	e523
4	652	1,150	312	2,270	1,390	11,400	2,770	9,990	e1,000	507	959	605
5	695	1,260	e193	2,310	1,160	e9,110	3,260	11,100	1,430	1,050	1,190	912
6	534	1,350	700	1,810	e224	8,420	3,790	8,210	1,570	952	e1,860	635
7	325	e1,270	664	2,330	1,240	8,210	3,500	e6,640	1,470	891	1,690	1,080
8	414	1,600	572	1,730	3,900	7,410	4,870	5,730	1,500	860	938	937
9	571	871	646	e1,640	9,110	6,830	e11,100	5,550	1,180	e243	1,050	1,130
10	e202	1,140	524	1,750	7,810	6,450	10,800	4,680	1,530	615	856	e201
11	551	1,140	1,110	1,760	6,450	5,910	25,700	5,730	e1,540	606	599	569
12	794	1,810	e1,430	1,630	5,910	e5,730	30,900	6,450	1,670	544	816	869
13	412	939	1,230	1,750	e4,970	5,560	25,000	6,090	3,300	448	e466	612
14	280	e374	1,170	1,440	3,300	3,740	14,800	e5,550	3,010	495	459	652
15	726	1,120	1,050	1,570	3,570	3,460	10,600	4,140	4,470	489	627	634
16	915	815	1,670	e403	3,260	7,610	e9,110	3,500	14,700	e190	554	561
17	e316	782	1,020	1,480	2,810	15,500	8,010	3,010	27,700	262	482	e158
18	527	579	1,490	1,616	4,340	21,900	6,830	3,060	e12,500	399	565	318
19	552	594	e287	1,150	4,980	e18,900	6,090	2,180	6,450	366	612	456
20	537	718	952	1,070	e5,910	23,400	8,910	2,410	6,090	321	e205	404
21	732	e369	850	1,050	6,090	29,300	5,730	e2,010	6,640	418	625	272
22	1,130	672	909	994	5,910	32,100	5,550	2,550	7,210	431	270	210
23	1,590	800	566	e151	5,910	24,200	e4,620	2,240	5,910	e174	408	320
24	e1,620	749	670	1,260	4,880	18,500	2,220	2,870	4,020	589	430	e148
25	2,040	425	973	1,330	4,460	14,100	3,270	4,620	e1,930	472	301	235
26	1,620	621	e165	1,280	4,920	e11,100	4,560	3,940	1,430	404	1,550	297
27	1,410	524	791	2,010	e4,210	9,360	3,680	2,970	1,510	1,860	e419	516
28	1,540	e157	1,690	916	10,600	8,010	3,500	e2,040	1,790	1,530	609	355
29	1,320	542	2,960	688	26,100	7,210	3,560	2,350	1,510	1,690	843	161
30	2,020	447	2,680	e175	-	6,830	e3,080	3,720	1,630	e318	1,690	280
31	e957	-	2,340	892	-	6,270	-	3,490	-	528	932	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	26,202	2,040	202	845	51,970
November.....	24,828	1,610	157	628	49,650
December.....	31,238	2,960	166	1,008	61,960
Calendar year 1943	2,133,602	182,000	157	5,846	4,233,000
January.....	44,949	2,790	151	1,450	89,160
February.....	149,374	26,100	224	5,151	295,300
March.....	410,510	32,100	3,460	13,240	814,200
April.....	238,973	30,900	2,220	7,962	473,800
May.....	345,180	11,100	2,010	4,619	284,000
June.....	131,840	27,700	1,000	4,395	261,500
July.....	20,597	1,860	174	664	40,850
August.....	25,062	1,860	206	808	49,710
September.....	16,429	1,600	148	548	32,690
Water year 1943-44	1,263,079	32,100	148	3,451	2,805,000

Peak discharge.— Feb. 29 (12:30 p.m.) 27,300 sec.-ft.; Mar. 2 (12:30 a.m.) 32,100 sec.-ft.; Mar. 22 (3 a.m.) 34,600 sec.-ft.; Apr. 11 (11 p.m.) 32,100 sec.-ft.; Apr. 12 (10:30 p.m.) 30,900 sec.-ft.; June 17 (12:30 p.m.) 30,100 sec.-ft.

e Sunday.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

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 mouth of 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.

Records available.- October 1928 to September 1944.

Average discharge.- 16 years, 6,008 second-feet.

Extremes.- Maximum discharge during year, 37,900 second-feet Mar. 23 (gage height, 15.58 feet); minimum, 400 second-feet Sept. 28; minimum gage height, 1.87 feet Oct. 6.

1928-44: Maximum discharge, 201,000 second-feet May 12, 1943 (gage height, 39.06 feet); 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 41 feet, present site and datum (discharge, 240,000 second-feet, from data of Corps of Engineers, U. S. Army).

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

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 27 to Sept. 30)

1.8	410	3.5	1,950	8.0	11,300
2.0	530	4.0	2,640	10.0	17,400
2.3	750	5.0	4,300	12.0	24,100
2.6	1,000	6.0	6,260	15.0	35,400
3.0	1,380	7.0	8,560		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	928	2,140	494	3,240	955	32,700	7,800	4,490	4,490	1,770	838	1,990
2	782	1,380	649	3,310	1,270	32,700	7,140	5,060	3,940	1,830	798	1,380
3	734	1,540	678	3,120	2,060	30,400	6,700	7,140	2,860	1,830	1,100	1,260
4	686	937	678	2,860	2,720	19,600	5,860	8,320	3,020	982	1,380	1,740
5	614	814	726	2,780	2,260	14,500	4,030	11,800	2,490	937	1,640	1,890
6	518	1,220	754	2,940	1,890	11,800	3,680	13,000	1,660	758	1,190	1,490
7	838	1,540	615	2,500	1,600	10,700	4,580	9,850	1,950	1,140	1,380	1,270
8	742	1,660	600	2,850	1,140	10,400	5,420	8,080	1,890	1,170	2,330	1,100
9	635	1,490	937	2,870	8,380	9,340	11,000	7,140	2,020	1,060	1,660	1,220
10	518	1,950	878	2,040	13,000	8,560	15,400	6,920	2,140	1,020	1,190	1,330
11	593	1,280	928	2,260	10,700	7,840	20,700	6,060	1,830	694	1,180	1,280
12	535	1,330	937	2,180	8,320	7,360	30,400	6,700	2,020	570	1,140	919
13	800	1,490	1,210	2,050	7,140	8,920	33,500	7,360	2,140	758	902	628
14	928	1,770	1,710	2,050	6,700	6,700	26,300	7,140	3,090	734	1,000	946
15	782	1,280	1,660	2,050	4,780	8,660	17,400	6,480	6,660	635	862	946
16	635	790	1,490	1,830	4,400	7,370	13,300	5,460	5,460	621	621	838
17	649	1,110	1,280	1,770	4,680	13,000	11,300	4,580	15,900	649	870	838
18	1,080	1,100	1,830	1,010	6,260	19,300	9,600	3,850	26,300	579	806	798
19	742	1,030	1,380	1,590	6,480	24,800	8,320	3,760	13,400	452	649	670
20	500	870	1,660	1,800	6,700	29,200	7,360	3,500	7,360	470	726	470
21	726	814	885	1,530	7,600	30,400	7,140	2,860	6,700	537	798	551
22	782	928	975	1,410	7,600	34,600	6,920	3,020	6,920	530	694	628
23	1,130	726	1,150	1,380	7,600	35,000	6,920	2,790	7,600	482	1,350	607
24	1,540	734	1,120	1,280	7,140	26,600	6,260	3,500	6,260	558	854	506
25	1,830	928	886	766	6,920	21,300	4,580	3,420	5,460	600	593	446
26	1,890	937	894	1,130	6,480	17,000	3,670	4,780	2,790	565	702	486
27	2,350	774	972	1,600	6,480	13,900	5,250	5,060	2,140	758	1,420	422
28	1,950	726	919	1,860	10,100	11,800	4,870	4,030	1,830	694	1,610	458
29	1,600	766	931	2,560	27,700	10,100	4,680	3,500	1,770	1,710	1,060	614
30	1,770	656	2,670	1,890	-	9,080	4,120	3,020	1,950	1,600	806	702
31	1,710	-	3,520	1,440	-	8,080	-	3,890	-	1,770	1,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	31,517	2,350	518	1,017	0.168	0.19	62,510
November	34,710	2,140	656	1,157	.191	.21	58,860
December	35,997	3,520	494	1,161	.191	.22	71,400
Calendar year 1943	2,731,376	197,000	400	7,483	1.23	16.76	5,418,000
January	63,046	3,310	766	2,034	.335	.39	125,000
February	189,058	27,700	955	6,519	1.07	1.15	375,000
March	526,710	35,000	5,660	16,990	2.80	3.23	1,045,000
April	304,010	35,600	3,670	10,130	1.67	1.86	603,000
May	176,870	13,000	2,790	5,696	.939	1.08	350,200
June	154,040	26,300	1,660	5,135	.846	.94	305,500
July	28,583	1,830	452	921	.152	.18	56,560
August	33,299	2,330	593	1,074	.177	.20	66,050
September	28,425	1,990	422	948	.156	.17	56,380
Water year 1943-44	1,605,942	35,000	422	4,388	.723	9.82	3,186,000

Note.- No gage-height record Dec. 7, 8, Dec. 31 to Jan. 22; discharge computed on basis of records for White River at Calico Rock and Buffalo River near Rush.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

White River at Calico Rock, Ark.

Location.— Water-stage recorder, lat. 36°07', long. 92°09', in SW $\frac{1}{4}$ 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 feet above mean sea level, datum of 1929.

Drainage area.— 9,973 square miles.

Records available.— October 1939 to September 1944. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.— Maximum discharge during year, 48,900 second-feet Feb. 29 (gage height, 15.23 feet); minimum, 580 second-feet Oct. 1 (gage height, -0.35 foot); minimum daily, 645 second-feet Oct. 1.

1939-44: Maximum discharge, 269,000 second-feet May 12, 1943 (gage height, 46.50 feet); minimum, 570 second-feet Sept. 29, 30, 1943; minimum daily, 580 second-feet Sept. 29, 1943.

Maximum stage known, 51.9 feet, present datum, Jan. 31, 1916, from records of U. S. Weather Bureau.

Remarks.— Records good. Flow regulated by Norfolk Reservoir (see p. 73) and at low flow by power plant at Forsyth, Mo.

Rating table, water year 1943-44 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used June 28 to Sept. 30)

-0.2	655	1.5	2,180	6.0	12,200
.0	740	2.0	2,930	8.0	19,100
.3	920	3.0	4,650	10.0	26,500
.6	1,150	4.0	6,740	12.0	34,400
1.0	1,550	5.0	9,300	15.0	48,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	645	2,040	900	3,840	2,250	44,200	11,600	7,460	5,490	3,090	2,110	1,980
2	990	2,320	740	3,500	1,660	39,300	10,400	8,740	5,310	2,520	2,540	2,340
3	955	1,600	819	3,590	1,840	37,900	10,100	21,200	4,650	2,540	2,180	1,720
4	881	1,720	855	3,420	2,930	28,400	9,300	19,800	3,760	2,320	1,910	1,550
5	849	1,200	894	2,850	3,170	20,900	7,460	17,600	3,930	1,440	2,110	2,620
6	795	1,030	976	3,090	2,620	17,300	6,060	19,100	3,090	1,600	1,910	2,700
7	675	1,500	1,010	3,250	2,320	15,200	6,060	16,200	2,540	1,440	1,550	2,250
8	855	1,780	894	2,930	2,620	14,500	6,740	15,200	2,700	1,780	1,980	2,040
9	907	1,980	868	3,010	4,640	15,200	11,200	11,300	2,770	1,780	2,930	1,800
10	837	1,840	1,200	2,930	16,200	11,900	20,500	10,400	3,010	1,440	2,110	1,600
11	696	2,110	1,240	2,400	15,500	10,700	27,700	10,400	2,930	1,840	1,840	1,660
12	680	1,550	1,290	2,620	11,900	10,100	33,600	9,860	3,090	1,550	1,840	1,840
13	920	1,600	1,290	2,540	9,580	9,300	39,200	9,860	3,930	1,340	1,660	1,410
14	813	1,780	1,740	2,400	8,740	8,740	34,900	10,100	4,470	1,440	1,200	1,180
15	1,060	1,980	2,400	2,400	7,220	8,220	25,400	9,680	11,300	1,700	1,600	1,620
16	1,040	1,550	2,250	2,400	5,840	9,300	19,100	8,480	12,600	1,290	1,600	1,660
17	968	1,090	1,980	2,180	6,280	23,100	15,900	7,460	11,000	1,070	1,420	1,240
18	795	1,260	1,720	2,110	7,960	24,200	13,800	6,500	25,800	1,550	1,500	1,240
19	1,900	1,290	2,250	1,340	11,000	29,200	11,900	5,410	23,500	1,520	1,290	1,540
20	1,010	1,240	1,840	1,910	11,000	36,100	11,300	5,120	12,200	1,240	1,050	1,340
21	807	1,090	2,040	2,110	10,400	39,200	11,000	4,560	9,580	1,040	988	1,220
22	888	1,010	1,340	1,840	10,400	39,200	10,700	4,200	8,740	948	1,580	1,390
23	934	1,070	1,200	1,720	10,100	41,900	20,200	4,020	9,300	831	1,590	1,260
24	1,500	983	1,440	1,660	9,860	34,900	16,900	4,110	9,020	751	2,180	1,040
25	1,780	888	1,390	1,600	10,100	28,000	11,600	6,460	7,700	1,010	1,740	759
26	2,040	1,090	1,200	1,150	10,400	22,700	8,740	8,740	5,840	1,290	1,480	1,200
27	2,320	1,110	1,150	1,440	11,000	20,200	8,220	7,960	4,290	1,230	1,240	1,230
28	2,540	1,020	1,240	1,980	15,000	17,300	9,580	6,740	3,680	1,260	1,660	1,340
29	2,180	894	1,290	2,180	40,200	15,500	8,220	5,310	2,980	1,130	2,090	932
30	1,910	955	1,150	3,340	-	14,200	7,460	4,650	3,090	1,980	1,780	795
31	2,110	-	3,230	2,700	-	12,900	-	4,560	-	1,840	1,550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	36,480	2,540	645	1,177	72,360
November.....	42,570	2,320	888	1,419	84,440
December.....	43,826	3,230	740	1,414	86,930
Calendar year 1943.....	3,906,336	258,000	580	10,700	7,748,000
January.....	76,430	3,840	1,150	2,465	151,600
February.....	262,730	40,200	1,650	9,060	521,100
March.....	596,760	44,200	8,220	22,480	1,732,000
April.....	444,840	39,200	6,060	14,830	882,300
May.....	289,080	21,200	4,020	9,325	573,400
June.....	212,280	25,800	2,540	7,076	421,100
July.....	47,900	3,090	751	1,545	95,010
August.....	53,328	2,930	988	1,720	105,800
September.....	46,296	2,700	759	1,543	91,830
Water year 1943-44.....	2,252,530	44,200	645	6,154	4,468,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

White River at Batesville, Ark.

Location.- Water-stage recorder, lat. 35°46', long. 91°39', in NE¼ sec. 21, T. 13 N., R. 8 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.

Records available.- July 1937 to September 1944. Gage-height records collected at lower lock gage since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 54,800 second-feet Mar. 1 (gage height, 13.96 feet); minimum daily, 800 second-feet Oct. 1.

1937-44: Maximum discharge, 281,000 second-feet May 12, 1943 (from loop rating curve); maximum gage height, 23.01 feet May 12, 1943; minimum discharge, 766 second-feet Sept. 30, 1943 (gage height, 6.28 feet).

Maximum stage known occurred during flood of Feb. 1, 1916; a stage of 31.1 feet, original site, was observed during this flood by employee of Corps of Engineers, U. S. Army.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Lock and dam 1 is control below about 80,000 second-feet. Flow regulated by Norfolk Reservoir (see p. 73) and at low flow by power plant at Forsyth, Mo.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

6.3	800	7.5	4,250	10.0	18,100
6.5	1,200	8.0	6,360	11.0	25,700
6.7	1,660	8.5	9,510	12.0	34,400
7.0	2,500	9.0	11,600	14.0	54,500

Discharges, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a800	2,290	1,240	3,150	2,820	52,600	13,100	11,000	5,130	3,360	2,120	1,840
2	a845	2,290	1,220	3,800	2,440	45,100	13,100	11,300	6,140	3,260	2,260	2,090
3	a1,180	2,440	1,120	3,610	2,030	42,100	12,200	26,500	5,650	2,850	2,090	2,440
4	a1,160	1,950	1,040	3,680	2,080	38,200	11,500	28,000	4,840	2,780	2,320	1,980
5	a1,080	1,980	1,120	3,430	2,980	26,500	9,890	21,900	4,330	2,560	2,170	1,820
6	a1,050	1,660	1,350	3,020	3,080	21,000	8,040	21,000	4,520	1,920	2,260	2,660
7	1,080	1,490	1,350	3,220	2,720	17,800	7,060	20,300	3,460	1,920	2,170	2,720
8	995	1,660	1,350	3,400	3,990	15,700	7,540	16,400	3,180	1,790	1,870	2,350
9	956	1,980	1,310	3,080	9,340	15,000	11,000	14,700	3,260	2,060	2,260	2,140
10	1,160	2,140	1,270	3,080	9,860	13,400	19,500	12,500	3,320	2,030	2,890	1,980
11	1,120	2,000	1,540	2,980	16,700	12,200	a39,100	11,600	3,460	1,820	2,260	1,840
12	978	2,320	1,610	2,500	13,400	11,300	35,200	11,000	5,610	2,090	2,080	1,840
13	1,060	1,890	1,610	2,820	10,700	10,400	44,100	10,700	7,060	1,890	2,080	2,000
14	1,140	1,840	1,610	2,760	9,340	9,890	43,100	10,700	6,140	1,610	1,920	1,740
15	1,140	2,000	1,870	2,600	8,550	9,340	33,500	10,700	6,360	1,690	1,560	1,440
16	1,180	2,140	2,470	2,600	6,820	10,200	24,100	9,890	13,700	1,890	1,740	1,660
17	1,390	1,840	2,410	2,560	8,550	16,700	18,800	8,610	10,700	1,690	1,840	1,840
18	1,220	2,200	2,380	2,380	9,680	24,900	16,000	7,790	17,000	1,350	1,640	1,560
19	1,080	1,400	2,030	2,350	10,400	32,600	14,100	6,820	29,000	1,760	1,660	1,400
20	1,270	1,590	2,380	1,740	11,600	39,100	14,400	8,910	17,800	1,760	1,540	1,640
21	1,470	1,540	2,120	2,060	11,000	44,100	13,100	5,910	11,000	1,380	1,380	1,610
22	1,160	1,440	2,230	2,320	11,300	43,100	12,500	5,390	9,520	1,350	1,240	1,380
23	1,100	1,330	1,710	2,060	10,700	46,200	34,800	4,970	8,810	1,290	1,660	1,490
24	1,290	1,510	1,470	2,000	10,400	43,100	29,000	4,800	9,620	1,120	1,840	1,440
25	1,640	1,330	1,740	1,920	10,200	33,500	18,100	5,050	8,610	1,060	2,260	1,350
26	1,980	1,200	1,690	1,890	10,700	27,400	13,100	8,240	7,300	1,520	2,000	976
27	2,200	1,510	1,540	1,660	10,400	23,300	10,400	8,610	5,650	1,710	1,840	1,290
28	2,380	1,400	1,560	1,690	22,100	20,300	10,700	8,040	4,520	1,890	1,590	1,490
29	2,660	1,400	1,540	2,140	36,200	18,800	10,400	6,820	3,980	1,710	1,760	1,470
30	2,410	1,220	1,660	2,350	-	16,400	9,340	6,140	3,220	1,470	2,140	2,310
31	2,260	-	1,470	2,260	-	14,700	-	5,010	-	2,090	2,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	42,432	2,660	800	1,369	84,160
November.....	51,900	2,440	1,200	1,730	102,900
December.....	50,830	2,470	1,040	1,640	100,800
Calendar year 1943.....	4,371,927	271,000	780	11,980	8,672,000
January.....	82,210	3,800	1,660	2,652	163,100
February.....	280,030	36,200	2,030	9,656	555,400
March.....	794,930	52,600	9,340	25,640	1,577,000
April.....	559,570	44,100	7,060	18,650	1,110,000
May.....	347,400	29,000	4,800	11,210	699,100
June.....	231,190	29,000	3,180	7,706	458,600
July.....	58,680	3,360	1,060	1,893	116,400
August.....	60,540	2,890	1,240	1,953	120,100
September.....	52,786	2,720	976	1,760	104,700
Water year 1943-44.....	2,612,498	52,600	800	7,138	5,183,000

a No gage-height record; discharge computed on basis of records for station at Calico Rock.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

White River at Newport, Ark.

Location.— Staff gage, lat. 35°36'20", long. 91°17'20", in 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.

Records available.— October 1937 to September 1944; September 1927 to September 1931 at site 2½ miles downstream, published as White River near Newport. Gage-height records collected at present site since 1885 are contained in reports of U. S. Weather Bureau.

Average discharge.— 11 years (1927-31, 1937-44), 23,020 second-feet.

Extremes.— Maximum discharge during year, 60,700 second-feet Mar. 3; maximum gage height, observed, 23.0 feet Apr. 15; minimum discharge, 3,510 second-feet Sept. 28.

1927-31, 1937-44: Maximum discharge, 304,000 second-feet May 14, 1943, from hydro-graph based on daily discharge measurements; maximum gage-height observed, 34.68 feet May 14, 1943; minimum discharge observed, 3,480 second-feet Sept. 22-25, 1941 (gage height, -1.0 foot).

Maximum stage known, 35.6 feet Apr. 16, 1927, from records of U. S. Weather Bureau.

Remarks.— Records good except those for period of doubtful gage-height record, which are fair. Discharge for periods of rapidly changing stage computed by using rate of change of stage as a factor.

Cooperation.— Thirteen discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,760	5,270	3,920	4,260	5,440	55,200	27,800	36,800	15,400	7,800	4,920	5,310
2	3,790	5,330	3,920	5,950	5,570	58,500	26,500	37,100	15,500	7,420	5,050	5,050
3	3,840	5,320	3,880	5,560	5,180	59,500	25,300	40,600	15,700	7,260	5,050	4,920
4	4,070	5,470	3,800	6,460	4,790	59,500	23,700	47,700	15,300	6,940	4,920	5,050
5	3,940	4,960	3,720	6,310	4,530	54,700	21,900	46,000	14,500	6,620	5,050	4,790
6	3,860	4,880	3,800	6,330	4,790	46,000	19,200	45,600	13,900	6,310	4,920	4,790
7	3,830	4,660	4,030	5,890	5,440	43,200	17,600	45,300	12,900	5,830	5,050	5,310
8	3,760	4,600	4,240	6,070	5,700	39,200	18,800	42,900	11,800	5,700	4,920	5,440
9	3,580	4,770	4,180	6,250	7,990	34,300	25,800	40,800	11,200	5,570	4,650	5,180
10	3,640	5,050	4,120	5,930	14,600	30,300	34,300	39,300	10,800	5,570	4,790	4,920
11	3,840	5,220	4,110	5,930	17,500	26,900	43,300	37,500	10,400	5,570	5,310	4,650
12	3,800	5,060	4,420	5,820	18,300	25,400	48,600	36,100	10,300	5,310	4,920	4,410
13	3,660	5,350	4,530	5,340	15,500	23,500	51,600	34,400	10,400	5,440	4,650	4,290
14	3,850	5,020	4,490	5,560	14,700	21,700	56,200	33,400	13,600	5,310	4,650	4,290
15	4,050	4,860	4,460	5,390	13,300	21,000	58,000	32,200	13,500	5,050	4,530	4,290
16	4,140	5,020	4,710	5,230	12,200	21,100	53,800	30,300	16,000	5,050	4,410	4,180
17	4,140	5,150	5,210	5,130	12,200	23,400	49,600	28,300	18,500	4,920	4,290	4,180
18	4,310	4,850	5,140	5,090	16,100	31,900	43,700	26,300	19,000	4,920	4,290	4,180
19	4,130	4,530	4,910	5,010	17,300	37,800	40,000	24,300	30,100	4,530	4,290	4,060
20	4,080	4,410	4,740	4,980	17,700	44,100	38,000	22,400	26,200	4,660	4,290	3,940
21	4,170	4,600	5,080	4,360	17,900	48,900	35,700	20,900	17,800	4,920	4,180	4,180
22	4,270	4,550	4,790	4,780	17,500	51,500	34,600	19,800	16,300	4,660	4,180	4,060
23	3,960	4,450	4,880	4,940	17,900	53,000	39,800	18,500	15,100	4,410	4,060	4,060
24	4,040	4,230	4,370	4,680	17,300	53,600	46,900	17,400	14,900	4,290	4,290	3,820
25	4,090	4,110	4,120	4,620	16,900	53,200	41,400	17,000	14,900	4,180	4,410	3,820
26	4,570	4,130	4,380	4,530	16,500	45,900	39,200	18,000	14,100	4,180	4,530	3,700
27	5,010	3,900	4,340	4,660	17,100	40,700	37,500	20,700	12,400	4,530	4,530	3,610
28	5,280	3,980	4,220	4,530	24,400	36,200	37,900	19,900	10,800	4,790	4,410	3,510
29	5,460	4,100	4,230	4,530	45,200	33,800	37,600	18,300	9,500	4,920	4,290	3,940
30	5,700	4,070	4,350	4,530	-	31,200	37,500	17,600	8,550	4,790	4,290	3,940
31	5,430	-	4,430	4,660	-	29,600	-	16,400	-	4,530	4,790	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		130,010	5,700	3,580	4,194	257,900
November		141,800	5,470	3,900	4,727	281,300
December		135,500	5,210	3,720	4,371	268,800
Calendar year 1943		8,252,770	302,000	3,580	22,610	16,370,000
January		164,600	6,610	4,250	5,310	326,500
February		409,530	45,000	4,530	14,210	812,300
March		1,233,100	59,500	21,000	39,780	2,446,000
April		1,110,700	58,000	17,600	37,020	2,203,000
May		931,800	47,700	16,400	30,060	1,848,000
June		439,350	30,100	8,550	14,640	871,400
July		166,980	7,800	4,180	5,364	329,200
August		142,940	5,310	4,060	4,611	283,500
September		131,990	5,440	3,510	4,400	261,600
Water year 1943-44		5,137,300	59,500	3,510	14,040	10,190,000

Note.— Doubtful gage-height record Oct. 1 to Jan. 25; discharge computed on basis of records for White River at Batesville, Black River at Black Rock, and Strawberry River near Poughkeepsie.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

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.

Records available.- December 1927 to September 1944.

Average discharge.- 16 years (1928-44), 23,400 second-feet.

Extremes.- Maximum discharge during year, 63,300 second-feet May 8, 9 (gage height, 23.06 feet); minimum, 4,240 second-feet Dec. 8; minimum gage height, 2.66 feet Sept. 30, 1927-44: 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,510	5,200	4,420	5,100	5,600	28,800	50,000	56,400	21,900	12,800	5,800	5,200
2	4,420	5,400	4,420	5,200	5,700	33,200	50,000	55,300	21,000	11,600	5,800	5,400
3	4,420	5,400	4,420	5,300	5,900	36,600	49,100	54,200	19,800	10,800	5,800	5,700
4	4,420	5,400	4,330	5,600	6,100	39,300	47,300	55,300	19,000	10,100	5,800	5,900
5	4,330	5,400	4,330	6,000	6,100	41,300	45,600	56,400	18,200	9,550	5,900	5,900
6	4,330	5,400	4,330	6,500	6,000	42,000	42,900	58,700	17,500	9,160	6,000	5,900
7	4,330	5,400	4,330	6,820	5,900	43,800	40,600	60,900	16,900	8,680	6,000	5,800
8	4,330	5,200	4,240	7,040	6,000	45,600	37,900	63,300	16,200	8,420	5,900	5,700
9	4,420	5,100	4,330	7,040	7,150	46,400	36,600	62,000	15,600	7,940	5,900	5,600
10	4,420	4,900	4,420	6,930	10,200	47,300	38,600	60,900	15,000	7,700	5,800	5,800
11	4,330	4,800	4,600	6,930	15,100	48,200	40,600	58,700	14,300	7,370	5,800	5,900
12	4,330	4,800	4,600	6,930	18,600	47,300	42,000	57,600	13,700	7,150	5,700	5,900
13	4,510	4,900	4,600	6,820	20,200	46,400	44,700	55,300	13,700	7,040	5,800	5,700
14	4,800	5,000	4,700	6,820	21,000	46,600	47,300	53,100	13,600	6,930	5,800	5,500
15	4,600	5,200	4,800	6,710	21,200	42,900	49,100	52,000	14,000	6,620	5,800	5,300
16	4,600	5,200	4,800	6,600	20,500	41,300	50,900	50,000	16,200	6,710	5,600	5,200
17	4,510	5,200	4,900	6,500	20,700	39,300	53,100	48,200	17,400	6,600	5,500	5,100
18	4,600	5,100	5,000	6,500	22,700	37,900	55,300	47,300	17,700	6,400	5,400	5,000
19	4,600	5,100	5,100	6,400	25,300	37,900	56,400	45,600	18,200	6,400	5,300	4,800
20	4,600	5,100	5,200	6,300	27,500	40,000	58,700	43,800	18,500	6,300	5,200	4,800
21	4,600	5,000	5,400	6,300	29,500	42,000	58,700	41,300	20,200	6,100	5,200	4,800
22	4,600	4,900	5,400	6,200	29,900	44,700	58,700	39,300	21,600	6,000	5,100	4,700
23	4,510	4,800	5,400	6,100	29,500	45,600	57,600	36,600	21,800	5,900	5,100	4,600
24	4,600	4,700	5,400	5,900	28,800	47,300	56,400	33,700	20,900	5,900	5,100	4,600
25	4,600	4,700	5,400	5,800	28,200	47,300	55,300	30,200	19,300	5,800	5,100	4,510
26	4,510	4,600	5,400	5,800	27,100	47,300	55,300	27,800	18,000	5,700	5,100	4,510
27	4,420	4,600	5,300	5,800	26,000	46,200	57,600	25,600	16,900	5,600	5,100	4,510
28	4,420	4,510	5,200	5,800	25,300	50,000	59,800	24,300	15,800	5,500	5,100	4,420
29	4,510	4,420	5,200	5,700	25,800	52,000	59,800	24,100	15,000	5,500	5,200	4,420
30	4,800	4,420	5,100	5,600	-	58,000	57,600	23,500	14,000	5,600	5,300	4,330
31	5,000	-	5,100	5,500	-	50,900	-	22,900	-	5,700	5,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	139,780	5,000	4,330	4,509	277,200
November.....	149,850	5,400	4,420	4,995	297,200
December.....	150,170	5,400	4,240	4,844	297,900
Calendar year 1943	9,014,710	131,000	4,240	24,700	17,680,000
January.....	192,540	7,040	5,100	6,212	381,900
February.....	527,550	29,900	5,600	18,190	1,045,000
March.....	1,358,400	52,000	28,800	43,820	2,694,000
April.....	1,513,500	59,800	36,600	50,450	3,002,000
May.....	1,424,300	63,300	22,900	45,950	2,525,000
June.....	1,521,800	21,900	13,600	17,390	1,035,000
July.....	227,750	12,800	5,500	7,347	451,700
August.....	171,300	6,000	5,100	5,526	339,800
September.....	155,500	5,900	4,330	5,183	308,400
Water year 1943-44	6,532,440	63,300	4,240	17,850	12,960,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

West Fork 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 1944.

Extremes.- Maximum discharge during year, 17,000 second-feet June 14 (gage height, 18.16 feet); minimum, 0.4 second-foot Oct. 9.

1937-44: Maximum discharge, 36,000 second-feet May 10, 1943 (gage height, 19.71 feet), from rating curve extended above 17,000 second-feet on basis of contracted-opening measurements at gage heights 19.1 and 19.7 feet; no flow July 23-25, July 27 to Aug. 3, Aug. 6-14, 1937.

Remarks.- Records good except 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.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	12	3.2	39	54	500	110	400	71	a6.1	3.2	70
2	5.0	12	3.6	39	52	513	101	1,230	54	a4.5	2.3	47
3	1.5	11	3.4	51	47	237	91	589	42	a3.4	1.9	35
4	.9	9.0	3.0	56	42	366	82	333	35	a2.6	1.5	28
5	.7	7.8	3.0	60	38	265	74	244	40	a2.4	.78	29
6	.7	8.6	7.8	53	35	222	66	188	45	a2.3	.48	22
7	.6	10	3.4	46	33	182	60	161	40	a2.2	.22	18
8	.6	12	2.9	45	109	145	2,550	127	37	f2.2	.18	14
9	.5	8.6	3.4	37	188	127	1,830	368	258	2.2	.64	12
10	.6	8.2	10	34	127	116	2,600	215	717	f2.1	.21	10
11	.6	7.8	14	32	95	107	1,350	146	409	f2.1	.13	9.0
12	1.0	7.1	22	32	77	104	559	115	481	f2.1	7.8	7.5
13	13	7.1	22	30	67	101	359	94	1,700	f1.9	9.0	6.8
14	1.5	7.5	26	29	68	90	267	79	5,050	f1.8	5.2	6.1
15	.9	6.8	22	27	62	1,040	211	67	1,040	1.7	3.6	5.0
16	1.1	6.4	18	25	79	1,540	163	58	400	1.5	2.9	4.5
17	.9	5.8	16	24	346	589	134	48	237	1.3	2.7	4.0
18	1.0	5.8	14	22	346	499	116	41	163	1.2	2.3	3.8
19	1.5	5.8	13	23	217	3,030	102	35	186	f1.4	2.1	3.4
20	2.2	6.1	12	24	174	1,270	104	31	155	f1.4	1.8	3.2
21	17	5.0	10	25	148	760	94	29	107	1.3	1.7	3.0
22	2.7	4.7	8.6	23	144	574	88	28	76	1.2	6.8	2.5
23	27	4.5	7.1	22	146	413	90	25	61	1.1	6.2	2.1
24	21	3.6	6.1	22	123	308	82	21	66	.9	2.2	2.1
25	3.8	3.4	6.8	27	158	244	72	19	53	1.0	35	1.9
26	c2.2	3.2	7.5	31	244	194	66	30	f39	5.3	465	2.1
27	c1.8	3.6	23	53	184	190	66	44	a28	4.5	136	4.2
28	c1.7	5.8	99	127	1,790	161	62	74	a19	48	60	15
29	c1.6	3.6	83	95	1,000	170	80	262	a13	22	40	4.9
30	c4.7	3.4	59	78	-	146	783	148	a9.0	9.0	93	3.0
31	24	-	47	66	-	126	-	97	-	5.2	137	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	147.5	27	0.5	4.75	293
November.....	204.0	12	3.2	6.80	405
December.....	579.8	99	2.9	18.7	1,150
Calendar year 1943	55,782.9	18,000	.4	153	110,600
January.....	1,307	127	22	42.2	2,590
February.....	6,193	1,790	33	214	12,280
March.....	14,157	3,030	90	457	28,080
April.....	12,510	2,600	60	417	24,810
May.....	5,336	1,230	19	172	10,580
June.....	11,633.0	5,050	9.0	388	25,070
July.....	145.9	48	.9	4.71	289
August.....	1,293.2	465	1.6	41.7	2,570
September.....	378.9	70	1.9	12.6	752
Water year 1943-44	53,885.3	5,050	.5	147	106,900

Peak discharge.- Mar. 19 (2:30 p.m.) 4,780 sec.-ft.; Apr. 8 (8:30 p.m.) 9,210 sec.-ft.; Apr. 10 (8:30 p.m.) 7,150 sec.-ft.; June 14 (3 p.m.) 17,000 sec.-ft.

a No gage-height record; discharge computed on basis of weather records.

c Stage-discharge relation indefinite; discharge computed on basis of weather records.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

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.

Records available.— April 1939 to September 1944.

Extremes.— Maximum discharge during year, 10,400 second-feet June 15 (gage height, 13.23 feet); minimum observed, 8.1 second-feet Aug. 24.

1939-44: Maximum discharge, 59,000 second-feet May 10, 1943 (gage height, 30.20 feet); minimum, 2.9 second-feet Sept. 28, 1939 (gage height, 1.62 feet).

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	54	25	81	129	2,460	453	715	241	131	30	59
2	14	54	25	75	116	1,500	412	1,090	202	137	36	47
3	16	48	25	75	105	1,090	369	2,560	168	103	33	43
4	16	43	25	75	95	900	336	a1,540	142	a95	41	40
5	15	40	25	75	88	838	313	a1,080	a140	a85	42	55
6	14	39	29	72	81	747	291	a820	a150	a75	41	53
7	13	42	29	71	76	715	299	697	a170	a65	36	46
8	13	42	32	74	259	649	299	a620	a180	a58	31	38
9	12	40	36	72	1,020	543	426	a900	185	a53	31	33
10	11	39	36	71	943	468	651	a1,400	216	a48	38	27
11	11	36	40	67	620	412	1,330	a1,000	232	a44	31	26
12	11	35	48	67	434	366	1,500	740	468	a41	25	22
13	15	36	53	65	340	377	1,050	576	464	a38	28	23
14	16	39	53	63	291	365	818	463	1,620	a35	22	22
15	19	39	54	60	244	587	703	377	5,280	a33	20	19
16	27	36	54	58	222	4,470	609	325	1,410	a32	18	16
17	27	36	51	58	329	3,170	518	277	759	33	16	15
18	26	35	50	58	784	1,950	449	244	487	a32	14	13
19	24	34	47	54	943	2,560	408	210	1,170	a30	12	13
20	24	32	45	54	709	4,110	405	191	1,170	a28	9.8	12
21	29	30	43	53	538	3,510	416	175	1,050	a26	9.2	11
22	32	30	42	53	449	2,730	412	160	632	a24	8.8	10
23	42	29	39	51	394	2,050	403	145	453	a23	8.8	9.6
24	62	28	39	51	377	1,540	394	286	356	22	8.4	9.2
25	68	28	36	53	352	1,250	386	1,280	288	23	11	9.0
26	63	27	36	54	624	979	356	685	232	29	22	9.0
27	51	27	39	60	1,090	859	329	507	185	24	33	9.4
28	45	25	60	72	2,720	722	403	377	153	52	66	11
29	41	24	76	95	6,350	632	386	348	133	56	77	15
30	41	24	87	146	-	576	453	350	111	44	66	19
31	45	-	84	144	-	518	-	295	-	34	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	855	68	11	27.6	0.053	0.08	1,700
November	1,071	54	24	35.7	.089	.08	2,120
December	1,353	87	25	44.0	.085	.10	2,700
Calendar year 1943	192,775.2	32,700	5.0	528	1.02	13.87	382,400
January	2,177	146	51	70.2	.136	.16	4,320
February	20,722	6,350	76	715	1.38	1.49	41,100
March	43,665	4,470	365	1,408	2.72	3.14	86,600
April	15,575	1,500	291	519	1.00	1.12	30,890
May	20,444	2,560	146	659	1.27	1.46	40,550
June	18,447	5,280	111	615	1.19	1.33	36,590
July	1,553	137	22	50.1	.097	.11	3,080
August	925.0	77	8.4	29.8	.058	.07	1,830
September	734.2	59	9.0	24.5	.047	.05	1,460
Water year 1943-44	127,529.2	6,350	8.4	348	.673	9.17	252,900

Peak discharge.— Feb. 29 (5:30 a.m.) 8,840 sec.-ft.; Mar. 16 (7 p.m.) 5,890 sec.-ft.; June 15

(9:30 a.m.) 10,400 sec.-ft.

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

Note.— Discharge computed from twice-daily readings of wire-weight gage July 17, July 24 to Sept. 15.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Bailey Creek. Datum of gage is 923.37 feet above mean sea level, datum of 1929.

Drainage area.- 987 square miles.

Records available.- October 1921 to September 1944.

Average discharge.- 22 years (1922-44), 981 second-feet.

Extremes.- Maximum discharge during year, 14,400 second-feet Apr. 11 (gage height, 13.48 feet); minimum, 104 second-feet Sept. 27 (gage height, 0.75 foot).
1921-44: Maximum discharge, 52,700 second-feet May 20, 1943 (gage height, 27.82 feet); minimum, 22 second-feet Aug. 26, 27, 29, 30, Sept. 4, 1936; minimum gage height, 0.45 foot Aug. 30, 1936.

Remarks.- Records excellent.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 21, Dec. 30 to Jan. 5)

Oct. 1 to Dec. 29		Dec. 30 to Sept. 30			
1.0	162	0.7	91	3.0	935
1.1	184	1.2	226	3.8	1,400
1.4	260	1.8	412	5.0	2,290
1.8	385	2.4	637	6.0	3,240
2.2	532				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	344	394	162	659	332	5,460	1,100	776	389	220	200	405
2	268	400	151	616	341	3,670	990	776	369	206	555	332
3	210	432	151	595	338	2,740	935	802	347	200	616	288
4	180	422	151	616	332	2,210	854	776	319	197	436	255
5	169	390	149	659	322	1,930	802	427	313	183	2,240	328
6	160	376	152	727	307	1,750	752	681	313	172	1,020	357
7	156	408	154	752	297	1,750	704	659	294	175	536	288
8	154	418	154	727	335	1,750	681	616	282	161	412	249
9	140	397	162	659	481	1,580	880	752	319	153	366	229
10	136	357	218	595	536	1,370	3,050	1,340	307	153	510	212
11	134	321	344	555	517	1,250	12,000	1,250	291	147	258	203
12	138	297	404	517	481	1,160	8,090	1,070	273	156	232	197
13	166	277	404	464	445	1,070	4,110	935	285	164	246	191
14	186	260	383	459	464	990	3,140	854	316	169	223	177
15	191	246	363	412	429	962	3,040	776	288	169	226	172
16	189	238	331	392	405	1,180	2,560	681	261	153	229	166
17	184	228	306	369	429	1,540	2,490	637	249	142	235	156
18	173	218	288	357	431	1,860	1,680	675	229	137	217	150
19	169	213	266	328	616	3,340	1,500	555	478	132	197	142
20	166	203	252	322	727	3,780	1,370	517	464	132	186	129
21	244	189	246	310	776	3,890	1,250	517	379	129	166	121
22	376	184	238	291	802	4,230	1,130	595	325	121	164	116
23	422	180	226	285	776	4,230	1,070	517	291	116	169	114
24	706	180	216	273	776	3,240	1,100	675	304	119	172	111
25	777	180	206	273	880	2,650	1,020	536	347	147	166	108
26	661	166	196	270	1,020	2,130	935	461	322	392	264	106
27	553	166	203	267	1,220	1,820	908	443	294	637	595	116
28	454	166	315	300	2,030	1,610	935	426	264	382	439	164
29	386	158	532	300	6,240	1,440	854	426	249	294	379	232
30	344	158	681	304	-	1,310	627	422	238	252	335	226
31	363	-	704	319	-	1,190	-	402	-	217	412	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	8,899	777	134	287	0.291	0.34	17,650
November	8,222	432	158	274	.278	.31	16,310
December	8,710	704	149	281	.285	.33	17,280
Calendar year 1943	554,781	46,900	133	1,465	1.48	20.16	1,061,000
January	13,952	752	287	450	.456	.53	27,670
February	23,136	6,240	297	798	.809	.87	45,890
March	59,092	5,450	962	2,229	2.26	2.61	137,000
April	60,237	12,000	681	2,008	2.03	2.26	119,500
May	21,095	1,340	402	680	.689	.79	41,840
June	9,399	478	229	313	.317	.35	18,640
July	6,127	637	116	198	.201	.23	12,150
August	12,201	2,240	164	394	.399	.46	24,200
September	6,040	405	106	201	.204	.23	11,980
Water year 1943-44	247,110	12,000	106	675	.684	9.31	490,100

Peak discharge.- Feb. 29 (7:30 p.m.) 8,090 sec.-ft.; Mar. 19 (9 p.m.) 3,890 sec.-ft.; Mar. 23 (2 a.m.) 4,580 sec.-ft.; Apr. 11 (11 p.m.) 14,400 sec.-ft.; Apr. 15 (8 p.m.) 3,560 sec.-ft.; Aug. 5 (4:30 p.m.) 6,110 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

Buffalo River near St. Joe, Ark.

Location.- Water-stage recorder, lat. 35°59', long. 92°45', in SW $\frac{1}{4}$ sec. 36, T. 16 N., R. 17 W., at bridge on U. S. Highway 65, $\frac{1}{4}$ miles downstream from Mill Creek, 4 miles upstream from Bear Creek, and $\frac{1}{4}$ miles southeast 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 1944.

Extremes.- Maximum discharge during year, 19,300 second-feet Feb. 28 (gage height, 15.95 feet); minimum, 27 second-feet Oct. 1.

1939-44: Maximum discharge, 98,900 second-feet May 10, 1943 (gage height, 39.7 feet), from rating curve extended above 60,000 second-feet by logarithmic plotting; minimum, 19 second-feet Sept. 27, 28, 1943.

Maximum stage known, 50.5 feet in August 1915, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good.

Rating tables, water year 1943-44 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used July 3-17)

Oct. 1 to July 17

July 18 to Sept. 30

4.0	29	5.5	710	9.0	4,830	3.7	35
4.2	65	6.0	1,040	10.0	6,420	3.8	45
4.4	137	6.5	1,500	12.5	11,200	4.0	77
4.7	280	7.0	2,070			4.2	127
5.0	435	8.0	3,380				

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	78	46	98	380	4,830	1,210	2,180	435	141	51	73
2	33	72	44	102	350	3,170	1,260	8,320	380	129	61	98
3	42	68	42	106	295	2,310	1,170	8,490	355	121	49	91
4	42	65	42	110	265	2,310	1,020	4,530	300	118	48	82
5	42	65	46	118	245	2,070	911	3,100	305	110	48	79
6	38	72	57	121	220	1,780	842	2,380	305	106	46	77
7	36	78	48	129	206	1,830	794	1,830	330	102	45	73
8	33	68	50	135	285	1,560	1,150	1,500	330	98	44	70
9	32	78	62	137	2,860	1,350	3,170	1,400	340	95	42	64
10	30	91	78	137	2,130	1,160	2,840	2,580	430	91	41	59
11	29	88	146	137	1,350	1,030	4,980	1,720	734	91	41	56
12	31	85	370	137	932	953	3,450	1,300	992	88	40	53
13	60	78	380	137	734	890	2,380	1,100	1,240	85	41	52
14	40	75	320	137	655	842	1,890	1,980	5,130	82	45	51
15	62	75	265	137	578	794	1,720	1,060	7,040	78	46	48
16	68	72	230	133	528	7,650	1,400	1,020	2,500	72	110	45
17	68	72	191	129	866	5,670	1,210	1,790	1,400	68	119	42
18	65	65	168	125	3,100	3,450	1,060	1,030	1,030	70	84	40
19	62	65	150	125	2,500	3,940	946	600	740	68	70	39
20	57	62	137	121	1,720	5,750	1,300	528	633	66	63	38
21	57	60	129	121	1,400	4,380	1,500	490	578	61	56	37
22	53	57	118	125	1,300	3,450	1,300	490	501	58	53	35
23	55	55	106	125	1,300	2,830	2,310	474	418	56	53	34
24	68	53	98	129	1,210	2,250	2,250	1,000	355	56	56	34
25	82	50	95	129	1,260	1,830	1,720	3,070	310	53	49	34
26	125	50	91	129	3,310	1,560	1,600	1,260	270	55	56	33
27	133	48	88	137	3,030	1,830	1,720	866	235	49	56	34
28	121	48	91	463	8,770	1,500	1,450	688	206	51	59	34
29	102	46	95	716	11,200	1,720	1,210	589	177	49	63	34
30	91	46	95	550	-	1,610	1,130	528	155	48	75	34
31	85	-	98	446	-	1,350	-	484	-	48	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,870	133	28	60.3	0.073	0.08	3,710
November	1,485	91	46	66.2	.080	.09	3,940
December	3,976	380	42	128	.155	.18	7,890
Calendar year 1943	297,035	51,700	20	814	.987	13.40	589,600
January	5,569	716	98	180	.218	.25	11,050
February	52,949	11,200	206	1,826	2.21	2.38	105,000
March	77,649	7,650	794	2,505	3.04	3.50	154,000
April	50,693	4,980	794	1,690	2.05	2.29	100,500
May	55,817	8,490	474	1,801	2.18	2.51	110,700
June	28,154	7,040	155	938	1.14	1.27	55,800
July	2,462	141	48	79.4	.098	.11	4,880
August	1,787	118	40	58.0	.070	.08	3,560
September	1,673	98	33	52.4	.064	.07	3,120
Water year 1943-44	284,474	11,200	28	777	.942	12.81	564,200

Peak discharge.- Feb. 28 (11:30 p.m.) 19,300 sec.-ft.; Mar. 16 (3:30 p.m.) 10,600 sec.-ft.; May 2 (7:30 p.m.) 12,600 sec.-ft.; June 15 (3 a.m.) 12,000 sec.-ft.

a No gage-height record; discharge computed on basis of records for station near Rush.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

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, 1½ miles southeast of Rush, and 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 1944.

Average discharge.- 16 years, 1,251 second-feet.

Extremes.- Maximum discharge during year, 20,200 second-feet Feb. 29 (gage height, 12.96 feet); minimum, 42 second-feet Oct. 3.

1928-44: Maximum discharge, 120,000 second-feet May 11, 1943 (gage height, 37.38 feet), from rating curve extended above 60,000 second-feet on basis of slope-area measurement at gage height 37.38 feet; minimum observed, 15 second-feet Aug. 30 to Sept. 2, 1936.

Maximum stage known, 45.5 feet Aug. 19, 1915, from floodmarks, original site (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). Data on floods of 1915 and 1927 furnished by Corps of Engineers, U. S. Army.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	113	70	130	459	6,910	1,760	1,870	588	200	63	116
2	46	103	70	138	405	4,160	1,840	5,860	521	190	110	102
3	44	93	70	149	364	2,960	1,720	11,500	462	174	116	113
4	50	87	67	146	320	2,560	1,500	6,260	417	160	82	116
5	56	87	64	153	296	2,610	1,360	4,160	404	151	72	120
6	58	90	82	153	272	2,140	1,220	3,080	410	142	69	120
7	58	127	87	161	249	2,040	1,150	2,390	410	138	66	106
8	56	127	77	177	310	1,920	1,090	1,960	423	133	63	99
9	54	103	80	177	2,020	1,680	3,610	1,720	462	129	61	96
10	52	100	103	177	3,060	1,500	3,470	2,090	481	120	58	92
11	50	109	123	177	1,890	1,360	6,440	2,190	629	116	54	86
12	50	109	151	177	1,350	1,260	5,240	1,680	1,150	113	52	82
13	80	103	416	173	1,070	1,190	3,470	1,440	1,150	110	52	80
14	106	100	400	169	895	1,110	2,660	1,260	3,300	106	56	77
15	80	100	334	169	789	1,040	2,500	1,190	7,870	102	69	74
16	72	97	277	169	708	5,850	2,040	1,300	3,500	99	g74	72
17	84	93	240	165	841	8,130	1,680	1,050	1,840	92	g124	69
18	90	90	210	161	2,680	4,760	1,500	854	1,350	88	g113	66
19	87	90	189	157	3,260	4,310	1,360	721	991	92	g92	63
20	84	87	173	153	2,240	6,620	1,610	638	779	88	g85	58
21	87	87	165	149	1,800	5,740	2,000	568	700	88	g85	54
22	84	84	153	149	1,580	4,460	1,840	548	609	85	g82	52
23	80	82	142	153	1,580	3,600	5,620	548	521	80	g80	50
24	97	80	130	157	1,480	2,840	4,020	561	442	77	g77	50
25	113	77	123	157	1,560	2,340	2,720	4,700	379	82	g80	48
26	103	74	119	157	2,520	2,000	2,140	2,000	336	80	85	48
27	142	74	116	165	3,480	2,610	2,410	1,360	295	82	99	50
28	149	74	123	173	6,420	2,190	2,040	1,050	265	80	99	54
29	142	74	123	610	15,900	2,390	1,720	831	237	69	88	61
30	127	72	119	675	-	2,340	1,540	728	221	66	96	58
31	123	-	123	544	-	2,000	-	657	-	63	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2,554	149	44	82.4	0.076	0.09	5,070
November	2,786	127	72	92.9	.086	.09	5,550
December	4,749	416	64	153	1.140	.16	8,420
Calendar year 1943	381,598	91,000	38	1,045	.958	13.01	756,900
January	6,320	675	130	204	1.187	.22	12,540
February	59,808	15,900	249	2,062	1.89	2.04	118,600
March	95,620	8,130	1,040	3,117	2.86	3.30	191,600
April	75,070	6,440	1,090	2,436	2.23	2.49	144,900
May	66,762	11,500	548	2,154	1.97	2.27	132,400
June	31,122	7,870	221	1,037	.951	1.06	61,730
July	3,395	200	63	110	.101	.12	6,730
August	2,531	129	52	81.5	.075	.09	5,020
September	2,331	120	48	77.7	.071	.08	4,620
Water year 1943-44	352,048	15,900	44	962	.892	12.01	698,200

Peak discharge.- Feb. 29 (6 a.m.) 20,200 sec.-ft.; May 3 (4:30 a.m.) 13,500 sec.-ft.

g Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Fork River at Tecumseh, Mo.

Location.- Water-stage recorder, lat. 36°36'16", long. 92°17'19", in NW¼ sec. 16, T. 22 N., R. 12 W., at bridge on State Highway 80, at Tecumseh, half a mile downstream from Bryant Creek. Datum of gage is 547.75 feet above mean sea level, datum of 1929.

Drainage area.- 1,157 square miles.

Records available.- October 1921 to September 1944.

Average discharge.- 22 years (1922-44), 1,196 second-feet.

Extremes.- Maximum discharge during year, 3,830 second-feet Apr. 11 (gage height, 382 feet); minimum, 435 second-feet Sept. 23 (gage height, 0.72 foot).

1921-44: 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, 0.70 foot Sept. 23, 1941.

Maximum stage known, 31.6 feet, from floodmarks, in July 1905.

Remarks.- Records excellent.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 11 Apr. 12 to Sept. 30

0.8	436	0.7	424
1.1	660	1.0	608
1.5	1,020	1.5	1,020
2.2	1,730	2.0	1,510
3.0	2,690	2.5	2,070

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	506	596	478	506	464	1,960	835	1,020	706	523	469	588
2	521	565	478	506	464	1,510	808	1,000	682	523	698	561
3	506	545	471	513	464	1,280	754	1,120	687	517	778	529
4	492	528	471	492	464	1,200	728	1,220	652	510	645	517
5	485	521	478	492	464	1,100	720	1,240	660	504	554	553
6	485	521	521	485	464	1,070	694	1,140	638	498	523	645
7	485	573	521	478	464	1,010	702	1,060	615	498	504	561
8	485	604	513	485	499	954	844	1,010	608	498	486	517
9	485	565	506	485	536	898	1,000	962	615	498	480	498
10	485	550	506	478	528	862	1,100	1,090	608	517	469	492
11	485	543	521	471	513	835	2,630	1,070	595	492	469	480
12	492	528	506	471	492	826	2,070	1,000	608	486	469	480
13	612	528	492	464	478	799	1,560	948	675	480	561	480
14	558	521	485	464	499	754	1,360	930	819	474	588	480
15	543	513	478	471	485	754	1,360	975	1,100	469	541	474
16	536	513	471	464	478	925	1,310	966	827	469	504	469
17	536	513	464	464	521	982	1,160	897	722	469	498	463
18	521	506	464	457	588	963	1,040	836	652	469	480	463
19	521	506	464	457	620	992	1,000	802	615	469	469	458
20	521	499	471	450	612	1,360	993	769	615	463	463	458
21	521	492	478	450	596	1,620	948	802	595	463	463	452
22	528	492	478	450	596	1,560	921	795	574	458	463	446
23	543	485	471	457	580	1,410	1,270	753	554	458	474	441
24	558	471	464	457	580	1,310	1,360	913	574	463	474	441
25	550	471	457	457	799	1,230	1,280	975	574	458	480	441
26	543	471	464	457	763	1,120	1,190	861	568	523	523	441
27	536	478	464	478	728	1,040	1,210	827	554	504	574	452
28	528	478	506	465	1,310	982	1,210	794	541	492	574	492
29	521	485	521	485	2,440	934	1,110	753	535	474	523	517
30	521	485	536	478	-	889	1,060	753	529	469	541	523
31	565	-	528	478	-	853	-	729	-	469	581	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	16,174	612	485	522	0.451	0.52	32,080
November	15,544	604	471	518	.448	.50	30,830
December	15,126	536	457	488	.422	.49	30,000
Calendar year 1943	508,994	39,800	457	1,395	1.21	16.36	1,010,000
January	14,685	513	450	474	.410	.47	29,130
February	18,480	2,440	464	638	.551	.59	36,670
March	33,982	1,950	754	1,096	.947	1.09	67,400
April	34,227	2,630	694	1,141	.966	1.10	67,890
May	29,092	1,290	729	938	.811	.94	57,700
June	19,277	1,100	529	643	.566	.62	38,240
July	15,057	523	458	486	.420	.48	29,870
August	16,318	778	463	526	.455	.52	32,370
September	15,112	853	441	504	.436	.49	29,970
Water year 1943-44	243,083	2,630	441	664	.574	7.81	482,200

Peak discharge.- Feb. 29 (3:30 p.m.) 2,760 sec.-ft.; Apr. 11 (10 a.m.) 3,830 sec.-ft.; Apr. 11 (6 p.m.) 2,960 sec.-ft.

h Computed from wire-weight gage reading.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Norfolk Reservoir near Norfolk, Ark.

Location.- Staff gage, lat. 36°14'57", long. 92°14'16", at dam on North Fork River in SE $\frac{1}{4}$ sec. 2, T. 18 N., R. 12 W., 4.3 miles northeast of Norfolk. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,806 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- June 1943 to September 1944.

Extremes.- Maximum contents during year, 829,900 acre-feet Sept. 30 (elevation, 529.96 feet); minimum, 217,200 acre-feet Sept. 30 (elevation, 474.4 feet).

Remarks.- Reservoir is formed by concrete-gravity dam, under construction. Storage began June 18, 1943. Capacity with immediate development, 1,550,500 acre-feet at elevation 565 feet (top of temporary concrete bulkhead on crest of permanent spillway) of which 309,300 acre-feet (between elevations 552, permanent spillway crest, and 565 feet) will be reserved for flood control, 707,000 acre-feet (between elevations 510 and 552 feet) will be used for power, and 544,200 acre-feet (below elevation 510 feet) will be dead storage. Ultimate capacity, 1,983,000 acre-feet at elevation 580 feet (top of future permanent crest gates) of which 731,800 acre-feet (between spillway crest, elevation 552 feet, and top of gates, elevation 580 feet) will be reserved for flood control with power storage and dead storage the same as in immediate development. Reservoir will be used for flood control, power development, and incidental recreational purposes. Gage read at 7 a.m. and 7 p.m. prior to Apr. 5, 1944; at 7 a.m., 7 p.m., and at 12 p.m. thereafter.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Monthly elevation and contents, water year October 1943 to September 1944

Month	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	474.4	217,200	-
Oct. 31.....	479.8	254,200	+37,000
Nov. 30.....	484.4	288,800	+34,600
Dec. 31.....	488.9	325,500	+36,700
Jan. 31.....	492.9	360,700	+35,200
Feb. 29.....	500.2	432,400	+71,700
Mar. 31.....	510.8	554,100	+121,700
Apr. 30.....	521.04	692,000	+137,900
May 31.....	526.93	781,100	+89,100
June 30.....	528.59	807,500	+26,400
July 31.....	528.58	812,200	+4,700
Aug. 31.....	529.44	821,400	+9,200
Sept. 30.....	529.96	829,900	+8,500
Water year 1943-44.	-	-	+612,700

† Elevation at 12 p.m. (interpolated from 7 a.m. and 7 p.m. readings prior to April; 12 p.m. readings thereafter).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Black River near Annapolis, Mo.

Location.- Water-stage recorder, lat. 37°20'10" (revised), long. 90°47'20" (revised) 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).

Drainage area.- 484 square miles.

Records available.- April 1939 to September 1944.

Extremes.- Maximum discharge during year, 13,400 second-feet May 3 (gage height, 11.58 feet); minimum, 93 second-feet Aug. 11, 12 (gage height, 2.29 feet).
1939-44: Maximum discharge, 37,900 second-feet May 11, 1943 (gage height, 18.7 feet); minimum, 69 second-feet Aug. 17, 18, 1941 (gage height, 2.11 feet).

Remarks.- Records good.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 26 to Feb. 25)

Oct. 1 to Apr. 11

Apr. 12 to Sept. 30

2.4	134	3.4	424	5.2	1,800	2.5	94	3.3	365
2.6	175	3.7	560	6.0	2,720	2.4	110	3.6	506
2.8	225	4.0	740	7.5	4,700	2.7	173	4.0	740
3.0	285	4.5	1,140	8.2	5,770	3.0	256		

Note.- Same as preceding table above 4.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	217	147	207	173	g1,700	401	550	226	107	127	118
2	140	236	147	202	171	g1,020	385	506	212	107	123	114
3	142	220	147	197	171	g754	360	5,180	196	104	116	110
4	158	204	147	192	166	g675	339	3,160	186	102	112	108
5	156	194	151	189	160	g659	318	1,550	183	100	110	107
6	134	192	171	187	157	g576	302	1,090	183	100	107	107
7	134	225	171	187	157	555	289	848	173	99	104	105
8	134	286	175	185	157	506	283	694	164	99	102	104
9	134	286	173	180	155	457	277	1,050	159	107	99	100
10	134	259	175	175	155	416	283	1,400	155	121	97	99
11	134	242	175	171	155	393	2,540	1,030	152	123	96	100
12	134	222	177	166	149	378	1,960	803	145	121	96	100
13	149	209	177	162	147	371	1,100	682	158	114	99	100
14	151	197	177	155	151	349	782	588	162	112	102	102
15	160	192	175	153	147	335	657	506	152	110	99	102
16	164	185	168	153	145	325	560	453	146	110	97	100
17	162	177	162	151	160	315	492	408	140	116	99	99
18	157	175	160	149	175	335	448	371	133	125	97	97
19	153	171	160	147	184	465	412	342	129	127	96	96
20	153	168	153	147	204	615	393	315	125	123	94	94
21	160	166	151	145	207	810	367	305	125	116	94	96
22	153	164	149	144	217	982	360	293	123	112	94	94
23	165	162	147	142	222	893	5,690	315	120	110	99	94
24	189	162	145	140	225	714	2,840	483	118	107	97	96
25	217	160	145	142	231	598	1,450	397	118	107	97	96
26	220	151	145	144	a300	525	1,050	346	110	116	110	96
27	207	151	147	151	a450	496	933	322	107	129	118	99
28	194	149	175	164	a1,000	453	810	318	107	129	112	116
29	182	149	197	180	g3,220	470	682	296	107	125	108	152
30	173	147	215	185	-	465	598	250	107	125	110	157
31	192	-	217	180	-	428	-	238	-	129	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,925	220	134	159	0.329	0.58	9,770
November	5,818	286	147	194	.401	.45	11,540
December	5,121	217	145	165	.541	.59	10,160
Calendar year 1943	177,559	24,900	108	486	1.00	13.66	352,200
January	5,170	207	140	167	.345	.40	10,260
February	9,321	3,220	145	321	.663	.72	18,490
March	18,013	1,700	315	581	1.20	1.58	35,720
April	27,542	5,690	277	911	1.88	2.10	54,230
May	25,089	5,160	238	809	1.67	1.92	49,760
June	4,421	226	107	147	.304	.34	8,770
July	3,532	129	99	114	.236	.27	7,010
August	3,229	127	94	104	.215	.25	6,400
September	3,158	157	94	105	.217	.24	6,260
Water year 1943-44	115,139	5,690	94	315	.651	8.84	228,400

Peak discharge.- Apr. 23 (12:30 p.m.) 9,520 sec.-ft.; May 3 (5 p.m.) 13,400 sec.-ft.

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

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Black River at Leeper, Mo.

Location.— Water-stage recorder, lat. 37°04'45", long. 90°42'50", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 28 N., R. 3 E., at bridge on State Highway 34, half a mile northwest of Leeper and 2 miles downstream from McKenzie Creek. Datum of gage is 428.51 feet above mean sea level, datum of 1929.

Drainage area.— 957 square miles.

Records available.— June 1921 to September 1944.

Average discharge.— 23 years, 914 second-feet.

Extremes.— Maximum discharge during year, 14,400 second-feet Apr. 23 (gage height, 9.04 feet); minimum, 206 second-feet Aug. 16.

1921-44: Maximum discharge, 78,400 second-feet May 14, 1933 (gage height, 20.01 feet, site and datum then in use); minimum, 133 second-feet Aug. 11, 1934.

Maximum stage known, about 22.3 feet (present site and datum) from floodmarks, in March 1904 (discharge, 125,000 second-feet, from rating curve extended above 55,000 second-feet).

Revisions.— The maximum discharge for the water year 1943 has been revised to 54,400 second-feet May 11 (gage height, 16.36 feet), superseding figure published in Water-Supply Paper 977.

Remarks.— Records good.

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

Revisions.— Revised figures of discharge, in second-feet, for the high-water period in the water year 1943, superseding those published in Water-Supply Paper 977, are given herewith:

May 11 45,100

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
May.....	142,919	45,100	691	4,610	4.82	5.56	283,500
Water year 1942-43.....	424,019	45,100	221	1,162	1.21	16.48	841,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	291	331	291	360	304	3,080	758	1,300	688	272	268	243
2	281	347	297	356	308	2,080	703	1,170	622	268	268	240
3	278	360	297	356	308	1,600	656	2,170	569	265	h261	235
4	276	352	284	352	308	1,340	604	7,750	527	257	h254	232
5	270	343	281	343	308	1,240	583	3,400	510	254	h250	229
6	270	339	308	331	308	1,140	542	2,350	480	250	h243	226
7	270	343	315	351	304	1,080	516	1,860	458	243	h237	226
8	270	366	315	326	304	1,010	491	1,660	436	243	h232	226
9	270	400	315	322	315	904	478	1,470	417	243	h226	221
10	267	410	315	318	311	826	491	2,200	406	247	h223	218
11	267	395	311	315	315	758	1,170	1,970	393	254	h221	218
12	270	380	311	308	308	726	3,660	1,610	374	257	h218	221
13	273	365	311	304	308	679	2,200	1,390	369	254	h213	221
14	284	347	311	298	315	649	1,530	1,320	424	247	h208	221
15	287	339	308	294	304	604	1,200	1,160	411	243	h208	221
16	294	331	308	294	304	576	976	1,020	374	243	h206	221
17	294	326	308	294	335	556	811	918	348	240	h235	221
18	294	318	304	291	352	569	688	822	338	243	h232	218
19	294	311	304	294	356	703	594	749	322	243	h223	218
20	291	304	304	291	375	997	569	688	313	250	h218	218
21	294	301	301	291	385	1,130	503	688	305	250	h218	218
22	294	301	294	284	395	1,400	458	832	300	243	h226	215
23	294	298	291	284	400	1,520	6,000	987	292	237	h232	215
24	326	298	297	284	400	1,360	8,240	1,340	288	237	h223	215
25	352	298	284	281	432	1,150	3,570	1,070	283	235	h221	215
26	360	294	284	281	486	987	2,590	884	279	243	h218	215
27	360	291	284	287	556	1,200	2,270	1,190	279	250	235	215
28	352	291	308	294	695	950	1,940	1,200	275	250	240	235
29	339	291	322	298	2,740	904	1,630	908	275	257	237	247
30	331	291	339	304	-	887	1,400	800	279	275	235	261
31	322	-	356	311	-	826	-	739	-	272	240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October.....	9,215	360	267	297	0.310	0.36	18,280
November.....	9,960	410	291	332	.347	.39	19,760
December.....	9,428	356	281	304	.318	.37	18,700
Calendar year 1943.....	331,548	45,100	232	908	.949	12.89	657,600
January.....	9,577	360	281	309	.523	.37	19,000
February.....	12,839	2,740	304	443	.463	.50	25,460
March.....	33,421	3,080	556	1,078	1.13	1.30	66,290
April.....	47,821	8,240	458	1,594	1.67	1.86	94,850
May.....	47,513	7,750	688	1,533	1.60	1.84	94,240
June.....	11,633	688	275	388	.405	.45	23,070
July.....	7,768	275	235	280	.261	.30	15,400
August.....	7,169	269	206	231	.241	.28	14,220
September.....	6,745	261	215	225	.235	.26	13,390
Water year 1943-44.....	215,085	8,240	206	582	.606	8.28	422,600

Peak discharge.— Feb. 29 (9 p.m.) 4,080 sec.-ft.; Apr. 12 (5 a.m.) 4,430 sec.-ft.; Apr. 23 (12 p.m.) 14,400 sec.-ft.; May 4 (5 a.m.) 12,100 sec.-ft.

h Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

WHITE RIVER BASIN

Black River at Poplar Bluff, Mo.

Location.- Wire-weight gage, lat. $36^{\circ}45'25''$, long. $90^{\circ}23'25''$, in NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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.

Drainage area.- 1,245 square miles.

Records available.- October 1936 to September 1937, October 1939 to September 1944. 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, 8,520 second-feet Apr. 25 (gage height, 17.40 feet); minimum observed, 236 second-feet Aug. 12.
1936-37, 1939-44: Maximum discharge, 52,600 second-feet May 12, 1943 (gage height, 20.77 feet), from rating curve extended above 44,000 second-feet; minimum observed, that of Aug. 12, 1944.

Maximum discharge known, 100,000 second-feet (estimated) March 1904; maximum stage known, 21.1 feet Mar. 12, 1935, present datum (affected by levees constructed since 1904).

Remarks.- Records good December to May; fair remainder of year. Gage read twice daily.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	356	337	439	412	2,470	1,170	1,850	910	351	304	314
2	308	354	343	450	414	3,100	1,140	1,720	852	343	299	304
3	297	367	343	450	414	2,390	1,030	1,590	767	335	294	296
4	292	389	340	448	404	2,020	968	2,400	711	327	286	294
5	286	386	337	439	401	1,720	910	5,470	680	325	275	312
6	283	392	375	431	398	1,530	852	5,410	655	307	268	294
7	286	392	386	425	387	1,470	823	5,800	624	304	265	281
8	283	386	386	428	393	1,320	795	2,510	602	296	249	273
9	281	394	386	422	420	1,230	1,080	2,270	568	294	249	268
10	283	422	389	420	409	1,140	1,140	2,390	555	291	242	270
11	283	434	394	412	398	1,060	4,620	2,510	530	299	242	273
12	281	436	392	406	393	997	4,240	2,270	509	307	236	291
13	359	422	392	401	387	939	4,090	1,810	504	304	249	270
14	324	411	392	398	404	881	3,100	1,690	501	301	244	265
15	313	400	392	396	404	852	2,270	1,750	544	288	242	260
16	305	386	389	390	401	823	1,780	1,530	544	286	249	262
17	305	372	386	385	512	795	1,560	1,360	504	278	307	260
18	309	367	385	385	739	795	1,380	1,200	474	275	291	260
19	315	364	381	379	574	1,060	1,230	1,110	452	273	260	260
20	316	354	375	382	530	1,500	1,170	1,030	436	281	242	257
21	310	359	372	382	525	1,380	1,140	968	425	283	262	255
22	310	356	372	377	544	1,410	1,060	910	417	283	247	252
23	313	348	367	377	549	1,560	3,810	1,030	409	270	252	252
24	340	346	362	372	539	1,660	5,880	1,200	398	260	265	249
25	368	343	364	374	711	1,530	7,890	1,470	382	252	255	249
26	375	343	370	374	1,080	1,380	6,560	1,290	377	252	265	249
27	383	340	370	374	795	1,320	4,830	1,110	372	268	257	257
28	386	340	386	393	1,060	1,410	3,510	1,200	361	273	288	262
29	378	343	403	393	2,160	1,470	2,550	1,290	356	275	294	301
30	367	337	411	393	-	1,380	2,050	1,080	351	296	298	307
31	364	-	425	401	-	1,260	-	997	-	296	406	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	9,904	386	281	319	0.256	0.30	19,640
November	11,239	436	337	375	.301	.34	22,290
December	11,700	425	337	377	.303	.35	23,210
Calendar year 1943	412,579	41,900	270	1,130	.908	12.35	818,300
January	12,496	450	372	403	.324	.37	24,790
February	16,757	2,160	387	578	.464	.60	33,240
March	43,852	3,100	795	1,415	1.14	1.31	86,980
April	74,628	7,890	795	2,488	2.00	2.23	148,000
May	56,305	5,470	910	1,881	1.51	1.74	115,600
June	15,770	910	351	526	.422	.47	31,280
July	9,073	351	252	293	.235	.27	18,000
August	8,372	406	236	270	.217	.25	16,610
September	8,197	314	249	273	.219	.24	16,260
Water year 1943-44	280,293	7,890	236	766	.615	8.37	555,900

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944. 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, 8,620 second-feet Apr. 14, 15 (gage height, 11.88 feet); minimum observed, 261 second-feet Sept. 27 (gage height, -0.26 foot). 1938-44: Maximum discharge, 30,800 second-feet May 15, 16, 1943 (gage height, 15.2 feet, from graph based on gage readings), from rating curve extended above 12,000 second-feet; minimum, 224 second-feet Sept. 22-27, 1941; minimum gage height observed, -0.52 foot Sept. 26, 1941.

Flood of Apr. 18, 1927, reached a stage of 14.4 feet, from records of Corps of Engineers, U. S. Army.

Remarks.- Records good. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	347	440	391	440	423	2,630	1,990	5,260	1,560	423	333	307
2	347	440	391	457	423	3,120	1,880	1,250	1,250	407	347	361
3	333	423	391	474	423	3,170	1,800	3,790	1,140	407	347	361
4	333	423	391	474	423	3,320	1,710	3,260	1,030	391	333	333
5	320	423	391	491	440	3,400	1,550	2,910	978	391	333	347
6	320	423	391	474	423	3,400	1,370	2,850	933	376	320	333
7	320	457	407	474	423	3,320	1,250	2,970	867	376	307	320
8	320	457	423	474	423	3,040	1,190	3,260	820	361	307	307
9	320	457	423	457	423	2,740	1,480	3,700	799	361	295	307
10	320	474	440	457	457	2,480	2,120	4,180	778	361	295	295
11	320	474	440	457	474	2,100	3,150	4,440	737	361	283	295
12	307	474	440	457	474	1,750	4,880	4,180	717	347	283	295
13	347	491	440	440	457	1,520	7,090	3,740	677	333	283	295
14	376	491	440	440	457	1,380	8,620	3,420	677	333	272	295
15	407	491	440	440	457	1,250	7,990	3,110	677	347	283	283
16	407	491	423	440	440	1,170	7,260	2,850	677	333	283	283
17	391	457	423	423	474	1,100	5,900	2,580	677	333	283	283
18	376	457	423	423	668	1,090	4,900	2,250	638	333	283	283
19	376	440	423	423	1,130	1,110	3,940	2,010	619	320	283	272
20	376	423	423	423	1,150	1,560	3,350	1,770	600	320	283	272
21	361	440	423	423	959	2,110	2,880	1,610	563	320	283	261
22	361	423	407	407	860	2,330	2,400	1,320	545	320	295	261
23	376	423	407	407	799	2,340	2,220	1,290	527	320	283	261
24	376	423	407	407	778	2,220	2,890	1,450	509	320	283	261
25	391	407	391	407	778	2,100	3,880	1,800	491	320	283	261
26	391	407	407	407	925	1,980	5,000	1,980	491	320	272	261
27	407	391	407	407	1,430	1,910	6,030	1,980	474	320	272	261
28	423	391	423	407	1,630	1,800	6,030	1,610	457	320	272	261
29	440	391	407	407	1,990	1,780	6,030	1,640	457	320	283	261
30	457	391	423	423	-	1,880	6,030	1,580	423	320	295	272
31	440	-	440	423	-	2,020	-	1,490	-	333	307	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	11,586	457	307	367	0.210	0.24	22,580
November	13,193	491	391	440	.252	.28	26,170
December	12,896	440	391	416	.238	.27	25,580
Calendar year 1943	610,301	30,000	307	1,672	.956	12.97	1,211,000
January	15,563	491	407	438	.250	.29	26,900
February	20,601	1,990	423	710	.406	.44	40,860
March	67,120	3,400	1,090	2,165	1.24	1.43	133,100
April	116,810	8,620	1,190	3,894	2.23	2.49	231,700
May	84,930	5,260	1,290	2,740	1.57	1.81	168,500
June	21,538	1,360	423	720	.412	.46	42,820
July	10,747	423	320	347	.198	.23	21,320
August	9,188	347	272	296	.169	.19	18,220
September	8,748	361	261	292	.167	.19	17,350
Water year 1943-44	390,770	8,620	261	1,068	.611	8.32	775,100

Note.- Daily discharges above 700 second-feet computed by using rate of change of stage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Black River at Pocahontas, Ark.

Location.- Water-stage recorder, lat. $36^{\circ}15'$, long. $90^{\circ}58'$, in SW $\frac{1}{4}$ sec. 27, T. 19 N., R. 1 E., at Pocahontas, $1\frac{1}{2}$ 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.

Records available.- January 1936 to September 1944.

Extremes.- Maximum discharge during year, 17,300 second-feet Apr. 26, 27 (gage height, 19.07 feet); minimum, 1,440 second-feet Sept. 27, 28 (gage height, 0.5 foot).
1936-44: Maximum discharge, 39,500 second-feet May 18, 1943 (gage height, 22.46 feet); 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 1943-44, except days of rapidly changing stage or backwater from Spring River (gage height, in feet, and discharge, in second-feet)

0.5	1,440	6.0	4,740	16.0	12,900
1.0	1,640	8.0	6,240	18.0	15,500
2.0	2,140	10.0	7,800	19.0	17,100
3.0	2,710	12.0	9,400		
4.0	3,340	14.0	11,000		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,740	1,830	1,740	1,830	1,740	7,240	5,190	14,400	5,790	2,140	1,740	1,980
2	1,740	1,830	1,740	1,880	1,690	7,480	5,040	13,800	6,020	2,080	1,740	1,780
3	1,690	1,880	1,740	1,880	1,690	7,480	4,960	13,300	6,160	2,080	1,740	1,740
4	1,690	1,880	1,740	1,880	1,690	7,560	4,820	12,800	5,790	2,030	1,740	1,740
5	1,690	1,830	1,740	1,880	1,690	7,320	4,590	13,600	5,340	2,030	1,740	k2,030
6	1,690	1,830	1,780	1,880	1,690	7,080	4,450	14,100	4,890	1,980	1,690	2,080
7	1,640	1,830	1,780	1,830	1,690	7,080	4,240	13,900	4,450	1,980	1,640	1,980
8	1,640	1,820	1,780	1,830	1,740	6,690	4,240	13,200	4,170	1,930	1,640	1,780
9	1,640	1,880	1,780	1,830	1,780	6,460	k5,730	12,500	3,890	1,930	1,640	1,690
10	1,640	1,930	1,830	1,830	1,830	6,320	k7,020	11,900	3,680	1,930	1,600	1,640
11	1,640	1,980	1,830	1,830	1,780	6,160	c8,600	11,200	3,480	1,930	1,600	1,600
12	1,640	1,930	1,830	1,780	1,780	6,020	c11,600	10,500	3,340	1,880	1,560	1,600
13	1,740	1,930	1,830	1,780	1,780	5,860	12,700	10,000	3,280	1,880	1,560	1,560
14	1,780	1,880	1,830	1,780	1,780	5,640	12,500	9,960	3,220	1,880	1,560	1,560
15	1,780	1,890	1,780	1,740	1,830	5,420	12,100	10,400	3,150	1,830	1,560	1,560
16	1,780	1,880	1,780	1,740	1,780	5,190	11,900	10,200	3,220	1,830	1,640	1,560
17	1,830	1,880	1,780	1,740	k2,010	4,890	12,100	9,640	3,150	1,780	1,690	1,560
18	1,830	1,830	1,780	1,740	k2,390	4,450	12,300	9,080	3,020	1,780	1,640	1,520
19	1,780	1,830	1,780	1,740	2,590	4,240	12,200	8,440	2,890	1,780	1,600	1,520
20	1,780	1,830	1,740	1,740	2,590	k4,770	12,000	7,800	2,770	1,740	1,560	1,520
21	1,740	1,830	1,740	1,740	2,650	4,960	11,800	7,240	2,710	1,740	1,560	1,480
22	1,740	1,780	1,740	1,690	2,770	5,190	11,200	6,920	2,590	1,740	1,640	1,480
23	1,740	1,780	1,740	1,690	2,770	5,340	c11,900	6,460	2,530	1,740	1,640	1,480
24	1,780	1,780	1,740	1,690	2,710	5,420	c16,000	6,460	2,470	1,690	1,600	1,480
25	1,830	1,740	1,740	1,690	2,650	5,420	16,900	k6,950	2,410	1,690	1,560	1,480
26	1,830	1,740	1,740	1,690	k2,790	5,340	17,100	6,920	2,360	1,690	1,560	al,480
27	1,830	1,740	1,740	1,690	2,950	5,190	17,100	6,760	2,300	1,740	1,560	al,440
28	1,830	1,740	1,740	1,690	k4,550	5,190	16,500	6,540	2,240	1,780	1,640	al,440
29	1,830	1,740	1,780	1,690	k7,250	5,340	15,600	6,160	2,240	1,780	1,640	al,480
30	1,830	1,740	1,830	1,740	-	5,560	15,000	5,940	2,190	1,740	1,690	1,520
31	1,830	-	1,830	1,740	-	5,420	-	5,720	-	1,780	2,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches Acre-feet
October	54,190	1,830	1,640	1,748	0.361	0.42 107,500
November	55,060	1,980	1,740	1,835	.379	.42 109,200
December	54,970	1,830	1,740	1,773	.366	.42 109,000
Calendar year 1943	1,925,610	38,000	1,640	5,276	1.09	14.79 3,819,000
January	54,900	1,880	1,690	1,771	.366	.42 108,900
February	68,640	7,250	1,690	2,367	.489	.53 136,100
March	181,720	7,560	4,240	5,862	1.21	1.40 360,400
April	317,380	17,100	4,240	10,580	2.18	2.43 629,500
May	302,790	14,400	5,720	9,767	2.02	2.33 600,600
June	106,740	6,160	2,190	3,525	.728	.81 209,700
July	57,530	2,140	1,690	1,856	.333	.44 114,100
August	51,050	2,080	1,560	1,647	.340	.39 101,800
September	48,660	2,080	1,440	1,622	.335	.37 96,520
Water year 1943-44	1,352,630	17,100	1,440	3,696	.763	10.38 2,683,000

a No gage-height records; discharge computed from graph based on recorded range in stage and rainfall records.

c Stage-discharge relation affected by backwater from Spring River; discharge computed by using fall in reach between Pocahontas and Black Rock as a factor.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Railway bridge at Black Rock, 3½ miles below Spring River. Datum of gage is 229.56 feet above mean sea level, datum of 1929.

Drainage area.— 7,323 square miles.

Records available.— June 1929 to September 1931, October 1939 to September 1944. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.— Maximum discharge observed during year, 31,200 second-feet Apr. 24 (gage height, 22.0 feet); minimum observed, 2,140 second-feet Sept. 22-28 (gage height, 1.1 feet).

1929-31, 1939-44: Maximum discharge observed, 68,200 second-feet May 12, 1943 (gage height, 26.2 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 except those for period of doubtful gage-height record, which are fair. Gage read twice daily.

Cooperation.— Gage-height record, 13 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Apr. 12-14)

Oct. 1 to Apr. 14					Apr. 15 to Sept. 30				
1.3	2,350	11.0	12,100	1.1	2,140	9.0	9,650	20.0	23,300
2.0	3,050	14.0	15,400	2.0	2,900	12.0	12,800	21.0	26,200
4.0	5,050	18.0	20,600	4.0	4,720	15.0	16,000	22.0	31,200
6.0	7,050	20.0	24,000	6.0	6,650	18.0	19,700		
8.0	9,050								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,850	2,850	2,510	2,580	2,450	11,600	7,650	19,100	7,650	3,260	2,730	2,900
2	2,750	2,850	2,530	2,650	2,450	10,600	7,450	18,600	7,850	3,260	2,640	2,640
3	2,650	2,850	2,530	2,690	2,450	10,200	7,250	19,100	8,050	3,170	2,640	2,560
4	2,650	2,750	2,530	2,670	2,450	10,400	6,950	23,800	7,750	3,170	2,640	2,560
5	2,650	2,850	2,520	2,650	2,450	10,400	6,650	22,700	7,350	3,080	2,560	2,900
6	2,550	2,850	2,660	2,650	2,450	10,000	6,450	21,000	6,950	3,080	2,560	2,900
7	2,450	2,850	2,620	2,650	2,450	9,850	6,250	19,900	6,350	2,990	2,560	2,730
8	2,550	2,850	2,590	2,650	2,450	9,250	6,150	18,900	5,960	2,990	2,480	2,560
9	2,550	2,850	2,630	2,650	2,750	8,750	7,250	17,900	5,680	2,990	2,480	2,560
10	2,550	2,850	2,660	2,650	2,850	8,350	9,250	17,300	5,390	2,990	2,480	2,560
11	2,550	2,650	2,680	2,550	2,850	8,050	20,300	16,400	5,100	2,900	2,390	2,390
12	2,650	2,950	2,660	2,550	2,850	8,050	22,800	15,300	5,010	2,900	2,390	2,390
13	2,750	2,850	2,640	2,450	2,650	7,550	22,300	14,400	5,100	2,900	2,390	2,390
14	2,850	2,850	2,640	2,450	2,650	7,350	18,500	13,700	5,010	2,900	2,560	2,300
15	2,750	2,850	2,550	2,350	2,750	7,050	17,200	13,800	4,920	2,820	2,480	2,300
16	2,750	2,850	2,550	2,350	2,650	6,950	16,400	13,600	5,010	2,820	2,390	2,220
17	2,750	2,850	2,540	2,450	3,150	6,850	15,700	13,100	4,920	2,730	2,480	2,220
18	2,850	2,850	2,540	2,450	4,050	6,450	15,400	12,400	4,720	2,730	2,390	2,220
19	2,750	2,850	2,530	2,450	4,050	6,450	15,200	11,500	4,540	2,730	2,390	2,220
20	2,650	2,850	2,500	2,550	4,050	7,750	15,200	10,700	4,250	2,730	2,390	2,220
21	2,650	2,850	2,480	2,450	3,950	8,150	15,600	10,300	4,070	2,640	2,390	2,220
22	2,750	2,750	2,490	2,450	4,150	8,050	15,100	9,860	3,980	2,640	2,390	2,140
23	2,650	2,650	2,480	2,450	4,150	8,050	21,100	9,250	3,980	2,640	2,480	2,140
24	2,750	2,650	2,480	2,450	4,050	7,850	30,000	8,850	3,800	2,560	2,390	2,140
25	2,850	2,550	2,480	2,450	3,950	7,750	28,200	8,950	3,620	2,560	2,390	2,140
26	2,850	2,520	2,510	2,450	5,350	7,650	24,600	9,150	3,530	2,560	2,390	2,140
27	2,850	2,550	2,500	2,450	5,150	7,450	23,100	9,150	3,620	2,640	2,390	2,140
28	2,850	2,520	2,590	2,550	7,550	7,450	21,900	8,950	3,530	2,640	2,390	2,140
29	2,850	2,540	2,570	2,550	13,200	7,950	20,700	8,450	3,440	2,730	2,480	2,220
30	2,850	2,530	2,590	2,450	-	8,250	19,900	8,450	3,350	2,640	2,560	2,220
31	2,850	-	2,610	2,450	-	7,950	-	8,050	-	2,820	2,990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	84,250	2,850	2,450	2,718	0.371	0.43	167,100
November	85,110	2,960	2,520	2,770	.378	.42	164,800
December	79,390	2,680	2,480	2,561	.350	.40	157,500
Calendar year 1943	2,808,450	64,200	2,450	7,694	1.05	14.25	5,571,000
January	78,240	2,690	2,350	2,524	.345	.40	155,200
February	108,400	13,200	2,450	3,738	.510	.55	215,000
March	258,450	11,600	6,000	8,337	1.14	1.31	512,600
April	468,500	30,000	6,150	15,620	2.13	2.38	929,300
May	432,610	23,800	8,050	13,960	1.91	2.20	858,100
June	154,480	8,050	3,350	5,149	.703	.78	306,400
July	88,210	3,260	2,560	2,845	.389	.45	175,000
August	77,260	2,990	2,390	2,492	.340	.39	153,200
September	71,290	2,900	2,140	2,376	.324	.36	141,400
Water year 1943-44	1,984,190	30,000	2,140	5,421	.740	10.07	3,936,000

Note.— Doubtful gage-height record Nov. 26 to Jan. 4; discharge computed on basis of records for stations on Black River at Pocatoshes, Spring River at Imboden, and Eleven Point River near Elevenpoint.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Current River near Eminence, Mo.

Location.- Water-stage recorder, lat. 37°11'00", long. 91°15'30", in SW¼ 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 above mean sea level, datum of 1929.

Drainage area.- 1,272 square miles.

Records available.- August 1921 to September 1944.

Average discharge.- 23 years, 1,399 second-feet.

Extremes.- Maximum discharge during year, 11,400 second-feet Apr. 23 (gage height, 9.97 feet); minimum, 496 second-feet Sept. 25 (gage height, 0.94 foot).
1921-44: Maximum discharge, 75,100 second-feet Dec. 27, 1942 (gage height, 26.97 feet), from rating curve extended above 48,000 second-feet; minimum, 360 second-feet July 21-25, July 27 to Aug. 13, 1934; minimum gage height, 0.85 foot Aug. 18, 1941.

Remarks.- Records good.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 16 to July 21)

0.9	480	4.5	3,030
1.5	751	5.5	4,130
2.0	1,080	7.0	6,120
3.5	2,170	7.6	7,040

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	630	726	608	630	586	2,840	1,010	1,390	2,570	676	586	630
2	630	700	608	630	586	2,090	972	1,320	2,170	676	608	608
3	608	676	608	630	586	1,720	904	1,040	1,330	676	586	586
4	608	653	608	630	586	1,570	870	4,750	1,640	653	564	586
5	608	653	608	630	564	1,500	839	3,330	1,630	653	564	653
6	608	653	653	630	564	1,430	808	2,570	1,390	630	555	608
7	608	808	630	630	564	1,360	808	2,170	1,290	630	551	586
8	608	808	630	608	564	1,290	808	1,860	1,220	630	547	560
9	608	751	630	608	564	1,220	870	2,020	1,180	630	538	551
10	608	726	630	608	564	1,150	1,220	2,490	1,110	630	534	547
11	608	700	630	608	564	1,080	3,660	2,330	1,040	630	530	542
12	608	676	630	586	555	1,040	3,330	2,020	1,010	630	564	542
13	676	676	630	586	555	1,010	2,330	1,860	1,010	608	630	525
14	676	653	608	564	586	937	1,860	1,750	1,220	608	751	521
15	653	653	608	586	564	904	1,720	1,600	1,080	586	630	517
16	653	653	586	586	564	904	1,680	1,500	1,040	586	586	513
17	630	630	586	586	608	870	1,500	1,390	972	586	586	517
18	630	630	586	564	653	937	1,360	1,290	904	586	564	513
19	a630	630	586	564	653	1,110	1,250	1,220	870	564	542	509
20	a630	630	586	564	653	1,390	1,220	1,180	839	564	530	509
21	a630	630	586	564	653	1,600	1,150	1,220	839	564	525	509
22	a630	630	586	564	676	1,790	1,650	1,250	808	551	530	505
23	a630	608	586	564	676	1,790	6,720	2,090	808	551	538	505
24	a670	608	586	564	653	1,640	3,770	2,250	839	555	525	505
25	700	608	564	564	700	1,530	2,570	1,680	780	555	547	505
26	700	608	586	564	808	1,390	2,090	1,430	751	608	630	500
27	653	608	586	608	808	1,290	1,860	1,500	726	608	630	513
28	653	608	653	608	1,320	1,180	1,640	1,570	700	586	653	564
29	653	608	653	608	3,550	1,180	1,530	1,600	700	564	630	564
30	653	608	653	586	-	1,080	1,430	2,330	700	586	630	555
31	726	-	653	586	-	1,040	-	2,660	-	586	653	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October	19,816	726	608	639	0.502	0.58	39,300
November	19,809	808	608	660	.519	.68	39,290
December	18,919	653	564	610	.480	.55	37,530
Calendar year 1943	516,657	31,700	564	1,415	1.11	15.11	1,025,000
January	18,408	630	564	594	.467	.54	36,510
February	21,527	3,550	555	742	.583	.63	42,700
March	41,862	2,840	870	1,350	1.06	1.22	83,030
April	53,429	6,720	808	1,781	1.40	1.56	108,000
May	64,560	7,040	1,180	2,083	1.64	1.89	128,100
June	33,566	2,870	700	1,119	.880	.98	66,580
July	18,746	676	551	605	.476	.56	37,180
August	19,037	751	525	582	.458	.53	35,780
September	16,348	653	500	545	.428	.48	32,430
Water year 1943-44	345,027	7,040	500	943	.741	10.09	684,400

Peak discharge.- Apr. 23 (1 a.m.) 11,400 sec.-ft.; May 3 (4:30 a.m.) 7,200 sec.-ft.; May 3 (3 p.m.) 9,110 sec.-ft.

a No gage-height record; discharge computed on basis of records for station at Van Buren.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Current River at Van Buren, Mo.

Location.- Water-stage recorder, lat. 36°59', long. 91°01', in NE¼ 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.

Records available.- June 1921 to September 1944 in reports of Geological Survey. September 1912 to June 1921 in reports of University of Missouri and of Missouri Geological Survey and Water Resources.

Average discharge.- 23 years (1921-44), 1,786 second-feet.

Extremes.- Maximum discharge during year, 22,800 second-feet Apr. 23 (gage height, 13.11 feet); minimum, 602 second-feet Sept. 22-24.

1921-44: 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 Mar. 26, 1904, present datum, from floodmarks.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	835	868	775	868	835	4,350	1,390	2,100	3,400	969	823	795
2	805	868	775	835	835	3,080	1,340	1,990	2,780	953	845	781
3	805	835	775	835	835	2,420	1,280	6,800	2,420	937	858	740
4	775	805	775	835	805	2,110	1,210	8,400	2,150	921	816	728
5	775	805	775	835	805	1,940	1,120	6,180	1,980	913	802	767
6	775	805	835	835	805	1,820	1,120	4,000	1,860	905	788	767
7	775	900	835	835	805	1,720	1,080	3,320	1,680	898	774	728
8	775	935	805	835	805	1,670	1,080	2,860	1,580	898	754	702
9	775	935	805	835	805	1,580	1,170	2,860	1,520	898	747	677
10	775	900	805	805	805	1,480	1,260	3,160	1,520	898	740	671
11	775	868	835	805	805	1,390	4,040	3,240	1,420	905	728	665
12	775	835	835	805	805	1,340	4,800	2,930	1,420	898	734	665
13	835	805	805	805	775	1,300	3,480	2,630	1,380	890	781	665
14	868	805	865	775	805	1,260	2,630	2,490	1,520	868	921	659
15	835	775	805	805	805	1,210	2,360	2,300	1,520	852	905	659
16	835	775	775	805	805	1,210	2,170	2,100	1,420	852	816	653
17	805	775	775	805	868	1,170	1,990	1,980	1,380	845	795	647
18	805	775	775	805	900	1,210	1,770	1,860	1,330	838	767	635
19	805	775	775	805	935	1,390	1,620	1,740	1,240	838	740	630
20	805	775	775	805	935	1,720	1,680	1,680	1,200	830	714	618
21	805	775	775	805	935	1,940	1,480	1,680	1,150	823	702	608
22	805	748	775	775	935	2,170	1,480	2,110	1,150	823	702	602
23	805	775	775	775	935	2,300	15,600	2,230	1,110	816	714	602
24	835	775	775	775	935	2,110	7,140	3,570	1,110	816	708	602
25	868	775	748	805	1,010	1,940	4,620	2,630	1,060	830	695	613
26	835	775	775	805	1,120	1,770	3,480	2,160	1,040	890	795	608
27	835	775	775	805	1,170	1,770	3,000	1,980	1,020	905	830	618
28	805	775	835	868	1,260	1,620	2,630	2,100	1,000	875	816	665
29	805	775	868	868	3,740	1,680	2,560	2,040	985	838	802	702
30	805	775	868	835	-	1,480	2,360	2,300	985	830	802	689
31	835	-	868	835	-	1,440	-	2,930	-	838	816	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	25,051	868	775	808	0.485	0.56	49,690
November	24,342	935	748	811	.487	.54	48,280
December	24,757	868	748	799	.479	.55	49,100
Calendar year 1943	683,452	43,800	748	1,872	1.12	15.25	1,356,000
January	25,324	868	775	817	.490	.56	50,230
February	28,618	3,740	775	987	.592	.64	56,750
March	55,490	4,350	1,170	1,790	1.07	1.23	110,100
April	80,420	13,600	1,080	2,681	1.61	1.80	159,500
May	89,340	8,400	1,680	2,882	1.73	1.99	177,200
June	45,340	3,400	985	1,511	.906	1.01	89,930
July	27,090	969	816	874	.524	.60	53,730
August	24,210	921	695	761	.469	.54	48,020
September	20,161	795	602	672	.403	.45	38,990
Water year 1943-44	470,143	13,600	602	1,285	.771	10.47	932,500

Peak discharge.- Mar. 1 (1 a.m.) 5,180 sec.-ft.; Apr. 12 (8 a.m.) 5,180 sec.-ft.; Apr. 23 (1 p.m.) 22,800 sec.-ft.; May 4 (1 a.m.) 11,200 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Current River at Doniphan, Mo.

Location.- Water-stage recorder, lat. 36°37'25", long. 90°50'55", in NW¼ 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.

Records available.- June 1921 to September 1944.

Average discharge.- 23 years, 2,636 second-feet.

Extremes.- Maximum discharge during year, 20,300 second-feet Apr. 24 (gage height, 11.70 feet); minimum, 1,050 second-feet Sept. 28 (gage height, 1.88 feet).

1921-44: 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.

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

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	1,420	1,240	1,320	1,230	4,680	2,160	3,370	3,770	1,500	1,240	1,230
2	1,270	1,440	1,240	1,290	1,220	4,120	2,100	3,240	3,770	1,440	1,240	1,200
3	1,270	1,440	1,230	1,280	1,220	3,420	1,970	3,770	3,370	1,440	1,240	1,180
4	1,260	1,420	1,230	1,280	1,220	3,080	1,840	9,220	3,110	1,580	1,230	1,160
5	1,250	1,380	1,230	1,280	1,220	2,760	1,780	7,450	2,850	1,580	1,210	1,120
6	1,250	1,380	1,280	1,270	1,200	2,620	1,720	5,580	2,720	1,380	1,190	1,180
7	1,240	1,440	1,280	1,260	1,190	2,490	1,660	4,730	2,600	1,370	1,160	1,170
8	1,250	1,480	1,280	1,270	1,230	2,360	1,660	4,180	2,410	1,360	1,160	1,150
9	1,250	1,540	1,280	1,250	1,250	2,230	1,720	3,900	2,340	1,560	1,150	1,140
10	1,250	1,540	1,320	1,240	1,230	2,160	1,910	4,040	2,220	1,540	1,130	1,120
11	1,260	1,470	1,320	1,230	1,220	2,040	4,120	4,180	2,160	1,540	1,130	1,130
12	1,260	1,420	1,290	1,220	1,200	1,970	5,860	4,040	2,100	1,370	1,130	1,130
13	1,330	1,380	1,290	1,200	1,180	1,910	5,110	3,770	2,100	1,350	1,120	1,130
14	1,360	1,350	1,280	1,180	1,230	1,840	4,120	4,450	2,100	1,310	1,170	1,140
15	1,370	1,350	1,270	1,190	1,220	1,780	3,700	3,770	2,280	1,290	1,340	1,130
16	1,370	1,340	1,230	1,190	1,220	1,780	3,350	3,500	2,100	1,250	1,260	1,130
17	1,360	1,320	1,200	1,190	1,280	1,720	3,140	3,240	2,030	1,240	1,220	1,130
18	1,330	1,290	1,180	1,190	1,350	1,720	2,880	3,040	1,910	1,230	1,200	1,120
19	1,320	1,290	1,180	1,190	1,390	1,910	2,680	2,850	1,850	1,230	1,150	1,120
20	1,320	1,290	1,170	1,190	1,390	2,300	2,680	2,720	1,790	1,250	1,120	1,110
21	1,320	1,290	1,170	1,180	1,390	2,620	2,560	2,660	1,730	1,230	1,120	1,100
22	1,300	1,280	1,170	1,180	1,400	2,820	2,490	2,600	1,730	1,230	1,130	1,090
23	1,300	1,270	1,170	1,190	1,400	2,940	10,890	3,240	1,670	1,210	1,110	1,080
24	1,390	1,260	1,160	1,180	1,400	2,940	16,500	3,770	1,670	1,200	1,120	1,080
25	1,420	1,250	1,170	1,190	1,540	2,760	7,430	3,900	1,670	1,200	1,100	1,080
26	1,430	1,250	1,170	1,190	1,660	2,560	5,440	3,300	1,610	1,250	1,110	1,080
27	1,400	1,250	1,170	1,200	1,720	2,490	4,730	2,980	1,550	1,320	1,230	1,080
28	1,370	1,250	1,230	1,230	1,970	2,420	4,180	2,920	1,500	1,320	1,230	1,100
29	1,350	1,250	1,270	1,260	2,880	2,360	3,770	2,920	1,500	1,250	1,230	1,140
30	1,340	1,240	1,300	1,260	-	2,360	3,500	2,850	1,500	1,250	1,230	1,150
31	1,350	-	1,320	1,250	-	2,230	-	3,500	-	1,240	1,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	40,800	1,430	1,240	1,316	0.646	0.74	80,930
November	40,570	1,540	1,240	1,352	.663	.74	80,470
December	38,320	1,320	1,160	1,236	.606	.70	76,010
Calendar year 1943	958,110	49,900	1,160	2,625	1.29	17.47	1,900,000
January	58,020	1,320	1,180	1,226	.602	.69	75,410
February	40,250	2,280	1,180	1,358	.661	.73	79,330
March	77,370	4,680	1,720	2,496	1.22	1.41	153,500
April	117,560	16,500	1,660	3,919	1.92	2.14	233,200
May	119,660	9,220	2,600	3,860	1.89	2.18	237,300
June	65,710	3,770	1,500	2,190	1.07	1.19	130,300
July	40,490	1,500	1,200	1,306	.641	.74	80,310
August	56,620	1,340	1,100	1,181	.579	.67	72,630
September	33,970	1,230	1,080	1,132	.555	.61	67,380
Water year 1943-44	689,340	16,500	1,080	1,883	.924	12.54	1,367,000

Peak discharge.- Apr. 12 (2:30 a.m.) 6,010 sec.-ft.; Apr. 12 (8 p.m.) 6,010 sec.-ft.; Apr. 23 (5 a.m.) 11,000 sec.-ft.; Apr. 24 (9:30 a.m.) 20,300 sec.-ft.; May 4 (6 p.m.) 10,600 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Jacks Fork at Eminence, Mo.

Location.- Wire-weight gage, lat. 37°09'15", long. 91°21'30", in W¹ sec. 26, T. 29 N., R. 4 W., at bridge on State Highway 19, at Eminence, 1½ miles downstream from Mahans Creek. Datum of gage is 617.91 feet above mean sea level, datum of 1929.

Drainage area.- 398 square miles.

Records available.- October 1921 to September 1944.

Average discharge.- 23 years, 418 second-feet.

Extremes.- Maximum discharge during year, 2,570 second-feet May 3, (gage height, 5.26 feet, from graph based on gage readings); minimum, 106 second-feet Aug. 9, Sept. 22, 24, 25 (gage height, 1.57 feet).
1921-44: 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. 9, Sept. 22, 24, 25, 1944.

Remarks.- Records good. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 29				Mar. 1 to Sept. 30			
1.6	127	2.5	450	1.5	90	2.8	560
1.9	213	3.0	728	1.7	138	3.3	844
2.2	318	3.5	1,030	2.0	225	3.8	1,200
				2.4	376	4.6	1,860

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	159	145	170	143	812	225	442	536	143	123	177
2	137	165	143	173	143	536	225	419	442	143	133	177
3	137	165	140	170	143	419	210	1,790	398	149	128	168
4	135	159	145	170	137	358	194	1,680	356	143	128	4146
5	135	159	145	165	137	316	185	1,120	356	138	128	210
6	135	153	153	165	137	278	180	910	335	136	128	177
7	135	165	153	165	137	278	174	721	316	133	118	165
8	135	188	163	165	137	259	174	611	278	133	111	152
9	137	182	163	162	137	242	171	664	259	123	108	141
10	137	170	159	159	137	225	316	812	259	150	111	136
11	137	165	165	163	137	225	937	721	242	143	108	130
12	137	159	159	150	137	210	1,050	611	225	130	133	128
13	159	153	159	148	137	210	664	560	242	126	168	118
14	156	153	159	148	143	194	536	560	419	120	225	126
15	168	153	159	148	140	185	488	488	316	120	182	123
16	159	149	153	145	137	194	560	442	296	118	160	118
17	153	145	153	143	153	194	464	398	259	118	141	118
18	150	148	148	143	159	210	376	376	225	113	128	113
19	148	143	148	140	162	259	335	335	210	113	123	111
20	143	150	148	137	170	376	316	316	194	113	116	108
21	143	143	145	140	170	511	296	316	194	113	113	108
22	143	143	143	137	176	560	398	316	181	113	113	108
23	145	143	145	137	182	488	1,270	335	194	108	113	108
24	159	148	145	137	179	419	1,430	335	210	113	123	108
25	156	143	143	135	194	376	980	376	182	113	143	108
26	153	143	143	132	207	316	751	335	168	138	154	108
27	150	143	143	148	213	278	638	316	160	154	165	108
28	148	145	165	153	421	259	586	335	157	138	177	128
29	148	143	170	153	1,030	259	511	316	160	126	165	153
30	148	143	176	153	-	259	464	692	152	128	160	133
31	162	-	176	143	-	242	-	536	-	123	157	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	4,525	168	135	146	0.367	0.42	9,980
November	4,639	188	143	155	.389	.43	9,200
December	4,730	176	140	153	.384	.44	9,380
Calendar year 1943	149,461	13,400	122	409	1.03	13.96	296,400
January	4,697	173	152	151	.379	.44	9,300
February	5,635	1,030	137	194	.487	.58	11,180
March	9,945	812	185	321	.807	.93	19,730
April	15,094	1,430	171	503	1.26	1.41	29,940
May	18,184	1,790	316	587	1.47	1.70	36,070
June	7,931	536	152	264	.663	.74	15,730
July	3,952	154	108	127	.319	.37	7,840
August	4,283	225	108	138	.347	.40	8,500
September	3,992	210	108	133	.334	.37	7,920
Water year 1943-44	87,597	1,790	108	239	.601	8.18	173,800

d Doubtful gage-height record; discharge computed on assumption that morning gage reading was 0.1 foot too high.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1943 (fragmentary January 1927 to May 1929).

Average discharge.- 18 years (1923-26, 1929-44), 389 second-feet.

Extremes.- Maximum daily discharge during year, 900 second-feet Apr. 24-26, May 3-5, during period of backwater from Current River; minimum, 281 second-feet Sept. 23-30, 1922-44: 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 fair below 500 second-feet and poor above. Gage read once daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	326	314	303	292	292	c440	362	655	c590	375	326	303
2	326	303	303	292	292	c440	350	633	c590	375	326	303
3	326	303	303	292	292	c430	338	c900	567	362	326	292
4	314	303	303	292	292	362	338	c900	540	362	326	292
5	314	303	303	292	292	338	326	c900	540	362	326	292
6	314	303	303	292	292	326	326	c860	489	362	326	292
7	314	303	303	292	292	326	326	c770	489	362	326	292
8	314	303	292	292	292	314	326	c680	474	362	314	292
9	314	303	292	292	292	314	350	c660	458	388	314	292
10	314	303	292	292	292	303	375	c610	458	375	314	292
11	326	303	292	292	292	303	c660	c590	458	375	314	292
12	326	303	292	292	292	303	c680	c590	444	375	314	292
13	326	303	292	292	292	303	c680	633	444	362	314	292
14	314	303	292	292	292	303	c660	705	429	375	314	292
15	314	303	292	292	292	303	557	677	429	375	314	292
16	314	303	292	292	292	303	522	655	429	362	314	292
17	314	303	292	292	303	303	489	614	429	362	314	292
18	314	303	292	292	303	303	458	594	415	362	314	292
19	314	303	292	292	303	350	429	575	415	362	314	292
20	314	303	292	292	303	375	429	557	401	338	314	292
21	314	303	292	292	303	375	429	540	401	338	314	292
22	314	303	292	292	303	388	429	522	401	362	314	292
23	314	292	292	292	303	388	c750	540	401	338	303	281
24	314	292	292	292	303	375	c900	c590	401	338	303	281
25	314	292	292	292	314	362	c900	633	388	338	303	281
26	314	292	292	292	314	350	c900	557	388	338	303	281
27	314	303	292	303	314	375	c860	540	388	326	303	281
28	314	303	292	292	314	375	c810	557	388	326	303	281
29	314	303	292	292	c400	375	772	522	375	326	303	281
30	314	303	292	292	-	375	705	557	375	326	303	281
31	314	-	292	292	-	362	-	c590	-	326	303	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,806	326	314	316	19,450
November	9,057	314	292	302	17,960
December	9,129	303	292	294	18,110
Calendar year 1943	148,510	740	292	407	294,600
January	9,063	303	292	292	17,980
February	8,763	400	292	302	17,380
March	10,642	440	303	350	21,500
April	16,416	900	326	547	32,560
May	19,907	900	522	642	39,480
June	13,384	590	375	446	26,550
July	11,015	388	326	355	21,850
August	9,719	326	303	314	19,280
September	8,694	303	281	290	17,240
Water year 1943-44	135,795	900	281	371	269,300

c Backwater from Current River; discharge computed on basis of records for Greer Spring at Greer and Current River at Van Buren.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Spring River at Imboden, Ark.

Location.- Water-stage recorder, lat. $36^{\circ}12'$, long. $91^{\circ}10'$, in E $\frac{1}{2}$ 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.

Records available.- February 1936 to September 1944.

Extremes.- Maximum discharge during year, 17,900 second-feet Apr. 11 (gage height, 19.13 feet); minimum, 262 second-feet Oct. 10; minimum daily, 275 second-feet Sept. 25. 1936-44: Maximum discharge, 64,300 second-feet May 11, 1943 (gage height, 26.10 feet), from rating curve extended above 47,000 second-feet; minimum observed, 185 second-feet Aug. 1, 1936; minimum daily, 215 second-feet Aug. 1, 1936. Maximum stage known, about 30.9 feet in August 1915.

Remarks.- Records excellent. Low flow slightly regulated by power plant at Mammoth Spring.

Rating tables water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 13-26)

Oct. 1-25

Oct. 26 to Sept. 30

3.1	293	3.0	275	6.0	1,950	14.0	7,850
3.2	330	3.4	437	8.0	3,350	16.0	9,800
		4.0	739	10.0	4,750	17.0	11,200
		5.0	1,300	12.0	6,250	18.0	13,400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	401	319	358	315	2,160	1,150	1,950	928	494	446	358
2	319	327	338	354	307	1,520	1,150	2,090	900	504	424	346
3	319	334	330	384	358	1,240	1,040	10,400	819	470	401	342
4	323	350	342	371	319	1,560	955	6,800	792	479	401	354
5	308	350	354	358	311	1,390	900	3,560	792	465	406	523
6	323	346	384	350	304	1,390	846	2,790	792	446	384	346
7	312	410	375	354	307	1,210	846	2,370	712	456	375	334
8	312	410	346	358	350	1,040	846	2,090	739	442	367	342
9	323	375	379	346	568	955	1,120	2,230	739	465	358	327
10	308	363	367	346	543	873	1,090	2,020	712	414	354	327
11	308	363	384	358	484	819	12,700	1,750	712	456	354	327
12	315	367	379	346	437	819	5,880	1,620	712	442	354	327
13	387	354	363	319	401	766	2,860	1,820	1,010	414	338	319
14	346	346	363	342	456	712	2,230	1,490	792	419	451	304
15	342	338	334	334	437	686	2,090	1,490	1,060	406	384	315
16	334	354	342	330	392	739	1,750	1,330	873	401	358	311
17	319	358	338	342	757	819	1,320	1,240	792	392	334	304
18	342	319	334	319	1,010	873	1,390	1,180	739	388	338	304
19	323	342	334	330	792	1,360	1,270	1,120	660	414	327	297
20	315	371	346	311	712	2,160	2,230	1,060	654	379	334	300
21	342	323	323	327	660	1,880	2,160	1,330	634	388	379	300
22	334	330	334	319	712	1,560	2,020	1,210	619	375	363	304
23	334	350	327	319	634	1,300	13,400	1,090	593	379	350	282
24	426	342	327	311	598	1,240	8,280	1,010	608	375	354	289
25	436	330	323	319	1,160	1,040	3,630	1,090	568	379	346	275
26	387	319	350	323	2,020	982	2,930	1,060	558	401	346	297
27	375	346	342	338	1,060	1,060	2,650	1,240	538	414	379	307
28	358	323	406	346	4,540	1,270	2,160	1,040	538	432	334	300
29	354	342	346	316	4,330	1,590	1,880	955	513	432	342	371
30	358	330	338	319	-	1,420	1,750	1,300	518	594	384	319
31	358	-	367	327	-	1,270	-	1,040	-	634	388	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	10,570	436	308	341	0.293	0.34	20,970
November	10,513	410	319	350	0.301	0.34	20,850
December	10,622	406	319	349	0.300	0.35	21,470
Calendar year 1943	363,259	51,700	308	995	0.866	11.63	720,600
January	10,413	384	311	356	0.289	0.33	20,650
February	26,244	4,540	804	749	0.749	0.81	50,070
March	37,703	2,160	886	1,216	1.05	1.21	74,780
April	85,523	13,400	846	2,851	2.45	2.73	169,600
May	62,465	10,400	955	2,015	1.73	1.99	123,900
June	21,596	1,060	513	720	0.620	0.69	42,840
July	13,549	634	375	437	0.376	0.43	26,870
August	11,453	451	327	369	0.318	0.37	22,720
September	9,751	523	275	325	0.280	0.31	19,340
Water year 1943-44	309,602	13,400	275	846	0.728	9.90	614,100

Peak discharge.- Feb. 28 (6 p.m.) 7,710 sec.-ft.; Apr. 11 (8 a.m.) 17,900 sec.-ft.; Apr. 23 (11 a.m.) 17,800 sec.-ft.; May 3 (7 p.m.) 17,700 sec.-ft.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Eleven Point River near Bardley, Mo.

Location.- Water-stage recorder, lat. 36°38'55", long. 91°12'03", in NE¼ sec. 17, 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.

Records available.- October 1921 to September 1944.

Average discharge.- 23 years, 722 second-feet.

Extremes.- Maximum discharge during year, 6,840 second-feet Apr. 23 (gage height, 8.36 feet); minimum, 215 second-feet Feb. 6, 13; minimum gage height, 1.61 feet Sept. 26, 27.

1921-44: Maximum discharge, 40,000 second-feet Apr. 14, 1927 (gage height, 18.74 feet, from floodmarks), from rating curve extended above 25,000 second-feet; minimum, 188 second-feet Aug. 30, 31, Sept. 1, 6, 16, 1936; minimum gage height, 1.06 feet, Sept. 6-11, 1925.

Maximum stage known, 19.7 feet, from floodmarks, in August 1915 (discharge, 44,000 second-feet, from rating curve extended above 25,000 second-feet).

Remarks.- Records excellent.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 23				Apr. 24 to Sept. 30			
1.6	209	4.0	1,480	1.6	229	4.0	1,490
2.1	371	4.5	1,890	2.1	403	4.5	1,880
2.5	532	5.0	2,920	2.7	650	5.5	2,920
3.1	860	7.1	4,890	3.2	925	6.5	4,100

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	343	302	272	250	225	528	451	958	749	422	320	281
2	335	299	272	260	229	468	451	925	698	414	320	278
3	326	302	269	260	226	439	401	3,680	874	407	316	271
4	322	302	269	257	224	435	386	3,160	650	403	312	268
5	322	302	269	250	224	420	375	1,880	627	392	306	288
6	322	309	269	247	221	408	364	1,560	627	388	302	285
7	322	326	276	244	224	393	360	1,330	604	388	295	288
8	319	312	276	244	241	375	371	1,220	582	384	295	281
9	319	309	276	241	244	364	416	1,160	561	361	292	288
10	319	299	276	235	238	350	774	1,060	561	377	298	258
11	316	292	269	235	232	340	2,020	958	540	373	285	261
12	316	292	263	232	226	340	1,480	894	540	373	285	258
13	336	292	263	229	218	326	1,120	894	540	359	288	255
14	326	289	260	229	238	319	958	1,190	561	355	306	255
15	322	292	254	229	226	316	892	1,020	604	352	298	255
16	319	289	247	229	221	340	800	958	604	352	288	251
17	319	282	247	226	254	382	714	863	582	348	288	248
18	319	279	247	226	282	386	659	804	540	344	285	245
19	319	276	254	229	276	455	616	776	520	337	281	245
20	322	269	257	229	266	590	703	749	508	337	278	248
21	319	272	260	226	250	585	720	749	500	334	292	245
22	316	272	254	226	250	537	771	724	488	330	281	242
23	316	269	247	224	244	506	4,850	776	476	326	285	242
24	336	269	244	226	247	468	3,040	863	464	326	278	242
25	319	269	247	229	309	447	1,800	804	457	337	275	239
26	316	269	250	229	335	424	1,480	749	449	344	281	239
27	305	266	247	232	315	465	1,300	724	445	341	285	245
28	302	269	253	235	354	523	1,160	698	433	334	285	251
29	302	272	257	232	532	506	1,060	674	426	326	278	248
30	302	269	260	229	-	492	990	650	426	330	281	245
31	305	-	257	229	-	468	-	698	-	323	285	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	9,899	343	302	319	0.402	0.46	19,630
November	8,610	326	266	287	.362	.40	17,080
December	8,091	289	244	261	.329	.38	16,050
Calendar year 1943	253,484	22,200	244	694	.875	11.98	502,800
January	7,298	260	224	235	.296	.34	14,480
February	7,571	532	218	261	.329	.35	15,020
March	13,393	590	316	432	.545	.63	28,560
April	31,462	4,850	360	1,049	1.32	1.47	62,400
May	34,348	3,880	650	1,108	1.40	1.61	68,130
June	16,456	749	426	548	.691	.77	32,600
July	11,137	422	323	369	.453	.52	22,090
August	9,034	320	275	291	.367	.42	17,920
September	7,675	288	239	256	.323	.36	15,220
Water year 1943-44	164,954	4,850	218	451	.569	7.71	327,200

Peak discharge.- Apr. 11 (11 a.m.) 2,280 sec.-ft.; Apr. 11 (5:30 p.m.) 2,540 sec.-ft.; Apr. 23 (7 a.m.) 5,310 sec.-ft.; Apr. 23 (6:30 p.m.) 6,840 sec.-ft.; May 3 (5 p.m.) 6,360 sec.-ft.; May 14 (5:30 a.m.) 1,480 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Eleven Point River near Elevenpoint, Ark.

Location.- Water-stage recorder, lat. 36°21', long. 91°07', in SE¼ sec. 30, T. 20 N., R. 1 W., 1½ miles southwest of Elevenpoint and 18 miles upstream from mouth. Datum 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 1944.

Average discharge.- 10 years (1930-32, 1936-44), 957 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet Apr. 23 (gage height, 14.03 feet); minimum, 312 second-feet Feb. 8; minimum gage height, 2.50 feet Sept. 26, 27. 1929-33, 1936-44: Maximum discharge, 26,900 second-feet May 11, 1943 (gage height, 18.97 feet); minimum observed, 226 second-feet Sept. 9, 1936 (gage height, 2.13 feet, present datum).

Remarks.- Records good.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 10, 11)

Oct. 1 to Apr. 25

Apr. 25 to Sept. 30

2.5	308	4.0	1,170	10.0	5,420	2.5	344	3.5	890
2.7	400	5.0	1,820	11.0	6,350	2.7	425	4.0	1,200
3.0	559	6.0	2,500	12.0	7,540	2.9	532	5.0	1,840
3.5	859	8.0	3,900	13.4	9,690	3.2	710	6.0	2,510

Note.- Same as preceding table above 6.5 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	450	435	386	353	322	952	731	1,580	1,040	603	461	403
2	450	435	386	353	322	828	707	1,520	1,040	591	461	399
3	450	425	386	362	322	749	653	2,950	983	585	450	390
4	450	425	381	353	317	859	623	6,260	952	573	445	416
5	445	425	381	348	317	743	600	3,200	921	562	440	416
6	440	430	415	344	317	737	582	2,440	890	550	425	399
7	440	455	395	344	317	689	582	2,110	860	550	421	399
8	440	435	395	344	348	641	582	1,840	830	544	425	385
9	440	435	395	340	362	617	653	2,180	830	544	421	374
10	435	430	395	340	348	582	1,050	1,780	830	544	421	374
11	435	420	395	340	340	559	5,780	1,580	770	525	416	374
12	450	420	381	340	350	553	2,860	1,460	800	552	416	374
13	487	415	376	340	322	a520	1,890	1,390	830	515	416	370
14	461	415	376	335	353	a500	1,560	1,980	800	498	421	366
15	450	415	367	335	335	a490	1,460	1,650	860	498	425	362
16	445	410	362	335	325	a520	1,270	1,460	860	487	416	359
17	440	410	353	335	400	a540	1,140	1,360	830	487	412	359
18	440	405	353	330	471	576	1,050	1,300	800	482	407	355
19	440	405	353	325	440	737	963	1,230	754	475	399	355
20	440	400	353	325	420	921	1,270	1,200	754	471	394	351
21	445	400	353	325	400	921	1,200	1,360	722	471	399	351
22	435	400	353	330	400	859	1,840	1,170	704	466	421	351
23	430	395	353	325	395	797	9,690	1,170	692	471	407	351
24	462	391	348	325	391	743	6,270	1,260	680	466	403	351
25	461	391	353	322	503	701	3,270	1,260	662	466	399	348
26	440	391	358	322	653	665	2,510	1,140	650	504	399	348
27	435	391	353	340	542	677	2,110	1,080	638	504	407	344
28	435	386	376	340	1,640	725	1,840	1,080	632	482	407	351
29	435	386	372	326	1,240	921	1,650	1,040	615	476	403	366
30	435	386	358	322	-	797	1,550	1,040	609	493	407	355
31	440	-	353	322	-	761	-	1,010	-	482	416	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-foot
October	15,781	487	430	445	0.399	0.46	27,330
November	12,352	455	386	412	.370	.41	24,520
December	11,514	415	348	371	.333	.38	22,640
Calendar year 1943	355,733	19,100	348	975	.874	11.84	705,600
January	10,425	362	322	336	.301	.35	20,680
February	13,197	1,640	317	455	.408	.44	26,180
March	21,680	952	490	706	.635	.73	43,400
April	57,946	9,690	582	1,932	1.73	1.93	114,900
May	53,050	6,260	1,010	1,711	1.53	1.76	105,260
June	23,828	1,040	609	794	.712	.79	47,260
July	15,899	603	466	513	.460	.53	31,540
August	12,960	461	394	418	.375	.43	23,710
September	11,096	416	344	370	.332	.37	22,010
Water year 1943-44	257,938	9,690	317	705	.632	8.58	511,600

Peak discharge.- Apr. 11 (8:30 a.m.) 6,550 sec.-ft.; Apr. 23 (6:30 a.m.) 10,800 sec.-ft.; May 4 (10 a.m.) 6,350 sec.-ft.

a No gage-height record; discharge computed on basis of records for station near Bardley, Mo.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Greer Spring at Greer, Mo.

Location.- Water-stage recorder, lat. $36^{\circ}47'10''$, long. $91^{\circ}20'50''$, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1944.

Average discharge.- 22 years (1922-44), 328 second-feet.

Extremes.- Maximum discharge during year, 480 second-feet May 3 (gage height, 1.29 feet); minimum, 151 second-feet Jan. 12-14, 31, Feb. 1, 2, 4-9, 12, 13.

1921-44: Maximum discharge, 1,060 second-feet Dec. 27, 1942, includes about 400 second-feet from small drainage area above station (gage height, 2.05 feet), from rating curve extended above 600 second-feet; minimum, 116 second-feet Aug. 28-31, Sept. 14-17, 1936.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	277	218	184	157	151	263	233	362	354	263	208	205
2	273	218	184	157	151	250	227	354	345	259	208	202
3	266	211	181	157	154	246	221	474	333	259	208	199
4	266	211	178	157	161	240	208	469	329	256	205	196
5	266	214	175	154	161	224	205	458	322	253	208	196
6	259	211	178	154	151	221	202	448	314	250	208	196
7	259	208	175	154	151	218	202	427	310	250	208	193
8	259	205	175	157	151	214	208	422	306	250	205	193
9	256	202	175	157	151	205	256	408	302	246	205	190
10	256	199	172	157	154	205	273	398	295	243	202	190
11	253	199	169	157	154	202	375	384	295	240	202	187
12	250	196	172	161	151	199	394	375	291	240	202	187
13	253	196	172	151	151	196	371	362	306	236	211	187
14	246	193	172	154	154	193	350	358	329	233	218	184
15	243	193	172	157	154	190	337	350	371	230	211	184
16	243	190	169	154	154	196	318	341	362	233	211	184
17	243	190	165	154	157	208	a300	333	341	233	208	181
18	246	187	163	154	160	208	a290	333	325	233	205	181
19	246	187	160	154	160	211	a280	325	318	230	202	181
20	243	190	167	154	160	250	a270	322	306	227	202	181
21	240	190	160	154	157	256	a260	325	298	224	199	178
22	236	184	160	154	160	259	a265	322	295	221	199	178
23	233	187	157	154	160	259	a340	329	285	221	199	178
24	230	187	157	154	160	253	a460	325	288	221	196	175
25	224	187	157	154	166	246	a450	322	284	221	196	175
26	221	187	157	154	164	236	a430	314	277	221	196	175
27	221	187	157	154	181	253	413	510	277	218	202	175
28	218	184	157	154	196	250	403	306	270	218	202	172
29	218	184	154	154	270	243	384	302	266	214	199	172
30	218	184	157	154	-	243	356	295	263	211	199	172
31	218	-	187	161	-	240	-	329	-	211	205	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,590	277	218	245	15,030
November.....	5,879	218	184	196	11,660
December.....	5,176	184	154	167	10,270
Calendar year 1943.....	128,186	752	154	351	254,200
January.....	4,792	157	151	165	9,500
February.....	4,705	270	151	162	9,330
March.....	7,077	263	190	228	14,040
April.....	9,300	460	202	310	18,450
May.....	11,182	474	295	361	22,180
June.....	9,267	371	263	309	18,380
July.....	7,265	263	211	234	14,410
August.....	6,329	218	196	204	12,560
September.....	5,647	205	172	185	11,000
Water year 1943-44.....	84,099	474	151	230	166,800

a No gage-height record; discharge computed on basis of weather records and records for Eleven Point River near Bardley and Big Spring near Van Buren.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Strawberry River near Evening Shade, Ark.

Location.- Water-stage recorder, lat. $36^{\circ}06'$, long. $91^{\circ}36'$, in NE $\frac{1}{4}$ sec. 27, T. 17 N., R. 6 W., at highway bridge, 2 miles north of Evening Shade and $\frac{5}{8}$ 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 1944.

Extremes.- Maximum discharge during year, 7,290 second-feet May 3 (gage height, 18.50 feet); minimum, 6.7 second-feet Oct. 5-12; minimum gage height, 3.64 feet Sept. 19, 1939-44: Maximum discharge, 22,700 second-feet May 11, 1943 (gage height, 24.55 feet); minimum, 5 second-feet Sept. 18-23, 1941.

Remarks.- Records good except those for periods of extremely low flow, which are fair.

Cooperation.- Gage-height record, 21 discharge measurements, and computations of discharge furnished by Corps of Engineers, U. S. Army; 6 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	12	9.0	12	10	440	192	467	42	17	12	10
2	7.7	10	9.0	13	10	282	206	482	61	17	12	9.5
3	7.7	9.7	9.0	15	10	210	172	4,510	58	15	11	9.2
4	7.4	9.7	9.0	15	10	399	146	981	39	15	11	9.0
5	6.7	9.7	9.0	15	9.0	263	133	536	37	15	10	14
6	6.7	10	17	15	9.0	240	122	373	40	14	10	10
7	6.7	18	18	14	9.0	229	116	288	44	14	9.5	9.2
8	6.7	20	14	15	14	146	120	241	35	14	9.2	9.0
9	6.7	24	17	14	274	124	311	234	32	14	9.0	8.8
10	6.7	17	17	14	149	108	724	213	32	15	8.8	8.8
11	6.7	13	17	13	90	96	3,170	178	32	14	8.6	9.0
12	6.7	12	16	13	64	91	665	154	87	14	8.3	9.2
13	10	12	16	12	52	88	382	140	300	16	8.6	9.0
14	21	11	15	12	50	76	288	126	86	15	28	9.0
15	19	11	14	12	46	69	312	122	64	14	19	8.8
16	15	10	13	12	44	175	234	108	82	13	9.5	8.6
17	9.0	10	13	12	281	214	185	93	47	13	8.8	8.6
18	7.7	9.7	12	11	366	146	160	83	37	12	8.8	8.3
19	7.4	9.7	11	11	170	880	148	75	32	12	8.6	8.1
20	7.4	9.7	11	11	122	795	705	71	29	13	8.3	7.9
21	8.6	9.7	11	11	102	460	391	79	28	13	57	7.5
22	10	9.0	11	11	160	320	297	71	27	13	23	7.3
23	9.7	9.0	11	11	116	256	3,830	64	26	11	9.0	7.1
24	15	9.0	11	10	94	213	1,220	65	25	11	8.8	7.1
25	26	9.0	11	10	259	185	480	56	23	13	8.8	7.1
26	35	9.0	11	10	728	160	355	52	22	45	8.8	6.9
27	20	9.0	11	11	216	392	312	50	20	41	10	6.8
28	14	9.0	13	12	2,240	256	234	50	19	29	10	7.2
29	12	9.0	13	11	1,710	568	199	50	19	20	9.5	8.6
30	10	9.0	13	11	-	296	172	47	18	16	10	8.1
31	13	-	13	11	-	220	-	44	-	14	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	352.5	35	6.7	11.4	0.051	0.06	699
November	351.9	24	9.0	11.3	0.050	0.06	672
December	395.0	18	9.0	12.7	0.056	0.07	753
Calendar year 1943	41,980.2	13,500	6.1	115	.511	6.96	83,270
January	390	15	10	12.3	.055	.06	754
February	7,414.0	2,240	9.0	256	1.14	1.23	14,710
March	8,397	880	69	271	1.20	1.39	15,650
April	16,079	3,930	116	536	2.38	2.66	31,890
May	10,103	4,510	44	326	1.45	1.67	20,040
June	1,443	300	18	48.1	.214	.24	2,860
July	512	45	11	16.5	.073	.08	1,020
August	384.9	57	8.3	12.4	.055	.06	763
September	267.7	14	6.8	8.59	.038	.04	511
Water year 1943-44	46,057.0	4,510	6.7	126	.560	7.62	91,360

Peak discharge.- Feb. 28 (2:30 p.m.) 4,520 sec.-ft.; Apr. 11 (2 a.m.) 5,580 sec.-ft.; Apr. 23 (6 a.m.) 4,670 sec.-ft.; May 3 (5 a.m.) 7,290 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 12,200 second-feet Apr. 11 (gage height, 17.40 feet); minimum, 37 second-feet Sept. 23 (gage height, 1.11 feet).
1936-44: Maximum discharge, 32,900 second-feet May 11, 1943 (gage height, 24.60 feet); minimum observed, 10 second-feet Oct. 3, 1938 (gage height, 1.22 feet).

Remarks.- Records good.

Cooperation.- Gage-height record, 20 discharge measurements, and computations of discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	62	53	63	56	1,180	442	828	148	71	75	51
2	46	61	53	68	58	760	453	1,040	141	69	63	47
3	46	56	53	82	58	590	420	8,170	169	66	58	44
4	45	53	53	80	55	1,020	350	2,490	144	64	55	44
5	46	52	54	75	55	820	320	1,270	139	62	53	69
6	45	54	78	70	56	773	300	906	141	62	49	60
7	45	89	73	69	56	745	281	720	137	59	48	49
8	46	76	74	70	112	497	300	618	127	58	49	47
9	46	80	71	68	518	420	551	720	122	59	47	44
10	46	71	74	66	390	370	1,160	576	120	60	50	43
11	45	63	82	66	244	340	8,170	481	118	69	47	42
12	48	60	76	64	185	320	1,620	429	388	59	46	43
13	54	57	73	62	156	290	850	363	603	58	45	43
14	52	57	70	61	153	272	656	393	236	58	243	42
15	73	56	66	62	145	244	602	358	182	57	113	41
16	63	56	61	61	136	340	542	356	182	55	82	41
17	54	55	59	61	553	497	453	294	158	53	56	41
18	53	54	59	60	842	390	410	267	133	53	48	41
19	52	55	60	59	486	1,150	370	261	119	55	46	40
20	52	54	59	58	360	1,640	941	243	109	55	45	40
21	52	54	59	58	300	980	815	259	105	58	45	40
22	52	51	58	58	400	760	618	267	102	56	134	41
23	51	51	57	57	380	614	8,020	235	97	55	78	36
24	62	51	55	56	300	519	2,860	219	91	54	54	40
25	61	52	58	58	272	442	1,110	211	88	54	50	40
26	77	52	60	58	945	390	874	196	84	119	47	40
27	78	53	59	61	464	628	780	196	82	222	55	40
28	64	53	70	62	5,350	626	632	182	79	134	51	47
29	58	53	70	59	4,010	1,010	534	175	76	108	49	59
30	56	52	64	58	-	717	481	165	72	78	52	56
31	55	-	64	58	-	508	-	168	-	76	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	1,681	78	45	54.2	0.114	0.13	3,330
November	1,743	89	51	58.1	.122	.14	3,460
December	1,976	82	53	63.7	.134	.15	3,920
Calendar year 1943	112,909	28,400	44	309	.649	8.82	223,900
January	1,968	82	56	63.5	.133	.15	3,900
February	17,094	5,350	55	589	1.24	1.34	33,910
March	19,852	1,640	244	640	1.34	1.55	39,390
April	35,924	8,170	281	1,197	2.61	2.81	71,250
May	23,044	8,170	158	743	1.56	1.90	45,710
June	4,491	603	72	150	.315	.35	8,910
July	2,215	222	53	71.5	.150	.17	4,400
August	1,990	243	45	64.2	.135	.16	3,950
September	1,353	69	38	45.1	.095	.11	2,680
Water year 1943-44	113,331	8,170	38	310	.651	8.86	224,800

Peak discharge.- Feb. 28 (5:30 p.m.) 9,400 sec.-ft.; Apr. 11 (3 a.m.) 12,200 sec.-ft.; Apr. 23 (8 a.m.) 11,300 sec.-ft.; May 3 (7 a.m.) 11,300 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Fork 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., 1½ miles downstream from Pedee Creek, 4½ 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).

Drainage area.— 316 square miles.

Records available.— February 1939 to September 1944.

Extremes.— Maximum discharge during year, 30,900 second-feet Apr. 23 (gage height, 21.01 feet), from rating curve extended above 22,000 second-feet; no flow Oct. 1-12.

1939-44: Maximum discharge, 48,500 second-feet May 11, 1943 (gage height, 24.27 feet); no flow at times.

Maximum stage known, 25.2 feet, date unknown, from information by local resident. **Remarks.**— Records good except those for periods of no gage-height record and those for extremely low flow, which are poor.

Cooperation.— Gage-height record, 18 discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 5 discharge measurements made and records reviewed by Geological Survey.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 23						Apr. 24 to Sept. 30					
1.5	0	2.3	10	4.0	305	9.0	3,750	2.1	3.7	3.1	60
1.6	.1	2.5	22	4.3	428	11.0	6,350	2.2	5.5	3.3	84
1.7	.3	2.7	37	4.6	555	13.0	9,000	2.3	8.2	3.5	120
1.8	.7	2.9	53	5.0	735	14.0	10,500	2.5	16	3.7	188
1.9	1.2	3.1	74	5.5	975	15.0	12,500	2.7	27	3.9	264
2.0	2.2	3.3	100	6.0	1,230	17.0	17,500	2.9	41		
2.1	3.7	3.5	138	7.0	1,820			Note.— Same as preceding table below 2.1 and above 3.9 feet.			
2.2	6.0	3.7	194	8.0	2,630						

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.3	6.7	37	68	2,040	490	3,460	144	39	1.2	1.7
2	0	.2	6.7	42	68	1,430	879	4,530	113	34	3.4	1.7
3	0	.2	7.8	52	67	1,130	1,030	5,570	97	29	2.4	1.6
4	0	.2	7.8	70	64	1,680	855	2,680	84	25	1.5	1.5
5	0	.2	8.8	76	61	1,400	712	1,760	81	22	1.2	1.5
6	0	.4	29	82	60	1,180	600	1,340	91	20	1.1	1.8
7	0	.4	35	85	58	1,030	537	1,050	130	17	1.0	1.5
8	0	.5	47	95	808	831	8,080	a102	15	1.0	1.2	
9	0	.6	51	81	4,610	690	10,100	879	a161	13	1.0	1.0
10	0	2.0	62	74	1,570	596	3,750	807	a171	12	.8	.9
11	0	3.2	85	71	975	524	5,500	645	a161	10	.7	.8
12	0	4.0	110	66	668	485	2,450	532	a240	8.9	.6	.7
13	.1	4.0	110	83	506	440	1,630	473	a2,500	7.7	.5	.5
14	.2	4.2	96	62	481	383	1,290	490	a2,410	6.3	.4	.4
15	.1	6.7	81	62	453	346	1,050	485	a1,290	5.3	.4	.4
16	.1	9.3	71	61	469	1,820	831	391	a759	4.5	.3	.4
17	.1	8.8	63	60	1,910	1,760	668	321	a510	4.2	.3	.4
18	.1	7.8	58	59	2,670	1,290	568	264	a415	4.0	.2	.3
19	.1	7.1	53	58	1,510	2,670	481	218	a346	3.5	.2	.3
20	.1	7.8	50	56	1,150	2,200	1,170	192	a280	3.1	.2	.3
21	.2	7.8	47	55	975	1,570	1,030	199	a218	3.1	.2	.3
22	.2	7.1	43	54	1,230	1,230	1,150	192	a161	2.6	1.0	.3
23	.2	7.8	39	54	1,130	1,030	17,300	178	120	2.0	1.4	.2
24	.3	7.8	37	53	903	855	3,840	144	98	1.7	1.4	.2
25	.3	7.4	36	53	759	735	1,970	362	85	1.4	1.2	.2
26	.2	7.1	35	51	735	622	1,510	387	74	1.3	1.1	.2
27	.2	7.4	35	53	645	600	1,600	264	64	1.2	1.1	.1
28	.2	7.1	39	54	5,630	528	1,200	207	62	1.8	1.0	.2
29	.2	7.1	39	55	4,530	668	975	164	50	1.7	.8	.3
30	.2	6.7	38	57	-	600	866	168	44	1.4	.9	.6
31	.3	-	37	68	-	532	-	192	-	1.3	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	3.4	0.3	0	0.11	0.00035	0.0004	6.7
November	141.2	9.3	.2	4.71	.015	.02	280
December	1,453.8	-	6.7	47.2	.149	.17	2,900
Calendar year 1943	124,096.1	22,700	0	340	1.08	14.58	246,200
January	1,910	86	37	61.6	.195	.22	3,790
February	34,663	5,630	58	1,195	3.78	4.08	88,750
March	32,895	2,670	346	1,061	3.36	3.87	65,250
April	74,112	17,300	481	2,470	7.82	8.72	147,000
May	29,423	5,570	144	949	3.00	3.46	58,360
June	11,082	2,500	44	369	1.17	1.30	21,940
July	305.0	39	1.2	9.77	.031	.04	601
August	29.8	3.4	.2	.96	.0030	.004	59
September	21.5	1.8	.1	.72	.0023	.003	43
Water year 1943-44	186,027.7	17,300	0	508	1.61	21.89	369,000

Peak discharge.— Feb. 9 (4:30 a.m.) 7,130 sec.-ft.; Feb. 28 (7 p.m.) 10,200 sec.-ft.; Apr. 8 (12 p.m.) 24,200 sec.-ft.; Apr. 23 (9 a.m.) 30,900 sec.-ft.; May 3 (4 a.m.) 7,130 sec.-ft.

No gage-height record; discharge computed from graph based on observer's readings on June 10, 17, and recorded range in stage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., 2½ 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.

Records available.- September 1927 to June 1935, March 1936 to September 1944.

Average discharge.- 15 years (1927-34, 1936-44), 1,748 second-feet.

Extremes.- Maximum discharge during year, 53,600 second-feet Apr. 23 (gage height, 33.08 feet); no flow Oct. 4-12.

1927-35, 1936-44: Maximum discharge, 99,100 second-feet May 11, 1943 (gage height, 43.95 feet); no flow at times in October 1929, August 1930, August and September 1936, and October 1943.

Maximum stage known prior to 1943, 44.0 feet, original site and datum, in April 1927 (discharge, 78,900 second-feet).

Remarks.- Records good.

Cooperation.- Gage-height record, 22 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 6 discharge measurements made and records reviewed by Geological Survey.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

1.1	0	2.3	50	5.0	798	13.0	8,790
1.2	.1	2.6	88	6.0	1,300	15.0	12,800
1.4	1.3	3.0	152	7.0	1,950	20.0	22,100
1.6	5.0	3.4	231	8.0	2,730	25.0	32,400
1.8	12	3.8	335	9.0	3,670		
2.0	25	4.4	540	11.0	5,990		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.4	15	95	154	9,130	2,020	10,400	560	133	24	8.0
2	.1	.3	15	102	165	5,340	1,950	13,100	467	116	21	8.8
3	.1	.3	16	110	170	3,890	3,270	24,500	408	102	18	8.8
4	0	.3	16	118	172	4,440	3,000	14,700	344	89	14	8.0
5	0	.2	16	142	170	5,340	2,490	7,680	305	79	12	11
6	0	.3	24	188	166	4,110	2,090	5,210	281	71	17	12
7	0	.5	24	214	157	3,870	1,780	3,780	289	61	26	24
8	0	.4	28	223	229	2,910	9,190	2,910	273	54	28	21
9	0	.4	38	220	10,300	2,330	28,600	4,120	302	48	22	16
10	0	.4	60	216	8,750	1,950	16,100	4,030	311	43	22	13
11	0	.3	88	206	4,110	1,670	30,500	2,730	376	39	20	11
12	0	.3	102	192	2,670	1,480	13,700	2,170	579	34	17	10
13	.1	.3	133	184	1,810	1,390	6,900	1,700	1,880	31	19	10
14	.1	.2	178	174	1,450	1,220	4,770	1,640	8,050	27	19	11
15	.1	.2	186	170	1,420	1,090	4,440	1,420	4,440	24	16	11
16	.1	.2	168	166	1,360	1,840	3,180	1,220	2,490	20	11	10
17	.1	.2	180	165	3,210	7,810	2,490	1,020	1,670	18	8.8	9.2
18	.1	.2	137	161	9,300	4,990	2,020	822	1,190	16	7.4	6.0
19	.1	.2	130	157	6,510	7,950	1,740	686	583	14	5.9	7.4
20	.1	.2	125	154	4,110	11,200	2,970	600	707	12	5.0	6.8
21	.1	.2	116	150	3,180	6,900	4,330	600	560	11	4.6	5.9
22	.1	.2	108	149	3,780	4,990	3,360	822	467	9.6	4.8	5.0
23	.1	.5	102	145	4,220	3,890	32,400	752	401	8.4	5.0	4.3
24	.3	5.0	98	145	3,270	3,090	31,000	642	338	7.7	7.2	3.6
25	.3	12	94	144	2,570	2,570	8,450	856	294	7.4	7.2	3.0
26	.2	14	88	142	2,250	2,090	5,470	2,410	253	7.4	5.9	2.8
27	.2	14	87	147	2,170	2,170	4,550	1,540	225	7.7	9.6	2.4
28	.2	14	88	149	6,050	2,170	3,890	1,090	192	22	7.4	5.0
29	.1	13	88	149	23,700	2,250	3,000	893	168	75	6.8	8.0
30	.1	14	89	150	-	2,730	2,410	775	150	52	7.4	6.5
31	.4	-	92	152	-	2,410	-	642	-	33	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3.2	0.4	0	0.10	0.000086	0.0001	6.3
November	92.7	14	15.2	3.09	.0027	.003	184
December	2,699	186	15	87.1	.0076	.09	5,350
Calendar year 1943	376,786.0	78,100	0	1,032	.904	12.27	747,300
January	4,999	223	95	161	.141	.16	9,880
February	107,473	23,700	154	3,706	3.25	3.50	213,200
March	119,020	11,200	1,090	3,339	3.36	3.88	236,100
April	242,060	32,400	1,740	8,069	7.07	7.89	480,100
May	115,459	24,500	600	3,724	3.26	3.76	229,000
June	28,873	8,066	150	962	.843	.94	57,270
July	1,272.2	133	7.4	41.0	.036	.04	2,520
August	408.2	28	4.6	13.2	.012	.01	810
September	271.5	24	2.4	9.05	.0079	.009	559
Water year 1943-44	622,610.8	32,400	0	1,701	1.49	20.28	1,235,000

Peak discharge.- Feb. 29 (7 a.m.) 28,800 sec.-ft.; Mar. 20 (3 a.m.) 13,300 sec.-ft.; Apr. 11 (12 m.) 34,500 sec.-ft.; Apr. 23 (11:30 p.m.) 53,600 sec.-ft.; May 3 (2:30 p.m.) 28,000 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Middle Fork Little Red River at Shirley, Ark.

Location.- Water-stage recorder, lat. 35°39', long. 92°18', in Sw $\frac{1}{4}$ sec. 20, T. 12 N., R. 12 W., at Missouri & Arkansas Railway bridge, half a mile downstream from Sugar Camp (or 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 1944.

Extremes.- Maximum discharge during year, 24,700 second-feet Apr. 23 (gage height, 21.28 feet); no flow Oct. 1-23.

1939-44: Maximum discharge, 60,700 second-feet May 11, 1943 (gage height, 27.15 feet); no flow Sept. 13 to Oct. 23, 1943.

Flood of Mar. 10, 1935, reached a stage of 27.3 feet, from information by local residents.

Remarks.- Records good except those for periods of extremely low flow, which are poor.

Cooperation.- Gage-height record, 20 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 5 discharge measurements made and records reviewed by Geological Survey.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 1-30)

Oct. 1 to Feb. 28						Feb. 29 to Sept. 30					
4.5	0	5.1	9.4	6.6	270	4.6	0.3	5.6	48	9.0	1,400
4.6	.3	5.3	23	7.0	404	4.7	.9	5.8	78	10.0	2,150
4.7	.6	5.5	40	7.5	610	4.8	1.9	6.0	127	11.0	3,150
4.8	1.2	5.7	68	8.0	860	4.9	3.2	6.3	222	12.0	4,350
4.9	2.0	6.0	116	9.0	1,400	5.0	6.3	6.6	328	14.0	7,450
5.0	3.9	6.3	184			5.1	10	7.0	476	16.0	10,800
Note.- Same as following table above											
9.0 feet.											
						5.2	15	7.5	670	18.0	14,400
						5.4	29	8.0	900		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	8.7	30	40	1,920	590	2,400	151	22	4.2	13
2	0	.5	9.4	33	43	1,230	925	3,490	127	19	22	11
3	0	.4	11	43	41	925	1,080	5,700	100	17	11	10
4	0	.4	11	60	38	1,300	800	2,650	82	14	9.2	8.3
5	0	.4	13	64	37	1,220	670	1,550	75	12	10	7.5
6	0	.4	24	62	35	975	552	1,100	70	11	11	9.6
7	0	.6	26	59	33	850	495	825	64	10	11	13
8	0	.3	29	60	633	670	2,020	670	61	9.6	10	10
9	0	5.1	30	59	3,930	571	4,260	690	57	8.7	8.7	8.3
10	0	8.0	33	56	1,460	495	2,980	650	60	7.1	7.1	7.5
11	0	6.7	50	53	785	423	5,100	514	63	6.7	6.0	6.3
12	0	5.1	56	49	488	386	2,250	419	108	5.6	4.9	5.2
13	0	3.9	50	46	344	350	1,350	350	1,330	4.9	4.2	3.9
14	0	3.9	46	45	300	310	1,020	292	1,790	3.6	3.6	3.2
15	0	3.9	40	44	284	274	825	249	825	3.0	3.2	2.6
16	0	3.2	43	43	255	3,040	650	206	552	2.7	3.0	2.6
17	0	3.0	45	41	1,080	2,280	533	167	400	2.7	2.9	2.2
18	0	3.2	40	40	2,600	1,300	453	133	310	2.6	2.5	1.8
19	0	3.5	35	39	1,340	3,300	389	108	259	2.2	2.1	1.6
20	0	3.9	32	38	910	2,650	881	142	179	2.1	2.0	1.3
21	0	3.9	30	38	710	1,700	975	267	145	2.1	1.8	.9
22	0	3.5	28	38	735	1,250	1,320	179	114	1.9	1.7	.7
23	0	3.2	26	38	735	1,000	13,200	145	69	1.8	1.7	.5
24	.2	3.2	25	37	575	800	3,510	122	70	1.6	1.7	.4
25	.3	4.3	25	36	480	670	1,780	1,410	56.	1.8	1.7	.3
26	.3	5.6	24	35	570	552	1,200	755	46	1.7	1.8	.3
27	.2	7.3	24	37	595	552	1,100	476	40	17	1.8	.3
28	.2	7.3	26	36	5,680	810	900	353	33	11	1.9	.4
29	.2	7.3	26	36	4,690	825	690	267	28	4.9	14	.5
30	.2	8.0	29	35	-	875	590	215	25	4.2	14	.5
31	.7	-	30	36	-	690	-	173	-	4.2	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	2.3	0.7	0	0.07	0.00024	0.0003	4.6
November	111.1	8.0	.4	3.70	.013	.01	220
December	925.1	56	6.7	29.8	.101	.12	1,850
Calendar year 1943	102,643.1	23,100	0	281	.956	12.97	203,800
January	1,366	64	30	44.1	.150	.17	2,710
February	29,426	5,680	33	1,015	3.45	3.72	58,370
March	33,963	3,300	274	1,096	3.73	4.30	67,560
April	53,088	13,200	389	1,770	6.02	6.72	105,300
May	26,647	5,700	108	860	2.93	3.37	52,850
June	7,269	1,790	25	243	.827	.92	14,460
July	218.7	32	1.6	7.05	.024	.03	434
August	194.7	22	1.7	6.28	.021	.02	366
September	133.7	13	.3	4.46	.015	.02	285
Water year 1943-44	153,364.6	13,200	0	419	1.43	19.40	304,200

Peak discharge.- Feb. 9 (6 a.m.) 5,550 sec.-ft.; Feb. 28 (8 a.m.) 11,300 sec.-ft.; Mar. 16 (1 p.m.) 5,550 sec.-ft.; Apr. 11 (6 a.m.) 6,970 sec.-ft.; Apr. 23 (9 a.m.) 24,700 sec.-ft.; May 3 (9:30 a.m.) 6,970 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Laguer 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 Laguer 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 1944.

Extremes.— Maximum discharge during year, 1,740 second-feet Mar. 31 (gage height, 12.63 feet); no flow at times.

1935-44: 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 at times in 1936, 1937, 1938, 1941, 1944.

Remarks.— Records poor. Flow affected by seasonal diversions for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	0.2	0.1	26	29	668	1,540	4.6	34	0.8	2.0	256
2	2.7	.8	.1	54	18	768	1,420	30	22	.6	1.7	288
3	2.4	1.1	.1	151	9.3	686	1,260	254	16	.5	1.3	242
4	2.2	.9	0	228	5.2	651	1,260	508	12	.3	.8	158
5	2.2	1.7	0	207	3.3	567	1,180	661	9.3	.2	.7	99
6	1.9	6.0	.1	126	2.7	508	970	820	8.0	.1	.4	66
7	1.6	5.8	.1	66	2.2	490	768	970	6.5	.1	.2	52
8	1.2	4.0	.1	34	5.1	454	592	880	5.6	.1	.2	45
9	.8	2.1	.1	620	115	400	508	725	5.0	0	.1	39
10	.6	1.4	.1	b15	228	272	535	545	4.4	0	.1	36
11	1.0	5.0	.1	b10	207	114	940	276	3.9	0	0	39
12	1.2	5.4	.1	b12	108	46	1,340	99	3.9	0	0	72
13	1.8	4.0	.2	30	48	27	1,380	62	4.9	0	0	52
14	3.3	2.3	.3	50	49	22	1,220	48	3.6	0	.3	46
15	24	1.4	1.2	64	108	20	940	39	3.4	0	.6	43
16	37	.8	1.4	40	135	20	746	32	3.0	0	.4	32
17	24	.6	.6	23	151	46	567	27	2.7	0	.4	23
18	14	.5	.6	19	186	193	344	23	2.4	0	.4	18
19	8.2	.4	.5	18	207	454	94	21	2.2	0	.2	14
20	4.8	.3	.4	15	386	499	151	19	2.2	0	.1	11
21	2.7	.3	.3	12	427	545	288	16	2.0	0	0	7.8
22	1.6	.2	.3	9.7	454	620	360	14	2.0	0	0	7.1
23	1.0	.2	.3	8.6	454	651	384	13	1.9	0	7.6	6.2
24	.9	.2	.2	42	368	651	344	51	1.7	0	7.4	3.8
25	.7	.2	.8	56	248	592	179	123	1.5	0	4.2	2.2
26	.6	.2	5.0	55	436	526	69	129	2.1	0	4.9	1.6
27	.4	.1	9.9	53	517	481	61	74	1.3	0	5.2	1.1
28	.4	.1	32	50	556	556	114	37	1.1	0	7.4	1.7
29	.3	.1	54	48	592	970	45	23	1.1	0	4.6	3.8
30	.2	.1	62	44	-	1,460	7.4	21	.8	1.0	7.7	2.4
31	.2	-	47	38	-	1,700	-	36	-	3.3	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	147.1	37	0.2	4.75	292
November.....	46.4	6.0	.1	1.55	92
December.....	218.2	62	0	7.04	433
Calendar year 1943	33,518.1	1,660	0	92.1	66,670
January.....	1,624.3	228	8.6	52.4	3,220
February.....	6,054.8	592	2.2	209	12,010
March.....	16,657.9	1,700	20	505	31,060
April.....	19,606.4	1,540	7.4	654	38,890
May.....	6,570.6	970	4.6	212	13,030
June.....	170.5	34	.8	5.68	338
July.....	7.0	3.3	0	6.23	14
August.....	209.1	150	0	6.75	416
September.....	1,666.7	288	1.1	55.6	3,310
Water year 1943-44	51,978.1	1,700	0	142	103,100

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 8,914.86 feet above mean sea level, datum of 1929.

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 1944 in reports of Geological Survey. May 1897 to September 1899 and April 1910 to September 1944 in reports of State engineer.

Average discharge.— 34 years (1910-44), 336 second-feet.

Extremes.— Maximum discharge during year, 1,770 second-feet June 26 (gage height, 5.38 feet); minimum daily, 62 second-feet Mar. 28.

1895, 1897-99, 1910-44: Maximum discharge, 2,900 second-feet June 16, 1924; maximum gage height, 6.67 feet June 19, 1941; minimum discharge not determined.

Remarks.— Records good except those for period of no gage-height record or 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 office of State engineer, show diversions from Colorado River Basin to Arkansas River Basin above station:

Ditch or tunnel	Diversions from	Diversion (acre-feet)
Ewing ditch.....	Eagle River and tributaries	0
Busk-Ivanhoe tunnel.....	Fryingpan Creek.....	2,060
Twin Lakes tunnel.....	Roaring Fork.....	37,730
Fremont Pass ditch.....	Tennille Creek.....	0
Wurts ditch.....	Eagle River.....	1,820
Columbine ditch.....	Eagle River.....	135
Total.....		41,740

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	86	106	82	74	74	104	116	638	1,440	884	573
2	158	77	104	82	75	76	100	138	578	1,470	891	589
3	170	77	103	80	72	74	110	110	531	1,330	891	573
4	158	*85	103	78	73	70	*106	106	452	1,280	911	578
5	147	93	103	75	74	66	116	123	421	1,220	898	667
6	145	96	100	79	74	64	134	200	368	1,150	696	673
7	142	96	99	82	76	*70	127	238	552	1,000	678	649
8	140	106	*98	79	*72	72	138	217	512	877	714	621
9	138	108	104	80	76	74	138	226	568	720	796	526
10	134	102	99	80	73	72	108	211	770	744	776	168
11	129	102	99	82	72	74	104	197	1,170	750	803	173
12	134	102	101	80	69	79	127	238	1,700	684	904	158
13	129	100	98	76	74	82	147	290	1,610	531	918	116
14	127	106	97	*74	68	75	98	329	1,610	430	1,040	114
15	125	102	97	80	72	70	82	361	1,530	457	1,020	123
16	108	102	96	80	72	76	76	430	1,560	667	1,050	118
17	98	102	94	80	71	82	72	403	1,460	567	918	116
18	94	108	93	80	73	79	79	293	1,410	480	750	114
19	98	108	94	80	72	80	91	250	1,570	443	870	112
20	96	106	95	80	74	83	90	244	1,660	531	877	106
21	88	102	94	78	72	77	85	254	1,720	649	823	146
22	94	110	94	78	71	75	85	290	1,710	494	770	416
23	93	114	95	79	71	78	83	434	1,600	443	738	443
24	88	112	90	78	70	78	90	702	1,600	452	369	408
25	93	108	90	78	73	72	91	1,010	1,680	466	344	408
26	90	106	88	76	70	67	94	979	1,730	377	361	377
27	90	108	88	74	72	65	129	610	1,720	329	314	260
28	91	104	87	76	74	62	161	452	1,540	377	348	102
29	93	106	85	76	73	72	123	528	1,390	744	702	112
30	93	105	86	74	-	90	110	594	1,390	657	673	110
31	91	-	84	74	-	114	-	636	-	925	606	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,637	170	88	117	7,210
November.....	3,039	114	77	101	6,030
December.....	2,861	106	84	95.6	5,870
Calendar year 1943.....	163,093	1,840	74	447	323,500
January.....	2,430	82	74	78.4	4,820
February.....	2,102	76	68	72.5	4,170
March.....	2,342	114	62	75.5	4,650
April.....	1,188	161	72	106	6,320
May.....	11,209	1,010	106	362	22,230
June.....	36,788	1,730	386	1,226	72,970
July.....	22,674	1,470	329	738	45,370
August.....	23,332	1,060	314	753	46,280
September.....	9,638	673	102	321	19,120
Water year 1943-44.....	123,540	1,730	62	338	245,000

* Winter discharge measurement made on this day.

Note.— No gage-height record Nov. 30 to Mar. 7 (stage-discharge relation affected by ice during entire period); discharge computed on basis of 4 discharge measurements and weather records. Stage-discharge relation affected by ice Mar. 8-30.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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, and October 1933 to September 1944 in reports of Geological Survey. April 1895 to October 1903 and November 1909 to September 1944 in reports of State engineer.

Average discharge.— 34 years (1910-44), 617 second-feet.

Extremes.— Maximum discharge during year, 2,980 second-feet June 22 (gage height, 4.15 feet); minimum daily, 188 second-feet Mar. 29.

1895-1903, 1909-1944: 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, 11,440 acre-feet) and as noted in description for station at Granite.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 1 to May 4, July 27)

Oct. 1 to June 27				June 28 to Sept. 30			
1.0	164	2.1	680	1.2	196	2.5	975
1.2	224	2.5	1,020	1.4	266	2.9	1,390
1.5	340	3.0	1,540	1.7	402	3.5	2,100
1.7	440	4.1	2,920	2.0	574	3.8	2,480
1.9	550			2.2	712		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	483	292	292	224	212	206	218	235	1,170	2,180	1,140	654
2	354	284	288	224	212	215	212	256	1,100	2,180	1,180	647
3	345	288	280	224	206	221	212	268	953	2,170	1,110	647
4	340	292	280	218	206	212	231	242	826	2,000	1,100	633
5	328	292	280	212	209	209	246	238	688	1,970	1,090	705
6	312	308	276	221	209	200	264	276	653	1,850	899	745
7	312	308	272	231	215	191	268	378	962	1,680	803	745
8	320	304	280	221	212	194	272	364	1,180	1,500	794	705
9	320	320	284	224	215	200	296	378	1,170	1,290	937	698
10	320	350	272	228	206	209	284	388	1,540	1,210	956	468
11	324	340	272	228	200	212	260	374	1,990	1,250	937	320
12	332	352	276	224	194	218	284	404	2,530	1,190	1,020	311
13	340	324	268	215	209	224	288	489	2,420	1,020	1,040	280
14	320	324	268	231	191	228	276	562	2,290	890	1,140	289
15	308	320	264	231	203	218	246	626	2,180	812	1,200	282
16	300	316	264	228	203	206	235	733	2,130	984	1,180	244
17	284	316	260	228	200	212	235	772	2,130	956	1,130	241
18	280	316	253	224	203	221	228	626	2,220	854	928	237
19	288	316	260	224	200	206	228	522	2,320	812	1,040	234
20	304	312	264	224	206	216	231	453	2,600	863	1,070	227
21	300	312	260	224	203	218	224	478	2,820	1,170	1,040	223
22	300	308	260	218	200	197	215	506	2,840	871	994	320
23	300	316	253	218	200	197	212	600	2,580	778	956	473
24	292	316	249	221	197	206	215	1,010	2,520	778	737	514
25	292	312	249	221	206	206	218	1,250	2,690	820	462	532
26	292	308	242	215	197	203	221	1,600	2,610	712	502	520
27	284	292	242	212	200	197	228	1,250	2,680	620	486	456
28	288	296	238	215	209	194	312	748	2,420	574	429	334
29	308	292	235	215	203	188	284	795	2,200	512	669	248
30	300	292	235	209	-	194	249	953	2,200	1,020	778	244
31	292	-	231	209	-	215	-	1,150	-	1,090	728	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9,762	483	280	315	19,360
November.....	9,298	350	284	310	18,440
December.....	8,147	292	231	263	16,160
Calendar year 1943.....	264,538	2,820	203	725	524,700
January.....	6,861	231	209	221	13,610
February.....	5,926	215	191	204	11,750
March.....	6,432	228	188	207	12,760
April.....	7,392	212	212	246	14,660
May.....	15,953	1,600	235	611	37,590
June.....	58,812	2,840	553	1,960	116,700
July.....	36,896	2,180	574	1,190	73,180
August.....	28,414	1,200	429	917	56,360
September.....	13,126	745	223	438	26,040
Water year 1943-44.....	210,019	2,840	188	574	416,600

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 and October 1933 to September 1944 in reports of Geological Survey. May 1888 to September 1944 in reports of State engineer.

Average discharge.- 56 years (1888-1944), 725 second-feet.

Extremes.- Maximum discharge during year, 9,020 second-feet July 4 (gage height, 8.12 feet), from rating curve extended above 5,000 second-feet; minimum daily, 194 second-feet Sept. 22.

1888-1944: 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. Diversions above station for irrigation. For statements on regulation, see descriptions for stations at Granite and Salida.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	788	274	374	298	289	324	355	311	1,920	2,520	1,130	657
2	433	265	370	298	277	317	344	317	1,870	2,470	1,100	579
3	362	262	355	304	277	341	324	359	1,690	2,530	1,070	590
4	359	280	359	317	274	330	341	344	1,830	2,500	1,050	596
5	341	263	355	286	271	327	366	311	1,270	2,480	1,060	637
6	317	274	359	295	271	324	395	320	1,150	2,190	966	707
7	298	292	356	324	280	314	408	400	1,340	2,070	795	714
8	295	292	362	289	280	350	362	565	1,830	1,820	761	700
9	298	305	383	292	286	350	480	529	1,680	1,560	803	671
10	298	341	352	311	277	359	524	553	2,240	1,580	934	650
11	a300	355	359	324	277	408	404	535	2,700	1,370	902	336
12	a305	344	366	304	274	423	418	529	3,030	1,510	926	298
13	a305	327	370	298	286	433	438	678	2,810	1,200	1,000	279
14	308	324	366	298	277	463	448	914	2,660	1,010	1,040	261
15	308	317	359	317	277	469	395	1,010	2,600	910	1,140	244
16	295	301	344	327	289	413	370	1,210	2,480	926	1,140	232
17	286	308	344	320	274	374	379	1,280	2,500	1,050	1,150	250
18	265	301	341	320	274	433	387	1,100	2,480	966	1,010	223
19	258	298	355	314	271	408	379	796	2,550	1,370	910	223
20	265	292	355	308	271	423	391	678	2,760	983	1,030	208
21	280	292	355	308	280	448	433	685	3,100	1,180	1,050	198
22	271	295	348	311	274	443	413	699	3,110	1,230	991	194
23	280	311	334	308	277	413	400	842	2,900	958	950	325
24	268	317	334	301	274	433	395	1,160	2,780	926	902	474
25	260	327	327	314	263	448	370	1,530	2,860	926	644	500
26	260	344	327	304	250	428	383	2,010	3,090	878	450	506
27	260	341	327	301	250	370	397	1,890	3,090	743	455	506
28	255	359	301	285	255	362	423	1,630	2,860	623	423	396
29	253	362	295	301	265	344	518	1,360	2,570	616	414	288
30	296	374	314	289	-	320	366	1,480	2,570	966	743	242
31	268	-	308	298	-	334	-	1,730	-	1,060	736	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9,635	788	255	311	19,110
November.....	9,310	374	252	310	18,470
December.....	10,764	383	295	347	21,350
Calendar year 1943.....	294,314	2,950	252	806	583,700
January.....	9,462	327	283	305	18,770
February.....	7,550	280	250	274	15,770
March.....	11,876	469	314	383	23,560
April.....	11,996	524	324	400	23,790
May.....	27,668	2,010	311	893	54,880
June.....	72,200	3,110	1,150	2,407	143,200
July.....	42,721	2,530	616	1,378	84,740
August.....	27,565	1,150	414	889	54,670
September.....	12,564	714	194	422	25,120
Water year 1943-44.....	253,811	3,110	194	693	503,400

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

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 Portland, and a short distance upstream from Hardscrabble Creek. Datum of gage is 5,021.56 feet above mean sea level, datum of 1929.

Drainage area.- 3,790 square miles.

Records available.- May 1939 to September 1944.

Extremes.- Maximum discharge during year, 9,720 second-feet July 5 (gage height, 8.12 feet), from rating curve extended above 5,000 second-feet; minimum daily, 207 second-feet Sept. 22.

1939-44: Maximum discharge, 16,000 second-feet Aug. 13, 1942 (gage height, 10.40 feet), from rating curve extended above 5,000 second-feet; minimum daily, 98 second-feet Apr. 1, 1940.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	648	306	322	303	269	260	311	546	2,000	2,440	1,010	575
2	447	295	325	303	269	262	314	592	2,000	2,460	1,000	519
3	425	288	320	308	266	269	293	586	1,780	2,520	980	530
4	396	290	317	308	264	271	295	552	1,640	2,470	971	524
5	380	290	317	293	264	250	326	498	1,260	4,200	971	623
6	357	293	320	288	264	247	350	514	1,070	2,180	933	586
7	354	303	*322	b280	264	239	376	654	1,230	1,910	770	598
8	328	295	317	300	288	238	360	834	1,890	1,660	726	592
9	331	303	b305	298	298	244	465	785	1,740	1,470	726	557
10	328	317	b300	311	286	254	575	809	2,350	1,300	886	569
11	351	341	b300	314	278	264	447	753	3,020	1,290	843	400
12	335	339	b310	311	269	271	483	817	3,470	1,200	826	322
13	341	325	b315	308	281	274	540	942	3,540	1,120	933	295
14	338	322	b325	*308	278	288	604	1,110	3,280	905	961	271
15	322	320	b340	308	271	295	514	1,230	3,100	778	1,100	244
16	320	311	354	293	286	276	524	1,410	2,910	800	1,100	234
17	303	306	350	288	274	266	530	1,650	2,860	914	1,100	235
18	290	300	347	283	276	314	514	1,300	2,720	843	971	223
19	290	295	347	276	269	306	540	924	2,740	1,390	808	223
20	295	290	347	274	269	317	535	770	2,960	914	1,020	212
21	298	295	357	274	286	322	563	763	3,400	1,080	1,050	209
22	293	295	344	269	278	306	540	713	3,480	1,230	971	207
23	293	295	334	269	276	325	524	733	3,210	905	933	238
24	293	306	331	269	264	328	498	952	2,920	843	914	376
25	268	325	322	276	250	338	470	1,500	2,940	826	623	396
26	288	334	325	269	239	338	447	2,180	3,200	826	493	404
27	288	325	317	269	231	311	470	2,060	3,240	726	519	400
28	286	322	308	264	233	298	514	1,690	2,920	617	470	354
29	286	334	306	269	236	293	610	1,530	2,680	569	417	288
30	306	322	308	266	-	288	546	1,560	2,550	852	635	226
31	293	-	311	266	-	288	-	1,790	-	924	641	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,354	648	286	334	20,540
November.....	9,281	341	288	309	18,410
December.....	10,063	357	500	326	19,960
Calendar year 1943.....	293,421	3,400	286	804	582,000
January.....	8,915	314	264	288	17,680
February.....	7,776	298	231	268	15,420
March.....	8,830	338	238	285	17,510
April.....	14,077	610	295	469	27,920
May.....	32,627	2,180	498	1,052	84,710
June.....	78,190	3,640	1,070	2,606	155,100
July.....	42,162	4,200	569	1,360	83,630
August.....	26,302	1,100	417	848	52,170
September.....	11,428	623	207	381	22,670
Water year 1943-44.....	260,005	4,200	207	710	515,700

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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, and October 1933 to September 1944, at present site, and June to December 1887, at site 5 miles upstream, in reports of Geological Survey. May 1885 to September 1886 and September 1894 to September 1944 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.- 40 years (1894-1924, 1934-44), 758 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, 5,960 second-feet July 5; minimum daily, 40 second-feet Sept. 23.

1885-87, 1894-1944: 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 excellent except those below 100 second-feet and those for period of ice effect, 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	660	266	327	327	282	157	217	564	2,050	2,160	897	598
2	543	251	284	324	281	194	227	567	2,040	2,160	918	552
3	441	273	285	359	244	209	163	568	1,920	2,150	907	572
4	428	299	306	*322	218	234	137	473	1,730	2,210	1,140	665
5	380	303	293	304	218	205	213	390	1,400	3,040	1,080	561
6	381	312	285	a240	195	193	252	331	1,020	2,220	866	584
7	357	330	298	a230	189	183	299	423	1,100	1,910	766	621
8	288	324	304	a230	234	175	313	679	1,750	1,680	690	645
9	279	311	b303	b245	267	180	316	671	1,810	1,520	662	629
10	286	*319	b298	b275	263	197	639	671	2,000	1,290	829	668
11	287	366	b310	b282	274	210	471	693	2,450	1,690	792	515
12	287	371	b330	b288	264	213	498	669	2,780	1,240	774	318
13	293	359	b355	b280	255	209	540	711	3,020	1,100	847	286
14	289	341	b385	b280	279	272	663	810	2,680	889	829	241
15	267	343	b380	b295	267	292	547	976	2,690	753	1,010	189
16	271	327	374	b305	291	281	659	1,060	2,380	745	994	133
17	257	309	372	b290	274	261	608	1,150	2,390	806	1,030	116
18	224	302	353	b298	301	293	566	1,110	2,300	1,020	962	116
19	203	290	354	308	239	323	574	887	2,290	1,450	761	109
20	270	293	347	296	250	281	603	767	2,460	899	995	84
21	257	298	437	262	264	313	588	757	2,720	900	1,030	63
22	266	296	380	266	260	364	588	708	2,640	1,220	935	58
23	263	287	401	270	249	326	526	700	2,800	1,324	901	40
24	265	299	342	235	238	294	536	793	2,640	737	920	238
25	259	321	341	233	224	275	570	1,640	2,620	728	775	316
26	246	366	356	241	200	304	501	1,780	2,740	719	557	323
27	248	349	401	250	172	281	489	2,120	2,830	686	535	338
28	231	343	342	250	164	241	500	1,960	2,640	600	475	321
29	234	451	377	260	161	237	660	1,750	2,340	584	408	219
30	249	362	319	314	-	211	592	1,820	2,210	706	559	136
31	251	-	325	*295	-	199	-	1,840	-	638	661	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		9,445	660	203	305	18,730
November		9,651	451	261	322	19,140
December		10,574	437	284	341	20,970
Calendar year 1943		264,757	2,970	203	723	525,200
January		8,632	339	230	278	17,120
February		7,017	301	187	242	13,920
March		7,587	354	157	245	15,060
April		14,004	663	163	467	27,760
May		29,638	2,120	331	956	58,790
June		66,240	3,020	1,020	2,275	135,400
July		39,433	3,040	584	1,272	78,210
August		25,523	1,140	408	823	50,620
September		10,154	668	40	338	20,140
Water year 1943-44		239,898	3,040	40	655	475,900

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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. Datum of gage is 4,503.16 feet above mean sea level, datum of 1929.

Drainage area.— 6,350 square miles.

Records available.— May 1939 to September 1944.

Extremes.— Maximum discharge during year, 5,360 second-feet July 19 (gage height, 5.32 feet), from rating curve extended above 2,500 second-feet; minimum daily, 162 second-feet Sept. 23.

1939-44: Maximum discharge, 18,900 second-feet Apr. 24, 1942 (gage height, 7.79 feet), from rating curve extended above 7,000 second-feet; minimum daily, 50 second-feet Apr. 2, 1940.

Remarks.— Records good. Storage and diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	739	330	459	412	454	330	330	1,150	2,930	2,270	926	624
2	700	376	417	407	470	334	362	1,140	2,880	2,430	1,010	550
3	562	375	389	454	464	350	310	1,180	2,400	2,380	978	496
4	580	354	417	475	417	394	306	1,150	1,860	2,200	947	520
5	481	375	433	428	407	403	314	999	1,660	2,760	2,030	906
6	443	380	422	412	366	380	358	897	1,390	2,490	1,390	624
7	428	384	443	407	366	375	389	999	1,460	2,240	999	632
8	389	394	464	403	384	362	428	1,390	2,010	1,980	802	624
9	366	384	422	412	448	362	407	1,650	2,120	1,960	775	639
10	366	384	459	443	396	366	722	1,710	2,440	1,830	830	610
11	358	407	498	481	384	375	793	1,680	2,770	1,920	897	624
12	358	412	526	492	389	384	739	1,710	3,110	1,960	868	375
13	362	412	556	481	398	366	811	1,800	3,450	1,720	897	318
14	366	398	574	481	394	375	1,120	2,010	3,170	1,350	958	294
15	362	394	562	503	407	398	999	2,260	3,010	1,090	1,020	275
16	346	394	544	550	398	394	868	2,360	2,760	1,130	1,090	250
17	336	384	509	509	433	403	926	2,380	2,460	1,120	1,060	268
18	314	371	520	538	464	428	916	1,940	2,360	1,080	1,060	216
19	298	371	526	514	407	464	897	1,660	2,360	2,960	897	223
20	318	371	509	509	389	438	968	1,490	2,510	1,460	887	219
21	326	380	568	503	394	454	947	1,380	2,700	1,240	1,120	197
22	310	412	532	476	394	464	1,020	1,320	2,840	1,390	1,130	173
23	314	412	514	454	389	514	958	1,210	2,910	1,200	1,040	162
24	310	428	464	464	384	492	1,080	1,250	2,810	1,080	1,020	254
25	306	448	448	428	394	422	1,140	1,700	2,700	1,060	916	362
26	306	464	443	438	403	459	1,070	2,330	2,700	968	736	403
27	306	422	492	407	354	438	978	2,840	2,880	937	839	412
28	302	428	458	403	346	371	969	2,620	2,670	793	647	417
29	306	481	459	407	334	358	1,120	2,660	2,660	684	526	375
30	314	486	417	433	-	346	1,210	3,010	2,320	677	509	310
31	322	-	403	443	-	330	-	2,860	-	897	664	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	11,836	739	298	382	23,480
November.....	12,010	486	330	400	23,820
December.....	14,827	574	389	478	29,410
Calendar year 1943.....	309,969	3,310	298	849	614,800
January.....	14,166	560	403	457	28,100
February.....	11,629	470	334	401	23,070
March.....	12,329	514	330	398	24,450
April.....	23,475	1,210	306	782	46,560
May.....	54,905	3,010	897	1,771	106,900
June.....	76,190	3,450	1,390	2,540	161,100
July.....	49,246	2,960	677	1,589	97,680
August.....	29,516	2,030	509	952	55,550
September.....	12,354	906	162	412	24,600
Water year 1943-44.....	322,485	3,460	162	881	639,600

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Arkansas River near Nepesta, Colo.

Location.- Water-stage recorder above diversion dam of Oxford Farmers Co. canal, lat. $38^{\circ}11'$, long. $104^{\circ}10'$, in sec. 31, T. 21 S., R. 60 W., $\frac{1}{4}$ miles west of Nepesta. Datum of gage is 4,378.68 feet above mean sea level, datum of 1929.

Drainage area.- 9,130 square miles.

Records available.- September 1897 to October 1903, July 1909 to November 1912, and October 1933 to September 1944 in reports of Geological Survey. September 1897 to October 1903, July 1909 to November 1912, and January 1914 to September 1944 in reports of State engineer.

Average discharge.- 19 years (1917-21, 1922-28, 1935-44), 721 second-feet.

Extremes.- Maximum discharge during year, 8,680 second-feet July 19 (gage height, 5.80 feet), from rating curve extended above 6,000 second-feet; minimum daily, 74 second-feet Sept. 23. 1897-1903, 1909-12, 1914-44: Maximum discharge, 180,000 second-feet Jan. 4, 1921, at point 9 miles upstream by slope-area method; no flow at times in 1902, 1910, 1931, 1934.

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

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	409	212	*450	304	201	263	254	968	2,890	2,070	460	127
2	388	272	469	198	225	246	263	1,080	2,960	1,930	421	344
3	395	312	378	237	139	250	179	1,300	3,310	2,140	282	a242
4	402	312	349	*282	110	259	229	1,320	2,690	2,120	273	141
5	374	295	230	291	137	269	241	1,020	2,100	2,420	1,310	389
6	342	300	165	*300	128	241	259	731	1,590	2,070	322	273
7	342	300	162	300	97	250	259	618	1,660	1,860	138	332
8	330	318	145	277	110	220	259	1,280	2,240	1,740	260	198
9	246	300	169	166	190	233	300	1,790	2,560	1,920	210	194
10	237	342	210	277	186	220	770	1,619	2,830	1,660	206	194
11	229	367	280	300	220	197	1,040	1,630	3,130	2,700	296	254
12	225	409	290	*380	194	268	770	1,450	3,400	3,950	278	402
13	225	373	290	370	205	246	698	1,340	3,400	2,750	264	324
14	246	378	280	370	175	272	1,360	1,610	2,950	2,100	188	263
15	263	333	270	380	205	272	1,160	2,120	2,560	1,280	150	259
16	246	305	270	390	145	259	949	2,100	2,220	1,160	156	225
17	229	321	260	233	194	241	1,200	2,070	1,750	1,080	147	212
18	182	333	*160	*205	208	312	1,240	1,770	1,750	1,080	188	172
19	148	316	269	*263	241	282	1,080	850	1,690	3,640	168	157
20	175	299	*260	220	172	330	1,080	440	1,790	1,760	226	142
21	201	254	251	197	160	336	987	430	2,000	1,260	527	111
22	194	249	389	148	117	250	1,220	705	2,320	1,620	566	107
23	356	285	344	194	107	318	786	679	2,340	1,360	421	74
24	295	271	310	241	254	607	1,010	682	2,070	920	421	80
25	312	299	273	225	295	480	1,160	1,180	1,930	572	364	112
26	342	362	450	229	254	480	987	2,050	2,020	515	498	94
27	330	370	498	160	142	361	866	2,920	2,070	470	1,180	123
28	277	362	421	175	220	330	914	3,010	1,950	367	670	120
29	145	408	321	190	254	291	987	2,500	1,720	360	421	117
30	163	479	*344	160	-	291	1,020	2,770	2,270	360	332	94
31	194	-	338	175	-	259	-	2,740	-	361	234	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	8,422	409	145	272	16,700
November.....	9,716	479	212	324	19,270
December.....	9,285	498	145	300	18,420
Calendar year 1943	220,815	2,320	110	605	438,000
January.....	7,837	390	148	253	15,540
February.....	5,285	295	97	182	10,480
March.....	9,143	607	197	295	18,130
April.....	23,727	1,360	179	731	47,060
May.....	46,773	3,010	450	1,509	92,770
June.....	70,250	3,400	1,590	2,342	139,300
July.....	49,615	3,640	360	1,600	98,410
August.....	11,487	1,310	138	371	22,780
September.....	5,876	402	74	196	11,650
Water year 1943-44	257,416	3,640	74	703	510,500

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.- No gage-height record Dec. 10-18, Jan. 11-16 (stage-discharge relation probably affected by ice during entire period); discharge computed on basis of 2 discharge measurements, weather records, and records, minus diversions, for station near Avondale.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 1944 in reports of Geological Survey. December 1893 to December 1895, January to December 1901, April to October 1903, August to November 1908 and April 1912 to September 1944 in reports of State engineer.

Average discharge.- 32 years (1912-44), 284 second-feet.

Extremes.- Maximum discharge during year, 7,730 second-feet May 28 (gage height, 7.05 feet), from rating curve extended above 4,200 second-feet; minimum daily, 6.0 second-feet Sept. 5.

1889, 1893-95, 1901, 1903, 1908, 1912-44: 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 above 30 second-feet and fair below. Storage and diversions above station for irrigation.

Cooperation.- Forty-four discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	85	220	16	11	15	30	54	2,700	95	34	14
2	113	105	235	9.4	9.8	14	49	69	2,520	52	50	7.2
3	145	155	306	7.4	13	10	212	120	2,520	66	28	
4	189	187	220	9.0	13	8.2	242	61	2,450	465	34	23
5	199	145	110	13	15	9.4	100	54	2,110	242	100	6.0
6	228	130	52	20	36	18	47	47	1,500	538	434	46
7	205	135	52	a19	29	19	45	49	1,100	125	305	95
8	181	135	52	a17	20	12	42	76	639	125	305	44
9	151	163	25	a19	29	11	52	140	926	125	62	10
10	120	169	25	16	23	11	212	79	966	130	44	21
11	85	140	38	14	30	13	130	89	507	1,070	23	40
12	110	157	193	11	18	12	58	92	205	783	32	23
13	105	169	212	+16	15	8.2	54	66	811	1,130	46	40
14	115	135	100	16	16	9.4	38	69	1,620	445	17	36
15	89	140	42	21	14	15	20	89	1,340	797	25	25
16	115	115	7.8	25	14	12	21	365	1,020	898	36	8.4
17	115	125	9.0	23	27	6.8	89	331	496	604	50	all
18	100	135	13	30	30	12	49	193	518	228	52	26
19	125	95	11	29	23	20	63	175	199	1,600	48	42
20	135	105	16	32	21	15	69	455	92	1,710	52	25
21	272	120	36	21	21	11	76	425	486	415	52	21
22	195	120	23	21	16	7.0	242	130	811	365	28	28
23	140	110	29	20	16		395	89	650	662	58	30
24	145	89	47	20	14	30	507	56	375	662	58	38
25	187	100	21	27	9.0	30	258	187	258	528	26	32
26	175	125	19	40	32	23	85	582	235	415	16	28
27	175	193	52	34	32	23	66	1,130	140	375	68	14
28	125	199	79	29	21	54	75	5,040	167	138	92	14
29	100	205	85	23	17	36	47	3,070	140	69	72	14
30	82	228	42	18	-	34	58	3,440	228	52	62	23
31	66	-	+19	18	-	42	-	3,240	-	48	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,327	272	62	140	8,580
November	4,104	228	85	140	8,320
December	2,390.8	306	7.8	77.1	4,740
Calendar year 1943	90,583.3	1,320	4.0	248	179,700
January	635.8	40	7.4	20.4	1,280
February	584.3	36	9.0	20.2	1,160
March	559.0	54	6.8	18.0	1,110
April	3,429	507	20	114	6,800
May	20,062	5,040	47	647	39,790
June	27,739	2,700	92	925	55,020
July	14,856	1,710	48	479	29,470
August	2,857	454	16	76.0	4,580
September	812.6	95	6.0	27.1	1,610
Water year 1943-44	81,945.0	5,040	6.0	224	162,500

* Winter discharge measurement made on this day.

a No gage-height record (stage-discharge relation affected by ice Jan. 7-9); discharge computed on basis of weather records.

Note.- Discharge computed from chain-gage readings July 28 to Sept. 19.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Las Animas, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}05'$, long. $103^{\circ}12'$, in NW $\frac{1}{4}$ sec. 2; T. 23 S., R. 52 W., 1,500 feet downstream from highway bridge and 1 mile north of Las Animas.

Datum of gage is 3,874.97 feet above mean sea level, datum of 1929.

Drainage area.- 14,500 square miles.

Records available.- May 1939 to September 1944.

Extremes.- Maximum discharge during year, 9,280 second-feet May 28 (gage height, 8.65 feet); minimum daily, 19 second-feet Oct. 1, Sept. 24, 26, 28.

1939-44: Maximum discharge, 23,600 second-feet Apr. 25, 1942 (gage height, 12.58 feet); minimum daily, 8 second-feet Aug. 9, 23, 1940.

Remarks.- Records good. Storage and diversions above station for irrigation.

Cooperation.- Gage-height record, 80 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	51	138	68	72	59	49	128	2,680	252	48	27
2	21	53	142	68	66	55	49	119	2,560	88	38	27
3	48	68	232	66	64	55	75	165	2,580	77	38	27
4	84	95	232	61	66	55	153	153	2,770	492	34	28
5	104	118	153	49	72	51	159	109	2,350	292	32	27
6	145	97	97	49	72	46	90	95	1,650	512	323	23
7	159	95	81	46	81	46	51	86	1,450	242	357	21
8	156	97	77	86	84	48	51	100	797	86	220	23
9	153	102	77	48	75	46	59	140	716	88	79	23
10	138	111	55	64	66	48	186	174	832	70	53	23
11	109	116	40	61	77	44	315	123	684	1,220	34	28
12	75	104	53	55	66	44	195	123	259	940	30	25
13	66	120	104	42	114	46	148	118	303	1,760	25	25
14	64	148	140	42	75	44	130	107	1,270	659	21	27
15	64	142	109	64	55	46	145	97	1,090	653	34	27
16	57	116	72	81	55	51	165	111	900	840	79	25
17	66	104	66	81	55	51	125	229	634	885	43	23
18	75	107	66	95	53	64	135	216	362	665	30	23
19	72	102	70	95	59	64	116	111	662	1,120	30	25
20	75	88	81	95	57	75	132	210	168	2,120	28	23
21	150	86	79	88	55	81	132	344	154	878	28	25
22	183	81	79	77	55	75	192	239	916	634	32	25
23	128	84	72	79	53	75	504	95	703	640	36	23
24	114	81	75	79	53	70	476	49	598	900	32	19
25	104	70	79	77	51	75	303	64	198	892	27	21
26	90	77	66	90	43	61	236	344	198	690	32	19
27	86	68	57	90	57	53	171	605	138	444	28	21
28	86	132	66	86	66	49	153	6,800	81	259	34	19
29	75	132	100	90	59	49	186	4,040	111	107	30	25
30	66	132	111	81	-	48	183	3,420	102	86	25	23
31	59	-	88	72	-	46	-	3,270	-	61	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,891	183	19	93.3	5,730
November.....	2,995	148	51	99.8	5,940
December.....	2,959	232	40	95.5	5,870
Calendar year 1943.....	83,505	1,500	14	229	165,600
January.....	2,225	95	42	71.8	4,410
February.....	1,881	114	48	64.9	3,730
March.....	1,720	81	44	55.5	3,410
April.....	5,064	504	49	169	10,040
May.....	21,981	6,800	49	709	43,600
June.....	27,916	2,770	81	931	55,370
July.....	18,556	2,120	61	599	36,810
August.....	1,913	357	21	61.7	3,790
September.....	720	28	19	24.0	1,430
Water year 1943-44.....	90,821	6,800	19	248	180,100

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 3,737.40 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 1944.

Extremes.- Maximum discharge during year, 4,640 second-feet May 31 (gage height, 6.17 feet); minimum daily, 1.9 second-feet Feb. 4-7, 25, Mar. 25.
1938-44: Maximum discharge, 50,000 second-feet Apr. 24, 1942 (gage height, 10.46 feet, site and datum then in use), by slope-area method; minimum daily, 0.7 second-foot Feb. 14, Mar. 6-10, 1943 (result of regulation); minimum daily prior to construction of John Martin Reservoir, 5 second-feet July 16, 1939.

Remarks.- Records excellent above 50 second-feet and fair below. Storage and diversions above station for irrigation. Flow regulated by John Martin Reservoir (present capacity, 296,500 acre-feet; capacity when gates are installed, 655,000 acre-feet).

Cooperation.- Gage-height record, 160 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	121	193	2.8	2.5	2.8	3.1	4.0	4,560	768	345	1,610
2	40	108	208	3.1	2.8	3.1	3.1	4.0	4,460	728	190	1,520
3	42	110	223	2.8	2.5	3.4	4.0	4.0	4,420	685	95	1,420
4	44	126	284	2.8	1.9	3.4	4.0	3.7	4,400	664	97	1,390
5	80	152	274	3.1	1.9	3.4	3.4	3.4	3,080	586	112	1,240
6	106	165	295	2.8	1.9	3.4	2.8	3.4	2,260	566	119	1,090
7	140	150	288	2.8	1.9	3.4	3.1	4.0	1,800	593	295	1,060
8	162	137	165	2.5	2.2	3.1	2.8	5.2	1,780	535	505	892
9	184	132	72	2.5	2.5	3.4	4.6	4.0	626	566	361	814
10	165	147	15	2.5	2.5	3.1	6.4	4.6	1,410	582	173	768
11	150	184	31	3.1	2.2	4.0	2.8	4.0	1,400	566	184	761
12	112	184	37	3.4	3.4	4.0	2.8	4.6	1,080	571	199	794
13	87	176	37	2.5	5.2	3.1	2.5	5.8	1,420	520	491	735
14	82	190	35	2.8	8.8	3.7	2.5	5.8	1,280	470	1,370	654
15	65	184	26	2.8	9.4	3.7	2.8	5.8	2,240	470	1,500	604
16	84	184	27	2.8	3.4	3.4	3.7	114	1,210	480	1,780	620
17	85	165	26	2.5	2.8	3.4	3.7	249	780	475	2,010	571
18	89	170	27	2.5	3.1	4.6	3.1	239	709	475	1,670	505
19	93	160	27	2.8	2.8	3.4	3.4	242	440	555	1,880	555
20	95	150	28	3.4	2.5	3.7	3.7	246	318	1,590	1,790	525
21	114	140	29	3.7	2.2	3.7	4.0	246	325	2,470	1,710	545
22	190	150	27	2.8	2.2	2.8	7.0	235	362	2,560	1,630	565
23	190	123	26	2.8	2.5	3.1	5.8	226	550	2,130	1,780	545
24	154	126	24	2.8	2.5	2.8	5.8	226	604	525	1,910	535
25	144	116	23	3.1	1.9	1.9	4.0	233	582	505	1,880	530
26	132	116	22	3.4	2.5	2.5	4.0	108	582	759	1,840	520
27	112	130	22	2.8	2.2	3.4	4.0	30	576	993	1,760	505
28	108	140	22	2.5	2.5	3.1	3.7	556	821	961	1,770	445
29	116	170	21	2.2	2.5	2.5	4.6	4,420	760	823	1,640	349
30	116	173	18	2.2	-	2.2	3.1	4,550	774	490	1,660	56
31	130	-	12	2.2	-	2.8	-	4,600	-	480	1,620	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,465	190	54	112	6,870
November.....	4,461	190	108	149	8,550
December.....	2,564	295	12	82.7	5,090
Calendar year 1943	98,659.5	5,130	.7	270	195,700
January.....	86.8	3.7	2.2	2.80	172
February.....	90.2	9.4	1.8	3.11	179
March.....	100.3	4.6	1.9	3.24	199
April.....	113.7	7.0	2.5	3.79	226
May.....	16,584.3	4,600	3.4	535	32,890
June.....	45,649	4,550	318	1,522	90,540
July.....	25,191	2,560	470	813	49,970
August.....	34,366	2,010	95	1,109	68,160
September.....	22,713	1,610	56	757	45,050
Water year 1943-44	155,384.3	4,600	1.9	425	308,200

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Lamar, Colo.

Location.- Water-stage recorder and chain gage, lat. $38^{\circ}06'$, long. $102^{\circ}37'$, in sec. 30, T. 22 S., R. 46 W., 800 feet downstream from highway bridge and 1 mile north of Lamar. Datum of gage is 3,605.02 feet above mean sea level, datum of 1929.

Drainage area.- 19,800 square miles.

Records available.- May to December 1913 and October 1933 to September 1944 in reports of Geological Survey. May 1913 to September 1944 in reports of State engineers.

Average discharge.- 31 years, 298 second-feet.

Extremes.- Maximum discharge during year, 4,680 second-feet May 31 (gage height, 4.17 feet); minimum daily, 4.4 second-feet Nov. 8, 24, Dec. 22 1913-44: Maximum discharge, 165,000 second-feet June 5, 1921, by slope-area method; no flow at times during 1913-15.

Remarks.- Records good above 100 second-feet, fair between 20 and 100 second-feet, and poor below 20 second-feet. Storage and diversions above station for irrigation. Twice-daily chain-gage readings used Oct. 1 to May 27.

Cooperation.- Forty-seven discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	7.0	5.0	41	7.8	21	6.2	15	4,480	104	235	887
2	6.2	6.2	4.7	41	7.4	22	6.2	13	4,280	91	133	878
3	9.6	5.4	5.4	21	6.2	24	5.0	111	4,260	75	38	764
4	11	4.7	5.4	21	5.4	25	6.2	35	4,310	109	17	744
5	10	5.0	13	10	5.8	26	5.4	24	3,760	109	11	735
6	10	5.0	135	10	5.0	18	5.4	19	1,970	27	11	574
7	9.0	4.7	143	7.8	5.0	20	5.0	14	1,130	63	11	497
8	9.6	4.4	51	26	5.8	20	5.0	13	1,240	75	13	396
9	9.6	4.7	35	26	5.8	23	5.0	12	595	75	30	272
10	8.6	4.7	9.0	12	5.6	21	7.0	9.0	1,130	87	13	223
11	7.4	5.4	9.0	10	41	12	7.8	10	1,300	114	9.0	217
12	7.0	5.4	10	28	11	6.6	6.6	7.55	735	270	7.0	247
13	7.4	5.0	5.4	8.6	28	11	7.4	7.8	1,070	207	9.0	217
14	7.8	5.4	5.4	9.0	28	9.6	7.4	9.6	605	142	221	183
15	6.2	5.4	5.0	7.4	28	5.6	5.8	11	1,490	123	458	132
16	6.2	5.8	5.0	10	28	7.0	7.0	11	1,090	183	624	132
17	5.4	5.8	5.0	17	31	5.4	7.0	9.0	525	183	1,140	150
18	6.2	5.8	4.7	16	64	7.8	6.2	9.0	322	171	868	141
19	6.2	5.8	4.7	17	21	7.4	7.0	13	249	249	792	118
20	5.8	5.0	4.7	23	30	9.0	7.0	13	49	404	906	123
21	6.6	5.0	4.7	19	29	9.0	7.0	14	19	2,070	896	136
22	7.4	4.7	4.4	17	22	9.0	7.0	15	17	2,220	820	136
23	7.8	4.7	5.0	19	19	7.8	8.6	14	13	2,240	802	128
24	7.8	4.4	5.4	17	19	8.2	8.6	14	21	1,040	887	123
25	8.2	5.0	5.4	10	16	5.2	7.4	14	21	345	858	118
26	7.4	5.4	5.4	10	11	7.8	8.2	412	21	354	858	114
27	7.4	5.0	5.4	9.6	12	7.4	8.2	101	11	685	830	105
28	8.2	5.0	5.0	9.6	15	7.4	8.6	207	35	735	764	94
29	8.2	5.0	23	9.0	20	5.0	60	2,490	95	725	764	91
30	9.0	5.0	51	9.0	-	5.4	74	4,060	87	449	735	87
31	7.4	-	41	9.0	-	6.2	-	4,510	-	278	830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	247.6	13	5.4	7.99	491
November.....	155.9	7.0	4.4	5.19	309
December.....	518.5	143	4.4	19.9	1,220
Calendar year 1943.....	37,637.7	4,700	1.2	103	74,650
January.....	482.0	41	7.4	15.5	956
February.....	600.2	64	5.0	20.7	1,180
March.....	390.2	26	5.0	12.6	774
April.....	324.2	74	5.0	10.8	645
May.....	12,216.0	4,510	6.6	394	24,230
June.....	34,930	4,480	11	1,164	69,280
July.....	14,002	2,240	27	452	27,770
August.....	14,590.0	1,140	7.0	471	28,940
September.....	8,732	887	67	291	17,320
Water year 1943-44.....	87,286.5	4,510	4.4	238	173,100

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Holly, Colo.

Location.- Water-stage recorder and chain gage, lat. 38°02', long. 102°07', in sec. 14, T. 23 S., R. 42 W., at highway bridge, just upstream from Wild Horse Creek and half a mile south of Holly. Datum of gage is 3,377.95 feet above mean sea level, datum of 1929.

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 1944 in reports of Geological Survey. October 1907 to September 1944 in reports of State engineer.

Average discharge.- 37 years (1907-44), 366 second-feet.

Extremes.- Maximum discharge observed during year, 5,170 second-feet June 4; maximum gage height, 5.85 feet May 31; minimum daily discharge, 6.0 second-feet Oct. 1, 1893-94, 1901-2, 1937-44: 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 Oct. 1 to Feb. 3, which are fair. Once-daily readings of chain gage used Oct. 1 to Feb. 3. Storage and several diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	28	25	60	74	102	115	790	4,760	131	545	932
2	7.5	34	56	60	86	92	115	1,140	4,850	131	402	961
3	7.5	33	56	93	76	89	752	4,960	126	270	942	
4	8.0	28	28	86	89	86	67	641	5,030	123	182	904
5	8.5	34	109	115	92	89	59	506	5,010	136	144	914
6	8.5	28	192	74	92	89	51	410	3,220	141	166	822
7	9.9	28	134	76	89	86	44	338	2,580	109	128	634
8	14	34	197	45	96	80	44	310	2,080	106	94	600
9	20	50	333	45	96	76	55	242	2,130	116	73	440
10	21	49	265	128	72	76	290	226	1,180	111	69	324
11	20	50	93	102	57	76	320	220	1,240	179	59	298
12	21	59	87	128	78	74	248	159	1,530	447	49	304
13	25	38	99	115	108	76	200	176	950	677	44	324
14	25	38	52	50	123	70	185	193	1,210	621	42	291
15	22	38	282	99	67	72	134	172	860	434	98	242
16	20	45	154	62	65	76	119	167	1,370	428	336	193
17	20	45	232	89	76	78	142	146	990	474	530	210
18	25	43	83	78	76	92	155	136	605	467	990	226
19	26	43	86	102	76	111	150	157	575	830	215	
20	24	43	83	109	76	146	146	112	382	1,260	820	198
21	25	43	81	86	76	165	146	115	217	1,450	950	184
22	23	43	78	109	92	142	165	115	157	2,420	830	210
23	41	45	78	86	72	138	242	118	128	2,380	780	232
24	34	54	65	86	78	123	320	95	109	2,130	820	220
25	33	54	122	86	80	111	398	85	106	1,120	762	215
26	26	54	74	86	80	108	320	204	102	762	770	198
27	26	25	60	86	83	105	248	894	90	677	831	193
28	38	27	112	86	102	108	371	1,130	73	860	813	189
29	29	25	69	86	105	115	894	2,080	73	980	786	180
30	29	25	60	43	-	123	980	3,590	151	1,070	770	172
31	28	-	99	36	-	119	-	4,270	-	719	770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	669.9	41	6.0	21.6	1,330
November	1,162	54	25	38.7	2,300
December	3,574	333	25	115	7,090
Calendar year 1943	54,765.4	1,310	3.0	150	108,600
January	2,592	128	36	83.6	5,140
February	2,437	123	57	84.0	4,830
March	3,093	165	70	99.8	6,130
April	6,612	960	44	227	13,510
May	19,682	4,270	36	535	39,040
June	46,467	5,030	73	1,549	92,170
July	21,350	2,420	106	689	42,370
August	14,753	990	42	476	29,260
September	11,967	961	172	399	23,740
Water year 1943-44	134,568.9	5,030	6.0	368	266,900

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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. Datum of gage is 3,212.32 feet above mean sea level, datum of 1929.

Drainage area.- About 25,500 square miles.

Records available.- August 1902 to July 1906, June 1921 to September 1944.

Average discharge.- 23 years (1921-44), 379 second-feet.

Extremes.- Maximum discharge during year, 5,280 second-feet May 31, June 1 (gage height, 6.40 feet); minimum, 3 second-feet Oct. 1 (gage height, 2.27 feet).
1902-6, 1921-44: Maximum gage height, about 11.75 feet June 6, 1921, present datum (discharge not determined); minimum discharge, 1 second-foot at times in 1931, 1934, 1937, 1939, 1940, 1941, 1943. Bankfull stage, 7.0 feet.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	62	90	b55	131	135	120	850	5,020	295	582	811
2	16	64	108	b55	148	135	127	1,260	5,150	241	500	870
3	16	64	120	b50	139	131	116	1,310	5,020	235	430	940
4	14	64	139	b50	131	123	104	860	5,020	271	271	890
5	12	70	180	b50	*123	a120	97	620	5,020	253	277	840
6	16	67	189	b50	a123	a120	93	515	4,060	247	204	811
7	17	70	220	b45	a123	a110	90	479	f3,100	225	194	706
8	16	59	194	b45	123	a110	90	444	g2,050	215	162	568
9	16	90	235	b50	123	a100	112	416	f2,730	220	131	522
10	17	116	220	b50	b120	100	328	289	g1,450	220	g108	430
11	19	112	204	b50	b110	100	590	314	g1,060	235	g97	395
12	19	104	135	b50	b110	97	354	283	g1,040	340	g80	395
13	20	93	139	b55	b100	100	302	286	g1,400	706	g54	395
14	20	104	148	b55	b90	104	247	253	g1,250	714	g51	381
15	26	123	127	*b60	b80	90	184	230	g1,220	620	g45	328
16	24	123	120	b65	b70	100	152	230	g1,040	465	g87	283
17	22	123	144	b75	b60	104	144	215	f1,250	500	289	253
18	24	116	*135	b85	*54	116	135	194	840	466	620	241
19	28	97	139	b115	45	166	131	194	674	533	706	277
20	43	87	152	b130	70	148	144	175	628	2,260	674	259
21	32	77	157	*152	123	175	135	210	515	1,260	706	247
22	34	74	152	116	120	170	152	241	388	2,130	793	225
23	34	87	104	131	104	148	247	230	g289	2,300	722	225
24	45	90	84	127	104	144	289	220	259	2,380	706	a225
25	64	93	120	123	108	137	360	199	210	1,830	775	a270
26	64	87	123	152	104	123	451	235	180	960	820	a245
27	62	80	112	189	108	104	360	620	166	730	840	a255
28	62	80	70	144	120	90	321	1,230	144	766	820	a260
29	59	80	62	*148	131	100	880	1,690	127	860	739	a265
30	59	87	67	120	-	104	1,130	3,940	204	830	757	259
31	62	-	b60	112	-	112	-	4,640	-	730	784	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	976	64	12	31.5	1,940
November.....	2,643	123	59	88.1	5,240
December.....	4,249	235	80	137	8,430
Calendar year 1943.....	70,118	1,620	2	192	139,100
January.....	2,754	189	45	88.8	5,460
February.....	3,095	148	45	107	6,140
March.....	3,716	175	90	120	7,370
April.....	7,986	1,130	90	266	15,840
May.....	22,851	4,640	175	737	45,320
June.....	51,494	5,150	127	1,716	102,100
July.....	24,062	2,380	215	776	47,730
August.....	14,034	840	45	453	27,840
September.....	13,071	940	225	436	25,930
Water year 1943-44.....	150,920	5,150	12	412	299,300

* Winter discharge measurement made on this day.

a No recorder record; discharge computed on basis of observer's reports and weather records.

b Stage-discharge relation affected by ice.

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

d Computed from graph based on gage readings.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Arkansas River at Garden City, Kans.

Location.- Water-stage recorder and wire-weight gage, lat. 37°58', long. 100°52', in NW¼ sec. 19, T. 24 S., R. 32 W., half a mile south of Garden City.

Drainage area.- About 28,800 square miles.

Records available.- June 1922 to September 1944.

Average discharge.- 22 years, 254 second-feet.

Extremes.- Maximum discharge during year, 7,530 second-feet June 1 (gage height, 6.40 feet); no flow at times.

1922-44: Maximum discharge, 31,400 second-feet Apr. 28, 1942 (gage height, 8.87 feet); no flow at times. Bankfull stage, 7.0 feet.

Remarks.- Records fair. Once-daily readings of wire-weight gage used Oct. 1 to Apr. 9. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	4	7	8	35	33	31	934	5,460	g15	614	g98
2	2	4	12	5	26	18	31	804	5,280	26	397	g72
3	1	5	10	11	29	31	29	1,250	5,280	26	280	g115
4	0	6	10	11	26	35	29	1,250	4,940	95	g196	190
5	0	7	10	12	18	22	26	820	4,600	87	g145	244
6	2	7	7	11	20	16	26	628	4,440	69	98	302
7	0	7	6	6	26	22	26	547	3,320	30	g88	325
8	0	7	6	4	26	18	14	415	2,610	13	g75	280
9	0	7	a5	1	22	16	17	325	1,760	6	g65	202
10	4	7	a5	3	20	18	95	310	2,320	2	g59	190
11	0	7	4	4	4	22	140	325	g1,460	54	g54	214
12	0	5	2	5	11	22	170	318	g1,110	12	g51	123
13	0	6	4	4	12	18	202	318	1,380	5	g37	75
14	0	7	6	6	6	20	136	310	1,280	0	g35	51
15	0	6	6	12	8	16	88	272	1,010	62	g28	31
16	0	7	6	20	11	28	31	226	934	140	10	13
17	0	6	6	24	11	26	24	150	915	95	14	5
18	0	5	4	29	11	18	16	35	1,090	57	17	5
19	0	6	3	20	11	d10	28	28	787	48	31	5
20	0	7	3	54	13	28	33	28	g560	98	31	5
21	0	10	17	68	13	165	29	18	g435	934	14	4
22	0	11	33	51	24	65	33	24	g325	1,170	12	4
23	0	11	24	35	48	51	91	13	g165	1,820	26	3
24	0	12	10	72	26	35	145	12	g59	2,120	40	a8
25	0	12	17	75	28	26	196	8	g52	2,200	29	14
26	1	12	31	88	24	24	202	65	g43	2,030	12	14
27	1	12	26	102	26	24	244	370	g41	1,110	10	16
28	2	7	4	78	28	6	250	754	g30	688	13	18
29	2	7	10	75	43	18	334	1,500	g17	534	g51	18
30	3	7	12	51	-	29	877	2,030	g15	672	g95	16
31	4	-	12	29	-	35	-	4,940	g15	655	g48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	26	4	0	0.8	52
November.....	224	12	4	7.5	444
December.....	318	33	2	10.3	681
Calendar year 1943.....	39,396	1,510	0	108	78,140
January.....	971	102	1	31.3	1,930
February.....	606	48	4	20.9	1,200
March.....	915	165	6	29.5	1,810
April.....	3,593	877	14	120	7,130
May.....	19,027	4,940	8	614	37,740
June.....	51,669	5,460	15	1,722	102,500
July.....	14,873	2,200	0	480	29,500
August.....	2,675	614	10	86.3	5,310
September.....	2,660	325	3	88.7	5,280
Water year 1943-44.....	97,557	5,460	0	267	193,500

a No gage-height record; discharge interpolated.

d Doubtful gage-height record; discharge computed on basis of weather records and records for station at Syracuse.

g Computed from graph based on gage readings.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Great Bend, Kans.

Location.- Water-stage recorder, lat. 38°21', long. 98°46', in SE $\frac{1}{4}$ sec. 33, T. 19 S., R. 13 W., on highway bridge, half a mile south of Great Bend and 4 $\frac{1}{2}$ miles upstream from Walnut Creek.

Drainage area.- About 35,300 square miles.

Records available.- September 1940 to September 1944. Fragmentary gage-height records collected at same site since 1909, referred to datum 3 feet higher than that of Geological Survey gage, are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 7,120 second-feet May 4 (gage height, 9.60 feet); minimum, 47 second-feet Oct. 19 (gage height, 2.51 feet).
1941-44: Maximum discharge, 20,200 second-feet May 1, 1942 (gage height, 10.34 feet); no flow Oct. 25-30, 1940.

Remarks.- Records fair. Diversions above station for irrigation.

Rating table, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 2-23, Sept. 1-30)

2.5	45	3.5	307	4.5	925	7.0	3,290
2.7	80	3.7	392	5.0	1,320	8.0	4,580
2.9	123	3.9	494	5.5	1,739	9.0	6,100
3.1	175	4.1	620	6.0	2,200	9.6	7,120
3.3	236	4.3	765	6.5	2,710		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	93			204		119	2,400	3,540	356	957	406
2	58	86			184	a100	116	2,760	3,170	359	945	402
3	58	80		b60	156		114	5,780	4,120	406	789	319
4	58	72			146		119	6,950	4,060	537	728	277
5	58	69	a65		136	101	119	6,440	3,930	402	655	281
6	58	65			128	103	126	4,060	3,930	303	594	277
7	58	65			119	99	121	2,200	3,800	281	594	260
8	58	59			116		121	1,480	3,800	300	g483	246
9	58	56			112		125	1,200	3,170	300	g563	243
10	56	56	69		112	a98	167	1,040	2,450	421	g556	256
11	56	56	78		101		267	893	2,000	489	g347	277
12	56	56		b65		97	1,360	957	1,900	374	g331	285
13	53	56				95	2,500	1,080	1,820	331	g292	270
14	51	56				97	1,820	1,360	1,480	285	g274	253
15	51	56	a65		all0	95	594	2,450	1,320	281	g243	243
16	50	56				93	426	2,450	1,400	500	g286	236
17	50	56				101	397	1,200	1,200	949	253	220
18	48	56		69		97	781	1,120	1,120	957	288	210
19	53	56		*70			300	662	1,000	531	285	201
20	58	59		76	119		356	562	1,000	537	267	204
21	51	59	*69	76	130		285	483	997	416	243	195
22	56	59	61	80	126	all0	1,400	421	885	347	239	187
23	97	59	a65	88	112		1,200	388	773	307	260	187
24	108	59	69	101	103		2,050	374	676	292	1,120	184
25	292	63	a76	108	101		2,200	360	600	568	1,480	184
26	750			84	114	95	121	1,440	352	512	2,950	187
27	g359		a60	74	128	90	119	877	388	430	3,540	201
28	g156			59	123	97	114	981	494	388	2,350	220
29	g126			123	a95	all7	893	2,100	378	1,820	531	226
30	g108		b60	210		119	683	3,170	588	1,320	416	220
31	g93	-		210	-	121	-	4,060	-	1,160	374	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	3,280	750	48	106	6,510
November.....	1,865	93	56	62.1	3,700
December.....	2,054	-	-	66.3	4,070
Calendar year 1943	90,601	4,710	10	248	179,700
January.....	2,656	210	-	85.7	5,270
February.....	3,462	204	90	119	6,870
March.....	3,251	121	93	105	6,450
April.....	21,111	2,500	114	704	41,870
May.....	59,296	6,950	352	1,913	117,600
June.....	56,237	4,120	373	1,876	111,500
July.....	23,949	3,540	281	773	47,500
August.....	19,973	2,820	226	644	39,620
September.....	7,357	406	184	245	14,590
Water year 1943-44	204,488	6,950	48	559	405,600

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records or interpolated.

b Stage-discharge relation affected by ice (no gage-height record during part of period).

c Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Arkansas River at Wichita, Kans.

Location.- Water-stage recorder, lat. 37°41', long. 97°21', in SE $\frac{1}{4}$ 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 $1\frac{1}{2}$ miles upstream from Little Arkansas River, and July 1934 to September 1944 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.

Average discharge.- 10 years, 830 second-feet.

Extremes.- Maximum discharge during year, 26,600 second-feet Apr. 24 (gage height, 11.70 feet); minimum, not determined (occurred during ice period).
1934-44: Maximum discharge, that of Apr. 24, 1944; 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 good. Diversions above station for irrigation.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	486	216	b170	509	443	627	8,660	5,000	g878	g1,660	2,560
2	216	421	216	b180	486	450	708	6,140	5,300	g826	g1,500	g1,880
3	219	390	a218	b190	486	486	671	10,200	4,410	g792	g1,300	2,210
4	203	358	a220	b195	479	509	644	15,400	5,000	g792	g1,190	2,320
5	193	342	222	b195	464	736	609	13,000	5,300	g743	g1,160	g1,720
6	185	320	237	b195	428	736	574	13,000	5,000	g727	g1,100	g1,320
7	183	309	233	b185	415	718	525	11,500	4,850	g727	g1,030	g1,180
8	180	295	237	b170	396	609	525	10,700	4,850	g711	g1,560	g1,060
9	178	282	245	b170	383	534	964	8,900	4,850	g923	g1,560	g932
10	176	278	286	b180	408	486	4,810	4,700	4,700	2,980	g1,450	g869
11	176	269	269	b190	273	457	10,100	3,710	4,130	2,560	g2,660	g886
12	176	264	278	*b200	245	428	10,400	3,170	3,460	6,350	g1,270	g918
13	171	252	264	b210	269	421	9,840	3,050	3,120	5,760	g1,040	800
14	166	249	252	216	291	464	9,100	3,360	2,860	3,250	g800	784
15	164	245	154	230	342	1,810	7,020	3,300	2,500	1,940	g743	759
16	164	237	158	245	383	4,970	4,000	3,430	g2,160	g1,450	g727	727
17	166	241	b170	260	421	3,920	2,350	3,850	g1,880	g1,090	g698	711
18	166	237	b180	295	353	4,510	1,820	3,430	g1,820	g950	g972	695
19	166	233	b190	364	390	3,350	1,550	2,760	g1,720	g1,340	g775	658
20	176	233	b190	662	347	1,600	1,550	2,450	g1,560	1,880	g767	642
21	171	226	b190	1,130	336	1,600	1,820	2,300	g1,500	g1,610	g1,250	620
22	200	222	b185	1,130	336	5,230	10,500	2,200	g1,450	g1,450	g1,120	599
23	237	222	b175	878	*331	6,000	24,300	2,100	g1,400	g1,400	g869	585
24	783	222	166	671	342	4,080	25,700	2,010	g1,320	g1,400	g1,320	578
25	1,920	226	b160	550	353	2,980	20,400	1,920	g1,250	g1,020	g932	564
26	1,710	230	b155	517	331	2,040	18,400	1,920	g1,110	g834	g1,560	550
27	1,390	226	b150	517	326	1,340	15,800	1,960	g1,070	g775	3,180	585
28	1,000	226	b140	574	390	1,100	8,900	2,710	g1,030	g2,260	4,670	727
29	954	222	b140	671	402	964	5,620	2,880	g960	2,740	4,350	1,660
30	718	*212	b150	708	-	869	6,900	2,710	g905	2,440	4,050	1,820
31	558	-	b160	592	-	727	-	3,500	-	2,100	3,460	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,281	1,920	164	428	26,340
November	8,175	486	212	272	16,210
December	6,206	286	140	200	12,310
Calendar year 1943	231,965	4,690	140	636	460,100
January	12,640	1,130	170	408	25,070
February	10,915	509	245	376	21,650
March	54,467	6,000	421	1,757	108,000
April	206,727	25,700	525	6,891	410,000
May	160,920	15,400	1,920	5,191	319,200
June	86,465	5,300	905	2,882	171,500
July	54,708	6,350	711	1,765	108,500
August	49,413	4,670	672	1,594	98,010
September	31,749	2,560	550	1,058	62,970
Water year 1943-44	595,666	25,700	140	1,901	1,380,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

c Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Arkansas City, Kans.

Location.- Water-stage recorder, lat. 37°04', long. 97°05', in NW $\frac{1}{4}$ 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) and September 1921 to September 1944.

Average discharge.- 23 years (1921-44), 1,383 second-feet.

Extremes.- Maximum discharge during year, 73,500 second-feet Apr. 24 (gage height, 25.24 feet); minimum, not determined (occurred during ice period).
1902-6, 1921-44: Maximum gage height, 25.46 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. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	928	*472	470	980	g769	1,480	16,500	4,250	1,580	2,520	3,800
2	445	851	468	500	893	g809	1,420	22,600	5,610	1,880	2,120	2,870
3	415	769	468	580	830	g893	1,420	16,200	5,820	1,530	1,940	2,180
4	411	724	472	560	816	g893	1,360	16,500	4,610	1,420	1,760	2,180
5	407	678	486	500	802	1,010	1,260	21,700	5,200	1,310	1,640	2,320
6	407	641	486	450	776	1,010	1,260	22,600	5,610	1,210	1,640	1,940
7	380	623	486	400	756	1,010	1,210	17,300	5,200	1,210	2,180	1,640
8	372	583	491	400	736	972	1,160	14,800	5,000	1,160	2,940	1,480
9	376	540	520	480	724	900	3,340	13,100	6,260	1,260	3,180	g1,310
10	380	515	556	400	730	830	11,600	10,400	5,800	2,450	2,660	g1,260
11	368	482	583	380	660	795	15,900	6,040	4,800	3,470	2,180	g1,210
12	365	468	566	390	550	769	21,300	4,610	4,070	3,640	2,250	g1,160
13	361	463	545	450	480	762	23,000	3,890	3,800	7,650	1,940	g1,120
14	365	459	556	600	430	769	15,400	3,890	3,550	6,040	1,700	1,090
15	365	454	491	680	440	972	10,700	3,720	3,390	3,470	1,580	1,050
16	368	450	372	740	480	7,650	7,410	3,470	3,020	2,380	1,530	1,020
17	368	459	390	660	550	9,350	5,000	3,550	2,660	1,940	1,580	996
18	376	463	410	630	600	7,650	3,800	3,980	2,380	1,700	1,420	982
19	395	472	430	623	650	g8,850	g3,390	3,470	3,340	1,530	1,420	966
20	403	472	440	678	700	g5,000	g3,470	2,870	2,450	1,580	1,420	958
21	424	477	450	837	730	g3,800	g3,890	2,590	2,250	2,180	1,420	935
22	468	477	450	1,200	*756	g10,700	g6,480	2,450	2,060	1,940	1,580	912
23	506	472	450	1,410	750	12,500	g45,300	2,820	2,060	1,880	1,820	882
24	600	468	440	1,200	750	g7,650	g69,600	2,180	3,980	2,000	1,760	864
25	684	472	420	995	762	g4,430	53,300	2,120	2,620	2,000	2,250	835
26	1,930	472	400	900	743	3,320	39,000	2,000	1,940	2,520	3,900	819
27	2,040	463	380	950	717	2,660	31,200	2,450	1,760	1,820	5,200	1,020
28	1,710	468	370	942	g730	2,060	27,200	3,550	1,700	1,640	5,200	5,400
29	1,280	463	390	844	g756	1,820	16,200	5,200	1,640	2,320	5,820	3,240
30	1,160	468	400	1,160	-	1,640	14,400	4,800	1,530	3,240	5,000	2,320
31	1,060	-	430	1,060	-	1,530	-	3,720	-	2,870	4,610	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	19,610	2,040	361	633	38,900
November.....	16,194	928	450	540	33,120
December.....	14,268	583	370	460	28,500
Calendar year 1943	411,278	9,700	342	1,127	815,700
January.....	22,039	1,410	380	711	43,710
February.....	20,277	980	430	699	40,220
March.....	103,723	12,500	762	3,348	205,800
April.....	443,460	69,600	1,160	14,780	879,600
May.....	244,570	22,600	2,000	7,889	485,100
June.....	107,760	6,260	1,630	3,592	213,700
July.....	72,820	7,650	1,160	2,349	144,400
August.....	78,140	5,820	1,420	2,521	155,000
September.....	48,749	5,400	819	1,626	96,690
Water year 1943-44	1,191,660	69,600	361	3,266	2,364,000

* Winter discharge measurement made on this day.

g Computed from graph based on gage readings.

Note.- Stage-discharge relation affected by ice Dec. 17 to Jan. 18, Feb. 11-20.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Arkansas River at Ralston, Okla.

Location.- Water-stage recorder, lat. 36°30'10", long. 96°43'30", in NW 1/4 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.- 55,490 square miles (revised).

Records available.- March 1938 to September 1944. Gage-height records collected in same vicinity since 1922 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 179,000 second-feet Apr. 25 (gage height on inside gage, 22.82 feet; on outside gage, 23.63 feet); minimum, 300 second-feet Jan. 10, occurred during period of ice effect.

1938-44: Maximum discharge, that of Apr. 25, 1944; minimum recorded, 160 second-feet Nov. 2, 1939, but may have been less during period of ice effect in January 1940. Maximum stage known, 23.8 feet on June 12, 1923, referred to outside gage on basis of stages observed in 1923 and 1944 at site 1,200 feet downstream.

Remarks.- Records good except those for periods of ice effect, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	885	1,520	654	b600	1,650	1,180	4,040	40,000	9,260	2,670	3,440	9,610
2	808	1,420	*654	b700	1,780	1,180	3,730	39,100	8,260	2,630	3,260	8,920
3	789	1,280	654	563	1,560	1,250	3,640	46,700	8,260	2,750	2,920	7,000
4	798	1,170	654	554	1,440	1,180	3,440	43,900	8,590	2,750	2,590	6,260
5	798	1,080	589	734	1,290	1,390	3,350	36,400	8,100	2,510	2,280	5,830
6	808	1,020	725	666	1,210	1,420	3,080	32,500	7,160	2,350	2,210	5,830
7	790	925	725	905	1,180	1,390	2,830	31,900	7,460	2,140	2,280	5,050
8	734	885	725	b650	1,170	1,480	2,750	25,700	7,460	1,990	4,160	5,180
9	698	836	836	*b450	1,140	1,720	9,980	21,700	7,460	1,850	5,300	3,260
10	663	818	1,060	b420	1,120	1,650	46,000	19,800	7,940	2,210	5,300	2,830
11	638	789	1,140	b490	1,060	1,560	62,200	17,500	12,300	3,480	4,040	2,510
12	629	752	1,190	b580	1,040	1,440	65,700	13,600	15,300	7,780	3,440	2,280
13	587	716	1,250	*b560	1,020	1,360	67,400	11,500	13,500	8,920	2,830	2,830
14	571	707	1,270	b480	996	1,300	47,500	9,970	9,970	9,970	2,590	2,060
15	563	689	b970	b540	945	1,720	26,700	9,260	8,920	13,100	2,280	2,920
16	555	698	b800	b600	895	2,140	18,800	8,590	7,310	8,920	1,990	2,1780
17	555	680	b1,100	b800	846	5,190	15,300	8,260	6,260	5,700	2,060	2,1720
18	555	672	gl,250	1,150	875	16,200	11,500	7,940	5,050	4,140	1,990	2,1650
19	555	663	g818	975	945	14,900	10,700	7,620	5,430	3,440	3,830	2,1560
20	523	707	734	935	995	21,700	13,600	7,620	5,300	3,080	4,250	2,1520
21	500	798	716	895	1,040	25,200	13,100	7,160	7,000	2,750	2,830	1,480
22	571	725	827	885	1,040	25,200	10,300	6,400	4,930	2,510	2,210	1,400
23	935	689	865	915	975	34,900	22,600	5,700	4,250	2,750	1,920	1,350
24	995	663	865	1,090	965	34,900	60,100	5,300	3,830	2,670	1,850	1,270
25	1,150	646	846	*1,480	995	28,900	152,000	5,050	4,140	2,440	2,350	1,210
26	1,390	638	856	1,720	945	16,600	128,000	4,700	8,100	2,670	2,590	1,180
27	1,180	629	818	1,650	1,280	9,610	90,000	5,560	5,830	2,670	2,750	1,350
28	1,130	629	*b810	1,440	1,330	7,460	66,100	5,970	4,040	3,350	6,600	5,530
29	1,920	638	b680	1,780	1,190	6,110	53,300	6,850	3,350	4,140	8,920	25,000
30	2,060	638	b600	1,780	-	5,050	43,300	11,100	2,920	3,260	8,920	24,700
31	1,780	-	b560	1,530	-	4,360	-	11,900	-	2,750	8,590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	27,103	2,060	500	874	53,760
November	24,720	1,520	629	884	49,030
December	26,341	1,270	560	850	52,265
Calendar year 1943	1,361,706	91,800	492	3,731	2,701,000
January	28,907	1,780	420	932	57,340
February	32,916	1,780	846	1,135	65,290
March	279,640	34,900	1,180	9,021	554,700
April	1,061,040	152,000	2,750	35,030	2,085,000
May	217,889	46,700	4,700	16,890	1,022,000
June	217,889	15,300	2,920	7,263	432,200
July	124,530	13,100	1,850	4,017	247,000
August	112,380	8,920	1,850	3,625	222,900
September	143,380	25,000	1,180	4,779	284,400
Water year 1943-44	2,584,087	152,000	420	7,060	5,126,000

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

g Computed from graph based on once-daily readings of wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Arkansas River at Tulsa, Okla.

Location.- Water-stage recorder, lat. 36°06'40", 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 618.23 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 1944. Gage-height records collected in same vicinity since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 172,000 second-feet Apr. 26 (gage height, 17.00 feet); minimum observed, 663 second-feet Oct. 22 but may have been less during period of ice effect.

1938-44: Maximum discharge, 173,000 second-feet May 20, 1943 (gage height, 16.50 feet); maximum gage height, that of Apr. 26, 1944; minimum daily discharge, 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 except those for period of ice effect, which are fair.

Cooperation.- Gage-height record, 51 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,210	2,340	832	1,090	2,800	1,780	6,150	45,000	13,000	4,380	4,700	8,020
2	2,540	2,250	808	1,080	2,830	1,690	5,580	49,800	10,700	4,080	4,700	8,900
3	2,320	2,040	808	*1,080	2,930	1,610	5,220	49,900	11,000	3,650	4,540	8,680
4	1,560	1,900	808	1,080	2,900	1,540	5,390	58,100	10,500	3,510	4,080	7,600
5	1,240	1,760	856	1,090	2,710	1,610	5,220	48,400	10,500	3,310	3,940	7,170
6	1,060	1,630	868	1,200	2,340	1,650	4,870	38,700	9,800	3,240	3,240	7,170
7	1,000	1,540	920	1,230	2,160	1,660	4,230	39,100	8,680	3,210	3,380	6,550
8	988	1,440	920	1,420	2,180	1,680	3,940	34,100	9,120	2,980	3,080	5,760
9	954	1,770	1,040	1,320	1,680	1,680	3,680	29,200	10,700	2,710	3,240	5,150
10	894	1,340	1,370	1,920	1,840	1,840	14,000	24,800	12,200	2,610	4,370	5,040
11	868	1,290	2,080	b900	1,900	1,960	89,700	22,200	12,300	4,540	5,220	4,380
12	1,080	1,210	2,610	1,840	1,840	1,900	96,100	20,200	20,900	4,870	4,540	3,650
13	1,030	1,180	*2,270	1,780	1,840	1,840	82,300	15,800	30,800	8,550	3,940	3,210
14	907	1,120	2,040	*b800	1,700	1,740	65,500	13,500	31,100	12,500	3,580	2,800
15	844	1,090	b800	b800	1,630	5,740	47,000	11,700	27,100	11,700	3,010	2,660
16	772	1,080	bl,600	bl,000	1,580	10,300	28,200	10,700	18,900	13,500	2,760	2,470
17	760	1,080	bl,000	*bl,400	1,510	6,330	21,500	10,000	12,200	10,700	2,610	2,340
18	760	1,060	1,720	1,440	5,410	17,000	9,570	9,340	7,600	2,520	2,180	1,720
19	749	1,030	1,490	1,800	1,560	17,100	13,500	9,120	8,240	5,760	2,450	2,060
20	727	1,020	1,410	1,840	1,420	17,300	13,700	9,680	9,930	4,870	2,610	1,960
21	694	1,000	*1,370	1,680	1,460	24,500	13,900	16,300	8,020	4,230	4,380	1,860
22	914	1,030	*1,230	1,650	1,470	25,900	18,900	10,300	8,680	3,940	3,940	1,820
23	7,320	1,090	1,200	1,600	1,490	31,400	14,700	8,680	7,170	3,650	3,240	1,720
24	17,400	1,040	1,210	1,610	1,460	44,500	51,200	8,020	6,150	3,790	2,830	1,650
25	8,680	974	1,230	*1,630	1,420	38,200	90,500	7,810	5,390	3,940	2,680	1,580
26	8,020	934	1,230	1,740	1,320	29,600	158,000	7,810	6,770	4,540	2,780	1,540
27	4,970	907	1,380	2,340	1,810	17,000	124,000	8,680	11,000	4,230	3,380	1,720
28	3,380	880	1,680	3,010	1,610	11,500	88,100	9,340	9,340	4,540	3,210	2,400
29	2,860	868	1,520	3,010	1,760	9,340	63,500	10,000	5,760	6,760	4,230	6,580
30	2,250	856	1,320	2,760	-	7,810	54,500	10,500	4,700	7,810	8,020	31,000
31	2,590	-	1,200	2,780	-	6,760	-	12,700	-	6,550	8,680	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	84,201	17,400	694	2,716	167,000
November.....	38,349	2,340	856	1,278	76,060
December.....	42,010	2,610	808	1,355	83,330
Calendar year 1943.....	2,180,650	161,000	694	5,974	4,325,000
January.....	46,940	3,010	-	1,514	93,100
February.....	54,140	2,930	1,310	1,867	107,400
March.....	335,860	44,500	1,540	10,830	666,200
April.....	1,215,050	158,000	3,650	40,540	2,412,000
May.....	658,610	58,100	7,810	21,250	1,306,000
June.....	359,990	31,100	4,700	12,000	714,000
July.....	172,450	13,500	2,610	5,563	342,000
August.....	120,180	8,680	2,450	3,777	235,000
September.....	150,720	31,000	1,540	5,024	298,900
Water year 1943-44.....	3,279,500	158,000	694	8,960	6,504,000

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

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 3¼ 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 1944.

Extremes.— Maximum discharge during year, 189,000 second-feet Apr. 27 (gage height, 27.64 feet); minimum, 1,740 second-feet Nov. 30; minimum daily, 1,850 second-feet Nov. 30. 1935-44: Maximum discharge, 700,000 second-feet May 21, 1943 (gage height, 48.20 feet); minimum, 340 second-feet Aug. 11-14, 1936 (gage height, 3.80 feet). Flood of May 21, 1943 is greatest known since June 1833 when a similar stage was probably reached.

Remarks.— Records good. Flow partly regulated by Lake O' The Cherokees on Neosho River (see p. 182).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,900	8,720	3,070	5,700	5,890	20,900	18,400	152,000	27,800	13,900	11,000	19,300
2	16,400	8,920	3,070	5,160	6,080	17,300	17,400	168,000	24,800	13,900	10,200	17,400
3	12,100	8,720	2,530	4,690	7,000	16,000	16,500	163,000	20,300	14,300	9,240	17,000
4	8,340	8,340	2,440	4,400	6,820	13,800	16,100	159,000	19,300	12,600	9,430	15,800
5	6,080	8,140	2,910	5,520	6,260	12,100	15,200	165,000	18,800	11,800	9,240	16,100
6	4,300	7,950	2,200	4,800	6,080	9,120	15,200	160,000	18,800	11,000	8,660	16,100
7	3,400	7,950	2,440	4,800	5,700	9,700	14,300	151,000	17,400	11,400	7,340	18,800
8	2,910	7,570	3,070	5,520	6,440	12,100	13,900	156,000	16,500	11,000	7,530	15,200
9	2,780	7,380	3,100	5,700	21,400	11,700	15,800	135,000	39,700	9,430	9,040	12,600
10	2,750	5,520	3,200	4,800	21,900	11,500	65,600	84,000	35,000	6,980	8,090	11,800
11	2,380	5,340	4,800	4,370	13,000	11,300	123,000	51,700	29,600	7,530	8,850	9,040
12	2,560	4,340	8,720	4,730	11,300	10,900	172,000	36,400	30,800	9,430	10,200	7,720
13	4,480	4,020	8,530	5,340	9,120	9,500	135,000	32,200	57,500	11,400	10,200	9,040
14	4,620	4,980	6,080	5,340	7,380	10,300	146,000	27,200	72,800	13,000	7,720	8,280
15	4,980	4,090	6,260	5,160	7,380	15,700	147,000	24,300	66,500	19,300	6,980	7,530
16	4,160	3,240	6,260	4,370	7,760	60,000	159,000	22,800	48,500	18,800	7,900	7,160
17	3,300	4,660	6,080	3,600	10,100	72,800	169,000	21,300	32,200	17,900	7,530	6,790
18	2,720	4,620	5,160	3,500	11,800	55,700	166,000	20,800	23,800	16,100	7,530	5,520
19	2,440	4,800	4,800	4,020	10,500	56,600	156,000	19,800	19,800	14,300	6,980	4,640
20	2,350	4,200	4,120	4,980	8,340	64,700	138,000	18,900	17,900	12,900	6,980	6,420
21	2,660	3,950	3,200	4,980	7,000	59,300	120,000	18,800	19,300	11,000	5,710	6,420
22	3,780	3,500	3,920	4,440	7,000	65,600	81,300	24,800	34,400	9,820	6,240	6,420
23	6,260	2,140	3,640	4,160	7,570	84,000	77,300	22,800	50,900	9,430	8,850	6,420
24	22,200	3,570	3,710	3,980	8,140	99,900	69,200	21,300	46,900	7,530	7,900	6,060
25	40,600	3,400	3,980	4,020	8,530	102,000	124,000	18,800	27,200	7,720	7,900	4,640
26	29,900	3,240	3,100	4,340	10,500	88,000	153,000	19,300	21,800	10,200	11,800	3,550
27	19,100	2,140	2,560	5,160	8,140	70,100	180,000	23,300	18,400	10,200	9,040	5,880
28	13,400	3,400	5,160	10,100	12,100	50,100	147,000	25,400	18,800	11,800	16,100	6,060
29	11,300	2,750	8,140	11,300	21,400	46,900	142,000	29,000	18,400	11,400	17,000	12,200
30	9,900	1,850	7,380	9,900	-	34,300	154,000	29,600	15,200	11,400	14,300	27,200
31	9,120	-	6,440	7,760	-	23,500	-	27,800	-	11,400	17,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	272,170	40,600	2,350	8,780	539,800
November.....	153,440	8,920	1,850	5,110	304,300
December.....	140,070	8,720	2,200	4,520	277,800
Calendar year 1943.....	10,784,740	651,000	1,850	29,550	21,390,000
January.....	166,640	11,300	3,500	5,380	330,500
February.....	280,130	21,900	5,700	9,660	555,600
March.....	1,225,620	102,000	9,120	39,500	2,431,000
April.....	2,970,200	180,000	13,900	99,000	5,891,000
May.....	2,023,200	168,000	18,800	65,280	4,013,000
June.....	909,100	72,800	15,200	30,500	1,803,000
July.....	368,570	19,300	6,980	11,890	731,000
August.....	292,480	17,000	5,710	9,430	580,100
September.....	316,990	27,200	3,550	10,570	628,700
Water year 1943-44.....	9,118,610	180,000	1,850	24,910	18,090,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 and 8½ miles downstream from Pateau River. 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 1944. Gage-height records collected since 1879 at Fort Smith, 8 miles upstream, are contained in reports of U. S. Weather Bureau.

Average discharge.- 17 years, 30,060 second-feet.

Extremes.- Maximum discharge during year, 238,000 second-feet May 3; maximum gage height, 26.84 feet May 4; minimum discharge, 2,930 second-feet Dec. 2 (gage height, 3.32 feet). 1927-44: Maximum discharge, 850,000 second-feet May 12, 1943; maximum gage height, 35.0 feet May 12, 1943; minimum discharge, 216 second-feet Aug. 19, 21, 1934. Highest flood known prior to 1943 occurred in June 1883 and reached a stage of 38 feet on Fort Smith gage, from records collected by U. S. Weather Bureau. Flood of Apr. 16, 1927 reached a stage of 35.0 feet, from information by local residents.

Remarks.- Records good. Flow partly regulated by Lake O' The Cherokees on Neosho River (see p. 182).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,070	13,000	3,740	13,400	17,200	69,100	36,000	152,000	52,400	20,000	15,500	20,000
2	7,060	11,800	3,220	11,800	13,800	71,700	28,300	195,000	44,500	17,700	14,600	21,400
3	19,500	11,400	3,530	10,700	11,400	60,900	26,100	232,000	39,200	17,200	14,600	21,900
4	21,400	11,000	3,960	9,620	11,000	49,500	25,500	230,000	33,500	16,800	12,600	20,500
5	17,200	10,700	3,740	9,280	11,400	38,600	25,000	216,000	32,300	16,400	11,400	19,100
6	12,600	10,300	3,740	9,280	10,700	30,500	23,400	209,000	30,500	15,000	11,400	18,600
7	8,600	9,960	3,850	9,620	10,300	25,000	21,900	197,000	32,300	13,800	11,000	17,700
8	6,180	9,620	3,530	9,280	11,000	20,000	21,000	177,000	32,900	13,800	11,400	20,500
9	5,000	9,280	3,420	8,940	13,800	19,500	28,600	165,000	31,700	13,400	9,620	21,400
10	4,300	8,940	4,180	8,940	24,600	19,500	26,600	165,000	50,300	12,200	9,960	17,200
11	3,960	8,600	4,760	9,280	41,800	13,600	72,600	114,000	57,800	11,400	10,300	14,600
12	3,960	6,890	5,260	8,940	32,900	17,700	140,000	74,400	50,200	8,940	9,280	14,600
13	5,000	6,320	8,600	9,620	21,900	16,800	179,000	55,400	66,200	9,960	9,960	12,200
14	6,320	5,510	12,600	10,700	218,600	16,400	152,000	47,300	696,400	12,200	211,000	11,800
15	8,940	4,640	11,900	11,000	216,400	15,500	2148,000	40,500	219,000	13,800	210,700	11,000
16	10,300	5,640	9,620	10,300	217,200	28,800	2149,000	36,000	112,700	17,200	8,280	9,960
17	9,960	5,120	8,600	9,960	221,000	78,400	2157,000	33,500	78,100	19,500	8,120	8,620
18	7,960	4,070	8,600	8,940	225,500	103,000	2166,000	31,100	53,900	19,100	68,600	8,600
19	6,180	5,260	8,280	8,600	228,800	107,000	2163,000	29,400	40,500	17,700	68,280	8,280
20	5,000	5,640	7,340	9,620	229,400	140,000	2168,000	26,600	34,800	16,800	68,280	6,740
21	4,300	5,510	6,460	11,000	227,100	2149,000	145,000	23,900	30,500	15,000	67,640	6,600
22	3,960	5,260	65,770	11,800	22,900	2140,000	131,000	24,500	28,800	13,400	67,640	7,490
23	4,070	4,640	64,880	10,700	19,100	2122,000	98,900	29,400	34,800	12,200	66,460	7,490
24	5,000	4,410	64,880	9,280	17,700	2113,000	85,100	30,000	52,400	11,000	67,640	7,340
25	11,500	3,420	64,880	8,600	17,700	2124,000	82,000	27,700	50,200	10,700	66,280	7,190
26	41,800	3,960	65,000	7,800	19,500	2119,000	119,000	30,500	35,400	8,940	12,200	6,890
27	39,200	4,300	65,120	7,490	22,400	2103,000	151,000	30,000	26,100	9,960	21,400	5,770
28	27,700	4,180	64,880	8,280	32,300	2166,200	176,000	39,900	23,900	11,800	19,500	5,250
29	20,500	3,420	610,300	11,800	53,900	68,200	151,000	58,600	21,400	14,200	15,900	6,600
30	16,800	3,850	210,300	18,200	-	58,600	154,000	60,900	21,900	15,000	20,500	7,490
31	14,600	-	15,000	19,100	-	48,800	-	60,900	-	13,800	21,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	362,920	41,800	3,960	11,710	719,800
November	206,620	13,000	3,420	6,887	409,800
December	194,410	15,000	3,220	6,271	385,600
Calendar year 1943	15,680,730	784,000	2,660	42,960	31,100,000
January	321,870	19,100	7,490	10,380	638,400
February	230,300	53,900	10,300	21,400	1,231,000
March	2,084,300	149,000	15,500	67,640	4,134,000
April	3,040,200	179,000	21,000	101,500	6,030,000
May	2,845,500	232,000	23,900	91,790	5,644,000
June	1,415,900	119,000	21,400	47,200	2,808,000
July	438,900	20,000	8,940	14,180	870,500
August	364,640	21,900	6,460	11,760	723,300
September	373,810	21,900	5,250	12,460	741,400
Water year 1943-44	12,269,570	232,000	3,220	33,520	24,340,000

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944. Gage-height records collected at same site since 1886 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 245,000 second-feet May 4 (gage height, 26.29 feet); minimum, 3,310 second-feet Oct. 1; minimum gage height, 2.30 feet Sept. 30. 1937-44: Maximum discharge, 683,000 May 13, 14, 1943; maximum gage height, 33.60 feet, recording gage, and 34.1 feet, wire-weight gage, May 25, 1943; minimum discharge, 1,100 second-feet Oct. 9, 1940 (gage height, 0.11 foot). Flood of Apr. 19, 1927 reached a stage of 33.0 feet.

Remarks.- Records good. Flow partly regulated by Lake O' The Cherokees on Neosho River (see p. 162).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,660	17,200	4,020	10,400	19,800	73,400	51,700	173,000	64,600	24,400	15,200	25,400
2	4,020	14,800	3,890	14,000	19,400	79,900	41,000	205,000	56,900	22,800	15,200	23,300
3	4,380	13,200	4,020	13,200	17,200	78,800	33,600	235,000	48,500	19,900	16,100	22,300
4	7,600	12,500	3,630	11,800	14,400	71,300	28,400	243,000	42,900	16,400	15,200	23,300
5	17,300	11,800	3,630	10,800	12,500	59,600	26,700	239,000	37,700	17,900	14,300	22,300
6	18,100	11,400	4,560	10,100	12,200	49,300	26,200	228,000	47,600	17,500	12,600	20,300
7	15,200	11,100	4,700	9,770	12,200	40,200	24,600	218,000	41,000	16,100	12,100	18,900
8	11,600	10,800	4,840	10,400	13,200	33,000	24,600	203,000	36,500	15,200	11,700	18,400
9	8,940	10,400	4,700	10,400	26,700	26,700	56,900	187,000	39,000	14,700	11,700	18,400
10	7,030	10,100	4,700	9,770	26,200	23,600	53,400	180,000	40,500	14,300	10,900	21,900
11	5,990	9,770	4,840	9,770	26,700	23,100	50,900	167,000	54,000	13,900	10,000	19,900
12	5,360	9,450	5,390	9,770	43,900	21,700	89,900	125,000	66,200	13,000	10,600	16,100
13	5,490	8,810	6,100	10,100	39,600	20,200	154,000	90,100	72,000	11,700	10,200	14,300
14	5,740	7,870	6,540	10,100	29,500	19,400	187,000	67,800	110,000	10,000	9,890	13,900
15	6,120	7,270	8,810	10,400	23,600	18,500	161,000	57,600	127,000	11,500	10,600	11,700
16	6,360	6,540	11,400	11,400	21,700	31,700	156,000	50,400	132,000	13,400	11,300	11,700
17	8,110	5,810	11,100	11,400	27,800	50,100	156,000	44,200	117,000	15,200	10,200	10,700
18	9,230	6,240	9,450	11,100	36,800	91,500	164,000	41,000	87,100	19,400	8,700	9,740
19	8,940	5,960	8,810	10,800	39,200	130,000	171,000	38,400	94,600	20,500	8,810	9,180
20	7,840	5,110	8,490	10,100	38,200	139,000	171,000	36,500	50,400	19,400	8,930	8,810
21	6,360	5,670	8,490	10,100	37,500	161,000	163,000	34,000	41,600	17,900	8,700	9,390
22	5,490	5,960	7,570	10,800	39,200	158,000	148,000	31,500	36,500	16,600	8,700	7,720
23	4,860	5,960	6,970	11,800	31,800	146,000	141,000	31,000	33,300	14,700	8,490	7,720
24	4,740	5,670	6,390	12,200	26,700	127,000	104,000	33,300	35,800	13,400	8,300	7,980
25	4,740	5,250	5,810	11,100	23,600	124,000	84,400	37,700	54,700	12,100	7,840	7,910
26	5,360	4,970	5,530	10,100	25,200	127,000	82,100	36,500	55,400	12,100	9,020	7,840
27	25,100	4,300	5,530	10,100	28,400	124,000	120,000	35,400	43,600	11,300	13,900	7,840
28	41,700	4,160	5,870	10,900	41,000	107,000	153,000	39,000	31,500	13,900	22,300	7,720
29	32,400	4,560	5,960	10,800	65,200	90,300	184,000	42,900	27,600	15,200	23,800	7,340
30	25,200	4,430	5,960	11,400	-	71,300	164,000	61,400	24,900	14,300	18,900	7,290
31	20,700	-	6,100	15,200	-	60,500	-	66,200	-	15,200	20,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	343,660	41,700	3,660	11,090	681,600
November	247,060	17,200	4,160	8,235	490,000
December	193,600	11,400	3,630	6,245	384,000
Calendar year 1943	16,895,510	676,000	3,080	46,290	33,510,000
January	339,980	15,200	9,770	10,970	874,300
February	815,400	65,200	12,200	28,120	1,617,000
March	2,377,100	161,000	18,500	76,680	4,715,000
April	3,179,400	187,000	24,600	106,000	6,306,000
May	3,280,900	243,000	31,000	105,800	6,508,000
June	1,720,000	132,000	24,900	57,320	3,412,000
July	465,500	24,400	10,000	15,660	963,000
August	384,980	23,800	7,840	12,420	763,600
September	418,180	25,400	7,290	13,940	829,400
Water year 1943-44	13,785,760	243,000	3,630	37,670	27,340,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944 in reports of 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 1865 are contained in reports of Mississippi River Commission.

Average discharge.- 15 years (1927-1931, 1933-44), 39,620 second-feet.

Extremes.- Maximum discharge during year, 282,000 second-feet May 4; maximum gage height, 22.35 feet May 5; minimum discharge, 3,900 second-feet Oct. 1-3; minimum gage height, 1.33 feet Dec. 4.

1927-31, 1933-44: Maximum discharge, 536,000 second-feet May 27, 1943 (gage height, 30.05 feet); minimum, 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 good. Flow partly regulated by Lake O' The Cherokees on Neosho River (See p. 182).

Cooperation.- Sixty-one discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,900	23,200	5,000	7,150	16,800	89,900	83,600	196,000	73,300	27,100	16,500	20,800
2	3,900	19,300	5,000	7,970	20,400	98,000	73,500	211,000	71,100	25,100	16,500	25,800
3	3,900	16,800	4,740	12,900	22,000	104,000	60,600	250,000	62,600	24,500	16,000	27,100
4	4,120	15,400	4,620	15,000	20,400	103,000	49,800	274,000	53,600	22,000	16,500	24,800
5	4,460	14,100	4,740	14,100	17,800	95,600	43,300	271,000	46,900	20,300	16,000	23,800
6	8,260	13,300	4,870	12,900	15,900	85,500	39,900	265,000	41,600	19,100	15,500	23,800
7	18,500	12,900	4,870	12,600	14,600	74,600	38,300	255,000	48,800	18,600	14,000	22,000
8	17,200	12,600	5,240	12,200	15,000	64,600	36,700	245,000	47,800	18,100	13,500	20,800
9	14,600	12,600	5,870	11,800	22,000	54,900	39,100	230,000	41,600	17,000	13,000	19,700
10	11,600	11,800	6,240	12,200	38,800	44,400	80,000	217,000	45,100	16,000	12,600	19,100
11	9,550	11,500	6,240	11,800	45,200	37,300	81,200	208,000	48,800	15,500	12,600	21,400
12	8,050	10,800	6,890	11,800	44,400	33,600	81,200	188,000	60,800	15,000	11,600	22,600
13	7,880	10,400	7,410	11,800	57,800	30,800	122,000	148,000	76,600	14,500	11,200	19,100
14	6,930	9,790	8,250	12,200	57,800	28,800	176,000	108,000	89,600	13,500	11,200	16,500
15	6,640	9,150	8,850	12,600	48,600	26,800	192,000	82,400	125,000	12,600	10,700	15,500
16	6,640	8,550	9,470	12,600	40,400	27,100	179,000	66,700	146,000	12,100	10,700	14,500
17	6,930	7,970	10,400	10,400	40,400	40,800	177,000	56,600	153,000	13,000	10,900	15,000
18	7,240	7,150	11,800	13,700	51,300	70,000	176,000	45,800	132,000	14,000	10,900	12,500
19	8,400	6,890	11,100	13,700	62,600	125,000	179,000	44,200	98,000	16,500	10,300	11,600
20	9,350	6,890	10,100	13,700	65,600	159,000	187,000	40,800	74,400	18,600	9,400	10,700
21	9,150	6,630	9,790	13,700	64,600	176,000	183,000	38,300	58,600	18,600	9,400	10,100
22	8,050	6,240	9,470	13,300	63,600	192,000	174,000	35,900	46,900	18,100	9,400	9,820
23	7,080	6,370	9,150	13,700	60,600	192,000	176,000	33,600	40,800	17,000	9,400	8,770
24	6,490	6,500	8,550	14,100	55,800	179,000	172,000	32,900	37,500	16,000	9,190	7,960
25	5,940	6,370	8,250	15,000	48,600	164,000	144,000	35,100	38,300	15,000	8,980	7,760
26	5,560	6,120	7,690	14,600	42,800	159,000	126,000	39,100	55,600	14,000	8,770	7,960
27	5,450	5,870	7,150	13,700	39,800	159,000	123,000	39,900	60,600	13,500	8,980	7,760
28	10,100	5,620	6,890	13,300	43,600	153,000	154,000	40,800	47,800	14,500	10,900	7,760
29	37,200	5,120	6,890	13,300	63,600	138,000	188,000	41,600	35,900	15,000	19,700	7,760
30	35,800	5,000	6,890	14,600	-	119,000	200,000	45,100	30,700	18,100	25,800	7,190
31	28,200	-	7,410	15,400	-	98,000	-	65,600	-	17,000	23,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	327,050	37,200	3,900	10,550	648,700
November.....	300,930	23,200	5,000	10,030	596,900
December.....	229,830	11,800	4,620	7,414	455,900
Calendar year 1943.....	18,397,290	536,000	3,900	50,400	36,490,000
January.....	400,720	15,400	7,150	12,930	794,800
February.....	1,199,800	65,600	14,600	41,370	2,380,000
March.....	3,122,700	192,000	26,800	100,700	6,194,000
April.....	3,735,000	200,000	36,700	124,500	7,408,000
May.....	3,553,400	274,000	32,900	124,300	7,643,000
June.....	1,989,100	153,000	30,700	66,300	3,945,000
July.....	529,900	27,100	12,100	17,090	1,051,000
August.....	403,320	25,800	8,770	13,010	800,000
September.....	467,540	27,100	7,190	15,580	927,400
Water year 1945-44.....	16,559,290	274,000	3,900	45,240	32,840,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944 in reports of Geological Survey. December 1924 to June 1928 and March 1930 to September 1944 in reports of State engineer.

Extremes.— Maximum discharge during year, 1,280 second-feet Apr. 13 (gage height, 4.01 feet), from rating curve extended above 300 second-feet; minimum daily, 4.0 second-feet Sept. 18-20.

1924-28, 1930-44: Maximum discharge, 1,960 second-feet Apr. 23, 1942 (gage height, 5.26 feet), from rating curve extended above 400 second-feet; minimum daily, 0.1 second-foot June 19-22, 1936.

Remarks.— Records good except those for periods of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	9.0	12	16	19	32	54	32	220	100	15	7.0
2	6.0	9.0	12	16	19	45	52	31	217	105	9.0	6.5
3	5.5	9.0	13	18	19	43	72	38	241	107	6.0	6.0
4	5.5	9.8	13	19	18	41	118	37	193	116	5.0	6.0
5	5.5	11	14	14	29	39	110	30	114	152	5.0	6.5
6	5.5	9.8	15	14	31	35	70	26	94	223	5.5	7.0
7	5.0	11	14	11	29	33	41	25	159	139	6.5	7.0
8	5.0	17	13	10	27	32	35	30	190	98	5.5	6.5
9	5.5	15	15	11	28	35	39	34	188	88	5.5	6.0
10	5.5	24	17	13	20	45	26	42	223	83	5.5	6.0
11	6.0	18	21	12	15	61	46	45	238	75	6.0	6.0
12	6.0	17	21	11	15	61	70	48	229	62	6.0	6.0
13	6.0	15	20	12	15	62	440	62	202	47	6.0	6.0
14	6.0	15	20	15	15	40	367	90	162	41	5.5	5.5
15	6.0	15	20	14	16	27	123	105	142	34	5.5	4.5
16	6.0	15	20	14	16	34	84	129	116	34	5.5	4.5
17	6.5	15	20	14	17	42	71	125	97	27	5.5	4.5
18	6.0	14	21	15	17	32	83	94	84	21	13	4.0
19	6.5	11	22	15	19	25	89	68	80	68	6.0	4.0
20	7.0	11	21	16	23	25	114	60	80	47	5.5	4.0
21	8.5	11	22	17	27	27	72	59	94	92	6.5	4.5
22	9.0	11	21	18	25	25	62	63	102	82	6.0	4.5
23	8.0	12	19	19	24	23	70	67	74	57	7.0	4.5
24	7.0	13	18	20	26	33	92	75	77	71	7.5	5.0
25	7.5	12	18	19	26	32	56	89	104	70	8.0	5.0
26	8.0	12	19	17	24	30	42	205	120	53	8.5	5.5
27	8.0	12	18	14	24	28	38	314	110	46	8.0	5.5
28	8.0	12	19	16	25	25	45	345	88	35	7.5	5.5
29	8.5	12	19	17	26	29	45	211	84	29	8.0	5.5
30	8.5	12	18	18	-	35	38	157	109	23	8.5	5.5
31	8.5	-	17	18	-	44	-	182	-	19	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	207.0	9.0	5.0	6.68	411
November.....	389.6	24	9.0	13.0	773
December.....	552	22	12	17.8	1,090
Calendar year 1943.....	5,266.2	81	1.8	14.4	10,440
January.....	473	20	10	15.3	938
February.....	635	31	15	21.9	1,260
March.....	1,125	62	25	36.3	2,230
April.....	2,665	440	26	88.8	5,290
May.....	2,918	345	25	94.1	5,790
June.....	4,231	238	74	141	8,390
July.....	2,244	223	19	72.4	4,450
August.....	216.5	15	5.0	6.98	429
September.....	164.5	7.0	4.0	5.48	326
Water year 1943-44.....	15,820.6	440	4.0	43.2	31,330

Note.— No gage-height record Nov. 27 to Mar. 10, Mar. 21-30 (stage-discharge relation affected by ice most of period); discharge computed on basis of weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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.

Datum of gage is 5,341.74 feet above mean sea level, datum of 1929.

Drainage area.- 676 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge during year, 3,120 second-feet July 15 (gage height, 5.22 feet), from rating curve extended above 900 second-feet; minimum daily, 3.7 second-feet Oct. 15, 16, 29, 30.

1938-44: 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 fair except those for periods of ice effect, which are poor.

Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	15	43	28	40	16	11	245	544	40	19	23
2	20	19	41	27	*45	*15	15	245	364	40	15	20
3	12	20	*45	26	57	16	*11	270	265	37	7.4	20
4	12	18	*16	41	14	20	304	252	153	26	254	20
5	12	16	52	15	33	15	29	287	252	744	38	49
6	13	9.8	61	15	57	16	50	258	432	177	40	24
7	11	35	54	20	41	17	61	321	449	67	21	19
8	9.0	38	61	26	38	20	83	466	381	46	5.0	18
9	7.7	38	33	33	*37	*29	130	463	398	53	9.2	14
10	9.8	32	21	*38	38	26	208	578	364	77	8.6	11
11	9.8	20	32	28	25	22	195	578	252	265	5.6	8.0
12	14	22	40	36	27	26	125	a640	132	139	15	10
13	14	18	36	45	21	17	130	a750	162	93	18	20
14	8.2	17	31	54	22	15	140	a730	132	95	14	21
15	3.7	17	*35	40	22	10	125	a690	110	90	46	14
16	3.7	15	38	33	25	7.0	74	a600	100	392	58	5.6
17	4.7	13	27	36	20	*8.3	125	a510	97	114	18	5.6
18	5.7	17	50	40	12	15	86	a400	77	121	15	6.2
19	12	17	38	44	16	18	158	a350	74	139	20	10
20	11	16	37	46	17	26	145	a320	55	80	35	11
21	9.8	17	29	32	18	16	130	a300	37	74	51	8.6
22	9.0	26	*27	28	16	30	94	278	23	74	53	6.8
23	9.0	25	30	30	*15	*41	91	200	12	64	33	8.0
24	11	24	33	34	14	43	86	154	14	77	28	8.6
25	6.7	32	33	*27	15	35	83	170	20	77	33	14
26	4.7	32	29	30	16	31	88	226	18	72	219	20
27	4.7	30	32	22	14	23	104	252	21	62	89	24
28	4.2	32	25	21	14	16	170	816	23	49	44	18
29	3.7	38	*22	20	14	13	245	1,020	35	35	19	12
30	3.7	57	24	25	-	14	232	1,190	60	40	29	12
31	5.2	-	25	32	-	12	-	888	-	33	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	285.0	20	3.7	9.19	585
November.....	723.8	57	9.8	24.1	1,440
December.....	1,139	61	21	36.7	2,260
Calendar year 1943.....	13,031.3	291	3.2	35.7	25,860
January.....	947	54	15	30.5	1,880
February.....	773	57	14	26.7	1,530
March.....	615.3	43	7.0	19.9	1,250
April.....	3,244	245	11	108	6,450
May.....	14,519	1,190	154	468	28,800
June.....	5,155	544	12	172	10,220
July.....	3,622	744	33	117	7,180
August.....	1,055.8	219	5.0	34.1	2,090
September.....	695.4	254	5.6	23.2	1,380
Water year 1943-44.....	32,776.3	1,190	3.7	89.6	65,000

Peak discharge.- July 4 (11 p.m.) 2,090 sec.-ft.; July 15 (11:30 p.m.) 3,120 sec.-ft.; Aug. 26 (7:30 p.m.) 2,000 sec.-ft.; Sept. 4 (7 p.m.) 2,400 sec.-ft.

* Winter discharge measurement made on this day.

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

Note.- Stage-discharge relation affected by ice Dec. 9-16, Jan. 11 to Feb. 1, Feb. 11 to Mar. 1, Mar. 15-19, 25-28. No gage-height record Dec. 27 to Jan. 10 (stage-discharge relation probably affected by ice during entire period); discharge computed on basis of 3 discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Fountain Creek at Pueblo, Colo.

Location.- Water-stage recorder, lat. 38°16', long. 104°36', in SW¼ sec. 30, T. 20 S., R. 84 W., at Eighth Street Bridge, 2 miles upstream from mouth. Datum of gage is 4,663.45 feet above mean sea level, datum of 1929.

Drainage area.- 932 square miles.

Records available.- October 1941 to September 1944 in reports of Geological Survey.
April 1922 to September 1925 and October 1941 to September 1944 in reports of State engineer.

Extremes.- Maximum discharge during year, 12,900 second-feet Aug. 4 (gage height, 8.51 feet), from rating curve extended above 1,400 second-feet on basis of slope-area determination at gage height 8.05 feet; no flow June 23-25, 27-30.
1941-44: Maximum discharge, that of Aug. 4, 1944; no flow at times.
Flood of June 4, 1921, discharge 34,000 second-feet, by slope-area method. Flood of May 30, 1935, discharge, 35,000 second-feet, by slope-area method.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.5	30	30	30	37	26	170	460	0.1	a13	5.5
2	.6	.7	24	34	29	45	35	229	354	.3	a8.0	4.1
3	.7	6.4	20	40	27	52	35	258	310	.9	a5.2	2.9
4	1.0	5.5	27	37	18	58	29	276	310	.7	a350	259
5	1.0	6.4	27	38	27	71	35	250	310	23	a500	231
6	1.0	1.9	37	35	27	32	34	236	318	26	a30	17
7	1.0	.6	45	26	38	16	32	294	276	9.1	7.0	12
8	1.0	13	30	29	38	14	30	382	260	1.9	6.0	9.5
9	1.0	24	17	23	42	11	42	382	215	1.9	3.8	7.5
10	1.0	17	14	20	21	10	258	402	201	156	3.5	7.0
11	1.0	17	30	21	18	8.2	201	440	180	.7	3.2	6.5
12	1.0	17	35	26	30	7.3	130	440	165	13	3.2	5.0
13	1.0	17	77	34	24	13	140	480	135	26	3.5	4.7
14	1.0	17	55	18	40	6.4	112	562	102	.4	3.5	3.8
15	1.0	17	45	35	34	3.7	120	614	63	1.2	2.3	3.5
16	.9	14	71	26	37	2.8	140	614	65	119	2.6	2.6
17	1.0	13	68	21	24	2.8	145	614	42	71	6.5	2.3
18	1.0	13	48	23	21	27	135	510	26	311	4.4	1.7
19	1.9	9.1	30	35	26	38	165	411	37	564	2.6	1.7
20	.9	8.2	40	32	30	35	222	344	18	20	2.0	1.7
21	.5	6.4	32	65	50	27	170	335	2.8	163	2.9	1.7
22	.6	4.6	24	32	45	24	140	301	.4	113	2.0	1.6
23	.6	16	24	34	40	65	130	267	0	50	2.3	1.7
24	.6	17	37	50	45	71	140	194	0	77	2.3	1.7
25	.8	20	27	42	38	60	150	187	0	65	1.0	1.7
26	1.9	21	30	45	27	48	150	318	.1	39	12	1.7
27	1.9	17	34	34	27	45	150	354	0	36	89	1.8
28	1.0	18	34	23	34	27	140	500	0	22	54	1.8
29	3.7	20	27	23	35	35	165	510	0	20	35	1.7
30	.6	30	24	34	-	30	175	562	0	22	16	1.6
31	.3	-	27	27	-	27	-	490	-	18	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	32.3	3.7	0.3	1.04	64
November.....	388.3	30	.5	12.9	770
December.....	1,090	77	14	35.2	2,160
Calendar year 1943	7,922.1	210	0	21.7	15,710
January.....	992	65	18	32.0	1,970
February.....	922	50	18	31.8	1,830
March.....	949.2	71	2.8	30.6	1,880
April.....	3,576	258	26	119	7,090
May.....	11,916	614	170	384	23,640
June.....	3,860.3	460	0	129	7,660
July.....	1,971.2	564	.1	63.6	3,910
August.....	1,194.8	500	1.0	38.2	2,350
September.....	606.0	259	1.6	20.2	1,200
Water year 1943-44	27,488.1	614	0	75.1	54,520

Peak discharge.- May 30 (10:30 a.m.) 1,920 sec.-ft.; July 18 (8:15 p.m.) 7,280 sec.-ft.; Aug. 4 13,000 sec.-ft.
a No gage-height record; discharge computed on basis of recorded range in stage and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge observed during year, 366 second-feet May 14 (gage height, 3.12 feet); minimum daily, 0.8 second-foot Sept. 11.
1938-44: Maximum discharge observed, 734 second-feet Apr. 23, 1942 (gage height, 3.86 feet), from rating curve extended above 360 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, about 2,700 acre-feet).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	21	9.7	5.7	4.1	8.4	3.0	87	152	11	8.8	3.6
2	2.0	30	7.9	4.6	*3.8	8.8	3.0	89	131	19	8.1	3.9
3	3.0	20	*9.2	4.7	4.9	10	2.5	84	128	17	4.2	3.4
4	3.0	14	*12	*4.7	6.6	9.2	1.9	99	128	52	3.9	3.1
5	3.6	11	15	4.7	9.7	8.8	2.1	131	112	80	2.3	2.7
6	3.8	8.4	10	4.3	11	7.5	3.2	131	104	35	1.9	2.8
7	3.2	6.3	9.2	4.1	9.7	8.4	3.8	142	72	32	3.9	2.2
8	3.2	5.2	7.5	4.6	11	7.0	6.0	174	61	29	5.0	1.6
9	3.8	4.9	6.0	5.2	*11	6.6	7.9	226	66	20	3.1	1.8
10	4.0	8.8	5.0	*5.7	12	5.5	9.2	280	72	22	3.1	1.2
11	4.0	9.2	7.5	4.8	11	6.0	14	292	66	35	2.7	.8
12	4.0	6.6	8.5	5.6	6.8	5.8	43	336	63	41	2.7	1.3
13	3.4	5.8	8.2	6.4	7.2	3.0	35	348	52	44	2.7	2.0
14	3.4	4.1	7.5	8.8	7.0	2.8	52	360	48	37	2.5	2.0
15	3.4	3.4	*7.9	8.0	7.5	2.1	57	342	48	145	2.3	1.6
16	3.2	3.0	5.5	9.2	8.5	1.7	59	330	50	15	1.9	1.6
17	3.4	6.0	5.8	9.7	*8.0	7.5	57	319	41	13	1.6	1.2
18	3.4	5.8	10	*10	9.4	5.0	70	280	52	23	1.9	1.3
19	4.5	5.2	5.5	7.9	9.0	3.6	61	239	35	26	2.2	1.2
20	3.3	14	4.9	8.8	12	4.4	61	205	14	27	2.2	.9
21	2.6	14	2.5	8.8	17	7.0	61	185	11	35	2.3	1.2
22	3.0	10	*1.6	13	26	12	70	142	11	17	1.9	1.8
23	3.0	9.7	1.7	10	*35	17	57	137	11	22	2.4	2.4
24	3.2	9.2	4.1	8.8	24	14	61	117	11	13	2.4	2.7
25	3.4	10	7.0	*7.0	18	7.0	75	104	13	23	1.9	4.2
26	6.2	11	7.0	4.9	15	7.9	72	104	19	19	4.2	3.6
27	6.2	7.9	8.4	4.0	14	7.9	75	123	19	28	6.0	4.2
28	5.0	8.8	8.8	3.8	12	5.2	94	134	17	20	4.5	3.1
29	10	7.0	*7.5	3.7	9.2	3.4	94	140	16	20	5.0	3.1
30	4.9	8.4	11	4.8	-	1.9	97	148	22	19	6.3	4.8
31	5.8	-	5.2	4.5	-	1.3	-	159	-	11	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	121.4	10	2.0	3.92	241
November.....	288.7	30	3.0	9.62	573
December.....	227.6	15	1.6	7.34	451
Calendar year 1943.....	3,752.9	74	1.1	10.3	7,460
January.....	200.6	13	3.6	6.47	398
February.....	340.4	35	3.8	11.7	675
March.....	206.7	17	1.3	6.67	410
April.....	1,307.6	97	1.9	43.6	2,590
May.....	5,985	360	84	193	11,870
June.....	1,645	152	11	54.8	3,260
July.....	948	145	11	30.8	1,800
August.....	108.7	8.8	1.6	3.51	216
September.....	71.3	4.8	.8	2.38	141
Water year 1943-44.....	11,451.0	360	.8	31.3	22,700

* Winter discharge measurement made on this day.

Note.- No gage-height record Oct. 1-4, 10-28, Dec. 12-14, Mar. 18, 21; discharge computed on basis of 4 discharge measurements and weather records. Stage-discharge relation affected by ice Dec. 9-11, Jan. 1-15, 27-31, Feb. 12-21.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

St. Charles River near Pueblo, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}12'$, long. $104^{\circ}32'$, in sec. 23, T. 21 S., R. 84 W., at highway bridge 500 feet downstream from Bessemer ditch siphon, 7 miles southeast of Pueblo and 8 miles upstream from mouth.

Drainage area.- 464 square miles.

Records available.- October 1942 to September 1944.

Extremes.- Maximum discharge during year, 4,830 second-feet July 18 (gage height, 5.58 feet), from rating curve extended above 2,100 second-feet on basis of slope-area determination at gage heights of 4.53 and 6.46 feet; minimum daily, 0.2 second-foot Oct. 12-31, Sept. 19-28.

1942-44: Maximum discharge, that of July 18, 1944; no flow on several days in July and August 1943.

Maximum discharge known, 56,000 second-feet June 3, 1921 (determined by State engineer's office). A stage of 6.46 feet was reached Apr. 19, 1942 (discharge, 6,700 second-feet, by slope-area method).

Remarks.- Records fair. Diversions above station for irrigation and storage.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.3	1.8	3.6	5.6	2.5	4.6	176	438	8.0	3.2	2.1
2	.3	.3	2.5	3.3	9.5	2.5	5.3	194	364	5.3	2.3	1.8
3	.3	.3	*2.5	3.5	6.0	3.2	4.6	162	290	3.6	1.6	1.8
4	.3	.3	4.2	3.6	5.0	3.6	3.9	139	228	2.8	1.8	1.6
5	.3	.3	4.2	1.5	14	3.2	3.9	114	188	2.8	67	38
6	.3	.5	4.6	1.3	4.6	2.1	3.2	131	188	5.6	48	7.0
7	.3	1.0	3.2	1.3	3.2	2.1	3.2	200	240	6.5	9.5	3.6
8	.3	1.2	3.9	1.6	4.2	2.1	3.6	326	212	177	5.6	2.3
9	.3	1.4	b9.0	2.0	3.2	2.1	4.2	308	170	79	5.0	1.6
10	.3	1.8	*b35	1.9	3.6	2.3	28	371	170	7.0	4.6	1.4
11	.3	1.8	b18	1.8	12	2.3	34	314	145	131	4.6	1.8
12	.2	1.6	b13	2.5	8.0	2.3	32	338	133	81	4.2	1.8
13	.2	1.6	*b10	2.3	3.5	1.8	92	357	110	32	3.6	1.4
14	.2	1.6	6.0	4.5	2.3	1.6	338	392	97	15	3.2	1.4
15	.2	1.6	4.2	4.0	2.6	1.8	165	510	73	11	3.2	1.0
16	.2	1.6	*4.2	5.0	2.9	1.8	117	483	62	28	4.2	.5
17	.2	1.8	5.0	6.6	2.5	1.8	83	438	54	22	3.9	.5
18	.2	1.4	5.6	6.2	2.1	5.6	56	290	39	438	2.8	.3
19	.2	1.4	5.6	6.4	2.8	7.5	53	216	39	109	2.5	.2
20	.2	1.4	7.5	8.0	3.6	7.0	57	204	37	46	2.1	.2
21	.2	1.6	8.0	6.0	3.9	4.6	50	208	32	25	3.9	.2
22	.2	1.4	6.5	7.0	3.6	5.0	76	204	27	19	8.0	.2
23	.2	1.8	7.5	7.0	3.2	7.0	97	191	23	13	5.0	.2
24	.2	1.8	6.5	6.0	2.8	8.0	191	185	20	12	3.6	.2
25	.2	1.8	7.5	9.0	2.8	6.5	208	208	16	9.5	2.5	.2
26	.2	1.8	8.0	3.9	2.3	7.0	179	220	14	6.5	31	.2
27	.2	1.4	3.6	3.9	2.5	5.6	178	228	10	5.6	51	.2
28	.2	1.8	3.9	8.5	2.8	5.3	168	456	7.0	5.0	9.0	.2
29	.2	2.3	4.2	7.5	2.5	5.3	176	580	5.6	4.2	4.6	.3
30	.2	2.5	3.4	4.9	-	4.6	162	580	8.0	4.2	3.2	.3
31	.2	-	3.0	5.4	-	5.0	-	492	-	3.6	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7.3	0.3	0.2	0.24	14
November	41.4	2.5	.3	1.38	82
December	212.1	35	1.8	6.84	421
Calendar year 1943	2,341.7	303	0	8.42	4,640
January	140.0	9.0	1.3	4.52	278
February	127.6	14	2.1	4.40	253
March	123.1	8.0	1.6	3.97	244
April	2,574.5	338	3.2	85.8	5,110
May	9,215	580	114	297	18,280
June	3,439.6	438	5.6	115	6,320
July	1,318.2	438	2.8	42.5	2,610
August	307.0	67	1.6	9.90	609
September	72.5	38	.2	2.42	144
Water year 1943-44	17,578.3	580	.2	48.0	34,860

Peak discharge.- July 8 (9 p.m.) 3,520 sec.-ft.; July 11 (6:30 p.m.) 1,350 sec.-ft.; July 18 (9 p.m.) 4,830 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 29 to Jan. 19, Jan. 30, 31, Feb. 11-16; discharge computed on basis of 4 discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Sixmile Creek near Avondale, Colo.

Location.- Water-stage recorder, lat. 38°15', long. 104°24', in SE¼ sec. 1, T. 21 S., R. 63 W., 1,000 feet upstream from mouth and 2½ miles west of Avondale.

Drainage area.- 50 square miles.

Records available.- October 1942 to September 1944.

Extremes.- Maximum discharge during year, 548 second-feet July 12 (gage height, 3.77 feet), from rating curve extended above 50 second-feet based on float measurement at gage height of 3.41 feet; minimum daily, 4.9 second-feet Apr. 7, 8.

1942-44: Maximum discharge, that of July 12, 1944; minimum daily, 4.2 second-feet Apr. 12, 13, 1943.

Remarks.- Records fair. Flow is mostly return water from land irrigated by lower end of Bessemer ditch.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	7.3	6.1	6.9	6.9	6.7	6.3	6.7	6.7	8.6	9.7	7.8
2	6.8	7.3	6.5	6.7	6.9	6.3	6.5	6.7	8.0	8.4	9.2	8.0
3	6.5	7.0	6.1	6.9	6.7	6.5	6.1	6.5	7.6	8.3	9.0	7.8
4	6.5	7.0	6.1	6.3	6.9	6.3	5.7	6.9	7.6	10	9.0	8.0
5	7.0	7.0	6.3	6.7	6.9	6.3	5.7	7.1	7.8	10	23	8.0
6	7.0	6.5	6.3	7.6	7.8	6.5	5.3	7.1	7.6	9.3	8.7	8.0
7	6.5	6.5	6.3	8.0	8.0	6.5	4.9	7.3	7.6	8.6	8.2	8.0
8	6.5	6.5	6.1	7.3	8.0	6.5	4.9	7.8	9.1	9.1	8.0	8.0
9	6.5	6.3	6.5	7.3	7.8	6.3	5.1	6.9	9.1	8.3	8.2	8.0
10	6.5	6.3	6.9	6.9	8.0	6.3	11	6.5	9.6	37	8.0	7.6
11	6.5	6.3	6.7	6.7	7.6	6.1	11	6.5	8.8	26	8.2	7.8
12	6.5	6.5	6.7	6.5	7.6	5.9	7.6	6.3	8.6	88	8.5	7.3
13	6.5	7.0	6.9	6.5	7.1	5.7	7.1	6.7	9.1	26	7.6	7.1
14	6.8	7.0	6.9	6.5	6.9	6.3	7.1	7.3	9.6	19	8.0	6.9
15	6.5	7.0	6.9	6.3	6.9	6.5	6.9	7.8	9.6	16	8.0	6.9
16	6.8	7.3	6.9	6.3	6.3	6.1	6.9	8.0	9.3	13	7.3	7.1
17	6.8	7.6	6.9	7.1	6.7	6.1	7.6	8.0	9.1	13	7.8	6.9
18	6.5	7.3	6.9	7.8	6.7	6.9	7.3	8.0	9.3	23	7.1	6.9
19	6.8	7.3	7.3	7.6	6.7	6.9	7.6	7.8	8.8	12	7.3	6.9
20	6.5	7.3	7.3	8.2	6.7	6.9	7.6	7.8	8.2	9.4	7.1	6.9
21	6.5	7.3	7.3	9.6	6.9	6.9	7.3	7.8	8.4	11	7.1	6.9
22	6.5	7.6	7.3	9.3	7.1	6.9	9.0	7.3	8.2	10	7.1	6.9
23	6.8	7.6	7.3	11	6.9	7.3	7.1	6.7	7.8	9.9	7.3	7.1
24	7.0	7.6	7.3	8.0	6.9	7.3	6.7	5.7	7.6	10	8.0	7.1
25	7.0	7.6	7.1	6.9	6.9	6.5	6.7	6.1	8.2	9.7	7.3	7.1
26	6.8	7.6	7.1	6.9	6.9	6.5	6.7	7.1	9.8	9.4	9.7	7.1
27	6.5	7.3	7.1	6.9	6.9	5.9	6.7	7.8	9.1	9.4	8.7	7.1
28	6.8	7.0	6.9	6.7	6.9	5.9	6.3	8.2	8.6	9.2	8.2	7.1
29	6.3	6.3	6.5	6.7	6.9	6.1	6.1	6.7	9.6	9.0	8.2	7.1
30	6.8	6.3	6.7	6.9	-	6.3	6.7	7.1	9.8	9.4	8.0	7.3
31	6.8	-	6.9	6.9	-	6.1	-	6.5	-	9.2	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	207.9	7.0	6.5	6.71	412
November.....	211.0	7.6	6.3	7.03	419
December.....	210.1	7.3	6.1	6.78	417
Calendar year 1943.....	2,490.1	11	4.2	6.82	4,940
January.....	226.4	11	6.3	7.30	449
February.....	205.4	8.0	6.3	7.08	407
March.....	199.3	7.3	6.7	6.43	396
April.....	206.5	11	4.9	6.88	410
May.....	220.7	8.2	5.7	7.12	438
June.....	258.4	9.8	6.7	8.61	513
July.....	470.4	89	8.4	15.2	933
August.....	285.5	23	7.1	8.56	527
September.....	220.7	8.0	6.9	7.36	435
Water year 1943-44.....	2,902.3	88	4.9	7.93	5,760

Peak discharge.- July 10 (6:30 p.m.) 183 sec.-ft.; July 12 (5 p.m.) 548 sec.-ft.; July 18 (11:30 p.m.) 295 sec.-ft.; Aug. 5 (2:30 p.m.) 260 sec.-ft.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

Chico Creek near North Avondale, Colo.

Location.- Water-stage recorder, lat. 38°16', long. 104°23', in SE¼ sec. 31, T. 20 S., R. 62 W., 1 mile upstream from mouth and 1½ miles west of North Avondale.

Drainage area.- 815 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 70 second-feet Aug. 4 (gage height, 1.60 feet); no flow at times.

1942-44: Maximum discharge, 3,320 second-feet Sept. 1, 1942 (gage height, 4.11 feet), from rating curve extended above 2,000 second-feet on basis of slope-area determination at gage height 7.55 feet; no flow at times.

The peak discharge of flood of June 3, 1921, was 28,600 second-feet, by slope-area method.

Remarks.- Records fair. Flow mostly waste water from Excelsior ditch.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0				0	0	5.3	4.2	0	0
2	0	0	0				0	0	1.8	0	0	0
3	0	0	0				0	0	.1	.2	0	0
4	0	0	0				0	0	0.0	.8	2.4	0
5	0	0	0				0	2.8	3.6	.2	1.6	0
6	0	0	0				0	5.3	0	0	0	0
7	0	0	0				0	3.3	6.7	.6	0	0
8	0	0	0				0	4.3	5.1	0	0	0
9	0	0	0				0	6.0	14	.2	0	0
10	0	0	0				2.6	5.1	11	14	0	0
11	0	.4	0				0	5.1	0	.5	0	0
12	0	2.0	0				0	6.3	7.7	2.0	0	0
13	0	5.3	0				0	7.4	7.4	8.8	0	0
14	0	4.6	0				0	12	6.7	0	0	0
15	0	5.3	0				0	2.2	4.5	8.8	0	0
16	0	4.3	0				0	.8	7.7	.4	0	0
17	0	2.8	0				0	1.8	11	5.5	.3	0
18	0	.2	0				0	0	0	4.0	.8	0
19	0	.7	0				0	0	.5	1.6	0	0
20	0	.1	0				1.3	0	9.2	9.6	0	.8
21	0	0	0				0	0	8.8	4.0	0	.5
22	0	0	0				1.7	.2	10	4.0	0	0
23	2.5	1.8	0				.6	.3	10	15	0	0
24	0	.3	0				0	0	8.8	12	0	0
25	0	.1	0				0	0	0	3.4	0	0
26	0	.4	0				0	.9	1.7	4.5	6.7	0
27	0	.9	0				0	.8	12	1.1	.4	0
28	0	9.2	0				0	1.2	15	0	0	23
29	0	5.1	0				0	.6	11	0	0	1.1
30	0	.3	0				0	1.6	2.6	0	0	0
31	0	-	0				-	5.6	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2.5	2.5	0	0.08	5.0
November.....	43.8	9.2	0	1.46	87
December.....	.2	.2	0	.01	.4
Calendar year 1943	213.9	20	0	.59	425
January.....	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	6.2	2.6	0	.21	12
May.....	73.6	12	0	2.37	146
June.....	182.2	15	0	6.07	361
July.....	106.4	15	0	3.40	209
August.....	12.2	6.7	0	.39	24
September.....	25.4	23	0	.85	50
Water year 1943-44	451.5	23	0	1.23	894

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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, $\frac{3}{4}$ miles southwest of Redwing.

Drainage area.- 76 square miles.

Records available.- October 1933 to September 1944 in reports of Geological Survey.
July 1923 to September 1944 in reports of State engineer. No winter records prior to 1936.

Extremes.- Maximum discharge during year, 336 second-feet May 15 (gage height, 1.39 feet); minimum discharge observed, 6.0 second-feet Jan. 5 (result of discharge measurement), but probably less during period of no gage-height record.
1923-44: Maximum gage height, 4.80 feet July 27, 1934 (discharge not determined); minimum daily discharge, 4 second-feet Jan. 22, 1937.

Remarks.- Records good except those for Nov. 27 to Apr. 11, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	a15					13	22	285	153	52	25
2	20	a15					15	23	275	156	54	25
3	18	15					16	20	271	150	48	23
4	16	14					18	19	194	190	48	20
5	16	14		(*)			19	19	171	187	48	21
6	16	14					20	27	187	184	46	22
7	16	11					21	38	223	154	42	21
8	15	10					20	40	212	140	39	20
9	16	12					19	55	231	125	39	20
10	15	13					18	69	255	115	35	20
11	15	14					17	81	251	118	34	20
12	16	a14					23	110	231	115	35	21
13	16	13					20	138	219	106	30	20
14	15	14					17	159	219	99	26	20
15	15	14		7.5	7.5	11	17	208	194	99	26	20
16	15	14					16	208	190	93	26	20
17	15	a15					15	187	174	84	25	20
18	14	a14					15	156	155	82	25	20
19	15	a14					17	153	182	89	25	20
20	15	13					16	168	162	101	26	22
21	14	13				(*)	16	187	162	93	31	20
22	14	13					16	194	165	82	30	a20
23	15	13					16	219	171	80	a30	a20
24	14	14					20	223	168	76	a31	20
25	14	13					19	208	165	50	31	20
26	14	14				(*)	19	201	159	74	32	22
27	14	11					20	180	153	66	30	23
28	14	9					21	162	150	63	28	21
29	15	9					20	156	153	62	29	20
30	a15	9					19	198	153	60	31	22
31	a15	-					-	231	-	54	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	476	20	14	15.4	944
November.....	390	15	9	13.0	774
December.....	232.5	-	-	7.5	461
Calendar year 1943	8,308.5	111	-	22.8	16,490
January.....	232.5	-	-	7.5	461
February.....	319	-	-	11	633
March.....	434	-	-	14	861
April.....	538	25	13	17.9	1,070
May.....	4,059	231	19	131	8,060
June.....	5,856	283	150	195	11,620
July.....	3,329	190	54	107	6,600
August.....	1,060	54	25	34.2	2,100
September.....	628	25	20	20.9	1,250
Water year 1943-44	17,554.0	283	-	48.0	34,820

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

Note.- Stage-discharge relation affected by ice Nov. 7-10, Nov. 27 to Dec. 16. No gage-height record Nov. 17-19, Dec. 17 to Apr. 11 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 3 discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Huerfano River near Badito, Colo.

Location.- Water-stage recorder, lat. 37°44', long. 105°01', in sec. 5, T. 27 S., R. 68 W., 250 feet upstream from South Oak Creek and 0.4 mile west of Badito.

Drainage area.- 513 square miles.

Records available.- August 1941 to September 1944. March 1938 to August 1941 (in reports of Geological Survey), August to December 1912, April 1923 to September 1925, and March 1938 to August 1941 (in reports of State engineer), at site at Badito (includes flow of South Oak Creek).

Extremes.- Maximum discharge during year, 2,200 second-feet July 5 (gage height, 7.90 feet), by slope-area method; minimum daily, 0.5 second-foot Oct. 13, 14, Apr. 9. 1912, 1925-25, 1938-44: Maximum discharge, 3,150 second-feet Aug. 2, 1939 (gage height, 9.01 feet, site and datum then in use), from rating curve extended above 1,300 second-feet; no flow at times in 1940, 1941. Maximum stage known, 12.8 feet July 27 or 28, 1936, from floodmarks, site and datum in use March 1938 to August 1941 (discharge, 5,000 second-feet), from rating curve extended above 650 second-feet.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	14	22	18	22	12	0.8	340	56	18	21
2	14	17	16	20	*18	19	9.4	5.4	308	72	18	23
3	14	19	16	21	16	18	6.5	10	261	95	20	25
4	14	11	17	22	16	16	7.0	237	122	24	25	24
5	14	6.0	19	*14	20	11	5.4	4.4	204	199	32	28
6	14	6.4	20	14	25	9.4	1.2	2.8	189	153	52	24
7	10	6.8	20	14	38	13	1.5	19	207	164	26	19
8	6.0	9.0	16	b8.4	46	14	.8	26	173	133	22	18
9	4.6	15	22	b10	36	12	.5	39	146	119	23	17
10	2.8	16	29	b11	25	10	9.4	50	146	96	29	17
11	2.3	14	30	b9.2	21	6.5	22	52	146	78	28	18
12	1.3	7.0	27	b8.2	24	8.2	21	108	141	72	26	18
13	.5	6.5	29	16	25	7.0	16	217	136	67	26	16
14	.5	8.8	27	18	26	4.9	11	645	130	67	25	15
15	.7	9.2	26	15	28	6.5	2.8	416	130	45	27	14
16	.7	6.6	26	*15	*29	7.6	4.4	492	128	23	26	14
17	1.0	3.9	29	14	36	4.4	6.5	520	116	16	25	14
18	1.3	1.8	30	14	33	4.9	3.4	302	108	19	27	13
19	1.8	1.3	33	14	36	7.0	11	333	102	24	28	12
20	2.8	1.8	31	19	29	15	16	302	72	32	27	12
21	4.4	2.0	33	19	28	11	15	258	72	26	25	12
22	7.0	4.4	31	17	25	15	15	316	72	30	25	11
23	12	3.9	25	19	22	16	12	305	70	34	23	12
24	17	3.4	26	19	20	18	13	274	70	28	23	11
25	10	3.9	23	19	22	19	7.6	305	69	27	24	10
26	18	3.9	24	12	*21	17	6.5	223	72	26	22	11
27	20	11	22	4.4	22	14	1.6	204	70	25	24	10
28	19	11	25	12	21	10	3.9	160	60	25	18	11
29	19	12	26	19	20	14	8.2	186	56	17	13	12
30	12	12	22	15	-	16	1.6	209	60	25	13	8.5
31	7.6	-	22	18	-	16	-	226	-	23	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	267.2	20	0.5	8.62	530
November.....	246.6	19	1.3	8.22	489
December.....	759	33	14	24.5	1,510
Calendar year 1943	7,124.6	78	.2	19.5	14,140
January.....	472.2	22	4.4	15.2	937
February.....	746	22	16	25.7	1,480
March.....	379.4	22	4.4	12.2	753
April.....	251.2	22	.5	8.37	498
May.....	6,215.4	645	.8	200	12,330
June.....	4,091	340	56	136	8,110
July.....	1,928	199	16	62.2	3,820
August.....	754	52	13	24.3	1,600
September.....	469.5	28	8.5	15.6	951
Water year 1943-44	16,579.5	645	.5	45.3	32,890

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Oct. 8, 9, 25, Nov. 1-3, 6-9, 15, 16, 21, Feb. 3-29, July 15-17, 19-27; discharge computed on basis of 2 discharge measurements and weather records or records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Huerfano River near Mustang, Colo.

Location.- Water-stage recorder, lat. 37°51', long. 104°42', in SW¼ sec. 20, T. 25 S., R. 65 W., 2½ miles downstream from Apache Creek and 2½ miles southwest of Mustang.

Drainage area.- 800 square miles.

Records available.- February 1942 to September 1944.

Extremes.- Maximum discharge during year, 1,530 second-feet July 13 (gage height, 3.33 feet), from rating curve extended above 800 second-feet; no flow at times.

1942-44: Maximum discharge, 26,000 second-feet Aug. 14, 1942 (gage height, 9.60 feet), by slope-area method; 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	3.2	6.7	10	62	24	9.4	24	344	36	0.4	0
2	2.0	1.6	5.6	9.0	*52	26	12	26	372	34	.4	0
3	1.8	1.8	5.8	9.4	44	22	10	28	407	70		0
4	1.6	2.4	*1.1	7.4	44	21	7.0	31	407	76	2.6	.1
5	2.4	2.6	6.1	*4.8	64	20	6.1	21	312	206	.5	.3
6	3.4	4.3	5.8	4.5	83	8.8	5.8	15	330	110	0	.1
7	2.0	4.3	5.8	4.0	121	6.4	5.2	33	306	124	2.9	.1
8	1.6	4.6	*6.4	3.6	116	7.0	4.6	87	351	118	1.6	.2
9	1.6	5.8	4.3	4.2	87	12	4.3	108	324	192	0	.2
10	1.4	7.6	2.6	4.8	60	5.8	22	125	318	174	.1	.3
11	1.4	6.4	1.6	4.3	35	5.8	86	152	254	128	0	.3
12	1.6	5.8	b1.6	5.2	28	4.9	112	147	215	142	0	.2
13	1.6	5.8	b1.6	10	24	6.1	160	187	156	164	0	.2
14	1.4	6.1	1.6	27	23	5.8	200	334	142	a65	.1	.2
15	1.2	6.1	1.6	22	23	3.8	125	369	124	a25	.1	.2
16	.9	5.8	1.8	29	*24	4.0	58	494	91	a10	.2	.2
17	.7	5.5	3.0	36	23	6.4	44	414	88	a4.0	0	.2
18	.5	4.6	5.2	40	24	8.2	44	398	62	.4	0	.2
19	.1	4.6	10	*42	26	8.2	44	414	45	3.0	0	.1
20	.1	3.8	20	51	30	9.4	44	414	32	4.0	0	.1
21	.1	3.6	*b53	47	32	7.0	44	414	26	4.0	0	.1
22	.1	3.6	b23	44	35	11.0	46	414	21	4.0	0	.1
23	.1	6.1	b20	51	35	12	49	414	28	3.3	.1	.1
24	.1	*6.7	b19	52	33	12	49	430	36	2.6	2.2	.1
25	.3	6.4	b13	50	33	13	49	430	58	3.6	4.2	.2
26	.3	7.0	b20	30	27	13	42	438	41	3.3	40	.2
27	3.4	8.8	19	19	24	10	35	393	34	1.9	2.2	.2
28	3.4	6.4	17	23	22	11	31	306	32	.4	.4	.2
29	4.0	b6.6	19	31	23	11	31	294	32	.4	.2	.2
30	3.8	b7.6	14	28	-	11	26	254	32	.5	0	.2
31	3.6	-	9.0	43	-	8.8	-	337	-	.4	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	47.5	4.0	0.1	1.53	94
November.....	157.5	8.8	1.6	5.25	312
December.....	314.1	33	1.6	10.1	623
Calendar year 1943	4,166.7	317	0	11.4	8,270
January.....	748.2	52	5.6	24.1	1,480
February.....	1,280	121	22	43.4	2,500
March.....	335.4	26	3.8	10.8	665
April.....	1,405.4	200	4.3	46.8	2,790
May.....	7,955	494	15	257	15,780
June.....	5,020	407	21	187	9,960
July.....	1,709.8	206	.4	55.2	3,390
August.....	58.6	40	0	1.89	116
September.....	4.7	.3	0	.16	9.3
Water year 1943-44	19,014.2	494	0	52.0	37,720

Peak discharge.- Apr. 11 (4:30 p.m.) 1,000 sec.-ft.; July 13 (5:30 p.m.) 1,530 sec.-ft.; Aug. 26 (6:30 p.m.) 1,800 sec.-ft.

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 14-20, Dec. 27 to Feb. 1, Feb. 10-29 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of 3 discharge measurements and weather records.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.

Location.- Water-stage recorder, lat. 38°00', long. 104°28', in NE $\frac{1}{4}$ sec. 32, T. 23 S., R. 63 W., at mouth of canyon, 0.3 mile below diversion dam for Huerfano Valley ditch and 8 miles southwest of Undercliffe. Datum of gage is 4,872.02 feet above mean sea level, datum of 1929.

Drainage area.- 1,710 square miles.

Records available.- October 1939 to September 1944. May 1938 to September 1939 at site 500 feet above diversion dam, half a mile upstream; August to December 1908 at site 1 $\frac{1}{2}$ miles downstream. Records equivalent for high flows only.

Extremes.- Maximum discharge during year, 3,830 second-feet June 29 (gage height, 3.06 feet), from rating curve extended above 500 second-feet on basis of slope-area determination at gage height 3.05 feet; minimum daily, 0.2 second-foot Oct. 1-3, 13-18, 24-26, 28, 29, Nov. 19, 20, 22, 23.

1938-44: Maximum discharge, 15,000 second-feet Aug. 14, 1942 (gage height, 7.00 feet), from rating curve extended above 2,000 second-feet by logarithmic plotting to computation of flow over dam at gage height 11.4 feet, gage datum of 1938; no flow at times in nearly every year.

Flood of July 27-28, 1938, reached a stage of 11.4 feet, gage datum of 1938 (discharge, 26,600 second-feet, by computation of flow over dam).

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.3	*0.3	14	4.6	*11	13	90	554	76	2.2	4.6
2	.2	.3	1.5	11	7.2	14	18	124	506	74	.9	4.9
3	.2	.3	4.2	*12	*11	14	14	130	672	90	1.1	6.0
4	.3	.3	3.9	15	*11	16	8.7	169	794	120	1.3	6.0
5	.3	.3	3.9	10	7.4	11	9.6	206	604	175	6.5	7.8
6	.3	.4	4.9	*8.0	2.5	9.1	17	245	538	121	3.2	9.6
7	.3	.3	7.4	6.0	1.8	4.6	22	288	400	50	3.2	6.9
8	.3	.4	7.8	5.0	5.3	5.3	22	288	430	39	3.6	4.9
9	.4	.4	7.2	5.5	6.9	5.6	23	265	350	36	4.6	3.6
10	.3	.4	5.6	6.5	5.3	4.2	29	265	157	48	6.9	5.3
11	.3	.4	4.3	5.8	4.6	3.9	40	98	139	46	5.6	5.3
12	.3	.4	3.4	4.6	5.0	1.1	55	98	145	45	3.9	5.6
13	.2	.4	*2.7	4.0	5.6	.6	45	195	139	63	3.2	5.6
14	.2	.4	2.6	12	6.8	.8	36	302	195	28	.9	6.0
15	.2	.3	2.5	11	*9.6	.8	24	538	187	30	1.7	6.9
16	.2	.3	2.6	14	15	.6	16	410	195	33	4.6	4.9
17	.2	.3	3.2	*16	12	.3	16	502	127	37	3.2	6.0
18	.2	.3	4.5	12	*13	.6	25	127	71	36	4.6	5.6
19	.3	.2	6.6	12	15	4.9	24	157	36	61	6.5	7.4
20	.3	.2	6.4	13	13	4.2	31	169	25	5.3	9.6	3.6
21	.3	.3	9.6	*5.2	14	4.9	32	225	21	5.3	13	3.6
22	.3	.2	*17	b3.0	14	4.6	33	265	32	8.7	11	4.2
23	.3	.2	15	b2.8	14	14	35	329	71	11	13	4.6
24	.2	.3	12	b2.7	7.4	9.6	42	316	88	14	20	4.6
25	.2	.4	10	b2.7	8.2	13	35	538	195	29	26	4.2
26	.2	.3	11	b2.7	11	14	31	689	28	22	43	3.9
27	.3	.3	10	b2.7	9.6	7.4	38	604	40	13	16	4.2
28	.2	.3	11	3.5	8.2	21	47	490	52	6.0	4.9	2.9
29	.2	.3	13	4.7	11	17	63	655	215	.9	4.6	4.2
30	.3	.3	12	4.4	-	18	85	655	80	1.5	3.2	4.9
31	.3	-	10	4.1	-	15	-	621	-	1.7	3.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8.0	0.4	0.2	0.27	16
November	9.5	.4	.2	.32	13
December	216.1	17	.3	6.97	429
Calendar year 1943	8,005.7	233	0	21.9	15,880
January	233.9	16	2.7	7.55	464
February	260.0	15	1.8	8.97	516
March	251.1	21	.3	8.10	498
April	929.3	85	8.7	31.0	1,840
May	9,322	689	90	317	19,460
June	7,056	794	21	235	14,000
July	1,325.4	175	.9	42.8	2,630
August	235.9	43	.9	7.61	468
September	158.1	9.6	2.9	5.27	314
Water year 1943-44	20,505.3	794	.2	56.0	40,670

Peak discharge.- June 29 (7 p.m.) 3,830 sec.-ft.; July 19 (12:30 a.m.) 474 sec.-ft.; Aug. 26 (6 p.m.) 286 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 9 to Jan. 20, Jan. 28 to Feb. 3, Feb. 11-21 (stage-discharge relation affected by ice during most of period); discharge computed on basis of 8 discharge measurements and weather records. No gage-height record June 7-9, 27, 28, 30, July 1-4; discharge computed on basis of records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cucharas River at Boyd Ranch, near La Veta, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}25'$, long. $105^{\circ}03'$, in sec. 24, T. 30 S., R. 69 W., at Boyd Ranch, 6 miles south of La Veta.

Drainage area.- 56 square miles (revised).

Records available.- October 1934 to September 1944.

Average discharge.- 10 years, 29.0 second-feet.

Extremes.- Maximum discharge during year, 405 second-feet Sept. 5 (gage height, 3.77 feet), from rating curve extended above 70 second-feet on basis of parallel curve defined to 180 second-feet; minimum daily, 4.7 second-feet Nov. 27.

1935-44: Maximum discharge, that of Sept. 5, 1944; minimum daily, 2 second-feet on several days November 1934 to January 1935.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	7.0	7.3	6.8	6.8	6.8	8.2	66	255	68	19	11
2	8.5	6.8	7.0	7.2	6.8	7.3	10	67	235	65	18	10
3	7.9	7.6	7.0	7.0	7.3	7.3	7.6	54	214	63	17	10
4	7.3	7.0	7.6	6.7	6.5	6.8	10	45	171	68	16	9.8
5	7.0	7.0	7.0	*6.5	6.2	6.2	14	49	151	75	17	30
6	7.3	7.0	7.0	6.8	6.0	5.6	16	66	150	67	17	13
7	7.0	6.0	7.0	6.3	6.2	5.6	16	98	151	63	16	11
8	5.8	6.0	7.3	6.0	6.8	5.7	17	121	149	62	15	8.7
9	5.5	6.2	6.7	6.2	6.8	5.9	18	135	150	58	16	8.7
10	5.5	6.6	6.6	6.2	6.5	6.2	15	155	150	56	17	13
11	5.0	7.6	6.5	6.0	6.0	6.5	33	153	150	55	16	14
12	6.8	7.0	6.3	6.2	6.4	6.5	22	179	147	53	15	13
13	6.5	*7.3	6.2	6.2	6.2	6.8	20	196	142	49	14	13
14	6.0	7.3	6.3	6.5	6.2	7.0	17	216	133	42	14	11
15	5.8	6.8	6.8	6.8	6.4	6.8	16	263	128	38	14	11
16	5.5	6.8	6.6	7.0	6.5	8.5	17	283	122	36	16	11
17	5.8	6.8	6.8	6.8	6.5	7.6	16	225	119	32	15	10
18	5.8	7.0	7.0	6.5	6.2	7.9	16	175	112	32	15	9.4
19	6.5	6.8	7.0	7.0	7.0	7.0	22	168	108	33	15	9.4
20	6.5	7.0	6.5	7.0	6.8	*7.9	*20	177	106	35	14	9.0
21	6.2	6.8	7.3	6.8	5.8	7.9	20	171	106	34	16	8.7
22	6.2	7.0	7.6	6.8	8.8	8.0	17	174	105	30	15	8.1
23	6.5	7.6	8.2	6.2	7.3	9.1	27	189	100	27	14	9.8
24	8.2	8.2	6.8	6.0	*7.6	6.5	25	198	97	27	15	9.8
25	7.6	7.3	8.8	6.5	6.0	7.0	32	189	93	26	14	9.4
26	7.9	5.0	7.0	6.0	7.0	6.5	38	182	90	25	14	11
27	7.6	4.7	6.7	5.7	7.3	6.5	54	191	89	24	14	11
28	8.8	5.4	6.2	5.8	8.2	8.2	65	220	85	22	13	11
29	10	6.2	6.6	6.4	7.0	9.7	56	242	79	21	12	9.8
30	8.8	7.0	6.2	6.2	-	7.6	55	274	69	20	13	8.7
31	7.6	-	6.5	6.4	-	7.0	-	290	-	19	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	216.2	10	5.0	6.97	429
November.....	202.8	8.2	4.7	6.76	402
December.....	214.4	8.8	6.2	6.92	425
Calendar year 1943	4,874.0	55	4.7	13.4	9,660
January.....	200.5	7.2	5.7	6.47	398
February.....	195.1	8.8	5.8	6.73	387
March.....	219.9	9.7	5.6	7.09	436
April.....	717.8	65	7.6	23.9	1,420
May.....	5,199	290	45	168	10,310
June.....	3,956	255	69	132	7,860
July.....	1,330	75	19	42.9	2,640
August.....	468	19	12	15.1	928
September.....	353.3	30	8.1	11.1	661
Water year 1943-44	18,253.0	290	4.7	36.2	26,290

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 9, 10, 27, 28, Dec. 9-16, 27-31, Jan. 1-13, 26-31, Feb. 11-16, 19, Mar. 6-9, 19, 22.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Apishapa River near Aguilar, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 104°40', in sec. 4, T. 31 S., R. 65 W., 2 miles downstream from Mavricio Canyon Creek and 1½ miles southwest of Aguilar. Datum of gage is 6,408.11 feet above mean sea level, datum of 1929. Prior to July 7, 1944, water-stage recorder at site 0.6 mile upstream. Datum of gage was 6,450.17 feet above mean sea level, datum of 1929.

Drainage area.- 129 square miles.

Records available.- October 1939 to September 1944. March 1938 to September 1939 at site 1½ miles downstream; records not equivalent.

Extremes.- Maximum discharge during year, 3,200 second-feet Sept. 5 (gage height, 6.30 feet), from rating curve extended above 450 second-feet on basis of float measurement at gage height of 4.20 feet; minimum daily, 0.2 second-foot Nov. 10, Mar. 3.
1939-44: Maximum discharge, 3,870 second-feet June 17, 1941, by slope-area method; no flow at times most years.

Remarks.- Records poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.4	0.6	0.3	1.1	3.3	6.0	62	139	3.8	2.3	1.3
2	.6	.4	.6	.4	1.2	1.6	4.7	64	108	3.8	1.8	1.0
3	.6	.4	.9	.5	*1.2	.2	4.0	67	94	4.2	1.8	1.1
4	.6	.5	.9	.5	1.3	1.9	3.3	66	72	4.6	1.8	1.0
5	.6	.4	.5	*b.6	1.5	.6	3.3	66	46	3.8	2.0	204
6	.9	.4	.5	.6	1.8	.5	3.9	62	38	3.0	2.2	10
7	.9	.4	.5	.5	2.0	3.7	4.7	40	34	3.2	2.4	4.4
8	1.2	.4	*.5	.5	1.7	8.4	5.6	66	31	3.8	2.7	1.5
9	1.3	.4	b.4	.6	1.5	14	7.4	98	29	3.7	2.8	1.5
10	1.3	.2	b.4	.8	1.4	7.4	9.8	59	26	3.8	2.0	1.5
11	1.4	.4	b.5	1.0	1.4	4.1	22	40	28	3.7	1.9	1.5
12	1.7	.5	.5	1.1	1.6	1.9	28	62	28	228	1.8	1.4
13	1.7	.6	.6	1.3	2.2	1.2	26	117	22	48	1.8	1.4
14	1.4	.9	.5	1.6	2.4	1.4	24	94	19	5.2	1.7	1.3
15	1.3	.7	.3	1.3	3.0	1.3	21	81	18	198	1.7	1.3
16	1.3	.6	.4	1.6	*4.5	.4	21	92	13	35	1.5	1.2
17	1.2	.6	.4	2.1	4.0	3.5	20	128	9.5	22	1.5	1.0
18	1.0	.6	.5	2.1	5.7	3.5	21	88	8.0	5.5	3.1	1.0
19	1.0	.6	.3	*2.4	4.0	5.8	21	77	7.5	7.2	3.6	1.0
20	.7	.6	.5	2.2	4.4	7.4	18	74	6.6	7.4	2.5	1.0
21	.7	.5	*.4	1.7	5.0	6.0	20	69	6.2	8.3	2.2	1.0
22	.6	.5	.5	1.6	5.3	5.6	33	59	5.4	7.0	1.6	1.0
23	.7	.6	b.5	2.2	5.6	7.0	49	55	5.0	6.4	1.5	1.0
24	.7	.5	b.5	2.4	5.4	8.4	79	52	5.8	5.8	1.3	1.0
25	.6	.5	b.5	2.2	5.2	10	70	55	8.0	5.5	1.0	1.2
26	.6	.6	b.4	2.0	*4.6	8.2	69	62	5.0	5.5	72	.9
27	.6	.6	b.6	b1.5	3.0	6.2	62	86	4.2	4.9	1.4	1.2
28	.5	.7	.6	1.1	3.2	5.0	56	110	3.8	4.0	1.2	1.5
29	.5	.9	.6	1.2	3.3	5.8	59	119	4.4	3.7	1.2	1.4
30	.4	.9	.5	1.1	-	7.0	62	119	4.2	3.1	2.1	1.3
31	.4	-	.3	1.1	-	7.4	-	173	-	2.5	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	27.6	1.7	0.4	0.89	55
November.....	16.3	.9	.2	.54	32
December.....	15.7	.9	.3	.51	31
Calendar year 1943	1,369.3	180	0	3.75	2,720
January.....	40.1	2.4	.3	1.29	80
February.....	86.5	5.6	1.1	2.98	172
March.....	148.7	14	2	4.80	295
April.....	235.7	79	3.3	27.8	1,650
May.....	2,462	173	40	79.4	4,890
June.....	628.4	139	3.8	27.6	1,640
July.....	654.4	228	2.5	21.1	1,300
August.....	130.2	72	1.0	4.20	258
September.....	250.9	204	.9	8.36	498
Water year 1943-44	5,494.5	228	.2	15.0	10,890

Peak discharge.- July 12 (2 p.m.) 2,190 sec.-ft.; July 15 (4 p.m.) 1,990 sec.-ft.; Aug. 26 (7 p.m.) 1,480 sec.-ft.; Sept. 5 (1 a.m.) 3,200 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- No gage-height record Dec. 28 to Jan. 4, Jan. 6-18, Jan. 28 to Feb. 29, Mar. 20 to Apr. 3 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of 5 discharge measurements, weather records, and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Apishapa River near White Rock, Colo.

Location.- Water-stage recorder, lat. 37°46', long. 104°15', in SE¼ sec. 20, T. 26 S., R. 80 W., 3 miles upstream from Buffalo Arroyo and 6 miles south of White Rock.

Drainage area.- 792 square miles.

Records available.- May 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,350 second-feet July 19 (gage height, 3.28 feet), by float measurement; no flow at times.

1942-44: Maximum discharge, 6,500 second-feet Aug. 14, 1942 (gage height, 4.25 feet), by computation of flow over control weir; no flow at times.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	0.3	0	0	10	138	0	0	0.1
2				0	.3	0	0	11	107	0	0	.1
3				0	.3	0	0	12	100	0	0	.1
4				0	.3	0	0	13	82	0	0	.1
5				0	.3	0	0	14	53	0	0	.1
6				0	.3	0	0	13	46	0	0	.1
7				0	.3	0	0	14	55	0	0	.1
8				0	.3	0	0	16	44	0	0	.1
9				0	.2	0	0	18	34	0	0	.1
10				0	0	0	0	21	29	0	94	.1
11				0	.1	0	.8	22	27	21	20	.1
12				0	.2	0	8.6	20	27	23	10	0
13				0	.2	0	12	21	33	93	4.0	0
14				0	.2	0	27	22	18	17	2.5	0
15				0	.2	0	19	24	6.2	1.2	2.0	0
16				0	.1	0	11	24	2.4	.8	1.5	0
17				0	.1	0	9	20	1.4	.9	1.1	0
18				0	.1	0	9	15	0	.8	1.0	0
19				0	.2	.8	9	51	0	720	60	0
20				.3	.2	2.4	9	61	0	100	50	0
21				.2	.2	2.2	9	18	0	10	5	0
22				.2	.1	2.0	10	2.8	0	2.0	1.2	0
23				.3	0	1.5	11	1.0	0	1.5	.1	0
24				.3	0	0	11	.6	0	1.2	.1	0
25				.3	0	.5	11	.4	0	1.0	.1	0
26				.1	0	1.5	11	.4	0	.8	.1	0
27			0	0	0	0	10	4.8	0	.8	.1	0
28			.1	0	0	.4	10	198	0	.3	.1	0
29			.2	0	0	0	9	230	0	.1	.1	0
30			.1	-	-	0	9	163	0	.1	.1	0
31			.2	-	-	0	-	126	-	.1	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1943.....	1,104.8	494	0	3.03	2,190
January.....	2.3	.3	0	.07	4.6
February.....	4.5	.3	0	.16	8.9
March.....	11.3	2.4	0	.36	22
April.....	215.4	27	0	7.18	427
May.....	1,187.0	250	.4	37.6	2,510
June.....	903.0	158	0	28.8	1,590
July.....	995.4	720	0	32.1	1,970
August.....	233.2	94	0	7.52	463
September.....	1.1	.1	0	.04	2.2
Water year 1943-44.....	3,435.2	720	0	9.38	6,800

Peak discharge.- July 13 (7 a.m.) 3,110 sec.-ft.; July 19 (2:45 p.m.) 3,350 sec.-ft.

Note.- No gage-height record Apr. 16 to May 17, July 20 to Aug. 9, Aug. 11 to Sept. 8; discharge computed on basis of 4 discharge measurements and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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. Datum of gage is 4,317.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,130 square miles.

Records available.- May 1939 to September 1944 in reports of Geological Survey. April 1922 to September 1925 (at site 1 mile downstream) and May 1939 to September 1944 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,180 second-feet July 19 (gage height, 7.65 feet); minimum daily, 0.9 second-foot Sept. 4.
1939-44: Maximum discharge, 14,700 second-feet Aug. 15, 1942 (gage height, 16.23 feet), by slope-area method; minimum daily, 0.4 second-foot Apr. 21-25, Aug. 25, 1943.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Water is wasted by Oxford Farmers and Rocky Ford Highline Canals above station.

Cooperation.- Gage-height record, 54 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	6.5	18	9.1	4.2	f4.2	25	28	a100	6.5	3.7	2.5
2	2.5	6.2	17	9.5	f4.2	3.4	16	28	a100	7.6	3.2	1.5
3	3.4	4.6	18	8.3	f3.4	f8.7	11	28	a96	9.1	2.7	1.2
4	4.9	3.7	23	8.7	f3.4	f21	20	30	a160	18	2.7	.9
5	3.2	4.6	23	9.5	f3.4	f24	35	22	a125	19	5.6	2.2
6	2.5	3.7	25	9.1	f3.3	f26	30	16	a75	18	8.3	23
7	2.2	4.6	23	9.1	f16	f27	16	11	a76	95	6.2	11
8	2.2	6.2	28	11	f23	27	14	85	95	33	5.6	3.7
9	2.0	9.5	31	11	22	25	8.0	98	53	16	4.2	3.2
10	1.5	18	30	9.9	25	22	9.1	106	38	22	7.6	2.5
11	2.7	15	28	9.5	24	20	14	113	42	290	13	2.9
12	3.9	11	28	8.7	23	23	40	119	39	227	4.9	3.9
13	3.7	10	27	9.3	21	23	47	122	27	329	3.4	3.9
14	2.2	10	27	8.0	f19	24	43	125	25	95	3.4	2.9
15	2.2	10	24	7.2	f20	28	88	160	32	73	3.4	2.7
16	2.5	10	20	6.5	f19	24	48	134	32	61	3.2	2.9
17	2.9	5.2	19	6.2	f20	22	57	146	35	64	3.2	2.7
18	3.4	8.0	18	5.6	f23	23	50	128	18	68	2.9	2.7
19	3.4	9.9	16	5.2	f25	32	34	113	25	696	2.9	2.2
20	4.9	9.5	18	5.6	f27	13	26	93	19	327	19	2.0
21	2.5	10	19	5.2	f32	31	18	83	18	95	11	2.0
22	2.5	10	18	7.2	f36	34	33	a20	18	170	6.2	2.0
23	5.2	11	18	8.0	f40	24	47	a15	16	128	4.2	2.0
24	11	9.5	16	15	43	27	f32	a24	15	34	3.4	2.0
25	6.2	13	13	12	43	30	f35	a15	9.5	28	2.7	2.0
26	5.2	7.2	15	13	25	33	35	a20	13	24	10	2.0
27	4.9	16	16	14	f5.9	32	35	a20	8.7	17	18	2.0
28	3.9	20	14	13	f5.6	33	36	a200	6.5	13	28	2.0
29	3.7	17	13	11	f4.9	32	42	a100	6.9	11	13	2.2
30	3.7	16	12	9.9	-	34	53	a200	5.9	8.3	5.2	2.9
31	3.4	-	13	8.7	-	30	-	a100	-	5.6	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	111.6	11	1.5	3.60	221
November.....	285.9	20	3.7	9.98	587
December.....	628	31	12	20.5	1,280
Calendar year 1943	6,865.1	991	.4	182	13,630
January.....	283.0	15	5.2	9.15	561
February.....	575.3	43	3.4	19.8	1,140
March.....	760.3	34	3.4	24.5	1,510
April.....	1,002.1	98	8.0	35.4	1,990
May.....	2,502	200	11	80.7	4,960
June.....	1,329.5	160	5.9	44.3	2,640
July.....	2,998.1	696	5.6	96.7	5,950
August.....	214.5	28	2.7	6.92	425
September.....	101.6	25	.9	3.39	202
Water year 1943-44	10,801.9	696	.9	29.5	21,440

a No gage-height record; discharge computed on basis of 3 discharge measurements and water commissioner's reports.

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

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Timpas Creek near Rocky Ford, Colo.

Location.— Water-stage recorder, lat. 37°57', long. 103°43', in NW¼ sec. 19, T. 24 S., R. 56 W., at Catlin ditch crossing, 8 miles south of Rocky Ford and 9 miles upstream from mouth.

Drainage area.— 465 square miles.

Records available.— October 1941 to September 1944 in reports of Geological Survey. October 1924 to September 1927 and October 1941 to September 1944 in reports of State engineer. March 1923 to October 1924 on file in State engineer's office.

Extremes.— Maximum discharge during year, 2,450 second-feet May 29 (gage height, 5.77 feet), from rating curve extended above 1,100 second-feet on basis of slope-area determinations at gage heights 6.89 and 8.42 feet; minimum daily, 2.8 second-feet Aug. 1.

1923-27, 1940-44: Maximum discharge, 14,000 second-feet June 8, 1923 (gage height, 16.0 feet, from high-water marks, datum then in use), by slope-area method; no flow Apr. 17, 18, 22, 23, 1923.

Remarks.— Records fair. Diversions above station for irrigation. Waste water and seepage return from land irrigated by Rocky Ford Highline Canal and Rocky Ford and Otero ditches included in this record.

Cooperation.— Forty-eight discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	40	35	30	*58	103	112	81	76	72	2.8	9.8
2	15	58	67	34	50	92	105	98	94	59	7.0	7.0
3	81	58	67	37	45	85	94	216	81	61	5.0	4.5
4	79	63	67	51	44	85	76	170	70	67	4.0	4.0
5	81	48	50	68	39	90	61	132	63	63	7.0	4.0
6	76	51	65	*51	37	96	61	103	81	56	19	5.0
7	76	44	54	35	37	96	61	81	76	45	12	5.0
8	74	39	42	21	48	121	59	114	76	58	5.5	3.7
9	72	42	b34	25	*76	126	61	116	79	46	5.0	4.0
10	65	56	b32	27	98	65	124	116	63	40	5.0	5.0
11	22	34	42	23	48	67	159	94	79	159	5.0	5.0
12	18	34	33	19	42	74	197	94	74	126	5.0	5.0
13	16	51	30	*22	44	74	182	72	68	219	a4.7	7.5
14	17	51	28	32	46	68	145	28	65	52	a4.8	7.5
15	20	52	*37	25	45	79	109	81	58	48	a4.8	6.5
16	23	42	58	29	58	79	96	85	a53	72	a4.3	5.5
17	22	28	45	31	52	76	145	72	a50	85	a4.0	5.0
18	23	26	35	*35	57	79	121	74	a48	98	4.0	4.0
19	27	20	26	32	63	105	121	61	a52	132	4.0	4.0
20	29	22	83	39	65	105	119	42	a63	65	5.0	3.7
21	51	50	*42	37	65	52	101	45	76	103	4.5	3.4
22	74	52	40	36	65	68	167	58	76	70	4.5	3.4
23	65	44	46	41	70	48	286	51	74	74	6.5	a3.3
24	54	*26	52	48	94	19	424	23	72	70	6.5	a3.2
25	48	27	50	54	*119	112	250	20	70	59	7.5	a3.0
26	59	38	40	50	101	153	103	39	96	20	8.5	a3.2
27	59	42	67	39	94	94	109	98	79	15	6.5	a3.1
28	44	56	61	37	92	119	129	387	54	12	8.0	a3.0
29	40	61	59	*41	116	132	145	1,230	48	11	7.5	7.5
30	16	52	45	45	-	114	107	187	58	8.0	35	7.0
31	44	-	*31	51	-	103	-	145	-	4.5	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,396.5	81	7.5	45.0	2,770
November.....	1,504	63	20	43.5	2,590
December.....	1,461	63	28	47.1	2,900
Calendar year 1943.....	17,818.0	286	1.4	48.8	35,350
January.....	1,143	68	19	36.9	2,270
February.....	1,874	119	37	64.6	3,720
March.....	2,779	153	19	89.6	5,510
April.....	4,059	424	59	135	8,080
May.....	4,193	1,230	20	135	5,320
June.....	2,092	96	48	89.7	4,150
July.....	2,092.5	219	4.5	67.5	4,150
August.....	221.9	33	2.8	7.16	440
September.....	145.6	9.8	3.0	4.86	289
Water year 1943-44.....	22,761.7	1,230	2.8	62.2	45,160

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Note.— No gage-height record Dec. 11-14, Dec. 30 to Jan. 2, Jan. 6-31, Feb. 14-18 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of 5 discharge measurements and weather records.

Time basis. Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Horse Creek near Sugar City, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}14'$, long. $103^{\circ}37'$, in sec. 12, T. 21 S., R. 56 W., a quarter of a mile upstream from unnamed tributary and 1.3 miles east of Sugar City. Datum of gage is 4,271.40 feet above mean sea level, datum of 1929.

Drainage area.- About 1,000 square miles.

Records available.- April 1940 to September 1944.

Extremes.- Maximum discharge during year, 1,780 second-feet July 19 (gage height, 4.43 feet); minimum daily, 0.2 second-foot at times during January, February, March.
1940-44: Maximum discharge, 5,400 second-feet Oct. 23, 1941 (gage height, 6.20 feet); minimum daily, 0.1 second-foot at times in 1940, 1941, 1943.

Remarks.- Records fair.

Cooperation.- Gage-height record, 37 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.6	0.4	0.5	0.7	0.3	1.0	4.7	3.8	4.0	1.0	1.3
2	.9	.6	.4	.6	.6	.3	1.0	4.4	3.6	1.3	1.2	1.5
3	1.0	.5	.4	.6	.6	.3	.7	4.0	3.1	.8	1.2	1.5
4	1.2	.6	.3	.6	.6	.2	.6	3.6	3.1	2.0	1.3	1.9
5	1.0	.6	.4	.5	.8	.4	.6	3.4	2.9	1.0	1.5	2.2
6	.8	.6	.3	.5	.8	.3	.6	2.7	4.0	1.2	1.6	2.2
7	.9	.7	.4	4.0	.8	.3	.6	1.7	3.8	2.7	1.6	2.2
8	.8	.7	.4	4.0	.8	.4	1.0	1.3	4.4	3.8	1.7	1.9
9	.9	.7	.4	3.8	.8	.4	2.3	1.0	4.0	2.7	2.2	1.6
10	.8	.6	.3	3.6	1.2	.4	14	.8	2.9	2.9	2.5	1.3
11	.7	.6	.3	3.1	.6	.3	49	.7	2.3	4.0	2.7	1.3
12	.6	.5	.3	2.2	.6	.3	55	.7	2.5	2.7	1.9	1.3
13	.7	.5	.3	.7	.8	.4	10	.7	2.6	3.1	1.3	1.3
14	.8	.5	.4	.6	.5	.3	5.7	.9	2.5	1.5	1.0	1.5
15	.8	.5	.4	.4	.2	.4	5.1	.9	2.3	1.2	1.5	1.2
16	.8	.6	.3	.4	.3	.4	4.0	1.2	1.9	1.3	1.9	.9
17	.7	.7	.3	.4	.3	.4	3.6	1.3	2.5	1.7	1.7	.8
18	.7	.6	.3	.4	.2	.8	5.7	1.2	2.9	1.9	1.6	.7
19	.8	.6	.3	.4	.2	.8	22	1.5	2.9	469	2.0	.7
20	1.0	.6	.4	.4	.3	.8	102	1.9	2.7	88	1.9	.9
21	.9	.6	.4	.4	.3	2.5	23	2.9	2.3	5.4	1.7	1.5
22	.9	.5	.4	.4	.2	2.5	67	3.1	2.0	1.6	1.7	1.9
23	.7	.6	.5	.4	.2	3.1	95	2.7	1.2	.9	2.0	2.0
24	.6	.5	.5	.4	.3	6.0	24	2.2	1.6	.8	1.5	2.0
25	.5	.5	.5	.3	.3	3.8	13	2.2	1.9	.4	1.0	2.2
26	.5	.5	.6	.5	.3	2.9	9.8	4.2	1.0	.6	.8	2.5
27	.5	.4	.6	.2	.2	3.6	7.7	12	.8	.9	.8	3.6
28	.5	.4	.6	.7	.2	2.2	8.1	40	1.9	.8	.7	2.7
29	.6	.4	.6	.6	.2	1.0	7.0	26	2.5	.8	.9	2.2
30	.8	.4	.6	.8	-	.7	5.7	6.7	4.0	1.0	1.2	1.6
31	.7	-	.6	.7	-	.7	-	4.4	-	1.0	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	23.9	1.2	0.5	0.77	47
November.....	16.7	.7	.4	.66	33
December.....	13.0	.6	.3	.42	26
Calendar year 1943	412.0	49	.1	1.13	816
January.....	33.2	4.0	.2	1.07	66
February.....	13.9	1.2	.2	.48	28
March.....	37.2	6.0	.2	1.20	74
April.....	544.8	102	.5	18.2	1,080
May.....	145.0	40	.7	4.68	298
June.....	79.8	4.4	.8	2.68	158
July.....	611.0	469	.4	19.7	1,210
August.....	46.6	2.7	.7	1.50	92
September.....	50.2	3.6	.7	1.67	100
Water year 1943-44	1,616.3	469	.2	4.41	3,200

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Purgatoire River at Trinidad, Colo.

Location.- Water-stage recorder, lat. $37^{\circ}10'$, long. $104^{\circ}30'$, in sec. 13, T. 33 S., R. 64 W., at foot of State Street in Trinidad. Datum of gage is 5,987.17 feet above mean sea level, datum of 1929.

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 1944 in reports of 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 1944 in reports of State engineer.

Average discharge.- 32 years (1907-12, 1916-18, 1919-44), 94.2 second-feet.

Extremes.- Maximum discharge during year, 3,560 second-feet June 10 (gage height, 4.02 feet), from rating curve extended above 1,200 second-feet on basis of slope-area determinations at gage heights 9.48, 9.50, 14.03, and 16.6 feet; minimum daily, 2.6 second-feet July 18.

1896-99, 1905, 1906-12, 1916-44: 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 fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	22	21	b20	34	20	25	134	552	248	42	34
2	36	19	24	b24	39	20	30	142	480	219	24	30
3	32	19	21	22	39	22	32	138	405	248	24	a39
4	29	20	24	21	52	22	29	146	304	273	32	30
5	24	20	25	*b11	59	20	24	149	218	891	32	140
6	24	18	30	*18	37	19	24	157	237	480	46	a64
7	25	17	19	17	36	18	24	170	304	310	36	34
8	29	15	18	b18	46	17	25	224	355	258	27	a25
9	24	16	15	b22	46	19	25	234	329	204	62	13
10	21	21	14	25	20	20	112	257	1,230	248	81	13
11	22	24	36	24	22	20	178	274	1,710	190	62	43
12	21	21	30	36	29	20	561	274	1,110	189	32	38
13	25	20	21	64	29	18	700	394	830	196	22	52
14	24	20	27	76	27	18	406	447	656	127	9.8	34
15	21	18	43	20	24	19	229	490	516	62	15	20
16	21	18	39	17	34	17	157	537	398	122	15	25
17	21	18	50	39	30	16	153	413	335	52	4.7	20
18	20	18	39	21	29	20	142	262	279	2.6	175	14
19	18	.6	30	32	21	20	130	192	279	410	383	13
20	20	17	36	*34	21	18	134	201	292	42	229	14
21	19	16	30	21	27	16	130	206	323	122	134	13
22	18	16	*29	22	22	12	130	238	349	392	102	13
23	19	16	27	25	21	17	381	290	316	210	85	8.0
24	19	16	29	37	22	21	708	310	316	182	140	4.9
25	18	17	b30	37	27	24	585	351	323	203	56	16
26	18	16	29	20	20	25	248	406	292	122	61	52
27	20	17	20	21	20	19	153	1,390	258	105	168	20
28	19	19	b19	25	20	18	424	1,180	222	81	79	14
29	19	20	b19	25	20	17	374	780	242	62	52	20
30	21	21	b22	91	-	21	215	507	268	62	34	20
31	22	-	b20	48	-	21	-	534	-	59	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	738	70	18	23.8	1,460
November.....	551	24	15	18.4	1,090
December.....	836	50	14	27.0	1,660
Calendar year 1943	15,648.7	899	2.5	42.9	31,030
January.....	928	91	11	28.9	1,840
February.....	873	59	20	30.1	1,730
March.....	594	25	12	19.2	1,180
April.....	6,498	708	24	216	12,870
May.....	11,427	1,390	134	369	22,670
June.....	13,708	1,710	218	457	27,190
July.....	6,370.6	891	2.6	206	12,640
August.....	2,294.5	353	4.7	74.0	4,550
September.....	874.8	140	4.8	29.2	1,740
Water year 1943-44	45,682.9	1,710	2.6	125	90,620

Peak discharge.- Apr. 12 (8 p.m.) 1,490 sec.-ft.; Apr. 24 (10 p.m.) 1,620 sec.-ft.; May 27 (6 p.m.) 2,540 sec.-ft.; June 10 (7 p.m.) 3,560 sec.-ft.; July 19 (3 a.m.) 2,130 sec.-ft.

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Purgatoire River at Ninemile Dam, near Higbee, Colo.

Location.- Water-stage recorder above diversion dam of Ninemile ditch, lat. 37°44', long. 103°29', in NW¼ sec. 7, T. 27 S., R. 54 W., 4 miles southwest of Higbee and 5½ 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 1944 in reports of Geological Survey. October 1924 to September 1944 in reports of State engineer.

Average discharge.- 20 years, 119 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet May 28 (gage height, 7.12 feet), from rating curve extended above 7,100 second-feet on basis of slope-area determination at gage height 14.03 feet; minimum daily, 2.6 second-feet Sept. 30, 1924-44; Maximum discharge, 64,500 second-feet Sept. 15, 1934, by slope-area method; maximum gage height, 14.03 feet Apr. 23, 1942; no flow at times.

Remarks.- Records good above 100 second-feet and fair below. Diversions above station for irrigation.

Cooperation.- Thirty-five discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	12	14	13	35	21	24	616	850	106	57	49
2	4.5	11	16	13	33	22	30	394	738	69	48	40
3	6.7	12	17	12	25	23	29	312	690	33	38	30
4	5.6	12	18	12	32	23	33	328	602	51	29	21
5	5.0	14	17	12	40	22	53	419	497	109	24	17
6	6.0	14	16	10	48	23	60	393	497	116	24	14
7	6.0	14	16	11	57	23	44	319	543	140	20	53
8	7.4	14	16	12	74	22	40	375	508	152	19	29
9	7.9	15	15	12	*74	19	44	384	543	109	23	21
10	7.9	16	16	12	72	18	53	462	486	74	20	19
11	7.0	16	17	12	40	20	106	419	1,240	72	17	19
12	6.0	16	17	12	34	24	106	440	1,450	72	16	16
13	5.1	17	17	*12	35	28	451	402	886	119	16	12
14	6.2	17	16	12	51	28	818	340	646	119	18	11
15	6.7	17	15	12	38	25	497	366	440	112	15	10
16	6.5	16	15	13	44	26	185	319	312	93	14	9.2
17	7.9	16	16	13	30	26	210	305	240	77	42	8.6
18	7.9	17	16	14	42	35	205	281	216	76	72	7.5
19	7.8	17	18	15	34	44	195	277	195	1,610	22	6.8
20	7.7	16	22	15	38	40	228	210	165	1,260	77	6.2
21	7.6	16	17	16	35	48	222	190	131	333	144	6.0
22	7.5	16	16	17	33	44	366	216	102	170	57	5.2
23	7.8	16	18	19	34	46	616	135	116	340	33	4.6
24	8.2	*16	25	24	30	42	770	109	123	222	30	4.6
25	9.2	a16	34	23	28	35	976	131	119	190	22	3.9
26	10	a16	32	22	28	37	1,050	222	93	190	17	4.1
27	11	a16	24	21	28	29	786	1,390	74	165	976	3.9
28	12	15	16	20	25	25	706	9,880	80	123	216	4.0
29	11	14	*13	21	23	28	722	2,150	160	102	170	4.0
30	11	14	13	24	-	24	690	1,280	210	93	96	2.6
31	11	-	13	28	-	21	-	850	-	77	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	238.1	12	4.5	7.68	472
November.....	454	17	11	15.1	900
December.....	551	34	13	17.8	1,090
Calendar year 1943	14,527.2	1,320	0	39.8	28,810
January.....	484	28	10	15.6	960
February.....	1,140	74	23	39.3	2,260
March.....	899	48	18	28.7	1,760
April.....	10,245	1,050	34	34.5	20,520
May.....	23,892	9,880	109	77.1	47,390
June.....	12,952	1,450	74	432	25,690
July.....	6,584	1,610	33	212	13,060
August.....	2,444	976	14	78.8	4,850
September.....	442.3	53	2.6	14.7	877
Water year 1943-44	60,415.4	9,880	2.8	165	119,800

Peak discharge.- May 28 (4 a.m.) 14,100 sec.-ft.; July 19 (5:30 p.m.) 5,760 sec.-ft.; Aug. 27 (8 a.m.) 1,370 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

Note.- No gage-height record Oct. 1-22, Sept. 25-30; discharge computed from record at Parshall flume in Ninemile ditch. Stage-discharge relation affected by ice Dec. 8-10, 23, 24, Dec. 31 to Feb. 1.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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 1944 in reports of Geological Survey.
October 1931 to September 1944 in reports of State engineer.

Average discharge.- 13 years, 123 second-feet.

Extremes.- Maximum discharge during year, 22,600 second-feet May 28 (gage height, 8.95 feet), from rating curve extended above 6,000 second-feet on basis of slope-area determination at gage height 13.29 feet; no flow Oct. 1-28.
1931-44: Maximum discharge, 60,000 second-feet Aug. 24, 1942 (gage height, 13.29 feet), estimated by slope-area surveys by Bureau of Reclamation and office of State engineer; no flow at times during 1932-41, 1943.

Remarks.- Records good above 400 second-feet, fair between 100 and 400 second-feet, and poor below 100 second-feet.

Cooperation.- Forty-three discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	12	*b18	31	b34	20	52	688	1,100	146	56	61
2	0	13	b19	32	b33	26	52	810	810	83	48	41
3	0	13	b20	26	b32	a28	45	369	634	63	29	28
4	0	12	b20	20	31	a25	34	397	472	59	20	31
5	0	11	b19	20	31	a24	26	397	472	81	20	28
6	0	7.5	b18	16	35	a23	47	398	459	100	20	14
7	0	7.5	b17	a16	40	*a20	48	266	567	175	18	26
8	0	9.3	12	a15	*72	*a19	47	360	432	175	9.8	63
9	0	9.6	7.2	a18	56	a21	52	333	360	94	7.6	45
10	0	12	12	a20	55	a23	122	375	360	76	12	33
11	0	14	8.4	a19	55	a22	146	459	459	136	15	36
12	0	12	8.7	*18	41	a20	146	418	1,280	92	11	32
13	0	8.1	6.6	19	39	a12	221	405	936	87	8.7	31
14	0	11	8.7	19	40	*a12	1,220	301	714	122	6.5	26
15	0	9.6	11	19	40	a17	894	308	567	89	11	10
16	0	7.2	12	18	35	a20	360	294	432	156	9.8	5.7
17	0	5.4	11	18	*42	a23	280	301	287	92	7.5	4.8
18	0	9.3	14	18	26	18	252	287	245	67	109	4.1
19	0	*11	13	18	37	34	221	294	170	360	34	2.8
20	0	12	18	25	34	32	215	209	138	1,940	38	4.7
21	0	11	23	40	35	34	215	175	122	526	81	3.3
22	0	9.9	22	*30	34	34	308	170	102	324	87	9.9
23	0	10	10	41	26	37	824	105	76	387	60	1.7
24	0	8.7	11	61	22	45	702	95	83	280	45	1.1
25	0	10	13	46	20	42	1,020	100	79	197	41	1.1
26	0	14	19	49	18	40	1,160	151	83	146	35	.2
27	0	15	15	33	17	36	742	1,670	64	126	1,140	.4
28	0	b15	7.2	26	19	28	852	14,800	54	95	203	.6
29	4.5	b18	11	b24	24	28	675	4,720	63	83	122	.4
30	7.2	b17	*27	b22	-	64	894	1,760	369	71	96	.4
31	9.9	-	30	b34	-	52	-	1,430	-	55	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	21.6	9.9	0	0.70	43
November.....	333.1	17	5.4	11.1	661
December.....	461.8	30	6.6	14.9	916
Calendar year 1943	12,919.5	1,060	-	35.4	25,640
January.....	814	15	0	26.3	1,610
February.....	1,019	72	17	35.1	2,020
March.....	877	64	12	28.3	1,740
April.....	11,892	1,220	26	390	23,190
May.....	32,543	14,800	96	1,050	64,550
June.....	11,987	1,280	54	400	23,780
July.....	6,484	1,940	55	209	12,860
August.....	2,474.9	1,140	6.3	79.8	4,810
September.....	534.2	63	.1	17.8	1,060
Water year 1943-44	69,241.6	14,800	0	189	137,500

Peak discharge.- Apr. 14 (2 a.m.) 1,640 sec.-ft.; Apr. 15 (11 p.m.) 2,090 sec.-ft.; May 28 (10 a.m.) 22,600 sec.-ft.; July 20 (11 a.m.) 5,520 sec.-ft.; Aug. 27 (6:30 a.m.) 4,620 sec.-ft.
* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 3 discharge measurements and weather records.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Rule Creek near Caddo, Colo.

Location.- Water-stage recorder, lat. 38°00', long. 103°04', in SE $\frac{1}{4}$ sec. 36, T. 23 S., R. 51 W., 5 miles upstream from mouth and 9 miles southwest of Caddo.

Drainage area.- 542 square miles.

Records available.- October 1941 to September 1944.

Extremes.- Maximum discharge during year, 297 second-feet May 28 (gage height, 5.08 feet); no flow at times.

1941-44: Maximum discharge, 1,720 second-feet June 28, 1943 (gage height, 11.30 feet); no flow at times.

Remarks.- Records fair. One small diversion above station.

Cooperation.- Forty-eight discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.4	0.4	0.6	*0.5	0.5	0.4	0.6	11	0.8	0.4	0.1
2	.1	.6	.5	.5	.5	.6	.5	.7	1.0	.8	.3	.1
3	.1	.5	.5	.4	.6	.6	.5	.7	.8	.8	.3	.1
4	.1	.5	.4	.4	.6	.5	.5	.6	.6	.7	.3	.1
5	.1	.5	.4	.6	.6	.4	.4	.6	.6	.7	.4	.1
6	.1	.4	.4	.5	.7	.3	.4	.6	.7	.8	.7	.2
7	.1	.4	.4	.3	.5	.3	.4	.6	.6	.9	.6	.1
8	.1	.4	*.5	.1	*.4	.6	.3	.6	.6	.6	.4	.1
9	.1	.4	.4	0	.4	.7	.5	.6	.6	.5	.3	.1
10	0	.4	.2	0	.7	.8	1.6	.5	.6	.6	.3	.2
11	0	.4	0	*0	.4	.9	1.4	.5	.6	5.0	.3	.2
12	0	.5	0	0	.4	1.1	1.1	.5	.6	37	.3	.2
13	0	.4	0	.1	.4	.8	2.9	.4	.6	14	.3	.1
14	0	.4	0	.2	.4	.9	2.1	.4	.5	3.6	.3	.1
15	0	.4	*0	.3	.4	.9	1.1	.4	.5	2.5	.3	.1
16	0	.5	0	.3	.4	1.0	.9	.4	.5	1.9	.3	.1
17	0	.5	0	.3	.4	.9	.9	.4	.5	1.8	.3	.1
18	0	.5	0	*.3	.4	1.3	.4	.4	.5	1.6	.2	.4
19	0	.4	0	.4	.5	1.1	.3	.5	.5	12	.2	.3
20	0	.4	0	.5	.5	.9	.3	.5	.4	12	.3	0
21	0	.4	*.1	.4	.5	.7	.3	.5	.4	3.2	.3	0
22	.1	.4	.2	.4	.5	.6	1.0	.5	.4	1.8	.3	0
23	.1	.4	.3	.4	.5	.7	1.3	.6	.4	1.3	.3	0
24	.1	.4	.4	.4	.5	.6	1.9	.6	.4	1.0	.3	0
25	.1	.4	.6	*.4	.6	.6	1.2	.6	.4	.8	.2	0
26	.1	.4	.5	.6	.4	.5	.6	1.0	.4	.8	.2	0
27	.1	.4	.4	.7	.4	.5	.6	5.8	.6	.7	.2	0
28	.1	.4	*.4	.7	.5	.6	.6	116	.7	.6	.2	0
29	.1	.4	.5	.6	.5	.5	.9	37	.8	.6	.1	0
30	.1	.4	.5	.6	.5	.5	.6	14	2.0	.5	.1	0
31	.2	-	.6	.6	-	.5	-	24	-	.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2.1	0.2	0	0.07	4.2
November.....	12.9	.6	.4	.43	26
December.....	8.6	.6	0	.28	17
Calendar year 1943.....	718.1	518	0	1.97	1,430
January.....	11.6	.7	0	.37	23
February.....	14.1	.7	.4	.49	28
March.....	21.5	1.3	.3	.69	42
April.....	25.9	1.8	.3	.86	51
May.....	211.1	118	.4	6.81	419
June.....	28.8	11	.4	.96	57
July.....	110.3	37	.4	3.56	219
August.....	9.1	.7	.1	.29	18
September.....	2.8	.4	0	.09	5.6
Water year 1943-44.....	458.6	118	0	1.25	910

Peak discharge.- May 28 (3:30 p.m.) 297 sec.-ft.; May 31 (1 a.m.) 48 sec.-ft.; July 12 (2 a.m.) 70 sec.-ft.

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 9-25, Jan. 7-11, 18-21. No gage-height record Jan. 12-17, Feb. 6, 7 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of 4 discharge measurements and weather records. No gage-height record June 29 to July 4, July 24-28, Aug. 5-15, 24-27; discharge computed on basis of records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Caddoa Creek at Caddoa, Colo.

Location.- Water-stage recorder, lat. 38°04', long. 102°55', in sec. 9, T. 23 S., R. 49 W., 0.3 mile east of Caddoa and 2 miles upstream from mouth.

Drainage area.- 129 square miles.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 436 second-feet May 28 (gage height, 3.42 feet); no flow at times.

1942-44: Maximum discharge, 751 second-feet Aug. 14, 1942 (gage height, 4.45 feet), from rating curve extended above 300 second-feet; no flow at times.

Remarks.- Records fair.

Cooperation.- Forty-four discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0		0	0.2	0	5.9	0.1	0	0	0
2		0	.2		0	.1	.1	1.2	0	0	0	0
3		.1	.5		0	.1	0	.4	0	0	.1	0
4		.1	.3		.1	0	0	1.0	0	0	.3	0
5		.1	.2		.1	.1	.1	.1	0	0	.4	0
6		0	.1		.1	.1	.1	.1	0	0	.5	0
7		0	0		.1	.1	.1	.1	0	0	.2	0
8		0	0		.1	.1	.1	.1	0	0	.2	0
9		0	0		0	.1	.4	.1	0	0	.2	.1
10		0	0		0	.2	3.5	.1	0	0	.1	.1
11		0	0		0	.2	1.6	.1	0	45	.1	.1
12		0	0		0	.2	.3	.1	0	28	.1	0
13		0	0		0	.2	.1	.1	0	8.0	.1	0
14		0	0		0	.1	.2	.1	0	5.0	.1	0
15		0	0		0	.1	.2	.1	0	2.0	.1	0
16		0	0		0	.1	.2	.1	0	1.6	0	0
17		0	0		0	.1	.2	.1	0	1.4	0	0
18		0	0		0	.3	.3	.1	0	1.2	0	0
19		0	0		0	.5	.3	.1	0	4.0	0	0
20		0	0		.1	.4	.2	.1	0	4.0	125	0
21		0	0		.1	.4	.2	.1	.1	2.3	8.3	0
22		0	0		.1	.2	.2	.1	0	1.0	1.7	0
23		0	0		.1	.1	.3	.1	0	.4	.5	0
24		0	0		.1	.1	.3	0	0	.2	.3	0
25		0	0		.1	.1	.4	.1	0	.2	.2	0
26		0	0		.1	.2	1.2	.1	0	.2	.1	0
27		0	0		.1	.1	1.2	.4	0	.2	.1	0
28		0	0		.1	.2	.6	184	0	.1	0	0
29		0	0		.1	.2	.6	14	0	.1	0	0
30		0	0		-	.1	5.6	2.8	.5	.1	0	0
31		-	0		-	0	-	.4	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	.3	.1	0	.01	.6
December.....	1.3	.5	0	.04	2.6
Calendar year 1943	176.4	68	0	.48	349
January.....	0	0	0	0	0
February.....	1.5	.1	0	.05	3.0
March.....	5.0	.5	0	.16	9.9
April.....	18.6	5.6	0	.62	37
May.....	212.2	184	0	6.85	421
June.....	105.0	.6	0	.02	1.4
July.....	105.0	45	0	3.39	208
August.....	138.7	125	0	4.47	275
September.....	.3	.1	0	.01	.6
Water year 1943-44	483.6	184	0	1.32	959

Peak discharge.- May 28 (2 p.m.) 436 sec.-ft.; Aug. 20 (11:30 a.m.) 340 sec.-ft.

Note.- No gage-height record Feb. 4-20, July 14 to Aug. 15; discharge computed on basis of 4 discharge measurements, weather records, and records for stations on nearby streams.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Big Sandy Creek above Amity Canal diversion, near Korrman, Colo.

Location.- Water-stage recorder, lat. 38°12', long. 102°29', in NW $\frac{1}{4}$ (revised) sec. 21, T. 21 S., R. 45 W., just upstream from Amity Canal diversion, 7 miles upstream from mouth, and 9 miles northeast of Korrman.

Drainage area.- 3,410 square miles.

Records available.- October 1941 to September 1944.

Extremes.- Maximum discharge during year, 475 second-feet Apr. 28 (gage height, 3.24 feet); no flow at times.
1941-44: Maximum discharge, 2,900 second-feet Sept. 3, 1942 (gage height, 5.63 feet); no flow at times each year.

Remarks.- Records fair. A few small diversions above station.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	1.0	1.1	a0.8	1.0	1.0	1.5	225	280	0.3	0.4	0.4
2	.2	1.0	1.1	a1.0	1.1	1.0	1.2	133	236	.4	.3	.3
3	.3	1.0	1.1	a.9	*1.2	1.1	*.9	97	147	.7	.3	.2
4	.3	1.1	1.1	a.9	1.4	1.1	.9	76	264	.9	.2	.3
5	.3	1.1	1.1	a.8	1.1	1.0	.8	61	66	.5	.2	.2
6	.4	1.0	*.8	a.9	1.2	*1.0	1.0	54	40	.4	.3	.1
7	.4	.8	1.1	a.8	*1.1	1.0	.8	42	24	.4	.1	0
8	.4	1.0	1.0	a.7	1.1	1.0	.9	35	19	.4	.1	0
9	.4	1.1	.9	.8	1.1	1.0	1.3	26	21	.3	.1	0
10	.4	1.3	1.0	.8	1.2	1.1	3.0	14	14	.2	.1	0
11	.4	1.4	.8	.8	.9	1.3	2.1	11	8.8	.4	.1	0
12	.4	1.2	.8	.8	.8	1.2	2.0	7.6	3.9	.5	.1	0
13	.4	1.1	.9	.8	.9	1.3	2.0	5.0	2.6	.4	.2	0
14	.4	1.1	1.0	*.8	1.0	.9	1.8	3.0	2.2	.3	0	0
15	.4	1.1	1.1	1.0	.9	1.0	1.6	2.4	2.2	.3	.1	0
16	.4	1.0	1.1	1.1	1.0	1.1	1.7	1.9	1.7	.4	0	0
17	.4	1.0	1.1	*1.4	.9	*1.1	2.2	1.1	1.3	.6	0	0
18	.4	1.0	1.0	1.3	.8	1.0	2.1	.3	1.2	44	0	0
19	.4	.9	1.0	1.1	.7	1.0	2.2	.3	1.1	37	0	0
20	.5	.9	1.0	1.2	.8	1.1	1.9	.3	1.2	18	0	0
21	.5	.9	.9	1.4	.8	1.5	1.8	.3	1.3	6.1	0	0
22	.5	1.0	*1.1	1.0	.8	1.6	11	.4	1.3	8.3	0	0
23	.5	1.0	.9	1.0	*.8	1.6	83	.3	1.3	3.9	.1	0
24	.5	1.1	1.0	1.1	.9	1.9	105	.3	1.0	1.3	.2	0
25	.5	1.1	1.1	1.2	.8	2.1	188	.3	.7	1.7	.3	.1
26	.5	1.0	1.0	1.2	.8	2.2	88	.5	.5	1.1	.3	.2
27	.6	1.0	1.0	a1.1	.8	2.2	138	3.9	.4	.7	.4	.2
28	.6	1.0	1.0	a1.0	1.1	2.2	356	13	.4	.5	.4	.2
29	.6	1.1	*.9	1.1	1.0	2.1	329	18	.4	.4	.5	.2
30	.6	1.1	a1.0	1.0	-	1.7	272	272	.4	1.7	.4	.2
31	.8	-	a.9	1.0	-	1.7	-	206	-	.4	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	13.6	0.8	0.2	0.44	27
November.....	31.4	1.4	.8	1.06	62
December.....	30.9	1.1	.8	1.00	61
Calendar year 1943	289.9	4.6	0	.79	574
January.....	30.8	1.4	.7	.99	61
February.....	28.0	1.4	.7	.97	56
March.....	42.1	2.2	.9	1.36	84
April.....	1,603.7	356	.8	55.5	3,180
May.....	1,310.9	272	.3	42.3	2,600
June.....	1,144.9	280	.4	39.2	2,270
July.....	132.5	44	.2	4.27	263
August.....	5.6	.5	0	.18	11
September.....	2.6	.4	0	.09	5.2
Water year 1943-44	4,377.0	356	0	12.0	8,680

Peak discharge.- Apr. 28 (2:30 a.m.) 475 sec.-ft.; May 30 (1 p.m.) 347 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

Notes.- Stage-discharge relation affected by ice Dec. 11-16, 24-26, Feb. 15-20, Mar. 8-19.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Two Butte Creek near Holly, Colo.

Location.- Water-stage recorder, lat. 38°01', long. 102°08', in SE $\frac{1}{4}$ sec. 21, T. 23 S., R. 42 W., $\frac{1}{2}$ miles upstream from mouth and 2 $\frac{1}{2}$ miles southwest of Holly.

Drainage area.- 910 square miles.

Records available.- April 1942 to September 1944.

Extremes.- 1942: Maximum discharge during period April to September, 470 second-feet Aug. 3 (gage height, 1.80 feet), from rating curve extended above 270 second-feet on basis of slope-area determination at gage height 4.77 feet; no flow most of period.
1942-43: Maximum discharge during water year, 740 second-feet July 12 (gage height, 2.50 feet), from rating curve extended above 270 second-feet on basis of slope-area determination at gage height 4.77 feet; no flow most of year.
1943-44: Maximum discharge during water year, 1,800 second-feet May 2 (gage height, 4.77 feet), by slope-area method; no flow most of year.

Remarks.- Records poor. Flow regulated by Two Butte Reservoir (capacity, 40,000 acre-feet), from which most of creek flow is diverted for irrigation.

Discharge, in second-feet, 1942-44

Day (water year)	Discharge	Day (water year)	Discharge	Day (water year)	Discharge
1941-42		1942-43		1943-44	
June 9.....	7.1	Oct. 14.....	14	Apr. 11.....	10
10.....	.4	July 12.....	136	30.....	40
Aug. 3.....	86	13.....	.1	May 2.....	469
15.....	99	1943-44		3.....	10
16.....	11	Apr. 10.....	128	4.....	1

Note.- No flow Apr. 22, 1942, to Sept. 30, 1944, except for days given above.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
April 22-30, 1942	0	0	0	0	0
May.....	0	0	0	0	0
June.....	7.5	7.1	0	.25	15
July.....	0	0	0	0	0
August.....	196	99	0	6.32	389
September.....	0	0	0	0	0
The period.....	-	-	-	-	404
October 1942	14	14	0	.45	28
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1943	0	0	0	0	0
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.....	136.1	136	0	4.39	270
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1942-43	150.1	136	0	.41	298
October 1943	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1943	136.1	136	0	.37	270
January 1944	0	0	0	0	0
February.....	0	0	0	0	0
March.....	0	0	0	0	0
April.....	178	128	0	5.93	353
May.....	460	469	0	15.5	952
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 1943-44	658	469	0	1.80	1,310

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Wild Horse Creek at Holly, Colo.

Location.- Water-stage recorder, lat. $38^{\circ}03'$, long. $102^{\circ}07'$, in sec. 15, T. 23 S., R. 42 W., just upstream from mouth, a quarter of a mile southeast of Holly. Datum of gage is 3,380.36 feet above mean sea level, datum of 1929.

Records available.- October 1922 to September 1927, October 1933 to September 1935, and November 1938 to September 1944 in reports of Geological Survey. October 1922 to September 1935 and November 1938 to September 1944 in reports of State engineer.

Average discharge.- 18 years (1922-34, 1938-44), 12.9 second-feet.

Extremes.- Maximum discharge during year 725 second-feet July 25 (gage height, 5.90 feet), from rating curve extended above 140 second-feet; no flow at times.

1922-35, 1938-44: Maximum discharge, 22,000 second-feet, by slope-area method, at point 11 miles above station Aug. 28, 1935; no flow at times.

Remarks.- Records fair. Flow is mostly waste water from Amity Canal. Diversions above station for irrigation.

Cooperation.- Fifty-four discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.4	4.0	4.3	4.0	0	0	32	73	31	6.7	7.3
2	0	1.8	24	5.8	3.8	0	0	123	58	36	5.6	14
3	0	1.7	24	6.0	3.6	0	.5	60	48	53	4.3	6.4
4	0	2.2	51	3.8	6.3	0	6.3	16	21	78	3.6	6.4
5	0	.8	56	0	5.0	0	20	12	23	74	1.6	12
6	0	6.7	50	0	5.3	0	2.4	10	80	33	0	12
7	0	1.5	15	0	5.8	0	1.2	8.9	71	21	0	9.6
8	0	12	9.6	0	5.3	0	3.6	7.8	53	18	0	6.4
9	0	55	16	0	6.0	0	17	6.7	71	13	0	7.2
10	0	38	-38	0	4.3	0	181	3.4	85	6.3	0	29
11	0	31	30	0	3.4	0	13	10	56	53	.3	19
12	2.0	21	21	0	4.6	0	3.2	2.6	75	45	0	7.6
13	17	21	7.4	0	4.6	0	1.7	1.4	53	198	0	8.0
14	12	31	3.4	0	4.0	0	.4	.5	13	16	0	12
15	19	36	0	0	5.3	0	0	.2	12	9.3	0	12
16	11	44	9.6	9.6	4.8	0	0	0	5.0	11	0	7.6
17	4.0	11	12	13	.4	0	0	0	20	18	0	11
18	1.2	7.4	7.4	13	.4	0	.3	0	13	12	0	13
19	21	5.0	5.8	8.9	6.0	.9	2.2	0	20	104	0	14
20	14	7.8	8.9	8.2	4.6	1.1	2.4	46	28	320	0	14
21	23	4.6	10	8.2	3.8	0	1.4	102	7.4	70	0	14
22	21	3.4	8.9	5.3	2.0	0	3.6	66	6.3	64	0	16
23	23	0	.5	3.6	.9	0	8.5	31	3.4	57	0	12
24	23	0	8.5	2.4	1.2	0	6.0	39	1.4	29	0	14
25	20	0	9.3	3.4	1.0	0	3.6	26	1.4	174	0	10
26	21	0	4.8	8.9	.4	0	4.0	53	7.0	15	0	15
27	21	0	1.0	6.0	0	0	3.8	75	6.3	4.3	0	19
28	12	0	1.8	5.6	0	0	2.0	136	7.4	11	0	12
29	1.2	0	8.2	5.8	0	0	124	110	5.0	34	0	5.0
30	2.0	.9	9.3	4.8	-	0	18	94	123	33	0	0
31	5.0	-	7.4	4.3	-	0	-	92	-	16	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	273.4	23	0	8.82	542
November.....	346.2	55	0	11.5	687
December.....	462.8	55	0	14.9	918
Calendar year 1943	4,974.6	166	0	13.6	9,860
January.....	130.9	13	0	4.22	260
February.....	97.3	6.3	0	3.36	193
March.....	2.0	1.1	0	.06	4.0
April.....	430.1	181	0	14.3	853
May.....	1,184.5	136	0	37.6	2,310
June.....	1,046.8	123	1.4	34.9	2,080
July.....	1,644.9	320	4.3	55.1	3,280
August.....	22.1	6.7	0	.71	44
September.....	345.5	29	0	11.5	685
Water year 1943-44	5,966.3	320	0	16.3	11,840

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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. Datum of gage is 3,351.97 feet above mean sea level, datum of 1929.

Records available.- January 1924 to September 1927 and October 1933 to September 1944 in reports of Geological Survey. January 1924 to September 1944 in reports of State engineer. Records for Aug. 28, 1935, to Sept. 30, 1938, include flow of Wild Horse Creek. From Aug. 28, 1935, to Sept. 30, 1938, flow of Holly drain above Wild Horse Creek entered Arkansas River above station at Holly.

Average discharge.- 16 years (1924-34, 1938-44), 31.2 second-feet.

Extremes.- Maximum discharge during year, 352 second-feet July 20 (gage height, 11.40 feet), from rating curve extended above 70 second-feet on basis of parallel curve defined to 500 second-feet; minimum daily, 19 second-feet Mar. 18, 27, 28, Apr. 3, 1924-44: 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. Flow is mostly return and waste water from land irrigated by lower end of Amity Canal.

Cooperation.- Fifty-five discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	38	41	27	26	23	20	63	50	55	48	60
2	35	42	44	26	26	23	20	113	44	62	48	56
3	32	45	56	a26	26	23	19	144	42	70	49	50
4	30	45	35	a25	26	22	28	58	51	69	35	44
5	39	38	31	25	28	23	20	46	54	74	26	48
6	44	35	29	25	27	24	28	43	52	79	25	50
7	40	41	33	25	27	23	32	39	43	77	24	60
8	38	43	48	26	26	22	32	38	42	73	25	58
9	39	32	46	26	27	22	25	37	40	63	26	63
10	43	33	33	26	26	22	113	35	37	60	26	61
11	40	33	31	26	25	20	74	39	35	67	27	94
12	34	32	29	26	25	20	42	31	35	61	27	116
13	26	31	27	25	25	20	36	31	31	65	28	87
14	25	31	26	25	25	20	58	32	39	105	30	72
15	22	31	26	25	25	20	34	32	39	104	31	66
16	24	30	25	25	25	20	a35	33	64	106	33	60
17	29	65	23	25	25	20	a33	32	58	116	34	64
18	30	36	21	25	24	19	a31	31	54	85	36	60
19	21	32	22	26	25	20	a32	30	60	86	36	60
20	21	26	24	25	26	20	a34	29	37	189	39	50
21	26	27	26	25	27	22	a35	28	41	104	43	47
22	20	29	27	25	27	22	a37	29	41	79	35	51
23	21	34	27	25	25	22	39	28	35	54	41	55
24	36	32	27	25	25	21	36	33	35	46	43	60
25	50	34	27	25	25	20	33	33	33	95	48	66
26	29	34	27	27	23	20	31	73	34	56	52	77
27	29	31	27	27	22	19	30	80	36	39	54	67
28	32	31	26	26	22	19	29	74	39	32	48	73
29	36	29	26	26	22	20	89	63	37	30	44	74
30	35	27	26	26	-	20	60	64	92	29	45	71
31	33	-	27	25	-	20	-	54	-	29	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,003	50	20	32.4	1,990
November.....	1,046	65	26	34.9	2,070
December.....	943	56	21	30.4	1,870
Calendar year 1943.....	12,744	104	16	34.9	25,270
January.....	791	27	25	25.5	1,570
February.....	735	28	22	25.3	1,460
March.....	651	24	19	21.0	1,290
April.....	1,147	113	19	38.2	2,280
May.....	1,497	144	28	45.3	2,970
June.....	1,320	92	31	44.0	2,620
July.....	2,302	159	29	74.3	4,870
August.....	1,160	54	24	37.4	2,300
September.....	1,920	116	44	64.0	3,810
Water year 1943-44.....	14,515	189	19	39.7	28,800

a No gage-height record; discharge computed on basis of 1 discharge measurement and records of waste water from Amity Canal or interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

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 Morfet Dam and 1½ miles west of Larned.

Drainage area.- 2,300 square miles.

Records available.- November 1924 to September 1944.

Average discharge.- 20 years, 51.8 second-feet.

Extremes.- Maximum discharge during year, 4,060 second-feet May 30 (gage height, 24.62 feet); minimum, 2 second-feet at times during October, November, December.
1924-44: Maximum discharge, 20,000 second-feet May 28, 1935 (gage height, 31.96 feet), based on velocity-area computation; no flow at times. Bankfull stage, 27 feet.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g2	6	2	4	16	6	8	980	716	15	72	103
2	g3	5	2	4	12	6	7	1,220	300	17	60	38
3	g4	g3	2	4	10	6	7	1,570	300	420	34	23
4	g3	g3	2	4	9	6	7	2,150	190	84	24	22
5	g2	g10	2	4	8	8	7	1,950	190	41	18	19
6	g2	g4	2	4	8	7	7	859	109	34	15	16
7	g4	g3	2	4	7	8	6	164	82	29	13	16
8	g4	g4	2	4	7	7	7	82	66	37	12	17
9	g3	*g4	3	4	6	7	7	60	56	324	11	20
10	g4	g4	4	4	4	8	8	150	89	48	10	18
11	g4	4	3	4	6	7	7	631	41	46	9	16
12	g3	3	2	3	6	7	7	1,530	40	42	7	14
13	g3	3	3	3	6	8	8	910	60	41	32	6
14	g3	3	b3	3	5	8	8	103	919	36	30	6
15	g3	3	b3	4	5	7	7	54	1,880	34	27	6
16	g3	3	3	4	5	7	7	54	525	31	33	6
17	g4	3	3	4	5	7	7	34	70	29	324	5
18	g4	3	3	5	5	6	6	26	50	27	118	5
19	5	3	3	5	5	7	7	36	44	25	169	4
20	12	3	*3	5	5	6	6	223	35	23	72	4
21	g6	3	4	6	5	7	7	420	34	22	37	4
22	g8	3	4	7	5	7	7	212	32	20	28	43
23	32	3	4	7	5	7	7	932	30	24	24	948
24	670	3	4	8	5	8	8	1,350	29	25	21	562
25	1,190	3	4	8	5	8	8	901	29	30	25	1,950
26	245	3	4	9	4	8	8	278	30	22	24	1,350
27	29	2	4	19	5	7	7	540	29	19	215	245
28	16	2	4	43	-	8	8	456	750	18	420	46
29	11	2	4	103	5	7	7	82	2,490	16	84	28
30	9	2	4	30	-	7	7	466	3,810	16	166	19
31	8	-	4	29	-	8	8	-	2,330	-	94	179

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,301	1,190	2	74.2	4,560
November.....	103	10	2	3.4	204
December.....	96	4	2	3.1	190
Calendar year 1943	21,177	7,280	0	58.0	42,000
January.....	349	103	3	11.3	692
February.....	187	16	4	6.4	371
March.....	220	8	6	7.1	436
April.....	9,461	1,530	6	315	18,750
May.....	22,361	3,810	29	721	44,350
June.....	2,603	716	16	86.8	5,160
July.....	3,444	420	15	111	6,830
August.....	5,726	1,950	4	185	11,360
September.....	473	103	7	15.6	936
Water year 1943-44	47,314	3,810	2	129	93,840

Peak discharge.- Apr. 12 (5:30 p.m.) 1,830 sec.-ft.; Apr. 24 (9 p.m.) 1,410 sec.-ft.; May 4 (10 p.m.) 2,350 sec.-ft.; May 15 (5 a.m.) 2,100 sec.-ft.; May 30 (6 a.m.) 4,060 sec.-ft.; Aug. 25 (3:50 p.m.) 2,210 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Computed from graph based on gage readings.

Note.- Discharge for Sept. 8-30 computed on basis of wire-weight or staff-gage readings.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Cow Creek near Lyons, Kans.

Location.- Water-stage recorder, lat. 38°18', long. 98°11', in SW $\frac{1}{4}$ sec. 15, T. 20 S., R. 8 W., 60 feet upstream from Missouri Pacific Railroad bridge, about 400 feet downstream from Little Cow Creek, and 3 miles south of Lyons.

Drainage area.- 501 square miles (excluding 239 square miles in Cheyenne Bottoms).

Records available.- April 1938 to September 1944.

Extremes.- Maximum discharge during year, 1,880 second-feet Apr. 22 (gage height, 17.60 feet); minimum, 1 second-foot Dec. 14.

1938-44: Maximum discharge, 12,400 second-feet Oct. 20, 1941 (gage height, 20.49 feet); no flow at times during 1938-39. Bankfull stage, 15.0 feet.

Maximum stage known, about 22.75 feet July 11, 1929, from records of Missouri Pacific Railroad Co.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	6	7	7	7	11	11	402	40	15	17	155
2	7	6	7	8	7	11	10	320	37	176	13	86
3	5	6	7	8	7	13	9	1,060	95	59	10	42
4	5	6	7	9	7	21	9	1,490	52	20	8	26
5	6	6	7	8	7	36	8	1,220	27	14	8	20
6	5	6	8	9	6	32	8	360	20	12	7	18
7	5	6	*7	7	6	17	8	135	17	10	10	16
8	5	6	7	a6	6	13	8	92	20	10	24	15
9	5	6	7	6	7	11	9	67	16	10	35	14
10	5	6	7	6	7	10	175	53	15	55	21	14
11	4	6	7	7	6	10	702	44	15	116	15	13
12	5	6	7	*6	7	9	945	37	15	257	28	13
13	5	7	7	7	7	9	402	59	15	393	9	13
14	5	7	7	7	7	9	101	336	13	184	7	13
15	5	7	6	7	8	11	46	142	13	54	116	12
16	6	7	b6	8	7	11	28	52	12	33	145	12
17	6	7	b6	8	7	10	20	32	12	25	230	12
18	6	7	b6	11	7	9	16	26	11	107	429	12
19	7	7	b6	11	8	9	24	23	11	500	171	12
20	9	7	b6	11	8	10	113	22	12	528	48	12
21	7	7	b6	9	8	11	168	20	12	174	24	11
22	9	7	b7	9	8	14	1,380	19	10	54	22	10
23	104	7	7	9	8	15	1,680	18	10	26	20	11
24	80	7	8	9	8	13	1,410	18	10	17	101	11
25	164	7	8	9	8	13	1,140	16	45	18	675	10
26	48	7	8	8	7	11	357	16	18	20	1,260	10
27	14	7	8	10	7	11	215	20	14	17	1,450	24
28	9	7	7	9	9	11	197	150	45	12	954	236
29	8	7	7	9	10	11	126	271	18	13	204	223
30	7	7	8	8	-	11	320	132	20	35	95	119
31	7	-	7	8	-	11	-	77	-	26	142	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	570	164	4	18.4	1,130
November.....	198	7	6	6.6	393
December.....	216	8	6	7.0	428
Calendar year 1943	5,543	482	3	15.2	11,000
January.....	254	11	6	8.2	504
February.....	212	10	6	7.3	420
March.....	404	36	9	13.0	801
April.....	9,646	1,680	8	322	19,130
May.....	6,729	1,490	16	217	15,350
June.....	870	95	10	22.3	1,350
July.....	2,990	528	10	26.5	5,930
August.....	6,298	1,450	7	203	12,490
September.....	1,195	236	10	39.8	2,370
Water year 1943-44	29,382	1,680	4	80.3	58,280

Peak discharge.- Apr. 11 (5 a.m.) 764 sec.-ft.; Apr. 12 (12 m.) 1,010 sec.-ft.; Apr. 22 (6 p.m.) 1,880 sec.-ft.; May 4 (8 a.m.) 1,540 sec.-ft.; July 20 (4 a.m.) 631 sec.-ft.; Aug. 27 (11 a.m.) 1,540 sec.-ft.

* Winter discharge measurement made on this days.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Little Arkansas River at Valley Center, Kans.

Location.- Water-stage recorder, lat. 37°50', long. 97°23', in SW $\frac{1}{4}$ 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, datum of 1929.

Drainage area.- 1,316 square miles.

Records available.- February 1935 to September 1944. June 1922 to February 1935 at site 2 miles downstream.

Average discharge.- 22 years, 186 second-feet.

Extremes.- Maximum discharge during year, 26,300 second-feet Apr. 23 (gage height, 21.47 feet), from rating curve extended above 12,000 second-feet; minimum discharge, 18 second-feet Dec. 28 (gage height, 2.11 feet).
1922-44: Maximum discharge, that of Apr. 23, 1944; minimum, 1 second-foot Dec. 27, 1933.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	81	45	40	93	86	189	3,720	248	83	92	140
2	40	71	44	40	81	81	195	3,420	201	90	90	115
3	39	66	45	42	73	80	189	7,090	177	130	83	102
4	37	62	44	44	68	168	172	7,150	160	82	78	91
5	36	60	46	45	64	278	155	5,310	155	75	75	78
6	35	58	49	46	62	270	140	4,760	150	72	74	73
7	35	54	55	46	60	220	130	2,360	140	70	73	69
8	35	54	53	41	59	150	124	1,170	140	68	73	66
9	34	52	51	53	58	112	956	877	172	1,190	71	64
10	34	51	58	*44	b58	89	4,120	727	140	2,220	69	63
11	33	51	66	40	b58	78	8,480	605	135	2,540	67	63
12	32	50	63	41	58	71	10,300	525	192	8,960	65	62
13	32	49	59	40	57	66	8,480	578	262	3,920	63	61
14	32	49	55	40	56	66	5,310	1,170	150	1,420	62	60
15	32	49	46	37	55	1,610	2,510	773	155	565	61	60
16	32	49	b46	39	56	3,490	1,330	497	145	331	62	59
17	32	48	46	42	55	2,230	932	363	125	234	65	58
18	33	48	45	56	52	2,400	705	300	119	195	78	57
19	33	47	45	125	52	1,240	645	262	116	183	63	56
20	35	46	46	433	54	424	932	241	112	166	70	56
21	35	46	45	665	*54	725	1,080	220	168	150	108	54
22	36	45	46	469	54	5,130	7,690	214	135	135	95	54
23	42	45	42	248	54	3,950	25,400	201	124	124	81	53
24	1,100	44	43	166	53	2,280	22,700	195	110	116	82	54
25	1,260	45	44	121	52	1,570	13,900	183	100	116	96	54
26	1,230	45	45	100	51	799	10,600	183	93	110	502	54
27	525	45	43	111	50	433	6,840	195	86	102	379	57
28	255	45	46	160	55	315	3,280	454	32	95	323	223
29	160	*44	b45	201	77	248	2,450	825	80	104	457	1,400
30	121	44	44	183	-	208	4,520	565	78	97	285	605
31	96	-	b40	121	-	189	-	363	-	93	183	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,550	1,260	32	179	11,010
November.....	1,543	81	44	51.4	3,060
December.....	1,490	66	40	48.1	2,980
Calendar year 1943.....	55,054	4,460	32	151	109,200
January.....	3,879	665	37	125	7,690
February.....	1,729	93	50	59.6	3,430
March.....	29,056	5,130	66	937	57,630
April.....	144,434	25,400	124	4,814	286,500
May.....	45,476	7,150	183	1,467	90,200
June.....	4,248	248	78	142	8,430
July.....	23,846	8,960	68	769	47,300
August.....	4,056	502	61	131	8,040
September.....	4,061	1,400	53	135	8,050
Water year 1943-44.....	269,367	25,400	32	736	534,300

Peak discharge.- Mar. 22 (4:30 p.m.) 6,200 sec.-ft.; Apr. 12 (4 p.m.) 10,800 sec.-ft.; Apr. 23 (3 a.m.) 18,200 sec.-ft.; Apr. 23 (12 p.m.) 18,200 sec.-ft.; May 3 (10 p.m.) 11,500 sec.-ft.; July 12 (8 a.m.) 10,800 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 19,700 second-feet Apr. 23 (gage height, 20.58 feet); minimum, 62 second-feet Aug. 5 (gage height, 1.85 feet).

1938-44: Maximum discharge, that of Apr. 23, 1944; minimum discharge, 19 second-feet Sept. 24, 1939 (gage height, 1.44 feet). Bankfull stage, 14 feet. Maximum stage known, 26.4 feet June 9, 1923, from floodmark.

Remarks.- Records good.

Rating tables, water year 1943-44, except periods of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 26 to Dec. 16, Jan. 19
to Feb. 11, Feb. 19 to Mar. 14, Mar. 17 to Apr. 8)

Oct. 1 to Apr. 22

Apr. 23 to Sept. 30

2.5	80	3.5	404	8.0	2,970	1.8	55	4.0	732	12.0	7,700
2.7	114	4.0	630	10.0	4,600	2.0	85	5.0	1,180	16.0	13,300
2.9	164	5.0	1,130	12.0	6,610	2.3	148	6.0	1,730	20.0	18,900
3.1	240	6.0	1,670	14.8	9,940	2.6	232	8.0	3,230		
						3.0	356	10.0	5,220		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	226	175	120	391	474	570	6,550	711	131	89	498
2	105	251	179	120	349	466	529	1,920	570	241	82	404
3	109	210	168	130	333	435	452	3,680	486	166	77	366
4	120	198	172	130	312	492	408	8,540	437	131	66	305
5	112	194	179	140	292	439	396	5,440	401	118	63	274
6	101	187	202	150	284	387	366	1,980	359	107	119	253
7	93	183	232	150	276	349	349	1,440	327	96	1,160	238
8	91	175	248	160	272	316	349	1,160	327	92	1,380	223
9	90	172	256	170	264	292	1,890	972	506	324	550	208
10	88	175	292	170	272	284	5,500	860	305	180	321	191
11	85	183	320	180	256	276	9,940	753	277	148	232	185
12	83	175	366	180	250	276	7,270	690	280	174	182	188
13	83	168	366	190	240	272	2,480	650	340	163	148	185
14	80	168	354	190	230	304	1,500	610	311	166	134	185
15	79	164	164	200	230	3,800	1,130	570	280	214	114	177
16	80	161	140	210	230	4,800	930	518	256	217	214	169
17	85	161	130	230	220	1,840	780	494	232	174	146	161
18	83	164	130	270	220	2,900	655	451	211	146	118	156
19	83	164	130	379	229	1,670	730	427	208	171	126	151
20	88	161	150	547	300	805	830	404	199	164	136	146
21	93	161	200	855	333	1,800	705	391	188	174	153	138
22	103	156	240	855	292	4,150	8,650	355	169	148	244	134
23	168	155	140	630	288	1,900	19,900	372	156	131	690	126
24	511	155	120	524	272	1,130	12,200	359	164	120	514	126
25	1,370	168	150	274	256	905	5,450	346	153	217	417	129
26	1,030	161	180	439	244	705	5,000	346	146	202	1,980	134
27	630	172	210	426	232	584	5,330	950	131	166	1,670	148
28	444	176	150	630	256	552	2,800	1,670	120	124	1,280	375
29	358	176	110	780	333	520	2,560	1,790	116	111	796	638
30	308	175	110	547	-	479	4,380	1,130	131	103	774	690
31	272	-	110	466	-	515	-	950	-	96	650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,111	1,370	79	229	14,100
November.....	5,265	236	155	176	10,440
December.....	6,053	366	110	195	12,010
Calendar year 1943.....	93,388	3,180	20	270	195,200
January.....	10,642	855	120	345	21,110
February.....	7,956	391	220	274	15,780
March.....	34,117	4,800	272	1,101	67,670
April.....	103,039	18,900	349	3,435	204,400
May.....	46,778	8,540	346	1,509	92,780
June.....	8,497	711	116	283	16,850
July.....	4,905	324	92	158	9,730
August.....	14,625	1,980	63	472	29,010
September.....	7,501	858	126	250	14,880
Water year 1943-44.....	256,489	18,900	63	701	508,800

Peak discharge.- Mar. 16 (2 a.m.) 5,600 sec.-ft.; Apr. 11 (3 p.m.) 11,000 sec.-ft.; Apr. 23 (9 to 11 a.m.) 19,700 sec.-ft.; Apr. 26 (11 p.m.) 5,680 sec.-ft.; May 1 (4 a.m.) 11,800 sec.-ft.; May 4 (6:30 p.m.) 10,100 sec.-ft.

* Winter discharge measurement made on this day.

Notes.- Stage-discharge relation affected by ice Dec. 17 to Jan. 18, Feb. 12-18.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Walnut River at Winfield, Kans.

Location.- Water-stage recorder, lat. 37°14', long. 97°00', in NE $\frac{1}{4}$ 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 1944.

Average discharge.- 22 years (1922-44), 660 second-feet.

Extremes.- Maximum discharge, 105,000 second-foot Apr. 23 (gage height, 38.30 feet); minimum, 33 second-foot Oct. 18 (gage height, 2.88 feet).

1921-44: Maximum discharge, that of Apr. 23, 1944; no flow Nov. 11, 1928, July 27 to Sept. 20, 1936. Bankfull stage, 30 feet.

Remarks.- Records good. Some regulation at extreme low flow by City Water Works Dam above station.

Rating tables, water year 1943-44, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Dec. 1-8, Jan. 30 to Feb. 9, Feb. 21 to Mar. 14, Mar. 25 to Apr. 8, Sept. 28)

Oct. 1 to Apr. 22

Apr. 23 to Sept. 30

2.9	36	4.0	323	12.0	6,300	3.5	41	5.0	630	30.0	26,400
3.1	68	4.4	505	16.0	9,900	3.7	64	6.0	1,275	32.0	32,300
3.3	110	5.0	820	20.0	13,500	3.9	98	8.0	2,780	34.0	41,000
3.5	160	6.0	1,410	24.0	17,500	4.1	153	12.0	6,300	35.0	49,600
3.7	218	8.0	2,780	28.0	22,500	4.4	285	20.0	13,500	36.0	62,000
						4.7	450	26.0	19,600	37.0	79,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	51	*53	70	112	215	g650	g15,200	940	153	153	630
2	177	45	53	70	97	197	g600	g15,600	546	147	138	406
3	212	42	54	70	78	160	g550	15,800	428	153	138	217
4	127	44	56	70	70	139	g550	7,020	373	144	115	141
5	90	45	63	72	68	250	g500	4,230	329	131	108	110
6	66	46	70	70	65	490	g450	g1,890	302	125	98	90
7	54	46	68	78	63	264	g404	g1,560	280	120	108	83
8	51	45	74	70	61	171	g875	g1,310	329	122	94	78
9	48	45	99	72	b60	134	g5,540	g1,170	5,850	2,090	90	73
10	45	b59	129	68	b58	115	g20,100	g1,040	2,160	3,020	85	72
11	45	b40	168	*65	b54	103	g25,800	g940	810	3,260	79	72
12	45	b40	240	63	b52	97	g25,200	g875	618	5,490	76	68
13	42	b48	171	61	b50	82	g10,700	g842	804	5,560	74	68
14	44	b48	124	60	b50	g103	g1,940	g810	744	2,230	70	66
15	42	b48	101	b58	b50	g344	g1,480	g762	594	534	64	66
16	36	b48	90	b58	b50	5,400	g1,290	g708	434	334	79	66
17	36	b48	78	b58	b50	8,640	g930	g530	329	255	78	63
18	36	b50	72	61	b51	g5,040	g820	g588	408	208	76	60
19	36	b48	68	66	b54	g18,500	820	g546	1,480	208	73	60
20	36	b50	b65	68	b58	g22,400	1,230	g616	1,310	190	74	58
21	35	b50	b64	70	b63	g8,730	2,940	g504	618	160	79	58
22	44	b48	b62	70	*66	g15,600	11,500	g486	842	144	76	57
23	51	b48	b62	68	65	g18,300	f77,100	g462	570	141	79	57
24	53	b50	b62	70	65	g13,000	f45,400	g439	1,000	138	76	51
25	63	b53	b63	70	76	g2,010	25,700	g417	296	141	100	51
26	88	b51	66	72	70	g1,290	10,600	g417	346	399	1,890	54
27	92	b51	70	82	70	g1,050	9,900	g504	275	942	2,300	165
28	80	b51	74	117	84	g902	f8,460	g1,670	212	312	1,280	3,100
29	68	b51	76	417	152	g820	g2,780	1,740	175	183	406	618
30	63	b51	78	209	-	g704	g7,470	972	164	226	260	324
31	58	-	74	137	-	g650	-	1,480	-	226	199	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,126	212	35	68.6	4,220
November	1,420	53	39	47.3	2,820
December	2,647	240	53	85.4	5,250
Calendar year 1943	296,150	36,400	35	811	587,400
January	2,710	417	58	37.4	5,380
February	1,962	152	50	67.7	3,890
March	125,910	22,400	92	4,062	249,700
April	302,279	77,100	404	10,080	599,600
May	81,128	15,800	417	2,617	160,900
June	23,566	5,850	164	736	46,740
July	27,406	5,580	120	884	54,360
August	8,615	2,300	64	278	17,090
September	7,082	3,100	51	236	14,050
Water year 1943-44	586,851	77,100	35	1,603	1,164,000

Peak discharge.- Mar. 20 (5 a.m.) 24,400 sec.-ft.; Mar. 23 (5 p.m.) 19,600 sec.-ft.; Apr. 12 (4 a.m.) 25,000 sec.-ft.; Apr. 23 (3 p.m.) 105,000 sec.-ft.; May 1 (9 p.m.) 17,700 sec.-ft.; May 3 (10 a.m.) 17,200 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

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

d Computed from graph based on gage readings.

e Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork Arkansas River near Alva, Okla.

Location.— Water-stage recorder, lat. 36°48'45", long. 98°39'50", in SW¼ sec. 18, T. 27 N., R. 13 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 square miles.

Records available.— April 1904 to December 1905 (gage heights only), February 1938 to September 1944.

Extremes.— Maximum discharge during year, 13,500 second-feet Apr. 22 (gage height, 7.60 feet), from rating curve extended above 6,000 second-feet; no flow at times.
1938-44: Maximum discharge, 27,000 second-feet Oct. 23, 1941 (gage height, 9.08 feet), from rating curve extended above 13,000 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, 9.6 feet, date unknown, from information by State Highway Commission.

Remarks.— Records fair except those above 500 second-feet and those for periods of ice effect, which are poor.

Cooperation.— Gage-height record, 55 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 8 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	2	37	70	39	769	g124	6	1	13
2	0		0	a5	34	58	32	472	93	4	1	6
3	0		0	*7	32	53	27	607	75	761	1	3
4	0		0	a8	27	46	27	963	62	65	1	8
5	0		0	a8	24	32	25	255	48	20	1	5
6	0		0	9	21	27	22	g153	37	g9	1	a2
7	0		0	3	20	24	22	g117	27	5	1	a1
8	0		0	2	20	22	27	g106	22	3	1	a1
9	0		5	2	20	22	36	g106	21	2	0	a1
10	0		43	1	24	21	5,620	g98	18	51	0	a1
11	0		48	*1	21	22	1,770	g93	17	29	0	a0
12	0		8	1	22	22	468	87	20	g20	0	0
13	0		2	2	24	24	255	416	62	67	0	0
14	0		1	2	24	40	171	1,420	193	29	0	0
15	0		0	3	21	656	135	546	65	17	0	0
16	0		0	3	20	205	102	g128	39	13	20	0
17	0		0	4	48	109	90	g84	27	93	54	0
18	0		0	*7	29	78	72	g72	17	39	32	0
19	1		0	7	26	62	72	g62	13	20	a14	0
20	12		1	10	24	53	75	g60	12	17	a3	0
21	3		*3	78	24	53	81	g60	7	16	1	0
22	3		1	75	26	58	4,960	g58	4	15	1	0
23	5		0	58	24	75	1,650	56	3	12	1	0
24	7		0	36	21	51	886	48	3	10	1	0
25	1		1	29	15	44	366	44	9	13	5	0
26	0		2	27	13	36	1,070	48	2	6	463	0
27	0		2	62	15	29	948	1,330	a2	3	75	6
28	0		1	60	34	32	292	2,020	a2	1	20	51
29	0		1	75	58	29	363	485	a2	1	10	56
30	0		2	65	-	30	1,650	273	8	1	78	5
31	0		*3	48	-	41	-	g171	-	1	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	32	12	0	1.0	63
November.....	0	0	0	0	0
December.....	124	48	0	4.0	246
Calendar year 1943.....	10,936	1,340	0	30.0	21,690
January.....	700	78	1	22.6	1,390
February.....	748	58	13	25.8	1,480
March.....	2,124	656	21	68.5	4,210
April.....	22,253	6,620	22	742	44,140
May.....	11,007	2,020	44	355	21,330
June.....	1,934	193	2	34.5	2,050
July.....	1,549	761	1	43.5	2,660
August.....	856	463	0	27.6	1,700
September.....	159	56	0	5.3	315
Water year 1943-44.....	40,386	6,620	0	110	80,100

Peak discharge.— Apr. 10 (4:30 a.m.) 13,000 sec.-ft.; Apr. 22 (12:30 p.m.) 13,500 sec.-ft.; Apr. 30 (7 a.m.) 2,630 sec.-ft.; May 13 (11:30 p.m.) 2,800 sec.-ft.; May 28 (3 p.m.) 4,150 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of rainfall records and normal recession of flow.

g Computed from graph based on once-daily staff-gage readings.

Note.— Stage-discharge relation affected by ice Dec. 15-20, 22-25, 28-30, Jan. 8-17.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork Arkansas River near Cherokee, Okla.

Location.- Water-stage recorder, lat. 36°49', long. 98°19', in SW¼ sec. 18, T. 27 N., R. 10 W., at site of abandoned Atchison Topeka & Santa Fe Railway bridge, three-quarters of a mile downstream from Medicine Lodge River and 4 miles northeast of Cherokee. Datum of gage is 1,155.94 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 2,300 square miles.

Records available.- February 1941 to September 1944.

Extremes.- Maximum discharge during year, 14,800 second-feet Apr. 22 (gage height, 9.95 feet); no flow at times.

1941-44: Maximum discharge, 35,000 second-feet Oct. 23, 1941 (gage height, 13.75 feet, from floodmark), from velocity-area studies; no flow at times.

Remarks.- Records good except those above 400 second-feet and those for periods of ice effect or no gage-height record, which are poor.

Cooperation.- Gage-height record, 53 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	18	25	20	111	145	110	2,470	g362	3	a1	316
2	0	14	27	30	99	158	102	1,910	281	22	a1	137
3	0	14	27	40	84	141	95	2,550	232	454	a1	76
4	0	13	27	*50	82	131	92	3,700	196	692	0	86
5	0	14	29	40	78	111	86	g1,050	164	360	0	210
6	0	14	38	40	77	94	83	g577	142	54	0	140
7	0	13	*35		74	87	82	g426	128	24	0	g76
8	0	12	37		*74	77	87	g537	115	15	0	g65
9	0	11	52		74	73	92	g293	107	12	0	g42
10	0	12	80		78	69	g3,890	262	97	58	0	g26
11	0	12	82	35	60	69	6,200	228	88	92	0	g21
12	0	13	82	(*)	50	69	1,440	204	94	42	0	g16
13	0	14	76		50	70	810	370	90	82	0	11
14	0	16	65		60	74	579	2,250	252	107	0	10
15	0	17	40		88	g672	g444	1,020	207	54	0	8
16	0	17	40	40	*104	g1,100	g342	558	115	30	0	8
17	0	17	40	50	104	381	g285	371	g73	26	103	6
18	0	17	60	*60	80	241	247	313	g54	99	238	5
19	0	18	79	75	70	189	238	258	g43	40	107	4
20	0	19	73	*90	65	166	230	g225	g36	26	35	3
21	0	20	92	184	83	175	236	g214	30	17	21	2
22	0	20	*70	189	*78	189	5,480	g200	21	g15	23	2
23	0	20	50	187	76	194	8,150	183	20	g11	67	2
24	141	20	50	127	70	194	2,710	167	106	g9	34	1
25	300	20	50	*107	65	160	1,270	148	48	20	164	1
26	116	24	83	*98	58	g127	1,990	154	26	18	1,220	1
27	65	27	79	111	62	g121	2,920	722	18	16	1,080	2
28	46	28	30	253	99	g122	1,370	2,520	12	7	583	63
29	35	26	10	230	108	g107	896	1,480	7	a6	176	243
30	29	26	10	164	-	g107	1,620	703	3	a4	204	160
31	22	-	*10	*152	-	g104	-	500	-	a2	590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	754	500	0	24.3	1,500
November.....	526	28	11	17.5	1,040
December.....	1,548	92	10	49.9	3,070
Calendar year 1943	27,418	1,470	0	75.1	54,370
January.....	2,632	253	20	84.9	5,280
February.....	2,261	111	50	78.0	4,480
March.....	5,717	1,100	69	184	11,340
April.....	42,176	8,150	82	1,406	83,650
May.....	26,343	3,700	148	850	52,250
June.....	3,187	362	3	106	6,280
July.....	2,415	692	2	77.9	4,790
August.....	4,448	1,220	0	143	8,820
September.....	1,743	316	1	58.1	3,460
Water year 1943-44	93,730	8,150	0	256	185,900

Peak discharge.- Apr. 10 (12 p.m.) 13,500 sec.-ft.; Apr. 22 (9 p.m.) 14,800 sec.-ft.; May 4 (2 a.m.) 7,000 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

g Computed from graph based on twice-daily wire-weight gage readings.

Note.- Stage-discharge relation affected by ice Dec. 14-18, 22-25, Dec. 28 to Jan. 20, Feb. 11-14, 15-20; discharge computed on basis of discharge measurements, fragmentary gage-height record, and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Great Salt Plains Reservoir near Jet, Okla.

Location.- Water-stage recorder, lat. $36^{\circ}45'$, long. $98^{\circ}08'$, in NW $\frac{1}{4}$ sec. 11, T. 26 N., R. 9 W., at Great Salt Plains Dam on Salt Fork Arkansas River, $4\frac{1}{2}$ miles upstream from Wagon Creek and $5\frac{1}{2}$ miles northeast of Jet. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,070 square miles.

Records available.- August 1941 to September 1944.

Extremes.- Maximum contents during year, 106,500 acre-feet Apr. 24 (elevation, 1,128.7 feet); minimum, 38,400 acre-feet Oct. 19 (elevation, 1,122.8 feet).
1941-44: Maximum contents, 162,000 acre-feet Oct. 25, 1941 (elevation, 1,131.95 feet); minimum, 32,000 acre-feet Aug. 26, 1941 (elevation, 1,122.0 feet).

Remarks.- Reservoir is formed by earth dam. Outlet works consist of a 310-foot uncontrolled concrete spillway containing a series of three weirs to form a cascade. Upper weir contains four submerged 10- by 12-foot open conduits. The intermediate weir contains two 36-inch gated bypasses and four 10- by 12-foot conduits closed by removable stop logs. Data regarding the dam shown in the following table:

	Elevation in feet	Capacity in acre-feet based on survey of May 19, 1938
Top of dam.....	1,168.5	-
Maximum design pool.....	1,161.4	1,327,200
Crest of upper weir.....	1,138.5	317,000
Crest of intermediate weir (conservation pool).....	1,125.0	58,000

Storage began in June 1941. Conservation pool stage was first reached Oct. 21, 1941. Reservoir is used for flood-control purposes and as a wildlife refuge. Figures given herein represent total contents on basis of level pool.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	1,123.2	41,700	-
Oct. 31.....	1,123.7	46,000	+4,300
Nov. 30.....	1,123.55	44,700	-1,300
Dec. 31.....	1,124.15	49,900	+5,200
Calendar year 1943...	-	-	-14,100
Jan. 31.....	1,124.75	55,600	+5,700
Feb. 29.....	1,125.15	59,600	+4,000
Mar. 31.....	1,125.25	60,800	+1,200
Apr. 30.....	1,127.2	84,800	+24,000
May 31.....	1,126.0	69,000	-15,800
June 30.....	1,124.8	56,100	-12,900
July 31.....	1,125.05	58,600	+2,500
Aug. 31.....	1,125.6	64,800	+6,000
Sept. 30.....	1,125.35	61,800	-2,900
Water year 1943-44...	-	-	+20,100

† Elevation at 12 p.m.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork 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 1944.

Extremes.- Maximum discharge during year, 4,680 second-feet (regulated) Apr. 23 (gage height, 5.62 feet); no flow Dec. 14-18.
1937-44: Maximum discharge, 25,900 second-feet May 19, 1938 (gage height, 8.80 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, which are fair. Flow regulated by Great Salt Plains flood-control reservoir (see p. 151).

Cooperation.- Gage-height record, 53 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 8 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	5	3	4	3	73	165	3,090	884	19	56	a500
2	11	5	2	4	3	73	155	3,020	749	18	38	a420
3	10	5	2	3	3	130	145	2,940	648	18	29	a360
4	10	4	2	*3	2	93	120	2,870	555	18	24	a290
5	10	4	2	4	2	86	112	2,750	458	18	19	a280
6	10	6	1	4	2	80	120	2,380	370	25	19	322
7	a9	5	1	1	1	93	114	2,040	312	22	18	260
8	9	4	1	b3	2	50	92	1,720	298	19	16	230
9	a8	4	1	1	1	35	98	1,420	242	21	14	183
10	a6	3	1	3	6	50	515	1,200	214	40	14	142
11	a4	3	1	3	8	45	1,850	1,020	198	43	14	132
12	4	3	1	*3	4	41	2,310	893	206	40	15	112
13	5	2	1	2	1	56	2,240	788	187	33	15	98
14	5	2	0	2	1	73	2,110	828	a180	32	12	a85
15	5	3	0	2	1	183	1,780	1,070	a180	30	12	a70
16	4	2	0	2	1	288	1,480	1,030	a170	25	16	a60
17	4	2	0	2	3	370	1,300	976	a130	48	45	a50
18	4	3	0	3	3	348	1,120	804	a110	47	82	a40
19	3	1	2	2	3	365	990	663	a50	47	109	32
20	4	1	2	3	3	312	935	562	a70	58	114	29
21	6	3	1	3	2	308	820	516	85	56	112	22
22	8	*1	3	3	3	444	1,600	456	52	56	123	20
23	3	b1	3	5	5	360	4,100	404	28	47	145	22
24	4	1	2	2	5	352	4,680	360	21	40	161	20
25	5	3	1	2	51	285	4,340	327	25	106	183	19
26	5	1	2	11	293	4,010	312	25	165	298	19	
27	5	3	b1	3	6	242	3,930	456	16	158	303	29
28	5	3	b1	4	44	247	3,690	633	15	155	332	172
29	5	3	b6	4	60	234	3,390	1,000	16	132	365	187
30	5	3	b4	2	-	214	3,160	1,090	16	114	a500	194
31	5	-	4	2	-	172	-	1,010	-	80	a460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	195	11	3	6.3	367
November.....	101	6	2	3.4	200
December.....	73	36	0	2.4	145
Calendar year 1943	31,678	1,420	0	86.8	62,840
January.....	27	4	2	2.9	173
February.....	240	60	1	8.3	476
March.....	5,978	444	35	193	11,860
April.....	51,471	4,680	92	1,716	102,100
May.....	38,508	3,090	312	1,242	76,380
June.....	6,490	884	15	216	12,870
July.....	1,730	165	18	55.8	3,430
August.....	3,663	500	12	118	7,270
September.....	4,399	600	19	147	8,730
Water year 1943-44	112,935	4,680	0	309	224,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records at Great Salt Plains Reservoir.

b Stage-discharge relation affected by ice.

Note.- Discharge Nov. 17 to Dec. 21 computed from occasional readings of staff gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork Arkansas River at Tonkawa, Okla.

Location.- Water-stage recorder, lat. 36°40', long. 97°19', in NE¼ 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 930.22 feet (revised) above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 4,480 square miles.

Records available.- September 1903 to October 1906 (gage heights only), January 1936 to September 1944.

Extremes.- Maximum discharge during year, 22,500 second-feet Apr. 23 (gage height, 19.26 feet); minimum observed, 14 second-feet Dec. 27, but may have been less during period of ice effect.

1903-5, 1936-44: Maximum discharge, 40,800 second-feet May 20, 1938 (gage height, 22.82 feet); minimum observed, 0.5 second-foot Aug. 23, 1938.

Maximum stage known, 28.8 feet June 10, 1923, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow partly regulated by Great Salt Plains flood-control reservoir, 64 miles above station (see p. 151).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	34	*21	b55	41	*58	299	4,820	1,180	106	179	1,090
2	36	32	22	44	39	57	310	13,890	1,050	108	132	765
3	39	30	20	44	36	66	295	13,780	917	149	106	619
4	36	30	20	57	34	72	235	13,780	794	163	80	472
5	36	29	23	57	34	74	210	13,370	681	121	63	403
6	32	27	25	*53	29	95	183	13,070	589	87	56	367
7	27	26	25	44	*30	88	153	2,610	503	67	58	336
8	26	25	25	b20	25	90	155	2,850	428	51	51	340
9	24	23	33	b30	25	80	831	2,030	407	56	46	302
10	23	23	65	43	27	83	4,670	1,750	490	177	82	259
11	22	21	88	45	120	77	6,580	1,550	336	441	127	241
12	22	21	108	42	b20	64	4,460	1,310	391	490	67	206
13	21	20	104	*b35	b20	64	4,330	1,160	589	266	46	182
14	19	20	72	b35	b20	71	2,760	1,050	494	186	37	153
15	17	20	b45	39	25	487	2,510	917	540	118	32	130
16	17	19	b40	42	25	860	1,980	950	277	91	35	108
17	17	20	b45	43	28	820	1,640	1,120	270	87	1,060	96
18	17	20	43	43	28	622	1,330	1,050	248	76	2,700	82
19	17	20	39	43	27	482	1,440	917	213	68	1,430	72
20	17	20	36	43	26	353	1,560	824	189	105	579	63
21	16	20	32	43	27	1,420	1,250	725	157	132	399	52
22	58	20	29	40	27	3,980	1,840	645	116	118	213	45
23	267	20	25	38	27	2,030	15,800	584	108	100	210	40
24	880	20	23	*38	27	1,080	16,600	536	127	93	241	38
25	432	20	24	39	78	683	10,400	472	191	165	273	37
26	185	20	26	48	49	472	7,950	463	424	a490	441	34
27	101	21	24	183	30	349	6,030	517	258	a1,230	407	74
28	68	20	b15	98	42	321	5,340	980	141	917	326	6,770
29	57	21	*b25	82	57	321	4,700	1,020	100	459	270	5,280
30	47	20	*b25	64	-	295	6,170	854	87	295	944	1,990
31	39	-	b30	47	-	295	-	1,120	-	216	1,430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,645	880	16	85.3	5,250
November.....	682	34	19	22.7	1,360
December.....	1,177	108	15	38.0	2,330
Calendar year 1943	99,948	15,600	15	274	198,200
January.....	1,557	183	20	50.2	3,090
February.....	923	78	20	31.8	1,830
March.....	15,919	3,980	57	514	31,570
April.....	112,012	16,600	153	3,754	222,200
May.....	50,114	4,820	463	1,617	99,400
June.....	12,055	1,160	87	402	23,910
July.....	7,228	1,230	51	253	14,540
August.....	12,049	2,700	32	389	23,900
September.....	20,646	6,770	34	688	40,950
Water year 1943-44	237,007	16,600	15	648	470,100

Peak discharge.- Mar. 22 (5 a.m.) 4,330 sec.-ft.; Apr. 11 (12:45 a.m.) 8,320 sec.-ft.; Apr. 23 (10 p.m.) 22,500 sec.-ft.; Apr. 26 (10 a.m.) 8,420 sec.-ft.; Apr. 30 (5 a.m.) 6,600 sec.-ft.; Sept. 28 (6 p.m.) 9,060 sec.-ft.

* Winter discharge made on this day.

a No gage-height record; discharge computed from graph estimated on basis of rainfall records and recorded range in stage.

b Stage-discharge relation affected by ice.

c Computed from partly estimated gage heights.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

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Medicine Lodge River near Kiowa, Kans.

Location.- Water-stage recorder, lat. 37°03', long. 98°28', in SW $\frac{1}{4}$ sec. 36, T. 34 S., R. 11 W., at highway bridge $\frac{1}{2}$ miles northeast of Kiowa. Datum of gage is 1,289.99 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,000 square miles.

Records available.- February 1938 to September 1944. May 1895 to October 1896 at site 2 miles upstream.

Extremes.- Maximum discharge during year, 7,900 second-feet Apr. 22 (gage height, 6.52 feet); no flow at times.

1895-96, 1938-44: 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.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor.

Cooperation.- Gage-height record, 55 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	32	47	40	83	112	85	1,130	187	33	2	151
2	0	31	49	75	80	102	78	1,210	158	28	1	87
3	0	32	45	85	76	98	72	2,290	139	186	1	57
4	0	32	45	*90	69	91	72	1,050	130	37	0	80
5	0	32	51	80	67	83	67	540	114	23	0	49
6	0	32	*54	85	66	80	67	389	100	12	4	39
7	0	31	54	70	64	71	66	320	87	4	a0	35
8	0	26	55	50	57	64	64	298	85	4	0	31
9	0	29	72	55	64	62	80	278	80	5	0	29
10	0	30	102	60	28	61	3,330	244	76	14	0	27
11	0	31	100	*60	33	62	1,630	231	72	17	0	25
12	0	32	100	55	35	66	625	216	72	89	0	24
13	0	32	91	40	36	64	1,380	153	132	0	23	0
14	0	32	70	50	37	75	259	1,280	130	67	0	22
15	0	33	40	60	a45	458	204	471	57	42	1	25
16	0	32	50	70	115	304	187	304	67	a23	34	21
17	0	32	55	85	*90	169	143	244	54	a11	220	18
18	0	33	65	*100	a55	139	134	211	48	a9	255	15
19	0	35	79	110	48	124	134	190	43	9	74	15
20	5	35	76	*130	33	114	143	176	39	13	45	12
21	14	35	*82	165	40	120	143	165	33	9	36	11
22	37	35	76	167	46	128	4,190	158	27	8	109	11
23	112	37	*2	118	52	139	2,860	156	45	5	62	10
24	627	39	55	96	57	126	915	147	37	4	51	9
25	214	42	62	*87	61	108	364	141	27	10	925	9
26	110	48	77	69	61	95	1,590	145	22	11	1,460	9
27	74	49	69	102	64	89	1,330	304	21	7	432	26
28	59	48	45	267	89	87	608	2,090	21	4	192	143
29	51	47	10	132	110	80	434	791	18	3	124	183
30	42	45	20	104	-	87	990	340	16	2	261	93
31	38	-	*25	91	-	93	-	244	-	1	408	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,383	627	0	44.6	2,740
November.....	1,059	49	26	35.3	2,100
December.....	1,883	102	10	60.7	3,750
Calendar year 1943	19,631	627	0	53.8	38,930
January.....	2,848	267	40	91.9	5,650
February.....	1,771	115	28	61.1	3,510
March.....	3,551	458	61	115	7,040
April.....	21,184	4,190	64	706	42,020
May.....	17,133	2,290	141	553	33,980
June.....	2,188	167	16	72.9	4,340
July.....	821	186	1	26.5	1,630
August.....	4,697	1,460	0	152	9,320
September.....	1,292	183	9	43.1	2,560
Water year 1943-44	59,810	4,190	0	163	118,600

Peak discharge.- Apr. 10 (9:30 p.m.) 5,680 sec.-ft.; Apr. 22 (9 p.m.) 7,900 sec.-ft.; Apr. 26 (10 a.m.) 3,200 sec.-ft.; Apr. 30 (11 p.m.) 3,560 sec.-ft.; May 2 (5 a.m.) 3,200 sec.-ft.; May 3 (4 p.m.) 4,890 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of weather records.

Note.- Stage-discharge relation affected by ice Dec. 14-18, 24, Dec. 28 to Jan. 20 (no gage-height record Dec. 14-18, 24, Dec. 28 to Jan. 2, Jan. 7-16; discharge computed on basis of 2 discharge measurements and weather records).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Chikaskia 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. Datum of gage is 975.47 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,890 square miles.

Records available.- January 1936 to September 1944.

Extremes.- Maximum discharge during year, 82,000 second-feet Apr. 23 (gage height, 27.31 feet); minimum daily, 3.8 second-feet Oct. 14, 1936-44; Maximum discharge, 85,000 second-feet June 22, 1942 (gage height, 27.48 feet, from floodmark); minimum daily, 0.5 second-foot at times in 1936, 1940 (revised).

Maximum stage known, 28.0 feet June 10, 1923, from information by local residents (discharge, 100,000 second-feet).

Remarks.- Records good except those above 2,000 second-feet and those for periods of no gage-height record, which are fair. Low flow regulated by Braman Reservoir (capacity, 3,800 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	32	13	g29	96	102	228	3,460	579	189	42	720
2	12	31	12	35	90	114	232	1,890	456	136	38	324
3	5.3	27	21	47	87	123	201	2,950	372	127	35	220
4	4.3	29	34	56	79	120	171	2,660	319	123	29	178
5	4.8	30	38	66	79	102	146	1,290	a290	99	27	1,160
6	5.3	30	49	68	71	117	133	919	254	f111	33	2,480
7	5.3	32	47	90	68	108	136	720	224	f93	1,650	327
8	5.3	30	52	53	71	99	127	610	208	74	2,610	208
9	5.3	24	56	45	68	90	799	543	314	142	533	153
10	4.8	26	87	47	74	85	6,520	481	356	1,630	232	127
11	5.3	26	99	54	66	85	11,100	443	254	1,660	140	111
12	4.8	27	90	52	42	85	6,150	413	237	319	111	105
13	5.3	29	79	49	42	82	1,620	384	361	169	79	96
14	3.8	29	82	49	45	85	970	384	895	127	63	85
15	4.3	29	74	52	66	909	672	522	676	99	52	76
16	4.3	29	a61	56	93	2,830	556	443	281	85	62	71
17	5.3	27	a52	63	108	1,380	443	335	197	127	236	66
18	4.8	262	38	71	96	704	372	290	153	220	617	58
19	3.8	82	38	85	82	752	413	271	143	a153	220	58
20	5.3	19	52	105	76	367	664	254	140	a108	127	58
21	4.3	12	58	117	85	1,430	501	254	164	99	87	49
22	9.1	11	76	111	90	4,970	3,800	299	160	85	79	42
23	17	11	61	96	82	1,710	55,300	325	166	71	538	38
24	7.4	11	47	90	79	617	26,000	241	2,390	f63	456	37
25	5.9	11	40	90	87	361	4,300	212	1,720	f95	241	37
26	4.8	11	49	102	87	295	4,000	224	506	189	764	37
27	47	11	61	197	79	241	7,930	530	258	150	2,060	353
28	61	12	51	127	87	228	2,800	2,880	178	93	630	6,600
29	52	12	g45	111	93	201	1,740	4,260	143	66	319	5,610
30	45	12	g52	133	-	193	4,430	1,450	143	54	831	961
31	34	-	g29	111	-	197	-	817	-	45	1,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	393.5	61	3.8	12.7	790
November.....	1,034	262	11	34.5	2,050
December.....	1,643	99	12	53.0	3,260
Calendar year 1943.....	76,011.1	9,740	.7	206	150,800
January.....	2,457	197	29	79.3	4,870
February.....	2,268	108	42	78.2	4,500
March.....	18,782	4,970	62	606	37,250
April.....	142,434	55,300	127	4,748	282,500
May.....	30,744	4,260	212	992	60,980
June.....	12,467	2,320	140	416	24,730
July.....	6,821	1,660	45	220	13,530
August.....	14,701	2,610	27	474	29,160
September.....	20,345	6,600	37	678	40,550
Water year 1943-44.....	254,089.5	55,300	3.8	694	504,000

Peak discharge.- Mar. 22 (2:30 p.m.) 5,770 sec.-ft.; Apr. 11 (8:30 a.m.) 12,400 sec.-ft.; Apr. 23 (3 p.m.) 82,000 sec.-ft.; Apr. 27 (10:15 a.m.) 8,840 sec.-ft.; Apr. 30 (5:45 p.m.) 5,180 sec.-ft.; Sept. 29 (4 a.m.) 8,500 sec.-ft.

a No gage-height record; discharge computed from estimated gage-height graph.

f Computed from partly estimated gage-height record.

g Computed from graph based on once-daily readings of wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cimarron River near Guy, N. Mex.

Location.- Water-stage recorder, lat. 36°59'15", long. 103°25'25", in SE¼ sec. 21 (Revised), T. 32 N., R. 33 E., 1.5 miles upstream from Baker dam site, 1.7 miles northwest of Valley filling station, 12 miles north of Guy, 27 miles northwest of Kenton, Okla. Prior to Oct. 1, 1943, datum of gage was 0.44 foot higher.

Records available.- April 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,960 second-feet May 28 (gage height, 10.21 feet); minimum daily, 3.5 second-feet Jan. 8 during ice period.
1942-44: Maximum discharge, 7,120 second-feet Sept. 2, 1942 (gage height, 18.12 feet, present datum), from rating curve extended above 3,000 second-feet on basis of velocity-area study and logarithmic plotting; minimum daily, 1 second-foot June 27, 1943.

Remarks.- Records good except those for periods of ice effect, which are poor. Discharge above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	6.0	b4.2	b4.6	6.6	6.6	6.3	68	62	8.3	4.2	4.6
2	4.2	5.7	b5.7	b4.6	6.0	6.0	7.6	54	39	6.3	4.4	4.4
3	3.9	6.0	b5.2	b3.9	6.0	7.2	7.2	46	28	18	4.4	3.9
4	3.9	6.0	b4.2	b4.4	6.0	6.9	6.0	52	24	10	4.2	4.2
5	3.9	*6.0	b5.4	b4.9	5.7	5.7	5.4	48	19	30	5.4	4.6
6	4.2	5.7	5.2	b4.6	5.4	5.2	5.2	45	59	9.8	32	4.6
7	4.4	5.4	5.2	b3.9	5.7	4.9	5.2	38	49	6.9	22	4.4
8	4.2	4.9	5.2	b3.5	5.7	5.2	5.2	30	33	5.7	9.0	3.9
9	4.2	5.2	4.6	b5	5.7	5.4	5.4	26	26	5.7	5.4	4.2
10	4.2	5.2	4.2	b7	b5.5	5.4	12	24	18	5.4	13	4.2
11	3.9	5.2	b6.3	b6.5	b5	5.4	14	19	17	5.4	105	5.2
12	4.2	5.2	b4.9	b6	b6	5.4	16	15	22	5.4	11	4.9
13	4.2	4.9	b4.9	*b7	*b6.5	5.7	9.4	15	16	12	6.9	4.4
14	3.9	4.9	b5.3	b7.5	b5.5	5.4	9.0	16	12	5.4	6.3	4.4
15	3.9	4.9	b4.4	b7	b6	*5.4	51	14	11	4.9	6.0	3.9
16	4.2	4.9	b4.9	b5.5	b6.5	5.4	47	10	11	5.4	6.0	4.2
17	4.4	4.9	b4.9	b6	b6	5.4	70	9.0	9.0	4.9	6.3	3.9
18	4.2	4.9	b4.9	b6.5	b6	6.0	64	9.0	8.3	4.6	7.6	3.9
19	3.9	4.6	b4.9	7.2	b6	6.9	58	9.0	8.3	5.7	6.0	3.9
20	5.7	4.6	b4.9	8.3	6.6	6.9	72	9.0	8.0	8.0	6.0	3.9
21	4.6	4.6	b4.4	8.3	6.6	6.6	85	9.0	7.6	6.3	6.3	4.2
22	5.2	4.9	b5.2	7.6	6.3	6.3	101	8.6	6.9	5.7	6.0	4.2
23	6.0	4.6	b4.2	7.6	6.3	6.6	76	8.0	5.7	5.4	6.0	4.2
24	5.7	4.4	b5.7	7.2	6.3	6.0	30	7.2	7.6	5.7	9.0	4.4
25	6.0	4.9	b4.2	6.3	6.3	5.7	110	7.6	7.2	6.6	6.0	4.4
26	6.0	5.7	b5.7	6.3	6.3	5.7	146	12	5.7	7.2	6.3	4.4
27	5.7	b4.9	b6.0	b6	6.3	5.7	141	400	4.6	5.7	14	4.4
28	5.7	b3.9	5.2	b5.5	b6.5	6.0	130	1,660	4.6	4.9	8.3	4.4
29	5.7	b3.9	b3.9	b6.5	6.9	6.6	169	280	4.9	4.9	5.4	4.4
30	5.7	b3.9	b4.4	b6	-	6.3	111	120	5.4	4.9	4.6	4.4
31	5.7	-	b4.4	b6.5	-	5.7	-	63	-	4.4	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	143.8	6.0	3.7	4.64	285
November.....	150.8	6.0	3.9	5.03	299
December.....	150.7	6.3	3.7	4.86	299
Calendar year 1943.....	3,277.3	165	1	8.98	6,500
January.....	188.7	8.3	3.5	6.09	374
February.....	176.2	6.9	5.4	6.08	349
March.....	183.6	7.2	4.9	5.92	364
April.....	1,668.3	169	5.2	52.3	3,110
May.....	3,130.4	1,660	7.2	101	6,210
June.....	539.8	82	4.6	19.0	1,070
July.....	229.5	30	4.4	7.40	455
August.....	347.6	105	4.2	11.2	689
September.....	129.0	5.2	3.9	4.30	256
Water year 1943-44.....	6,938.4	1,660	3.5	19.0	13,760

Peak discharge.- May 28 (5:30 a.m.) 2,960 sec.-ft.; June 6 (5:30 p.m.) 195 sec.-ft.; Aug. 11 (1:30 a.m.) 610 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cimarron River above Ute Creek, near Boise City, Okla.

Location.— Water-stage recorder, lat. $36^{\circ}55'$, long. $102^{\circ}36'$, in $SE\frac{1}{4}$ sec. 10, T. 5 N., R. 4 E., 1 mile upstream from Cold Springs Creek, 5.5 miles upstream from Ute Creek, and 14 miles northwest of Boise City.

Drainage area.— 2,060 square miles.

Records available.— May 1905 to August 1907 (published as Cimarron River near Garrett), October 1942 to September 1944. October 1938 to September 1942 at site 8 miles downstream, published as Cimarron River near Boise City.

Extremes.— Maximum discharge during year, about 1,800 second-feet May 29 (gage height, 4.77 feet); no flow at times.
1942-44: Maximum discharge, about 5,000 second-feet Aug. 6, 1943 (gage height, 6.90 feet); no flow at times.
Flood of Apr. 20, 1942, reached a stage of 20.1 feet, from floodmarks (discharge, 80,000 second-feet, mean of slope-area measurement at present site and discharge at site 8 miles downstream determined from rating curve extended above 41,000 second-feet on basis of logarithmic plotting).

Remarks.— Records poor. Records include water diverted 1,000 feet above station for irrigation. Some other small diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					35	146	a120		0	
2		0					34	85	a85		0	
3		0				a35	36	56	a65	a20	0	
4		0					39	74	a55		0	
5		0				40	37	72	a50	a8	2	
6		0				39	35	63	a45		42	
7						37	a35	54	41		38	
8						37	a35	43	69		19	
9						39	35	40	57	a5	6	
10						38	77	34	51		0	
11						38	64	258	63		0	
12						37	28	113	110	3	0	
13						37	20	104	94	6	36	
14						37	23	50	57	2	6	
15			a35	a35	a17	38	28	29	39	1	0	
16						38	28	32	24	0	0	
17						39	29	a35	18	5	0	
18		a13				38	36	40		2	0	
19						37	64	40		1	0	
20						37	60	40		17	0	
21						40	46	a30		12	0	
22						36	80	a20		8	0	
23							122	20		6	17	
24							89	18	a10	17	2	
25							63	a20		36	0	
26						a35	38	99		13	0	
27							112	201		2	0	
28							138	648		1	0	
29							305	1,180	180	1	0	
30							209	450	a75	0	0	
31								a200		0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	312	-	0	10.4	619
December.....	1,085	-	-	35.0	2,150
Calendar year 1943.....	8,928	890	0	24.5	17,700
January.....	1,085	-	-	35.0	2,150
February.....	493	-	-	17.0	978
March.....	1,137	-	-	36.7	2,260
April.....	1,980	305	20	66.0	3,930
May.....	4,294	1,180	18	139	8,520
June.....	1,408	180	-	46.9	2,790
July.....	253	-	0	8.2	502
August.....	168	42	0	5.4	333
September.....	0	0	0	0	0
Water year 1943-44.....	12,215	1,180	0	33.4	24,230

a No gage-height record; discharge interpolated or computed on basis of several discharge measurements, weather records, and records for station near Guy, New Mex.

Note.— Discharge for July 12 to Sept. 30 computed on basis of twice-daily readings of staff gage 2 miles above station.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Cimarron River near Mocane, Okla.

Location.- Water-stage recorder, lat. 36°59', long. 100°19', at county highway bridge 1,000 feet south of northwest corner sec. 24, T. 6 N., R. 25 E., 6½ miles north-east of Mocane and 13 miles upstream from Crooked Creek.

Drainage area.- 9,350 square miles (revised).

Records available.- October 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,970 second-feet May 31 (gage height, 3.69 feet), from rating curve extended above 1,100 second-feet on basis of velocity-area studies; minimum, 3.1 second-feet Aug. 15, Sept. 3.

1942-44: Maximum discharge, about 3,000 second-feet Oct. 14, 1942, from records for gage near Englewood, Kans. (unpublished); no flow Aug. 2, 3, 24-27, 1943.

Remarks.- Records poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	35	*49		56	*74	69	1,310	799	25	33	16
2	60	35	45		*69	64	69	1,350	289	27	24	6.8
3	38	42	*49	(*)	64	*74	56	861	170	24	20	3.4
4	35	*49	49		69	64	57	754	109	89	16	11
5	40	49	56	(*)	*60	42	42	199	79	79	16	30
6	40	56	56		69	*45	45	96	60	32	16	40
7	35	49	49		*69	60	45	84	49	18	25	38
8	33	*b35	*52		69	*60	52	69	49	14	20	28
9	30	40	b90		*49	49	64	52	42	16	10	23
10	33	45	b100		b30	*42	843	60	38	56	6.8	20
11	33	*49			*b25	42	331	249	40	90	7.8	28
12	30	*52		b50	b30	52	g191	84	42	35	6.8	28
13	27	52		(*)	b40	*49	410	122	74	28	7.8	25
14	24	52			*b80	79	130	52	79	32	7.8	25
15	24	*52			115	*153	g49	35	33	27	5.2	30
16	27	52			122	109	a50	38	25	22	37	32
17	28	*52		(*)	b60	*60	58	23	20	19	56	75
18	33	49			*b70	60	60	23	17	25	30	30
19	28	*49			*60	52	88	30	18	33	20	24
20	24	45		(*)	74	*74	102	38	19	133	20	25
21	28	45	b50 (*)		*74	90	90	42	17	90	20	23
22	33	45			64	*79	189	38	12	45	17	20
23	30	*45			60	52	552	38	10	35	16	27
24	32	45			*b300	*64	161	69	24	33	13	27
25	35	52		336	49	64	142	38	28	69	58	28
26	45	*69		276	*38	74	153	64	28	42	40	30
27	45	74		439	60	64	96	702	22	32	24	75
28	49	64		*189	145	b25	137	663	34	28	19	115
29	42	*b50		74	90	*b50	399	872	25	27	16	69
30	38	56		a55	-	96	375	795	24	30	32	45
31	35	-		*60	-	*64	-	1,630	-	38	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,079	60	24	34.8	2,140
November.....	1,484	74	35	49.5	2,940
December.....	1,645	-	-	53.1	3,260
Calendar year 1943.....	16,177.5	461	0	44.3	32,080
January.....	2,889	439	-	93.2	5,730
February.....	1,920	145	25	66.2	3,810
March.....	2,026	153	25	65.4	4,020
April.....	5,105	843	42	170	10,130
May.....	10,480	1,630	23	338	20,790
June.....	2,275	799	10	75.8	4,510
July.....	1,293	133	14	41.7	2,560
August.....	673.2	58	5.2	21.7	1,340
September.....	997.2	115	3.4	33.2	1,980
Water year 1943-44.....	31,866.4	1,630	3.4	87.1	63,210

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed from estimated gage height.

b Stage-discharge relation affected by ice.

c Computed from graph based on once-daily readings of staff gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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. 18 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 1,337.50 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 13,735 square miles (revised).

Records available.- February 1938 to September 1944. November 1903 to December 1905 (gage heights only), at Atchison, Topeka & Santa Fe Railway bridge, 5 miles upstream.

Extremes.- Maximum discharge during year, 47,000 second-feet Apr. 22 (gage height, 9.8 feet); no flow at times.
1938-44: Maximum gage height, 10.70 feet May 23, 1938 (discharge not determined); no flow at times.

Remarks.- Records fair except those above 5,000 second-feet and those for periods of ice effect, which are poor.

Cooperation.- Gage-height record, 55 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 8 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	1	4	41	*222	339	38	3,450	1,680	280	55	10
2	8	1	4	43	173	388	40	1,680	2,290	165	33	4
3	2	1	3	*62	150	270	97	5,860	1,570	43	21	1
4	1	2	3	70	136	180	83	3,850	677	228	12	1
5	0	2	4	48	123	140	58	1,740	442	97	7	1
6	0	2	5	21	103	109	50	1,530	353	15	6	0
7	0	2	*4	21	100	94	53	1,070	270	2	6	0
8	0	0	4	b10	*86	80	50	948	218	0	3	0
9	0	2	62	b15	78	68	110	922	180	25	2	0
10	0	2	317	b20	b65	55	2,580	801	150	6,350	1	0
11	0	2	222	*b20	b50	55	3,790	636	119	2,070	1	1
12	0	2	80	b15	b60	55	2,110	510	112	701	1	1
13	0	2	41	b10	72	52	1,240	1,300	244	866	1	1
14	0	2	b15	b10	55	75	769	2,740	126	410	1	1
15	1	3	*b10	29	*43	1,420	584	2,360	97	205	1	1
16	0	3	b10	23	46	510	410	699	75	119	3	1
17	0	3		23	92	214	g214	353	55	1,570	499	1
18	0	2		*26	513	265	g173	214	46	574	145	1
19	0	2		21	173	236	a188	154	50	201	40	1
20	31	3	3	*21	123	140	g332	126	17	1,980	20	1
21	2	3		*9	22	94	a326	106	7	898	38	1
22	11	3		8	22	100	g17,600	92	3	301	20	1
23	12	3		6	28	94	133	3,060	80	2	162	22
24	2	3	4	65	78	112	2,020	65	57	89	33	1
25	1	3	8	*243	68	112	1,950	50	11	8,000	30	1
26	1	6	6	801	58	92	2,470	52	3	1,360	23	1
27	1	5	5	1,120	65	70	778	548	2	1,600	18	52
28	2	4	4	1,040	214	53	528	3,750	1	510	6	247
29	2	3	25	1,130	232	46	1,630	4,160	1	227	3	55
30	1	4	*38	556	-	46	2,380	2,440	104	143	30	38
31	1	-	41	346	-	43	-	1,910	-	103	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	80	31	0	2.6	159
November.....	76	6	0	2.5	151
December.....	982	317	3	31.7	1,950
Calendar year 1943	33,819	3,620	0	92.7	67,090
January.....	5,922	1,130	10	191	11,750
February.....	3,266	313	43	113	6,480
March.....	5,735	1,420	43	185	11,380
April.....	46,721	17,600	38	1,524	80,690
May.....	44,196	5,860	50	1,426	87,660
June.....	5,942	2,290	1	298	17,740
July.....	29,194	8,000	0	942	57,910
August.....	1,098	499	1	35.4	2,180
September.....	425	247	0	14.2	843
Water year 1943-44	145,637	17,600	0	398	288,900

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed from estimated gage-height record.

b Stage-discharge relation affected by ice.

c Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

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.- 17,360 square miles (revised).

Records available.- January 1938 to September 1944.

Extremes.- Maximum discharge during year, 43,000 second-feet Apr. 11 (gage height, 11.01 feet); minimum, 6.2 second-feet Oct. 21.

1938-44: 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; maximum gage height, 11.90 feet Apr. 20, 1942 (discharge, 45,400 second-feet); minimum discharge, 0.1 second-foot Nov. 2, 1939.

Remarks.- Records good except those above 15,000 second-feet, which are fair, and those for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	80	42	98	764	227	890	2,600	2,600	110	438	204
2	19	74	45	113	552	244	830	3,530	1,820	119	334	168
3	15	62	45	123	441	262	499	4,380	1,450	327	266	119
4	12	57	40	140	356	301	367	4,000	1,280	239	221	110
5	12	54	49	165	301	350	281	6,260	1,630	165	190	92
6	12	54	57	163	253	373	230	3,640	1,280	184	174	182
7	12	49	57	156	*231	317	211	2,340	830	145	142	259
8	11	46	64	90	218	257	206	1,870	627	110	127	135
9	11	43	98	*b70	203	223	202	1,570	636	108	108	88
10	g10	40	*146	b110	287	191	20,400	1,290	810	514	88	64
11	g10	38	509	b110	203	173	27,600	1,150	584	5,580	76	68
12	g10	35	598	b120	*b150	173	8,990	1,060	513	4,180	78	50
13	g10	34	537	b120	150	163	2,990	980	7,280	2,080	114	45
14	g9.5	32	447	*b110	*140	153	2,280	860	10,700	1,200	110	40
15	g9.0	33	b330	b120	150	447	1,690	780	3,390	686	64	35
16	g8.6	32	b250	166	156	1,760	1,290	870	1,240	494	50	32
17	8.1	31	b170	187	163	1,600	1,000	1,820	1,220	466	62	29
18	8.6	31	160	195	166	1,200	771	1,540	660	552	169	26
19	8.6	31	169	187	153	790	880	950	455	432	329	23
20	8.1	31	146	195	143	940	2,010	699	321	1,070	214	21
21	7.1	31	143	*210	137	843	1,930	552	251	660	239	19
22	15	32	132	210	169	7,170	457	225	1,210	190	19	19
23	825	33	118	180	223	3,970	20,000	411	194	2,200	132	18
24	4,840	33	105	156	199	1,060	9,130	404	184	1,130	103	16
25	1,760	34	103	140	169	600	3,360	343	194	634	84	16
26	575	38	98	135	156	450	1,900	425	229	2,710	84	16
27	286	42	113	173	163	386	2,240	1,140	171	3,820	73	19
28	191	40	b110	279	184	355	4,000	576	135	2,880	72	279
29	140	43	b80	678	195	349	2,180	520	122	1,300	80	4,860
30	115	43	*b80	817	-	343	2,200	725	110	1,110	96	2,220
31	95	-	b80	773	-	457	-	3,100	-	626	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9,085.6	4,840	7.1	292	17,980
November.....	1,255	80	31	41.9	2,490
December.....	5,121	598	40	165	10,160
Calendar year 1943	204,885.6	32,200	7.1	561	406,400
January.....	6,487	817	70	209	12,870
February.....	6,755	764	137	255	15,400
March.....	26,026	7,170	153	840	51,520
April.....	121,477	27,500	202	4,049	240,900
May.....	50,842	6,260	343	1,640	100,800
June.....	41,141	10,700	110	1,371	81,600
July.....	37,431	5,580	108	1,207	74,240
August.....	4,610	438	50	149	9,140
September.....	9,262	4,860	16	309	18,370
Water year 1943-44	319,473.6	27,800	7.1	873	633,800

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

g Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour

Cimarron River at Perkins, Okla.

Location.- Water-stage recorder, lat. 35°58', long. 97°02', in SW¼ sec. 7, T. 17 N., R. 3 E., at county highway bridge, 1 mile south of Perkins, 1½ 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.- 18,380 square miles (revised).

Records available.- June 1939 to September 1944. Gage-height records collected at same site since 1927 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 55,700 second-feet Apr. 11 (gage height, 14.08 feet); minimum, 14 second-feet Oct. 20.

1939-44: Maximum discharge, that of Apr. 11, 1944; maximum gage height, 14.30 feet Apr. 20, 1942; 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 except those for periods of ice effect, which are fair.

Cooperation.- Gage-height record, 61 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	150	60	a135	792	231	701	3,620	2,940	164	640	220
2	63	137	67	a145	808	272	1,080	3,620	2,160	164	487	220
3	72	130	65	a155	619	290	860	7,310	1,700	195	388	244
4	65	121	65	a175	491	290	593	5,030	1,360	396	316	164
5	49	111	75	194	431	315	443	5,030	1,260	311	311	140
6	44	105	88	219	356	356	346	5,380	1,580	188	226	238
7	44	94	83	249	315	373	305	3,180	1,160	192	198	679
8	40	83	83	b150	281	335	267	2,310	860	174	178	388
9	39	77	150	b110	267	300	268	2,020	792	147	157	212
10	34	75	*215	*b140	300	249	23,100	1,700	2,060	324	157	134
11	29	72	267	b180	320	227	44,400	1,520	1,160	2,580	115	106
12	28	70	659	b170	262	210	13,500	1,360	808	5,740	100	80
13	28	65	600	b170	219	194	4,600	1,310	6,900	2,790	115	68
14	24	63	503	b160	210	191	3,270	1,210	13,500	1,760	195	59
15	23	60	b300	b170	194	546	2,460	1,090	5,050	1,250	157	54
16	20	68	*b150	b190	198	1,280	2,020	1,010	2,000	791	97	48
17	18	56	b200	202	206	2,100	1,700	1,160	985	580	118	46
18	18	56	253	*202	198	1,580	1,410	1,760	948	574	100	46
19	18	54	215	231	206	1,210	1,720	1,310	686	610	106	44
20	16	51	179	267	198	916	3,270	908	1,370	616	410	40
21	18	54	168	231	194	1,030	3,440	722	616	1,060	248	38
22	307	51	157	276	197	5,042	2,160	369	682	276	34	34
23	4,090	49	a144	267	187	7,050	12,800	750	320	1,700	257	32
24	5,920	49	130	236	240	2,940	10,300	497	2,020	1,760	181	30
25	4,050	51	127	219	227	1,110	4,600	479	1,490	a1,250	223	30
26	1,260	54	121	198	210	743	2,700	449	672	628	140	27
27	586	a56	a135	295	202	593	2,020	2,490	a421	3,350	121	38
28	351	a56	a160	300	223	528	3,180	1,760	a298	3,120	103	556
29	258	56	a150	485	223	485	3,560	1,070	226	1,890	90	5,640
30	194	56	a110	743	-	473	3,800	808	195	1,060	130	5,600
31	161	-	a110	822	-	497	-	1,400	-	910	194	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,912	5,920	16	578	35,530
November.....	2,222	150	49	74.1	4,410
December.....	5,739	659	60	185	11,380
Calendar year 1943.....	288,410	43,000	16	790	572,100
January.....	7,736	822	110	250	15,340
February.....	8,764	808	187	302	17,380
March.....	31,954	7,050	191	1,031	63,380
April.....	154,643	44,400	258	5,155	306,790
May.....	62,895	7,310	449	2,029	124,800
June.....	55,897	13,500	195	1,865	110,900
July.....	36,966	5,740	147	1,192	73,320
August.....	6,503	640	90	210	12,900
September.....	15,285	5,640	27	510	30,520
Water year 1943-44.....	406,516	44,400	16	1,111	806,400

* Winter discharge measurements made on this day.

a No gage-height record; discharge computed from interpolated gage-height graph, or on basis of recorded range in stage and records for stations near Guthrie and Oilton.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cimarron River at Oilton, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 36°06', long. 96°35', in SW $\frac{1}{4}$ Sec. 28, T. 19 N., R. 7 E., at bridge on State Highway 51, half a mile north of Oilton and 4 $\frac{1}{2}$ miles upstream from Buckeye Creek. Datum of gage is 718.99 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 19,180 square miles (revised).

Records available.- July 1934 to September 1944.

Extremes.- Maximum discharge during year, 47,500 second-feet Apr. 11 (gage height, 13.22 feet); minimum, 42 second-feet Oct. 22.
1934-44: 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 Commission.

Remarks.- Records good except those for period of missing or fragmentary gage-height record and those for periods of ice effect, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	776	287	91	192	780	344	552	4,300	1,000	445	1,140	130
2	606	240	91	192	770	304	630	4,780	2,480	400	820	160
3	289	210	*91	215	751	304	1,090	10,500	2,160	374	622	158
4	155	188	91	240	670	314	1,140	5,820	1,750	362	487	174
5	117	179	113	235	545	326	810	4,450	1,460	393	419	304
6	102	162	127	235	473	326	582	5,300	1,250	522	362	225
7	92	142	123	b230	426	326	480	4,300	1,410	419	314	166
8	85	158	120	*b150	374	362	412	3,010	1,290	362	270	354
9	77	130	158	b120	356	362	374	2,580	1,400	465	245	550
10	74	127	419	b150	350	326	9,970	2,080	1,540	1,500	206	350
11	69	123	610	b200	380	304	43,500	1,800	1,870	1,820	184	304
12	83	116	538	*206	374	270	24,500	1,600	2,120	2,350	166	215
13	86	116	568	179	350	265	8,600	1,460	5,950	5,550	146	170
14	72	113	760	166	309	255	4,450	1,510	12,800	2,920	130	134
15	55	113	b500	184	287	1,650	3,200	1,180	8,570	2,080	130	120
16	53	110	b350	245	265	2,880	2,560	1,070	4,750	1,480	179	103
17	55	106	b310	262	255	1,670	2,160	982	2,400	1,050	220	88
18	56	103	326	358	250	1,930	1,870	1,000	a1,350	790	220	82
19	56	99	374	338	250	1,660	1,670	1,620	f1,500	697	179	77
20	55	96	386	332	260	1,650	3,260	3,970	f1,740	646	134	72
21	49	93	292	326	265	1,230	3,400	2,090	f1,420	790	162	61
22	313	88	250	338	260	1,720	3,200	1,150	960	950	232	63
23	9,700	88	250	338	250	7,790	4,740	1,320	522	920	225	53
24	6,960	88	210	332	240	5,480	16,500	1,280	480	1,300	255	55
25	6,000	88	202	326	245	2,400	6,600	880	1,960	1,940	326	61
26	3,180	88	197	309	276	1,460	4,150	850	2,000	1,600	282	55
27	1,720	91	*225	362	276	1,000	3,010	2,240	950	971	225	112
28	1,020	91	350	560	287	760	2,580	2,740	638	3,210	180	386
29	688	91	320	494	344	679	3,750	2,080	552	3,200	127	520
30	494	91	245	380	-	806	4,500	1,520	480	2,160	150	5,110
31	386	-	206	614	-	575	-	1,040	-	1,320	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	33,521	9,700	49	1,081	66,490
November.....	3,795	287	88	126	7,530
December.....	9,103	810	91	294	18,060
Calendar year 1943	429,150	48,100	37	1,176	851,200
January.....	8,808	614	120	284	17,470
February.....	10,898	770	240	376	21,620
March.....	39,478	7,790	255	1,273	78,300
April.....	164,310	45,500	374	5,477	325,900
May.....	80,282	10,500	850	2,590	159,200
June.....	68,282	12,800	480	2,279	135,600
July.....	43,085	5,650	352	1,390	85,460
August.....	8,891	1,140	127	287	17,640
September.....	10,372	5,110	51	346	20,570
Water year 1943-44	480,926	43,500	49	1,314	953,800

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for stations near Perkins and Mannford.

b Stage-discharge relation affected by ice.

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 Nov. 2, 3, Jan. 12, 13, May 14-18, 22-31, June 22 to July 12, July 15 to Sept. 29.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cimarron River at Mannford, Okla.

Location.— Water-stage recorder, lat. 36°09', long. 96°23', in SW¼SW¼ sec. 5, T. 19 N., R. 9 E., at county highway bridge, half a mile north of Mannford, 1½ miles downstream from House Creek, and 18 miles upstream from mouth. Datum of gage is 682.92 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 19,370 square miles (revised).

Records available.— January 1939 to September 1944.

Extremes.— Maximum discharge during year, 46,800 second-feet Apr. 11 (gage height, 17.17 feet); minimum, 58 second-feet Oct. 20.

1939-44: Maximum discharge, 103,000 second-feet Sept. 4, 1940 (gage height, 25.2 feet, site and datum then in use, from graph based on gage readings); minimum observed, 5 second-feet Oct. 25, 1939.

Flood in October 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 good except those for period of ice effect, which are fair.

Cooperation.— Gage-height record, 56 discharge measurements, and computations of daily discharges furnished by Corps of Engineers, U. S. Army; 4 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	311	108	249	761	f351	536	4,530	f973	g470	gl,150	177
2	1,290	253	111	231	833	a330	556	6,000	f2,160	445	g930	196
3	470	210	108	231	800	a310	382	10,300	2,650	415	g713	208
4	267	178	104	*271	761	a310	1,290	6,300	1,960	403	g551	213
5	168	168	114	302	623	a315	907	4,900	1,640	386	451	311
6	138	156	138	302	515	a315	692	5,150	1,320	s16	397	287
7	126	151	138	302	470	a315	542	5,440	1,300	g451	353	281
8	118	148	128	b225	427	a350	464	3,300	1,520	g380	316	181
9	114	141	159	b150	392	a350	410	3,050	1,280	g369	283	482
10	111	134	433	*b190	421	a305	7,490	f2,440	1,520	994	247	363
11	106	128	949	b180	427	a300	44,600	f1,900	1,760	2,160	217	287
12	126	121	753	b200	451	a260	26,000	1,580	2,020	1,090	192	221
13	146	121	522	b180	433	a240	9,250	1,400	6,000	5,030	170	177
14	104	118	849	b180	361	231	4,370	1,260	13,200	3,480	151	144
15	77	116	607	224	346	3,330	3,300	1,160	10,100	2,230	134	128
16	68	118	392	260	302	4,060	2,550	1,070	5,580	1,640	162	115
17	64	118	371	311	286	2,350	2,100	991	g2,740	1,200	204	104
18	62	118	319	*341	264	2,100	1,500	904	g1,520	g964	238	98
19	61	116	336	356	260	2,350	1,700	1,280	g2,440	g970	200	87
20	61	116	421	341	260	2,220	2,730	4,420	g1,240	g546	166	82
21	62	114	332	328	260	1,980	4,060	3,340	g1,420	g854	141	72
22	470	111	260	332	260	2,280	3,960	1,110	g1,640	g562	260	70
23	11,200	111	238	336	238	7,570	3,100	1,070	g752	g1,160	264	67
24	6,700	108	234	341	227	5,620	18,000	1,210	565	g964	247	61
25	6,560	106	280	341	220	3,130	6,480	964	853	2,020	292	61
26	4,200	106	210	341	a234	1,860	4,160	1,180	2,650	1,830	397	61
27	1,980	106	234	445	a260	1,120	3,210	2,000	1,180	1,310	297	116
28	1,030	106	451	542	a286	841	2,690	2,440	g767	2,440	238	466
29	653	106	483	615	a319	746	3,090	2,970	g616	3,580	192	476
30	451	108	346	476	-	653	4,300	1,900	g523	2,580	204	4,230
- 31	366	-	275	515	-	563	-	1,400	-	g1,640	213	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	40,259	11,200	61	1,299	79,860
November.....	4,122	311	106	137	8,180
December.....	10,343	949	104	334	20,520
Calendar year 1943.....	500,795	52,900	56	1,372	993,300
January.....	9,638	615	150	311	19,120
February.....	11,717	833	220	404	23,240
March.....	47,055	7,570	231	1,518	93,330
April.....	165,229	44,600	410	5,508	327,700
May.....	96,959	10,300	904	2,806	172,500
June.....	73,219	13,200	523	2,461	146,400
July.....	43,579	5,030	369	1,406	86,440
August.....	9,950	1,130	134	321	19,740
September.....	9,752	4,230	61	325	19,340
Water year 1943-44.....	512,422	44,600	61	1,400	1,016,000

* Winter discharge measurements made on this day.

a No gage-height record; discharge computed from estimated gage heights and records for station near Oilton.

b Stage-discharge relation affected by ice.

c Computed from partly estimated gage-height record.

g Computed from graph based on twice-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Crooked Creek near Nye, Kans.

Location.- Water-stage recorder, lat. $37^{\circ}02'$, long. $100^{\circ}12'$, at southeast corner sec. 1, T. 35 S., R. 27 W., at bridge on county road, $\frac{1}{2}$ miles east of Nye and 11 miles upstream from mouth. Datum of gage is 2,163.79 feet (revised) above mean sea level (unadjusted).

Drainage area.- 1,100 square miles, of which about 800 square miles is probably non-contributing.

Records available.- August 1942 to September 1944.

Extremes.- Maximum discharge during year, 1,360 second-feet Apr. 29 (gage height, 3.68 feet), from rating curve extended above 700 second-feet by velocity-area studies; no flow Oct. 1, 2.
1942-44: Maximum discharge, that of Apr. 29, 1944; no flow at times.

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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	7.1	*14		31	28	21	353	93		12	1.8
2	0	7.6	12		35	21	21	601	144		13	1.1
3	a2	7.6	9.8		66	22	18	762	194		17	.6
4	a2	*7.1	9.8	(*)	35	21	17	591	194		24	1.6
5	a2	7.1	12		26	22	16	549	182		26	4.3
6	a1.5	6.6	10		a28	20	16	617	15-	a8	32	3.7
7	a1.5	5.8	10		*31	19	16	599	111		35	5.1
8	1.2	7.5	*11		26	19	16	479	93		32	1.6
9	1.6	7	14		24	18	17	348	73		25	.9
10	2.2	9	20		13	18	298	226	66	10	17	1.1
11	2.0	*9.8			16	19	280	285	54		12	2.0
12	2.2	8.1		S	28	18	157	230	48		8.1	1.6
13	1.4	7.1		(*)	37	18	102	168	39		4.6	1.1
14	1.8	6.2			*24	21	66	134	34	a6	2.6	1.8
15	1.8	5.8			21	30	115	121	27		1.7	1.4
16	2.4	6.2			20	26	190	99	20		10	1.6
17	2.4	*5.8			18	22	186	96	17	4.6	3.4	3.1
18	3.1	9.8			16	21	102	87	16	4.0	2.6	1.1
19	3.7	12		(*)	17	24	121	79	16	5.8	1.6	1.8
20	3.4	12			18	25	108	61	16	5.6	1.8	1.4
21	4.0	12	S		17	25	105	52	16	7.1	1.2	.9
22	5.0	9.8			17	24	212	40	12	4.6	1.1	.4
23	5.8	9.2			17	22	352	32	12	4.0	.4	.8
24	5.8	9.2			18	22	292	25	12	4.1	.8	1.8
25	5.8	10			17	21	194	20	10	9.2	6.2	2.6
26	5.8	10			16	21	205	25	8.6	5.8	2.8	2.6
27	6.2	9.8			20	19	209	252	6.6	4.3	2.0	10
28	6.6	9.8		a100	34	16	226	370		5.0	1.2	9.2
29	7.6	a10			32	30	690	234	a8	3.7	2.2	9.8
30	7.6	a10			-	26	499	124		4.6	5.0	9.8
31	7.6	-		*32	-	21	-	81	-	5.6	3.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	106.0	7.6	0	3.42	210
November.....	255.3	12	5.8	8.51	506
December.....	290.6	-	-	9.37	576
Calendar year 1943.....	3,653.5	52	0	10.0	7,250
January.....	916	-	-	29.5	1,820
February.....	718	66	13	24.8	1,420
March.....	679	30	16	21.9	1,350
April.....	4,867	690	16	162	9,650
May.....	7,740	762	20	250	15,350
June.....	1,689.2	194	-	56.3	3,360
July.....	202.0	-	-	6.52	401
August.....	307.4	35	.4	9.92	610
September.....	84.6	10	.4	2.82	168
Water year 1943-44.....	17,855.1	762	0	48.8	35,410

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and recorded range in stage.

Note.- Stage-discharge relation affected by ice Dec. 11 to Jan. 23 (no gage-height record Dec. 29 to Jan. 18, Jan. 21-23; discharge computed on basis of weather records and occasional discharge measurements).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Council Creek near Stillwater, Okla.

Location.- Water-stage recorder and concrete control, lat. 36°07', long. 96°52', in SE1SW4 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 1944.

Average discharge.- 10 years, 11.2 second-feet.

Extremes.- Maximum discharge during year, 1,940 second-feet June 13 (gage height, 9.30 feet); no flow at times.

1934-44: Maximum discharge, 18,000 second-feet Aug. 14, 1942 (gage height, 17.54 feet, from floodmark), by slope-area method; no flow at times.

Maximum stage known, that of Aug. 14, 1942. Flood of Apr. 27, 1912, reached a stage of 18.6 feet at gage, determined from floodmark cut in rock 900 feet downstream by local resident.

Remarks.- Records good except those above 200 second-feet and those for period of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	0.5	0.2	0.6	0.9	1.2	3.2	6.9	1.2	0.6	0	0
2	4.6	.3	.2	4.6	.9	1.2	2.3	41	.9	.6	0	0
3	.2	.2	.2	6.3	.9	.9	1.9	128	.6	.5	0	0
4	0	.2	.2	2.3	.9	.6	1.9	7.5	.6	.3	0	0
5	0	.2	.4	1.2	.9	.6	1.5	5.8	.5	.2	0	0
6	0	.3	.6	.9	.9	.6	1.5	4.7	.3	.2	0	0
7	0	.3	.5	.9	.9	.6	2.3	4.2	.3	.2	0	0
8	0	.3	.3	.5	1.2	.6	2.3	4.2	140	.1	0	0
9	0	.3	42	.5	.9	.6	2.3	3.2	101	a.1	0	0
10	0	.3	84	.6	8.9	.6	508	3.2	7.5	a.150	0	0
11	0	.2	6.6	.6	1.5	.9	15	2.7	63	0	0	0
12	0	.2	1.9	.6	.9	.9	5.8	2.3	296	0	0	0
13	0	.2	.9	.5	.6	.9	4.2	1.9	483	0	0	0
14	0	.2	.9	.5	.9	.9	3.7	1.9	12	a.6	0	0
15	0	.2	.9	.5	.9	109	3.2	1.5	6.3	0	0	0
16	0	.2	.6	1.2	.9	17	1.9	1.5	4.2	0	0	0
17	0	.2	.5	4.1	.9	5.2	1.9	1.2	2.7	.1	0	0
18	0	.2	.5	6.3	.9	3.2	1.5	1.2	2.3	0	0	0
19	0	.2	.5	4.2	.9	9.5	117	.9	136	0	0	0
20	0	.2	.5	1.9	.9	18	19	.9	26	.5	0	0
21	0	.2	.5	1.5	1.2	64	6.9	.9	3.7	.2	0	0
22	0	.2	.5	1.2	1.2	22	105	.9	2.3	.1	0	0
23	562	.2	.3	.9	1.2	5.8	28	4.7	25	0	0	0
24	5.0	.2	.3	.9	1.2	4.2	6.3	1.2	36	0	0	0
25	1.2	.2	.3	1.2	1.2	2.7	4.7	1.2	1.9	5.9	0	0
26	.5	.3	.3	1.2	.9	2.3	4.7	1.9	1.2	3.5	0	0
27	.3	.3	2.7	40	1.2	2.3	3.7	26	.9	.2	0	13
28	.5	.3	2.5	4.2	6.6	3.2	3.7	5.8	.6	54	0	58
29	.5	.2	.9	1.5	4.4	6.2	54	3.2	.6	.5	0	.1
30	.6	.2	.6	1.2	-	7.3	18	2.3	.6	.1	1.9	0
31	.6	-	.5	.9	-	3.7	-	1.9	-	0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	613.0	562	0	19.8	0.656	0.75	1,220
November	7.2	.5	.2	.24	.0079	.009	14
December	151.8	84	.2	4.90	.162	.19	301
Calendar year 1943	7,824.8	2,260	0	21.4	.709	9.63	15,520
January	93.5	40	.5	3.02	.100	.12	185
February	45.7	8.9	.6	1.58	.052	.06	91
March	296.7	109	.6	9.57	.317	.37	588
April	935.4	508	1.5	31.2	1.03	1.15	1,860
May	274.7	128	.9	8.86	.293	.34	545
June	1,357.2	433	.3	45.2	1.50	1.67	2,690
July	221.5	150	0	7.15	.237	.27	439
August	2.0	1.9	0	.06	.0020	.002	4.0
September	71.1	58	0	2.37	.078	.09	141
Water year 1943-44	4,069.8	562	0	11.1	.368	5.02	8,080

Peak discharge.- Oct. 23 (9:30 a.m.) 1,880 sec.-ft.; Apr. 10 (5:30 a.m.) 1,910 sec.-ft.; June 8 (12 p.m.) 1,340 sec.-ft.; June 12 (1 a.m.) 1,280 sec.-ft.; June 13 (3 a.m.) 1,940 sec.-ft.; June 19 (9:45 p.m.) 890 sec.-ft.

a No gage-height record; discharge computed on basis of recorded range in stage, rainfall records, and records for similar rises of May 3, June 19, 1944.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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, 1½ miles upstream from Meadow Creek, 1½ miles northwest of Coyville, and 2½ 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 1944.

Extremes.-- Maximum discharge during year, 40,100 second-feet Apr. 23 (gage height, 37.89 feet from graph based on gage readings), from rating curve extended above 29,000 second-feet; minimum observed, 5 second-feet several days in October.

1939-44: Maximum gage height, 38.58 feet June 1, 1941, discharge uncertain; no flow at times during 1939-41.

Remarks.-- Records fair. Gage read twice daily; oftener during periods of rapidly changing stage.

Cooperation.-- Gage-height record, 28 discharge measurements, and computations of daily discharges furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	13	8	20	45	485	455	4,220	126	38	21	92
2	60	10	8	19	40	180	370	1,690	92	32	18	65
3	30	9	7	19	38	142	253	1,600	75	30	16	49
4	21	9	8	18	36	388	191	954	65	28	13	40
5	14	7	8	19	32	400	170	547	60	27	11	32
6	11	6	10	20	30	170	151	455	53	25	55	27
7	9	6	11	21	27	118	142	398	49	23	1,110	21
8	7	6	11	25	25	92	142	370	49	21	151	19
9	6	6	11	21	23	75	3,730	344	3,120	786	60	16
10	6	6	164	20	23	70	17,900	292	1,770	280	40	15
11	5	6	206	19	21	70	27,300	266	328	990	30	14
12	6	6	186	18	21	70	10,700	227	180	255	80	13
13	5	7	86	17	23	70	2,060	202	228	180	27	12
14	5	7	60	18	23	70	975	292	333	98	16	12
15	5	7	47	16	25	439	756	357	318	70	14	12
16	6	7	36	16	23	4,510	515	191	180	53	14	11
17	6	6	30	16	23	1,590	426	151	98	45	14	11
18	6	6	27	16	23	5,480	370	134	86	38	12	10
19	6	7	25	16	25	4,460	530	118	86	36	12	10
20	5	7	23	16	27	1,060	2,340	118	578	34	12	10
21	6	7	23	16	27	1,940	1,490	126	632	28	13	9
22	6	6	21	17	27	6,950	7,120	118	227	27	45	9
23	9	6	27	17	27	3,720	32,100	111	92	25	25	8
24	628	6	20	18	27	923	15,100	98	75	23	18	8
25	180	6	19	20	70	595	2,820	92	180	23	23	8
26	75	7	18	20	40	455	2,720	86	111	105	1,340	7
27	45	7	17	23	32	412	2,980	92	70	92	2,040	7
28	28	7	21	45	199	357	1,050	441	58	47	180	378
29	23	7	21	148	547	318	1,350	266	49	40	86	60
30	19	7	21	70	-	305	5,260	191	42	34	160	38
31	15	-	21	51	-	370	-	191	-	25	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,406	688	5	45.4	2,790
November.....	210	13	6	7.0	417
December.....	1,181	206	7	38.1	2,340
Calendar year 1943.....	190,582	20,400	5	522	378,000
January.....	813	148	16	26.2	1,610
February.....	1,549	547	21	53.4	3,070
March.....	36,264	6,950	70	1,170	71,930
April.....	141,466	32,100	142	4,716	280,600
May.....	14,738	4,220	86	475	29,230
June.....	9,388	3,120	42	313	18,820
July.....	3,566	990	21	115	7,050
August.....	5,740	2,040	11	185	11,390
September.....	1,023	378	7	34.1	2,030
Water year 1943-44.....	217,334	32,100	5	594	431,100

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Verdigris River near Altoona, Kans.

Location.- Water-stage recorder, lat. 37°29', long. 95°41', in SW $\frac{1}{4}$ sec. 29, T. 29 S., R. 16 E., at county highway bridge, 2 $\frac{1}{2}$ miles southwest of Altoona, 2 $\frac{1}{2}$ 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). Prior to Sept. 9, 1944, wire-weight gage at same site and datum.

Drainage area.- 1,150 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge observed during year, 34,200 second-feet Apr. 24 (gage height, 27.70 feet); minimum observed, 1 second-foot Oct. 22.
1939-44: Maximum discharge observed, 41,000 second-feet May 19, 1943 (gage height, 28.35 feet), from rating curve extended above 35,000 second-feet; no flow at times during 1939-41.

Remarks.- Records fair. Some diurnal fluctuation at very low stages caused by power plant above station. Gage read twice daily; oftener during periods of rapidly changing stage Oct. 1 to Sept. 9.

Cooperation.- Gage-height record, 32 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	26	6	25	94	938	485	8,640	201	39	25	220
2	36	21	5	26	102	605	525	9,180	153	44	18	151
3	243	17	5	27	91	329	413	4,860	144	27	13	89
4	93	16	5	28	70	277	316	2,370	117	32	12	64
5	46	11	5	22	57	545	255	1,230	100	30	12	47
6	28	10	5	27	56	437	239	915	37	25	36	44
7	17	7	5	20	50	277	228	605	77	30	376	35
8	12	10	5	20	49	196	226	565	131	25	938	28
9	10	11	5	26	40	161	567	525	755	25	208	24
10	9	13	216	26	41	140	13,900	453	3,470	924	98	21
11	9	10	102	26	34	122	19,300	402	1,280	825	56	17
12	12	11	271	27	34	115	23,400	351	2,995	1,590	52	17
13	10	9	216	24	27	111	15,700	313	316	1,000	31	17
14	9	5	54	21	24	115	4,500	292	313	301	30	16
15	8	6	46	24	41	941	938	307	394	149	16	13
16	6	8	66	24	32	3,190	825	360	326	98	14	13
17	5	19	50	17	35	5,070	668	252	216	72	16	13
18	4	9	46	16	34	11,300	605	210	124	59	14	12
19	3	8	36	14	32	11,300	1,100	198	131	52	10	10
20	5	5	34	21	28	6,010	3,470	410	154	44	10	10
21	3	4	34	22	38	1,540	3,120	802	644	30	11	12
22	2	5	27	13	38	4,700	3,540	233	449	20	11	10
23	88	6	22	11	36	7,600	15,200	198	226	21	11	10
24	201	5	20	16	38	4,470	29,100	159	138	25	82	9
25	668	4	22	25	271	1,100	17,400	133	111	12	84	10
26	231	18	22	34	332	712	8,690	144	316	13	260	10
27	131	18	22	271	208	565	5,700	289	169	13	2,060	18
28	59	7	24	117	455	517	2,560	825	98	118	1,680	4,500
29	56	6	21	124	1,140	469	1,590	917	54	70	271	1,870
30	32	-	24	193	-	461	5,520	758	56	42	377	257
31	31	-	21	131	-	445	-	453	-	40	501	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,207	668	2	71.2	4,380
November.....	311	26	4	10.4	617
December.....	1,442	271	5	46.5	2,860
Calendar year 1943.....	359,233	39,000	2	984	712,600
January.....	1,421	271	11	45.8	2,820
February.....	3,825	1,140	24	122	6,990
March.....	64,758	11,300	111	2,089	128,400
April.....	180,180	29,100	226	6,006	357,400
May.....	37,129	9,180	133	1,198	73,640
June.....	11,054	3,470	54	368	21,930
July.....	5,791	1,590	12	187	11,490
August.....	7,351	2,060	10	236	14,540
September.....	7,567	4,500	9	252	15,010
Water year 1943-44.....	322,716	29,100	2	892	640,100

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944. April to September 1904 (occasional gage readings) and November 1921 to September 1930, at site three-quarters of a mile upstream.

Average discharge.- 23 years (1921-44), 1,563 second-feet.

Extremes.- Maximum discharge during year, 56,300 second-feet Apr. 24 (gage height, 43.70 feet); minimum, 5 second-feet Nov. 25; minimum gage height, 1.44 feet Sept. 25, 26. 1904, 1921-44: Maximum discharge, 114,000 second-feet May 19, 1943 (gage height, 47.60 feet); no flow for periods in 1932, 1934, 1936, 1939, 1940.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	54	17	52	228	2,140	1,410	17,100	1,070	122	72	614
2	454	49	17	52	199	1,320	1,370	22,100	753	109	62	g408
3	196	50	17	57	196	787	1,190	21,800	550	109	a49	a355
4	199	45	18	64	176	598	952	12,600	470	111	a40	a220
5	137	41	22	85	146	751	787	4,560	408	98	a37	a139
6	98	39	38	101	124	971	733	2,810	344	87	68	g101
7	72	31	38	105	107	681	681	a2,240	291	83	111	78
8	52	29	39	90	105	454	681	a1,940	279	78	884	62
9	30	24	46	76	107	347	4,100	a1,690	4,650	85	582	53
10	28	17	130	68	137	288	25,600	a1,600	5,020	140	a234	46
11	30	20	502	72	111	245	48,500	a1,500	3,910	2,460	a124	44
12	37	31	439	68	83	226	46,800	a1,410	1,150	2,240	a87	39
13	41	29	470	58	72	204	35,100	a1,320	1,070	2,140	a67	35
14	44	13	380	55	72	199	23,600	a1,240	1,500	859	a60	33
15	39	12	248	52	76	2,320	7,740	a1,110	971	454	a61	33
16	32	10	163	49	80	5,020	2,630	a1,010	896	291	a48	33
17	30	10	124	49	85	6,300	2,090	a914	598	201	a49	31
18	26	11	103	55	98	13,500	1,790	a841	494	145	a53	30
19	25	18	87	55	92	25,800	2,260	a769	341	115	a49	29
20	18	23	76	50	88	30,600	11,900	a716	323	96	45	26
21	14	17	70	45	87	19,500	8,380	g2,070	383	82	a39	25
22	13	17	62	52	88	11,600	6,720	a1,890	914	73	a31	22
23	19	24	57	57	88	17,400	18,900	a787	582	68	a28	21
24	237	15	52	55	88	13,800	37,000	g582	614	60	a40	19
25	598	11	48	58	153	4,690	41,600	502	341	58	630	18
26	550	14	48	66	614	2,360	28,200	566	305	58	6,450	18
27	242	20	52	676	550	1,840	25,400	1,150	408	54	1,690	54
28	144	25	64	598	828	1,600	16,400	2,580	268	76	3,060	g12,200
29	100	50	64	271	2,410	1,500	5,950	4,170	199	166	990	13,900
30	90	33	57	253	-	1,500	13,200	2,410	153	98	664	2,900
31	68	-	52	300	-	1,410	-	1,410	-	90	990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,817	1,030	14	155	9,550
November.....	782	54	10	26.1	1,550
December.....	3,600	502	17	116	7,140
Calendar year 1943.....	917,322	106,000	10	2,513	1,820,000
January.....	3,744	676	45	121	7,430
February.....	7,291	2,410	72	251	14,460
March.....	169,951	30,600	199	5,482	337,100
April.....	421,664	48,500	681	14,060	836,400
May.....	117,397	22,100	502	3,787	232,800
June.....	29,145	5,020	153	972	57,810
July.....	10,897	2,460	54	352	21,610
August.....	17,394	6,450	28	561	34,500
September.....	31,774	13,900	18	1,059	63,020
Water year 1943-44.....	818,446	48,500	10	2,236	1,623,000

Peak discharge.- Mar. 20 (9:30 a.m.) 31,800 sec.-ft.; Apr. 11 (9 a.m.) 51,700 sec.-ft.; Apr. 12 (8 a.m.) 49,100 sec.-ft.; Apr. 24 (8 p.m.) 56,300 sec.-ft.; May 2 (10 p.m.) 23,900 sec.-ft.; Sept. 28 (7:30 p.m.) 19,100 sec.-ft.

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

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., 2½ miles east of Lenapah and 4½ miles upstream from Cedar Creek. Datum of gage is 644.89 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 1944.

Extremes.- Maximum discharge during year, 64,300 second-feet Apr. 12 (gage height, 36.87 feet); minimum, 18 second-feet Sept. 27 (gage height, 2.70 feet).
1939-44: Maximum discharge, 137,000 second-feet May 20, 1943 (gage height, 40.44 feet, from high-water mark); no flow at times in 1939 and 1940.

Remarks.- Records good except those for period of no gage-height record, which are fair. Some regulation by low-water dams below Independence and Coffeyville, Kans.

Cooperation.- Gage-height record, 40 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,450	121	41	135	346	3,200	1,750	a21,000	1,350	176	102	1,070
2	2,250	104	58	141	343	2,100	1,660	f25,900	932	152	86	585
3	633	82	49	257	320	1,430	1,520	f25,800	633	135	73	403
4	295	76	42	264	300	966	1,300	f23,500	a520	121	60	300
5	238	73	36	472	262	770	1,070	a12,000	a428	126	49	1,620
6	192	69	41	403	223	1,070	932	a5,000	a392	120	44	294
7	143	56	45	262	198	1,070	865	a3,000	a359	107	80	168
8	121	52	48	215	356	741	1,710	a2,500	a328	97	93	123
9	96	48	56	172	541	541	12,900	a2,200	a2,800	93	972	99
10	80	46	352	150	605	450	20,500	2,050	a4,300	88	480	85
11	61	44	633	130	801	389	36,800	1,800	a5,000	723	223	79
12	64	41	655	126	369	366	59,100	1,520	2,700	2,900	144	74
13	964	36	520	116	249	350	61,800	1,300	2,450	2,600	215	63
14	337	32	450	110	215	328	49,100	1,180	2,100	1,300	132	56
15	143	33	372	102	228	2,340	36,200	f1,110	1,480	712	94	49
16	96	40	264	102	248	8,540	12,200	1,150	1,000	413	90	44
17	72	35	196	102	298	6,300	3,300	a1,040	932	279	72	40
18	57	32	162	105	337	7,990	2,600	a865	585	209	56	39
19	49	30	139	110	287	18,000	2,400	a801	425	166	45	38
20	45	30	130	123	259	23,500	7,890	a741	359	132	34	35
21	40	30	118	120	217	26,700	13,300	2,070	337	110	35	30
22	49	32	113	112	211	23,100	8,760	3,000	403	97	32	26
23	3,070	40	104	108	209	15,300	16,300	1,300	932	85	28	24
24	2,900	39	94	108	192	17,200	21,600	a898	1,640	76	30	19
25	633	34	90	125	182	11,000	27,800	832	1,120	70	228	19
26	823	33	86	150	242	3,500	48,600	1,690	438	66	6,340	18
27	520	33	90	1,090	633	2,500	43,900	2,620	343	64	7,990	210
28	308	32	121	1,840	990	2,050	35,400	2,800	389	66	2,800	13,700
29	219	30	141	712	4,000	1,900	f27,200	f5,000	274	63	2,600	23,500
30	172	33	144	406	-	1,900	a16,000	4,500	217	120	1,890	13,800
31	141	-	144	340	-	1,900	-	2,200	-	135	1,430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	17,261	3,070	40	557	34,240
November.....	1,418	121	30	47.3	2,810
December.....	5,594	685	36	180	11,100
Calendar year 1943.....	1,276,562	134,000	20	3,497	2,532,000
January.....	8,708	1,840	102	281	17,270
February.....	13,619	4,000	182	470	27,010
March.....	187,491	26,700	328	6,048	371,900
April.....	573,447	61,800	865	19,110	1,137,000
May.....	162,267	25,900	741	5,234	321,900
June.....	35,169	5,000	217	1,172	69,760
July.....	12,101	2,900	63	390	24,000
August.....	26,545	7,990	28	856	52,650
September.....	56,610	23,500	18	1,587	112,300
Water year 1943-44.....	1,100,230	61,800	18	3,006	2,182,000

Peak discharge.- Mar. 22 (12:30 a.m.) 27,600 sec.-ft.; Apr. 12 (4 p.m.) 64,300 sec.-ft.; Apr. 26 (3:30 p.m.) 53,500 sec.-ft.; May 2 (10 p.m.) 26,000 sec.-ft.; Sept. 29 (12 m.) 23,900 sec.-ft.

a No gage-height record; discharge computed from estimated gage heights, rainfall records, or on basis of records for stations near Independence and Sageeyah.

f Computed from partly estimated gage heights.

Time basis.- Central war time. To convert war time to standard time, subtract 1 hour.

Verdigris River near Sageeyah, Okla.

Location.- Water-stage recorder, lat. 36°23', long. 95°40', in SW¼ sec. 13, T. 22 N., R. 15 E., at Missouri Pacific Railroad bridge, 1½ miles downstream from Sweetwater Creek, 1½ miles northwest of Sageeyah, and 5½ miles upstream from Caney River. Datum of gage is 550.97 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 4,340 square miles.

Records available.- January 1939 to September 1944. Gage-height records collected at same site since 1927 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 59,100 second-feet Apr. 15 (gage height, 43.28 feet); minimum, 31 second-feet Sept. 27 (gage height, 3.08 feet).
1939-44: Maximum discharge, 138,000 second-feet May 21, 1943 (gage height, 51.54 feet); no flow at times in 1939 and 1940.
Maximum stage known, that of May 21, 1943.

Remarks.- Records good.

Cooperation.- Gage-height record, 71 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,470	204	43	482	563	4,560	2,240	23,900	2,340	395	92	1,600
2	2,240	167	41	445	554	3,390	2,080	22,700	1,660	253	136	1,150
3	al,760	146	43	659	654	2,380	1,940	29,700	1,250	217	112	722
4	797	133	44	825	621	1,730	1,800	29,100	941	214	90	503
5	414	124	52	686	532	1,290	1,560	26,700	770	195	84	1,020
6	294	107	68	769	454	1,090	1,320	12,900	650	158	80	1,720
7	245	a92	63	741	380	1,350	1,190	4,840	571	150	173	552
8	195	a96	59	532	3,570	1,320	1,320	3,050	492	146	74	279
9	156	a72	67	409	6,080	1,000	13,200	2,580	4,370	133	61	192
10	133	a68	802	327	2,010	769	19,000	2,340	4,250	119	490	148
11	112	a65	2,310	316	1,870	637	25,500	2,120	6,300	124	603	136
12	133	a61	1,290	283	1,350	552	26,900	1,920	5,620	472	320	233
13	939	a58	1,060	249	826	496	32,000	1,660	11,300	2,270	200	241
14	1,590	b58	741	235	616	468	44,200	1,540	4,920	2,270	156	146
15	708	a58	664	216	600	10,100	57,900	1,420	2,460	1,540	206	105
16	367	a56	526	204	1,000	19,200	52,700	1,340	1,720	943	146	84
17	245	52	388	204	1,220	10,300	40,300	1,510	1,250	516	116	70
18	170	51	297	242	1,190	7,080	10,100	1,220	1,070	353	114	61
19	131	51	242	280	911	10,800	3,020	1,070	770	273	90	56
20	103	51	207	280	797	18,800	2,960	966	650	214	72	51
21	90	51	195	266	714	23,600	9,860	991	486	179	61	46
22	78	49	184	252	632	26,200	14,000	1,830	427	150	58	43
23	3,670	46	170	225	578	26,100	14,100	3,080	419	128	52	40
24	11,600	44	156	207	511	18,700	17,900	1,540	941	116	48	35
25	3,210	43	143	207	450	17,800	22,200	1,020	2,100	105	52	34
26	1,090	43	141	238	409	10,400	25,200	2,940	1,170	101	156	32
27	1,030	48	167	1,480	388	3,680	31,100	3,250	571	96	7,880	37
28	825	49	610	2,870	1,160	2,700	35,900	3,590	391	90	6,000	5,890
29	501	48	769	2,080	4,290	2,460	39,500	6,800	435	80	2,220	19,200
30	351	46	594	1,120	-	2,310	39,500	6,800	376	74	2,270	23,400
31	269	-	542	741	-	2,310	-	5,720	-	70	3,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	37,916	11,600	78	1,223	75,210
November	2,227	204	43	74.2	4,420
December	12,678	2,510	41	409	25,150
Calendar year 1943	1,661,375	129,000	24	4,552	3,295,000
January	18,069	2,870	204	583	35,840
February	34,959	6,080	380	1,205	69,340
March	233,572	26,200	468	7,535	463,300
April	590,290	57,900	1,190	19,680	1,171,000
May	210,027	29,700	966	6,775	436,500
June	60,660	11,300	376	2,022	120,300
July	12,044	2,270	70	389	23,890
August	25,892	7,880	48	835	51,360
September	57,831	23,400	32	1,928	114,700
Water year 1943-44	1,296,165	57,900	32	3,541	2,571,000

a No gage-height record; discharge computed from estimated gage-height graph.
h Computed from reading of gage in well.

Note.- Stage-discharge relation affected by variable slope Oct. 23-25, Mar. 15-26, Apr. 10 to May 7, June 9-15, Sept. 28-30; discharge computed on basis of loop curves defined by measurements, by using rate of change of stage as a factor, or by using fall to station near Claremore as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Verdigris River near Claremore, Okla.

Location.- Water-stage recorder, lat. 36°18'30", long. 95°41'40", in SE¼SW¼ sec. 10, T. 21 N., R. 15 E., at bridge on State Highway 20, 2½ miles downstream from Caney River, 4½ miles west of Claremore, and 12 miles upstream from Bird Creek. Datum of 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 1944.

Extremes.- Maximum discharge during year, 85,200 second-feet Apr. 13 (gage height, 47.23 feet); minimum, 31 second-feet Sept. 26, 27 (gage height, 3.97 feet).

1935-44: Maximum discharge, 182,000 second-feet May 21, 1943 (gage height, 55.05 feet); no flow at times.

Maximum stage known, that of May 21, 1943.

Remarks.- Records good.

Discharge in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,280	337	60	728	878	5,540	2,650	k32,500	4,000	550	116	2,560
2	3,760	278	58	666	832	4,450	2,560	k33,000	2,420	407	135	1,670
3	3,260	233	58	862	878	3,180	2,320	k34,700	1,770	323	141	988
4	1,970	214	58	1,090	870	2,270	2,120	k35,100	1,290	291	118	693
5	786	162	66	878	743	1,670	1,820	k34,600	1,080	274	116	1,240
6	473	159	84	902	652	1,420	1,570	k25,700	878	299	116	4,300
7	361	144	82	941	586	1,520	1,380	k12,400	779	211	324	2,120
8	274	126	77	786	3,340	1,520	1,420	k5,390	659	200	318	638
9	221	116	91	g652	8,210	1,200	k15,100	3,760	4,960	196	121	376
10	189	106	809	g632	2,920	973	k22,500	3,350	6,680	200	358	261
11	156	96	3,260	502	2,420	824	k31,600	3,010	8,300	203	666	241
12	182	91	2,220	456	1,720	774	k51,900	2,740	6,940	286	376	371
13	860	89	1,570	429	1,120	693	c82,800	2,420	k14,200	2,320	233	314
14	1,870	82	1,110	412	847	673	c72,000	2,170	k11,800	2,270	166	203
15	902	75	894	387	809	k9,030	c71,000	1,920	k6,250	1,720	196	138
16	473	70	693	332	1,190	k25,300	c64,000	1,670	3,350	996	163	113
17	323	70	531	314	1,380	k20,500	c50,100	1,620	1,970	645	118	89
18	237	68	429	361	1,340	k15,400	c22,300	1,570	1,470	487	123	75
19	189	64	361	560	1,090	k11,500	c6,210	1,340	1,110	342	116	68
20	156	66	314	574	933	k18,700	c4,980	1,180	g878	269	93	62
21	126	68	291	502	933	k23,900	k12,600	1,380	g728	221	77	54
22	123	66	269	445	794	k26,300	k17,000	2,610	580	182	72	47
23	k2,130	62	253	397	736	k27,000	k17,000	4,680	693	a160	70	42
24	k14,900	58	229	366	686	k23,100	k19,600	2,740	1,080	a146	62	35
25	k8,730	57	218	357	626	k20,400	k24,400	1,520	1,590	a137	62	32
26	k2,300	55	200	392	568	k12,000	k28,600	4,150	1,380	a129	105	32
27	1,380	58	221	1,960	525	k4,430	k31,200	4,150	801	a123	6,130	73
28	1,060	64	816	4,000	1,140	3,260	k32,800	4,450	673	a118	7,440	k5,990
29	707	64	1,060	2,830	4,680	2,920	k35,000	7,870	619	a114	3,680	k22,700
30	513	60	854	1,770	-	2,740	k36,200	9,230	531	113	2,650	k27,900
31	412	-	779	1,170	-	2,740	-	8,650	-	113	3,180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	56,203	14,900	123	1,813	111,500
November.....	3,277	337	58	109	6,500
December.....	18,015	3,260	58	681	36,730
Calendar year 1943.....	2,302,081	181,000	28	6,307	4,566,000
January.....	26,643	4,000	314	859	52,850
February.....	45,446	8,210	525	1,498	86,170
March.....	274,003	27,000	673	5,939	545,500
April.....	765,330	82,800	1,380	25,510	1,518,000
May.....	291,570	35,100	1,180	9,405	578,300
June.....	89,469	14,200	531	2,982	177,400
July.....	15,955	2,320	113	450	27,680
August.....	27,641	7,440	62	892	54,830
September.....	73,425	27,900	32	2,448	145,600
Water year 1943-44.....	1,682,967	82,800	32	4,598	3,338,000

a No gage-height record; discharge computed on basis of records for station near Sageyah.

c Backwater from return of overbank flow; discharge computed from curve based on discharge measurements made following floods exceeding bankfull stage.

g Computed from graph based on once-daily wire-weight gage readings.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fall River at Fredonia, Kans.

Location.- Wire-weight gage, lat. $37^{\circ}30'30''$, long. $95^{\circ}50'00''$, 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 1944.

Extremes.- Maximum discharge observed during year, 38,800 second-feet Apr. 23 (gage height, 33.29 feet); minimum observed, 4 second-feet Nov. 5. 1939-44: Maximum discharge observed, that of Apr. 23, 1944; no flow at times during 1939-41.

Remarks.- Records fair. Gage read twice daily; oftener during periods of rapidly changing stage.

Cooperation.- Gage-height record, 28 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	14	7	13	28	204	484	6,260	272	38	17	96
2	20	6	7	13	24	121	390	6,690	204	38	15	54
3	23	6	7	13	22	104	330	3,730	154	38	413	40
4	30	5	7	16	21	191	286	1,700	143	a35	11	29
5	22	4	8	14	19	258	272	994	128	31	10	21
6	17	5	10	14	16	154	258	780	113	a27	13	19
7	17	6	10	13	19	113	244	662	100	24	11	15
8	14	5	10	13	16	73	230	588	441	21	6	14
9	12	6	14	13	13	66	2,070	552	1,080	24	11	13
10	16	10	38	14	14	62	17,100	484	828	91	22	12
11	11	9	59	13	10	66	23,900	420	286	906	17	12
12	10	8	80	13	10	59	10,700	390	204	484	11	11
13	9	9	56	12	10	46	1,700	360	258	204	8	11
14	8	9	32	12	12	60	1,170	330	258	108	10	11
15	12	9	24	12	12	286	906	316	204	73	8	10
16	8	10	24	12	12	1,130	740	301	143	46	8	9
17	7	7	20	12	14	1,300	624	258	104	38	8	8
18	7	6	19	12	12	10,800	552	217	80	33	8	8
19	7	6	16	13	14	17,700	1,240	204	84	29	7	8
20	7	6	16	14	15	2,940	2,350	191	80	24	6	8
21	6	7	15	13	15	1,710	1,130	484	96	20	9	7
22	7	7	14	14	15	8,900	3,860	230	96	20	8	8
23	19	8	14	14	17	5,550	27,300	191	76	19	9	8
24	10	6	14	14	16	1,320	19,100	166	67	19	78	8
25	10	7	13	14	78	1,170	2,050	154	59	20	174	7
26	9	6	12	15	41	700	3,980	143	52	17	301	8
27	12	6	11	32	32	588	3,750	401	62	19	204	15
28	21	7	14	23	122	518	1,420	1,220	52	19	125	2,200
29	13	6	14	21	484	484	1,370	1,480	42	18	90	906
30	10	7	13	34	-	452	6,020	518	40	18	78	204
31	12	-	14	37	-	484	-	452	-	19	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	405	30	5	13.1	803
November.....	213	14	4	7.1	422
December.....	613	80	7	19.8	1,220
Calendar year 1943.....	219,019	29,200	1	600	434,400
January.....	492	37	12	15.9	976
February.....	1,133	484	10	39.1	2,250
March.....	57,509	17,700	46	1,855	114,100
April.....	135,506	27,300	230	4,517	268,800
May.....	30,866	6,690	143	996	61,220
June.....	5,806	1,080	40	194	11,520
July.....	2,520	906	17	81.3	5,000
August.....	1,396	301	6	45.0	2,770
September.....	3,680	2,200	7	123	7,300
Water year 1943-44.....	240,139	27,300	4	656	476,400

a No gage-height record; discharge interpolated.

d Doubtful gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Elk River near Elk City, Kans.

Location.- Wire-weight gage, lat. 37°16', long. 95°55', in NE¼ sec. 18, T. 32 S., R. 14 E., 150 feet downstream from Salt Creek and 1½ miles south of Elk City. Datum of gage is 795.80 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 577 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge during year, 32,200 second-feet Apr. 10 (gage height, 27.22 feet); minimum, 1 second-foot Oct. 17-22, Sept. 15-27.
1939-44: Maximum discharge, 35,000 second-feet May 19, 1943 (gage height, 27.60 feet from graph based on gage readings), from rating curve extended on basis of rain-fall runoff studies; no flow at many times.

Remarks.- Records fair. Gage read twice daily, oftener during flood periods.

Cooperation.- Gage-height records, 32 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	4	3	6	18	205	179	4,230	154	16	4	26
2	38	3	3	7	16	103	154	5,200	116	15	4	23
3	18	3	3	7	14	82	132	3,870	89	12	3	20
4	16	3	3	8	11	73	114	1,200	71	11	3	12
5	12	3	4	11	10	143	105	595	60	10	3	10
6												
7	6	3	5	13	9	87	99	452	53	9	2	8
8	5	2	5	10	8	57	94	353	44	7	3	6
9	4	2	5	9	8	42	89	290	39	6	3	6
10	3	2	6	9	7	37	2,520	275	2,450	7	2	4
11												
12	3	2	64	8	6	24	17,200	218	124	116	2	3
13	3	2	36	8	6	23	1,450	179	116	246	4	2
14	3	2	36	7	6	21	668	166	654	82	10	2
15	2	2	25	6	6	21	452	143	452	39	4	2
16												
17	2	2	17	6	6	563	353	130	166	26	3	1
18	2	11	6	7	7	942	290	114	98	18	3	1
19	1	9	7	8	8	290	218	103	70	13	3	1
20	1	8	7	7	7	8,310	205	96	50	11	3	1
21	1	7	7	7	7	7,960	2,230	86	41	9	3	1
22	1	6	6	7	7	967	5,230	156	41	8	3	1
23	1	3	5	6	8	1,290	745	1,150	39	7	4	1
24	1	4	5	6	8	6,700	4,040	443	38	6	3	1
25	44	3	5	6	7	1,120	13,500	132	34	6	2	1
26	37	3	5	7	7	523	7,120	98	67	6	10	1
27	16	3	5	7	50	337	785	87	44	6	18	1
28	8	3	5	8	58	260	4,910	98	35	6	1,040	1
29	5	3	5	47	218	6,490	450	26	5	116		1
30	4	3	7	34	408	192	910	1,620	23	4	47	5,360
31	4	3	7	18	452	192	1,860	1,400	20	4	25	1,100
32	5	3	7	34	-	218	6,970	523	18	4	52	166
33	5	-	6	25	-	205	-	321	-	4	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	436	181	1	14.1	865
November.....	80	4	2	2.7	169
December.....	405	87	3	13.1	803
Calendar year 1943	179,676	28,000	1	492	356,400
January.....	354	47	6	11.4	702
February.....	1,259	452	6	43.4	2,500
March.....	31,233	8,310	21	1,008	61,950
April.....	102,012	22,900	89	3,400	202,300
May.....	24,338	5,200	86	785	48,270
June.....	5,569	2,450	18	186	11,050
July.....	728	246	4	23.5	1,440
August.....	1,423	1,040	2	45.9	2,820
September.....	6,765	5,360	1	226	13,420
Water year 1943-44	174,602	22,900	1	477	346,300

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Caney River near Elgin, Kans.

Location.- Water-stage recorder, lat. $37^{\circ}00'$, long. $96^{\circ}19'$, in $SE\frac{1}{4}$ sec. 16, T. 35 S., R. 10 E., 2 miles west of Elgin. Datum of gage is 763.32 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 434 square miles.

Records available.- May 1939 to September 1944.

Extremes.- Maximum discharge during year, 35,500 second-feet Apr. 10 (gage height, 29.80 feet), from rating curve extended above 17,000 second-feet on basis of slope-area computation and rainfall studies; minimum, 1 second-foot on several days in October, November, and September.

1939-44: Maximum discharge, that of Apr. 10, 1944; no flow at many times.

Remarks.- Records fair.

Cooperation.- Gage-height record, 33 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	3	3	7	20	110	150	1,470	94	19	3	42
2	7	2	3	7	21	77	131	954	86	17	3	28
3	6	2	3	8	20	70	113	2,400	75	16	2	17
4	5	2	3	8	19	67	103	755	70	15	2	11
5	5	2	4	10	18	63	97	566	65	13	2	9
6	5	2	5	10	15	58	89	469	60	11	2	5
7	5	2	5	10	14	53	86	416	55	11	2	3
8	4	2	6	17	14	47	2,190	363	55	11	3	3
9	3	2	7	20	14	42	9,980	322	97	10	4	2
10	2	2	13	19	15	40	25,500	288	89	14	5	2
11	2	2	16	18	13	40	2,640	252	70	20	5	2
12	2	2	13	15	12	40	1,010	214	469	89	5	2
13	1	1	12	17	12	40	694	189	294	47	4	2
14	1	1	12	17	12	38	541	176	199	28	4	2
15	2	1	10	15	11	72	438	167	110	19	3	2
16	2	1	7	15	12	322	342	138	77	14	3	1
17	2	1	6	15	13	199	288	120	60	11	3	1
18	2	2	5	16	13	1,120	252	103	53	10	3	1
19	2	2	6	17	12	627	1,950	92	95	9	2	1
20	2	2	4	17	12	308	2,740	120	169	8	2	1
21	2	2	4	17	12	963	656	229	63	7	3	1
22	3	2	4	17	12	2,760	3,360	138	44	7	3	1
23	8	2	4	17	11	638	8,830	117	34	6	3	1
24	11	2	4	16	11	438	1,170	94	83	5	3	1
25	10	2	3	15	11	328	806	86	63	6	4	1
26	7	2	3	15	15	252	3,170	92	39	7	274	1
27	5	2	4	26	13	224	1,740	276	31	7	86	3
28	3	3	6	22	25	199	827	857	26	6	44	8,260
29	2	3	7	22	67	184	2,190	219	24	5	21	567
30	5	3	7	25	-	180	3,250	142	21	4	70	224
31	4	-	7	22	-	171	-	113	-	4	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	131	11	1	4.2	260
November.....	59	3	1	2.0	117
December.....	195	16	3	6.3	387
Calendar year 1943.....	97,853	23,400	1	268	194,100
January.....	494	26	7	15.9	980
February.....	469	67	11	16.2	930
March.....	9,770	2,760	38	31.5	19,380
April.....	75,333	25,500	86	2,511	149,400
May.....	11,337	2,400	86	365	23,680
June.....	2,759	469	21	92.0	5,470
July.....	456	69	4	14.7	904
August.....	667	274	2	21.5	1,320
September.....	9,197	8,260	1	307	18,240
Water year 1943-44.....	111,467	25,500	1	305	221,100

Peak discharge.- Apr. 9 (3:15 a.m.) 23,600 sec.-ft.; Apr. 10 (10 a.m.) 35,500 sec.-ft.; Apr. 23 (2:15 a.m.) 17,700 sec.-ft.; Sept. 28 (11 a.m.) 17,800 sec.-ft.

Notes.- Sluggish intake action May 15-26; discharge computed on basis of outside gage readings, rainfall records, and shape of recorder graph.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Caney River near Hulah, Okla.

Location.- Water-stage recorder, lat. 36°56', long. 96°05', in SE $\frac{1}{4}$ sec. 2, T. 28 N., R. 11 E.; half a mile downstream from Hickory Creek and 3 miles west of Hulah. Datum of gage is 684.96 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 750 square miles.

Records available.- October 1937 to September 1944.

Extremes.- Maximum discharge during year, 51,000 second-feet Apr. 10 (gage height, 39.45 feet); minimum, 2 second-feet Sept. 20-28.

1937-44: Maximum discharge, that of Apr. 10, 1944; no flow at times in 1939 and 1940.

Maximum stage known, 40.2 feet, date unknown, from floodmark, from information by Corps of Engineers, U. S. Army.

Remarks.- Records fair.

Cooperation.- Gage-height record, 44 discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	242	5	4	14	44	176	216	2,560	146	23	8	80
2	85	5	5	14	43	152	188	3,590	117	20	6	40
3	31	6	5	15	43	122	158	4,030	96	18	5	26
4	17	5	5	18	43	106	140	1,690	82	17	4	270
5	13	6	6	29	40	97	134	774	72	16	4	192
6	9	6	8	46	36	85	125	632	65	15	4	18
7	7	5	8	47	32	76	114	542	59	13	5	12
8	6	4	7	40	30	70	232	469	54	12	5	8
9	6	4	11	b40	29	60	k16,400	413	540	12	4	7
10	5	3	31	40	31	58	k31,900	374	189	13	4	5
11	5	4	100	*36	29	55	e22,700	324	121	17	4	4
12	5	3	66	36	28	55	e4,280	278	737	31	5	3
13	5	3	43	b55	27	54	e1,030	242	935	94	9	3
14	4	4	33	b30	26	54	e41	841	218	45	8	3
15	3	4	27	29	26	534	662	194	210	54	5	3
16	3	4	22	29	26	926	512	167	139	26	4	3
17	3	3	17	29	26	416	427	154	98	22	4	3
18	3	3	15	31	27	249	374	139	75	20	4	3
19	3	3	14	*32	29	1,420	710	125	62	17	3	3
20	3	3	13	34	28	392	5,700	424	171	16	3	2
21	3	4	13	34	26	308	1,650	879	157	14	3	2
22	3	4	12	34	26	3,730	1,280	276	85	12	4	2
23	34	4	11	31	26	1,570	8,870	186	54	11	3	2
24	62	4	11	30	26	604	4,740	146	53	10	3	2
25	44	4	10	31	26	445	1,110	117	103	10	8	2
26	30	4	10	31	26	331	1,500	117	61	10	79	2
27	20	10	84	25	281	4,300	231	44	9	234	7	
28	16	4	13	140	53	281	1,140	1,030	38	9	58	5,430
29	12	4	14	77	223	237	1,220	586	34	9	31	6,470
30	9	4	14	58	-	258	6,600	439	29	8	306	862
31	6	-	*13	53	-	258	-	186	-	8	157	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	697	242	3	22.5	1,380
November.....	123	6	3	4.1	244
December.....	571	100	4	18.4	1,130
Calendar year 1943.....	166,698	28,000	2	457	330,600
January.....	1,227	140	14	39.6	2,430
February.....	1,100	223	25	37.9	2,180
March.....	13,430	3,730	54	433	26,640
April.....	119,313	31,900	114	3,977	236,700
May.....	21,532	4,030	117	695	42,710
June.....	5,081	935	29	169	10,080
July.....	595	94	8	19.2	1,180
August.....	984	306	3	31.7	1,950
September.....	13,469	6,470	2	449	26,720
Water year 1943-44.....	178,122	31,900	2	487	353,800

Peak discharge.- Apr. 10 (5 p.m.) 51,000 sec.-ft.; Apr. 20 (10:30 a.m.) 6,490 sec.-ft.; Apr. 23 (5 p.m.) 11,700 sec.-ft.; Apr. 27 (7 a.m.) 5,650 sec.-ft.; Apr. 30 (11:30 a.m.) 7,670 sec.-ft.; Sept. 28 (11:30 p.m.) 10,200 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Stage-discharge relation indefinite; discharge computed from hydrograph drawn on basis of discharge measurements.

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

Note.- Computed from graph based on twi36-daily readings of wire-weight gage Oct. 4-22, Oct. 27 to Nov. 18, May 3-15, June 23-27, Aug. 1-25, Sept. 9-27.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bird Creek near Sperry, Okla.

Location.- Water-stage recorder, lat. $36^{\circ}17'$, long. $95^{\circ}57'$, on line between secs. 20 and 28, T. 21 N., R. 13 W., at bridge on county highway, $1\frac{1}{2}$ miles upstream from Delaware Creek, 2 miles downstream from Hominy Creek, and $2\frac{1}{2}$ miles southeast of Sperry. Datum of gage is 579.43 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 922 square miles.

Records available.- March 1939 to September 1944.

Extremes.- Maximum discharge during year, 22,000 second-feet Apr. 11 (gage height, 28.22 feet); minimum, 3.8 second-feet Sept. 26 (gage height, 1.11 feet).

1939-44: Maximum discharge, 86,500 second-feet May 18, 1943 (gage height, 31.68 feet); no flow Sept. 13 to Oct. 28, 1939.

Maximum stage known, that of May 18, 1943.

Remarks.- Records good.

Rating table, water year 1943-44 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Dec. 13-27)

1.1	3.0	2.3	272	9.0	3,110
1.2	10	2.6	398	12.0	4,620
1.3	20	3.0	608	15.0	6,500
1.5	50	4.0	1,220	19.0	9,620
1.7	91	5.0	1,668	23.0	13,000
2.0	172	7.0	2,590	26.0	16,500

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,540	45	12	135	124	472	223	1,790	236	165	16	50
2	1,080	40	12	124	106	311	188	5,890	200	272	10	38
3	254	34	12	119	101	210	149	3,390	139	143	8.2	45
4	130	30	12	150	96	152	121	948	101	68	7.5	60
5	82	27	14	152	84	121	101	492	78	43	6.0	1,690
6	55	26	16	121	73	104	89	299	65	32	6.8	1,280
7	42	23	16	108	65	96	84	223	51	27	366	261
8	32	20	16	101	547	78	446	184	50	20	652	116
9	27	18	34	89	722	65	1,130	163	675	18	188	68
10	23	16	280	89	362	57	5,550	149	885	14	78	45
11	20	16	1,820	82	311	51	15,900	135	240	16	45	270
12	26	16	853	73	1,184	46	10,800	121	158	16	30	73
13	338	14	299	65	1,132	45	1,240	111	2,480	73	20	34
14	342	14	178	61	116	43	508	98	3,860	48	14	23
15	101	14	119	57	119	3,260	353	86	929	28	12	18
16	55	14	82	51	119	12,300	272	75	340	20	10	14
17	37	14	61	106	106	4,170	223	65	197	18	16	12
18	28	14	48	84	96	747	191	57	143	16	14	9.8
19	23	12	40	181	82	451	169	51	106	16	10	9.0
20	20	12	34	203	82	1,010	1,420	51	82	14	9.0	8.2
21	18	12	31	166	78	1,480	1,420	964	71	10	7.5	6.8
22	48	12	30	158	75	1,600	497	1,540	67	9.0	6.8	6.0
23	1,350	10	27	104	71	1,680	352	432	51	8.2	6.8	5.2
24	7,370	10	26	84	65	632	336	206	42	7.5	6.8	4.5
25	2,000	12	24	80	63	371	258	233	37	6.8	15	4.5
26	336	10	22	78	57	272	194	574	31	7.5	59	4.5
27	178	10	39	530	53	220	158	2,190	26	6.8	53	622
28	119	10	194	704	164	181	138	3,490	23	14	28	1,870
29	86	10	276	497	540	203	143	1,580	20	14	28	6,740
30	66	12	206	250	166	240	1,350	486	20	40	42	1,720
31	55	-	160	166	-	229	-	288	-	26	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	17,883	7,370	18	577	0.626	0.72	35,470
November	827	45	10	17.6	.019	.02	1,050
December	4,993	1,820	12	161	.175	.20	9,900
Calendar year 1943	395,515.4	73,700	2.2	1,064	1.18	15.95	784,500
January	4,895	704	51	158	.171	.20	9,710
February	4,783	722	53	165	.179	.19	9,510
March	30,897	12,300	43	997	1.08	1.25	61,290
April	45,983	15,900	84	1,466	1.59	1.77	87,240
May	26,331	5,890	51	849	.921	1.06	52,230
June	11,402	3,860	20	380	.412	.46	22,620
July	1,216.8	272	6.8	39.3	.043	.05	2,410
August	1,846.4	652	6.0	59.6	.065	.07	3,660
September	15,107.5	6,740	4.5	504	.547	.61	29,970
Water year 1943-44	163,874.7	15,900	4.5	448	.486	6.60	325,000

Peak discharge.- Mar. 16 (8:30 a.m.) 13,500 sec.-ft.; Apr. 11 (7 p.m.) 22,000 sec.-ft.
A No. gage-height record; discharge computed from gage-height graph estimated on basis of recorded range in stage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River at Council Grove, Kans.

Location.- Water-stage recorder above spillway of city dam, lat. 38°40', long. 96°30', in NW $\frac{1}{4}$ 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 Mozler Creek (corrected) and 1 mile upstream from Elm Creek. Datum of gage is 1,205.63 feet above mean sea level (levels of Corps of Engineers, U. S. Army).

Drainage area.- 265 square miles.

Records available.- November 1938 to September 1944.

Extremes.- 1942-43: Maximum discharge during water year, 24,400 second-feet June 6 (gage height, 28.20 feet); minimum, 2 second-feet Sept. 18-22, 27, 28.

1943-44: Maximum discharge during water year, 33,800 second-feet May 3 (gage height, 30.00 feet); minimum, 1 second-foot Oct. 14-16.

1938-44: Maximum discharge, 44,600 second-feet Oct. 20, 1941 (gage height, 37.13 feet); 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.- Gage height records, 52 discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, 1942-44

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	26	15	285	35	30	23	21	30	481	20	4
2	8	26	15	650	37	28	23	21	26	1,980	31	4
3	1,790	24	14	231	1,450	27	22	21	23	1,175	20	4
4	386	24	14	113	259	27	23	21	22	112	19	4
5	96	24	14	96	117	27	22	21	22	90	18	4
6	60	24	14	87	87	26	22	178	22	76	17	8
7	39	24	14	74	66	24	23	55	21	70	17	7
8	28	24	14	63	50	28	24	26	316	63	16	5
9	24	24	14	50	50	33	26	28	601	60	16	4
10	23	21	14	50	44	44	26	151	3,680	56	16	4
11	22	19	14	46	35	46	30	46	564	52	36	4
12	21	19	14	42	37	46	66	30	159	47	20	4
13	19	19	14	39	35	46	48	26	100	46	17	4
14	18	19	14	39	31	44	28	23	77	45	14	3
15	17	19	14	42	30	39	24	180	504	44	12	3
16	17	18	17	44	30	33	23	132	13,800	128	11	3
17	18	17	72	33	27	31	21	142	920	148	11	3
18	150	16	248	31	27	31	21	132	304	67	11	2
19	309	16	77	31	28	31	19	155	205	79	11	2
20	80	16	58	31	31	31	19	103	147	55	10	2
21	46	17	46	35	31	30	21	55	120	43	9	2
22	37	17	42	44	31	30	21	44	3,830	35	8	2
23	33	17	60	50	31	30	22	37	554	30	8	6
24	31	17	63	46	30	30	22	273	197	22	7	8
25	30	18	50	46	30	30	26	151	134	20	6	5
26	28	16	2,050	44	30	31	37	58	106	20	5	4
27	28	15	1,410	44	30	30	31	42	88	19	5	2
28	28	15	205	35	30	28	26	37	243	19	5	2
29	28	15	140	35	-	28	23	33	146	19	5	3
30	28	15	121	35	-	27	22	31	81	18	5	6
31	26	-	121	35	-	24	-	33	-	18	4	-

Peak discharge.- Oct. 3 (5:30 p.m.) 3,850 sec.-ft.; Dec. 26 (10:30 p.m.) 5,950 sec.-ft.; June 11 (12 m.) 7,340 sec.-ft.; June 16 (6:30 a.m.) 24,400 sec.-ft.; June 22 (6:30 p.m.) 9,050 sec.-ft.; July 2 (3 a.m.) 6,080 sec.-ft.

ARKANSAS RIVER BASIN

Discharge, in second-feet, of Neosho River at Council Grove, Kans., 1942-44--Continued
1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	3	4	4	16	10	154	432	46	28	21	39
2	5	3	4	5	15	10	117	482	42	27	14	37
3	4	3	4	6	13	11	94	12,600	37	22	12	e34
4	3	3	4	6	11	645	88	676	37	21	11	e31
5	3	3	4	5	10	128	83	386	146	18	10	e28
6	3	3	5	4	9	380	79	299	46	17	66	25
7	2	3	5	4	9	120	79	258	39	17	59	23
8	2	3	5	4	9	57	77	225	39	17	17	22
9	2	3	5	4	9	45	1,440	201	91	26	16	22
10	2	3	8	4	10	44	3,660	180	63	23	13	21
11	2	3	9	4	9	43	1,250	159	46	23	12	21
12	2	3	8	4	9	45	308	143	39	24	11	20
13	2	3	7	4	9	46	209	132	49	21	10	20
14	1	3	6	4	9	100	178	121	3,160	17	10	19
15	1	3	5	4	9	4,320	157	113	192	17	10	19
16	1	3	4	8	9	653	138	100	103	122	12	20
17	2	3	4	15	9	213	123	90	72	195	12	21
18	2	3	4	118	9	141	160	83	58	35	10	19
19	2	3	4	128	8	120	520	77	48	23	10	16
20	2	4	4	62	8	123	1,920	72	46	21	12	17
21	2	4	4	40	8	120	1,340	72	48	18	12	21
22	2	3	4	28	9	2,160	12,800	66	42	17	10	27
23	9	3	4	20	9	1,900	5,760	63	37	17	10	28
24	43	3	4	19	8	327	1,110	58	31	29	9	28
25	20	3	4	18	8	205	476	52	31	95	389	32
26	14	4	4	17	7	258	5,680	52	27	55	6,360	30
27	6	4	4	17	7	190	1,540	69	26	24	292	35
28	5	4	4	18	8	144	491	140	24	17	110	1,010
29	4	4	4	28	10	123	795	90	23	14	72	116
30	4	4	4	20	-	123	1,980	69	23	19	58	32
31	3	-	4	18	-	131	-	55	-	46	48	-

Peak discharge.- Mar. 15 (10 a.m.) 7,840 sec.-ft.; Apr. 22 (10 p.m.) 17,600 sec.-ft.; Apr. 26 (5 p.m.) 10,700 sec.-ft.; May 3 (4 a.m.) 33,800 sec.-ft.; June 14 (8:30 a.m.) 7,910 sec.-ft.; Aug. 26 (9 a.m.) 12,300 sec.-ft.

e Stage-discharge relation indefinite; discharge interpolated.

Note.- No gage-height record Dec. 14 to Jan. 2, Jan. 5-15; discharge computed on basis of 3 discharge measurements.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942.....	3,476	1,790	8	112	6,890
November.....	581	26	15	19.4	1,150
December.....	4,992	2,050	14	161	9,900
Calendar year 1942.....	47,865	8,560	5	131	94,920
January 1943.....	2,526	650	31	81.5	5,010
February.....	2,779	1,450	27	99.2	5,510
March.....	990	46	24	31.9	1,960
April.....	784	66	19	26.1	1,560
May.....	2,306	273	21	74.4	4,570
June.....	27,042	13,800	21	901	53,640
July.....	4,136	1,980	18	133	8,200
August.....	410	36	4	13.2	813
September.....	118	8	2	5.9	234
Water year 1942-43.....	50,140	13,800	2	137	99,440
October 1943.....	161	43	1	5.2	319
November.....	97	4	3	5.2	192
December.....	147	9	4	4.7	292
Calendar year 1943.....	41,496	13,800	1	114	82,300
January 1944.....	640	128	4	20.6	1,270
February.....	273	16	7	9.4	541
March.....	12,938	4,520	10	417	25,660
April.....	42,716	12,800	77	1,424	84,730
May.....	17,616	12,800	52	568	34,940
June.....	4,711	3,160	23	157	9,340
July.....	1,065	195	14	34.4	2,110
August.....	7,718	6,360	9	249	15,310
September.....	1,833	1,010	16	61.1	3,640
Water year 1943-44.....	89,915	12,800	1	246	178,300

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944. August 1895 to November 1903, at site 4 miles upstream.

Average discharge.- 27 years (1917-44), 1,369 second-feet.

Extremes.- Maximum discharge during year, 72,300 second-feet Apr. 25 (gage height, 32.31 feet); minimum, 44 second-feet Oct. 20 (gage height, 2.83 feet).
1895-1903, 1917-44: 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 1943-44, (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-23, Dec. 6-9, Dec. 13 to Jan. 22, July 29 to Aug. 6 and Sept. 6-27)

2.9	50	5.0	1,040	22.0	20,400
3.1	68	6.0	1,920	25.0	25,300
3.3	136	8.0	3,720	27.0	32,500
3.5	200	10.0	5,700	29.0	45,100
4.0	390	14.0	10,200	31.0	59,800
4.5	670	18.0	15,000	32.0	69,200

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	186	101	148	574	1,380	2,240	29,500	2,827	395	329	1,160
2	232	165	113	145	390	628	2,190	24,500	2,460	363	302	796
3	168	148	98	159	337	415	2,010	17,300	1,520	358	256	652
4	133	136	101	155	291	880	1,980	10,900	1,080	465	266	558
5	126	126	105	165	263	514	1,650	10,100	936	390	256	490
6	115	126	110	165	232	1,080	1,380	13,100	810	329	305	415
7	108	123	120	172	214	1,600	1,240	13,900	740	305	2,910	363
8	94	123	120	200	196	1,160	1,160	12,000	912	321	3,180	341
9	89	115	123	159	186	896	4,730	6,250	3,810	460	1,830	317
10	87	126	822	150	182	870	22,100	3,360	1,960	796	705	291
11	87	108	1,700	159	182	562	27,100	2,910	2,550	2,240	386	284
12	89	110	691	153	172	440	27,100	2,640	1,960	3,630	288	266
13	81	113	381	145	156	381	26,500	2,640	2,010	2,460	256	263
14	83	115	288	133	162	358	24,500	2,620	8,340	1,240	218	252
15	81	110	228	142	162	4,180	24,900	2,140	4,530	1,650	200	232
16	76	110	210	139	159	11,200	23,100	2,190	3,540	1,080	256	224
17	74	108	196	142	165	12,500	6,580	2,060	3,090	640	291	213
18	76	110	172	142	172	15,400	3,090	1,700	1,240	450	242	214
19	83	108	172	153	172	21,800	3,180	1,520	880	363	232	207
20	52	110	182	156	172	16,600	7,900	1,780	3,940	470	179	207
21	64	105	165	162	172	4,700	9,720	3,180	6,160	470	207	190
22	63	110	156	302	182	9,840	20,500	1,520	1,880	368	249	186
23	2,210	105	150	470	186	9,600	35,400	1,240	1,080	317	218	186
24	2,640	105	150	410	179	10,200	44,400	1,150	1,960	298	196	176
25	470	105	128	363	748	12,100	68,200	1,120	1,630	3,740	917	168
26	1,830	108	156	284	562	13,400	56,400	1,290	1,470	2,640	9,240	159
27	2,550	105	136	1,100	277	11,900	45,100	1,650	1,200	2,280	10,100	162
28	1,120	108	156	976	485	4,100	36,000	1,960	726	1,080	7,240	3,590
29	455	101	156	502	2,640	2,730	29,500	1,650	558	628	8,780	1,600
30	291	105	150	1,520	-	2,370	27,700	2,140	455	445	5,200	2,640
31	235	-	145	1,200	-	2,190	-	2,280	-	358	2,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,021	2,640	52	452	27,610
November	3,533	1,189	101	118	7,010
December	7,681	1,700	98	248	15,240
Calendar year 1943	603,456	36,300	52	1,653	1,197,000
January	10,369	1,520	133	334	20,870
February	9,970	2,640	156	344	19,780
March	178,774	21,800	358	5,767	354,600
April	587,456	68,200	1,160	19,560	1,165,000
May	182,500	29,500	1,120	5,887	362,000
June	66,427	8,340	455	2,214	131,800
July	31,029	3,740	298	1,001	61,550
August	57,374	10,100	179	1,851	113,800
September	16,817	3,590	159	561	33,360
Water year 1943-44	1,185,945	68,200	52	3,186	2,813,000

Peak discharge.- Mar. 19 (5 a.m.) 22,400 sec.-ft.; Apr. 10 (5 p.m.) 28,000 sec.-ft.; Apr. 12 (8 p.m.) 27,700 sec.-ft.; Apr. 15 (8 p.m.) 25,300 sec.-ft.; Apr. 25 (11 a.m.) 72,300 sec.-ft.; Aug. 27 (2 a.m.) 14,500 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River near Parsons, Kans.

Location.- Water-stage recorder, lat. 37°20', long. 95°06', in N½ 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 Railway bridge, 2½ miles upstream from dam of Kansas Ordnance Plant, 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 1944. October 1921 to June 1929 at site half a mile downstream. Records include flow of Hickory Creek.

Average discharge.- 23 years, 2,272 second-feet.

Extremes.- Maximum discharge during year, 83,500 second-feet Apr. 27 (gage height, 29.70 feet); minimum, 75 second-feet Oct. 23 (gage height, 6.97 feet).
1921-44: Maximum discharge, that of Apr. 27, 1944; no flow at times in 1934, 1936, 1939. Bankfull stage, 24 feet.

Remarks.- Records good. Small diversion from pool in which gage is located by Kansas Ordnance Plant.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

7.0	80	9.0	1,960	18.0	15,100	25.0	27,300
7.2	139	10.0	3,200	20.0	17,800	26.0	32,300
7.5	273	12.0	6,000	22.0	20,100	27.0	38,800
8.0	710	14.0	9,000	23.0	21,700	28.0	49,000
8.5	1,250	16.0	12,200	24.0	23,800	29.0	63,200

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,540	340	109	173	1,480	4,600	2,990	38,800	2,380	590	412	3,340
2	1,860	262	103	169	975	2,640	2,850	36,200	2,640	510	340	1,730
3	660	230	109	169	975	1,420	2,640	34,900	2,640	456	327	1,140
4	404	202	116	173	762	986	2,580	35,000	1,800	412	293	888
5	273	177	122	206	560	1,060	2,180	30,300	1,270	420	268	731
6	206	158	122	230	438	1,730	1,990	23,400	1,070	501	412	640
7	177	143	119	246	380	1,370	1,730	17,400	942	404	1,550	530
8	150	132	119	241	327	1,730	1,610	16,100	868	340	2,640	447
9	136	126	126	219	300	1,490	8,100	14,800	3,760	327	3,200	396
10	119	119	169	211	333	1,160	15,300	8,650	5,020	429	2,120	348
11	106	119	830	211	320	1,010	25,600	4,460	3,060	762	1,080	327
12	116	116	2,180	181	273	846	30,300	3,480	2,640	2,640	610	300
13	340	119	1,350	173	257	742	29,800	3,060	3,620	3,900	396	280
14	162	109	742	169	241	640	29,300	2,920	3,480	2,640	300	268
15	116	106	474	166	215	1,900	29,300	3,130	8,550	1,490	268	262
16	90	109	333	154	219	10,600	29,300	2,510	6,600	1,490	219	251
17	88	109	262	150	230	12,900	29,300	3,620	2,320	1,310	211	235
18	80	106	257	150	246	19,800	26,200	2,250	3,550	857	246	219
19	78	106	235	150	246	25,900	14,700	1,920	2,380	580	273	206
20	76	103	215	154	246	27,000	9,640	1,730	7,800	429	246	206
21	116	106	202	166	235	25,600	10,800	3,760	18,500	372	388	198
22	85	103	194	173	235	21,400	13,100	4,320	10,900	474	899	190
23	548	103	185	181	230	13,600	20,500	2,180	3,270	456	396	173
24	1,610	103	181	320	224	12,300	24,200	1,550	2,250	364	580	173
25	3,340	106	166	520	844	11,200	25,900	1,390	3,760	327	878	177
26	1,220	106	166	474	4,600	12,500	28,800	1,670	2,990	2,650	12,000	177
27	1,200	103	162	670	1,800	14,000	61,700	2,780	1,730	2,710	12,200	185
28	2,580	106	169	2,060	1,420	13,800	60,200	2,380	1,450	2,380	12,000	9,800
29	1,670	103	181	1,670	4,180	6,450	46,600	2,440	1,040	1,360	8,100	19,900
30	857	106	161	975	-	3,760	41,200	2,060	784	10,800	9,320	-
31	510	-	177	1,390	-	3,200	-	2,120	-	540	10,100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	20,513	3,340	76	662	40,690
November	4,036	340	103	135	8,010
December	10,056	2,180	103	324	19,950
Calendar year 1943	1,032,589	56,800	75	2,829	2,048,000
January	12,294	2,060	150	397	24,380
February	22,791	4,600	215	766	45,210
March	257,734	27,000	640	8,314	511,200
April	627,010	61,700	1,610	20,900	1,844,000
May	308,180	38,800	1,590	9,941	611,300
June	114,322	18,500	742	3,811	226,800
July	32,914	3,900	327	1,062	65,280
August	83,752	12,200	211	2,702	166,100
September	53,037	19,900	173	1,768	105,800
Water year 1943-44	1,546,639	61,700	76	4,226	3,068,000

Peak discharge.- Mar. 20 (5 a.m.) 27,300 sec.-ft.; Mar. 28 (6 a.m.) 14,400 sec.-ft.; Apr. 12 (4 p.m.) 30,800 sec.-ft.; Apr. 27 (5 p.m.) 83,500 sec.-ft.; June 21 (8 a.m.) 19,400 sec.-ft.; Sept. 29 (4 p.m.) 20,400 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River near Commerce, Okla.

Location.— Water-stage recorder, lat. 36°56', long. 94°57', in SW $\frac{1}{4}$ sec. 5, T. 28 N., R. 22 E., at county highway bridge, $\frac{1}{2}$ miles upstream from Mud Creek, $\frac{1}{2}$ miles downstream from Four Mile Creek, and $\frac{1}{2}$ 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 1944.

Extremes.— Maximum discharge during year, 70,000 second-feet Apr. 29 (gage height 21.85 feet); minimum, 87 second-feet Oct. 22 (gage height, 2.40 feet).
1939-44: Maximum discharge, 105,000 second-feet May 20, 1943; maximum gage height, 25.12 feet May 20, 1943; minimum discharge, 0.5 second-foot Oct. 24, 25, Nov. 8, 1939 (gage height, 1.65 feet).
Maximum stage known, that of May 20, 1943.

Remarks.— Records good except those for period of ice effect, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,150	512	100	*190	1,530	6,600	a3,500	58,800	2,450	833	603	7,880
2	2,920	378	104	186	1,510	4,500	3,300	53,600	2,540	699	481	3,110
3	2,040	301	104	190	1,050	2,540	3,020	49,200	2,920	655	385	1,740
4	784	267	100	214	1,030	1,470	2,820	43,200	2,450	586	352	1,290
5	505	230	104	267	774	1,090	2,540	37,900	1,660	505	365	2,310
6	339	200	117	320	637	1,400	2,340	35,100	1,220	528	326	1,130
7	250	182	117	307	528	1,780	2,130	31,800	1,030	570	798	765
8	200	164	110	b300	1,180	1,480	3,120	24,400	916	489	1,650	620
9	159	147	128	b290	1,470	1,810	12,800	17,500	2,120	436	3,200	528
10	147	140	214	b250	793	1,470	20,800	13,900	6,280	407	3,200	443
11	140	128	512	b240	927	1,180	30,400	6,990	4,950	654	1,890	561
12	158	128	1,320	b210	586	1,020	39,400	4,230	2,620	2,450	992	520
13	2,230	124	2,180	b200	450	864	38,200	3,580	3,960	3,870	629	392
14	1,610	124	1,240	b180	414	746	33,900	3,200	5,120	3,690	443	352
15	536	128	727	b170	365	3,420	31,600	3,200	5,100	2,450	326	326
16	278	117	a497	164	352	12,800	30,400	3,110	9,480	1,500	307	313
17	186	113	400	*159	570	14,000	29,800	2,540	5,120	1,600	278	301
18	140	113	320	164	927	15,700	29,300	2,540	3,960	1,290	250	284
19	117	117	272	168	586	23,900	29,100	2,320	3,200	864	261	267
20	104	113	255	172	489	27,600	22,400	1,970	3,490	629	313	250
21	97	113	235	172	443	31,000	11,900	2,180	14,400	505	307	240
22	97	110	209	182	428	31,000	12,400	5,120	21,300	436	488	214
23	688	110	204	186	407	28,200	17,700	3,960	14,200	497	884	219
24	3,200	110	200	190	378	17,600	23,200	2,090	4,770	497	611	219
25	3,490	110	182	334	372	11,800	24,400	1,600	4,590	428	1,330	209
26	2,730	110	172	528	2,600	11,900	24,800	2,450	4,320	456	10,600	204
27	1,090	110	182	639	4,050	13,000	25,900	2,920	2,730	3,300	20,200	224
28	1,790	110	200	1,620	1,920	14,000	32,600	3,870	1,860	2,730	18,200	5,470
29	2,450	104	195	2,640	5,120	12,000	67,100	2,820	1,510	2,180	12,500	19,800
30	1,410	100	195	1,660	-	a5,290	65,200	2,640	1,090	1,250	9,800	22,800
31	784	-	195	1,020	-	a4,000	-	2,250	-	813	12,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	31,819	3,490	97	1,026	63,110
November.....	4,813	512	100	160	9,550
December.....	11,090	2,180	100	358	22,000
Calendar year 1943.....	1,553,062	100,000	84	4,255	3,081,000
January.....	13,512	2,640	159	436	26,800
February.....	31,886	5,120	352	1,100	63,240
March.....	305,060	31,000	746	9,841	605,100
April.....	875,570	67,100	2,130	22,520	1,340,000
May.....	430,959	58,900	1,600	13,900	854,800
June.....	141,556	21,300	916	4,719	280,800
July.....	37,777	3,870	407	1,219	74,930
August.....	104,469	20,200	250	3,370	207,200
September.....	72,981	22,800	204	2,433	144,800
Water year 1943-44.....	1,861,513	67,100	97	5,086	3,692,000

Peak discharge.— Mar. 22 (4:30 a.m.) 31,600 sec.-ft.; Apr. 12 (9:00 p.m.) 41,300 sec.-ft.; Apr. 29 (6 p.m.) 70,000 sec.-ft.; June 22 (5:30 p.m.) 22,100 sec.-ft.; Aug. 7 (6:30 p.m.) 21,100 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed from interpolated gage-heights.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake O' The Cherokees at Langley, Okla.

Location.- Water-stage recorder, lat. 36°28', long. 95°02', at Pensacola Dam on Neosho River, in SW¼ sec. 14, T. 23 N., R. 21 E., at Langley, 5 miles east of Pensacola and 10 miles upstream from Cabin Creek. Datum of gage is 1.10 feet 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 1944.

Extremes.- Maximum contents during year, 2,018,000 acre-feet Apr. 13 (gage height, 751.89 feet); minimum, 1,162,000 acre-feet Jan. 27 (gage height, 732.30 feet).
1940-44: Maximum contents, 2,172,000 acre-feet May 20, 1943 (gage height, 754.57 feet); minimum observed since power-pool stage was first reached, that of Jan. 27, 1944.

Remarks.- Reservoir is formed by multiple-arch concrete dam, with top of taintor-type spillway gates at gage height 755.0 feet. Storage began Mar. 21, 1940; power-pool stage was first reached Apr. 19, 1941. Capacity between gage heights 682.0 feet (sill of powerhouse penstock) and 745.0 feet (maximum power pool) is 1,492,000 acre-feet. Capacity between gage heights 745.0 feet and 755.0 feet is 525,000 acre-feet and is reserved for flood control. Dead storage below gage height 682.0 feet is 180,200 acre-feet. Reservoir is utilized for power development and flood control. Figures given represent total contents on basis of level pool.

Contents, in thousands of acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,418	1,380	1,240	1,208	1,174	1,261	1,684	1,775	1,649	1,667	1,508	1,614
2	1,421	1,371	1,241	1,209	1,174	1,277	1,681	1,822	1,647	1,659	1,503	1,611
3	1,426	1,362	1,236	1,207	1,174	1,282	1,680	1,869	1,641	1,652	1,494	1,607
4	1,427	1,353	1,235	1,205	1,172	1,287	1,680	1,861	1,635	1,643	1,486	1,605
5	1,426	1,345	1,234	1,205	1,174	1,294	1,677	1,820	1,633	1,632	1,489	1,606
6	1,425	1,336	1,232	1,204	1,174	1,294	1,672	1,769	1,625	1,621	1,488	1,605
7	1,424	1,324	1,229	1,203	1,170	1,290	1,672	1,714	1,616	1,611	1,482	1,599
8	1,422	1,317	1,229	1,197	1,173	1,286	1,710	1,672	1,610	1,603	1,479	1,593
9	1,421	1,312	1,231	1,196	1,180	1,281	1,740	1,644	1,608	1,602	1,478	1,585
10	1,420	1,308	1,229	1,193	1,183	1,274	1,770	1,644	1,616	1,597	1,476	1,586
11	1,419	1,303	1,226	1,191	1,181	1,268	1,844	1,657	1,617	1,589	1,473	1,579
12	1,419	1,299	1,232	1,187	1,181	1,266	1,964	1,661	1,620	1,586	1,469	1,573
13	1,424	1,293	1,234	1,181	1,184	1,257	2,016	1,663	1,630	1,586	1,467	1,567
14	1,432	1,292	1,235	1,176	1,184	1,249	2,007	1,664	1,637	1,584	1,459	1,561
15	1,429	1,286	1,229	1,176	1,183	1,274	1,974	1,663	1,639	1,581	1,452	1,555
16	1,428	1,282	1,227	1,175	1,182	1,324	1,910	1,660	1,651	1,581	1,445	1,549
17	1,427	1,276	1,222	1,174	1,181	1,368	1,835	1,656	1,654	1,575	1,443	1,548
18	1,425	1,271	1,222	1,172	1,178	1,420	1,773	1,653	1,651	1,568	1,436	1,542
19	1,424	1,268	1,224	1,172	1,178	1,495	1,720	1,648	1,660	1,561	1,428	1,534
20	1,422	1,263	1,221	1,171	1,182	1,564	1,673	1,648	1,686	1,553	1,425	1,527
21	1,419	1,265	1,220	1,171	1,181	1,639	1,623	1,646	1,755	1,544	1,422	1,520
22	1,416	1,260	1,220	1,171	1,181	1,692	1,627	1,650	1,748	1,546	1,415	1,513
23	1,420	1,258	1,215	1,170	1,178	1,710	1,627	1,657	1,717	1,534	1,411	1,506
24	1,418	1,253	1,215	1,167	1,176	1,721	1,608	1,654	1,706	1,525	1,411	1,503
25	1,419	1,253	1,215	1,166	1,174	1,718	1,626	1,649	1,696	1,520	1,408	1,495
26	1,417	1,249	1,215	1,165	1,181	1,706	1,672	1,651	1,693	1,515	1,432	1,489
27	1,410	1,248	1,216	1,165	1,193	1,698	1,713	1,648	1,691	1,521	1,491	1,485
28	1,403	1,249	1,214	1,167	1,207	1,686	1,716	1,652	1,688	1,523	1,554	1,489
29	1,398	1,244	1,211	1,170	1,232	1,675	1,727	1,652	1,682	1,521	1,563	1,519
30	1,395	1,241	1,209	1,172	-	1,675	1,750	1,654	1,674	1,522	1,581	1,556
31	1,388	-	1,209	1,174	-	1,676	-	1,652	-	1,515	1,602	-

Monthly gage height and contents, water year October 1943 to September 1944

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	739.05	1,413,000	-
Oct. 31.....	738.42	1,388,000	-25,000
Nov. 30.....	734.56	1,241,000	-147,000
Dec. 31.....	735.66	1,206,000	-32,000
Calendar year 1943.....	-	-	-602,000
Jan. 31.....	732.65	1,174,000	-35,000
Feb. 29.....	734.32	1,232,000	+58,000
Mar. 31.....	745.09	1,676,000	+444,000
Apr. 30.....	746.65	1,760,000	+74,000
May 31.....	744.57	1,652,000	-98,000
June 30.....	745.04	1,674,000	+22,000
July 31.....	741.48	1,515,000	-159,000
Aug. 31.....	743.47	1,602,000	+87,000
Sept. 30.....	742.43	1,556,000	-46,000
Water year 1943-44.....	-	-	+143,000

† Gage height at 12 p.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River near Langley, Okla.
(Below Spring River, known locally as Grand River)

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 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 1944.

Extremes.— Maximum discharge during year, 73,300 second-feet (regulated) Apr. 17 (gage height, 24.92 feet); minimum, 38 second-feet (regulated) Dec. 12; minimum daily, 544 second-feet Dec. 12.

1939-44: Maximum discharge, 300,000 second-feet (regulated) May 20, 1943 (gage height, 45.5 feet, from floodmark), from computation of outflow from Lake O' The Cherokees; minimum daily, 9 second-feet Mar. 25, 1940 (caused by closure of Pensacola Dam).

Maximum stage known, that of May 20, 1943.

Remarks.— Records good. Flow regulated by Lake O' The Cherokees, 4 miles above station (see p. 182).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	5,270	1,550	1,620	2,670	3,200	6,250	53,300	6,390	6,450	4,380	6,180
2	1,320	5,290	1,380	1,230	2,740	4,800	6,150	59,500	6,420	6,420	4,380	6,220
3	1,050	5,270	1,750	2,400	1,740	5,180	6,300	49,800	6,420	6,510	4,450	6,130
4	1,190	5,270	996	1,800	1,690	4,860	6,300	58,500	6,390	6,440	4,540	4,950
5	1,080	5,340	1,230	1,760	1,940	1,060	6,300	68,700	6,440	6,080	4,180	5,200
6	1,060	5,410	1,630	1,900	1,360	4,440	6,250	65,200	6,390	6,760	1,640	5,090
7	1,150	5,340	1,610	3,210	3,540	6,840	6,280	66,800	6,440	6,660	3,880	5,070
8	1,280	5,250	1,280	2,880	3,170	6,780	6,350	57,600	6,460	5,140	3,860	5,060
9	975	5,400	1,520	1,620	2,280	6,840	17,380	41,500	6,540	1,780	3,970	5,060
10	933	3,500	1,630	2,970	3,300	6,750	37,600	22,400	6,490	4,800	3,940	1,270
11	1,130	1,600	1,160	2,680	4,080	6,810	35,300	6,740	6,320	4,970	3,960	4,150
12	1,680	3,120	544	3,320	2,840	5,010	6,280	6,490	6,540	4,890	4,080	4,290
13	1,020	3,170	1,940	3,350	1,770	6,780	24,800	6,560	6,580	4,670	1,620	3,940
14	1,180	1,120	2,520	3,020	2,890	6,750	47,200	6,390	6,510	4,840	4,000	3,860
15	1,280	3,240	3,080	1,350	2,650	6,950	55,700	6,710	6,490	4,920	4,190	3,910
16	1,120	3,280	2,560	1,160	3,290	6,780	69,200	6,840	6,490	1,680	4,010	3,950
17	1,020	3,290	2,200	1,510	3,720	6,730	69,200	6,710	6,460	4,990	4,150	1,390
18	1,080	3,300	1,640	1,710	4,230	6,640	67,700	6,680	6,270	5,490	3,850	3,920
19	1,360	2,490	908	1,410	3,130	6,590	61,300	6,740	6,440	5,270	3,980	4,080
20	2,300	2,890	1,810	1,090	709	6,480	58,000	6,420	6,390	4,780	1,420	4,090
21	2,650	728	1,630	1,180	3,690	6,300	41,800	6,390	18,400	4,560	4,040	4,100
22	2,700	2,350	1,750	1,180	3,200	15,900	20,900	6,440	42,800	4,480	4,160	4,110
23	3,470	2,170	2,190	1,250	4,060	30,700	24,800	6,440	39,000	1,600	4,180	3,960
24	5,160	2,060	1,010	1,860	3,130	27,600	40,400	6,560	22,800	4,590	4,300	1,210
25	5,220	758	558	1,530	3,560	23,100	23,800	6,490	13,700	4,750	4,110	3,710
26	5,220	2,430	1,816	2,420	2,290	22,700	6,300	6,560	10,100	4,950	4,260	3,970
27	5,290	1,650	2,380	1,480	1,740	22,300	8,950	6,320	6,560	5,060	6,010	4,120
28	5,380	686	2,280	1,720	3,960	25,700	29,600	6,220	6,370	5,110	5,940	4,180
29	5,270	2,180	2,510	1,680	3,480	22,100	47,700	6,370	6,660	5,090	5,940	4,150
30	5,320	2,090	2,160	1,030	-	10,200	60,000	6,340	6,610	1,940	5,810	4,510
31	5,160	-	1,980	1,430	-	6,300	-	6,370	-	4,790	5,910	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	75,728	5,380	933	2,443	150,200
November	93,152	5,410	686	3,105	184,800
December	54,392	3,080	544	1,755	107,900
Calendar year 1943	4,200,108	287,000	544	11,510	8,531,000
January	58,760	3,350	1,030	1,895	116,500
February	82,839	4,230	709	2,687	164,500
March	329,200	30,700	1,060	10,620	653,000
April	904,010	69,200	6,150	30,130	1,795,000
May	693,180	68,700	6,220	22,360	1,375,000
June	301,870	42,800	6,270	10,060	598,800
July	150,470	6,760	1,600	4,564	298,500
August	129,250	6,010	4,169	4,169	256,400
September	124,630	6,220	1,210	4,154	247,200
Water year 1943-44	2,997,481	69,200	544	8,190	5,946,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River near Choteau, Okla.
(Below Spring River, known locally as Grand River)

Location.— Water-stage recorder, lat. 36°14', long. 95°14', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 7 $\frac{1}{2}$ 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).

Drainage area.— 11,650 square miles.

Records available.— April 1941 to September 1944. October 1937 to March 1941 at site 6 miles downstream.

Extremes.— Maximum discharge during year, 72,500 second-feet (regulated) Apr. 18 (gage height, 21.09 feet); minimum, 420 second-feet (regulated) Dec. 27; minimum daily, 647 second-feet (regulated) Dec. 28.
1937-44: Maximum discharge, 400,000 second-feet (regulated) May 20, 1943 (gage height, 45.00 feet), by slope-area method; minimum daily, 28 second-feet Mar. 30, 1940 (caused by closure of Pensacola Dam)
Maximum stage known, that of May 20, 1943.

Remarks.— Records good. Flow regulated by Lake O' The Cherokees, 33 miles above station (see p. 182).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,530	5,420	2,100	2,460	1,720	7,360	7,060	64,000	6,790	6,840	4,760	66,630
2	1,920	5,510	1,610	2,080	2,960	6,890	6,990	69,000	6,740	6,640	4,280	65,310
3	1,350	5,490	1,440	1,700	3,020	7,190	6,820	57,600	6,770	6,640	4,330	65,740
4	1,070	5,450	1,730	2,830	2,130	5,420	6,840	57,000	6,700	6,800	4,500	65,160
5	1,210	5,510	1,980	2,220	2,080	5,260	6,730	69,500	6,720	6,150	4,670	5,610
6	1,120	5,610	1,290	2,130	2,260	2,600	6,710	69,500	6,600	6,850	3,690	6,730
7	1,100	5,610	1,620	2,310	1,740	7,930	6,660	69,000	6,660	6,920	2,050	5,250
8	1,180	5,550	1,680	3,520	4,820	7,810	7,300	62,000	6,510	5,270	3,900	5,080
9	1,270	5,610	1,350	3,270	7,820	7,670	24,400	49,900	10,500	4,610	3,940	5,050
10	1,000	3,540	2,500	2,240	4,720	7,560	52,600	29,900	7,210	2,380	3,870	3,910
11	978	3,280	2,560	3,010	4,710	7,530	65,000	9,320	6,860	5,150	3,940	1,720
12	1,200	1,900	1,800	3,150	4,780	6,360	18,400	7,950	7,280	5,130	4,020	4,250
13	1,690	3,550	968	3,580	3,530	6,500	17,700	7,760	12,300	4,720	3,710	4,300
14	1,190	3,140	2,190	3,770	2,730	7,380	50,400	7,510	11,000	4,870	1,880	3,910
15	1,580	1,540	2,740	3,160	3,590	10,100	53,200	7,450	8,370	4,920	4,250	3,800
16	1,340	3,350	3,120	1,740	3,620	23,200	70,500	7,660	7,890	4,390	4,170	3,920
17	1,160	3,390	2,600	1,490	5,060	17,300	68,500	7,480	7,530	2,440	4,270	3,560
18	1,050	3,400	2,320	1,780	5,790	9,830	70,000	7,440	7,160	5,390	g4,030	1,800
19	1,130	3,280	1,760	2,020	5,030	9,360	64,000	7,270	7,150	5,600	g3,960	3,970
20	1,580	2,570	1,040	1,720	3,720	10,800	59,800	7,140	7,030	5,120	g3,590	4,100
21	2,350	2,430	1,890	1,380	2,030	11,500	52,600	7,020	9,000	4,600	g1,780	4,100
22	2,780	2,333	1,760	1,460	4,470	14,400	17,200	7,220	41,900	4,620	g4,080	4,080
23	4,380	2,420	1,900	1,470	4,460	33,500	31,400	7,050	41,300	5,980	g4,180	4,030
24	8,150	2,200	2,280	1,560	4,460	32,000	39,400	7,010	27,800	2,250	g4,150	3,470
25	6,190	2,060	1,220	1,600	4,780	25,200	32,100	7,030	15,700	4,720	g4,320	1,660
26	5,630	812	647	1,760	4,560	24,200	8,300	7,180	12,500	4,830	g4,550	3,910
27	5,630	2,450	867	2,890	3,680	23,700	7,360	8,090	7,070	5,110	g6,490	4,060
28	5,620	1,720	3,420	2,380	4,770	24,700	23,100	7,600	6,800	5,200	g6,500	4,230
29	5,610	767	3,230	2,410	10,500	28,200	44,300	8,070	6,830	5,110	g,970	5,300
30	5,680	2,170	3,000	2,090	-	14,500	50,900	7,150	6,970	4,300	6,180	4,810
31	5,660	-	2,660	1,390	-	7,430	-	6,830	-	2,470	g7,020	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	82,839	8,150	978	2,672	164,300
November.....	98,062	5,610	767	3,269	194,500
December.....	60,582	3,420	647	1,954	120,200
Calendar year 1943.....	4,832,516	367,000	647	13,240	9,586,000
January.....	71,030	3,770	1,380	2,291	140,800
February.....	119,860	10,500	1,720	4,123	237,100
March.....	412,790	33,500	2,600	13,520	818,800
April.....	986,170	70,500	6,660	32,870	1,956,000
May.....	753,640	69,500	6,830	24,310	1,495,000
June.....	327,940	41,900	6,600	10,930	650,500
July.....	153,920	6,920	2,260	4,965	305,300
August.....	135,030	8,490	1,780	4,556	267,800
September.....	130,470	6,730	1,660	4,349	258,800
Water year 1943-44.....	3,332,032	70,500	647	9,104	6,609,000

g Computed from graph based on hourly readings of staff gage at Oklahoma Ordnance Works, $\frac{3}{4}$ mile downstream.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Neosho River near Wagoner, Okla.
(Below Spring River, known locally as Grand River)

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, 2½ miles downstream from Nigger Creek, 5 miles southeast of Wagoner, and 6 miles upstream from Fourteen Mile Creek. Datum of gage is 495.35 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.— 12,400 square miles.

Records available.— March 1924 to December 1925, October 1937 to September 1944.

Extremes.— Maximum discharge during year, 77,700 second-feet (regulated) May 2 (gage height, 24.28 feet); minimum, 601 second-feet (regulated) Dec. 27; minimum daily, 740 second-feet (regulated) Dec. 27.

1924-25, 1937-44: Maximum discharges, 400,000 second-feet May 21, 1943 (gage height, 45.2 feet), by slope-area method; minimum daily, 54 second-feet Mar. 31, 1940 (caused by closure of Pensacola Dam).

Maximum stage known, that of May 21, 1943.

Remarks.— Records good except those for periods of no gage-height record, which are fair. Flow regulated by Lake O' The Cherokees, 64 miles above station (see p. 182).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,670	5,680	2,220	a2,770	1,650	11,600	7,680	64,300	7,020	7,530	4,830	7,500
2	2,160	5,640	1,800	a2,220	2,600	7,920	7,420	74,900	6,960	7,330	4,580	6,500
3	1,760	5,640	1,520	a2,020	3,110	8,250	7,190	67,100	6,850	7,280	4,560	6,260
4	1,390	5,640	1,690	2,710	2,350	7,980	7,190	58,100	6,790	7,330	4,650	5,400
5	1,160	5,640	1,540	2,550	2,190	7,080	7,080	68,200	6,790	6,940	4,760	5,710
6	1,320	5,690	1,140	2,310	2,220	3,560	6,990	72,100	6,730	7,140	4,420	7,140
7	1,210	5,690	1,640	2,550	1,880	6,640	6,900	69,300	6,680	7,280	2,600	5,810
8	1,180	5,680	1,820	3,450	4,980	8,460	7,080	67,600	6,650	6,830	3,900	5,260
9	1,290	5,360	1,610	3,340	12,100	8,280	15,700	60,900	20,700	5,920	4,160	5,180
10	1,360	3,760	2,350	2,380	9,230	8,130	52,000	37,900	11,500	3,020	4,060	5,060
11	1,060	3,690	2,540	3,180	5,880	8,070	67,100	15,400	7,860	5,410	4,070	1,930
12	1,190	2,030	2,380	3,080	6,240	8,040	37,300	9,340	7,880	5,440	4,130	3,750
13	2,140	3,250	1,710	3,710	4,690	8,240	12,800	8,760	17,400	5,200	4,220	4,300
14	1,730	3,490	1,480	3,680	3,370	7,890	46,500	8,440	19,900	4,970	2,110	4,060
15	1,540	1,750	2,680	3,500	4,400	11,300	52,000	8,040	11,800	5,090	3,860	3,930
16	1,550	3,030	3,240	2,160	4,370	30,700	67,600	8,070	8,630	5,200	4,310	3,960
17	1,440	3,530	2,800	1,740	5,990	26,600	71,000	7,980	7,940	2,490	4,310	4,000
18	1,310	3,540	a2,400	1,790	6,870	14,000	72,700	7,790	7,520	4,980	4,280	1,840
19	1,180	3,530	2,060	1,900	6,710	14,300	67,600	7,730	7,100	5,620	4,010	3,470
20	1,450	2,780	1,660	1,970	4,990	17,200	61,500	7,580	7,450	5,390	4,060	4,060
21	2,450	2,570	1,470	1,610	2,730	16,100	57,000	7,250	7,020	4,940	2,020	4,080
22	3,010	1,620	1,930	1,490	4,830	14,000	25,400	7,250	33,700	4,740	3,750	4,100
23	5,040	1,690	1,920	1,540	4,790	30,700	36,800	7,340	42,700	4,660	4,260	4,080
24	8,830	2,300	a2,510	1,530	5,560	34,600	33,300	7,160	33,700	2,250	4,240	3,910
25	7,590	2,140	a1,890	1,990	5,560	27,500	38,400	7,130	15,900	4,440	4,520	1,760
26	5,950	1,560	a900	1,830	6,370	25,700	13,900	7,550	13,800	4,920	5,220	3,200
27	5,690	1,660	a740	2,680	5,020	24,800	8,040	7,820	8,670	5,080	6,320	4,000
28	5,690	1,910	a3,000	2,890	6,600	24,000	16,200	8,040	7,680	5,480	7,470	4,220
29	5,740	1,440	a3,850	2,850	14,000	29,800	38,900	8,280	7,450	5,300	6,150	4,800
30	5,690	1,290	a3,420	2,440	-	18,000	59,800	8,220	7,620	5,200	6,390	5,210
31	5,710	-	a2,950	1,840	-	10,100	-	7,100	-	2,400	6,610	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	90,470	8,630	1,050	2,918	179,400
November.....	102,920	5,690	1,290	3,431	204,100
December.....	64,460	3,860	740	2,079	127,900
Calendar year 1943.....	5,183,301	372,000	740	14,200	10,280,000
January.....	75,700	3,710	1,490	2,442	150,100
February.....	151,280	14,000	1,650	5,217	300,100
March.....	477,540	34,600	3,560	15,400	947,200
April.....	1,008,870	72,700	6,900	33,630	2,001,000
May.....	812,650	74,900	7,100	26,220	1,612,000
June.....	369,560	42,700	6,650	12,290	731,000
July.....	165,800	7,530	2,250	5,348	328,900
August.....	138,820	7,470	2,020	4,478	275,300
September.....	134,460	7,500	1,760	4,482	266,700
Water year 1943-44.....	3,591,730	74,900	740	9,813	7,124,000

a No gage-height record, discharge computed on basis of weather records and records for stations near Langley and Choteau.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Cottonwood River near Marion, Kans.

Location.- Wire-weight gage, lat. 39°21', long. 97°04', in SW¼ sec. 36, T. 19 S., R. 3 E., three-quarters of a mile downstream from South Cottonwood River and 2 miles west of Marion. Datum of gage is 1,283.85 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 335 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge during year, 14,400 second-feet Apr. 22 (gage height, 25.14 feet); minimum observed, 8 second-feet Oct. 13.
1939-44: Maximum discharge observed, 15,200 second-feet Oct. 20, 1941 (gage height, 25.68 feet), from rating curve extended above 13,000 second-feet; no flow Jan. 18, 19, 1940.

Remarks.- Records fair. Gage read twice daily; oftener during flood periods.

Cooperation.- Gage-height record, 28 discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	18	14	13	22	36	255	509	65	20	17	22
2	10	17	14	15	20	32	127	255	59	20	17	22
3	10	17	14	17	20	27	78	8,170	58	19	17	19
4	9	17	14	18	19	227	58	727	51	18	17	17
5	9	17	14	15	18	104	56	235	50	18	17	15
6	9	17	20	17	17	188	53	178	48	17	17	14
7	9	16	26	*b15	17	92	51	178	48	17	17	14
8	9	15	20	b15	17	38	69	169	48	17	17	14
9	9	15	19	17	18	29	5,130	143	50	55	17	14
10	9	15	20	14	20	29	5,750	127	48	59	17	14
11	9	15	19	14	17	27	2,960	127	46	73	16	14
12	9	15	19	14	15	27	931	112	45	371	16	14
13	8	15	19	14	14	26	215	105	46	40	16	14
14	10	15	17	12	15	36	160	98	50	24	16	13
15	9	15	17	15	16	2,100	136	92	38	24	16	13
16	9	15	14	27	17	1,250	120	85	35	168	17	13
17	9	15	13	105	18	152	112	92	31	40	16	12
18	9	15	13	215	29	85	112	85	30	23	16	12
19	9	15	14	182	17	67	331	78	29	22	16	12
20	10	15	15	72	17	98	1,090	72	29	23	19	12
21	10	15	15	*49	18	481	889	72	28	22	15	11
22	14	15	*16	33	19	3,670	11,300	72	27	23	16	11
23	2,110	14	b15	26	19	1,890	7,420	63	26	18	16	11
24	781	14	14	24	18	298	2,240	60	26	19	16	11
25	59	14	13	25	16	152	510	57	25	18	284	11
26	34	15	14	29	15	127	3,510	56	*64	19	1,080	12
27	28	14	14	143	15	105	1,510	72	24	16	128	116
28	24	14	17	120	19	85	298	827	23	18	27	1,410
29	22	14	13	40	51	72	925	460	22	20	24	273
30	22	14	14	27	-	71	2,750	92	21	17	22	36
31	20	-	14	23	-	135	-	72	-	17	22	-
Month						Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet		
October.....						3,308	2,110	8	107	6,560		
November.....						457	18	14	15.2	906		
December.....						494	26	13	15.9	980		
Calendar year 1943.....						25,109	2,110	6	63.3	45,830		
January.....						1,535	215	12	43.1	2,650		
February.....						553	51	14	19.1	1,100		
March.....						11,758	3,670	26	379	23,320		
April.....						49,155	11,300	51	1,638	97,500		
May.....						13,540	8,170	56	437	26,860		
June.....						1,150	65	21	38.3	2,280		
July.....						1,275	371	16	41.1	2,530		
August.....						1,984	1,080	15	64.0	3,940		
September.....						2,196	1,410	11	73.2	4,360		
Water year 1943-44.....						87,203	11,300	8	233	173,000		

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.- Gage heights not representative of discharge June 18 to July 8, Dec. 4; discharge computed on basis of 1 discharge measurement and records for stations on nearby streams.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cottonwood River at Cottonwood Falls, Kans.

Location.- Water-stage recorder, lat. 38°22', long. 96°31', in NE¼ sec. 28, T. 19 S., R. 5 E., 1 mile east of Cottonwood Falls and 3½ miles upstream from South Fork Cottonwood River. Datum of gage is 1,147.41 feet above mean sea level, datum of 1929.

Drainage area.- 1,444 square miles.

Records available.- February 1935 to September 1944. April 1932 to February 1935 at site in Cottonwood Falls.

Average discharge.- 12 years, 388 second-feet.

Extremes.- Maximum discharge during year, 68,000 second-feet Apr. 23 (gage height, 22.50 feet), by combination of slope-area and contracted-opening methods; minimum, 29 second-feet Oct. 18 (gage height, 2.15 feet).

1932-44: Maximum discharge, that of Apr. 23, 1944; minimum, 1 second-foot Aug. 15 to Sept. 13, 1934, Sept. 19-23, 1936.

Revisions.- The maximum discharge for the water year 1942 has been revised to 35,800 second-feet Oct. 20, 1941 (gage height, 21.35 feet), superseding figure published in Water-Supply Paper 957.

Remarks.- Records good.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1942, superseding those published in Water-Supply Paper 957, are given herewith:

Oct. 21 16,800
22 17,200

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	125,837	17,200	430	4,059	249,600
Water year 1942.....	370,504	17,200	86	1,015	734,900
Calendar year 1941..	448,589	21,100	47	1,229	889,700

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	83	61	80	149	145	775	6,730	651	173	111	251
2	61	80	*61	80	133	180	895	4,040	506	173	106	210
3	57	83	61	80	120	173	747	7,020	449	169	98	166
4	55	78	61	83	114	348	593	9,290	419	166	90	149
5	50	71	66	85	85	108	824	528	11,300	405	156	139
6	48	71	75	85	103	557	496	4,500	429	149	600	126
7	44	71	83	b85	98	299	475	1,530	371	145	339	117
8	44	63	90	b80	95	366	464	1,340	400	145	130	108
9	44	63	90	78	93	239	3,260	1,190	955	180	98	101
10	44	63	95	*85	95	191	10,000	1,080	866	251	88	93
11	42	63	95	83	93	176	12,100	979	434	400	80	90
12	44	63	108	80	93	176	11,500	902	395	990	75	83
13	44	63	120	75	90	169	6,490	838	434	1,170	71	85
14	44	63	106	71	93	173	1,630	1,170	605	434	71	85
15	40	63	90	73	93	6,720	1,210	873	405	222	68	85
16	39	63	88	75	90	10,100	1,040	719	339	173	80	85
17	34	63	83	79	93	7,510	902	651	312	169	73	85
18	31	63	80	101	90	1,600	910	605	290	290	93	88
19	37	63	80	239	88	1,150	1,340	576	277	191	80	83
20	42	66	80	362	85	880	3,930	545	277	159	80	78
21	44	66	80	273	88	940	3,700	523	321	139	88	73
22	48	63	80	187	88	7,410	g11,600	518	312	133	93	68
23	340	63	68	142	88	11,400	g44,100	506	295	123	98	66
24	2,760	61	80	117	93	8,840	g19,000	490	581	120	106	63
25	2,070	61	78	106	95	2,280	g13,600	496	429	264	159	66
26	343	61	80	101	90	1,210	9,650	518	247	195	2,220	68
27	152	61	b80	530	85	1,000	9,650	824	214	156	3,150	257
28	111	61	b75	1,720	93	880	8,640	1,480	195	136	1,370	803
29	95	59	75	557	103	810	3,930	1,100	184	133	410	2,020
30	88	61	83	259	-	768	6,570	2,180	176	130	264	1,340
31	83	-	83	176	-	761	-	1,390	-	114	234	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	7,041	2,760	31	227	13,970
November.....	1,976	83	59	65.9	3,920
December.....	2,535	120	61	81.8	5,030
Calendar year 1943	115,540	2,870	31	317	229,200
January.....	6,226	1,720	71	201	12,350
February.....	2,839	149	85	97.9	5,630
March.....	68,275	11,400	145	2,202	135,400
April.....	189,625	44,100	464	6,321	375,100
May.....	65,902	13,300	490	2,126	130,700
June.....	12,163	955	176	405	24,120
July.....	7,548	1,170	114	243	14,970
August.....	10,708	3,150	68	345	21,240
September.....	7,131	2,020	63	238	14,140
Water year 1943-44	381,969	44,100	31	1,044	757,600

Peak discharge.- Mar. 16 (4 p.m.) 10,400 sec.-ft.; Mar. 23 (12 m.) 11,800 sec.-ft.; Apr. 11 (1 a.m.) 12,800 sec.-ft.; Apr. 23 (8 a.m.) 68,000 sec.-ft.; Apr. 27 (2 a.m.) 10,500 sec.-ft.; May 5 (11 a.m.) 11,900 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Middle Creek near Elmdale, Kans.

Location.— Wire-weight gage, lat. 38°24', long. 96°43', in SW¼ sec. 13, T. 19 S., R. 6 E., 4 miles northwest of Elmdale and 4½ miles upstream from mouth. Datum of gage is 1,220.55 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 95 square miles.

Records available.— November 1938 to September 1944.

Extremes.— Maximum discharge during year, 6,500 second-feet Apr. 22 (gage height, 17.70 feet, from graph based on gage readings), from rating curve extended above 3,600 second-feet; no flow Oct. 13-22.

1939-44: Maximum discharge observed, 7,210 second-feet Oct. 14, 1941 (gage height, 18.50 feet), from rating curve extended above 2,500 second-feet; no flow at times.

Remarks.— Records fair. Gage read twice daily; oftener during flood periods.

Cooperation.— Gage-height record, 47 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	5	2	3	6	12	56	150	42	8	2	7
2	1	4	2	3	5	10	50	304	24	7	2	6
3	1	3	2	3	5	41	40	1,680	22	7	2	5
4	1	2	2	3	5	26	36	150	20	6	2	4
5	1	2	2	3	5	16	31	119	41	6	2	4
6	1	d2	2	3	4	13	30	96	22	6	1	4
7	1	d2	2	3	4	11	29	85	20	5	1	4
8	1	d2	3	3	4	10	28	74	126	5	1	4
9	1	d2	3	3	4	10	649	64	86	7	1	4
10	1	d2	3	3	4	10	1,330	60	24	6	1	4
11	1	2	3	3	4	10	340	54	23	7	1	3
12	1	d1	3	3	4	10	137	49	23	7	1	3
13	0	d1	3	3	4	10	101	204	20	7	1	3
14	0	d1	3	3	4	180	90	79	19	6	1	3
15	0	d1	3	3	4	1,430	80	48	16	6	2	3
16	0	d1	3	5	4	157	64	43	14	6	1	3
17	0	d1	3	18	4	80	56	38	12	5	1	3
18	0	d1	2	21	4	60	64	33	12	5	1	3
19	0	2	2	14	3	86	347	29	10	4	1	3
20	0	2	2	11	3	69	494	28	10	4	1	3
21	0	2	2	8	3	85	231	26	11	4	1	3
22	0	2	2	7	3	1,530	4,140	26	10	4	1	2
23	87	2	2	7	3	435	757	24	10	3	3	2
24	50	2	2	7	3	144	252	23	10	3	17	2
25	34	2	2	6	3	119	180	22	10	4	302	2
26	15	2	2	6	3	90	2,000	60	9	4	384	2
27	11	2	2	46	4	80	315	321	9	3	27	91
28	6	2	2	37	4	80	180	74	8	3	14	194
29	2	2	2	12	4	64	637	237	8	3	10	13
30	2	2	2	10	—	60	633	187	8	3	8	9
31	2	—	2	8	—	58	—	96	—	3	8	—

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	221	87	0	7.1	438
November.....	59	5	1	2.0	117
December.....	72	3	2	2.3	143
Calendar year 1943	5,067	326	0	13.9	10,060
January.....	268	46	3	8.6	532
February.....	114	6	3	3.9	226
March.....	4,985	1,530	10	161	9,890
April.....	13,377	4,140	28	448	26,530
May.....	4,483	1,680	22	145	8,800
June.....	879	126	8	22.6	1,350
July.....	157	8	3	5.1	311
August.....	801	384	1	25.8	1,590
September.....	396	194	2	13.2	765
Water year 1943-44	25,612	4,140	0	70.0	50,800

d Doubtful gage-height record; discharge computed on basis of discharge measurement and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 by Corps of Engineers, U. S. Army).

Drainage area.- 197 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge during year, 8,550 second-feet Apr. 11 (gage height, 16.63 feet); no flow at times.

1939-44: Maximum discharge, 23,000 second-feet May 19, 1943 (gage height, 17.81 feet); no flow at times.

Remarks.- Records fair. Gage read twice daily; oftener during rapidly changing stages.

Cooperation.- Gage-height record, 54 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	353	4	1	4	12	223	71	1,620	15	10	2	128
2	415	3	1	6	8	64	41	2,170	11	9	1	71
3	59	1	1	7	7	39	d25	g86	8	8	1	31
4	19	2	1	9	7	33	d20	138	6	6	1	16
5	11	2	1	10	7	26	17	68	5	5	1	11
6	7	1	1	10	7	24	14	47	3	4	13	7
7	6	1	2	d9	10	20	10	40	3	4	93	9
8	4	1	2	d8	9	15	8	36	5	4	70	7
9	2	1	3	d7	7	11	1,100	31	570	4	16	5
10	1	0	6	d6	8	7	3,230	d27	157	5	9	3
11	1	0	15	5	15	6	6,570	d24	24	308	5	4
12	2	0	23	4	21	6	1,620	d21	14	206	4	3
13	523	0	14	3	15	8	150	d18	335	35	3	2
14	154	0	d11	2	11	9	88	d16	209	17	2	1
15	36	1	d9	d2	9	111	76	d15	126	9	1	1
16	20	1	d7	d2	7	667	45	14	29	6	2	1
17	15	0	d6	2	11	150	44	13	18	5	4	1
18	10	1	5	d2	18	2,190	39	11	16	4	3	2
19	5	1	3	d2	20	4,350	44	13	460	4	2	2
20	4	1	3	d2	16	1,020	374	15	1,500	3	1	1
21	3	1	2	2	14	380	175	647	3,460	2	11	1
22	2	1	2	2	13	240	158	309	1,340	2	132	1
23	78	1	2	2	11	162	1,010	108	80	1	76	1
24	174	1	2	2	8	76	412	21	278	1	31	0
25	82	1	2	3	82	58	76	21	323	1	100	1
26	23	1	2	3	350	50	104	50	36	1	2,140	0
27	14	1	2	16	79	36	1,120	281	17	32	4,000	5
28	10	1	2	29	60	31	421	44	15	13	874	546
29	7	1	3	26	733	41	82	30	12	16	56	1,180
30	6	1	3	24	-	50	601	53	11	5	90	153
31	6	-	3	18	-	62	-	33	-	3	441	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,013	523	1	64.9	3,990
November	31	4	0	1.0	61
December	140	23	1	4.5	278
Calendar year 1943	100,548	19,600	0	275	199,400
January	229	29	2	7.4	454
February	1,575	733	7	54.3	3,120
March	10,165	4,350	6	328	20,160
April	17,748	6,570	8	592	35,200
May	6,920	2,170	11	223	13,730
June	9,086	3,460	3	303	18,020
July	735	308	1	25.6	1,450
August	8,185	4,000	1	264	16,250
September	2,194	1,180	0	73.1	4,350
Water year 1943-44	59,019	6,570	0	161	117,000

d Doubtful gage-height record; discharge computed on basis of weather records or interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lafayette Creek near Oswego, Kans.

Location.- Wire-weight gage, lat. 37°12', long. 95°11', in NW¼ sec. 11, T. 33 S., R. 20 E., 1 mile upstream from St. Louis-San Francisco Railway crossing, 5 miles northwest of Oswego, and 14 miles upstream from mouth. Datum of gage is 809.34 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 209 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge observed during year, 8,980 second-feet Apr. 11 (gage height, 18.19 feet); minimum discharge, 1 second-foot Nov. 4, 13, 30, Dec. 1, 2, Sept. 22-23.

1939-44: Maximum discharge, 19,000 second-feet May 19, 1943 (gage height, 20.50 feet), from rating curve extended above 9,000 second-feet; no flow at times.

Remarks.- Records fair. Gage read twice daily; oftener during flood periods.

Cooperation.- Gage-height record, 31 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 2 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	518	3	1	4	13	115	77	1,610	23	3	2	61
2	137	2	1	6	13	59	60	2,060	24	36	2	30
3	44	2	2	16	16	42	42	557	16	23	2	13
4	20	1	2	28	13	33	33	155	11	10	2	10
5	11	2	2	47	11	24	23	72	8	7	6	9
6	7	2	2	37	9	21	19	57	6	5	17	8
7	5	2	2	22	7	17	17	42	5	5	40	7
8	4	3	3	68	6	11	146	38	5	4	46	5
9	3	2	4	13	8	9	4,930	35	869	3	20	3
10	3	2	73	6	67	7	5,740	29	206	3	13	3
11	2	2	60	5	73	7	7,980	23	67	1,030	11	3
12	148	2	27	4	25	7	1,220	19	50	433	9	2
13	560	1	16	4	16	7	100	18	508	86	5	2
14	64	2	9	3	12	7	72	16	188	37	3	3
15	23	2	5	3	13	527	57	14	61	14	3	3
16	9	2	4	3	14	1,260	47	14	28	9	3	3
17	6	2	3	3	50	155	38	11	17	6	2	4
18	4	2	3	3	34	2,990	37	9	11	5	2	3
19	3	2	3	3	22	4,140	154	8	7	4	2	2
20	2	2	3	3	16	840	1,050	7	220	3	2	2
21	2	3	3	3	13	479	144	170	216	3	6	2
22	2	3	3	3	13	409	382	43	42	2	9	1
23	704	2	2	3	12	161	3,760	19	15	2	6	1
24	318	2	2	3	10	98	1,240	13	228	2	351	1
25	88	2	4	9	9	65	93	16	52	3	1,090	1
26	33	2	2	5	87	52	346	286	18	3	5,290	1
27	16	2	3	286	59	43	855	738	12	3	3,680	19
28	10	2	4	26	427	39	116	299	6	4	150	3,100
29	7	2	4	33	885	51	254	74	4	3	62	4,980
30	6	1	4	30	-	111	1,030	40	3	2	45	689
31	4	-	4	19	-	86	-	24	-	2	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,762	704	2	89.1	5,480
November.....	61	3	1	2.0	121
December.....	257	73	1	8.3	510
Calendar year 1943	106,616	13,400	0	292	211,500
January.....	696	286	3	22.5	1,380
February.....	1,953	885	6	67.3	3,870
March.....	11,872	4,140	7	383	23,550
April.....	30,062	7,980	17	1,002	59,630
May.....	6,566	2,060	7	212	13,020
June.....	2,926	869	3	97.5	5,800
July.....	1,755	1,030	2	56.6	3,480
August.....	10,943	5,290	2	353	21,700
September.....	8,971	4,980	1	299	17,790
Water year 1943-44	78,824	7,980	1	215	156,300

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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. 23 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 1944.

Average discharge.- 20 years, 900 second-feet.

Extremes.- Maximum discharge during year, 14,200 second-feet June 20 (gage height, 16.60 feet); minimum, 64 second-feet Dec. 25.

1924-44: Maximum discharge, 103,000 second-feet May 19, 1943 (gage height, 30.94 feet, from floodmark); minimum, 11 second-feet July 24, 1934.

Remarks.- Records excellent. Low flow regulated by power plant 3 miles above station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 28

Feb. 29 to Sept. 30

1.8	74	1.8	88	5.5	1,940
2.0	134	2.1	183	7.0	3,140
2.4	279	2.7	402	10.5	6,710
2.8	440	3.3	667	15.1	12,100
3.2	619	4.5	1,310		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	249	193	106	158	154	2,150	817	3,790	379	344	471	1,230
2	287	190	94	154	158	1,200	741	5,750	325	318	220	446
3	219	179	103	161	128	843	657	4,090	288	306	163	295
4	179	168	103	175	134	619	619	1,870	259	284	144	238
5	161	161	88	172	125	619	581	1,090	259	266	173	224
6	141	165	77	182	91	596	563	896	259	252	170	497
7	134	165	109	186	103	586	532	792	252	254	200	318
8	128	182	109	182	122	545	663	766	252	231	193	242
9	112	186	115	186	134	493	4,230	869	1,110	220	183	217
10	112	193	131	186	204	463	7,690	843	1,030	214	157	197
11	1,000	186	131	158	252	434	12,100	716	619	228	144	193
12	128	158	190	144	306	426	8,380	619	386	231	1,130	183
13	219	154	249	154	245	414	3,410	572	560	231	115	173
14	461	144	208	125	219	402	1,520	527	643	214	210	166
15	370	131	172	122	197	1,060	1,310	497	442	190	183	157
16	226	137	154	131	186	3,790	1,140	467	371	173	147	153
17	179	128	134	125	197	2,460	1,000	426	295	163	131	144
18	141	122	137	134	256	6,960	922	398	259	163	131	124
19	137	128	125	125	432	7,370	869	382	4,700	157	144	134
20	131	125	112	125	374	5,120	976	367	9,660	147	128	118
21	115	122	134	125	310	4,250	949	992	6,680	140	121	112
22	115	103	115	118	291	3,140	922	1,200	1,640	140	353	115
23	151	112	112	109	295	2,150	2,540	643	976	131	398	103
24	234	106	118	109	334	1,580	1,940	418	1,370	131	224	97
25	610	109	80	109	318	1,250	1,310	371	817	190	643	91
26	453	94	94	112	302	1,110	1,000	394	610	1,910	8,890	103
27	326	115	106	151	283	1,000	1,520	949	501	2,870	8,720	100
28	271	109	148	112	378	922	949	422	438	1,380	6,380	263
29	241	85	128	179	1,620	1,000	792	869	390	344	3,210	643
30	215	112	128	193	-	1,030	1,650	518	359	220	1,140	418
31	200	-	148	158	-	922	-	434	-	359	2,150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	6,745	610	100	218	0.188	0.22	13,380
November	4,260	193	83	142	.122	.14	8,450
December	3,968	249	77	128	.110	.13	7,850
Calendar year 1943	563,408	81,800	77	1,544	1.33	18.06	1,118,000
January	4,560	193	109	147	.127	.15	9,040
February	8,146	1,620	91	281	.242	.26	16,150
March	55,041	7,370	402	1,776	1.53	1.76	109,200
April	62,332	12,100	532	2,078	1.79	2.00	123,600
May	32,937	5,750	367	1,062	.916	1.06	55,330
June	36,119	9,660	252	1,204	1.04	1.16	71,640
July	12,381	2,870	131	399	.344	.40	24,660
August	35,746	8,890	115	1,153	.994	1.15	70,900
September	7,494	1,230	91	250	.215	.24	14,860
Water year 1943-44	269,721	12,100	77	737	.635	8.67	535,000

Peak discharge.- Mar. 18 (11 p.m.) 10,500 sec.-ft.; Apr. 10 (11 p.m.) 13,200 sec.-ft.; Apr. 11 (8 a.m.) 13,700 sec.-ft.; May 2 (3:30 p.m.) 8,380 sec.-ft.; June 20 (7:30 p.m.) 14,200 sec.-ft.; Aug. 26 (6 p.m.) 12,200 sec.-ft.

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Spring River near Quapaw, Okla.

Location.- Water-stage recorder, lat. $36^{\circ}56'$, long. $94^{\circ}45'$, in center of SW $\frac{1}{4}$ 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 1944 (including flow of Rock Creek).

Extremes.- Maximum discharge during year, 36,100 second-feet June 21 (gage height, 22.77 feet); minimum daily, 193 second-feet Dec. 5.

1939-44: Maximum discharge, 190,000 second-feet May 19, 1943 (gage height, 43.4 feet, from floodmark), by slope-area method; minimum daily, 100 second-feet Oct. 23, 1939.

Flood of December 1895 reached a stage similar to that of May 19, 1943, from information by local residents.

Remarks.- Records good. Low and medium flow regulated by Riverton hydroelectric plant 15 miles above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	653	545	359	483	404	4,600	2,000	8,650	1,250	1,180	716	2,930
2	585	545	336	474	545	3,190	1,780	11,700	1,040	953	743	1,500
3	555	545	291	474	351	2,320	1,720	11,200	842	966	356	420
4	575	526	200	502	328	1,950	1,490	5,180	952	778	349	642
5	478	516	193	497	394	1,450	1,380	3,420	927	1,030	554	611
6	447	502	236	502	331	1,630	1,450	2,700	895	814	300	1,700
7	434	497	340	521	381	1,500	1,300	2,590	884	811	486	958
8	413	498	324	516	678	1,200	1,720	2,170	794	644	561	740
9	400	492	355	502	1,120	1,230	1,600	2,030	1,250	382	544	420
10	375	452	521	488	946	1,080	14,200	2,220	3,050	902	422	478
11	384	328	560	483	1,020	1,120	25,100	2,030	1,740	722	395	503
12	426	470	516	465	822	1,070	22,100	1,860	1,210	566	376	512
13	926	438	456	460	852	1,090	9,020	1,550	1,530	832	232	405
14	1,050	426	526	550	920	1,070	4,820	1,540	2,070	641	196	447
15	808	426	497	564	712	3,140	3,680	1,280	1,680	598	606	399
16	724	408	465	326	756	9,470	3,170	1,160	1,170	295	416	511
17	595	404	454	446	814	6,250	2,760	1,320	974	733	409	241
18	521	400	417	416	769	11,400	2,540	1,210	684	434	389	229
19	511	396	417	332	910	18,200	1,950	1,080	6,490	480	381	372
20	516	396	392	456	996	9,910	2,370	1,060	16,900	466	227	333
21	497	396	384	416	983	9,300	2,480	1,010	33,800	400	306	279
22	483	392	389	330	914	7,080	2,480	1,530	13,000	484	366	270
23	590	458	379	300	808	5,270	4,370	3,170	3,550	254	758	327
24	637	488	351	482	914	4,230	4,090	1,750	7,720	519	576	215
25	1,550	443	336	328	869	3,550	3,290	1,170	2,990	970	788	256
26	1,180	426	344	442	923	3,170	2,480	1,160	2,480	704	8,570	255
27	956	400	340	328	784	2,470	2,870	1,660	1,760	3,810	14,800	416
28	1,020	351	443	557	1,980	2,220	2,990	1,620	1,570	3,050	9,280	879
29	751	344	474	351	2,930	2,840	2,270	1,420	1,340	1,430	5,750	1,200
30	642	347	474	489	-	2,160	3,980	2,540	947	538	2,810	910
31	626	-	470	398	-	2,180	-	1,730	-	676	2,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	20,308	1,550	375	655	0.254	0.29	40,280
November	13,225	545	328	441	.171	.19	26,230
December	12,218	560	193	394	.153	.18	24,230
Calendar year 1943	1,501,928	169,000	193	3,567	1.38	18.77	2,582,000
January	13,938	564	300	450	.174	.20	27,650
February	24,564	2,930	328	847	.328	.35	48,720
March	127,050	18,200	1,070	4,098	1.59	1.83	252,000
April	145,450	25,100	1,300	4,782	1.85	2.07	284,500
May	85,710	11,700	1,010	2,765	1.07	1.24	170,000
June	115,089	33,800	552	3,836	1.49	1.65	228,300
July	27,062	3,810	254	873	.358	.39	53,680
August	54,362	14,800	196	1,754	.680	.78	107,800
September	19,358	2,930	215	645	.250	.28	38,400
Water year 1943-44	656,334	33,800	193	1,793	.695	9.46	1,302,000

Peak discharge.- Mar. 16 (2:40 a.m.) 11,100 sec.-ft.; Mar. 19 (12:30 a.m.) 20,000 sec.-ft.; Apr. 11 (9 p.m.) 26,200 sec.-ft.; May 2 (9 p.m.) 15,700 sec.-ft.; June 21 (10 a.m.) 36,100 sec.-ft.; Aug. 27 (7 a.m.) 16,200 sec.-ft.

Note.- Computed from graph based on frequent readings of staff gage Oct. 1 to Nov. 16.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Shoal Creek above Joplin, Mo.

Location.- Water-stage recorder, lat. 37°00'45", long. 94°28'45", in NE¼ sec. 1, T. 26 N., R. 33 W., at bridge on U. S. Highway 71, 4 miles southeast of Joplin and 6 miles downstream from Baynham Branch.

Drainage area.- 424 square miles.

Records available.- October 1941 to September 1944. April 1924 to September 1941 at site 5 miles downstream, published as Shoal Creek near Joplin (records not equivalent).

Extremes.- Maximum discharge during year, 7,260 second-feet June 20 (gage height, 10.00 feet); minimum, 108 second-feet Sept. 23-27 (gage height, 4.25 feet).
1941-44: Maximum discharge, 62,100 second-feet May 18, 1943 (gage height, 16.8 feet); minimum, 86 second-feet Aug. 30, 1942 (gage height, 2.94 feet).

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	190	217	121	171	126	810	512	460	303	346	188	164
2	167	198	119	171	128	730	486	794	281	328	183	152
3	152	190	124	174	126	666	473	794	264	311	178	144
4	143	182	117	176	124	612	447	698	254	292	168	138
5	139	179	123	176	121	561	430	635	274	281	178	959
6	130	179	124	179	123	547	412	590	284	287	168	383
7	132	184	124	178	119	512	401	547	254	260	164	232
8	126	174	117	174	447	460	418	512	251	257	161	201
9	126	169	132	164	590	441	470	526	278	251	161	180
10	126	166	162	160	512	418	714	505	260	238	175	170
11	125	160	176	156	454	395	1,840	460	248	232	161	161
12	128	157	174	153	395	390	1,160	430	258	232	148	154
13	152	150	164	148	365	374	946	418	424	223	191	150
14	167	148	150	144	365	374	946	418	424	223	185	144
15	162	148	155	146	324	519	786	384	324	209	168	138
16	159	146	150	146	303	1,060	706	374	285	207	152	134
17	152	144	148	140	299	920	666	360	287	201	154	130
18	147	142	140	138	316	920	612	341	251	196	154	127
19	139	140	135	134	320	960	582	332	390	191	146	124
20	134	140	130	132	328	938	575	320	3,640	185	140	120
21	141	138	125	128	320	963	540	316	3,100	180	144	117
22	139	134	125	128	324	946	526	505	1,200	178	142	115
23	220	134	123	126	332	904	722	355	878	173	142	112
24	538	130	121	123	332	844	582	328	730	170	150	112
25	368	130	123	123	332	794	526	311	628	175	167	110
26	290	128	121	123	332	730	492	311	540	460	196	112
27	257	132	128	132	324	690	479	307	473	698	251	125
28	230	124	162	130	418	642	447	288	430	270	209	161
29	214	123	176	134	912	620	424	311	390	235	180	180
30	208	126	179	130	-	568	467	355	370	212	175	161
31	211	-	176	124	-	540	-	336	-	204	170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	5,715	538	126	184	0.434	0.50	11,340
November	4,612	217	123	154	0.363	.40	9,150
December	4,354	179	117	140	0.330	.38	8,640
Calendar year 1943	252,633	36,700	117	692	1.63	22.20	501,100
January	4,559	179	123	147	0.347	.40	9,040
February	9,501	912	119	328	0.774	.83	18,840
March	20,859	1,060	365	673	1.59	1.83	41,370
April	18,694	1,840	401	623	1.47	1.64	37,080
May	15,610	794	288	439	1.04	1.20	27,000
June	17,936	3,640	248	595	1.41	1.57	35,580
July	7,877	698	170	254	0.599	.69	15,620
August	5,239	251	140	169	0.399	.46	10,390
September	5,410	959	110	180	0.425	.47	10,730
Water year 1943-44	118,366	3,640	110	323	0.762	10.37	234,800

a No gage-height record; discharge computed on basis of weather records and range lines on recorder chart.

b Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Elk River near Tiff City, Mo.

Location.- Water-stage recorder, lat. $36^{\circ}38'$, long. $94^{\circ}35'$, in NE $\frac{1}{4}$ sec. 22, T. 22 N., R. 34 W., at bridge on State Highway 43, three-quarters of a mile downstream from Blackfoot Branch, 2 $\frac{1}{2}$ 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 1944.

Extremes.- Maximum discharge during year, 18,500 second-feet Apr. 11 (gage height, 15.36 feet); minimum, 102 second-feet Oct. 11.

1939-44: Maximum discharge, 137,000 second-feet Apr. 19, 1941 (gage height, 28.4 feet, from floodmark), by slope-area method; minimum daily, 24 second-feet Oct. 8, 1939.

Maximum stage known, that of Apr. 19, 1941.

Remarks.- Records good. No regulation this year; power plant at Noel, 9 miles above station, not operated.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	144	257	123	435	218	4,260	1,020	986	520	246	252	252
2	172	260	117	412	224	2,880	922	1,200	828	480	224	227
3	165	252	119	404	221	2,230	826	4,130	702	443	208	208
4	157	257	117	404	218	1,880	760	2,880	611	408	189	197
5	144	252	119	408	210	1,570	708	2,180	552	383	450	1,850
6	132	240	119	404	205	1,400	670	1,840	497	359	493	1,280
7	125	224	121	390	202	1,280	675	1,570	443	359	317	760
8	117	224	117	383	207	1,130	1,320	1,360	419	320	260	567
9	112	232	123	362	1,170	988	3,870	2,120	480	304	235	443
10	108	224	148	342	1,650	889	8,220	2,330	472	292	216	376
11	104	210	184	320	1,320	826	12,600	1,880	427	280	216	330
12	108	195	216	301	1,060	796	5,650	1,610	412	280	192	292
13	137	187	235	283	889	731	3,740	1,400	606	260	197	266
14	160	179	232	272	796	675	2,920	1,240	766	245	455	240
15	213	174	224	257	692	1,050	2,280	1,090	760	235	355	221
16	216	169	210	246	617	4,940	1,880	988	692	218	269	205
17	197	165	197	240	637	4,520	1,610	889	606	213	238	189
18	182	157	187	232	749	3,120	1,440	826	534	200	227	179
19	169	155	177	224	858	2,550	1,280	737	506	184	197	169
20	160	150	169	216	889	3,000	1,200	675	1,110	179	177	160
21	157	144	165	208	858	3,870	1,130	658	9,880	177	177	153
22	153	141	157	202	826	4,000	1,020	858	3,240	172	187	144
23	197	139	153	195	826	3,610	988	954	1,880	165	174	137
24	423	134	146	192	826	2,940	1,020	743	1,400	160	167	132
25	459	132	141	189	1,240	2,440	988	632	1,090	160	169	130
26	386	130	139	184	1,740	2,130	922	601	922	400	240	128
27	336	128	146	195	1,570	1,840	889	601	796	1,130	366	157
28	298	125	213	208	2,180	1,610	826	627	692	596	342	216
29	272	123	326	218	6,700	1,440	796	749	606	412	298	224
30	252	125	447	221	-	1,240	954	1,360	562	320	272	224
31	254	-	467	221	-	1,130	-	1,200	-	274	260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,207	459	104	200	0.236	0.27	12,310
November	5,484	260	123	183	.216	.24	10,880
December	5,754	467	117	186	.219	.25	11,410
Calendar year 1943	448,487	52,500	75	1,229	1.45	19.67	889,500
January	8,768	435	184	283	.534	.38	17,890
February	29,848	6,700	202	1,029	1.21	1.31	59,200
March	66,945	4,940	675	2,160	2.55	2.94	132,800
April	65,024	12,600	670	2,101	2.48	2.76	125,000
May	42,448	4,130	601	1,569	1.61	1.86	84,190
June	33,477	9,880	412	1,116	1.32	1.47	66,400
July	10,106	1,130	160	326	.384	.44	20,040
August	8,013	493	167	258	.304	.35	15,890
September	10,046	1,850	128	335	.395	.44	19,930
Water year 1943-44	290,120	12,600	104	793	.935	12.71	575,400

Peak discharge.- Feb. 29 (11 p.m.) 8,080 sec.-ft.; Apr. 11 (1:45 a.m.) 18,500 sec.-ft.; June 21 (10:30 a.m.) 16,500 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 23,200 second-feet Mar. 21 (gage height, 15.82 feet); minimum, 115 second-feet Oct. 1 (gage height, 6.18 feet).
1935-44: Maximum discharge, 76,200 second-feet May 11, 1943, (gage height, 25.37 feet), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum, 5 second-feet Aug. 31, 1936 (gage height, 5.67 feet).
Maximum stage known, about 26 feet in January 1916.

Remarks.- Records good.

Rating tables, water year 1943-44 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Dec. 28 to Feb. 28,
Mar. 21 to May 3)

Oct. 1 to Mar. 21

Mar. 22 to Sept. 30

6.2	122	8.0	1,970	5.9	110	7.5	1,480
6.4	216	9.0	3,530	6.1	178	8.0	2,210
6.6	346	10.5	6,560	6.3	280	9.0	3,940
6.8	516	12.0	10,400	6.6	495	10.0	6,010
7.2	950	14.2	17,200	7.0	871		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	190	126	394	258	4,450	1,120	2,060	690	448	318	373
2	201	185	126	370	258	2,620	1,020	4,340	580	487	296	432
3	222	201	126	354	246	2,040	936	7,360	520	424	252	338
4	234	201	126	339	234	1,650	871	4,530	479	387	225	293
5	206	190	131	318	228	1,420	820	2,940	471	366	216	306
6	180	190	131	311	222	1,280	788	2,210	424	344	502	280
7	166	185	131	311	216	1,190	729	1,760	409	351	1,050	252
8	148	175	135	297	234	1,110	729	1,520	409	318	807	236
9	139	175	144	290	453	998	1,890	2,860	947	306	448	216
10	131	175	156	276	790	904	5,150	3,200	830	293	358	197
11	126	175	165	258	892	835	4,840	2,450	861	280	312	197
12	135	170	170	240	813	779	6,450	1,910	1,560	274	280	192
13	180	165	175	234	712	723	2,940	1,570	3,500	258	247	183
14	211	161	175	228	648	691	2,210	1,320	5,790	247	225	178
15	228	156	170	222	566	779	1,780	1,160	4,630	242	236	170
16	234	152	165	216	546	4,260	1,500	1,020	3,290	230	247	167
17	216	148	156	211	526	9,530	1,290	904	2,060	220	225	163
18	201	148	175	201	556	4,260	1,140	820	1,500	216	202	155
19	185	144	165	196	779	4,710	1,040	768	1,250	211	187	148
20	175	144	161	190	870	17,300	992	710	1,080	202	178	140
21	170	139	139	185	790	14,400	926	690	947	197	170	134
22	161	139	131	185	745	5,790	882	644	820	197	167	131
23	196	139	126	180	702	4,330	904	616	720	192	163	128
24	222	135	126	175	670	3,290	915	598	644	192	159	125
25	222	135	131	175	659	2,690	893	572	671	187	211	122
26	222	131	135	170	616	2,210	820	572	749	187	358	122
27	245	126	148	190	566	1,910	758	553	626	211	744	134
28	234	126	222	196	858	1,660	720	589	546	280	1,020	155
29	211	126	290	211	3,250	1,490	710	653	495	448	563	167
30	196	126	394	246	-	1,330	980	778	456	424	409	167
31	185	-	435	270	-	1,220	-	768	-	373	331	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	5,934	246	126	191	0.205	0.24	11,770
November	4,742	201	126	158	.169	.19	9,410
December	5,286	435	126	171	.183	.21	10,480
Calendar year 1943	379,715	65,000	87	1,038	1.11	15.10	751,200
January	7,639	394	170	246	.284	.30	15,150
February	18,953	3,250	216	654	.701	.76	37,590
March	101,849	17,300	691	3,285	3.52	4.06	202,000
April	46,723	6,450	710	1,557	1.67	1.86	92,670
May	52,455	7,360	563	1,692	1.81	2.09	104,000
June	37,954	5,790	409	1,265	1.36	1.51	75,280
July	8,972	487	187	289	.310	.36	17,800
August	10,896	1,050	159	351	.376	.43	21,610
September	6,001	432	122	200	.214	.24	11,900
Water year 1943-44	307,404	17,300	122	840	.900	12.25	609,700

Peak discharge.- Mar. 1 (2 a.m.) 5,660 sec.-ft.; Mar. 17 (11:30 a.m.) 12,400 sec.-ft.; Mar. 21 (12:15 a.m.) 23,200 sec.-ft.; Apr. 12 (7 a.m.) 8,300 sec.-ft.; May 3 (2:30 a.m.) 7,920 sec.-ft.; June 14 (8:15 a.m.) 6,450 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Illinois River near Gore, Okla.

Location.- Water-stage recorder, lat. 35°36', long. 95°03', in NE1/4 sec. 22, T. 13 N., R. 21 E., 4 miles upstream from site of former gaging station, 5 1/2 miles northeast of Gore, and 10 miles (revised) 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 1944.

Extremes.- Maximum discharge during year, 29,200 second-feet Mar. 20 (gage height, 12.81 feet); minimum, 178 second-feet Dec. 4, 5.
1924-26, 1939-44: Maximum discharge, 110,000 second-feet May 11, 1943 (gage height, 24.50 feet), from rating curve extended above 40,000 second-feet by logarithmic plotting; minimum, 20 second-feet (estimated) Sept. 9, 10, 1925.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	340	181	659	429	6,800	2,180	3,170	1,100	737	480	g1,040
2	331	319	181	650	436	5,320	2,040	11,400	986	754	415	g1,010
3	295	315	181	632	429	3,740	1,830	15,000	884	729	360	g822
4	299	323	178	588	402	3,100	1,700	10,400	804	665	324	g642
5	299	323	184	560	391	2,500	1,600	6,030	782	612	296	g550
6	283	315	197	527	378	2,180	1,500	4,350	728	569	285	g689
7	264	299	194	518	367	1,950	1,410	3,510	660	527	655	g620
8	240	283	190	518	371	1,820	1,390	2,930	644	500	1,020	g450
9	223	268	197	493	422	1,670	3,130	4,050	2,050	473	729	g421
10	206	268	213	472	604	1,500	7,350	4,750	1,900	447	576	g408
11	194	265	230	450	1,000	1,370	8,790	4,250	1,780	440	480	g365
12	265	254	240	436	1,110	1,280	8,790	3,330	2,610	421	415	g319
13	417	250	243	412	1,060	1,180	5,870	2,780	6,770	395	365	g313
14	503	243	250	396	1,010	1,110	3,870	2,400	8,590	383	324	g302
15	307	240	254	381	918	1,700	3,250	2,040	8,790	350	291	291
16	340	230	250	367	865	5,360	2,780	1,830	6,160	348	269	280
17	340	223	247	349	970	11,300	2,400	1,620	3,870	330	285	269
18	319	213	243	336	1,000	10,600	2,110	1,460	2,850	319	269	253
19	299	213	236	325	1,040	16,700	1,970	1,350	2,250	302	248	248
20	280	215	223	315	1,230	26,300	1,900	1,240	2,180	302	232	232
21	319	210	219	307	1,280	28,000	1,760	1,170	1,900	302	217	227
22	319	203	210	291	1,210	14,600	1,620	1,100	1,670	285	208	217
23	291	200	203	283	1,140	9,090	1,760	1,040	1,350	274	198	208
24	381	197	200	280	1,070	6,810	1,650	977	1,190	264	203	198
25	386	197	200	276	1,060	5,310	1,600	958	1,060	258	217	188
26	381	194	200	268	1,040	4,350	1,500	1,010	1,080	274	1,330	184
27	381	194	230	291	1,040	3,690	1,450	986	1,080	274	2,900	184
28	381	190	443	323	2,260	3,250	1,330	948	930	395	1,830	198
29	376	187	486	331	4,040	2,930	1,370	1,040	830	473	1,440	217
30	345	181	535	402	-	2,620	2,700	1,060	770	534	1,100	g222
31	367	-	622	417	-	2,400	-	1,180	-	527	g958	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Inches	Acres-feet
October	9,675	386	194	312	0.197	0.23	19,190
November	7,350	340	181	245	.155	.17	14,580
December	7,860	622	178	254	.160	.18	16,590
Calendar year 1943	666,069	106,000	116	1,825	1.15	15.66	1,321,000
January	12,849	659	268	414	.262	.30	25,490
February	28,570	4,040	367	985	.622	.67	56,870
March	190,540	28,000	1,110	6,146	3.88	4.47	377,900
April	82,400	8,790	1,330	2,747	1.74	1.94	163,400
May	99,548	15,000	948	3,205	2.02	2.35	197,100
June	68,908	9,380	644	2,297	1.45	1.62	135,700
July	13,473	754	258	435	.275	.32	26,720
August	18,919	2,900	198	610	.385	.44	37,530
September	11,677	1,040	184	389	.245	.27	23,160
Water year 1943-44	551,670	28,000	178	1,507	.952	12.94	1,094,000

Peak discharge.- Mar. 18 (1:30 a.m.) 15,300 sec.-ft.; Mar. 20 (12 m.) 28,200 sec.-ft.; Mar. 21 (3 p.m.) 28,800 sec.-ft.; Apr. 12 (8 p.m.) 10,700 sec.-ft.; May 2 (2:30 p.m.) 14,600 sec.-ft.; May 3 (5 a.m.) 15,500 sec.-ft.

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 4,220 second-feet Mar. 20 (gage height, 19.41 feet); no flow at times.

1939-44: Maximum discharge, 42,000 second-feet May 10, 1943 (gage height, 26.0 feet, from floodmarks), by contracted-opening method; no flow at times each year.

Remarks.- Records good except those for days of rapidly changing stage, which are fair, and those for periods of extremely low flow, which are poor. Gage read twice-daily, oftener during rises.

Cooperation.- Records collected and computed by Corps of Engineers, U. S. Army, and reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	10	0	5	7	270	38	412	9	0	3	18
2	44	8	0	4	6	93	31	1,290	5	0	2	7
3	16	4	0	4	7	57	23	2,020	3	112	1	2
4	8	2	0	4	6	57	19	352	2	86	1	1
5	3	1	0	4	5	42	17	102	1	12	1	1
6	1	0	0	3	5	36	15	32	1	3	0	2
7	1	0	0	2	4	27	14	40	1	2	196	5
8	0	0	0	3	4	21	13	32	1	1	42	2
9	0	0	0	4	34	17	14	615	789	1	14	1
10	0	0	0	4	49	14	18	800	1,150	0	6	1
11	0	0	0	4	22	12	18	118	108	0	8	1
12	1	0	0	4	14	11	16	59	89	0	2	0
13	450	0	0	4	8	10	12	40	1,040	0	1	0
14	162	0	0	4	7	9	9	28	849	0	1	0
15	16	0	0	4	8	64	8	19	102	0	0	0
16	6	0	0	4	18	1,690	6	15	28	0	0	0
17	3	0	0	6	110	1,470	6	10	15	0	0	0
18	2	0	0	7	200	1,192	6	8	10	0	0	0
19	1	0	0	14	72	1,280	6	6	7	0	0	0
20	1	0	0	24	33	3,550	37	5	53	0	0	0
21	10	0	0	22	33	1,250	67	5	22	0	0	0
22	35	0	0	17	33	368	23	4	12	0	0	0
23	11	0	0	11	30	270	15	4	5	0	0	0
24	18	0	0	8	24	150	8	3	3	0	0	0
25	80	0	0	5	19	110	7	3	2	0	0	0
26	18	0	0	4	16	70	8	38	1	0	3	0
27	7	0	0	25	13	61	6	126	1	0	3	0
28	4	0	121	24	459	64	4	167	1	1	2	0
29	3	0	122	16	1,120	114	14	70	1	74	4	0
30	2	0	24	15	-	95	836	84	1	17	31	0
31	2	-	12	11	-	51	-	20	-	6	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	908	450	0	29.3	1,800
November.....	25	10	0	.8	50
December.....	279	122	0	9.0	553
Calendar year 1943	91,033	33,800	0	249	180,500
January.....	270	25	2	8.7	536
February.....	2,386	1,120	4	81.6	4,690
March.....	11,726	3,550	9	378	23,260
April.....	1,312	855	4	43.7	2,600
May.....	6,505	2,020	3	210	12,900
June.....	4,261	1,150	1	142	8,450
July.....	315	112	0	10.2	625
August.....	344	196	0	11.1	682
September.....	41	18	0	1.4	81
Water year 1943-44	28,351	3,550	0	77.5	56,230

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Canadian River near Taylor Springs, N. Mex.

Location.- Water-stage recorder, lat. 36°17'20", long. 104°29'10", in NW¼ sec. 27, T. 24 N., R. 23 E., 1 mile 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 1944 in reports of Geological Survey. September 1925 to July 1927 in reports of State engineer.

Extremes.- Maximum discharge during year, 7,090 second-feet Aug. 6 (gage height, 9.76 feet); minimum daily, 8 second-feet Aug. 3, 4.
1940-44: Maximum discharge, 37,400 second-feet Apr. 23, 1942 (gage height, 24.17 feet); minimum daily, 1 second-foot June 27 to July 2, July 24-27, 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	23	21	a22	b35	39	28	397	a500	a30	a10	20
2	22	25	38	a22	b36	44	30	261	a400	a40	a9	17
3	22	27	31	a23	b36	41	29	213	a300	76	a8	15
4	22	27	27	a24	b39	39	30	247	a220	a50	a8	14
5	22	26	26	a21	b47	33	29	236	175	62	a15	46
6	32	28	37	a23	b45	28	28	231	116	100	2,050	34
7	27	26	36	a28	b48	24	27	233	122	55	294	35
8	34	22	41	a19	b52	24	25	238	113	111	98	28
9	32	26	25	a21	b53	29	28	345	89	144	64	27
10	25	29	b27	a26	b45	28	43	441	78	56	60	27
11	22	33	a20	a25	b45	28	61	530	79	47	59	30
12	21	35	a25	a22	b48	30	53	570	140	a40	44	28
13	21	33	a25	a20	b53	*28	51	550	116	a40	37	29
14	20	33	a25	a22	b54	21	66	632	114	a35	30	31
15	21	33	a23	a25	b61	20	98	610	98	a35	28	28
16	22	30	a24	a26	b61	19	102	700	70	49	27	22
17	22	33	a22	a24	b60	18	96	745	a55	54	85	18
18	21	*31	a23	a28	b57	23	79	590	71	38	92	14
19	20	30	a23	a26	b64	29	80	550	a50	104	73	14
20	18	28	a28	a27	b75	37	87	a400	a40	52	109	14
21	18	28	a27	a28	b77	33	110	a350	a30	58	65	14
22	20	28	a30	a28	b78	22	106	a250	a25	45	72	13
23	22	29	a32	a33	82	28	116	a200	a22	32	53	12
24	24	32	a25	b54	83	26	92	a150	a20	28	77	12
25	27	37	a22	b55	80	24	242	a160	a18	51	74	12
26	27	32	a25	b36	62	24	220	a200	a20	28	50	12
27	25	23	a30	b27	55	22	155	a400	a17	19	52	12
28	27	17	a24	b23	43	24	200	2,140	a15	15	58	12
29	26	21	a21	b25	43	20	662	895	a13	a13	44	12
30	28	21	a25	*b28	-	26	550	a600	a17	a12	29	12
31	27	-	a22	b32	-	26	-	a600	-	a11	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	741	34	18	25.9	1,470
November.....	846	37	17	28.2	1,580
December.....	833	41	20	26.9	1,650
Calendar year 1943.....	21,738	1,020	8	59.6	43,110
January.....	803	36	19	25.9	1,590
February.....	1,617	83	35	55.8	3,210
March.....	857	44	18	27.6	1,700
April.....	3,623	652	25	117	6,990
May.....	14,664	2,140	150	473	29,090
June.....	3,141	500	13	105	6,230
July.....	1,510	144	11	48.7	3,000
August.....	3,803	2,050	8	123	7,540
September.....	615	46	12	20.5	1,220
Water year 1943-44.....	32,953	2,140	8	90.0	65,370

Peak discharge.- May 28 (7:15 a.m.) 3,250 sec.-ft.; July 8 (10 p.m.) 490 sec.-ft.; Aug. 6 (9 a.m.) 7,090 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 Roy and near Sanchez.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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.- April 1936 to September 1944.

Extremes.- Maximum discharge during year, 4,640 second-feet Aug. 6 (gage height, 4.39 feet); minimum daily, 1 second-foot Aug. 4.

1936-44: Maximum discharge, 63,800 second-feet Apr. 23, 1942 (gage height, 14.22 feet); no flow at times.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	28	22	b28	b60	53	20	643	775	13	5	23
2	25	28	40	b27	b58	53	25	455	721	25	2	19
3	22	30	30	b28	b58	47	28	302	a500	30	3	10
4	20	33	35	a30	b60	42	33	270	a400	60	1	6
5	19	35	45	a28	b68	40	30	a300	a350	53	2	2
6	20	33	37	a31	b68	33	25	a280	a300	47	1,200	4
7	23	33	37	a33	b70	30	20	a280	569	125	926	35
8	28	33	45	a30	b72	25	19	a300	a200	76	278	25
9	23	28	53	a25	b76	23	17	a400	125	119	206	25
10	30	28	40	a28	b66	25	17	a480	91	145	145	20
11	28	33	42	a30	*b60	28	19	a580	91	73	100	23
12	23	35	23	a26	b60	28	42	a540	66	60	87	22
13	20	35	22	a24	b64	*30	47	a680	135	53	76	25
14	20	35	b27	a26	b66	25	45	a680	112	42	69	22
15	20	35	b27	a28	65	23	42	a680	95	42	65	22
16	20	33	b27	a30	b68	22	91	630	87	37	60	25
17	20	*33	b25	a29	b72	20	91	747	66	37	53	19
18	20	33	b28	a32	b76	22	79	655	42	57	91	12
19	22	33	b31	a30	57	22	76	594	47	83	450	9
20	20	33	b30	a31	76	25	69	499	57	140	a200	8
21	20	33	b31	a33	76	33	83	400	45	60	a140	7
22	19	30	b34	a35	91	33	104	364	33	50	a100	7
23	17	35	b36	a34	87	35	108	254	25	40	a80	7
24	20	37	b33	a37	87	28	112	194	25	33	a90	7
25	23	37	b30	a41	95	30	87	160	23	35	a100	8
26	25	45	b32	b39	95	28	294	170	22	20	87	8
27	28	42	b35	b35	69	23	270	170	19	20	95	9
28	30	28	b31	b50	60	20	212	1,480	15	19	a75	9
29	33	23	b28	b35	57	19	278	1,420	20	13	53	9
30	30	20	b29	b48	-	16	708	a900	15	10	40	9
31	28	-	b30	b52	-	17	-	a800	-	6	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	724	33	17	23.4	1,440
November.....	977	45	20	32.6	1,940
December.....	1,015	53	22	32.7	2,010
Calendar year 1943.....	21,253.9	649	7.0	58.2	42,150
January.....	993	52	24	32.0	1,970
February.....	2,033	95	55	70.1	4,030
March.....	898	53	16	29.0	1,780
April.....	3,091	708	17	103	6,130
May.....	16,388	1,480	160	529	32,510
June.....	4,871	775	15	152	9,660
July.....	1,823	145	6	52.4	3,220
August.....	4,307	1,200	1	156	9,730
September.....	444	35	2	14.8	881
Water year 1943-44.....	37,964	1,480	1	104	75,300

Peak discharge.- May 28 (3:30 p.m.) 2,890 sec.-ft.; June 7 (7:30 a.m.) 1,730 sec.-ft.; Aug. 6 (4 p.m.) 4,640 sec.-ft.; Aug. 19 (10 p.m.) 3,400 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 Sanchez and Taylor Springs.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Canadian River near Sanchez, N. Mex.

Location.- Water-stage recorder, lat. 35°39', long. 104°23', in S½ sec. 34, T. 17 N., R. 24 E., at bridge on State Highway 65, 1 mile upstream from Lagartija Creek, 3 miles northeast of Sanchez, 10 miles downstream from Mora River, and 24 miles southwest of Mosquero.

Drainage area.-6,000 square miles.

Records available.- April 1936 to September 1944, May 1912 to December 1914 at site about 3 miles upstream.

Extremes.- Maximum discharge during year, 4,660 second-feet June 29 (gage height, 5.00 feet); minimum daily, 14 second-feet Sept. 24-28.
1912-14, 1936-44: Maximum discharge, 87,800 second-feet Sept. 2, 1942 (gage height, 19.3 feet), by slope-area method; 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. Records of water analyses for the water year 1944 are given in Water-Supply Paper 1022.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	43	52	b55	107	90	52	916	905	120	45	50
2	26	45	52	b55	93	82	68	710	853	50	31	40
3	30	46	64	b60	93	77	75	518	654	29	24	34
4	33	45	59	b60	96	73	73	454	478	96	20	27
5	30	46	57	b55	110	70	68	448	394	265	18	24
6	29	46	77	b60	117	62	73	436	348	270	18	37
7	26	46	70	b55	130	59	66	394	430	400	a1,500	24
8	29	46	70	b55	140	55	59	364	364	539	a700	30
9	33	48	85	b60	140	55	57	394	275	382	a300	35
10	34	48	b70	b70	140	57	55	504	247	370	a200	38
11	35	46	64	b75	136	57	57	782	216	364	a130	33
12	46	48	b75	73	*136	62	62	916	234	234	a110	30
13	46	52	b75	b60	126	66	80	1,070	229	175	a80	31
14	37	57	70	66	126	62	101	1,050	290	140	a70	30
15	33	59	b75	b60	126	62	96	1,100	229	163	a65	30
16	31	*59	b65	59	104	59	85	1,080	193	144	a60	29
17	33	59	59	b60	110	57	120	1,180	167	120	a60	34
18	37	59	b60	b62	101	57	140	1,210	123	104	a80	20
19	40	57	b70	b66	104	62	133	980	96	148	a150	27
20	41	59	57	b52	93	64	110	853	73	190	a500	22
21	40	59	62	50	101	66	99	702	70	242	a200	18
22	40	59	68	45	107	68	126	602	62	180	a100	16
23	40	59	70	50	126	75	202	497	50	206	a90	16
24	38	62	b60	52	120	80	211	388	37	222	a100	14
25	41	66	45	66	123	68	216	364	30	144	a120	14
26	41	75	55	77	123	73	211	320	27	130	80	14
27	40	82	64	75	133	68	406	320	24	114	152	14
28	38	b70	b55	b70	117	59	364	795	20	90	133	14
29	38	b60	b50	b65	107	57	359	1,910	1,530	85	90	18
30	40	55	b50	66	-	55	834	1,190	305	73	77	18
31	41	-	b55	73	-	52	-	898	-	57	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,109	46	24	35.6	2,200
November.....	1,662	82	43	55.4	3,300
December.....	1,960	85	45	63.2	3,890
Calendar year 1943.....	36,218	1,530	8	99.2	71,840
January.....	1,907	77	45	61.5	3,780
February.....	3,385	140	93	117	6,710
March.....	2,009	90	52	64.8	3,980
April.....	4,658	834	52	155	9,240
May.....	23,345	1,910	320	753	46,300
June.....	8,953	1,530	20	298	17,760
July.....	5,846	1,539	29	189	11,500
August.....	5,369	1,500	18	173	10,650
September.....	781	50	14	26.0	1,550
Water year 1943-44.....	60,984	1,910	14	167	121,000

Peak discharge.- May 28 (11:30 p.m.) 2,940 sec.-ft.; June 29 (5 a.m.) 4,660 sec.-ft.; Aug. 7 (2 a.m.) 3,300 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 Roy.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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, and 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 1944.

Extremes.- Maximum contents during year, 406,500 acre-feet May 30 (elevation, 4,201.71 feet); minimum contents, 337,600 acre-feet Sept. 25 (elevation, 4,194.46 feet).
1938-44: Maximum contents, 473,600 acre-feet Apr. 24, 1942 (elevation, 4,208.41 feet); minimum contents after initial filling, that of Sept. 26, 1944.

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 12 p.m.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Contents, in thousands of acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	384.8	380.5	380.3	384.5	387.8	393.5	393.9	399.6	391.2	389.4	388.3	388.1
2	384.6	380.5	380.3	384.6	388.1	393.7	394.2	400.1	389.9	389.2	388.1	344.1
3	384.5	380.4	380.3	384.8	388.3	393.5	394.2	400.6	390.8	389.2	387.8	342.7
4	384.4	380.4	380.4	384.9	388.5	393.7	394.2	400.8	391.7	389.2	387.7	342.5
5	384.4	380.4	380.5	384.9	388.7	393.8	394.4	401.0	392.4	389.6	388.8	342.7
6	384.2	380.3	380.5	384.9	388.9	393.7	394.3	401.1	392.8	390.0	389.1	342.4
7	384.0	380.1	380.7	384.9	389.0	393.7	394.2	401.2	395.4	389.3	391.1	342.3
8	384.0	380.1	380.6	384.9	389.2	393.7	394.4	399.8	396.3	390.9	391.9	342.0
9	383.8	380.0	382.2	384.8	389.6	393.7	394.5	383.8	396.8	390.6	392.1	341.7
10	383.7	380.0	382.4	384.9	389.7	393.9	394.2	384.5	392.8	390.0	392.1	341.4
11	383.3	379.9	382.3	384.9	390.2	393.9	394.2	385.8	390.8	390.1	392.1	341.1
12	383.2	379.8	382.3	385.1	390.3	393.8	394.2	386.8	389.2	389.9	392.1	341.0
13	383.1	379.7	382.6	385.1	390.4	393.8	394.2	389.6	389.3	389.6	392.0	340.9
14	382.8	379.7	382.6	385.1	390.6	393.8	393.8	390.9	389.2	389.3	392.0	340.7
15	383.8	379.6	382.7	385.2	390.7	393.7	394.0	392.8	389.5	391.1	391.3	340.2
16	382.7	379.6	382.8	385.2	391.0	393.9	393.9	394.5	389.4	390.2	391.1	340.1
17	382.5	379.6	382.9	385.4	391.0	393.9	393.8	396.0	389.3	389.5	390.8	339.8
18	382.3	379.8	382.9	385.4	391.2	393.9	393.9	398.0	389.3	389.2	390.8	339.6
19	382.2	379.8	383.0	385.4	391.2	393.8	394.0	399.6	389.4	389.5	392.4	339.4
20	381.8	379.8	383.2	385.5	391.7	393.8	394.1	400.7	389.0	389.4	393.0	339.2
21	381.7	379.8	383.3	385.6	392.0	393.7	394.2	401.6	388.8	389.8	393.3	338.9
22	381.6	379.8	383.3	385.7	392.0	393.8	394.8	402.1	388.8	389.9	393.4	338.8
23	381.5	379.8	383.6	385.8	392.2	393.8	395.1	402.3	388.7	389.6	393.2	338.3
24	381.4	379.8	383.7	385.9	392.3	393.8	395.4	402.2	389.1	389.8	393.4	338.1
25	381.4	380.0	383.9	386.0	392.4	393.8	395.5	402.3	389.1	389.8	393.4	337.9
26	381.3	380.4	383.9	386.7	392.4	393.9	395.6	402.7	388.9	389.7	393.5	337.6
27	381.3	380.4	384.2	386.8	393.0	393.8	396.1	403.0	388.6	389.4	393.3	338.2
28	381.2	380.4	384.4	387.0	393.2	393.7	397.0	403.0	388.3	389.4	390.9	338.2
29	381.1	380.4	384.4	387.1	393.5	393.7	397.3	405.7	390.5	389.0	381.0	338.1
30	380.9	380.4	384.4	387.3	-	393.8	398.0	406.5	390.4	388.8	371.5	337.7
31	380.5	-	384.5	387.6	-	393.7	-	402.4	-	388.5	362.4	-

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	4,199.56	385,000	-
Oct. 31.....	4,199.10	380,500	-4,500
Nov. 30.....	4,199.09	380,400	-100
Dec. 31.....	4,193.51	384,500	+4,100
Calendar year 1943.....	-	-	+1,900
Jan. 31.....	4,199.83	387,600	+3,100
Feb. 29.....	4,200.42	393,500	+5,900
Mar. 31.....	4,200.44	393,700	+200
Apr. 30.....	4,200.97	398,000	+4,300
May 31.....	4,201.31	402,400	+4,400
June 30.....	4,200.11	390,400	-12,000
July 31.....	4,199.92	388,500	-1,900
Aug. 31.....	4,197.20	362,400	-26,100
Sept. 30.....	4,194.47	337,700	-24,700
Water year 1943-44.....	-	-	-47,300

† Elevation at 12 p.m.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Canadian River below Conchas Dam, N. Mex.

Location.- Water-stage recorder, lat. 35°24'30", long. 104°10'10", in sec. 27, T. 14 N., R. 23 E. (projected), in Pablo Montoya Grant, 2½ miles north of Conchas Dam post office, 2.8 miles downstream from Conchas Dam, and 24 miles north of Newkirk. Datum of gage is 4,023.19 feet above mean sea level, datum of 1929.

Drainage area.- 7,350 square miles.

Records available.- April 1936 to December 1938 and December 1941 to September 1944.

Extremes.- Maximum discharge during year, 10,200 second-feet June 10 (gage height, 10.20 feet); minimum daily, 1 second-foot Sept. 16-26.
1936-38; 1941-44: Maximum discharge, 73,000 second-feet June 3, 1937; maximum gage height, 14.14 feet May 30, 1938, caused by backwater from temporary dam; no flow at times.

Remarks.- Records good. Flow regulated by Conchas Reservoir (see p. 201) after Dec. 29, 1938.

Cooperation.- Gage-height record furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	7	8	8	8	24	10	64	6,830	580	8	4,690
2	8	7	8	8	7	16	10	165	1,290	168	10	4,130
3	8	7	8	8	7	32	9	195	25	8	8	816
4	7	7	8	8	7	22	8	223	12	6	8	10
5	7	7	8	8	8	58	8	238	8	12	8	5
6	7	7	8	8	8	11	13	259	8	10	10	3
7	7	7	9	10	7	8	10	232	12	312	9	4
8	6	7	10	10	7	9	8	5,160	13	8	37	4
9	6	8	12	8	10	20	10	3,860	8	289	86	4
10	7	8	10	8	20	8	13	12	1,950	610	86	4
11	8	8	10	8	5	7	10	9	1,280	434	86	2
12	7	8	9	8	8	7	9	8	951	293	79	2
13	6	8	10	10	8	11	40	8	132	295	77	2
14	7	8	10	8	10	15	38	8	85	199	82	2
15	7	8	9	8	9	18	11	9	26	10	85	2
16	7	8	9	8	8	10	20	10	68	506	71	1
17	7	8	9	7	9	26	17	62	70	590	71	1
18	7	8	9	7	7	14	7	65	54	301	74	1
19	8	8	9	10	7	8	11	92	52	12	76	1
20	8	8	9	7	8	12	21	178	52	12	72	1
21	7	8	10	6	10	36	18	282	36	16	70	1
22	7	8	9	7	18	10	12	349	11	95	71	1
23	7	8	10	7	23	8	8	390	10	95	74	1
24	7	8	8	8	12	15	9	394	10	95	79	1
25	7	8	8	15	57	12	30	386	8	97	71	1
26	7	8	8	10	20	13	18	414	12	99	71	1
27	7	as	8	8	10	13	8	462	10	99	72	4
28	7	as	10	8	8	9	12	466	9	101	956	5
29	8	as	8	9	12	9	69	590	8	103	4,690	2
30	8	8	12	10	-	9	36	810	333	71	4,690	2
31	8	-	8	8	-	10	-	2,640	-	27	4,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	222	8	6	7.2	440
November.....	232	8	7	7.7	460
December.....	281	12	8	9.1	557
Calendar year 1943.....	14,602	3,990	4	40.0	28,950
January.....	281	15	6	8.4	518
February.....	341	57	7	11.8	876
March.....	479	58	7	15.5	950
April.....	503	69	7	16.8	998
May.....	18,090	5,160	8	584	35,880
June.....	13,321	6,830	8	446	26,540
July.....	5,551	610	8	179	11,010
August.....	16,578	4,690	8	535	32,880
September.....	9,704	4,690	1	323	19,250
Water year 1943-44.....	65,623	6,830	1	179	130,200

a No gage-height record; discharge interpolated.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Canadian River at Logan, N. Mex.

Location.- Water-stage recorder, lat. $35^{\circ}21'20''$, long. $103^{\circ}25'20''$, in NE $\frac{1}{4}$ sec. 15, T. 13 N., R. 33 E., half a mile south of Logan, $1\frac{1}{2}$ miles upstream from Chicago, Rock Island & Pacific Railroad bridge, $4\frac{1}{2}$ miles upstream from Tucumcari Creek, and $5\frac{1}{2}$ miles downstream from Ute Creek.

Drainage area.- 11,200 square miles.

Records available.- June 1904 to February 1905, December 1908 to May 1914, and October 1930 to September 1944 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).

Extremes.- Maximum discharge during year, 11,400 second-feet June 1 (gage height, 8.74 feet); no flow at times.

1930-44: Maximum discharge, 219,000 second-feet Sept. 22, 1941 (gage height, 29.3 feet, from floodmarks), from rating curve extended above 75,000 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, approximately 36.55 feet Sept. 30, 1904, at site $1\frac{1}{2}$ miles below present station (datum of that gage was 3,651.0 feet above mean sea level).

Remarks.- Records poor. Flow partly regulated by Conchas Reservoir, 45 miles upstream (see p. 201). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	0	0		25	57	0	31	5,950	0	67	4,570
2	4	0	0		a20	32	8	19	3,440	86	54	4,570
3	2	0	0		a20	a20	8	a10	1,530	315	42	3,250
4	1	0	0		a17	15	6	a5	228	184	27	981
5	1	0	0	b15	a15	14	4	156	96	442	170	107
6	1	0	0		a13	8	4	252	30	54	479	70
7	1	0	0		a13	8	2	300	278	42	236	72
8	1	0	0		a10	3	1	340	102	37	142	81
9	0	0	8		6	6	1	7,210	61	83	81	72
10	0	0		*18	3	14	0	1,080	27	183	67	65
11	0	0		15	1	10	0	752	1,890	240	59	70
12	0	0		17	1	a7	0	132	1,400	548	134	67
13	0	0		20	a1	a5	0	83	615	378	124	79
14	0	a0		18	a1	a3	0	130	244	508	102	65
15	0	a0		25	a1	2	0	72	142	256	a70	57
16	0	a0		34	1	1	0	37	99	236	34	56
17	0	*0		32	3	0	0	19	70	681	a25	56
18	0	0		40	4	0	0	11	37	508	a20	54
19	0	0		46	4	0	0	7	38	390	65	52
20	0	0	b10	57	5	0	0	5	34	270	314	48
21	0	0		88	8	0	0	13	21	184	216	46
22	0	0		56	9	0	0	61	14	162	121	44
23	0	0		44	9	0	0	200	11	142	83	44
24	0	0		38	3	1	0	290	9	a110	a70	43
25	0	1		38	a2	1	0	390	7	391	254	46
26	0	1		34	a1	8	0	396	74	248	256	52
27	0	1		63	a1	7	0	432	42	a150	1,430	63
28	0	1		124	a10	3	1	462	6	a110	a400	102
29	0	1		81	a20	2	56	474	1	a100	1,710	118
30	0	0		44	-	1	16	682	0	a90	4,570	102
31	0	-		31	-	1	-	879	-	a80	4,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	48	37	0	1.5	95
November.....	5	1	0	.2	9.9
December.....	228	-	0	7.4	452
Calendar year 1943.....	26,365	3,800	0	72.2	52,300
January.....	1,098	124	-	35.4	2,160
February.....	227	25	1	7.8	450
March.....	226	57	0	7.3	448
April.....	107	56	0	5.6	212
May.....	14,960	7,210	5	493	29,670
June.....	16,496	5,950	0	550	32,720
July.....	7,005	661	0	226	13,890
August.....	15,992	4,570	20	516	31,720
September.....	15,102	4,570	43	503	29,950
Water year 1943-44.....	71,494	7,210	0	195	141,800

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for Canadian River below Conchas Dam and Ute Creek near Logan.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time subtract 1 hour.

ARKANSAS RIVER BASIN

Canadian River near Amarillo, Tex.

Location.- Water-stage recorder and wire-weight gage, 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 Railway 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 1944.

Extremes.- Maximum discharge during year, 12,500 second-feet June 2, 15, Aug. 28 (maximum gage height, 8.10 feet June 2); minimum discharge observed, 1.2 second-feet May 10.

1924-25, 1938-44: Maximum discharge, 135,000 second-feet July 25, 1941 (gage height, 15.7 feet), from rating curve extended above 100,000 second-feet; 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 runoff during year. Wire-weight gage read once daily. Flow partly regulated by Conchas Reservoir in New Mexico (see p. 201).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	2.2	7.6		112	307	4.2	f279	1,320	7.8	122	5,150
2	8.1	2.5	7.6		154	194	12	f78	2,460	4.0	60	4,750
3	5.3	1.9	7.6		184	142	9.4	29	4,750	5.9	27	5,150
4	4.5	3.4	7.6		142	88	5.2	16	943	7.8	13	4,550
5	4.5	3.7	10		103		4.4	13	f923	384	7.8	1,470
6	5.7	3.7	12		82	e30	4.0	6.2	f360	362	6.2	1,260
7	5.7	2.8	9.2		75		4.0	3.3	f602	268	91	628
8	4.9	2.2	8.6		72		3.6	1.8	808	82	107	459
9	4.6	2.5	74		62		3.6	1.4	1,130	f78	f251	286
10	2.5	5.1	249		57	5.7	3.3	5,240	1,289	94	f127	152
11	1.9	3.4	b526	b58	27	5.2	3.6	5,010	898	69	99	152
12	1.9	5.7	87		26	5.2	4.4	6,250	1,730	329	127	85
13	2.2	9.6	33	(*)	24	4.8	25	2,630	2,000	1,470	84	75
14	2.5	9.8	25		20	4.4	4.4	f500	1,360	2,540	513	51
15	2.5	9.8	b38		44	5.2	4.4	237	4,670	836	365	29
16	2.5	9.2	b53		66	5.7	4.8	154	1,960	407	642	22
17	3.7	6.1	b33		60	4.8	3.6	137	573	317	198	21
18	4.5	4.9	*b27		54	4.8	4.4	137	297	286	148	21
19	4.9	4.9	32	(*)	51	5.2	5.2	88	245	1,010	88	14
20	5.3	4.9	32		54	5.7	4.8	72	166	775	44	11
21	6.6	4.9		359	48	4.4	4.0	60	107	826	18	7.8
22	6.6	4.9		329	46	4.4	4.0	39	75	775	7.8	4.4
23	7.1	5.7		253	37	4.4	4.0	24	51	858	146	4.0
24	8.1	7.1		237	27	3.3	4.0	13	41	626	270	3.6
25	6.6	7.1		288	21	3.3	3.6	8.4	37	515	795	3.0
26	2.2	9.2	b75	244	14	3.3	3.6	45	f113	473	445	2.7
27	1.4	9.2		909	*18	3.0	4.8	1,910	f66	327	1,950	85
28	1.6	8.1		467	f75	3.6	5.7	1,800	48	f558	4,180	116
29	1.6	7.1		279	f419	3.0	f317	724	355	431	1,220	72
30	1.4	7.6		198	-	3.6	f670	515	-	39	270	82
31	1.4	-		142	-	3.3	-	1,010	-	184	4,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	135.2	13	1.4	4.36	268
November.....	167.4	9.8	1.9	5.58	332
December.....	2,104.2	526	7.6	67.9	4,170
Calendar year 1943.....	45,558.0	4,590	.6	125	90,360
January.....	4,985	909	-	158	9,690
February.....	2,174	419	14	75.0	4,310
March.....	967.7	307	3.0	31.2	1,920
April.....	1,039.4	570	3.3	34.6	2,060
May.....	25,031.1	6,250	1.4	807	49,650
June.....	29,307	4,750	37	977	58,130
July.....	14,977.5	2,540	4.0	483	29,710
August.....	17,365.8	4,480	6.2	559	34,420
September.....	24,599.5	5,150	2.7	620	46,790
Water year 1943-44.....	122,743.6	6,250	1.4	335	243,400

Peak discharge.- May 10 (4:30 p.m.) 11,000 sec.-ft.; May 12 (6 p.m.) 10,200 sec.-ft.; June 2 (7:45 p.m.) 12,500 sec.-ft.; June 15 (7:20 p.m.) 12,500 sec.-ft.; Aug. 28 (11:30 a.m.) 12,500 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Gage heights not representative of discharge for day; discharge estimated.

d Computed on basis of fragmentary gage-height record.

Note.- Discharge computed from graph based on wire-weight gage readings Oct. 2 to Nov. 11, May 4-10, July 7, 8.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Canadian River near Canadian, Tex.

Location.— Water-stage recorder and wire-weight gage, lat. 35°55', long. 100°22', at bridge on U. S. Highway 60, 220 feet downstream from Panhandle & Santa Fe Railway bridge, 1.2 miles downstream from Red Deer Creek, and 1.6 miles northeast of Canadian, Hemphill County. 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) and April 1938 to September 1944.

Extremes.— Maximum discharge during year, 11,000 second-feet June 4 (gage height, 6.90 feet); no flow June 23-25.

1924-25, 1938-44: Maximum discharge, 122,000 second-feet Sept. 23, 1941 (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.

Maximum stage known, about 20.0 feet, Oct. 2, 1904.

Remarks.— Records poor. Daily discharge published only to show distribution of runoff. Wire-weight gage read once or twice daily and often during floods and readings used for major portion of year when water-stage recorder record is not available. Flow partly regulated by Conchas Reservoir (see p. 201). No large diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	a0.6	1.2	1.4		240	454	1.5	200	2,430	0.4	2.3	991	
2	a.6	1.2	1.5		220	284	1.5	f57	2,270	.4	2.9	4,190	
3	a.6	1.3	1.5		200	200	1.5	f531	1,530	.4	.6	3,740	
4	a.6	1.6	1.4		240	124	2.0	622	f5,060	.5	.6	4,690	
5	a.6	1.3	1.7		180	108	4.9	74	3,100	.4	.6	5,330	
6	a.6	1.3	1.6		96	43	6.3	10	808	.4	.7	3,310	
7	a1.1	1.2	1.5		220	13	5.9	4.4	852	.4	.8	1,250	
8	2.1	1.2	1.4		350	10	3.2	1.8	532	.4	.6	310	
9	1.2	1.2	32		200	5.2	2.6	1.2	527	.4	.4	144	
10	1.2	1.2	43		284	2.6	409	62	454	2.5	.6	821	
11	1.3	1.2	37	b115	f96	2.3	470	109	901	16	1.0	26	
12	1.4	*1.2	26		f57	2.3	22	3,210	1,200	342	1.2	3.8	
13	1.4	1.2	37		f124	2.1	7.4	4,520	f585	99	1.4	179	
14	1.5	1.1	108		f140	148	2.1	4,720	f1,880	636	1.9	325	
15	1.4	1.1				240	121	1.9	f1,430	f1,180	2,510	1.7	2.8
16	1.4	1.1			350	7.2	1.9	43	2,610	3,080	1.9	1.8	
17	1.4	1.2			284	3.0	63	563	3,270	416	3.6	1.9	
18	1.3	1.2		(*)	180	3.0	177	402	f416	8.7	6.3	1.2	
19	1.3	1.3	(*)		140	2.8	26	37	108	115	7.1	5.6	
20	1.5	1.3			124	2.3	2.0	19	12	839	7.1	1.5	
21	1.3	1.3			885	96	2.8	1.7	22	10	2,340	5.9	.4
22	1.3	1.3	b140		1,570	96	2.3	40	33	1.1	2,150	5.5	1.1
23	1.4	1.3		563	84	.8	5.0	7.5	0	1,270	5.5	.6	
24	1.3	1.3		262	65	.5	1.7	4.2	0	970	5.2	.7	
25	1.2	1.4		180	57	.6	1.5	2.6	.2	3,350	5.5	.6	
26	1.3	1.4			566	49	.5	1.5	30	.2	377	5.9	.8
27	1.4	1.4		1,190	105	1.3	1.5	f777	.3	12	5.5	74	
28	1.3	1.4		1,540	*350	1.8	1.8	f1,230	.4	3.6	7.1	3.3	
29	1.3	1.4		1,600	376	1.8	289	3,050	.4	2.1	189	.8	
30	1.2	1.4		852	-	2.1	284	2,790	.4	55	f5,240	.3	
31	1.4	-		376	-	1.6	-	f1,440	-	1.6	2,350	-	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	37.5	2.1	0.6	1.21	74
November.....	37.9	1.4	1.1	1.26	75
December.....	2,675.0	-	1.4	86.3	5,510
Calendar year 1943.....	42,707.6	4,450	.4	117	84,720
January.....	11,894	1,600	-	363	25,570
February.....	5,243	376	49	181	10,400
March.....	1,554.0	454	.5	50.1	3,080
April.....	1,839.4	470	1.5	61.3	3,650
May.....	28,002.7	4,720	1.2	859	51,580
June.....	22,738.0	5,050	0	921	59,860
July.....	18,751.2	3,500	.4	605	37,190
August.....	7,868.4	5,240	.4	254	15,610
September.....	25,407.2	5,330	.3	847	50,390
Water year 1943-44.....	131,038.3	5,330	0	358	259,900

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records.

b Stage-discharge relation affected by ice.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Canadian River near Newcastle, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 35°18', long. 97°36', in NW¼ sec. 35, T. 10 N., R. 4 W., at bridge on U. S. Highways 62 and 277, 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 1944.

Extremes.- Maximum discharge during year, 66,000 second-feet Apr. 10 (gage height, 8.12 feet), from rating curve extended above 30,000 second-feet; no flow at times.
1938-44: Maximum discharge, 200,000 second-feet May 4, 1941 (gage height, 9.2 feet), from rating curve extended above 80,000 second-feet; 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 16.5 feet, from information by Oklahoma Highway commission.

Remarks.- Records poor. Flow partly regulated by Conchas Reservoir in New Mexico (see p. 201). Wire-weight gage read at least once daily and readings used when water-stage recorder graph is not available, ordinarily at low water.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	5	6	183	1,050	190	153	654	291	9	142	48
2	0	2	1	358	866	149	161	463	2,820	8	96	55
3	0	1	a3	435	514	181	98	952	1,860	12	52	37
4	0	1	2	*326	452	157	80	935	1,010	3	24	20
5	0	0	8	243	a200	157	42	286	848	2	20	25
6	0	0	12	205	190	416	31	186	1,320	0	24	214
7	0	0	16	342	210	350	26	137	943	0	12	2,080
8	0	0	21	195	181	172	22	106	3,500	0	0	2,920
9	0	0	39	b150	168	91	61	21	2,860	0	0	3,020
10	0	0	*76	*b300	a146	91	17,500	66	816	0	0	1,820
11	0	0	233	b400	78	a80	2,670	47	663	0	0	1,140
12	0	0	340	*b500	46	70	657	34	1,060	0	0	551
13	0	0	126	b200	93	64	228	22	17,500	20	0	255
14	0	0	88	b200	93	61	133	18	4,410	12	0	195
15	0	0	b40	b250	91	1,710	99	15	2,320	4	0	215
16	0	0	b20	b500	82	2,210	99	9	708	1	0	72
17	0	0	*b20	*b550	78	756	106	3,780	526	0	0	50
18	0	0	b25	539	61	a550	80	1,460	629	0	416	32
19	0	0	30	738	78	1,300	83	a620	848	0	171	16
20	0	0	29	*648	108	a700	407	358	1,710	3	72	9
21	0	0	22	708	96	800	345	176	1,360	2	30	6
22	0	0	55	1,540	117	2,120	234	132	440	4	18	91
23	0	0	53	603	149	609	248	693	230	54	a10	198
24	0	0	a50	455	123	230	153	151	172	132	a5	60
25	730	0	66	514	146	123	64	101	405	428	a150	40
26	195	0	129	946	108	93	53	84	208	888	123	31
27	105	4	*205	2,970	101	74	a46	166	93	1,970	52	22
28	34	9	b130	1,540	195	55	63	142	47	1,940	34	428
29	23	10	b90	563	210	a53	237	80	25	1,430	15	1,650
30	18	10	b90	406	-	70	280	72	10	693	52	2,300
31	8	-	b100	534	-	224	-	101	-	274	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,113	730	0	35.9	2,210
November.....	42	10	0	1.4	83
December.....	2,178	340	2	70.3	4,320
Calendar year 1943	58,793	5,300	0	161	116,600
January.....	17,241	2,970	150	556	34,200
February.....	6,030	1,050	46	208	11,960
March.....	13,906	2,210	53	449	27,580
April.....	24,449	17,500	22	815	48,490
May.....	12,137	3,780	9	392	24,070
June.....	49,630	17,500	10	1,650	98,440
July.....	7,889	1,970	0	254	15,650
August.....	1,548	416	0	49.9	3,070
September.....	17,580	3,020	6	586	34,870
Water year 1943-44	153,743	17,500	0	420	304,900

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or estimated on basis of rainfall records and records for adjacent days.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Canadian River near Whitefield, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 35°16', long. 95°14', in S4SE¼ sec. 12, T. 9 N., R. 19 E., at bridge on State Highway 10, three-quarters of a mile north of Whitefield and 5½ miles upstream from Snake Creek. Datum of gage is 478.16 feet above mean sea level, datum of 1929.

Drainage area.- 47,370 square miles.

Records available.- July 1938 to September 1944.

Extremes.- Maximum discharge during year, 35,800 second-feet May 28 (gage height, 13.08 feet); minimum, 166 second-feet Aug. 25, 1938-44: Maximum discharge, 281,000 second-feet May 10, 1943 (gage height, 25.5 feet); minimum, 65 second-feet Apr. 2, 1940.

Remarks.- Records fair. Flow partly regulated by Conchas Reservoir in New Mexico (see p. 201).

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	1,040	226	1,530	2,840	17,800	2,170	8,830	11,500	1,130	2,840	1,400
2	2,490	770	235	1,280	2,030	14,800	2,030	24,300	8,230	1,220	2,170	1,690
3	1,560	580	242	1,200	1,690	10,900	2,030	23,400	6,970	1,180	1,420	1,190
4	1,060	452	235	1,190	1,520	5,410	2,760	23,400	6,270	1,040	1,040	822
5	780	442	249	1,140	2,100	4,540	2,460	19,200	7,210	1,000	822	670
6	730	452	305	994	1,820	4,630	1,960	14,300	8,790	1,030	680	913
7	640	395	291	906	1,400	2,990	1,320	8,510	9,070	917	570	3,230
8	560	332	323	917	1,640	1,960	1,760	6,730	8,230	800	462	2,240
9	510	291	395	1,430	8,510	1,560	1,690	6,730	6,490	800	395	1,400
10	500	270	520	3,930	9,370	1,530	1,690	6,490	11,100	780	350	1,700
11	471	256	660	2,680	6,270	1,160	1,820	9,370	7,970	730	314	2,990
12	433	242	740	1,590	3,150	1,060	11,000	9,070	6,050	1,010	291	3,070
13	1,020	235	760	1,560	1,690	1,000	9,970	6,970	10,800	1,580	263	2,100
14	2,990	230	740	1,520	1,300	917	6,970	6,050	20,000	1,240	249	1,480
15	2,910	230	600	1,340	2,220	895	5,210	6,050	24,400	874	266	1,190
16	1,760	235	540	1,110	5,010	4,920	4,630	6,050	14,300	800	263	961
17	1,000	230	510	1,130	5,210	9,670	3,490	6,050	11,600	811	230	750
18	740	230	540	1,490	6,730	12,000	5,070	5,410	8,230	760	212	600
19	590	222	500	2,320	7,210	15,900	2,910	2,980	6,050	690	204	490
20	471	226	462	2,910	5,610	28,800	2,990	2,680	5,010	680	194	404
21	404	226	442	2,320	5,610	26,500	3,230	3,520	4,080	650	190	359
22	359	222	433	1,760	5,010	20,800	3,310	5,010	4,170	620	187	306
23	368	222	404	1,960	3,480	14,800	2,760	4,630	4,260	590	184	277
24	1,030	222	396	1,690	2,680	10,900	2,540	4,440	5,560	590	184	249
25	2,910	222	368	1,360	1,690	11,300	2,540	9,070	2,320	590	178	226
26	1,760	222	359	1,170	1,620	9,070	2,610	8,510	1,820	580	820	217
27	2,390	222	395	1,570	1,890	7,210	2,460	13,700	1,580	990	707	208
28	2,540	222	1,520	2,990	11,500	6,490	2,320	27,600	1,390	1,040	314	204
29	1,960	226	3,070	4,350	18,500	4,720	2,390	27,600	1,230	1,100	341	204
30	1,570	226	2,540	5,010	-	2,910	5,630	27,600	1,190	1,640	442	199
31	1,320	-	2,030	4,260	-	2,390	-	20,800	-	2,840	895	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	39,096	2,990	369	1,261	77,560
November	9,592	1,040	222	320	19,050
December	21,020	5,070	226	578	41,690
Calendar year 1943	2,155,754	239,000	155	5,906	4,276,000
January	60,607	5,010	906	1,965	120,200
February	129,500	18,500	1,300	4,466	256,900
March	259,332	29,600	895	8,366	514,400
April	102,410	11,000	1,690	3,414	203,100
May	365,050	27,600	2,680	11,450	704,200
June	223,960	24,400	1,190	7,462	444,000
July	30,302	2,640	580	977	60,100
August	17,667	2,640	178	570	35,040
September	31,738	3,230	199	1,058	62,950
Water year 1943-44	1,280,174	28,800	178	3,498	2,539,000

Note.- Discharge computed from graph based on wire-weight gage readings made twice daily or oftener, Oct. 1-24, Nov. 2 to Dec. 27, Jan. 9-15, Jan. 31 to Feb. 8, Feb. 12-15, 21-27, Mar. 7-20, Mar. 29 to Apr. 1, June 24 to July 30, Aug. 1 to Sept. 30.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Vermejo River near Dawson, N. Mex.

Location.- Water-stage recorder, lat. 36°41'25", long. 104°47'30", about T. 28 N., R. 20 E., in Maxwell Grant, 2½ miles north of Dawson.

Drainage area.- 250 square miles.

Records available.- October 1930 to September 1944 in reports of Geological Survey. October 1915 to May 1923 and February 1927 to December 1931 in reports of State engineer.

Average discharge.- 20 years (1916-17, 1919-20, 1921-22, 1927-44), 23.7 second-feet.

Extremes.- Maximum discharge during year, 1,440 second-feet July 5 (gage height, 5.42 feet), from rating curve extended above 360 second-feet by logarithmic plotting; minimum daily, 1.9 second-feet Nov. 29.

1930-44: Maximum gage height, 11.88 feet Aug. 6, 1940 (discharge not determined); no flow at times.

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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	7.2	4.4			7.2	8.2	46		27	12	8.8
2	7.7	6.3	6.3			7.2	8.7	47		24	9.2	7.6
3	7.7	4.9	2.7		a8	8.2	8.2	44	a90	34	7.2	6.4
4	8.2	5.2	5.5			8.7	8.2	42		62	5.7	6.0
5	9.6	6.8	6.3			8.2	8.2	43		278	5.7	6.4
6	8.7	6.3	7.2		10	4.9		42	92	a80	6.8	6.0
7	8.2	2.9	5.2		10	3.8	11	63	92	47	19	5.7
8	8.2	2.6	6.8		16	3.8	13	103	82	46	18	5.7
9	8.2	2.9	4.4		16	5.5	16	119	73	44	13	5.7
10	7.2	3.5	2.6		a8.5	7.2	27	145	75	38	15	5.7
11	6.8	5.8	3.5			8.7	16	117	79	36	21	7.6
12	6.8	6.3	4.9			9.2	26	147	73	33	12	12
13	7.2	5.2	4.6			9.6	28	147	63	30	7.6	3.4
14	8.2	5.8	4.9			8.7	28	170	58	28	6.8	10
15	6.8	5.2		a6	a6	8.7	24	196	51	27	6.0	8.8
16	6.8	4.6				7.2	22	222	46	29	7.2	8.0
17	6.3	4.6				5.8	22	187	39	27	9.4	a6
18	5.5	6.3				7.7	18	145	35	24	18	a4
19	5.2	5.5				7.2	21	119	31	33	17	3.6
20	5.8	4.6				9.2	26	122	26	35	27	3.6
21	6.3	4.9			6.8	8.7	25	117		55	19	3.3
22	5.8	5.8			7.7	5.8	25	117		32	23	2.6
23	5.5	5.8			7.7	7.2	23	110		24	25	2.4
24	5.5	7.2			7.7	8.7	21	117		24	43	2.6
25	5.2	7.7			11	8.7	30		a25	26	a20	2.4
26	5.5	4.4			6.8	9.2	36			23	a25	3.3
27	5.8	2.4			5.5	7.2	32			19	a25	4.2
28	5.5	2.4			6.3	5.8	46			17	a20	4.5
29	5.8	1.9			9.6	4.6	75			16	a15	5.1
30	6.8	2.3			-	5.5	56		30	14	a10	4.9
31	7.7	-			-	7.2	-		-	14	9.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	212.7	9.6	5.2	6.96	422
November.....	147.3	7.7	1.9	4.91	292
December.....	171.3	-	2.6	5.53	340
Calendar year 1943.....	4,161.1	200	1.5	11.4	8,250
January.....	186	-	-	6.00	369
February.....	229.6	16	-	7.92	455
March.....	225.3	9.6	3.8	7.27	447
April.....	716.7	75	8.2	25.9	1,420
May.....	3,427	222	42	111	6,500
June.....	1,620	-	-	54.0	3,210
July.....	1,226	278	14	39.5	2,430
August.....	478.2	43	5.7	15.4	948
September.....	196.8	34	2.4	6.56	390
Water year 1943-44.....	8,636.9	278	1.9	24.1	17,520

Peak discharge.- July 4 (11 p.m.) 945 sec.-ft.; July 5 (4 p.m.) 1,440 sec.-ft.; Sept. 12 (11 p.m.) 167 sec.-ft.

a No gage-height record; discharge computed on basis of 1 discharge measurement, weather records, and records for Cimarron River at Ute Park and at Springer, and Cimarron River near Guy.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cieneguilla Creek near Eagle Nest, N. Mex.

Location.— Water-stage recorder, lat. 36°29'00", long. 105°15'40", in Maxwell Grant, a quarter of a mile downstream from Schoolhouse Draw, about 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 1944 in reports of Geological Survey (no winter records after November 1932). April 1928 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 354 second-feet May 11 (gage height, 4.75 feet); minimum daily recorded, 1.2 second-foot Aug. 2-4.
1930-44: Maximum discharge recorded, 412 second-feet July 11, 1941; maximum gage height recorded, 4.65 feet Aug. 23, 1935; no flow at times.

Remarks.— Records good 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	b3.6	*2.6				*15	82	36	5.2	1.4	1.8
2	2.4	3.0	-				-	77	a32	4.3	1.2	1.7
3	2.5	b3.0	-				-	75	a30	4.9	1.2	1.6
4	2.4	b3.5	-				-	60	a29	5.8	1.2	1.5
5	2.4	4.0	-				-	48	a27	4.9	1.5	1.7
6	2.5	4.0	-				-	64	a24	7.8	1.8	1.8
7	3.4	3.6	-				-	105	a21	4.1	1.9	1.8
8	3.4	4.0	-				-	144	a18	3.0	1.7	1.9
9	2.8	a3.7	-				-	155	a16	2.9	2.4	1.8
10	2.4	a3.5	*1.9				-	210	a14	2.9	2.2	1.9
11	2.5	3.8	-				-	248	a13	2.9	2.0	2.9
12	3.6	3.6	-				-	258	a12	2.8	2.0	3.0
13	2.9	b3.0	-				-	222	11	2.9	1.8	2.5
14	2.5	b3.5	-				-	202	10	3.0	1.6	2.4
15	2.4	b3.2	-				-	184	9.1	2.8	1.5	a2.3
16	2.4	b3.2	-				-	168	7.0	2.5	1.6	a2.2
17	2.3	*3.6	-				-	146	6.2	3.0	1.6	a2.1
18	2.5	b3.5	-				24	117	5.6	2.9	1.9	a2.0
19	3.2	b3.0	-				26	99	4.9	2.9	2.4	a2.2
20	3.5	b3.2	-				31	88	4.1	3.4	2.2	a1.9
21	3.4	b3.5	-				38	79	4.3	4.9	1.9	a1.5
22	3.0	b4.0	-				38	72	4.5	3.6	1.8	a1.5
23	*2.8	4.0	-				66	65	4.7	3.0	2.4	a1.6
24	3.0	4.1	-				64	59	3.8	3.2	3.0	a1.8
25	3.0	4.0	-				74	58	3.4	3.4	2.5	a2.0
26	2.9	4.1	-				59	60	4.9	2.8	2.5	a2.5
27	3.2	b3.0	-				54	61	3.4	2.4	2.9	2.8
28	3.0	a2.5	-				60	67	2.6	2.6	2.6	2.9
29	4.1	a2.2	-				74	55	2.9	1.8	2.3	2.8
30	4.9	a2.0	-				78	45	6.0	1.7	2.0	2.5
31	4.1	-	-				-	41	-	a1.6	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	92.0	4.9	2.3	2.97	182
November.....	102.8	4.1	2.0	3.43	204
December.....	-	-	-	-	-
Calendar year 1943	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April 18-30.....	686	78	24	52.8	1,360
May.....	3,414	258	41	110	6,770
June.....	370.4	36	2.6	12.5	735
July.....	105.6	7.8	1.6	3.40	209
August.....	61.0	3.0	1.2	1.97	121
September.....	62.9	3.0	1.5	2.10	125
Water year 1943-44	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 1 discharge measurement, weather records, recorded range in stage, and records for Moreno Creek at Eagle Nest and Six Mile Creek near Eagle Nest.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cimarron River at Ute Park, N. Mex.

Location.- Water-stage recorder, lat. 36°33'30", long. 105°05'20", in Maxwell Grant, half a mile downstream from Ute Creek and about 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 1944 in reports of Geological Survey. July 1907 to December 1931 in reports of State engineer.

Average discharge.- 25 years (1918-25, 1926-44; since completion of Eagle Nest Dam), 30.4 second-feet.

Extremes.- Maximum discharge during year, 354 second-feet May 17, 18 (gage height, 3.33 feet); minimum daily, 5 second-feet Feb. 10, 11.

1930-44: Maximum discharge, 404 second-feet May 12, 1942 (gage height, 3.43 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 poor. Flow regulated by Eagle Nest Reservoir (capacity, 78,800 acre-feet). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	23	b10	b7	a6	6.7	*9.2	35	123	70	38	37
2	19	21	b9	b7	*5.7	6.7	9.5	38	117	57	38	36
3	19	21	b9	b7.5	b5.5	6.0	8.9	36	107	56	37	36
4	19	*22	b9	b7	b6	6.7	9.8	35	98	63	37	36
5	18	22	9.5	a6.5	6.0	6.7	10	35	90	90	34	37
6	18	22	9.2	a7	6.0	b6.5	13	41	82	91	38	36
7	18	b20	b9	a6.5	6.0	b6.5	14	58	76	87	45	36
8	18	b20	9.2	a6	6.0	b7	14	70	73	66	45	36
9	18	21	b9	a6.5	b5.5	b7.5	14	76	77	61	46	36
10	20	21	b9	a7	b5	b7.5	12	91	77	85	68	36
11	24	22	b9	a6	b5	7.7	b18	98	76	85	95	36
12	25	22	b8.5	a5.5	b5.5	7.7	23	111	74	85	90	31
13	25	22	b8	a6	b5.5	7.7	31	116	71	83	81	23
14	25	22	b8	a6.5	b5.5	*7.7	29	121	90	83	59	23
15	25	22	b8.5	a6	b5.5	7.7	26	135	88	64	59	23
16	24	21	b6.5	a6	b6	b7.5	26	206	85	56	59	23
17	24	21	b9	a6	b6	7.7	26	341	83	79	59	21
18	26	21	b9	a6.5	b6.4	8.3	25	*350	82	86	59	21
19	30	*21	8.9	a6.5	b6	b6.5	26	325	79	52	51	21
20	31	21	b9	a6.5	b6.5	8.6	*27	270	74	53	45	21
21	31	21	b8.5	a6.5	b6	b8.5	26	226	71	52	45	33
22	31	21	8.6	a6.5	b6	b8	25	189	71	45	45	33
23	27	20	b8	a6.5	b6	b8.5	b26	146	70	39	47	42
24	21	21	b7.5	a7	b6	8.9	28	117	59	44	48	79
25	31	21	b7	a6.5	6.2	9.2	30	98	61	43	39	82
26	31	11	b7.5	a6	b6	8.9	30	97	83	42	38	83
27	31	b10	b7.5	a5.5	b5.5	b8.5	31	98	82	42	38	85
28	31	b10	b7	a5.5	b5.5	b8	33	102	83	41	37	87
29	33	b10	b7.5	a6	b6	b7.5	34	123	85	36	36	87
30	28	b10	b7.5	a6	-	b8.5	33	125	87	32	37	79
31	19	-	b7	a6	-	9.2	-	127	-	38	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	760	33	18	24.5	1,510
November.....	593	23	10	19.4	1,160
December.....	261.9	10	7	8.45	519
Calendar year 1943.....	14,067.9	117	7	38.5	27,920
January.....	197.5	7.5	5.5	6.37	392
February.....	167.8	6.4	5	5.79	333
March.....	241.5	9.2	6.5	7.79	479
April.....	667.4	34	8.9	22.2	1,329
May.....	4,035	350	35	130.2	8,000
June.....	2,474	123	59	82.5	4,910
July.....	1,686	91	32	60.8	3,740
August.....	1,497	95	34	48.3	2,970
September.....	1,295	87	21	43.2	2,570
Water year 1943-44.....	14,066.1	350	5	38.4	27,900

* 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 Springer and Vermejo River near Dawson.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Cimarron River at Springer, N. Mex.

Location.- Water-stage recorder, lat. 36°21'30", long. 104°35'50", in Maxwell Grant, at Springer, Colfax County, 270 feet downstream from highway bridge, 6 miles downstream from Rayado River, and 6 miles upstream from mouth.

Records available.- July 1907 to December 1909, October 1930 to September 1944 in reports of Geological Survey. August 1907 to December 1909 and January 1921 to December 1931 in reports of State engineer.

Average discharge.- 23 years (1920-25, 1926-44; since completion of Eagle Nest Dam), 24.7 second-feet.

Extremes.- Maximum discharge during year, 505 second-feet May 17; (gage height, 4.58 feet); minimum daily, 1.2 second-feet Aug. 2-4.

1930-44: Maximum gage height, 10.11 feet Apr. 23, 1942 (discharge not determined); minimum daily discharge, 0.1 second-foot Apr. 11, 1933.

Remarks.- Records good 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	6.7	b7				5.5	6.7	124	4.7	1.4	1.7
2	3.2	7.3	7.3				*7.3	5.5	188	3.6	1.2	1.6
3	2.8	7.3					6.7	5.1	161	3.2	1.2	1.4
4	2.8	6.7		b5.5	a5.5	a5.5	6.1	5.5	149	3.2	1.2	1.7
5	4.4	6.1					5.1	5.5	72	3.6	1.4	1.7
6	4.7	6.7					4.7	5.1	31	4.7	4.0	1.7
7	4.7	9.1					3.6	4.7	23	4.0	4.0	2.1
8	4.0	7.9	7.3	b5.0	a5	a6	3.6	6.7	17	7.3	3.6	3.6
9	4.4	7.9					4.4	95	15	5.5	4.7	3.2
10	4.0	7.3	b7				7.3	117	13	6.7	6.7	4.0
11	3.2	6.1		(*)			10	170	14	5.5	5.5	4.4
12	3.6	5.5					9.7	256	13	4.7	3.6	3.2
13	3.6	5.5	b6.5	a4.5	a4.5	a6.5	7.9	292	11	4.0	2.5	3.2
14	4.0	5.5					7.3	272	7.9	3.6	2.1	4.4
15	5.1	5.1					6.7	202	6.1	5.2	1.7	3.6
16	5.1	5.1				*6.7	7.3	276	5.5	3.2	1.7	2.8
17	4.7	5.5				7.3	7.3	435	5.1	3.2	3.4	2.1
18	4.7	*5.5	b7		a5	8.5	5.5	400	5.1	2.8	9.7	1.7
19	5.1	5.5				10	7.3	376	3.6	5.5	5.5	1.7
20	4.7	5.5				11	7.9	300	2.8	5.5	5.1	1.7
21	5.5	5.5			a5.5	10	7.3	244	2.8	4.7	4.4	1.5
22	5.5	5.5				10	9.1	130	2.5	4.4	4.0	1.5
23	6.7	5.5	b6		a5.5	9.7	11	83	2.1	3.6	3.2	1.5
24	7.9	6.7				9.7	7.9	31	2.5	3.6	3.2	1.5
25	7.3	7.9				6.7	7.9	31	2.8	3.2	3.6	1.7
26	6.7	8.5				6.1	6.7	32	3.2	2.5	3.6	2.1
27	7.9		b7.5	b4.5	a4.5	5.5	6.7	59	2.5	1.7	3.6	2.1
28	7.9					6.1	7.3	93	2.8	1.5	3.2	2.1
29	7.9					b5.5	7.9	104	2.8	1.4	3.2	2.1
30	6.7					6.1	7.3	82	2.8	1.5	2.8	1.7
31	6.1	-		b6	-	5.5	-	93	-	1.5	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	158.9	7.9	2.8	5.13	315
November.....	197.4	9.1	5.1	6.58	392
December.....	201.6	-	-	6.50	400
Calendar year 1943	4,288.2	126	1.1	11.7	8,510
January.....	161.5	-	-	5.21	320
February.....	145.5	-	-	5.02	289
March.....	212.6	11	-	6.86	422
April.....	212.1	11	3.6	7.07	421
May.....	4,177.8	415	4.7	135	8,290
June.....	893.9	188	2.1	29.8	1,770
July.....	117.3	7.3	1.4	3.78	233
August.....	138.1	34	1.2	4.45	274
September.....	69.2	4.4	1.4	2.31	137
Water year 1943-44	6,685.9	415	1.2	18.3	13,260

Peak discharge.- May 17 (1 p.m.) 505 sec.-ft.; Aug. 17 (2 p.m.) 120 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records or records for Cimarron River at Ute Park and Vermejo River near Dawson.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Six Mile Creek near Eagle Nest, N. Mex.

Location.— Water-stage recorder and concrete control, lat. 36°31'10", long. 102°16'15", 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 1944 in reports of Geological Survey (no winter records after November 1932). April 1928 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 82 second-feet Apr. 12 (gage height, 2.14 feet); minimum daily discharge recorded, 0.2 second-foot Aug. 3, 4.

1930-44: Maximum discharge, 230 second-foot 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 (ice jam); 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.3	*1.8				4.7	15	15	1.2	0.4	1.9
2	1.4	bl.2	-				4.7	17	14	1.2	.4	1.7
3	1.4	bl.1	-				4.9	14	11	1.3	.2	1.7
4	1.4	bl.2	-				7.2	12	11	1.8	.2	1.7
5	1.3	1.3	-				9.1	13	10	1.2	.5	1.9
6	1.4	bl.2	-				8.5	19	9.4	1.2	.4	1.9
7	1.4	bl.2	-				8.5	30	8.8	.9	.4	1.9
8	1.9	bl.3	-				8.3	34	7.8	.9	.4	1.7
9	2.2	bl.3	-				7.8	33	7.2	.9	.4	1.9
10	2.0	bl.4	-				7.0	44	6.5	.7	.5	1.9
11	2.0	bl.4	-				7.2	42	6.0	.7	1.2	2.0
12	2.7	bl.5	-				14	50	6.0	.7	1.7	2.0
13	2.0	bl.4	-				11	56	5.9	.7	1.6	1.9
14	1.7	bl.4	-				9.4	55	5.3	.7	1.6	1.9
15	1.7	bl.3	-				8.3	61	5.1	.7	1.6	1.9
16	1.7	bl.4	-				7.2	64	4.9	.9	1.6	1.9
17	1.6	*bl.5	-				6.7	54	4.2	.9	1.6	1.9
18	1.6	-	-				7.0	39	4.0	.9	1.7	1.7
19	2.2	-	-				9.4	31	3.4	.7	2.0	1.9
20	1.7	-	-				9.4	28	1.6	.9	2.2	1.7
21	1.7	-	-				7.5	29	1.4	1.0	1.9	1.3
22	1.7	-	-				6.0	28	1.3	.7	1.9	1.3
23	*1.6	-	-				10	26	1.3	.7	2.0	1.4
24	1.4	-	-				11	26	1.3	.9	2.3	1.4
25	1.4	-	-				9.1	23	1.3	.7	2.0	1.6
26	1.3	-	-				8.8	20	1.3	.6	1.9	1.9
27	1.2	-	-				11	19	1.0	.5	2.0	1.9
28	1.2	-	-				15	18	1.0	.5	2.0	1.6
29	1.6	-	-				14	17	1.2	.5	2.0	1.4
30	1.4	-	-				16	16	1.0	.4	2.0	1.4
31	1.2	-	-			4.7	-	16	-	.4	1.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	50.6	2.7	1.2	1.63	100
November 1-17	22.4	1.5	1.1	1.32	44
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	266.7	16	4.7	9.96	533
May.....	681	64	12	30.7	1,890
June.....	161.1	15	1.0	5.37	320
July.....	25.5	1.3	.4	.82	51
August.....	42.3	2.3	.2	1.36	84
September.....	52.2	2.0	1.3	1.74	104
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Moreno Creek at Eagle Nest, N. Mex.

Location.— Water-stage recorder and concrete control, lat. 36°33'10", long. 105°15'55", 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 1944 in reports of Geological Survey (no winter records after November 1932). April 1928 to December 1931 in reports of State engineer.

Extremes.— Maximum discharge during year, 161 second-feet May 14 (gage height, 2.33 feet); minimum daily recorded, 0.6 second-foot Sept. 21, 22, 1930-44; Maximum discharge, 223 second-feet Apr. 23, 1942; maximum gage height recorded, 3.54 feet (datum then in use) Mar. 10, 1937 (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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	2.6	*1.1				14	53	40	6.9	1.7	1.1
2	1.9	2.2	-				14	59	37	6.6	1.6	1.0
3	2.0	2.0	-				14	46	36	14	1.4	.9
4	1.9	2.0	-				18	41	31	12	1.4	.9
5	1.6	2.2	-				19	44	25	9.2	1.9	1.0
6	1.7	2.2	-				24	68	18	9.9	2.0	1.0
7	2.0	2.0	-				25	100	18	7.2	2.0	.9
8	2.0	b2.3	-				25	107	18	6.6	1.9	.9
9	1.7	b2.3	-				26	98	17	6.4	2.4	.9
10	1.4	b2.2	*1.8				14	121	15	5.8	2.6	1.1
11	1.6	b2.3	-				28	115	14	5.2	2.2	1.7
12	2.6	2.4	-				31	119	13	4.4	2.0	1.2
13	1.9	2.4	-				37	130	12	3.7	1.7	1.1
14	1.6	2.6	-				33	131	11	3.9	1.4	1.0
15	1.4	2.6	-				27	128	11	3.7	1.6	1.0
16	1.4	2.4	-				25	138	9.9	4.2	1.4	1.0
17	1.2	*2.8	-				24	127	7.2	4.2	1.2	.9
18	1.1	2.2	-				24	97	7.2	3.9	1.9	.9
19	2.2	2.4	-				36	79	7.2	3.9	2.4	.8
20	2.8	2.6	-				32	74	6.9	4.2	2.2	.8
21	1.7	2.2	-				28	73	6.9	4.4	2.4	.6
22	1.7	2.2	-				25	70	6.9	3.7	1.9	.6
23	*1.7	2.2	-				31	66	6.6	3.2	2.0	.8
24	1.7	b2.5	-				30	61	6.9	3.7	3.0	.9
25	1.7	b2.6	-				35	59	7.6	3.4	2.4	1.1
26	1.9	1.6	-				34	61	7.6	3.0	1.9	1.4
27	1.9	b1.3	-				41	58	6.9	2.6	1.9	1.4
28	2.2	a1.2	-				55	59	5.2	2.6	2.4	1.6
29	3.2	a1.1	-				45	51	5.2	2.6	1.7	1.6
30	3.9	a1.0	-				46	48	6.1	2.4	1.4	1.2
31	3.0	-	-			14	-	45	-	2.0	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	61.0	3.9	1.1	1.97	121
November.....	64.6	2.8	1.0	2.15	128
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January.....	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April.....	860	55	14	28.7	1,710
May.....	2,526	138	41	81.5	5,010
June.....	420.3	40	5.2	14.0	834
July.....	159.5	14	2.0	6.15	316
August.....	59.1	3.0	1.2	1.81	117
September.....	31.3	1.7	.6	1.04	62
Water year	-	-	-	-	-

Peak discharge.— May 14 (1 a.m.) 161 sec.-ft.; July 3 (5 p.m.) 75 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records or records for Cieneguilla Creek and Six Mile Creek near Eagle Nest.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

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., at Sauble Ranch in Maxwell Grant, 10 miles southwest of Cimarron and 16 miles upstream from mouth.

Records available.— May 1911 to December 1914 (at site 3 miles upstream) and October 1930 to September 1944 in reports of Geological Survey. January 1915 to December 1931 in reports of State engineer.

Average discharge.— 23 years (1911-12, 1913-14, 1916-17, 1920-24, 1928-44), 15.5 second-feet.

Extremes.— Maximum discharge during year, 395 second-feet May 11 (gage height, 3.65 feet); minimum daily, 1.8 second-feet Nov. 7.

1930-44: Maximum discharge, 1,140 second-feet Apr. 23, 1942 (gage height, 4.94 feet), from rating curve extended above 190 second-feet by logarithmic plotting; minimum daily, 0.5 second-foot Dec. 8, 1932, Nov. 22, 1934.

Remarks.— Records good 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	3.1	b3.6	a3.5	a4	b4.1	*7.6	53	90	17	5.2	3.6
2	3.9	2.8	3.9		a4	4.5	7.6	66	83	17	5.0	3.6
3	3.6	3.2	b3.5		a3.5	4.3	7.9	54	74	15	4.7	3.4
4	3.6	*4.1	b3.7		a4	4.5	9.3	47	66	16	4.5	3.4
5	3.4	4.1	4.1		a4.5	b4.1	12	43	59	17	5.0	3.9
6	3.6	3.6	4.1	a3.5	a4.5	b3.2	15	65	56	a20	5.4	3.9
7	3.9	1.8	4.3		a4.5	3.6	16	145	51	14	5.7	3.6
8	4.1	2.5	4.3		a4.5	b4.0	17	138	47	12	5.0	3.4
9	4.1	3.6	b4.0		a4	b4.5	17	132	42	12	5.2	3.4
10	3.4	3.9	b3.5		a3.5	4.7	12	187	40	12	5.0	3.6
11	3.4	4.1	b4.0	a3.5	a3	5.0	15	212	39	11	4.7	6.3
12	4.3	3.6	b4.0		a3	5.4	21	199	36	11	4.5	4.5
13	4.1	3.4	b3.5		a3.5	6.0	27	193	31	11	4.3	4.1
14	3.6	3.6	b3.5		*b4	*6.0	24	187	30	10	3.9	3.9
15	3.6	3.4	b3.9		b4.5	6.3	22	199	27	10	3.9	3.6
16	3.6	3.1	b4.0	a4	b4.5	5.7	22	203	24	9.7	3.6	3.4
17	3.4	3.2	b4.0		b4.5	6.3	20	170	23	9.7	3.6	3.4
18	3.4	3.9	b4.0		b4.5	7.0	20	130	21	9.3	4.5	3.2
19	3.6	3.1	4.1		b3.5	b6.5	24	109	21	12	6.6	3.1
20	3.9	3.2	4.5		b4.0	b6.0	23	97	19	10	4.7	2.9
21	3.2	3.2	b4.0	a3.5	b4.2	b5.5	23	90	19	12	5.7	2.8
22	3.9	3.6	b4.0		b4.4	b5.0	19	86	19	9.7	5.4	2.9
23	3.6	3.6	b3.5		b4.5	b5.5	23	81	17	8.5	4.7	2.8
24	3.4	3.9	b3.5		4.5	6.0	24	83	19	8.9	6.6	2.9
25	3.6	3.6	b3.5		4.3	6.6	30	83	20	8.5	5.4	3.1
26	3.6	2.6	b4.0	a3.5	b4.0	6.3	30	86	20	7.3	5.0	3.2
27	3.5	2.5	a4.0		b3.5	b5.0	37	92	15	6.6	5.7	3.4
28	3.6	b3.0	a3.5		b3.5	b4.5	48	90	15	6.0	5.0	5.2
29	4.1	b2.8	a4.0		b3.6	b5.0	42	103	17	5.7	4.3	4.1
30	4.3	b3.2	a4.0		a4	b5.5	42	107	17	5.7	4.1	a3.7
31	3.6	-	a3.5	-	-	6.5	-	103	-	5.4	3.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	116.0	5.0	3.2	3.74	230
November.....	99.3	4.1	1.8	3.31	197
December.....	120.0	4.5	3.5	3.87	238
Calendar year 1943.....	3,778.8	56	1.8	10.4	7,490
January.....	115.0	-	-	3.71	228
February.....	116.5	4.5	3	4.02	231
March.....	163.2	7.0	3.2	5.26	324
April.....	657.4	45	7.6	21.9	1,300
May.....	3,638	212	43	117	7,220
June.....	1,057	90	15	35.2	2,100
July.....	340.0	20	5.4	11.0	674
August.....	150.8	6.6	3.6	4.96	299
September.....	108.3	6.3	2.3	3.61	215
Water year 1943-44.....	6,681.5	212	1.8	18.3	13,260

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage and weather records or records for Cimarron River at Ute Park and Mora River at La Cueva.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Rayado River near Miami, N. Mex.

Location.— Water-stage recorder and concrete Parshall flume, lat. 36°22'00", long. 104° 52'40", in SW¼ sec. 25, T. 25 N., R. 19 E. (projected), 50 feet downstream from diversion dam for Valdez ditch, 6 miles northwest of Miami, and 16 miles west of Springer.

Records available.— March 1939 to September 1944.

Extremes.— Maximum discharge during year, 325 second-feet May 12 (gage height, 3.45 feet); no flow at times.

1939-44: Maximum discharge, 620 second-feet Apr. 23, 1942 (gage height, 3.90 feet), from rating curve extended above 170 second-feet; 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0				0	2.6	78	1.9	0	
2			0				0	3.8	70	1.8	0	
3			0				0	2.4	52	1.6	0	
4			0				0	1.5	12	1.4	.1	
5			0				0	1.0	10	1.8	.8	
6			0				0	1.9	9.1	2.1	.9	
7			0				0	7.1	8.9	1.2	a1	
8			0				0	51	7.7	1.2		
9			0				0	94	6.9	1.4		
10			0				0	111	6.9	1.2		
11			0				0	180	6.7	1.3	.9	
12			0				0	205	6.4	1.3	.8	
13			0				.5	205	5.2	1.3	.6	
14			0				1.0	180	3.6	1.2	.5	
15			0				.6	205	3.3	1.1	.2	
16			0				.7	260	3.0	1.0	0	
17			0				.5	180	2.8	1.0	0	
18			0				.5	114	2.5	.9	0	
19			0				1.0	88	2.5	1.1	0	
20			0				.9	6.4	2.4	.8	0	
21			0				.9	3.6	2.4	1.0	0	
22			0				1.0	2.4	2.4	.9	0	
23			0				.7	1.4	1.9	1.0	0	
24			0				1.1	1.0	2.2	1.0	0	
25			0				1.4	.9	2.8	.9	0	
26			b1				1.3	32	2.6	.4	0	
27							1.9	72	1.8	.2	0	
28							2.8	78	1.6	0	0	
29							2.2	57	1.8	0	0	
30							1.9	18	1.9	0	0	
31							-	44	-	.1	0	
Month							Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	
October							0	0	0	0	0	
November							0	0	0	0	0	
December							6	-	0	.19	12	
Calendar year 1943							239.9	6.4	0	.66	476	
January							0	0	0	0	0	
February							0	0	0	0	0	
March							0	0	0	0	0	
April							20.9	2.8	0	.70	41	
May							2,209.7	260	.9	71.3	4,380	
June							321.3	78	1.6	10.7	637	
July							32.1	2.1	0	1.04	64	
August							8.8	-	0	.28	17	
September							0	0	0	0	0	
Water year 1943-44							2,598.8	260	0	7.10	5,150	

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.— No gage-height record Jan. 1 to Feb. 13, Aug. 7-10; records computed on basis of recorded range in stage, weather records, and records for station at Sauble Ranch.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Colmor intake canal near Ocate, N. Mex.

Location.— Water-stage recorder, lat. $36^{\circ}08'55''$, long. $104^{\circ}52'30''$, in SW $\frac{1}{4}$ sec. 12, T. 22 N., R. 19 E., 130 feet downstream from head gate, 5 miles southwest of Lake Charette, and 10 miles southeast of Ocate.

Records available.— May 1933 to September 1944.

Average discharge.— 11 years, 5.33 second-feet.

Extremes.— Maximum discharge during year, 305 second-feet Aug. 7 (gage height, 3.70 feet); no flow at times.

1933-44: Maximum discharge, 892 second-feet Aug. 23, 1942 (gage height, 5.69 feet), from rating curve extended above 130 second-feet on basis of theoretical rating for canal; no flow at times.

Remarks.— Records poor. Canal diverts from Ocate River and delivers water to Lake Charette, which serves as a reservoir for Colmor irrigation district.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1.9				0.3	10	9.8	a0	0	0
2		0	0				1.1	9.8	5.6	a0	0	0
3		0	0				.6	9.8	5.8	a0	0	0
4		0	0				.5	9.1	5.6	a0	0	0
5		0	5.1				.4	9.1	4.6	a0	0	0
6		0	10				.3	8.8	4.5	a0	0	0
7		0	5.6				.3	11	4.8	a0	82	0
8		0	3.3			a1.5	.6	17	4.3	0	1.4	0
9		0	2.5				.8	18	.9	.1	1.0	0
10		0	1.9				1.9	19	0	0	.3	0
11		0	1.8				1.9	38	.8	0	0	.3
12		0					1.7	34	.2	0	0	0
13		0					1.8	32	0	0	0	0
14		0					1.8	33	0	0	0	0
15		0					1.4	28	0	0	0	0
16		0		a1.5	a1.5		1.8	23	0	0	0	0
17		0				.7	.5	13	0	0	0	0
18		0				.4	1.2	14	a0	0	0	0
19		0				.7	2.5	12	a0	0	0	0
20		0				1.8	2.7	11	a0	0	0	0
21		0	a1.5			1.1	2.0	9.4	a0	0	0	0
22		0				1.5	3.5	7.5	a0	0	0	0
23		0				1.8	5.0	6.3	a0	0	0	0
24		1.7				1.0	3.8	5.0	a0	0	0	0
25		3.1				.3	5.3	3.3	a0	0	0	0
26		2.5				1.0	4.0	6.3	a0	0	0	0
27		1.9				.2	5.3	6.9	a0	0	0	0
28		1.9				2.0	6.0	5.8	a0	0	0	0
29		2.0				1.7	16	5.6	a0	0	0	0
30		1.9				1.7	12	16	a0	0	0	0
31		-				.6	-	17	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	15.0	3.1	0	.50	30
December.....	62.1	10	0	2.00	123
Calendar year 1943.....	706.7	15	0	1.94	1,400
January.....	46.5	-	-	1.50	92
February.....	43.5	-	-	1.50	86
March.....	39.5	2.0	.2	1.27	78
April.....	90.8	16	.3	3.03	180
May.....	451.7	38	3.3	14.6	896
June.....	47.0	9.8	0	1.57	93
July.....	.1	.1	0	.003	.2
August.....	84.7	82	0	2.75	168
September.....	.3	.3	0	.01	.6
Water year 1943-44.....	881.2	82	0	2.41	1,750

a No gage-height record; discharge computed on basis of weather records or records for station on Rayado River near Cimarron and near Miami.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Mora River at La Cueva, N. Mex.

Location.- Water-stage recorder, lat. 35°56'15", long. 105°15'05", in Mora Grant, at highway bridge at La Cueva, Mora County, 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 and April 1931 to September 1944 in reports of Geological Survey. April to December 1931 in reports of State engineer.

Average discharge.- 16 years (1906-7, 1908-10, 1931-44), 35.5 second-feet.

Extremes.- Maximum discharge during year, 407 second-feet May 16 (gage height, 2.65 feet); minimum daily, 5.6 second-feet Oct. 27, 28, but may have been less during period of ice effect.

1931-44: Maximum discharge, 1,530 second-feet Sept. 23, 1941, from rating curve extended above 400 second-feet by logarithmic plotting; maximum gage height, 7.62 feet Aug. 5, 1940; 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	6.9	9.9		14	12	11	70	a170	106	13	14
2	15	6.5	10		13	9.9	13	81	a155	105	11	14
3	15	7.8	b8.5		b13	12	12	86	a140	112	9.9	13
4	13	10	a9.0		b14	11	12	81	a135	114	8.2	14
5	13	12	9.5		b15	12	11	75	a120	120	9.9	14
6	14	13	9.5		b15	9.0	9.9	86	a100	205	21	14
7	a20	13	*9.9		b13	*9.9	12	117	a120	126	20	14
8	26	b11	9.5	a8	b14	12	14	169	a120	107	14	13
9	22	9.5	b9.5		15	9.5	18	179	a110	97	16	14
10	20	9.9	b8		14	9.0	25	206	a135	95	18	13
11	20	11	b8		14	9.0	20	232	142	86	18	15
12	22	10	b8.5		b15	7.3	20	251	127	82	19	14
13	21	*11	b9		16	9.0	20	255	92	92	21	13
14	20	9.0	b8.5		b15	7.3	20	266	82	91	18	13
15	20	9.5	b8	(*)	14	9.0	19	312	68	78	18	a13
16	20	10	b8		14	9.0	21	348	63	72	16	a13
17	18	12			15	9.9	20	273	55	70	41	a12
18	16	10			13	10	19	204	48	62	24	a11
19	16	12		a10	11	7.3	26	175	42	79	19	a12
20	17	13			9.9	9.0	32	163	31	71	18	13
21	16	12			13	9.0	31	167	23	133	18	a13
22	14	12		*12	11	b8.0	33	151	25	95	16	a13
23	12	12		13	a9.5	6.9	38	144	24	76	17	a13
24	10	12	a8	b14	a11	9.9	39	144	32	76	18	a12
25	10	11		b14	a12	*8.6	36	148	31	71	19	a12
26	9.0	11		b13	a11	6.5	37	148	37	62	18	a15
27	*5.6	10		b12	a10	8.6	42	146	29	52	16	a17
28	5.6	9.5		b12	a11	9.5	63	138	25	36	17	a18
29	6.5	9.9		a13	12	a9.0	66	138	27	22	17	a16
30	7.8	9.0		14	-	a8.0	67	153	57	17	16	a15
31	6.9	-		14	-	a9.0	-	163	-	17	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	467.4	26	5.6	15.1	927
November.....	315.5	13	6.5	10.5	626
December.....	263.3	10	-	8.49	522
Calendar year 1943	7,152.4	227	5.6	19.6	14,190
January.....	311	14	-	10.0	617
February.....	377.4	16	9.5	13.0	749
March.....	286.6	12	6.5	9.25	568
April.....	806.9	67	9.9	26.9	1,600
May.....	5,269	348	70	170	10,450
June.....	2,377	170	23	79.2	4,710
July.....	2,627	205	17	84.7	5,210
August.....	540.0	41	8.2	17.4	1,070
September.....	410	18	11	13.7	813
Water year 1943-44	14,051.1	348	5.6	38.4	27,860

Peak discharge.- May 16 (8 a.m.) 407 sec.-ft.; July 1 (10 p.m.) 315 sec.-ft.; July 4 (6 p.m.) 179 sec.-ft.; July 6 (5 a.m.) 310 sec.-ft.; July 21 (4 a.m.) 169 sec.-ft.; Aug. 17 (8 a.m.) 153 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 Golondrina.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Mora River near Golondrinas, N. Mex.

Location.- Water-stage recorder, lat. 35°53'40", long. 105°09'30", in Mora Grant, at highway bridge, 1.2 miles 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) and October 1930 to September 1944 in reports of Geological Survey. March 1915 to December 1931 in reports of State engineer.

Average discharge.- 28 years (1915-20, 1921-44), 40.9 second-feet.

Extremes.- Maximum discharge during year, 340 second-feet May 16 (gage height, 4.47 feet); minimum daily, 3.3 second-feet Aug. 4.
1930-44: Maximum discharge, 2,290 second-feet Apr. 23, 1942 (gage height, 10.40 feet), from rating curve extended above 400 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records good 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	8.2	b14	a12	a18	16	16	76	168	77	9.1	8.2
2	16	8.6	16		a17	15	17	87	158	124	6.0	8.5
3	15	9.0	b12		a17	14	18	96	146	a110	3.7	8.8
4	13	14	b13		a18	16	17	90	140	a110	3.3	7.9
5	13	15	b15		a20	15	17	82	120	a130	3.5	11
6	14	15	16	a12	a20	b13	17	85	97	a220	6.8	11
7	25	b14	*b14		a17	*b12	17	115	119	a160	11	11
8	38	b13	15		a20	b13	20	161	129	a130	7.3	12
9	27	b12	b14		a24	b14	23	174	113	a120	41	9.7
10	19	b12	b12		b22	12	38	190	118	a110	24	11
11	20	13	a12	a15	b20	13	32	237	143	a105	25	12
12	21	14			b21	12	30	247	150	99	22	14
13	22	*14			23	11	*30	255	115	107	21	14
14	24	12			22	12	33	257	94	104	21	14
15	25	11			b19	12	31	284	69	81	17	12
16	24	12	a12	a15	*20	13	26	331	62	73	15	10
17	20	14			20	13	28	293	46	70	46	10
18	21	13			17	15	25	238	39	55	36	8.5
19	20	13			15	13	28	191	31	104	25	9.7
20	20	15			b13	13	38	173	20	76	22	12
21	20	15	a12	a15	14	12	36	173	13	150	21	12
22	19	14			13	b11	38	157	14	108	19	12
23	17	14			12	12	40	141	15	84	18	9.7
24	16	16			14	11	49	137	16	78	18	11
25	13	15			16	*11	40	137	17	74	18	11
26	12	15	a12	a15	14	12	40	140	25	64	17	11
27	*11	b12			13	11	41	144	20	54	16	18
28	9.4	b13			14	b12	65	148	14	39	16	19
29	7.2	b12			15	b11	83	147	14	21	14	16
30	7.9	b13			-	b12	78	157	55	14	13	16
31	9.8	-	a12	a15	-	b14	-	174	-	12	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	555.3	38	7.2	17.9	1,100
November.....	390.8	16	8.2	13.0	775
December.....	393	-	-	12.7	780
Calendar year 1943	7,566.1	271	3	20.7	15,020
January.....	420	-	-	13.5	833
February.....	528	24	12	17.5	1,010
March.....	396	16	11	12.8	785
April.....	1,012	83	16	33.7	2,010
May.....	5,317	331	76	172	10,550
June.....	2,280	168	13	76.0	4,520
July.....	2,863	220	12	92.4	5,680
August.....	544.8	46	3.3	17.6	1,090
September.....	351.0	19	7.9	11.7	696
Water year 1943-44	15,030.9	331	3.3	41.1	29,820

Peak discharge.- May 16 (11:30 a.m.) 340 sec.-ft.; June 30 (8 p.m.) 207 sec.-ft.; July 1 (12 p.m.) 266 sec.-ft.; July 12 (10 p.m.) 207 sec.-ft.; July 19 (1 p.m.) 238 sec.-ft.; July 21 (8 a.m.) 204 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 at La Cueva.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Mora River near Shoemaker, N. Mex.

Location.- Water-stage recorder, lat. 35°48', long. 104°47', in Mora Grant, 4½ miles east of Shoemaker, Mora County, and 23 miles upstream from mouth.

Drainage area.- 1,160 square miles.

Records available.- October to December 1914 and October 1930 to September 1944 in reports of Geological Survey. October 1914 to December 1931 in reports of State engineer.

Average discharge.- 26 years (1915-17, 1919-25, 1926-44), 68.6 second-feet.

Extremes.- Maximum discharge during year, 510 second-feet Aug. '22; maximum gage height, 2.86 feet May 16; minimum daily discharge, 4.5 second-feet Sept. 9, 10.
1930-44: Maximum discharge, 10,400 second-feet June 3, 1937 (gage height, 10.41 feet), from rating curve extended above 2,800 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records good 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	22	b30			36	32	140	185	10	12	7.7
2	5.9	23	32			36	35	121	166	54	10	a6.0
3	5.0	22	b27			33	34	126	144	77	8.6	5.0
4	5.0	19	b29			32	*36	128	130	92	a7	6.4
5	5.0	22	32			30	31	114	126	148	a6	6.8
6	7.7	25	34			26	31	102	95	272	a5.5	5.4
7	7.2	*b22	b30			*27	31	98	95	244	a5	5.0
8	7.7	b25	28	a25	a35	26	30	138	152	175	a5	5.0
9	22	28	b30			26	34	198	117	162	a5	4.5
10	18	28	b25			29	40	212	104	130	5.4	4.5
11	16	28				30	50	295	146	125	11	4.7
12	14	27				29	44	352	158	97	8.6	13
13	15	27				27	30	367	134	123	4.7	12
14	18	24				24	25	361	107	121	5.4	12
15	21	24			*40	27	37	394	82	105	5.0	14
16	22	22			43	28	39	458	63	89	5.0	14
17	24	22			44	31	38	466	51	79	4.7	14
18	23	22			43	34	33	394	42	53	15	12
19	23	24			42	36	34	316	34	60	20	12
20	22	*22			38	36	34	256	28	105	13	10
21	23	23	a25		38	36	38	208	22	88	9.5	10
22	25	26			40	b35	46	188	18	178	130	9.5
23	23	26			41	37	56	164	14	112	27	9.0
24	20	27	a30		38	38	69	134	12	80	15	9.0
25	21	28			38	31	73	125	11	90	13	11
26	20	30			42	30	61	130	9.5	79	9.5	11
27	20	b26			38	31	58	146	a8	63	44	12
28	19	b27			37	28	72	172	a7	50	22	23
29	20	b26			35	b26	138	185	a9	35	16	19
30	21	b28			-	28	158	172	a8	23	16	14
31	21	-				28	-	165	-	16	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	520.4	25	5.0	16.8	1,030
November.....	744	30	18	24.8	1,480
December.....	822	-	-	26.5	1,630
Calendar year 1943.....	9,288.4	262	3	25.4	18,410
January.....	855	-	-	27.6	1,700
February.....	1,087	-	-	37.5	2,160
March.....	951	33	24	30.7	1,890
April.....	1,467	152	25	48.9	2,910
May.....	6,845	466	98	221	13,580
June.....	2,277.5	185	7	75.9	4,520
July.....	3,145	272	10	101	6,240
August.....	473.9	130	4.7	15.3	940
September.....	301.5	23	4.5	10.0	598
Water year 1943-44.....	19,489.3	466	4.5	53.2	38,680

Peak discharge.- May 16 (9 p.m.) 498 sec.-ft.; July 6 (10 a.m.) 394 sec.-ft.; July 9 (8 p.m.) 280 sec.-ft.; July 22 (6 a.m.) 259 sec.-ft.; Aug. 22 (3 a.m.) 510 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records or records for stations at La Cueva and near Olondrina.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Coyote Creek near Golondrinas, N. Mex.

Location.- Water-stage recorder, lat. 35°54'40", long. 105°09'50", in Mora Grant, a third of a mile downstream from Coyote Creek dam site, 2 miles upstream from mouth, and 2 miles northeast of Golondrinas, Mora County.

Drainage area.- 250 square miles.

Records available.- October 1930 to September 1944 in reports of Geological Survey. April 1928 to December 1931 in reports of State engineer.

Average discharge.- 16 years (1928-44), 14.7 second-feet.

Extremes.- Maximum discharge during year, 172 second-feet July 5 (gage height, 2.62 feet); minimum daily, 0.3 second-foot June 28.

1930-44: 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 by logarithmic plotting; 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. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	7.4	b8.5			8.4	a8.0	65	37	5.2	1.3	
2	4.7	b7.0	b9.0			8.4	a9.0	60	30	9.6	1.3	
3	4	b7.0	b8.0			8.4	a9.5	58	24	4.2	1.9	
4	4.7	7.4	b8.5			8.4	a9.0	54	23	4.0	2.4	
5	4.9	7.4	b9.0			7.7	8.4	49	17	21	2.4	
6	4.7	7.1	b9.2			6.1	8.8	39	18	45	2.6	
7	6.8	b7.0	*b9.5			6.8	10	32	21	32	2.4	
8	8.0	7.7	b9.0	a7.5	all	7.4	14	35	16	23	2.6	
9	8.0	b7.5	b9.0			8.8	12	35	13	14	3.8	
10	6.8	b7.0	a8.5			8.4	16	44	13	12	3.1	1.5
11	5.5	b7.5				7.7	16	81	35	9.8	3.1	al.2
12	5.2	7.7				8.4	12	93	23	9.2	3.5	1.0
13	4.9	*8.0				10	*13	88	13	10	2.8	1.7
14	4.7	8.0				12	22	97	13	6.1	2.8	1.5
15	4.0	8.4				15	26	104	6.4	2.6	2.8	al.3
16	3.1	b8.5			*b11	14	20	100	4.2	2.1	2.6	2.0
17	2.8	b9.0			b12	17	17	95	3.5	1.5	14	3.3
18	2.8	7.4			11	20	15	89	3.1	1.5	9.4	1.2
19	4.2	7.7			9.2	20	20	76	2.4	2.8	5.8	1.2
20	6.4	b7.5		a7.5	b8.5	20	21	60	al.5	3.1	4.9	2.4
21	7.1	b7.5		a9.0	b9.5	17	20	50	al.0	13	4.7	2.2
22	6.8	7.7			9.2	16	24	47	a.7	8.4	3.3	2.4
23	6.8	8.4			8.4	16	30	37	a.6	4.2	3.1	2.8
24	6.4	10			12	28	30	a.7	4.0	2.8	2.4	2.4
25	6.8	9.2			8.0	*13	26	25	a.8	a3.5	2.2	2.8
26	6.4	b8.5			7.4	12	34	27	a.7	a3.0	2.1	2.8
27	*6.8	b7.5			6.4	8.4	42	47	a.4	a2.5	8.8	3.3
28	7.1	b7.0			6.4	7.4	65	54	a.3	a2.0	3.8	4.9
29	7.1	b7.5		a10	7.4	b6.5	77	51	al.0	al.7	3.1	4.7
30	7.1	b7.0			-	b7.0	92	47	2.7	al.5	2.4	4.2
31	6.8	-			-	a7.5	-	42	-	al.4	al.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	182.1	10	2.8	5.87	361
November.....	232.5	10	7.0	7.75	461
December.....	245.7	9.5	-	7.93	487
Calendar year 1943.....	3,002.5	121	.8	8.23	5,960
January.....	262.5	-	-	8.47	521
February.....	286.8	-	6.4	9.39	569
March.....	345.7	20	6.1	11.2	686
April.....	714.7	82	8.0	23.8	1,420
May.....	1,311	104	25	58.4	3,390
June.....	326.0	37	.3	10.9	647
July.....	262.9	45	1.4	8.48	521
August.....	112.6	14	1.3	5.63	223
September.....	64.3	4.9	1.0	2.14	128
Water year 1943-44.....	4,846.8	104	.3	13.2	9,610

Peak discharge.- July 5 (10 p.m.) 172 sec.-ft.; July 21 (8 p.m.) 86 sec.-ft.; Aug. 17 (12 m.) 77 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of 1 discharge measurement and weather records or records for Mora River at La Cueva and near Golondrinas.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Conchas River at Variadero, N. Mex.

Location.- Water-stage recorder, lat. 35°24'10", long. 104°26'35", in NE¼ sec. 36, T. 14 N., R. 23 E., 1.5 miles northeast of Variadero and 15 miles west of Conchas Dam.

Records available.- October 1936 to September 1944.

Extremes.- Maximum discharge during year, 780 second-feet July 16 (gage height, 4.12 feet), from rating curve extended above 30 second-feet on basis of slope-area determination at gage height 19.46 feet; no flow at times.

1936-44: Maximum discharge, 51,800 second-feet June 3, 1937 (gage height, 21.20 feet, site and datum then in use), from rating curve extended above 600 second-feet on basis of Manning formula; no flow at times.

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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	1.2	3.2	a4.5	3.5	2.4	1.0	0.2	0.4	0	a0.1	0.2
2	4.1	1.3	3.0	a4.5	3.2	2.2	1.8	.2	.1	0	a.1	.3
3	3.7	1.4	2.7	a4.7	2.8	2.0	1.4	.1	0	.1	a.1	.2
4	2.4	1.4	2.7	b4.8	2.8	1.7	1.1	.2	0	1.0	.1	.2
5	2.0	1.4	2.8	b4.5	2.7	1.4	1.1	.2	.1	25	.1	.6
6	1.8	1.4	2.6	b4.8	2.6	.8	1.1	.1	.1	6.0	.1	.3
7	1.6	1.4	2.6	b5.0	2.6	1.1	.5	0	3.3	3.0	.1	.2
8	2.0	1.4	2.6	4.1	2.4	1.3	.6	.1	1.7	2.2	2.0	.2
9	1.5	a1.5	b7	b5.0	2.4	1.0	.7	.1	2.7	28	.6	.2
10	1.4	a1.5	b5	5.8	1.8	a1.3	1.0	.2	1.8	4.9	.2	.2
11	1.4	1.6	b4	6.3	b1.9	1.2	.7	.2	1.0	16	.2	.3
12	1.4	1.7	b4.5	b6.0	b2.2	1.0	.7	.1	.5	21	7.8	.2
13	1.3	1.8	b5	b5.0	2.6	1.2	.6	.1	.2	a7	27	.2
14	1.2	1.8	b4.5	b5.5	2.0	.8	.5	6.0	0	a2.5	9.2	a.2
15	1.2	2.0	b5	b5.3	b1.9	1.0	.3	3.3	0	1.2	4.5	.2
16	1.2	a2.0	b4.5	b5.0	b1.9	1.0	.3	1.2	0	9.9	a3	.3
17	1.2	2.0	b4.5	4.5	b2.0	.9	.2	.2	0	95	a2	.3
18	1.0	1.8	b4.5	3.7	2.2	1.1	.2	0	0	a20	1.2	a.3
19	1.2	1.8	b5	3.0	2.4	2.6	.2	0	0	a10	55	a.3
20	1.0	2.0	5.8	3.2	2.4	2.1	.2	0	0	a5	14	a.3
21	.9	1.8	5.3	3.0	2.4	1.5	.2	0	0	a3.5	a5	a.3
22	.9	2.0	4.3	2.8	1.8	1.6	1.2	0	0	a2.5	a2.5	a.3
23	.9	2.2	4.3	3.2	1.8	1.6	1.4	0	0	a1.5	a1.5	a.3
24	1.1	2.8	4.3	a3.0	1.6	1.5	.5	0	.6	a2.5	a2	a.3
25	1.2	3.0	4.3	2.8	2.1	1.3	.2	1.4	.4	a1	a1	a.3
26	1.3	4.7	4.3	5.6	1.3	1.5	.2	4.7	.1	a.7	16	a.3
27	1.4	b4.4	5.3	6.6	2.2	.9	.2	5.8	0	a.5	7.9	a.3
28	1.4	b4.1	a4.5	6.3	3.2	.9	.5	3.3	0	a.3	3.5	a.2
29	1.4	b3.7	a4	5.1	2.7	1.4	.5	2.0	0	a.2	2.1	a.2
30	1.5	b3.4	a4	4.5	-	1.3	.2	1.4	0	a.2	1.3	a.2
31	1.2	-	a4.5	3.5	-	1.1	-	1.0	-	a.2	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	50.5	4.7	0.9	1.63	100
November.....	64.5	4.7	1.2	2.15	128
December.....	130.6	7	2.6	4.21	259
Calendar year 1943.....	1,833.6	244	0	5.02	3,640
January.....	141.6	6.6	2.8	4.57	281
February.....	67.4	3.5	1.3	2.32	134
March.....	42.7	2.6	.9	1.38	85
April.....	19.3	1.8	.2	.64	38
May.....	32.1	6.0	0	1.04	64
June.....	13.0	3.3	0	.43	26
July.....	270.9	95	0	2.74	537
August.....	170.0	55	.1	5.48	337
September.....	7.8	.6	.2	.26	15
Water year 1943-44.....	1,010.4	95	0	2.76	2,000

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of recorded range in stage, weather records, and records for Canadian River near Sanchez.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Bell Ranch Canal near Conchas Dam, N. Mex.

Location.- Water-stage recorder, lat. 35°24'00", long. 104°11'05", in Pablo Montoya Grant, San Miguel County, 1,270 feet downstream from Conchas Dam and 2 miles north of Conchas Dam post office.

Records available.- October 1942 to September 1944.

Extremes.- Maximum daily discharge during year, 12 second-feet many days June to September; no flow at times.

1942-44: Maximum daily discharge, 18 second-feet Aug. 4, 1943; no flow at times.

Remarks.- Records good. Canal diverts from Conchas Reservoir for irrigation on Bell Ranch.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	0						0	10	9.7	6.6	2.4
2	8.6	0						0	10	0	6.3	0
3	0	0						0	8.3	6.4	5.5	0
4	9.0	0						0	0	0	5.3	0
5	4.3	0						0	8.4	6.8	5.7	0
6	3.6	0						0	7.9	5.8	0	0
7	0	0						0	9.6	5.8	7.2	0
8	0	0						1.4	8.0	6.0	5.6	0
9	0	0						4.6	9.8	0	5.3	0
10	0	0						5.1	9.2	12	4.9	0
11	0	0						6.0	0	12	4.9	0
12	0	0						6.0	8.7	12	3.8	0
13	0	0						4.6	9.4	9.2	0	0
14	0	0						0	10	10	3.9	0
15	0	0						4.6	9.1	11	9.6	0
16	0	0						5.8	9.1	0	12	0
17	0	0						5.8	9.1	8.8	12	0
18	0	0						5.8	0	11	11	0
19	0	0						5.8	11	12	8.5	0
20	0	0						5.8	11	11	0	0
21	0	0						5.3	12	11	9.9	0
22	0	0						7.1	11	10	10	0
23	0	0						9.0	11	0	11	0
24	0	0						9.3	11	10	11	0
25	0	0						9.4	0	11	10	0
26	0	0						9.3	11	10	8.9	2.3
27	0	1.3						5.8	10	9.8	0	11
28	0	2.9						5.9	12	9.8	9.7	12
29	0	2.9						9.1	10	9.5	8.5	12
30	0	2.3						10	10	0	9.3	12
31	0	-						9.4	-	11	6.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	32.3	9.0	0	1.04	64
November.....	9.4	2.9	0	.31	19
December.....	0	0	0	0	0
Calendar year 1943.....	1,464.0	18	0	4.01	2,900
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.....	151.8	10	0	4.90	301
June.....	255.6	12	0	3.52	507
July.....	241.6	12	0	7.79	479
August.....	212.7	12	0	6.86	422
September.....	51.7	12	0	1.72	103
Water year 1943-44.....	955.1	12	0	2.61	1,900

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Ute Creek near Logan, N. Mex.

Location.- Water-stage recorder, lat. 35°24', long. 103°30', in NE¼ sec. 35, T. 14 N., R. 32 E., a quarter of a mile downstream from Logan-Trigg Ranch road crossing, 4 miles upstream from mouth, and 6 miles northwest of Logan. Datum of gage is 3,758.50 feet above mean sea level, datum of 1929.

Records available.- January 1942 to September 1944. August 1904 to June 1906 and April 1909 to May 1914 (gage heights only, January 1912 to May 1914) at site half a mile upstream at different datum.

Extremes.- Maximum discharge during year, 16,600 second-feet July 4 (gage height, 5.27 feet), from rating curve extended above 950 second-feet by logarithmic plotting; no flow at times.

1942-44: Maximum discharge, 33,100 second-feet Apr. 24, 1942 (gage height, 5.95 feet), from rating curve extended above 950 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, 16.0 feet sometime in 1941, from information by Bureau of Reclamation.

Remarks.- Records poor. Diversions above station for irrigation.

Cooperation.- Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.1	0.2	b5	21	38	0.2	11	0	0	0.1	0.8
2	0	.1	.2		23	26	1.7	a1	0	0	0	.1
3	0		.2		21	15	.3	0	0	0	0	.1
4	0	0	.2	6.0	20	7.0	.1	0	0	565	4.2	.1
5	.1	.1	.2		17	2.1	.1	0	0	464	125	.1
6		.1	.2		15	.9	.1	0	0	a20	789	.1
7	0	.1	.1		18	.6	.1	0	83		192	3.0
8	0	.1	.1		18	.2	0	0	1.9		14	.7
9	0	.1	3.5	*a5	20	.1	0	0	1.0		1.4	.1
10	0	.1			15	.2	0	.15	1.1	a5	.2	0
11	0	.1			10	.1	0	a2	75		0	.1
12	0	.1	a5		7.0	.2	0	a2	26	375	191	.1
13	0	.1			5.5	.2	0	22	4.5	226	5.5	3.6
14	0	.1			6.5	.1	0	90	4.0	145	a2	.2
15	0	.1	b5	b20	6.5	.1	0	15		a50	a1	.1
16	.1	.1	b5	b25	11	.1	0	a1		41	0	.2
17	0	*.1	b5	b30	15	.1	0	0		1,010	0	.2
18	0	.1	b10	b35	14	.1	0	0	a1	235	a0	.1
19	0	.1	b15	b40	15	.2	0	0		55	.1	.1
20	0	.1	b20	49	18	.1	0	0		80	339	.1
21	0	.1	b15	66	25	.1	0	0	0	115	169	.1
22	0	.1	b10	53	26	.1	.1	0	0	63	35	.1
23	0	.2	12	60	20	.1	0	0	0	a25	4.5	0
24	0	.2	16	66	14	.1	0	0	0	a10	3.0	.2
25	0	.3	21	49	9.4	.1	0	0	0	769	36	.2
26	.1	.4	b15	46	4.5	0	0	0	0	302	335	.2
27	.1	.2	a10	*66	5.5	0	0	.7	0	a100	1,510	.8
28	.1	.2		90	17	0	13	0	0	a30	95	.8
29	.1	.2		46	21	.1	2.5	0	0	a5	9.4	.2
30	0	.2	a5	30	-	.1	14	0	0	a1	7.5	.2
31	0	-		23	-	.1	-	0	0	a1	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0.7	0.1	0	0.02	1.4
November.....	4.0	.4	0	.13	7.9
December.....	208.7	21	.1	6.73	414
Calendar year 1943	4,768.4	590	0	13.1	9,450
January.....	575.0	90	-	28.2	1,740
February.....	438.9	26	4.5	15.1	571
March.....	92.2	38		2.97	153
April.....	32.6	14	0	1.09	65
May.....	159.7	90	0	5.15	317
June.....	205.5	83	0	6.85	408
July.....	5,045	1,010	0	163	10,010
August.....	3,871.9	1,510	0	125	7,680
September.....	12.7	3.6	0	.42	25
Water year 1943-44	10,946.9	1,510	0	29.9	21,720

Peak discharge.- July 4 (10 p.m.) 16,600 sec.-ft.; July 17 (10 a.m.) 6,500 sec.-ft.; July 25 (12 m.) 2,470 sec.-ft.; Aug. 6 (1 p.m.) 4,170 sec.-ft.; Aug. 26 (11 p.m.) 8,090 sec.-ft.; Aug. 27 (1 a.m.) 8,660 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of engineer's notes and records for Canadian River at Logan.

b Stage-discharge relation affected by ice.

Time basis: Mountain war time. To convert war time to standard time, subtract 1 hour.

Little River near Sasakwa, Okla.

Location.— Wire-weight gage, lat. 34°59', long. 96°33', in NE¼ sec. 22, T. 6 N., R. 7 E., at county highway bridge, 2½ miles northwest of Sasakwa, 5 miles downstream from Salt Creek, and 16 miles upstream from mouth. Datum of gage is 749.21 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 840 square miles.

Records available.— September 1942 to September 1944.

Extremes.— Maximum discharge during year, 11,700 second-feet May 28 (gage height, 25.54 feet, from floodmark); minimum observed, 1.2 second-feet Oct. 22 (gage height, 2.70 feet).

1942-44: Maximum discharge, 27,100 second-feet May 11, 1943 (gage height, 30.8 feet, from floodmark); minimum observed, 0.4 second-foot Aug. 19, 1943 (gage height, 2.50 feet).

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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	6.1	16	41	39	261	70	664	489	47	117	23
2	13	7.2	16	39	41	126	70	1,190	317	117	60	13
3	86	4.8	15	30	47	90	50	1,270	223	70	30	14
4	66	6.3	18	26	44	99	47	1,140	177	41	21	15
5	26		23	26	39	104	41	624	317	25	17	81
6	16	a6	29	28	36	39	39	223	235	19	14	461
7	14		30	36	31	33	41	177	177	20	9.7	90
8	12		25	41	108	33	41	117	30	17	7.0	44
9	11	5.8	36	33	126	31	39	253	95	18	6.3	21
10	9.4	6.8	50	30	70	30	39	248	104	24	8.5	13
11	8.7	7.6	70	36	56	28	566	136	177	16	14	13
12	136	9.2	44	36	50	28	617	108	286	15	19	12
13	177	9.4	41	33	39	30	199	82	2,160	17	12	9.4
14	66	9.9	31	26	33	27	53	70	2,040	15	8.1	8.5
15	50	9.4	21	27	50	41	50	60	2,500	13	7.2	9.0
16	39	5.4	14	29	74	503	50	44	995	12	6.5	9.4
17	8.5	5.6	10	63	82	1,320	39	36	235	16	4.5	11
18	6.5	6.5	12	63	112	677	41	36	156	17	5.0	9.9
19	4.6	7.2	11	53	66	664	117	33	95	13	4.8	8.7
20	2.9	10	13	a40	90	1,970	274	200	82	41	5.2	7.2
21	1.9	14	13	a30	104	1,000	211	916	74	56	5.4	6.7
22	1.3	11	11	a25	108	594	177	332	60	60	5.1	2.9
23	4.8	8.1	9.4	27	112	508	177	860	47	50	4.6	3.7
24	5.0	9.0	14	33	63	332	156	2,300	41	39	3.8	5.0
25	3.7	10	17	39	53	235	112	2,980	36	47	8.5	4.5
26	3.1	12	24	41	50	136	63	2,040	30	361	15	3.5
27	26	12	78	126	41	108	50	2,940	33	434	13	5.0
28	16	12	229	156	677	86	44	8,400	28	434	11	8.5
29	9.9	10	142	108	664	63	466	9,040	26	540	60	12
30	6.3	11	63	82	-	63	850	4,540	21	960	367	14
31	6.1	-	41	63	-	63	-	1,130	-	281	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	849.7	177	1.3	27.4	1,690
November.....	250.1	14	4.8	8.34	496
December.....	1,166.4	229	9.4	37.6	2,310
Calendar year 1943.....	127,050.9	24,800	.4	348	252,000
January.....	1,466	156	25	47.3	2,910
February.....	3,105	677	31	107	6,160
March.....	9,312	1,970	27	300	18,470
April.....	4,789	850	39	160	9,500
May.....	42,209	9,040	33	1,362	83,720
June.....	11,346	2,500	21	379	22,500
July.....	3,835	960	12	124	7,610
August.....	1,121.2	367	3.8	36.2	2,220
September.....	938.9	461	2.9	31.3	1,860
Water year 1943-44.....	80,388.3	9,040	1.3	220	159,400

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Gaines Creek near Krebs, Okla.

Location.- Wire-weight gage, lat. 34°59', long. 95°37', in sec. 21, T. 6 N., R. 16 E., three-quarters of a mile upstream from Nutter Creek and 6½ miles northeast of Krebs. Auxiliary wire-weight gage at bridge on State Highway 31, 1½ miles upstream. Datum of both gages is 551.22 feet above mean sea level (levels by Corps of Engineers, U. S. Army).

Drainage area.- 582 square miles.

Records available.- October 1942 to September 1944.

Extremes.- 1942-43: Maximum discharge during water year, 62,000 second-feet May 11 (gage height, 31.7 feet, from floodmark), by contracted-opening method; no flow Aug. 6 to Sept. 6.

1943-44: Maximum discharge during water year, 9,100 second-feet May 4 (gage height, 24.8 feet); no flow at times.

Maximum stage known, 31.9 feet Feb. 18, 1938, from information by local resident.

Remarks.- Records poor. Discharges above about 2,000 second-feet computed by using fall, as determined from auxiliary gage readings, as a factor. Both gages read twice daily.

Discharge, in second-feet, 1942-44

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	129	9.3	384	28	13	166	39	69	9.6	0.2	0
2	1.5	29	8.2	272	20	13	129	38	74	9.6	.2	0
3	2.3	15	9.5	232	149	15	108	29	69	7.6	.1	0
4	2.5	19	15	185	252	16	94	28	57	6.4	.1	0
5	2.6	204	11	156	194	18	83	23	49	5.6	.1	0
6	2.5	645	14	129	147	19	66	18	1,700	5.4	0	0
7	2.4	578	16	111	106	20	56	16	3,260	6.6	0	5.3
8	2.5	447	44	97	84	18	116	42	1,540	160	0	31
9	2.5	927	147	88	76	17	k2,860	c2,090	342	56	0	10
10	2.4	447	138	83	75	16	k3,970	c19,600	214	27	0	4.8
11	2.3	232	115	76	64	15	k2,520	c57,400	118	16	0	3.4
12	2.4	176	96	70	53	23	k4,190	c39,200	84	11	0	1.8
13	2.3	124	72	68	41	129	k4,120	c15,500	53	9.3	0	1.3
14	2.3	83	55	63	34	384	k1,240	c5,860	48	7.4	0	1.1
15	2.4	60	45	60	28	363	342	c2,210	55	6.0	0	1.0
16	2.5	45	41	57	25	k1,670	232	1,520	166	4.2	0	.9
17	3.0	36	33	52	28	k1,850	k1,030	2,010	94	3.1	0	.6
18	3.7	27	28	45	25	512	k2,520	1,340	53	2.5	0	.3
19	2.9	22	25	37	24	282	k1,870	373	36	1.9	0	.4
20	3.1	18	25	29	23	242	668	189	25	1.4	0	.4
21	2.6	19	30	28	41	214	322	140	20	1.3	0	.2
22	1.9	19	60	28	27	176	252	120	16	1.0	0	.3
23	2.0	18	115	28	24	147	176	104	12	.9	0	.3
24	2.1	16	156	28	23	129	138	104	11	.7	0	.2
25	1.4	18	111	27	21	156	116	101	9.3	.6	0	.2
26	1.4	15	c1,600	27	19	848	94	81	10	.5	0	.2
27	1.3	13	c8,350	28	16	1,880	80	84	14	.3	0	.2
28	1.6	12	c17,400	25	14	1,070	68	101	11	.3	0	.3
29	3.4	11	c3,200	27	-	490	57	113	8.7	.2	0	.6
30	276	12	c3,400	25	-	282	49	91	7.4	.2	0	11
31	194	-	c1,900	27	-	214	-	78	-	.2	0	-

c Discharge from loop curve based on discharge measurements.

k Discharge from hydrograph based on several computations using fall in reach as a factor.

ARKANSAS RIVER BASIN

Discharge, in second-feet, of Gaines Creek near Krebs, Okla., 1942-44--Continued
1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	200	8.2	1.3	156	223	k7,300	129	2,770	270	11	1.6	e35
2	363	6.6	1.9	127	185	k4,180	212	k4,350	166	46	1.4	e20
3	204	56	2.6	166	166	k1,250	1,680	k7,300	108	40	1.2	e16
4	75	104	2.6	242	166	794	1,220	k6,400	81	19	1.1	e14
5	36	57	5.0	252	166	1,810	698	k4,600	440	17	1.0	e11
6	22	31	19	156	147	1,160	339	k950	k3,500	12	.9	e8.2
7	14	16	24	129	116	722	212	316	k5,580	8.8	.7	e46
8	9.3	11	45	111	k1,030	434	166	236	k3,400	8.0	.5	e37
9	7.6	9.3	52	166	k2,760	339	178	339	1,420	6.2	.3	e14
10	6.9	7.9	52	242	k3,070	282	362	k1,650	626	5.6	.2	e9.5
11	6.0	6.9	63	322	k1,570	212	650	k2,900	316	66	.2	5.9
12	6.9	6.2	111	384	855	166	940	k1,400	482	54	.1	3.4
13	105	5.8	109	490	302	135	386	293	k2,550	29	.1	2.6
14	147	5.4	92	405	447	114	224	178	k3,000	14	.1	1.8
15	104	5.0	72	282	k1,990	104	166	131	k1,600	9.2	.1	1.2
16	57	4.6	47	242	k2,630	316	135	104	482	6.5	0	.8
17	30	4.2	30	282	k2,620	554	106	81	270	4.8	0	.6
18	18	4.1	21	384	k3,050	482	91	68	156	4.2	0	.4
19	14	3.9	18	556	k2,090	k2,750	83	59	116	3.6	0	.3
20	10	3.7	16	556	1,200	k5,650	224	52	146	3.7	0	.3
21	7.6	3.6	16	490	1,200	k6,100	482	47	122	3.9	0	.2
22	6.0	3.4	14	342	927	k3,250	362	51	83	3.4	0	.2
23	5.4	3.1	13	232	691	1,040	212	47	51	3.1	0	.1
24	76	2.7	12	186	512	626	151	45	36	2.8	0	.1
25	116	2.5	11	156	405	410	125	49	30	2.5	0	0
26	53	2.3	10	138	903	304	100	85	29	2.3	e.09	0
27	27	2.0	44	252	1,280	236	76	247	22	2.0	e5.8	0
28	16	1.7	327	447	k3,200	201	64	k1,120	18	1.9	e7.0	0
29	13	1.5	600	668	k6,050	178	202	k2,400	15	1.7	e4.4	0
30	11	1.4	405	534	-	185	2,080	k2,800	15	1.8	e6.4	0
31	10	-	252	262	-	144	-	k660	-	1.7	e20	-

e Discharge computed on basis of stage-discharge relation for auxiliary gage.

k Discharge from hydrograph based on several computations of discharge using fall in reach as a factor.

Note.- Stage discharge relation indefinite July 24 to Aug. 20; discharge estimated.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942	537.5	276	1.3	17.3	1,070
November	4,411	927	11	147	8,750
December	50,269.1	17,400	8.2	1,622	99,710
Calendar year	-	-	-	-	-
January 1943	2,592	384	25	83.6	5,140
February	1,661	252	14	59.3	3,290
March	11,239	1,880	13	363	22,290
April	27,712	4,190	49	924	54,970
May	148,642	57,400	16	4,795	294,800
June	8,225.4	3,260	7.4	274	16,310
July	362.8	160	0.2	11.7	720
August	0.7	0	0	11.02	1.4
September	75.8	31	0	2.53	150
Water year 1942-43	255,728.3	57,400	0	701	507,200
October 1943	1,775.7	363	5.4	57.3	3,520
November	381.0	104	1.4	12.7	756
December	2,468.4	600	1.5	79.6	4,900
Calendar year 1943	205,135.8	57,400	0	562	406,800
January 1944	9,356	668	111	302	18,560
February	39,951	6,050	116	1,378	79,240
March	41,398	7,300	104	1,335	82,110
April	12,025	2,060	64	401	23,850
May	43,726	8,400	45	1,411	96,730
June	25,138	5,580	13	839	49,860
July	395.7	66	1.7	12.8	785
August	54.0	20	0	1.74	107
September	228.6	46	0	7.62	455
Water year 1943-44	176,897.4	8,400	0	483	350,900

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River near Guymon, Okla.

Location.- Water-stage recorder, lat. 36°43'20", long. 101°29'30", in NW 1/4 sec. 18, T. 3 N., R. 15 E., at bridge on U. S. Highway 64 at Dry Sand Draw, 1 1/2 miles upstream from Gulf Creek and 2 1/2 miles north of Guymon. Datum of gage is 2,970.95 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 1944 (include flow of Dry Sand Draw).

Extremes.- Maximum discharge during year, 1,470 second-feet July 20 (gage height, 5.15 feet); no flow at times.

1938-44: Maximum discharge, 44,000 second-feet Sept. 23, 1941 (gage height, 13.82 feet, from floodmark), from rating curve extended above 28,000 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, that of Sept. 23, 1941.

Remarks.- Records fair except those for periods of ice effect, which are poor.

Cooperation.- Gage-height record, 48 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	1	6		14	13	7	20	12	0	2	0
2	1	1	6		14	11	7	22	11	0	al	0
3	1	1	6		14	12	7	18	9	0	al	0
4	1	1	6		*12	11	5	16	8	62	al	0
5	1	1	6		11	9	3	16	8	24	al	1
6	1	1	4		11	7	3	16	8	6	al	0
7	1	1	6		12	6	3	16	8	3	al	0
8	1	1	*5	8	11	6	3	15	7	4	al	0
9	1	1	4		11	6	14	17	7	4	0	0
10	1	1	3	(*)	11	7	182	18	6	1	0	0
11	1	1		(*)	12	7	39	al20	6	1	1	0
12	1	1			12	7	18	al3	6	1	1	0
13	1	1	2		*14	8	14	al8	6	116	0	1
14	1	1			*13	14	13	al9	4	34	0	1
15	1	2			20	18	13	al8	4	6	0	0
16	1	2	(*)		18	13	13	al7	3	5	0	0
17	1	3			11	16	16	al7	3	3	0	0
18	1	2	5		*10	9	16	7	2	3	0	0
19	0	2			9	18	7	1	1	2	1	0
20	0	3			14	13	16	7	1	412	1	0
21	1	3	(*)		13	12	14	7	1	50	0	0
22	1	3		10	11	9	15	6	1	23	0	0
23	1	3		10	*10	10	31	6	1	12	0	1
24	1	*4		10	9	9	14	5	1	10	1	1
25	1	5		15	8	8	15	4	1	36	1	0
26	1	7	8	20	7	8	16	70	0	13	1	0
27	1	5		*25	9	6	16	128	0	7	0	1
28	1	4			16	7	17	86	0	4	0	1
29	1	4		20	18	7	101	60	0	3	0	1
30	1	*6				11	36	86	0	2	0	1
31	1	-	(*)		-	8	-	18	-	2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	29	1	0	0.9	58
November.....	72	7	1	2.4	143
December.....	175	-	-	5.6	347
Calendar year 1943	2,135	406	0	5.8	4,240
January.....	350	25	-	11.3	694
February.....	355	20	-	12.2	704
March.....	292	18	6	9.4	579
April.....	635	182	3	22.8	1,360
May.....	842	128	4	27.2	1,870
June.....	125	12	0	4.2	248
July.....	849	412	0	27.4	1,680
August.....	15	2	0	.5	30
September.....	9	1	0	.3	18
Water year 1943-44	3,798	412	0	10.4	7,550

* Winter discharge measurement made on this day.

a No gage-height record; discharge estimated.

g Computed from graph based on once-daily staff-gage readings.

Note.- Stage-discharge relation affected by ice Nov. 28, 29, Dec. 9 to Jan. 31, Feb. 11-14, 17-19 (no gage-height record Dec. 11-20, 22-30, Jan. 1-9, 12-17, Feb. 11, 12, 17; discharge computed on basis of discharge measurements, engineer's notes, and weather records).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

North Canadian River at Beaver, Okla.

Location.- Water-stage recorder, lat. 36°49'20", long. 100°31'05", in SW $\frac{1}{4}$ sec. 7, T. 4 N., R. 24 E., at bridge on U. S. Highway 270 at Beaver, $1\frac{1}{2}$ 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 1944. March 1904 to December 1905 (gage heights only), at nearby site but different datum, published as Beaver Creek at Beaver.

Extremes.- Maximum discharge during year, 8,240 second-feet Apr. 10 (gage height, 5.63 feet); no flow at times.
1938-44: Maximum discharge, 38,200 second-feet Sept. 24, 1941 (gage height, 10.65 feet), from rating curve extended above 17,000 second-feet; no flow at times.

Remarks.- Records fair except those for periods of ice effect, which are poor.

Cooperation.- Gage-height record, 27 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 6 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	72	88	26	235	167	0	49	
2				0	65	67	35	587	69	0	6	
3				0	58	42	25	154	33	0	1	
4				0	*47	38	18	99	16	10	0	
5				0	37	40	17	74	10	3	0	
6				0	32	30	18	53	6	0	0	
7				0	27	27	9	42	5	0	0	
8				0	25	27	7	33	4	0	0	
9				0	20	17	131	32	3	0	0	
10				0		16	2,790	30	2	0	0	
11				0	b15	15	650	423	2	59	0	
12				0		15	230	1,420	2	2	0	
13				0	(*)	14	113	382	1	1	0	
14				0	(*)	19	65	184	1	0	0	
15				0		29	49	127	0	0	0	
16				0	b20	58	37	72	0	0	0	
17				0		53	32	46	0	0	0	
18				0	(*)	38	37	29	0	0	0	
19				0	32	35	47	20	0	1	0	
20				0	30	29	60	14	0	4	0	
21				0	29	32	65	9	0	506	0	
22				0	29	32	65	7	0	171	0	
23				0	*27	30	163	5	0	a56	0	
24				17	26	30	179	4	0	23	0	
25				167	23	27	131	4	0	98	0	
26				312	14	23	91	4	0	368	0	
27				620	18	15	65	372	0	120	0	
28				236	49	14	60	608	0	80	0	
29				167	85	17	1,060	365	0	65	0	
30				127	-	22	600	184	0	159	0	
31				91	-	18	-	339	-	163	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1943	4,395	298	0	12.0	8,710
January.....	1,737	620	0	56.0	3,450
February.....	905	85	14	31.2	1,800
March.....	955	88	13	30.8	1,890
April.....	6,875	2,790	7	229	13,640
May.....	5,927	1,420	4	191	11,760
June.....	321	167	0	10.7	637
July.....	1,889	506	0	60.9	3,760
August.....	56	49	0	1.8	111
September.....	0	0	0	0	0
Water year 1943-44	18,665	2,790	0	51.0	37,040

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed from interpolated gage heights.

b Stage-discharge relation affected by ice.

Note.- Discharge computed from graph based on once-daily wire-weight gage readings Jan. 30 to Feb. 9, Feb. 19 to Mar. 16, Mar. 23 to Apr. 9, Apr. 12-19, May 15-26, Aug. 1-4.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River near Fort Supply, Okla.

Location.- Water-stage recorder, lat. 36°35'30", long. 99°35'30", in NE $\frac{1}{4}$ sec. 6, T. 24 N., R. 22 W., at bridge on State Highway 34, 1 $\frac{1}{2}$ miles northwest of Fort Supply and 6 $\frac{1}{2}$ 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 1944.

Extremes.- Maximum discharge during year, 6,390 second-feet Apr. 11 (gage height, 7.26 feet); no flow at times.
1937-44: Maximum discharge, 17,400 second-feet Oct. 23, 1941 (gage height, 8.75 feet); no flow at times.
Maximum stage known, 9.4 feet, date unknown, from information by State Highway Commission.

Remarks.- Records fair except those for periods of ice effect, which are poor.

Cooperation.- Gage-height record, 49 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	82	64	21	712	157	0	8	0
2				0	66	74	21	453	199	0	4	0
3				0	56	95	21	722	157	0	22	0
4				0	43	86	18	276	95	0	5	0
5				0	37	64	14	199	58	0	2	0
6				0	30	50	15	148	40	0	1	0
7				0	28	37	15	120	29	0	0	0
8				0	26	27	14	99	24	0	0	0
9				0	*22	23	26	78	22	17	0	0
10				0	21	18	756	66	18	400	0	0
11				0	(*)	17	2,590	101	16	17	0	0
12				0	b15	14	790	397	20	4	0	0
13				0	0	12	373	1,160	19	1	0	0
14				0	(*)	17	245	364	12	1	0	0
15				0	(*)	64	173	g209	6	1	0	0
16				0	(*)	23	125	g125	5	0	0	0
17				0	*b20	19	97	g84	4	0	0	0
18				0	0	20	80	g53	2	0	0	0
19				0	(*)	22	84	g51	2	0	0	0
20				0	22	41	95	g43	1	1	0	22
21				0	*23	41	108	g38	1	0	0	81
22				0	24	40	482	g34	1	0	0	10
23				5	22	31	202	33	1	73	0	2
24				9	21	30	209	30	1	47	0	1
25				8	17	24	199	25	1	419	0	0
26				7	15	22	179	25	1	208	0	0
27				50	15	17	154	78	0	115	0	0
28				679	47	17	125	166	0	157	0	0
29				301	53	15	357	425	0	g64	0	0
30				185	-	26	1,530	292	0	g34	0	0
31				115	-	21	-	223	-	16	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1943.....	8,285	426	0	22.7	16,420
January.....	1,359	679	0	43.8	2,700
February.....	825	82	-	28.4	1,640
March.....	1,071	95	12	34.5	2,120
April.....	9,119	2,590	14	304	18,090
May.....	6,839	1,160	25	221	13,560
June.....	892	199	0	22.7	1,770
July.....	1,675	419	0	50.7	3,120
August.....	42	22	0	1.4	83
September.....	116	81	0	3.9	230
Water year 1943-44.....	21,836	2,590	0	59.7	43,310

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

g Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River at Woodward, Okla.

Location.— Water-stage recorder, lat. 36°26'55", long. 99°23'55", on line between secs. 24 and 25, T. 23 N., R. 21 W., on 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). Prior to Oct. 27, 1943, wire-weight gage at same site and datum.

Drainage area.— 10,680 square miles (revised).

Records available.— October 1938 to September 1944. October 1903 to December 1905 (gage heights only) and January to June 1906, at Atchison, Topeka & Santa Fe Railway 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, 6,600 second-feet Apr. 11 (gage height, 4.82 feet); no flow at times.

1938-44: Maximum discharge, 31,000 second-feet Oct. 23, 1941 (gage height, 7.70 feet); no flow at times.

Maximum stage known, 11.0 feet Oct. 12, 1923, from reports of U. S. Weather Bureau.

Remarks.— Records fair. Flow partly regulated by Fort Supply Reservoir on Wolf Creek (see p. 237).

Cooperation.— Gage-height record, 108 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 12 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	286	0	3	99	150	34	1,030	228	0	506	0
2	0	179	0	4	*76	174	29	482	163	0	202	0
3	0	124	0	*5	*59	186	26	631	211	0	177	0
4	0	96	0	4	51	120	22	332	158	0	g104	0
5	0	72	0	3	42	83	18	244	101	0	30	0
6	0	60	1	3	36	68	16	215	68	0	18	0
7	0	47	0	3	*82	56	16	904	52	0	10	0
8	0	35	0	2	*71	42	16	820	50	0	6	0
9	0	36	8	2	*172	34	14	363	g39	0	4	0
10	0	31	*12	*3	*205	30	615	234	68	311	2	0
11	0	28	9	3	*50	29	2,770	241	137	144	1	0
12	0	25	7	2	*135	29	1,070	316	186	g35	1	0
13	0	19	4	*2	*140	26	532	1,440	189	g9	1	0
14	0	9	2	*1	*115	35	297	595	180	g1	0	0
15	0	3	*1	2	*144	97	205	412	172	0	0	0
16	0	1	2	3	130	71	g142	327	169	0	0	0
17	0	1	*2	4	125	45	g107	276	163	0	0	0
18	0	1	2	4	107	38	g94	251	89	0	0	0
19	0	0	0	*4	116	36	94	g120	16	0	0	0
20	0	0	0	5	130	33	103	g71	g5	0	0	0
21	0	0	1	7	120	42	131	g58	g2	0	0	286
22	0	0	1	7	116	45	1,520	g46	g1	0	0	74
23	0	0	1	6	112	42	506	g45	g1	0	0	21
24	0	1	*2	*6	107	36	822	g43	g1	13	0	8
25	0	1	1	5	105	31	4,220	g39	g1	397	0	3
26	0	2	2	5	103	28	2,700	g42	0	1,840	0	0
27	188	1	2	16	114	29	288	g55	0	3,710	0	4
28	364	1	2	231	172	29	1,060	107	0	400	0	4
29	353	0	*1	*438	147	20	960	192	0	1,280	0	1
30	337	0	2	*218	-	39	1,740	388	0	1,190	0	0
31	311	-	2	142	-	38	-	293	-	1,120	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,603	364	0	48.5	2,980
November.....	1,062	286	0	35.4	2,110
December.....	67	12	0	2.2	133
Calendar year 1943	14,653	364	0	40.1	29,080
January.....	1,143	438	1	36.9	2,270
February.....	3,131	205	32	108	6,210
March.....	1,761	186	20	56.8	3,490
April.....	20,167	4,220	14	672	40,000
May.....	10,622	1,440	39	343	21,070
June.....	2,441	228	0	81.4	4,840
July.....	11,448	3,710	0	369	22,710
August.....	1,062	506	0	34.3	2,110
September.....	401	286	0	13.4	795
Water year 1943-44	54,808	4,220	0	150	108,700

* Winter discharge measurement made on this day.

g Computed from graph based on once-daily wire-weight gage readings.

Notes.— Stage-discharge relation affected by ice Dec. 14-16, 22, 23, Dec. 28 to Jan. 17, Feb. 11-14. Discharge computed from once-daily wire-weight gage readings Nov. 19 to Dec. 9, Dec. 14 to Jan. 17, Mar. 22 to Apr. 7.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River at Canton, Okla.

Location.- Water-stage recorder and wire-weight 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, 2½ miles upstream from Minnehaha Creek, and 7½ 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 1944. 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, 5,850 second-feet Apr. 23 (gage height, 9.63 feet); no flow at times.

1938-44: Maximum discharge, 21,900 second-feet Oct. 25, 1941 (gage height, 12.51 feet); no flow at times.

Maximum stage known, 16.8 feet, at former site, Oct. 13, 1923, from reports of U. S. Weather Bureau.

Remarks.- Records good except those for periods of ice effect, which are poor. Flow partly regulated by Fort Supply Reservoir on Wolf Creek (see p. 237).

Cooperation.- Gage-height record, 87 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		31	0	b3	188	175	55	1,780	372	4	759	0
2		97	0	5	139	170	55	1,070	292	1	693	0
3		126	0	10	*109	172	52	766	238	0	338	0
4		96	0	14	91	160	49	697	180	0	154	0
5		64	0	*b9	72	160	42	534	182	0	131	0
6		45	0	b5	63	151	40	303	145	0	118	0
7		31	0	b3	*58	113	39	245	111	0	63	0
8		17	0		53	86	39	660	86	0	35	0
9		13	1		48	73	39	1,090	65	0	20	0
10		9	6	(*)	45	68	57	759	55	57	10	0
11		6	*6			63	84	347	57	102	4	0
12		4	16	b2	*b20	54	1,710	296	393	84	2	0
13		3	22		*b60	53	966	285	226	92	1	0
14		2	16		*100	52	702	683	188	42	0	0
15		1	b3		159	82	381	500	149	27	0	0
16		0	b2	b3	182	149	282	428	137	6	1	0
17		0	*b2	*b4	166	245	198	330	180	2	4	0
18		0	b2	18	128	177	156	264	109	0	3	0
19		0	3	22	118	120	147	235	104	0	1	0
20		0	*3	30	118	91	131	204	113	2	0	0
21		0	4	54	120	90	125	163	51	6	0	0
22		0	4	39	118	82	1,530	133	17	7	0	0
23		0	b1	29	118	78	3,110	113	11	2	0	0
24		0	b1	*26	115	78	1,030	101	10	1	0	0
25		0	3	23	115	71	1,250	86	9	17	0	0
26		0	3	23	104	68	3,900	85	8	163	0	0
27		0	*4	28	109	59	2,240	141	4	855	0	0
28		0		27	135	60	714	212	d3	2,250	0	0
29		0	b1	29	149	64	1,660	137	d2	648	0	108
30		0		64	-	61	1,760	178	d1	987	6	8
31		-		*232	-	57	-	242	-	897	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0'	0
November.....	545	126	0	18.2	1,080
December.....	108	22	0	3.5	214
Calendar year 1943	22,375	1,420	0	61.3	44,370
January.....	716	232	-	23.1	1,420
February.....	3,021	188	20	104	5,990
March.....	3,182	245	52	103	6,310
April.....	22,542	3,900	36	751	44,710
May.....	13,067	1,760	85	422	25,920
June.....	3,428	383	1	114	6,800
July.....	6,252	2,250	0	202	12,400
August.....	2,344	759	0	75.6	4,650
September.....	116	108	0	3.9	230
Water year 1943-44	55,321	3,900	0	151	109,700

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge estimated.

Note.- Discharge computed from graph based on once-daily wire-weight gage readings Apr. 17, 25, May 3, 11-13, 17-22, 25, 26, June 9-11, 21-27, 30, July 1-3, 5-10, 16-25, Aug. 4-7, 9-18, 22-30.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River near El Reno, Okla.

Location.- Water-stage recorder, lat. 35°34', long. 97°59', on line between secs. 32 and 33, T. 13 N., R. 7 W., at bridge on U. S. Highway 81 and 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 1944. Gage-height records collected at same site since March 1934 and at site 1 mile upstream March 1914 to March 1934, are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 9,540 second-feet Apr. 10 (gage height, 13.18 feet); no flow at times.
1902-8, 1938-44: Maximum discharge, 15,000 second-feet Oct. 28, 1941 (gage height, 15.98 feet); no flow at times.
Flood of Oct. 15, 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 except those for period of ice effect, which are poor. Flow partly regulated by Fort Supply Reservoir on Wolf Creek.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	0.6	7.0	*27	120	144	1,460	156	16	630	1.8
2	0	0	.5	11	*94	128	107	1,450	191	22	564	.2
3	0	0	.4	9.8	*154	146	82	1,090	243	55	532	f.2
4	0	0	.4	*8.0	133	161	71	830	267	27	508	f0
5	0	0	.8	7.0	*107	149	65	658	224	15	305	.1
6	0	11	2.2	7.5	87	144	61	652	167	10	183	.1
7	0	34	1.7	b9.0	74	146	58	439	142	8.6	135	22
8	0	27	1.5	b5.0	*64	142	54	391	161	6.7	109	8.6
9	0	18	15	b4.0	55	120	68	442	159	7.2	81	2.3
10	0	13	*19	*b4.0	53	98	5,860	873	113	46	52	.3
11	0	9.2	6.5	b4.0	b30	87	g1,080	620	84	43	35	1.6
12	0	5.6	10	*b5.5	*b40	79	g373	455	144	34	24	.2
13	0	3.8	14	b5.5	b35	74	1,080	339	2,360	24	16	0
14	0	2.7	b7.0	b4.0	*39	69	858	288	562	43	9.6	0
15	0	2.2	b2.0	b5.0	48	192	684	434	f286	43	5.6	0
16	0	1.7	b3.0	b6.0	66	233	439	559	213	46	3.2	0
17	0	1.5	*b4.5	*b6.5	95	135	f327	449	175	28	32	0
18	0	1.5	b3.5	b14	142	122	g285	360	142	17	42	0
19	0	1.1	b3.5	16	140	180	g292	307	122	12	41	0
20	0	1.0	3.2	*11	124	197	415	267	107	13	12	0
21	0	.7	3.2	13	113	384	f351	243	91	11	5.6	0
22	0	.6	3.2	16	107	807	g227	230	84	8.6	3.9	0
23	39	.6	b2.5	21	101	240	807	205	68	6.7	2.1	0
24	394	.6	b2.5	25	107	144	2,270	174	55	5.9	1.4	0
25	102	.6	3.5	*34	108	107	972	142	47	6.2	1.0	0
26	28	1.5	3.5	31	103	96	898	128	41	5.2	3.2	0
27	11	2.0	5.2	41	105	87	3,000	135	32	4.9	2.6	0
28	5.2	1.5	*b5.0	34	120	85	1,870	124	25	67	1.8	15
29	3.0	1.1	b4.0	*36	118	96	851	128	21	1,430	1.2	174
30	1.7	.8	*b5.0	32	-	96	1,270	194	19	334	5.4	67
31	1.0	-	b6.0	29	-	135	-	174	-	456	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	584.9	394	0	18.9	1,160
November.....	143.7	34	0	4.79	285
December.....	142.9	19	.4	4.61	285
Calendar year 1943.....	35,311.7	2,680	0	96.7	70,050
January.....	457.8	41	3.5	14.8	908
February.....	2,586	154	27	89.2	5,130
March.....	4,999	807	69	161	9,920
April.....	24,919	5,860	54	831	49,430
May.....	14,235	1,460	124	459	28,230
June.....	6,491	2,350	19	216	12,870
July.....	2,852.0	1,430	4.9	92.0	5,660
August.....	3,351.6	630	1.0	108	6,650
September.....	293.4	174	0	9.78	582
Water year 1943-44.....	61,054.2	5,860	0	167	121,100

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

f Computed from partly estimated gage-height record.

g Computed from graph based on once-daily readings of staff gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Lake Overholser near Oklahoma City, Okla.

Location.- Staff gage, lat. 35°29', long. 97°40', on north line of SW $\frac{1}{4}$ sec. 30, T. 12 N., R. 4 W., at dam on North Canadian River, 2 $\frac{1}{2}$ 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 1944.

Extremes.- Maximum contents observed during year, 20,900 acre-feet June 14 (gage height, 176.9 feet); minimum observed, 4,900 acre-feet Jan. 24 (gage height, 166.0 feet). 1939-44: Maximum contents observed, that of June 14, 1944; minimum observed, 4,150 acre-feet May 21, 1940 (gage height, 165.25 feet).

Remarks.- 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 on basis of level pool. Water used for municipal water supply 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 1943 to September 1944

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	168.65	8,000	-
Oct. 31.....	168.1	7,330	-670
Nov. 30.....	167.1	6,120	-1,210
Dec. 31.....	166.5	5,450	-670
Calendar year 1943....	-	-	-7,350
Jan. 31.....	166.35	5,280	-170
Feb. 29.....	169.6	9,340	+4,060
Mar. 31.....	174.7	17,200	+7,860
Apr. 30.....	175.6	18,700	+1,500
May 31.....	175.05	17,800	-900
June 30.....	175.95	19,300	+1,500
July 31.....	175.95	19,300	0
Aug. 31.....	174.9	17,500	-1,800
Sept. 30.....	173.5	15,200	-2,300
Water year 1943-44....	-	-	+7,200

† Gage height at 8 a.m.
Time basis: Central war time. To convert war time to standard time,
subtract 1 hour.

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 Crutch 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 1938 to September 1944. May to December 1899 (gage-heights only) at site about 6 miles upstream.

- Extremes.— Maximum discharge during year, 8,730 second-feet June 13 (gage height, 10.96 feet); minimum daily, 20 second-feet Nov. 29.
 1938-44: Maximum discharge, 16,700 second-feet Oct. 30, 1941 (gage-height, 14.74 feet); minimum daily, 12 second-feet Dec. 20, 1938, Oct. 18, 1940.
 Maximum stage known, 16.3 feet Oct. 16, 1923 (from information by State Highway Commission); about 2 feet of this stage was caused by failure of dam at Lake Overholser (from information by Corps of Engineers, U. S. Army).

Remarks.— Records good except those for period of no gage-height record, which are fair. Flow partly regulated by Fort Supply Reservoir on Wolf Creek (see p. 237). Water diverted above station into Lake Overholser (see preceding page) and Bluff Creek Reservoir for municipal supply of Oklahoma City. Diversions into Bluff Creek Reservoir were made at various times during year and totaled about 26,000 acre-feet. Low flow sustained by sewage from Oklahoma City.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	25	22	34	f28	26	52	1,420	53	54	42	34
2	79	23	25	50	f31	25	46	1,320	49	47	38	31
3	31	27	22	24	25	24	46	2,020	45	40	35	28
4	26	28	24	28	24	24	45	1,140	42	38	34	27
5	29	29	38	26	24	21	43	855	42	38	41	45
6	30	29	33	25	22	21	43	828	98	38	92	35
7	30	26	25	33	22	24	43	f720	262	38	f211	32
8	29	25	25	27	26	23	43	f594	267	35	a46	30
9	26	59	27	25	25	24	44	503	667	32	a43	30
10	27	25	62	30	31	22	1,030	636	321	33	a39	27
11	25	26	35	33	25	25	2,910	773	270	34	40	49
12	32	26	29	34	29	24	2,420	f515	1,090	34	38	34
13	32	26	28	28	29	23	276	f414	5,010	34	34	31
14	31	23	29	30	30	24	647	365	4,090	34	32	35
15	30	23	30	32	27	1,620	530	f330	1,410	35	34	32
16	29	26	30	33	26	297	360	590	544	33	33	30
17	27	27	30	33	28	60	96	568	462	34	50	27
18	24	27	31	32	26	f45	272	490	345	36	37	26
19	29	27	28	33	26	341	361	454	133	36	31	28
20	28	27	27	32	39	182	507	395	108	83	30	28
21	27	25	31	31	28	189	572	333	215	44	30	28
22	39	25	29	30	29	247	496	309	82	42	31	28
23	38	29	30	24	27	61	361	309	70	39	31	28
24	28	29	31	24	26	47	416	252	68	38	33	24
25	25	26	31	26	48	47	73	72	65	41	33	26
26	28	32	25	28	32	50	61	56	64	41	46	28
27	28	27	74	105	32	f43	801	279	63	39	30	34
28	28	22	53	51	66	53	2,170	118	62	40	30	33
29	28	20	35	33	36	152	1,800	75	58	173	32	35
30	27	23	29	f26	-	74	1,080	61	56	178	69	31
31	24	-	27	f25	-	59	-	f56	-	47	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	952	79	24	30.7	1,690
November.....	782	32	20	26.1	1,550
December.....	1,025	74	22	33.1	2,030
Calendar year 1943.....	61,760	4,770	20	169	122,500
January.....	1,034	105	24	33.4	2,050
February.....	867	66	22	29.9	1,720
March.....	3,696	1,620	21	126	7,730
April.....	17,634	2,910	43	588	34,980
May.....	16,850	2,020	56	544	33,420
June.....	16,111	5,010	42	537	31,960
July.....	1,508	178	32	48.6	2,990
August.....	1,384	211	30	44.6	2,740
September.....	964	63	24	32.1	1,910
Water year 1943-44.....	63,007	5,010	20	172	125,000

a No gage-height record; discharge computed on basis of recorded range in stage; rainfall records, and records of flow at Lake Overholser.

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Canadian River near Wetumka, 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 Wetumka and 4½ miles upstream from Wewoka Creek. 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.

Records available.- March 1938 to September 1944.

Extremes.- Maximum discharge during year, 6,120 second-feet Mar. 16 (gage height, 10.31 feet); minimum daily, 35 second-feet Jan. 9.
1938-44: Maximum discharge, 28,300 second-feet May 10, 1943; maximum gage height, 24.39 feet Oct. 31, 1941, affected by backwater from Wewoka Creek; minimum daily discharge, 26 second-feet Jan. 23, 26, 1940.
Maximum stage known, 26.9 feet (revised) in October 1923, from information by Corps of Engineers, U. S. Army.

Remarks.- Records good except those for period of ice effect, which are fair. For statement on regulation and diversion see description for station near Oklahoma City.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	82	64	98	104	376	145	2,300	g770	244	217	112
2	179	76	65	101	119	g225	143	2,390	g585	g228	150	89
3	139	75	65	97	108	g143	158	2,220	g470	276	167	76
4	145	73	68	88	94	127	141	1,920	g414	300	188	73
5	129	73	75	82	85	127	127	1,860	g380	g214	135	479
6	139	73	73	77	82	g119	119	1,580	g345	g206	119	217
7	129	73	75	83	82	g106	115	1,150	g332	g196	113	158
8	115	69	75	b80	85	g97	113	940	g310	181	108	137
9	97	70	85	b55	89	g84	115	2,850	g694	165	104	115
10	82	70	103	b65	91	g91	301	1,840	g294	158	101	101
11	77	72	106	*79	82	93	1,860	940	383	486	115	99
12	108	72	104	g83	77	91	825	710	501	441	158	88
13	547	72	104	g73	75	86	1,030	630	2,010	276	125	80
14	255	70	99	g69	g80	86	2,460	910	3,120	209	103	76
15	131	70	94	g76	g86	962	1,460	852	3,290	191	97	75
16	96	70	88	g86	g96	5,000	g676	660	3,290	174	89	72
17	79	68	93	g96	g108	2,540	g555	575	2,940	165	94	72
18	72	68	85	g108	g108	1,750	g671	530	1,440	163	91	76
19	69	66	70	g110	89	1,800	635	496	1,030	184	89	79
20	66	68	70	g112	106	2,540	g560	742	1,120	165	80	77
21	65	68	70	g108	94	1,120	g422	2,560	g890	167	76	72
22	61	66	75	g103	91	770	g449	1,120	g598	167	75	68
23	61	64	79	g101	88	940	g530	1,110	g535	181	73	59
24	118	65	73	g99	80	g580	970	2,540	g457	160	70	59
25	150	64	77	99	77	g418	g635	1,640	g425	165	68	57
26	103	64	77	94	86	g345	g501	1,340	g372	174	88	57
27	115	66	*97	198	83	g253	g433	1,860	g308	158	97	57
28	106	65	273	287	385	g214	g397	3,940	273	452	79	65
29	97	62	158	206	585	201	g338	3,650	250	273	73	72
30	89	62	127	143	-	176	1,420	2,080	241	179	93	75
31	82	-	117	117	-	158	-	1,180	-	163	232	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,071	547	61	131	8,070
November.....	2,076	82	62	69.2	4,120
December.....	2,884	273	64	93.0	5,720
Calendar year 1943	241,158	23,800	80	661	478,400
January.....	3,231	267	35	104	6,410
February.....	3,423	585	75	118	6,792
March.....	21,628	5,000	86	698	42,900
April.....	18,292	2,460	113	610	36,280
May.....	49,005	3,840	496	1,581	97,200
June.....	27,755	3,290	241	925	55,050
July.....	6,861	488	158	221	13,580
August.....	3,467	232	68	112	6,880
September.....	2,992	479	57	98.7	5,930
Water year 1943-44	145,675	5,000	35	398	288,900

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Computed from graph based on once-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wolf Creek near Shattuck, Okla.

Location.- Water-stage recorder, lat. 36°17'10", long. 99°54'45", in NE¼ sec. 19, T. 21 N., R. 25 W., at Santa Fe Railway bridge, 2 miles northwest of Shattuck, 2½ 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 1944.

Extremes.- Maximum discharge during year, 8,800 second-feet July 25 (gage height, 6.60 feet); no flow at times.

1938-44: Maximum discharge, 24,000 second-feet Oct. 22, 1941 (gage height, 8.87 feet), from rating curve extended above 11,000 second-feet; no flow at times.

Remarks.- Records good except those above 50 second-feet and those for periods of ice effect, which are poor.

Cooperation.- Gage-height record, 53 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 8 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	4	7	20	48	44	24	105	44	1	22	2
2	3	4	6	25	*37	34	22	77	101	0	11	0
3	3	4	6	25	32	31	19	50	68	0	7	0
4	2	4	7	*25	32	28	19	25	25	0	5	0
5	2	5	8	25	31	24	19	20	17	g1	3	2
6	2	5	11	25	30	21	19	19	12	0	3	4
7	2	5	9	20	*26	19	19	18	11	0	3	3
8	2	5	8	15	*28	18	19	17	11	0	2	1
9	1	5	18	15	26	18	101	17	10	g2	1	1
10	1	5	34	*15	26	18	740	20	9	g14	0	1
11	1	5	22	20	18	18	g93	198	8	174	0	1
12	1	5	16	20	15	18	g59	192	10	18	0	1
13	1	5	*15	20	18	18	g59	89	9	3	0	1
14	1	5	12	15	20	81	28	50	6	1	0	2
15	1	5	6	15	*26	52	20	28	5	0	0	1
16	2	6	8	15	30	34	19	19	4	0	0	0
17	2	6	8	*20	30	28	18	18	3	1	792	0
18	2	6	10	34	26	25	18	17	2	0	74	0
19	2	6	11	39	24	24	30	17	2	0	24	743
20	2	6	*11	34	24	24	37	17	2	14	11	34
21	2	6	g13	37	24	22	37	16	1	10	8	15
22	2	6	g14	39	22	22	125	14	1	4	5	10
23	2	6	9	39	21	21	71	12	1	2	2	10
24	2	6	9	*41	22	19	41	12	1	5	2	10
25	2	8	9	46	22	19	30	11	1	3,110	5	9
26	3	11	g13	46	22	18	30	13	1	305	3	8
27	3	11	g18	248	25	17	31	31	1	105	2	13
28	4	9	(s)	149	39	16	34	46	22	46	2	30
29	4	8	15	68	50	18	391	36	13	22	1	16
30	4	7		57	-	20	204	30	1	22	8	11
31	4	-		50		24	-	28	-	48	7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	86	4	1	2.1	131
November.....	179	11	4	6.0	355
December.....	376	34	6	12.1	746
Calendar year 1943.....	8,702	466	0	23.8	17,260
January.....	1,262	248	15	40.7	2,500
February.....	758	50	15	27.2	1,560
March.....	793	91	16	25.6	1,570
April.....	2,346	740	18	75.2	4,650
May.....	1,262	198	11	40.7	2,500
June.....	402	101	1	13.4	797
July.....	3,908	3,110	0	126	7,750
August.....	993	782	0	32.0	1,970
September.....	929	743	0	31.0	1,840
Water year 1943-44.....	13,304	3,110	0	36.3	26,370

* Winter discharge measurement made on this day.

g Computed from graph based on once-daily staff-gage readings.

Note.- Stage-discharge relation affected by ice Dec. 15-18, 23-25, Dec. 28 to Jan. 17, Feb. 11-13 (no gage-height record; discharge computed on basis of discharge measurements and weather records).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fort Supply Reservoir near Fort Supply, Okla.

Location.- Water-stage recorder, lat. 36°33', long. 99°34', in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 24 N., R. 22 W., at Fort Supply Dam on Wolf Creek, 2 miles southeast of Fort Supply and 4.3 miles upstream from mouth. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,460 square miles.

Records available.- June 1942 to September 1944.

Extremes.- Maximum contents during year, 23,200 acre-feet July 26 (elevation, 2,006.2 feet); minimum, 2,790 acre-feet Nov. 25 (elevation, 1,992.35 feet).

1942-44: Maximum contents, that of July 26, 1944; no contents at times November 1942 to January 1943.

Remarks.- Reservoir is formed by an earth dam. Outlet works consist of 540-foot uncontrolled gravity-type concrete weir with chute to stilling basin, one 36-inch diameter gated bypass, and one 18-foot oval-shaped conduit controlled by 3 vertical-lift sluice gates. Pertinent data regarding dam are shown in the following table:

	Elevation in feet	Reservoir capacity in acre-feet*
Top of dam.....	2,059.5	-
Maximum design pool....	2,050.4	292,000
Crest of spillway.....	2,028.0	107,500
Conservation pool.....	2,000.0	11,000
Sill of bypass gate.....	1,980.0	0
Sill of conduit.....	1,979.0	-

* Based on silt survey of January 1943.

Natural flow diverted through conduit in 1941 during construction operations. Regulated storage began May 4, 1942. Conservation pool stage was first reached June 11, 1942. Reservoir is used for flood control purposes and conservation. Figures given herein represent total contents on basis of level pool.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	1,999.3	9,980	-
Oct. 31.....	1,994.9	4,810	-5,170
Nov. 30.....	1,992.5	2,890	-1,920
Dec. 31.....	1,994.6	4,540	+1,650
Calendar year 1943.	-	-	+4,500
Jan. 31.....	1,997.8	7,960	+3,420
Feb. 29.....	1,995.6	5,500	-2,460
Mar. 31.....	1,993.7	9,140	+3,640
Apr. 30.....	2,001.85	14,100	+4,960
May 31.....	2,000.75	12,200	-1,900
June 30.....	2,000.1	11,200	-1,000
July 31.....	2,001.0	12,600	+1,400
Aug. 31.....	2,000.95	12,500	-100
Sept. 30.....	2,000.5	11,800	-700
Water year 1943-44.	-	-	+1,820

† Elevation at 12 p.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Wolf Creek near Fort Supply, Okla.

Location.- Water-stage recorder, lat. 36°34'00", long. 99°33'05", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 24 N., R. 22 W., at bridge on U. S. Highway 270, 1 mile southeast of Fort Supply, 1.3 miles downstream from Fort Supply flood-control dam, and 3 miles upstream from mouth. Datum of gage is 1,968.38 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 1944.

Extremes.- Maximum discharge during year, 3,620 second-feet (regulated) Apr. 24 (gage height, 3.11 feet); no flow at times.
1937-44: 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 Commission.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Flow completely regulated by Fort Supply Reservoir (see p. 237).

Cooperation.- Gage-height record, 110 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 9 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	224	1	2	1	101	1	4	2	0	186	1
2	6	144	1	2	1	101	1	3	2	0	178	1
3	5	115	0	*2	1	56	1	3	2	0	133	1
4	6	92	0	2	1	2	1	2	1	0	4	1
5	5	84	0	2	1	2	1	2	1	0	2	1
6	4	73	0	2	1	1	1	408	1	0	2	1
7	3	58	0	1	23	1	1	858	1	0	2	1
8	1	45	0	0	180	1	2	747	1	0	1	1
9	0	42	1	0	189	1	2	157	54	0	1	1
10	0	40	1	1	180	1	3	146	165	0	1	1
11	0	35	1	*2	151	1	2	146	173	0	1	0
12	0	21	0	1	118	1	2	150	182	0	1	0
13	0	2	0	1	107	1	2	150	194	0	1	0
14	0	1	*0	*1	107	1	2	153	194	0	1	0
15	0	1	*0	1	104	g1	g2	157	186	0	1	0
16	0	1	0	1	107	g1	g2	153	190	0	1	0
17	0	1	0	1	107	g1	g2	150	124	0	2	0
18	0	1	0	*2	107	2	g2	78	3	1	1	0
19	0	1	0	2	114	2	g3	4	1	1	1	0
20	0	1	*0	2	104	2	2	3	1	1	1	459
21	0	1	0	2	104	2	2	3	1	1	2	214
22	0	1	0	2	104	2	14	3	1	1	1	3
23	0	1	0	1	104	2	6	3	1	1	1	2
24	0	1	0	1	98	2	1,510	3	1	1	1	2
25	0	1	0	1	92	2	2,590	3	0	196	1	2
26	85	1	0	1	98	2	1,050	3	0	1,740	1	1
27	592	1	0	1	104	2	222	3	0	1,950	1	2
28	456	1	0	1	107	2	1,040	3	0	900	1	2
29	430	1	1	1	104	4	202	3	0	844	1	1
30	375	1	*2	1	-	2	5	3	0	792	2	1
31	403	-	2	1	-	2	-	2	-	670	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,378	592	0	76.7	4,720
November	992	224	1	33.1	1,970
December	11	2	0	.4	22
Calendar year 1943	7,750	592	0	21.2	15,340
January	42	2	0	1.4	83
February	2,599	189	1	89.6	5,160
March	304	101	1	9.8	603
April	6,676	2,590	1	223	13,240
May	3,506	858	2	113	6,950
June	1,482	194	0	49.4	2,940
July	7,099	1,950	0	229	14,080
August	534	186	1	17.2	1,060
September	699	459	0	23.3	1,390
Water year 1943-44	26,322	2,590	0	71.9	52,220

* Winter discharge measurement made on this day.

g Computed from graph based on once-daily staff-gage readings.

Note.- Stage-discharge relation affected by ice Dec. 15-17, Dec. 23 to Jan. 17. No gage-height record Dec. 28 to Jan. 15, June 18 to July 24; discharge computed on basis of discharge measurements, records at Fort Supply Dam, and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 4,600 second-feet May 11 (gage height, 19.90 feet); minimum, 6 second-feet Sept. 27, 30.
1938-44: Maximum discharge, 66,800 second-feet May 11, 1943 (gage height, 34.55 feet); no flow at times in 1939.

Remarks.- Records good. Gage read twice daily, oftener during floods.

Cooperation.- Gage-height record, 38 discharge measurements, and computation of daily discharges furnished by Corps of Engineers, U. S. Army; 4 discharge measurements made and records reviewed by Geological Survey.

Rating table, water year 1943-44, except period of ice effect
(gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-4, Sept. 13-30)

0.3	6	3.0	185	12.0	1,920
.5	11	4.0	288	14.0	2,510
.7	18	5.0	412	16.0	3,120
1.0	32	6.0	560	18.0	3,770
1.5	63	8.0	910	20.0	4,670
2.0	98	10.0	1,380		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	191	122	22	225	167	560	266	679	3,400	91	98	106
2	229	98	22	140	122	512	245	1,370	3,120	215	84	50
3	149	74	22	106	235	225	2,720	2,780	1,510	151	66	30
4	54	60	23	88	106	206	195	3,060	1,460	74	44	28
5	170	53	28	*84	91	158	176	3,240	512	225	35	97
6	195	44	32	77	84	140	158	2,720	324	185	28	277
7	98	35	32	80	77	122	140	2,210	255	98	22	205
8	50	35	44	91	321	98	140	2,390	205	70	18	235
9	55	32	44	b80	386	91	165	4,070	1,000	55	16	158
10	25	30	63	b70	255	77	2,580	3,990	1,950	44	14	80
11	18	28	88	b70	185	70	3,060	4,530	1,780	41	12	47
12	19	27	98	b60	140	a63	1,840	4,220	696	172	11	32
13	27	a26	122	b60	114	60	1,410	3,700	1,510	312	10	25
14	215	26	215	b50	131	60	1,460	2,600	2,300	277	9	22
15	98	a24	158	*b40	158	1,360	1,590	730	2,120	195	9	18
16	32	23	98	56	205	3,430	1,720	373	1,980	122	9	14
17	20	23	80	63	255	3,770	1,480	266	1,700	84	10	13
18	14	22	56	67	235	3,770	611	205	1,750	63	9	10
19	11	22	47	77	195	3,430	336	167	2,060	53	8	11
20	10	23	38	80	149	3,340	266	149	2,090	44	9	13
21	9	22	35	*88	122	3,670	266	487	1,060	50	12	12
22	9	22	a32	114	131	3,960	399	2,040	440	50	9	10
23	294	22	32	114	122	3,770	528	1,750	426	55	8	9
24	2,040	22	35	88	114	3,370	373	1,860	354	47	7	8
25	2,160	22	41	94	235	2,510	336	2,060	225	77	10	8
26	1,380	22	44	77	245	1,280	324	2,600	167	84	92	7
27	1,060	22	88	205	140	662	245	2,630	131	74	88	6
28	853	22	225	373	351	426	185	2,930	106	140	50	7
29	544	22	373	288	910	360	185	3,500	98	386	32	7
30	265	23	245	336	-	336	544	3,740	88	255	77	6
31	167	-	288	225	-	300	-	3,670	-	151	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,421	2,150	9	336	20,670
November.....	1,038	122	22	34.6	2,060
December.....	2,771	373	22	89.4	5,500
Calendar year 1943.....	492,276	55,600	3	1,549	976,400
January.....	3,557	373	40	115	7,060
February.....	5,852	910	77	202	11,610
March.....	41,905	3,960	80	1,355	85,300
April.....	21,468	3,060	140	716	42,580
May.....	70,636	4,530	149	2,279	140,100
June.....	35,937	3,400	88	1,198	71,280
July.....	3,876	366	41	125	7,690
August.....	1,016	120	7	32.8	2,020
September.....	1,551	277	6	51.7	3,080
Water year 1943-44.....	200,118	4,530	6	547	397,000

* Winter discharge measurement made on this day.

a Gage-height record; discharge computed from interpolated gage heights.

b Stage-discharge relation affected by ice (no gage-height record; discharge computed on basis of 1 discharge measurement, weather records, and records for station near Dewar).

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

Deep Fork near Dewar, Okla.

Location.- Water-stage recorder, lat. 35°28'50", long. 95°52'50", in SE $\frac{1}{4}$ sec. 25, T. 12 N., R. 13 E., at bridge on U. S. Highway 266, $\frac{3}{4}$ miles east of Dewar and $\frac{3}{4}$ 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 1944.

Extremes.- Maximum discharge during year, 5,580 second-feet Mar. 20 (gage height, 18.98 feet); minimum 10 second-feet Sept. 26, 27 (gage height, 1.21 feet).
1938-44: Maximum discharge, 44,800 second-feet May 12, 1943 (gage height, 26.21 feet); 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	233	26	319	263	1,300	397	707	4,060	105	172	139
2	92	167	26	295	226	k631	327	k1,830	4,010	106	111	153
3	294	124	27	211	173	469	297	k2,610	3,830	357	92	93
4	214	98	28	147	134	336	263	2,980	k3,340	219	78	64
5	116	81	30	114	120	271	233	3,210	k1,870	117	63	250
6	98	66	34	104	110	218	197	3,370	k700	159	53	256
7	207	56	40	96	98	190	176	3,170	424	212	45	235
8	153	49	40	102	90	175	164	k2,480	333	133	39	256
9	93	41	43	93	329	136	156	k3,680	k828	101	34	212
10	56	38	63	105	545	112	k430	4,930	1,860	81	30	191
11	36	36	74	96	352	99	k2,950	5,160	2,090	71	27	119
12	40	34	74	94	226	83	3,620	5,290	1,940	66	24	81
13	193	31	102	79	183	75	k2,660	5,290	1,430	64	22	61
14	156	30	113	70	147	71	k1,640	5,160	2,060	286	20	49
15	112	30	187	68	142	k448	1,500	4,830	2,400	317	18	41
16	179	29	211	73	187	k4,380	1,580	k2,690	2,210	233	17	35
17	83	27	146	64	256	4,560	1,720	k745	1,910	159	16	30
18	36	26	102	72	352	4,400	k1,550	387	1,720	112	17	26
19	23	28	78	84	344	4,680	k824	279	1,720	87	19	22
20	16	28	62	88	279	5,430	450	218	2,000	76	17	19
21	14	28	52	90	256	5,430	327	183	2,120	74	16	16
22	12	28	47	90	211	5,160	303	k730	1,210	72	15	17
23	24	28	43	101	177	4,750	441	k1,950	569	62	14	17
24	k718	28	41	116	168	4,620	585	1,880	477	62	15	15
25	k1,890	28	40	112	153	4,500	469	1,910	365	64	15	13
26	2,140	28	43	99	279	k3,980	387	k2,260	286	73	22	11
27	k1,590	27	59	137	295	k2,200	352	k2,970	212	87	48	12
28	k1,190	27	258	327	k707	k930	279	k3,480	159	105	100	12
29	k958	26	414	478	1,580	605	240	4,060	132	96	83	13
30	k632	26	450	405	-	507	478	3,970	114	341	98	16
31	k357	-	327	295	-	432	-	3,970	-	293	159	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	11,822	2,140	12	381	23,450
November.....	1,526	233	26	50.9	3,030
December.....	3,280	450	26	106	6,510
Calendar year 1943.....	549,820.5	43,200	6.0	1,506	1,091,000
January.....	4,624	478	64	149	9,370
February.....	8,382	1,580	90	289	16,630
March.....	61,378	5,430	71	1,990	121,700
April.....	24,975	3,620	156	832	49,540
May.....	96,379	5,290	183	2,786	171,300
June.....	46,379	4,060	114	1,546	91,990
July.....	4,395	357	14	142	8,720
August.....	1,499	172	14	48.4	2,970
September.....	2,471	256	11	82.4	4,900
Water year 1943-44.....	257,110	5,430	11	702	509,900

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

Note.- Computed from graph based on twice-daily wire-weight gage readings May 23-26, May 28 to June 3, June 6 to July 24.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sallisaw Creek near Sallisaw, Okla.

Location.- Water-stage recorder above dam of city of Sallisaw, lat. 35°28', long. 94°52', in SW $\frac{1}{4}$ sec. 34, T. 12 N., R. 23 E., $3\frac{1}{4}$ miles west of Sallisaw, 5 miles upstream from Little Sallisaw Creek, and 9 miles upstream from mouth. Datum of gage is 490.00 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark). Auxiliary wire-weight gage, used in computing low-water flows, at bridge on U. S. Highway 64, 0.2 mile downstream from water-stage recorder. Datum of auxiliary gage is 476.78 feet above mean sea level, datum of 1929.

Drainage area.- 181 square miles.

Records available.- October 1942 to September 1944.

Extremes.- Maximum discharge during year, 7,870 second-feet May 2 (gage height, 4.21 feet); minimum, 2.8 second-feet Aug. 23-25.

1942-44: Maximum discharge, 38,000 second-feet May 10, 1943 (gage height, 8.63 feet, from rating curve extended above 13,000 second-feet by logarithmic plotting for flow over dam and computation of flow over levee by weir formula; no flow at times in 1943.

Remarks.- Records good above 80 second-feet and fair below. Small diversion made from reservoir for municipal water supply of city of Sallisaw. Auxiliary wire-weight gage read once daily.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	491	9.9	5.3	56	45	572	152	551	66	61	19	108
2	114	9.9	5.3	56	46	383	138	3,800	57	43	15	79
3	80	9.1	5.1	56	46	321	120	1,260	52	38	12	64
4	36	8.7	4.8	56	44	347	108	672	46	34	10	55
5	24	8.7	6.1	56	41	255	103	450	40	32	18	49
6	17	8.7	9.5	56	39	224	91	330	37	29	15	43
7	14	8.7	8.7	55	37	194	85	255	35	27	38	38
8	12	9.1	8.7	55	49	159	338	216	53	24	28	33
9	10	8.7	9.9	52	73	132	1,760	981	358	23	23	28
10	9.5	8.0	12	52	72	114	1,180	551	270	23	19	26
11	9.1	8.3	12	52	66	103	998	330	166	21	15	23
12	14	7.7	14	50	60	97	541	239	992	27	12	21
13	49	7.3	14	50	60	85	383	194	2,170	23	10	20
14	39	7.3	14	49	63	79	295	159	1,040	18	9.2	19
15	29	7.3	14	49	72	253	239	126	628	16	7.9	17
16	24	7.3	14	49	91	1,520	201	108	373	14	7.2	15
17	22	7.0	14	48	159	661	173	91	255	14	6.4	14
18	20	6.7	13	44	218	440	152	79	201	13	5.4	13
19	18	6.4	12	42	180	3,250	152	78	169	13	4.8	12
20	16	6.1	11	39	166	2,380	239	80	138	15	3.8	12
21	14	5.8	11	37	138	1,050	194	86	114	14	3.5	10
22	14	5.6	9.9	35	126	888	166	73	97	12	3.3	8.7
23	13	5.3	9.5	31	114	639	159	65	79	10	3.1	7.5
24	13	4.8	9.9	30	103	479	138	80	69	9.2	2.8	7.2
25	12	4.8	11	29	103	373	126	62	62	8.7	15	7.2
26	12	4.8	11	27	126	303	114	114	59	12	1,190	6.4
27	12	4.8	22	42	145	247	108	103	55	24	231	7.5
28	11	5.1	63	48	2,090	224	103	79	48	57	97	8.3
29	10	5.3	66	44	1,150	216	174	79	44	48	70	8.7
30	10	5.3	63	42	-	187	1,050	79	52	34	108	8.3
31	10	-	60	44	-	166	-	77	-	25	194	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,158.6	491	9.1	37.4	2,500
November	212.5	9.9	4.8	7.08	421
December	643.7	66	4.8	17.5	1,050
Calendar year 1943	74,851.5	20,900	0	205	148,500
January	1,431	56	27	46.2	2,840
February	5,720	2,090	37	197	11,350
March	16,341	3,250	79	527	32,410
April	9,770	1,760	38	326	19,350
May	11,427	3,800	60	369	22,670
June	7,822	2,170	35	261	15,510
July	761.9	61	8.7	24.6	1,510
August	2,194.4	1,190	2.8	70.8	4,350
September	768.8	108	6.4	25.6	1,520
Water year 1943-44	58,150.9	3,800	2.8	159	115,300

Peak discharge.- Feb. 28 (2 p.m.) 3,500 sec.-ft.; Mar. 19 (8 p.m.) 7,340 sec.-ft.; May 2 (11 a.m.) 7,870 sec.-ft.; June 13 (1 p.m.) 3,620 sec.-ft.

Note.- Discharge for periods Oct. 3 to Feb. 15, May 19-25, May 31 to June 8, June 25 to Aug. 25, Aug. 29, Sept. 3-30 computed from gage-height record and rating for auxiliary wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.— Maximum discharge during year, 7,580 second-feet Feb. 28 (gage height, 17.09 feet); no flow at times.

1939-44: 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 1939-41, 1943, 1944.

Flood of June 1935 reached a stage of 27.4 feet, from information by local residents.

Remarks.— Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	51	6.3	36	115	600	138	2,760	115	11	6.9	85
2	.2	57	6.3	45	120	400	850	5,380	78	9.3	4.2	35
3	.2	89	5.7	241	141	301	690	1,570	59	8.7	3.0	17
4	.1	44	5.7	178	107	274	368	495	46	6.9	1.9	10
5	.1	24	6.9	115	86	213	257	306	871	5.7	5.0	9.3
6	.1	16	43	80	73	185	186	205	1,410	4.7	36	11
7	0	11	99	73	65	178	187	164	193	3.8	27	13
8	0	8.1	48	92	812	126	144	132	117	3.0	11	7.5
9	0	6.3	48	102	2,210	107	217	214	135	2.7	5.7	4.2
10	0	5.7	211	132	580	94	971	193	147	2.1	3.4	3.0
11	0	5.7	492	201	328	85	1,680	123	104	1.7	2.7	2.7
12	0	4.7	178	332	213	82	535	92	301	1.7	1.7	1.7
13	3.0	4.2	102	283	164	78	332	97	865	1.7	1.5	1.4
14	1.1	4.2	71	197	238	69	241	67	530	1.7	1.9	1.1
15	.9	4.2	51	171	640	180	182	51	213	1.5	1.4	1.1
16	1.0	3.8	39	197	840	3,690	135	44	144	1.4	2.4	1.0
17	1.0	4.2	31	249	3,810	940	110	36	97	1.2	5.2	.9
18	1.4	4.7	26	373	1,570	510	97	30	71	1.1	3.8	1.0
19	2.4	5.2	24	409	580	2,960	82	26	51	1.0	2.7	1.0
20	3.4	5.7	21	346	500	1,780	289	26	279	1.7	1.7	1.0
21	4.2	5.7	20	270	414	665	205	27	132	2.4	1.4	.8
22	4.2	6.9	18	209	346	620	138	26	67	1.9	1.0	.6
23	9.8	8.1	17	164	274	510	291	24	44	1.7	.8	.6
24	48	7.5	13	129	213	355	193	20	31	1.7	.8	.6
25	45	6.9	13	107	237	265	123	59	65	1.5	.8	.5
26	18	6.9	13	89	550	205	97	1,370	50	1.9	67	.3
27	11	6.9	13	322	350	414	89	241	29	2.1	85	.2
28	6.9	6.9	27	382	5,390	270	85	182	21	5.7	21	.4
29	4.7	6.3	71	209	1,900	274	90	112	16	5.7	9.3	.4
30	11	6.3	53	189	-	197	1,450	237	13	11	76	.2
31	24	-	44	150	-	150	-	171	-	11	168	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	201.7	48	0	6.51	0.033	0.04	400
November	427.1	89	3.8	14.2	.072	.08	847
December	1,816.9	492	5.7	58.6	.296	.34	3,600
Calendar year 1943	55,875.9	9,110	0	148	.747	10.13	106,900
January	6,072	409	36	196	.390	1.14	12,040
February	22,365	5,390	68	786	3.98	4.29	45,350
March	16,677	3,690	69	538	2.72	3.14	33,080
April	10,425	1,680	82	348	1.76	1.96	20,680
May	14,480	5,380	20	467	2.36	2.72	28,720
June	6,294	1,410	13	210	1.06	1.18	12,480
July	119.2	11	1.0	3.85	.019	.02	236
August	580.2	168	.8	18.1	.091	.10	1,110
September	212.5	85	.2	7.08	.036	.04	421
Water year 1943-44	80,150.6	5,390	0	219	1.11	15.05	159,000

Peak discharge.— Feb. 9 (2:30 a.m.) 3,760 sec.-ft.; Feb. 17 (5 p.m.) 5,720 sec.-ft.; Feb. 28 (4:30 p.m.) 7,580 sec.-ft.; Mar. 16 (11 a.m.) 5,010 sec.-ft.; May 1 (11 a.m.) 4,000 sec.-ft.; May 2 (4 p.m.) 7,460 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Poteau River near Wister, Okla.

Location.- Water-stage recorder, lat. 34°57', long. 94°42', in NW¼ sec. 32, T. 6 N., R. 25 E., at Chicago, Rock Island & Pacific Railway bridge, 1 mile upstream from Caston Creek, 2 miles southeast of Wister, and 5½ miles downstream from Fourche Maline. Datum of gage is 433.03 feet above mean sea level, datum of 1929.

Drainage area.- 1,065 square miles, including that of Gaston Creek.

Records available.- May 1938 to September 1944.

Extremes.- Maximum discharge during year, 22,100 second-feet May 3 (gage height, 31.06 feet); minimum, 0.5 second-foot Sept. 29, 30.

1938-44: 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, Aug. 20 to Sept. 2, 1943.

Maximum stage known, 43.0 feet in June 1935, original site and datum.

Remarks.- Records good except those for days of rapidly changing stage and those for periods of no gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	176	25	422	840	15,200	695	8,340	990	114	17	299
2	57	189	24	376	718	9,420	990	14,200	695	99	15	267
3	720	312	21	605	672	3,420	4,000	20,900	500	85	15	132
4	718	338	20	940	650	3,820	2,880	15,400	390	75	15	122
5	151	275	a23	915	562	3,150	1,520	5,470	582	65	15	85
6	69	202	a28	672	475	2,000	1,190	2,650	1,380	55	15	61
7	44	155	a47	537	411	1,420	955	1,320	2,100	49	15	43
8	31	125	63	562	740	1,140	815	1,040	755	44	16	34
9	22	109	214	f650	4,120	940	865	1,660	1,040	39	21	29
10	17	93	a270	f755	5,280	790	1,420	2,660	742	35	21	23
11	14	80	a950	f1,020	3,540	695	3,200	2,320	650	30	15	19
12	15	70	a1,550	1,420	1,520	505	4,950	1,560	1,680	27	17	18
13	275	63	a1,050	1,560	1,090	541	2,540	940	6,510	23	19	16
14	375	62	a520	f1,520	1,190	495	1,350	718	8,220	21	19	15
15	275	57	a420	f1,190	2,930	629	1,090	562	4,480	18	19	13
16	169	52	a320	990	4,240	3,540	890	422	1,520	17	21	11
17	95	49	a260	1,040	a5,800	6,470	595	344	815	15	17	11
18	65	45	222	1,260	a7,550	4,120	583	294	582	15	12	10
19	47	44	191	1,560	a7,320	6,230	515	242	430	14	8.1	8.4
20	40	43	169	1,940	4,180	11,600	907	230	1,170	15	5.7	6.7
21	32	41	155	1,550	2,710	10,600	1,880	214	1,420	20	4.4	6.2
22	25	40	141	1,350	2,270	7,250	1,520	205	718	18	3.4	5.2
23	26	37	130	1,050	1,720	4,480	3,590	202	426	17	2.7	3.8
24	452	34	119	915	1,360	2,820	2,050	191	315	15	2.3	2.6
25	742	33	117	742	2,250	1,880	1,250	186	261	14	1.9	1.5
26	627	31	114	605	4,790	1,420	965	510	242	14	259	1.0
27	248	29	112	855	4,180	1,160	755	2,710	224	14	385	.7
28	159	a29	153	1,780	9,810	1,150	505	1,320	200	60	159	.6
29	115	a28	552	1,830	15,800	1,140	703	1,830	161	29	90	.5
30	105	27	855	1,360	-	990	5,800	2,050	134	21	279	.5
31	119	-	605	1,040	-	840	-	1,560	-	18	492	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	5,875	742	14	190	0.175	0.20	11,550
November	2,870	338	27	95.7	.088	.10	5,690
December	9,561	1,550	20	308	.284	.35	15,950
Calendar year 1943	342,438.3	65,000	0	938	.365	11.74	679,200
January	33,351	1,940	375	1,075	.992	1.14	65,170
February	99,539	15,800	411	3,443	3.17	3.42	198,000
March	109,965	15,200	495	3,547	3.27	3.77	213,100
April	52,319	5,800	515	1,744	1.81	1.80	105,600
May	95,780	20,900	155	3,024	2.79	3.22	136,000
June	39,422	8,220	134	1,314	1.21	1.35	75,190
July	1,100	114	14	35.5	.033	.04	2,180
August	2,002.5	492	1.9	64.6	.060	.07	3,970
September	1,295.7	299	.5	43.2	.040	.04	2,570
Water year 1943-44	451,562.2	20,900	.5	1,233	1.14	15.48	895,300

Peak discharge.- Feb. 29 (11 p.m.) 17,000 sec.-ft.; Mar. 20 (8 p.m.) 12,400 sec.-ft.; May 1 (1 a.m.) 8,840 sec.-ft.; May 3 (10 a.m.) 22,100 sec.-ft.; June 14 (6 a.m.) 8,840 sec.-ft.

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

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Poteau River at Poteau, Okla.

Location.- Water-stage recorder, lat. 35°03'35", long. 94°36'10", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 7 N., R. 26 E., at St. Louis-San Francisco Railroad 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 1944.

Extremes.- Maximum discharge during year, 20,300 second-feet May 4 (gage height, 29.51 feet); minimum, 1.8 second-feet Sept. 30 (gage height, 1.61 feet).
1938-44: Maximum discharge, 68,200 second-feet Apr. 17, 1939 (gage height, 36.2 feet); minimum, 0.2 second-feet Nov. 8, 1940, Sept. 8-10, 1943.
Maximum stage known, 39.0 feet June 22, 1935 (discharge, 100,000 second-feet).

Remarks.- Records good.

Rating table, water year 1943-44, except days of rapidly changing stage or backwater from return of overbank flow (gage height, in feet, and discharge, in second-feet)

1.6	1.6	2.6	143	12.0	2,880	27.0	11,500
1.7	6.3	3.0	243	15.0	4,330	28.0	14,300
1.9	24	4.0	530	22.0	6,900	29.0	18,200
2.1	50	6.0	1,130	25.0	8,650	30.0	22,800
2.3	82	9.0	1,970	26.0	9,750		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a17	139	24	485	980	14,300	830	k7,800	1,130	130	25	381
2	a44	181	24	395	800	c12,300	860	k12,300	111	20	289	
3	a177	243	28	758	758	2,640	17,400	485	97	19	238	
4	a920	328	20	S60	710	k4,600	3,500	19,400	367	86	17	166
5	a455	311	24	1,010	650	k3,950	2,150	c14,000	396	77	17	123
6	128	246	32	800	560	k2,900	1,460	c5,850	950	68	17	93
7	77	188	36	605	485	k1,980	1,070	c2,540	2,030	50	17	74
8	52	152	49	580	590	1,460	590	c1,580	1,070	84	16	55
9	37	125	106	650	2,540	1,130	850	1,820	710	50	16	49
10	28	109	275	680	5,050	950	1,340	2,840	1,010	44	19	40
11	21	93	508	890	4,810	800	2,240	2,540	635	39	21	36
12	29	84	1,430	1,340	2,660	710	4,530	2,060	1,550	34	20	32
13	278	77	1,310	1,720	1,400	535	5,900	1,220	5,170	29	18	28
14	440	70	800	1,720	1,190	580	1,860	530	7,560	25	18	25
15	294	67	515	1,400	2,300	680	1,250	535	7,000	23	18	24
16	257	64	381	1,100	3,820	3,500	980	485	4,210	20	18	21
17	157	59	300	1,070	5,290	5,130	800	381	1,400	19	18	19
18	101	54	248	1,310	7,000	5,460	650	317	710	17	17	17
19	74	49	217	1,890	8,020	6,250	560	a275	515	15	15	15
20	58	44	191	2,030	5,800	9,040	620	a254	575	24	12	13
21	46	42	174	1,970	4,490	10,700	1,720	a238	1,690	39	9.1	9.9
22	37	40	159	1,720	2,910	9,040	1,720	a233	950	30	7.6	8.3
23	32	39	145	1,370	2,210	7,050	3,090	a230	545	23	6.3	6.3
24	69	37	136	1,070	1,760	4,890	2,940	a225	367	20	5.2	5.7
25	695	35	130	860	k2,400	2,880	1,720	251	297	17	4.6	4.6
26	710	34	125	710	k4,700	1,820	1,160	353	267	16	5.7	4.1
27	410	32	128	830	k4,650	1,430	950	1,820	243	17	8.60	3.6
28	212	31	148	1,640	k8,700	1,220	725	1,690	217	86	2.86	3.6
29	150	29	328	2,030	k11,400	1,430	k780	1,610	186	201	1.82	2.6
30	113	26	830	1,740	-	1,160	k6,100	1,890	152	75	232	2.2
31	103	-	725	1,250	-	1,010	-	1,790	-	39	650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	5,231	920	17	201	0.162	9.19	12,360
November	3,028	328	25	101	.081	.09	5,010
December	9,540	1,430	20	308	.245	.29	18,920
Calendar year 1943	389,055.4	52,400	.2	1,066	.860	11.684	771,700
January	36,021	2,030	395	1,162	.937	1.08	71,450
February	99,630	11,400	485	3,436	2.77	2.99	197,600
March	125,055	14,300	560	4,034	3.25	3.75	248,000
April	53,295	6,100	560	1,775	1.43	1.50	105,700
May	108,367	19,400	225	3,399	2.74	3.15	209,000
June	43,182	7,660	152	1,439	1.15	1.29	85,850
July	1,585	201	15	61.1	.041	.05	3,140
August	3,218.8	860	4.6	104	.084	.10	6,380
September	1,791.9	381	2.2	59.7	.048	.05	3,550
Water year 1943-44	487,944.7	19,400	2.2	1,333	1.08	14.64	967,800

a No gage-height records; discharge computed on basis of records for station near Wister.

c Stage-discharge relation affected by backwater from return of overbank flow, discharge computed from backwater curve.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Fourche Maline near Red Oak, Okla.

Location.- Water-stage recorder, lat. 34°54'45", long. 95°09'20", in NW¼ sec. 13 (revised), 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.

Drainage area.- 121 square miles.

Records available.- March 1939 to September 1944.

Extremes.- Maximum discharge during year, 6,790 second-feet Feb. 28 (gage height, 17.80 feet); no flow at times.

1939-44: Maximum discharge, 26,300 second-feet Apr. 25, 1942 (gage height, 22.34 feet), from rating curve extended above 8,000 second-feet; no flow at times in 1939, 1940, 1941, 1943, 1944.

Flood in June 1935 reached a stage of 25.4 feet, from floodmarks.

Remarks.- Records fair except those for extremely low flow, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	560	27	2.5	51	52	429	45	489	34	2.6	0.5	0.7
2	1,080	51	2.8	58	58	259	50	3,640	26	2.3	.3	.6
3	108	34	2.8	157	54	195	54	1,570	21	1.7	.2	.4
4	35	27	2.9	135	56	429	55	321	18	1.2	.2	.3
5	25	23	5.1	80	46	285	54	168	100	1.0	.1	.3
6	19	19	48	55	40	184	46	113	131	.7	.1	.2
7	15	17	56	48	35	133	41	84	53	.5	.1	.2
8	12	15	40	101	420	97	40	54	34	.4	.1	.1
9	10	15	38	1155	1,010	76	179	554	35	.4	.1	.1
10	7.9	15	83	1170	359	55	358	1,130	35	.3	.1	0
11	5.2	12	270	234	190	50	843	212	74	1.2	0	0
12	10	10	142	324	114	54	250	113	74	1.5	0	0
13	156	9.0	58	252	90	49	143	75	734	1.0	0	0
14	122	8.2	45	152	486	44	100	56	612	1.0	0	0
15	35	7.3	34	*120	757	44	76	45	148	1.1	0	0
16	24	5.2	27	130	417	80	61	35	73	.7	0	0
17	18	5.4	21	185	887	105	50	32	48	.5	0	0
18	13	4.7	19	240	542	84	45	27	34	.3	0	0
19	11	4.3	17	276	279	979	45	23	28	.3	0	0
20	9.0	4.3	16	234	417	1,820	221	21	24	.8	0	0
21	5.2	4.1	15	162	359	455	195	20	20	1.1	0	0
22	7.0	3.9	13	112	250	335	111	20	17	1.1	0	0
23	89	3.9	*13	80	217	261	85	20	14	.8	0	0
24	591	3.5	12	50	163	173	56	19	12	.8	0	0
25	174	2.9	12	51	411	129	52	18	10	1.0	0	0
26	50	2.8	12	44	578	99	44	19	5.0	.7	0	0
27	38	2.6	22	251	359	80	39	24	5.2	.5	0	0
28	29	2.5	461	372	3,750	55	35	81	5.0	.5	0	0
29	24	2.3	294	165	1,950	50	122	212	4.5	.3	0	0
30	20	2.3	121	115	-	55	1,180	95	3.5	.3	.5	0
31	19	-	73	54	-	49	-	50	-	.3	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	3,345.3	1,080	5.2	108	0.893	1.03	6,540
November	3,355.2	51	2.3	11.8	.098	.11	705
December	1,998.1	461	2.5	54.5	.533	.51	3,950
Calendar year 1943	40,925.6	11,700	0	112	.925	12.55	81,170
January	4,579	372	44	151	1.25	1.44	9,280
February	14,515	3,750	35	501	4.14	4.45	28,790
March	7,223	1,820	44	233	1.93	2.22	14,330
April	4,745	1,180	35	158	1.31	1.45	9,410
May	9,555	3,640	18	308	2.55	2.94	18,950
June	2,438.2	734	3.5	81.3	.572	.75	4,840
July	27.0	2.5	.3	.57	.0072	.008	54
August	5.5	1.2	0	.11	.00091	.001	5.5
September	2.9	.7	0	.10	.00053	.0009	5.8
Water year 1943-44	48,889.0	3,750	0	134	1.11	15.03	95,970

Peak discharge.- Feb. 28 (3 p.m.) 6,790 sec.-ft.; May 2 (1 p.m.) 5,850 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 W½ sec. 2, T. 11 N., R. 30 W., three-quarters of a mile upstream from Warloop Creek, 1½ miles upstream from Howard Fork, 2½ miles north-east 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.

Records available.- July 1936 to September 1944.

Extremes.- Maximum discharge, 7,120 second-feet Apr. 8 (gage height, 28.40 feet); no flow at times.
1936-44: Maximum discharge, 12,000 second-feet May 10, 1943 (gage height, 29.84 feet).

Remarks.- Records good except those below 100 second-feet, which are 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.

Discharges, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	415	80	467	50	44	0	80
2					0	274	69	1,020	33	20	0	41
3					0	223	56	700	18	8.0	0	25
4					0	213	53	441	15	3.0	0	16
5					0	178	44	319	30	1.2	0	8.0
6					0	155	41	244	38	0	0	4.2
7					0	128	38	192	20	0	0	1.9
8					0	100	2,770	164	25	0	0	1.1
9					0	92	1,630	264	188	0	0	0
10					0	84	730	254	202	0	0	0
11					0	75	700	192	137	0	0	0
12					0	80	441	155	317	0	0	0
13					0	80	319	128	1,450	0	0	0
14					0	73	254	104	1,930	0	0	0
15					0	281	213	80	979	0	0	0
16					0	1,160	165	62	480	0	0	0
17					0	559	137	44	295	0	0	0
18					0	379	115	33	192	0	0	0
19					0	552	108	33	150	0	0	0
20					35	715	132	35	124	0	0	0
21					116	493	112	25	84	0	0	0
22					112	415	108	16	62	0	0	0
23					100	319	100	13	44	0	0	0
24					88	264	95	8.0	95	0	0	0
25					112	223	84	11	59	0	0	0
26					178	182	90	33	30	0	580	0
27					178	160	244	72	16	0	233	0
28					1,040	128	164	80	6.9	0	75	0
29					775	112	145	164	3.5	0	38	0
30					-	95	631	120	11	0	64	0
31					-	84	-	76	-	0	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	Diversion (mean second-feet)†
October	0	0	0	0	0	11.8
November	0	0	0	0	0	11.6
December	0	0	0	0	0	11.4
Calendar year 1943	33,587.3	7,210	0	92.0	56,620	11.9
January	0	0	0	0	0	11.3
February	2,734	1,040	0	94.5	5,420	10.7
March	8,290	1,160	73	267	15,440	10.4
April	9,873	2,770	38	329	19,580	11.1
May	5,549.0	1,020	8.0	179	11,010	11.5
June	7,086.5	1,930	3.5	235	14,060	13.0
July	76.2	44	0	2.46	151	13.7
August	1,141	580	0	36.8	2,260	13.6
September	177.2	80	0	5.91	351	11.5
Water year 1943-44	34,926.9	2,770	0	95.4	69,270	11.8

† Diversion for municipal supply of Fort Smith.

Times basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mulberry River near Mulberry, Ark.

Location.- Water-stage recorder, lat. 35°34', long. 94°01', in NW $\frac{1}{4}$ sec. 6, T. 10 N., R. 28 W., a quarter of a mile upstream from Mill Creek, 5 miles northeast of Mulberry, and 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 1944.

Extremes.- Maximum discharge during year, 17,600 second-feet Apr. 8 (gage height, 12.82 feet); minimum, 0.2 second-foot Oct. 9-11 (gage height, 0.54 foot).

1938-44: Maximum discharge, 40,100 second-feet (revised) May 10, 1943 (gage height, 18.23 feet); no flow Sept. 24-28, 1939, Aug. 25 to Sept. 29, 1943.

Maximum stage known, 22.0 feet in April 1927.

Remarks.- Records good except those for days of fragmentary gage-height record, which are fair.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1943, superseding those published in Water-Supply Paper 977, are given herein:

May 9 4,070
10 20,500
11 13,600

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
May.....	73,848	20,500	100	2,382	6.40	7.38	146,500
Water year 1942-43...	206,362.1	20,500	0	565	1.52	20.62	409,300
Calendar year 1943...	158,897.1	20,500	0	435	1.17	15.87	315,200

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	36	12	89	235	2,260	594	1,470	265	119	108	741
2	1.0	32	12	89	210	1,770	565	14,860	215	119	89	475
3	.5	32	12	h9C	188	1,330	538	3,910	183	98	70	338
4	1.0	29	12	h108	178	1,430	469	2,260	152	82	70	253
5	.8	26	15	h112	156	1,270	447	1,700	1258	67	61	194
6	.5	26	32	h115	136	1,430	399	1,370	260	59	51	172
7	.4	26	48	h115	119	1,330	379	1,100	241	48	46	140
8	.4	26	112	h115	131	1,100	893	1,188	188	41	51	112
9	.3	24	115	h115	720	927	6,260	1,030	11,420	37	53	95
10	.2	27	123	h112	776	790	3,340	1,200	1,050	32	56	85
11	.2	36	167	h102	622	699	3,880	927	1,200	30	41	73
12	.3	34	222	98	489	671	2,340	776	2,590	27	36	64
13	6.7	34	210	95	405	543	1,770	650	8,220	26	34	56
14	9.1	34	167	95	392	566	1,430	552	7,500	24	29	51
15	9.1	30	136	95	352	1,010	1,150	468	4,450	20	25	46
16	29	27	112	92	345	5,510	927	399	2,190	19	22	41
17	30	27	95	92	720	2,880	762	325	1,430	17	20	37
18	27	26	82	92	1,770	1,980	643	272	995	16	20	36
19	25	26	75	89	1,400	2,260	559	229	1,060	14	19	34
20	24	22	57	92	1,100	2,580	685	205	859	14	15	30
21	29	22	59	95	927	2,040	657	205	615	14	14	29
22	25	21	53	95	797	1,770	594	188	489	12	15	26
23	25	20	48	95	769	1,500	859	161	392	10	15	25
24	30	18	44	95	692	1,270	825	140	538	9.7	27	22
25	32	18	41	95	825	1,060	713	541	413	9.1	46	20
26	37	17	37	92	1,900	893	650	706	305	14	2,380	19
27	61	16	37	98	1,630	859	699	552	241	12	1,270	20
28	56	14	51	304	4,030	713	587	405	183	774	517	22
29	51	14	61	392	3,900	783	545	358	148	475	331	20
30	44	13	73	331	-	727	1,400	399	127	222	643	19
31	39	-	82	279	-	650	-	331	-	140	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October.....	598.6	61	0.2	19.3	0.052	0.06	1,190
November.....	752	36	13	25.1	.067	.07	1,490
December.....	2,410	222	12	77.7	.209	.24	4,780
Calendar year 1943.....	155,137.7	18,000	0	425	1.14	15.60	307,700
January.....	3,974	392	82	128	.344	.40	7,880
February.....	25,915	4,030	119	894	2.40	2.59	51,400
March.....	44,701	5,510	565	1,442	3.88	4.47	88,560
April.....	40,727	6,280	379	1,358	3.65	4.07	80,780
May.....	28,563	4,860	140	922	2.48	2.56	56,690
June.....	38,199	8,220	127	1,273	3.42	3.82	75,770
July.....	2,600.8	774	9.1	83.9	.226	.26	5,160
August.....	7,575	2,380	14	244	.655	.76	15,030
September.....	3,295	741	19	110	.295	.33	6,540
Water year 1943-44.....	199,331.4	8,220	.2	545	1.47	19.93	395,370

Peak discharge.- Feb. 28 (7:30 p.m.), 7,070 sec.-ft.; Mar. 16 (8 a.m.), 6,910 sec.-ft.; Apr. 8 (5:30 p.m.), 17,600 sec.-ft.; May 2 (4 p.m.), 8,460 sec.-ft.; June 13 (5:15 p.m.), 14,500 sec.-ft.; June 14 (6 p.m.), 15,000 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

h Computed from once-daily gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 2½ 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).

Drainage area.- 247 square miles.

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge during year, 5,930 second-feet May 2 (gage height, 17.12 feet); no flow Oct. 1-11.
1938-44: Maximum discharge, 43,200 second-feet Apr. 16, 1939 (gage height, 23.42 feet), by slope-area and contracted-opening methods; no flow at times in 1939, 1943, 1944.

Remarks.- Records good except those for extremely low flow, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.0	0.4	18	107	660	134	g1,350	122	14	7.8	130
2	0	2.0	.3	23	117	460	380	4,700	75	8.4	5.4	62
3	0	4.4	.3	48	118	382	382	1,580	54	7.2	4.0	38
4	0	3.3	.3	83	95	625	260	630	40	6.1	3.0	29
5	0	2.2	.5	68	80	334	194	434	958	5.1	8.0	22
6	0	1.5	19	54	71	322	153	303	692	4.0	21	26
7	0	1.1	3.2	50	64	257	132	227	182	3.2	305	18
8	0	.8	1.9	59	1,120	178	130	171	111	2.4	37	16
9	0	.7	28	68	1,510	149	213	311	128	2.0	14	14
10	0	.5	73	71	529	130	864	257	89	1.7	7.6	11
11	0	.5	157	91	303	117	1,580	146	183	1.3	4.9	8.8
12	6.1	.4	100	139	190	115	529	192	2,320	1.3	5.2	7.6
13	63	.3	59	171	139	104	358	130	4,070	.3	41	6.3
14	34	.3	41	141	184	91	273	83	1,300	.7	24	5.4
15	11	.3	32	118	382	694	211	71	447	.5	11	4.8
16	5.1	.3	25	113	723	4,160	155	58	260	.5	5.4	3.8
17	3.0	.3	20	139	3,010	981	122	42	161	.4	3.2	3.4
18	1.9	.2	18	242	1,230	765	107	35	113	.3	1.6	2.8
19	61.5	.2	16	370	586	4,340	98	31	83	.3	1.0	2.2
20	1.0	.3	14	334	543	2,340	216	30	62	.7	.6	1.9
21	.8	.3	12	249	460	855	134	32	49	.6	.4	1.4
22	.5	.4	12	194	421	874	117	30	40	.5	.3	1.0
23	.5	.4	12	159	308	530	153	27	34	.5	.3	.6
24	6.5	.4	11	120	242	460	130	24	29	.4	28	.5
25	8.3	.4	11	117	357	358	91	22	25	.4	49	.4
26	5.4	.4	9.8	83	624	282	g95	730	22	2.4	1,580	.4
27	2.8	.4	9.8	443	495	244	g124	335	19	1.3	331	.5
28	1.7	.4	12	382	4,160	207	g86	201	16	67	58	.5
29	1.1	.4	16	218	1,730	284	g80	291	12	38	32	.6
30	1.3	.4	18	178	-	190	g1,650	310	10	18	585	.5
31	15	-	18	138	-	149	-	324	-	12	522	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	154.7	63	0	5.31	0.021	0.02	327
November	25.5	4.4	.2	.850	.0034	.004	51
December	750.5	157	.3	24.2	.098	.11	1,490
Calendar year 1943	55,750.2	15,400	0	180	.729	9.89	130,400
January	4,581	443	18	151	.611	.70	9,280
February	19,908	4,160	64	685	2.78	3.00	39,490
March	21,739	4,340	91	701	2.84	3.27	43,120
April	9,141	1,560	80	305	1.23	1.37	18,130
May	13,108	4,700	22	423	1.71	1.97	26,000
June	11,715	4,070	10	391	1.55	1.76	23,240
July	202.0	67	.3	6.52	.026	.03	400
August	3,694.9	1,580	.3	119	.482	.56	7,330
September	419.4	130	.4	14.0	.057	.06	832
Water year 1943-44	85,550.0	4,700	0	234	.947	12.85	169,700

Peak discharge.- Feb. 17 (11 a.m.) 3,980 sec.-ft.; Feb. 28 (4:30 p.m.) 5,270 sec.-ft.; Mar. 16 (5 a.m.) 5,520 sec.-ft.; Mar. 19 (5:30 p.m.) 4,700 sec.-ft.; May 2 (10:30 a.m.) 5,930 sec.-ft.; June 13 (4 p.m.) 5,690 sec.-ft.

g Stage-discharge relation indefinite; discharge estimated.

e Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Petit Jean Creek near Waveland, Ark.

Location.- Water-stage recorder, lat. 35°06'17", long. 92°37'51", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 5 N., R. 25 W., 0.8 mile downstream from Rock Creek, 1.2 miles downstream from Cedar Creek, and 1.3 miles south of Waveland. Datum of gage is 339.70 feet above mean sea level, datum of 1929.

Drainage area.- 517 square miles.

Records available.- October 1943 to September 1944. January 1939 to September 1943, at site $\frac{1}{2}$ miles upstream, published as Petit Jean Creek near Blue Mountain.

Extremes.- Maximum discharge during year, 11,400 second-feet May 2 (gage height, 28.10 feet); minimum, 0.1 second-foot Oct. 6.

1939-44: Maximum discharge, 62,600 second-feet Apr. 16, 1939 (gage height, 29.95 feet, former site and datum, or 34.0 feet, from floodmarks, present site); no flow at times.

Maximum stage known, 34.0 feet from floodmarks, Apr. 16, 1939.

Remarks.- Records good except those below 100 second-feet, which are fair.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	9.8	4.6	32	350	2,930	402	3,810	324	39	31	394
2	.6	8.5	4.5	42	324	1,470	546	8,180	299	32	20	173
3	.4	9.2	4.2	67	316	1,020	338	5,590	333	30	15	106
4	.4	8.5	4.1	149	283	1,200	691	3,030	134	26	11	72
5	.4	6.9	4.9	190	235	919	546	1,400	1,230	21	8.9	54
6	.2	6.0	9.5	157	205	710	447	919	2,800	18	7.2	41
7	.4	5.1	12	132	183	691	394	672	729	15	5.0	34
8	.3	3.9	30	149	1,250	492	438	528	402	14	234	34
9	.4	4.8	47	161	5,020	402	554	636	411	12	96	30
10	.4	7.6	77	169	2,400	358	1,110	729	376	11	42	25
11	.4	8.5	292	190	1,100	324	3,570	456	474	9.2	23	23
12	.5	8.5	358	259	691	299	2,080	342	1,490	8.9	14	21
13	3.0	8.0	228	350	528	291	1,060	402	3,610	7.5	9.2	19
14	1.5	7.6	157	342	528	251	786	275	4,840	6.9	5.9	17
15	6.2	7.8	116	308	710	573	618	267	1,440	6.3	10	16
16	25	8.0	90	299	1,380	7,470	492	267	654	5.4	26	14
17	14	7.8	74	324	6,070	5,630	384	173	420	5.4	17	13
18	8.8	7.8	61	438	6,600	2,150	333	134	316	4.7	10	11
19	6.4	7.6	53	654	2,580	6,120	324	113	243	4.1	7.2	10
20	5.4	7.1	46	729	1,510	8,060	528	112	212	4.4	5.2	9.2
21	4.6	6.7	43	618	1,290	3,660	420	99	189	4.4	a4.4	8.2
22	3.6	6.4	38	510	1,140	2,040	333	95	135	4.1	a8.4	6.9
23	3.3	6.1	35	438	900	1,660	411	97	108	3.7	a8.0	6.3
24	4.6	6.0	32	358	710	1,160	411	81	95	3.2	a29	5.7
25	3.6	5.5	31	283	636	900	333	70	78	3.0	a55	5.2
26	2.8	6.4	28	259	1,240	710	275	440	70	29	a509	4.7
27	2.6	5.2	28	1,540	1,080	654	342	447	57	8.9	1,810	4.1
28	2.1	5.2	29	1,420	6,970	618	263	394	48	116	228	3.9
29	2.7	5.1	28	786	7,950	654	243	324	40	183	92	3.9
30	5.4	4.6	28	545	-	582	2,170	862	37	96	207	3.7
31	14	-	28	438	-	456	-	618	-	55	1,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	124.7	25	0.2	4.02	0.0078	0.009	247
November	205.0	9.8	3.9	6.83	.013	.01	407
December	2,020.8	358	4.1	65.2	.126	.15	4,010
Calendar year	-	-	-	-	-	-	-
January	12,337	1,540	32	398	.770	.89	24,470
February	54,159	7,930	183	1,868	3.61	3.89	107,400
March	54,454	8,060	251	1,757	3.40	3.92	108,000
April	21,552	3,870	243	722	1.40	1.56	42,950
May	34,542	8,580	70	1,114	2.15	2.48	68,510
June	21,423	4,840	37	714	1.38	1.54	42,490
July	787.1	153	3.0	25.4	.049	.06	1,560
August	4,520.4	1,310	4.4	149	.228	.33	9,160
September	1,168.8	394	3.7	39.0	.075	.08	2,320
Water year 1943-44	207,493.8	8,580	.2	567	1.10	14.92	411,500

Peak discharge.- Feb. 17 (9 p.m.) 9,260 sec.-ft.; Feb. 28 (11 p.m.) 10,200 sec.-ft.; Mar. 16 (7 p.m.) 9,440 sec.-ft.; Mar. 20 (3:30 a.m.) 9,440 sec.-ft.; May 2 (9 p.m.) 11,400 sec.-ft.; June 14 (3:30 a.m.) 5,810 sec.-ft.

No gage-height record; discharge computed on basis of gage heights and rating curve for site of former gaging station, $\frac{1}{2}$ miles upstream.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Railway 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 1944.

Average discharge.- 28 years, 790 second-feet.

Extremes.- Maximum discharge during year, 12,200 second-feet May 4 (gage height, 24.02 feet); minimum, 0.5 second-foot Oct. 4.

1916-44: Maximum discharge, 70,800 second-feet Apr. 17, 1939 (gage height, 31.82 feet); no flow at times in 1924, 1935, 1936, 1943.

Remarks.- Records good.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	4.7	8.2	58	k708	9,350	740	k3,880	842	125	92	1,180
2	1.2	13	8.2	69	600	c5,600	k800	7,450	670	85	140	614
3	.7	13	7.3	107	558	c2,920	kl,320	11,800	302	54	80	309
4	.5	11	7.3	164	516	cl,720	kl,320	11,100	209	48	34	216
5	.9	8.7	8.2	252	445	cl,310	kl,010	c6,150	176	42	25	168
6	1.0	8.7	36	276	376	cl,070	k830	c3,010	kl,570	37	19	127
7	1.2	9.7	61	245	355	c920	k690	cl,540	k2,050	32	17	96
8	1.2	7.3	102	252	k827	c820	k755	cl,060	k888	28	15	88
9	1.0	6.1	96	253	k4,010	c715	1,650	c908	kl,400	25	144	69
10	.9	6.1	168	302	5,310	c635	kl,910	cl,260	kl,630	23	150	58
11	.6	5.4	328	309	c4,220	c575	k3,690	1,060	k878	20	77	48
12	.6	4.7	502	335	c2,130	530	k4,420	740	k780	19	45	44
13	7.3	5.4	474	460	cl,190	488	k3,760	544	k2,090	17	33	39
14	5.7	7.7	328	558	c972	446	k2,420	530	k3,300	15	25	36
15	7.7	9.7	252	544	cl,070	404	kl,540	376	k3,920	13	19	32
16	5.4	11	196	516	cl,830	k2,800	kl,010	362	k2,750	12	14	30
17	5.0	11	159	544	k4,020	5,480	k770	322	kl,280	10	16	26
18	30	11	139	628	7,750	7,450	k630	234	k630	9.0	29	25
19	28	12	120	796	8,650	6,050	530	190	362	8.0	24	22
20	20	12	106	970	c5,120	7,750	k682	170	270	8.0	17	19
21	16	12	95	1,030	c2,980	9,000	k810	170	228	8.5	13	18
22	12	12	84	910	cl,930	c6,000	k720	183	192	8.0	12	15
23	9.7	13	74	768	cl,330	c3,780	k2,200	195	162	7.6	30	13
24	8.7	13	68	656	cl,070	c2,730	kl,680	157	140	7.1	270	11
25	7.7	12	66	544	c920	cl,820	kl,090	136	156	6.7	62	10
26	6.9	12	61	460	cl,190	cl,410	k790	118	116	16	377	9.5
27	5.7	11	58	k758	c2,000	cl,260	k705	485	93	24	940	8.0
28	6.5	9.7	62	k2,180	k3,260	cl,190	k732	474	76	149	1,300	7.6
29	6.1	9.2	62	kl,800	6,050	cl,080	k582	390	64	198	474	6.7
30	4.7	9.2	59	kl,210	-	cl,020	kl,030	712	55	216	304	6.3
31	5.7	-	56	k892	-	875	-	866	-	138	838	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	210.5	30	0.5	6.79	0.0089	0.01	418
November	290.3	13	4.7	9.68	.015	.01	576
December	3,651.2	502	7.3	124	.183	.19	7,640
Calendar year 1943	184,001.8	30,300	0	504	.663	9.00	365,000
January	18,877	2,180	58	609	.801	.92	37,440
February	71,368	8,650	335	2,451	3.24	3.49	141,600
March	87,198	9,350	404	2,813	3.70	4.27	173,000
April	40,806	4,420	530	1,360	1.79	2.00	80,940
May	56,874	11,800	118	1,825	2.40	2.77	112,200
June	27,059	3,920	55	902	1.19	1.33	53,670
July	1,409.9	216	6.7	45.5	.050	.07	2,800
August	5,635	1,300	12	182	.239	.28	11,180
September	3,351.1	1,180	6.3	112	.147	.16	6,650
Water year 1943-44	316,630	11,800	.5	865	1.14	15.50	628,100

Peak discharge.- Feb. 10 (5:30 p.m.) 5,850 sec.-ft.; Feb. 18 (11 p.m.) 9,700 sec.-ft.; Mar. 1 (6:30 a.m.) 10,000 sec.-ft.; Mar. 18 (4 a.m.) 8,050 sec.-ft.; Mar. 21 (9 a.m.) 9,350 sec.-ft.; May 4 (a.m.) 12,200 sec.-ft.

c Backwater from overbank water returning to channel; discharge determined from backwater curve.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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, 1½ 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 1944.

Extremes.— Maximum discharge during year, 17,000 second-feet May 2 (gage height, 20.03 feet); no flow Oct. 1-30.

1939-44: Maximum discharge, 38,000 second-feet (revised) Apr. 16, 1939 (gage height, 27.00 feet, from reading at flood crest); no flow at times in 1939 and 1943. Remarks.— Records good except those for days of rapidly changing stage and those below 20 second-feet, which are fair.

Revisions.— Revised figures of discharge, in second-feet, for high-water period in water year 1939, superseding those published in Water-Supply Paper 897, are given herewith:

Apr. 16 15,400
17 23,200

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
April.....	78,040	23,200	330	2,601	6.30	7.03	154,800
The period†.....	-	-	-	-	-	-	311,200

† Feb. 13 to Sept. 30.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	82	20	192	511	2,400	563	9,670	385	129	13	130
2	0	183	19	213	461	1,560	2,810	12,700	290	73	11	100
3	0	400	18	524	430	1,200	3,770	6,090	228	65	10	66
4	0	276	18	695	385	2,950	1,860	2,530	185	56	8.5	48
5	0	192	18	581	335	1,920	1,220	1,600	172	48	7.3	39
6	0	153	40	461	300	1,240	908	1,100	179	42	5.9	33
7	0	130	327	400	268	998	755	840	236	37	8.1	29
8	0	120	298	450	1,640	795	775	675	189	33	11	25
9	0	104	273	415	5,360	655	1,420	599	179	29	12	21
10	0	91	900	386	2,470	563	2,170	656	306	24	25	19
11	0	83	2,750	400	1,380	464	4,690	511	286	21	18	17
12	0	75	1,360	561	952	445	2,280	430	581	19	14	15
13	0	68	755	755	735	415	1,380	371	628	16	15	14
14	0	64	511	695	715	365	1,020	494	1,350	14	11	12
15	0	58	386	599	1,140	332	818	446	656	13	7.7	11
16	0	54	306	563	1,500	7,000	656	316	415	12	4.9	9.8
17	0	50	245	518	7,260	4,240	545	266	285	10	3.6	8.9
18	0	47	208	755	6,300	1,960	446	198	219	9.3	2.4	8.1
19	0	42	181	862	2,330	4,940	400	174	174	8.5	1.8	7.3
20	0	40	160	930	1,560	4,960	2,890	161	343	10	1.2	6.6
21	0	39	141	840	1,240	2,470	2,050	149	715	14	.9	5.9
22	0	35	127	715	1,070	1,740	1,410	148	346	11	.7	5.2
23	0	32	114	599	975	1,500	3,870	138	223	8.5	.7	4.5
24	0	30	104	511	818	1,220	1,920	141	170	6.9	1.5	3.9
25	0	28	100	430	715	975	1,200	132	135	5.9	1.7	3.3
26	0	26	93	371	1,450	818	952	214	175	7.3	2.0	2.7
27	0	25	89	1,260	1,500	1,240	885	689	190	9.3	3.3	2.2
28	0	24	102	1,270	7,540	1,200	675	511	135	18	3.3	2.0
29	0	23	160	930	6,730	930	545	580	105	17	2.7	2.0
30	14	21	208	735	-	775	2,280	818	88	15	5.2	2.0
31	31	-	206	618	-	656	1	546	-	15	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October.....	45	31	0	1.45	0.0035	0.004	89
November.....	2,595	400	21	86.5	.209	.23	5,150
December.....	10,227	2,750	18	330	.799	.92	20,280
Calendar year 1943.....	96,744.3	6,290	0	265	.642	8.72	191,900
January.....	19,514	1,270	192	623	1.51	1.74	38,310
February.....	58,071	7,540	268	2,002	4.85	5.23	115,200
March.....	52,976	7,000	332	1,709	4.14	4.77	105,100
April.....	47,135	4,680	400	1,571	3.80	4.24	93,490
May.....	45,589	12,700	132	1,406	3.40	3.82	86,460
June.....	9,569	1,350	88	319	.772	.86	19,980
July.....	797.7	129	5.9	25.7	.062	.07	1,580
August.....	261.4	48	.7	8.43	.020	.02	518
September.....	653.4	130	2.0	21.8	.053	.06	1,300
Water year 1943-44.....	245,233.5	12,700	0	670	1.62	22.06	486,500

Peak discharge.— Feb. 17 (10:30 p.m.) 12,000 sec.-ft.; Feb. 28 (10 p.m.) 13,600 sec.-ft.; Mar. 16 (3 p.m.) 11,300 sec.-ft.; Mar. 19 (11:30 p.m.) 6,480 sec.-ft.; May 1 (1 p.m.) 12,800 sec.-ft.; May 2 (8:30 p.m.) 17,000 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Fourche La Fave River near Nimrod, Ark.

Location.— Water-stage recorder, lat. 34°56'45", long. 93°07'30", in SE $\frac{1}{4}$ sec. 33, T. 4 N., R. 20 W., 2.3 miles downstream from Nimrod Dam, 3 miles southwest of Nimrod, and $\frac{7}{8}$ 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 1944.

Extremes.— Maximum discharge during year, 7,180 second-feet (regulated) Apr. 25 (gage height, 13.21 feet); minimum, 0.7 second-foot (regulated) Sept. 19.
1936-44: 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 10 second-feet, which are poor. Flow regulated by Nimrod Dam (reservoir capacity, 307,000 acre-feet).

Cooperation.— Twelve discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	21	25	165	559	8,140	4,380	62	52	16	199	445
2	21	25	26	165	559	5,940	825	50	52	16	253	36
3	20	35	26	165	559	4,820	1,750	2,530	54	16	324	2.3
4	21	20	26	364	559	461	3,170	6,230	56	72	196	1.3
5	19	12	27	525	559	4,170	3,170	6,610	52	151	6.3	32
6	18	255	182	548	559	4,170	3,170	6,420	50	57	4.5	165
7	19	726	386	559	453	4,100	2,970	6,320	48	66	4.5	213
8	19	519	109	751	578	2,339	663	6,140	45	13	14	130
9	19	93	451	751	661	438	1,190	6,040	90	11	119	2.3
10	19	81	548	744	4,100	751	1,860	4,860	500	9.5	124	1.1
11	19	20	739	738	4,100	757	2,250	3,170	486	19	90	.9
12	19	17	1,620	738	4,020	764	3,850	3,070	686	58	6.6	2.1
13	23	17	1,890	738	3,940	764	4,820	3,070	992	44	4.5	51
14	17	14	1,790	738	2,460	1,150	4,970	2,970	1,110	37	3.9	127
15	14	13	1,150	738	1,150	1,270	4,820	2,870	1,600	6.6	5.2	136
16	12	13	686	738	1,780	1,360	4,680	832	805	4.0	86	3.0
17	12	13	455	738	494	1,940	813	550	18	3.6	143	1.1
18	12	14	338	832	4,500	2,300	950	346	13	9.3	118	.9
19	13	14	124	932	5,660	1,840	565	121	12	46	5.9	206
20	13	15	119	1,030	6,140	3,440	868	121	158	46	3.9	125
21	14	17	119	1,150	5,660	6,040	2,460	116	674	77	3.7	56
22	14	18	119	1,150	4,020	6,420	c2,670	114	1,230	6.3	11	115
23	14	18	121	1,110	3,940	6,230	c49	111	569	4.5	54	21
24	16	17	121	947	3,850	6,320	1,620	111	23	4.2	122	81
25	14	18	121	565	2,290	2,700	5,940	111	19	9.9	115	170
26	10	17	121	565	659	4,060	7,080	114	16	72	11	23
27	10	17	121	571	114	2,250	6,700	147	131	395	6.3	1.4
28	10	18	327	1,220	51	4,470	4,300	135	357	415	4.0	1.2
29	11	17	337	1,840	4,550	2,470	1,070	335	310	28	80	1.1
30	17	14	165	1,600	-	6,420	925	270	154	27	351	.9
31	25	-	165	907	-	6,700	-	52	-	27	547	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	505	25	10	16.3	1,000
November.....	2,108	725	13	70.3	4,180
December.....	12,554	1,890	25	405	24,900
Calendar year 1943.....	128,142.4	4,750	4.8	351	254,200
January.....	24,322	1,840	165	785	48,240
February.....	68,624	6,140	51	2,366	136,100
March.....	103,005	6,700	438	3,323	204,300
April.....	84,448	7,080	49	2,815	167,500
May.....	63,978	6,610	50	2,064	126,900
June.....	10,352	1,600	12	345	20,550
July.....	1,756.9	415	3.6	57.0	3,500
August.....	3,017.9	547	3.7	97.4	5,990
September.....	2,151.6	445	.9	71.7	4,270
Water year 1943-44.....	376,842.4	7,080	.9	1,030	747,400

c Stage-discharge relation affected by backwater from South Fourche La Fave River; discharge computed on basis of normal recession curve for period following closure of gates in Nimrod Dam.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

South Fourche La Fave River near Hollis, Ark.

Location.- Water-stage recorder, lat. 34°55', long. 93°03', in NE¼ sec. 18, T. 3 N., R. 19 W., three-quarters of a mile upstream from Big Cove Creek, 4 miles northeast of Hollis, and 5 miles upstream from mouth. Datum of gage is 366.10 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).

Drainage area.- 214 square miles.

Records available.- May 1941 to September 1944.

Extremes.- Maximum discharge during year, 47,000 second-feet Apr. 23 (gage height, 18.51 feet), by slope-area method; no flow Oct. 1-14, July 14-26.
1941-44: Maximum discharge, that of Apr. 23, 1944; no flow July 24 to Oct. 13, 1943, July 14-26, 1944.

Remarks.- Records good except those for periods of extremely low flow, which are poor.

Cooperation.- Gage-height record, 18 discharge measurements and computations of daily discharges furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 28						Feb. 29 to Sept. 30					
1.5	0	2.5	27	6.0	1,690	1.5	0	2.0	4.1	2.7	50
1.6	.4	2.7	46	7.0	3,000	1.6	.4	2.1	5.9	2.9	75
1.7	.9	2.9	70	8.0	4,500	1.7	1.2	2.2	9.3	3.1	105
1.8	1.5	3.1	99	9.0	6,500	1.8	2.1	2.3	15	3.3	139
1.9	2.4	3.4	155	10.5	10,000	1.9	3.0	2.5	30	3.5	180
2.0	3.6	3.7	235	12.0	14,000	Note.- Same as preceding table above 3.5 feet.					
2.1	5.2	4.0	345	13.0	17,400						
2.2	7.3	4.4	545								
2.3	12	5.0	915								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	38	4.5	96	119	915	354	5,130	31	3.3	22	119
2	0	41	4.4	173	110	600	1,340	5,190	25	2.9	18	66
3	0	46	4.2	501	105	400	1,180	1,940	18	2.6	15	42
4	0	39	4.2	317	101	2,450	584	1,240	15	2.3	11	28
5	0	33	4.5	208	90	1,090	450	830	12	1.9	8.3	21
6	0	27	35	155	81	733	333	540	21	1.6	6.9	16
7	0	27	135	129	74	540	270	376	32	1.4	5.5	13
8	0	23	109	133	1,260	376	263	280	24	1.2	4.8	10
9	0	19	105	125	3,450	298	1,090	232	249	1.0	4.6	8.3
10	0	16	280	121	985	252	1,240	195	113	.8	4.1	7.5
11	0	15	618	141	528	214	2,430	161	78	.6	3.8	5.9
12	0	13	288	246	333	190	915	132	55	.4	3.4	5.1
13	0	12	165	264	246	167	556	110	143	.3	4.1	4.4
14	1.6	11	119	223	291	149	410	94	94	.1	4.0	4.0
15	8.2	9.9	94	188	584	137	317	79	65	0	3.3	3.6
16	5.6	9.0	74	165	636	4,030	242	68	45	0	3.0	3.4
17	4.4	8.6	64	165	5,390	1,480	192	58	32	0	2.6	3.1
18	3.6	8.6	55	180	1,690	811	167	50	24	0	2.4	2.7
19	3.0	7.8	49	202	883	3,790	159	45	18	0	2.1	2.5
20	2.8	7.5	45	202	612	1,940	1,630	47	17	0	1.8	2.4
21	2.2	7.2	40	175	485	950	746	52	16	0	1.6	2.2
22	2.0	6.8	35	147	606	860	4,560	45	13	0	1.4	2.0
23	2.1	6.5	32	127	550	534	17,300	39	9.3	0	1.8	1.7
24	2.7	6.3	28	110	368	410	1,390	35	8.3	0	4.3	1.4
25	2.6	5.8	29	99	291	313	702	32	6.9	0	9.0	1.4
26	2.3	5.6	28	88	567	256	496	28	6.2	8.1	12	1.3
27	2.2	5.4	29	109	518	1,960	496	25	5.3	30	97	1.0
28	2.2	5.4	64	151	4,760	1,120	386	21	4.4	490	60	1.2
29	2.2	5.2	188	170	1,940	915	268	20	4.0	115	34	1.3
30	2.2	4.9	-	141	-	635	403	42	3.5	54	28	1.1
31	41	-	115	131	-	460	-	46	-	33	263	-

Month	Second-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	92.9	41	0	3.0	0.014	0.02	184
November	470.4	46	4.8	15.7	.073	.08	933
December	3,000.8	618	4.2	96.8	.452	.52	5,950
Calendar year 1943	47,508.7	3,690	0	130	.607	8.25	94,240
January	5,402	501	88	174	.813	.94	10,710
February	27,653	5,390	74	954	4.46	4.81	54,850
March	28,776	4,030	137	928	4.34	5.00	57,080
April	40,817	17,300	159	1,361	6.36	7.09	80,960
May	17,182	5,190	20	554	2.59	2.99	34,080
June	1,185.9	249	3.5	39.5	1.85	.21	2,350
July	750.5	490	0	24.2	.113	.13	1,490
August	642.8	263	1.4	20.7	.097	.11	1,270
September	352.3	119	1.0	12.7	.058	.07	758
Water year 1943-44	126,355.6	17,300	0	345	1.61	21.97	250,600

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

ARKANSAS RIVER BASIN

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, 5½ 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 1944.

Extremes.- Maximum discharge during year, 2,130 second-feet Apr. 12, 13; maximum gage height observed, 21.09 feet Apr. 11; no flow at times.

1935-44: 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 fair except those below 10 second-feet, which are poor. 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 next page. Gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	1.0	53	59	1,280	1,820	1,240	250	0	43	92
2	0	.6	1.1	71	62	1,280	1,920	1,200	241	0	47	139
3	0	.8	1.0	107	65	1,280	1,990	1,180	241	0	44	179
4	0	.8	.9	155	62	1,340	2,020	1,260	232	0	34	187
5	0	.7	.9	214	59	1,340	2,020	1,310	205	0	34	167
6	0	.7	2.1	241	56	1,340	2,020	1,340	163	0	42	196
7	0	1.3	1.3	259	53	1,340	2,020	1,360	123	0	44	187
8	0	1.5	1.8	268	53	1,280	2,020	1,380	85	0	40	179
9	0	1.9	2.4	268	78	1,260	2,020	1,410	62	0	37	155
10	0	1.9	3.9	289	107	1,220	2,060	1,410	47	0	34	131
11	0	2.1	4.3	241	163	1,200	2,100	1,440	34	0	23	107
12	0	2.4	4.5	214	241	1,160	2,130	1,440	23	0	16	92
13	0	2.4	8.6	187	313	1,120	2,130	1,440	20	0	18	78
14	0	2.4	14	171	403	1,080	2,100	1,440	13	0	14	68
15	0	2.6	17	163	487	1,040	2,060	1,440	22	0	9.4	59
16	0	2.6	18	147	557	1,000	2,020	1,410	21	0	6.2	44
17	0	2.6	17	147	627	977	1,990	1,410	15	0	3.4	40
18	0	2.5	20	155	688	949	1,920	1,380	15	0	7.3	34
19	0	2.4	26	155	732	1,060	1,850	1,340	18	0	2.8	34
20	0	2.2	28	155	834	1,110	1,820	1,260	21	0	.7	30
21	9.1	2.1	32	147	909	1,120	1,790	1,180	19	0	.4	28
22	28	1.8	34	147	963	1,120	1,760	1,080	14	0	1.1	24
23	21	1.7	34	139	1,000	1,120	1,700	977	10	0	1.6	19
24	18	1.7	32	131	1,020	1,140	1,640	935	6.7	0	5.1	15
25	16	1.5	32	115	1,050	1,140	1,560	870	4.5	0	7.3	17
26	11	1.3	32	107	1,140	1,160	1,510	810	1.4	0	7.5	18
27	6.0	1.4	32	99	1,200	1,200	1,480	699	.1	0	8.3	18
28	2.6	1.2	37	88	1,240	1,310	1,410	567	0	0	10	16
29	1.3	1.1	40	82	1,280	1,510	1,360	448	0	0	8.3	16
30	.8	1.0	44	71	-	1,640	1,280	358	0	0	11	10
31	.5	-	50	65	-	1,750	-	286	-	8.3	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	114.3	28	0	3.69	227
November	49.6	2.6	.4	1.65	98
December	571.8	50	.9	18.4	1,130
Calendar year 1943	94,992.8	1,760	0	260	188,400
January	4,821	268	53	156	9,560
February	15,501	1,280	53	535	30,750
March	37,846	1,730	949	1,221	75,070
April	55,520	2,130	1,230	1,651	110,100
May	35,300	1,440	286	1,139	70,020
June	1,907.7	250	0	63.6	3,780
July	8.3	8.3	0	.27	16
August	07.4	47	.4	19.6	1,200
September	2,402	196	10	80.1	4,760
Water year 1943-44	154,649.1	2,130	0	423	306,700

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Railway bridge, 2 miles east of Humphrey, and 5¼ miles upstream from mouth. Datum of gage is 169.94 feet above mean sea level, datum of 1929.

Records available.— October 1938 to September 1944. Prior to February 1940, high-water periods only.

Extremes.— Maximum discharge during year, 1,180 second-feet Apr. 4-6; maximum gage height observed, 20.04 feet Apr. 5; no flow at times.

1938-44: 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	0.7	602	1,060	584	e15		0	19
2				0	.9	616	1,110	600	e9.6		0	19
3				0	.7	616	1,160	600	e6.4		1.1	26
4				0	.6	631	1,180	632	e4.6		14	32
5				0	.4	646	1,180	664	e3.5		20	40
6				0	.7	646	1,180	744	e2.7		16	37
7				0	1.8	646	1,150	761	e2.1		16	32
8				0	2.7	616	1,130	795	e1.7		18	28
9				0	3.4	688	1,130	812	e1.6		14	22
10				0	3.9	546	1,150	812	e1.5		12	19
11				0	4.4	518	1,150	812	e1.5		8.3	17
12				0	5.6	504	1,160	795	e1.5		4.9	13
13				0	11	477	1,130	761	e1.8		2.8	12
14				0	32	438	1,110	744	1.8		1.5	9.0
15				0	37	400	1,090	728	1.7		.8	6.8
16				0	30	377	1,070	712	1.6		.3	5.1
17				0	60	355	1,040	680	1.5		0	3.2
18				0	87	333	1,000	648	1.1		0	2.7
19				0	126	333	966	616	.8		0	2.8
20				0	216	425	966	553	.1		0	2.4
21				0	274	518	946	508	0		0	1.6
22				.4	322	532	931	486	0		0	1.2
23				6.6	355	546	914	364	0		0	1.1
24				5.8	400	560	880	288	0		0	.9
25				4.4	412	560	846	e219	0		0	.8
26				3.9	425	560	812	e162	0		0	.7
27				2.7	518	588	761	e116	0		0	.6
28				2.2	574	706	728	80	0		0	.5
29				1.6	602	799	680	67	0		0	.4
30				1.3	-	915	616	47	0		.4	-
31				.8	-	1,000	-	e26	-		14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	0	0	0	0	0
Calendar year 1943.....	29,157.6	767	0	79.9	57,800
January.....	29.7	6.6	0	.96	59
February.....	4,506.8	602	.4	155	8,940
March.....	17,597	1,000	333	588	34,900
April.....	30,228	1,180	616	1,008	59,960
May.....	16,346	812	26	527	32,420
June.....	62.1	15	0	2.07	123
July.....	0	0	0	0	0
August.....	144.1	20	0	4.65	286
September.....	356.3	40	.4	11.9	707
Water year 1943-44.....	69,270.0	1,180	0	189	137,400

e Stage-discharge relation indefinite; discharge computed on basis of records for Bayou Meto near Stuttgart.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tallahatchie River at Etta, Miss.

Location.— Water-stage recorder and wire-weight gage, lat. 34°28', long. 89°13', in S4 sec. 8, T. 7 S., R. 1 E. Chickasaw meridian, at bridge on State Highway 30, three-quarters of a mile northeast of Etta, 3½ 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 1944 in reports of 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, 28,800 second-feet Mar. 29 (gage height, 20.6 feet, from graph based on gage readings); minimum observed, 6.4 second-feet July 20, 1938-44: 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. Wire-weight gage read twice daily and used when stage was below intake and for periods of faulty intake action.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 16 to July 27, Aug. 4-26, 28-30, Sept. 4, 5, 8-30)

1.5	6.9	2.2	81	11.0	2,110	17.6	7,510
1.4	10	2.7	157	14.0	3,080	18.2	10,300
1.5	14	3.7	337	15.5	3,780	19.0	15,600
1.7	26	5.0	607	16.3	4,520	20.0	23,400
1.9	42	9.0	1,550	17.0	5,740		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	10	24	106	98	1,900	1,300	396	138	12	973	1,330
2	9.1	12	24	878	95	612	1,110	337	200	10	271	294
3	8.8	12	26	2,870	160	563	1,820	280	223	9.5	104	83
4	8.5	9.5	25	1,300	143	585	789	1,740	91	14	48	45
5	8.2	8.8	24	563	112	488	509	5,230	62	16	44	193
6	7.5	14	27	299	146	618	408	6,420	77	12	30	426
7	8.8	2,580	34	208	174	1,090	356	2,390	49	9.5	24	189
8	8.8	2,780	29	203	607	509	582	743	42	9.8	21	44
9	8.8	964	28	244	3,230	318	789	457	41	12	26	30
10	8.5	354	30	203	5,070	280	1,040	346	41	18	64	25
11	8.5	146	118	215	4,090	262	2,600	280	40	12	24	32
12	8.5	82	60	221	1,060	271	4,800	244	52	27	20	27
13	9.5	60	42	174	467	244	2,240	215	41	33	92	27
14	14	48	35	143	861	219	743	191	64	17	61	24
15	10	32	32	266	870	203	499	171	36	11	27	21
16	9.1	42	28	499	478	191	365	152	25	9.8	23	20
17	11	38	26	552	3,180	184	289	135	23	9.1	20	19
18	9.5	35	35	386	4,190	360	262	122	20	8.5	30	18
19	9.1	32	35	289	2,770	3,660	253	112	21	7.2	19	18
20	8.8	31	33	224	1,620	6,110	1,900	112	18	6.9	14	18
21	8.8	29	30	169	1,920	4,000	1,960	127	17	15	13	17
22	8.5	27	30	146	1,060	1,160	2,200	128	17	9.8	15	17
23	8.5	26	26	135	1,970	1,160	1,780	125	15	9.8	17	16
24	10	25	24	119	1,160	720	1,380	128	15	9.8	15	15
25	11	24	278	113	1,090	488	509	873	44	8.5	15	13
26	9.8	25	334	194	3,440	375	2,210	215	18	9.8	15	13
27	10	25	160	253	11,900	4,060	5,020	119	13	552	347	13
28	9.8	24	632	205	8,940	17,500	4,420	150	12	1,980	58	18
29	9.5	24	538	162	4,530	25,200	1,310	235	12	520	24	74
30	10	24	198	131	-	11,400	563	704	19	1,150	32	131
31	10	-	135	116	-	4,070	-	284	-	2,290	2,070	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	290.4	14	7.5	9.37	0.018	0.02
November	7,533.3	2,780	8.8	251	.477	.53
December	3,100	632	24	100	.190	.22
Calendar year 1943	99,379.5	16,600	5.2	272	.517	7.02
January	11,585	2,870	106	374	.711	.82
February	55,431	11,900	95	2,256	4.29	4.53
March	88,991	25,200	184	2,871	5.46	6.29
April	43,985	5,020	253	1,466	2.79	3.11
May	23,159	6,420	112	747	1.42	1.64
June	1,485	223	12	49.5	.094	.11
July	6,819	2,290	6.9	220	.418	.48
August	4,556	2,070	13	147	.279	.32
September	3,210	1,330	13	107	.203	.23
Water year 1943-44	260,145.7	25,200	6.9	711	1.35	18.40

Peak discharge.— Feb. 27 (5:30 p.m.) 15,600 sec.-ft.

Note.— Water below intakes or intake action faulty Oct. 1 to Nov. 6, Mar. 2, 3, 5, 27-29, May 20-24, July 16-20, Aug. 19-26, Sept. 10-14, 25-27, and recorder not operating Apr. 2-14, 22, July 22-28; discharge computed on basis of wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sardis Reservoir near Sardis, Miss.

Location.- Water-stage recorder, lat. 34°23'57", long. 89°47'10", in gatehouse of dam on Tallahatchie River in NE¼ sec. 11, T. 8 S., R. 6 W. Chickasaw meridian, 7½ miles south-east of Sardis. Datum of gage is 219.48 feet above mean sea level, datum of 1929, supplementary adjustment 1941 (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 1944.

Extremes.- Maximum elevation during year, 272.44 feet May 15 (contents, 1,095,170 acre-feet); minimum 235.43 feet Oct. 1 (contents 101,500 acre-feet).
1939-44: Maximum elevation, that of May 15, 1944; minimum elevation since normal recreational level was first reached, 228.98 feet Oct. 3, 1941 (contents, 47,900 acre-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, 1,569,900 acre-feet at elevation 281.48 feet (crest of spillway) of which about 1,478,000 acre-feet is available for flood-control storage and about 91,900 acre-feet is permanent storage which will be maintained for incidental recreational purposes at elevation 234.5 feet (15 feet above sill of outlet tunnel). Water below elevation 219.5 feet cannot be withdrawn through outlet tunnel. Reservoir used only for flood control.

Cooperation.- Elevations, contents, and capacity table furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Contents at 8 a.m., in thousands of acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	101.70	116.68	161.98	159.09	134.75	334.62	731.161,006.90	1,025.10	781.39	537.24	315.43	
2	102.11	117.26	161.83	159.23	133.18	358.95	751.90	1,010.45	1,019.78	772.44	526.83	317.36
3	102.86	117.94	162.93	158.40	131.72	372.86	765.37	1,010.45	1,014.45	763.19	519.65	314.57
4	103.60	118.51	163.64	157.99	130.03	380.77	773.56	1,018.89	1,009.56	755.54	511.42	309.84
5	103.82	118.86	164.50	158.13	128.09	387.68	782.88	1,035.32	1,003.02	746.44	502.89	303.39
6	104.03	119.31	165.23	161.14	127.12	391.88	787.73	1,046.86	996.99	737.71	494.65	296.77
7	104.46	122.28	166.24	164.36	125.19	395.36	789.97	1,065.01	990.09	729.70	485.84	288.98
8	104.89	125.43	168.97	165.38	123.76	397.90	792.96	1,081.46	981.47	724.76	477.61	281.80
9	105.32	127.73	167.70	164.50	126.28	401.97	795.94	1,087.40	975.87	715.58	478.18	280.24
10	105.85	131.00	168.66	162.93	126.52	405.52	807.24	1,089.69	968.11	708.52	477.32	280.82
11	106.49	136.33	170.60	161.28	128.70	407.05	819.53	1,091.52	962.99	700.05	472.01	281.80
12	106.71	141.79	170.16	160.32	135.95	408.32	831.22	1,092.43	953.35	691.31	463.24	282.22
13	107.24	146.04	172.04	158.68	150.87	411.11	844.58	1,093.34	944.99	683.08	459.13	283.24
14	108.21	147.77	172.92	156.35	161.14	408.32	857.67	1,094.26	935.38	672.79	450.36	283.86
15	108.42	149.10	174.51	155.39	166.39	405.52	866.68	1,094.72	927.02	664.22	440.10	280.24
16	108.74	150.18	174.66	154.02	168.28	402.47	870.24	1,094.72	917.93	654.76	432.06	271.26
17	109.28	151.14	175.09	152.38	171.76	399.68	874.19	1,091.06	908.98	646.07	422.14	263.08
18	109.70	151.97	175.38	151.28	176.54	395.87	878.58	1,084.66	900.02	637.05	416.19	255.78
19	110.13	152.92	176.28	150.60	179.52	403.24	878.33	1,079.63	899.65	627.37	408.06	244.90
20	110.56	153.61	176.98	149.91	188.34	417.46	884.15	1,073.69	881.37	618.58	397.90	236.17
21	111.10	154.30	174.51	149.37	200.95	429.38	890.66	1,067.30	871.42	609.15	388.92	228.02
22	111.84	155.66	172.04	148.44	208.52	443.32	900.02	1,062.27	861.94	599.40	379.53	220.15
23	112.16	156.35	169.58	147.37	216.77	459.95	916.71	1,057.70	852.46	590.40	370.64	211.70
24	112.17	156.76	166.82	145.91	222.52	466.53	923.25	1,056.33	845.38	582.26	361.57	203.85
25	113.16	157.31	165.96	144.31	226.96	468.17	934.54	1,051.30	834.12	577.08	354.67	195.80
26	113.73	157.99	164.07	143.52	238.11	468.17	946.66	1,048.19	826.44	567.57	344.52	187.88
27	114.07	158.54	162.10	142.05	253.78	476.76	962.55	1,043.75	817.99	558.06	335.98	180.59
28	114.41	159.36	161.42	140.72	271.66	492.66	977.16	1,038.42	809.16	553.04	327.65	173.50
29	114.87	159.78	160.87	139.52	299.23	542.06	991.82	1,033.10	799.67	548.16	318.69	171.15
30	115.44	160.46	159.78	138.20	-	623.12	1,003.43	1,035.54	790.72	542.58	309.69	167.94
31	116.01	-	159.36	136.08	-	694.40	-	1,029.54	-	536.58	311.13	-

Monthly elevation and contents, water year October 1943 to September 1944

Date	Elevation feet†	Contents (thousands of acre-feet)	Change in contents during month (equivalent, second-feet)
Sept. 30.....	235.43	101.50	-
Oct. 31.....	236.79	116.23	+240
Nov. 30.....	240.31	160.87	+750
Dec. 31.....	240.18	159.09	-28.9
Calendar year 1943.....	-	-	-156
Jan. 31.....	239.40	135.23	-398
Feb. 29.....	249.48	323.60	+3,275
Mar. 31.....	263.25	721.58	+6,473
Apr. 30.....	270.46	1,006.04	+4,780
May 31.....	270.92	1,026.44	+332
June 30.....	264.98	784.75	-4,062
July 31.....	257.49	532.30	-4,106
Aug. 31.....	249.06	314.57	-3,541
Sept. 30.....	240.69	164.80	-2,617
Water year 1944-45.....	-	-	+87.2

† Elevation at 12 p.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tallahatchie River at Sardis Dam, near Sardis, Miss.

Location.- Water-stage recorder, lat. 34°23'58", long. 89°47'24", in NW¼ sec. 11, T. 8 S., R. 6 W. Chickasaw meridian, 340 feet downstream from outlet tunnel of Sardis Dam and 7½ miles southeast of Sardis. Datum of gage is 194.48 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,545 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- January 1940 to September 1944.

Extremes (regulated).- Maximum discharge during year, 4,920 second-feet at times during

June, July, August; maximum gage height, 14.59 feet June 14-16; no flow at times. 1940-44: Maximum discharge, 5,060 second-feet Apr. 9, 1942 (gage height, 15.68 feet); no flow at times.

Remarks.- Records good except those during periods of gate operations, which are fair. Flow completely regulated by Sardis Reservoir (see preceding page). Records of daily discharge not adjusted for storage in Sardis Reservoir. Periods of no flow determined on basis of gate operations at Sardis Dam.

Cooperation.- Gage-height record, 43 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Rating table, water year 1943-44, except periods of indefinite stage-discharge relation (gage height, in feet, and discharge, in second-feet)

4.4	318	9.0	1,700
5.0	417	11.0	2,760
5.6	555	14.6	4,920
7.2	1,050		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	1,700	1,540	0		0	3,240	4,740	4,860	e219
2			0	1,750	1,540	0		0	3,240	4,740	4,860	2,590
3			0	1,700	1,540	0		0	3,240	4,680	4,860	4,680
4			0	1,700	1,540	0		0	3,240	4,680	4,860	4,860
5			0	1,700	1,500	0		0	3,300	4,680	4,860	4,860
6			0	1,700	1,500	0		0	3,900	4,680	4,860	4,860
7			0	1,700	1,500	0		0	3,960	e2,490	4,860	4,860
8			0	1,750	1,500	0		0	4,020	3,720	e1,620	e3,440
9			0	1,750	1,610	0		0	4,020	4,600	e145	0
10			0	1,700	1,540	0		0	4,020	4,620	e943	0
11			0	1,700	1,540	0		0	4,020	4,800	3,240	0
12			0	1,700	1,540	0		0	4,140	4,800	4,620	0
13			0	1,650	1,610	e717		0	4,800	4,800	5,900	0
14			0	1,650	1,700	e2,310		0	4,920	4,800	4,740	e230
15			0	1,650	1,700	2,310		0	4,920	4,800	4,860	2,630
16			0	1,650	1,700	2,310		e555	4,920	4,920	4,860	4,680
17			0	1,650	1,850	2,370		e1,780	4,920	4,860	4,800	4,860
18			0	1,650	1,800	2,370		e3,180	4,920	4,860	4,860	4,800
19			0	1,610	1,800	e790		3,180	4,920	4,860	4,860	4,800
20		e706	1,610	1,800	e802		3,180	4,920	4,860	4,860	4,860	4,680
21			e1,700	1,610	1,850	e2,420		3,180	4,860	4,860	4,860	4,620
22			1,700	1,610	1,900	2,420		3,240	4,860	4,860	4,860	4,560
23			1,750	1,610	1,900	2,530		3,240	4,860	3,600	4,860	4,500
24			1,750	1,580	1,900	2,530		3,300	4,860	3,600	4,860	4,380
25			1,750	1,580	1,950	2,480		3,240	4,800	4,680	4,860	4,320
26			1,750	1,580	e1,380	2,480		3,180	4,800	4,740	4,920	4,200
27			1,700	1,580	0	e1,290		3,240	4,800	4,860	4,860	4,080
28			1,750	1,580	0	0		3,240	4,800	4,920	4,860	4,020
29			1,700	1,580	0	0		3,240	4,740	4,860	4,860	4,080
30			1,700	1,540	-	-		3,300	4,740	4,860	4,860	3,960
31			1,700	1,540	-	0		3,240	-	4,860	e684	-

Month	Observed				Change in contents (equivalent, second-feet)†	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October.....	0	0	0	0	+240	240	0.155	0.18
November.....	0	0	0	0	+750	750	.485	.54
December.....	19,656	1,750	0	634	-28.9	605	.392	.45
Calendar year 1943	462,878	4,070	0	1,268	-156	1,112	.720	9.76
January.....	51,060	1,750	1,540	1,647	-388	1,259	.815	.94
February.....	43,230	1,950	0	1,491	+3,275	4,766	3.08	3.32
March.....	30,129	2,530	0	972	+6,473	7,445	4.82	5.56
April.....	0	0	0	0	+4,780	4,780	3.09	3.45
May.....	47,515	3,300	0	1,533	+332	1,865	1.21	1.40
June.....	131,700	4,920	3,240	4,390	-4,082	328	.212	.24
July.....	142,590	4,920	2,480	4,600	-4,105	494	.320	.37
August.....	131,672	4,920	145	4,247	-3,541	705	.477	.63
September.....	99,769	4,860	0	3,326	-2,517	809	.524	.58
Water year 1943-44	697,321	4,920	0	1,905	+87.2	1,992	1.29	17.56

† Change in contents in Sardis Reservoir.

e Stage-discharge relation indefinite because of gate operations; di: charge computed on basis of gate openings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tallahatchie River near Lambert, Miss.

Location.— Wire-weight gage, lat. 34°10'50", long. 90°12'55", in SW $\frac{1}{4}$ 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 2 $\frac{1}{2}$ miles downstream from point of diversion of Panola-Quitman floodway. Datum of gage is 123.84 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army). Auxiliary wire-weight gage at Shine Turner Bridge on county road 5 $\frac{1}{2}$ miles downstream. Datum of auxiliary gage is 126.50 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 1,980 square miles (authority, Corps of Engineers, U. S. Army; does not include 2,600 square miles of upper Tallahatchie and Yocona Rivers, entire flow from which is diverted 2 $\frac{1}{2}$ miles upstream through Panola-Quitman floodway).

Records available.— October 1938 to September 1944 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, 11,400 second-feet (regulated) Apr. 3; maximum gage height observed, 30.30 feet (regulated) Apr. 1, 2; minimum discharge observed, 85 second-feet (regulated) Oct. 5 (gage height, 6.68 feet).

1938-44: Maximum discharge observed, 15,800 second-feet (regulated) Apr. 14, 1942 (gage height, 31.5 feet); minimum observed, 59 second-feet (regulated) Oct. 27-29, 1942; minimum gage height observed, 5.01 feet Nov. 2, 3, 1938.

A stage of 36.8 feet (from floodmarks) occurred in January 1932 (probably affected by levee breaks above).

Remarks.— Records fair. Discharge computed by using fall as a factor. Gages read twice daily. Flow partly regulated by Arkabutla Reservoir on Coldwater River (see p. 264).

Cooperation.— Gage-height record, 23 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	181	187	1,170	329	9,810	10,900	6,790	4,030	d347	d539	1,100
2	145	179	193	857	318	9,560	11,200	6,610	3,960	d320	d544	2,100
3	124	186	186	889	250	9,170	11,400	7,640	4,260	d314	d524	2,350
4	115	179	184	1,340	277	8,650	11,100	8,020	4,360	d300	d473	2,340
5	85	183	196	1,600	277	8,000	10,600	8,870	4,380	d273	d423	2,260
6	211	181	200	1,170	281	7,350	9,730	9,040	4,360	250	d379	2,240
7	370	261	203	e1,620	278	6,870	8,770	8,910	4,180	205	d342	2,080
8	316	e353	199	1,870	275	e6,460	7,490	8,560	4,110	d233	d304	1,970
9	312	466	207	1,490	420	5,690	6,940	8,040	3,920	237	d302	1,660
10	245	689	209	1,120	2,290	5,540	7,430	e7,090	3,990	248	d325	1,320
11	215	d954	214	798	3,350	4,970	7,690	6,520	4,010	202	d247	1,180
12	203	752	233	553	4,140	4,750	7,680	8,850	4,030	172	d155	930
13	169	600	257	476	d4,190	4,290	7,500	5,580	3,920	197	d163	820
14	190	495	282	691	4,340	3,940	7,090	4,960	3,770	237	d214	453
15	167	392	267	372	4,430	3,640	6,560	4,610	3,560	233	d266	397
16	144	318	255	350	4,370	3,260	6,150	4,290	3,260	d248	d299	336
17	145	271	233	340	4,410	3,050	5,550	4,030	2,970	d248	317	e284
18	217	235	223	e345	4,330	2,930	4,940	3,870	2,420	d257	304	e44
19	217	224	e210	357	5,280	2,760	4,470	3,380	2,000	d273	234	d201
20	164	216	207	397	5,290	4,270	4,430	3,180	1,490	d283	253	186
21	e200	d215	206	394	6,130	4,520	4,950	3,170	1,080	d285	e246	170
22	198	214	203	385	6,720	4,650	5,050	3,630	799	d280	d210	d198
23	172	189	196	d385	6,970	4,640	5,320	3,990	d645	d278	e216	d221
24	185	192	199	374	7,000	4,570	7,380	e3,010	d551	d290	d281	d224
25	136	169	236	389	6,820	4,320	8,020	3,220	d516	d279	356	e221
26	168	145	307	328	6,820	4,130	d8,100	3,600	4455	d254	272	206
27	179	227	676	d531	6,420	3,940	8,210	3,900	4433	d255	d300	e199
28	179	203	968	310	9,430	5,590	8,290	4,070	4408	d289	313	195
29	180	189	1,170	337	9,660	8,770	7,970	4,130	d387	d319	334	a241
30	e171	196	e1,170	347	-	9,900	7,490	d4,200	d369	d377	418	e297
31	162	-	1,170	344	-	10,500	-	4,080	-	d493	607	-

Month	Observed				Change in contents (equivalent, second-feet) [†]	Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October.....	5,889	370	85	190	-	-	-	-
November.....	9,164	854	143	305	-	-	-	-
December.....	10,853	1,170	184	350	-	-	-	-
Calendar year 1943 ..	585,432	14,300	85	1,604	-56.1	1,548	0.782	10.62
January.....	21,129	1,670	310	682	-	-	-	-
February.....	117,595	9,660	250	4,055	-	-	-	-
March.....	180,570	10,500	2,760	5,825	-	-	-	-
April.....	228,380	11,400	4,430	7,813	-	-	-	-
May.....	166,590	9,040	3,010	5,374	-	-	-	-
June.....	78,523	4,380	369	2,617	-	-	-	-
July.....	8,476	493	172	273	-	-	-	-
August.....	10,161	607	156	328	-	-	-	-
September.....	26,361	2,340	170	879	-	-	-	-
Water year 1943-44 ..	863,691	11,400	85	2,360	-2.33	2,358	1.19	16.20

[†] Change in contents in Arkabutla Reservoir.

a No gage-height record; discharge computed on basis of records for auxiliary gage.

b Doubtful gage-height record at auxiliary gage; discharge computed on basis of interpolated fall.

c S a.m. reading doubtful; discharge computed on basis of p.m. reading.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 113.38 feet above mean sea level, datum of 1929, supplementary adjustment of 1941. Auxiliary staff gage at highway bridge in Glendora, 3.8 miles downstream. Datum of auxiliary gage is 112.43 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 5,130 square miles (authority, Corps of Engineers, U. S. Army).

Records available.— November 1938 to September 1944 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, 27,500 second-feet (regulated) Apr. 2; maximum gage height observed, 30.17 feet (regulated) Apr. 3; minimum daily discharge, 272 second-feet (regulated) Oct. 18 (gage height, 1.73 feet).

1938-44: Maximum discharge observed, 43,200 second-feet Feb. 22, 1939 (gage height, 32.97 feet); minimum daily discharge, 213 second-feet (regulated) Oct. 27, 1942; minimum gage height observed, 1.38 feet (regulated) Oct. 26-28, 1942.

A stage of 37.0 feet occurred Jan. 15, 1932 (affected by break in levee).

Remarks.— Records fair. Wire-weight gage read twice daily but only 8 a.m. gage readings used in computing daily discharge. Auxiliary gage read twice daily. Discharge computed by using fall between gages as a factor. Flow partly regulated by Sardis Reservoir on Tallahatchie River (see p. 257), and Arkabutla Reservoir on Coldwater River (see p. 264).

Cooperation.— Gage-height record, 33 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	720	311	341	3,370	2,520	16,600	25,600	13,900	10,300	5,630	5,940	6,470
2	578	324	349	3,290	2,450	17,100	27,500	12,900	10,300	5,530	6,120	7,210
3	464	336	357	3,210	2,870	17,600	27,200	12,600	10,700	5,450	6,210	7,500
4	377	338	362	4,070	4,250	17,700	25,600	12,500	9,930	5,380	6,180	7,140
5	324	325	343	4,230	3,140	16,700	24,000	13,600	9,690	5,330	6,120	6,800
6	297	319	354	4,230	2,860	16,400	22,500	15,000	9,320	5,270	6,000	6,830
7	341	461	358	3,960	2,720	15,700	21,100	15,700	9,220	5,220	5,840	7,100
8	588	3,250	366	3,930	2,560	14,900	19,900	16,500	9,140	5,190	5,720	7,330
9	474	3,130	387	4,040	2,580	15,700	19,100	16,500	9,040	5,080	5,620	7,410
10	436	2,370	352	3,760	4,590	12,600	17,700	16,700	8,950	4,690	5,690	7,310
11	403	1,790	342	3,470	5,830	12,000	17,400	16,000	8,870	4,430	4,910	6,750
12	329	1,560	362	3,230	6,490	11,600	17,200	15,400	8,820	4,490	3,440	5,230
13	302	1,210	391	2,960	6,920	9,500	17,100	14,200	8,820	4,700	3,240	3,360
14	360	889	398	2,820	6,800	8,240	17,000	13,000	8,800	4,900	3,930	2,200
15	346	719	406	2,690	7,910	8,080	16,900	12,300	8,770	5,030	4,870	1,560
16	326	605	390	2,720	8,160	7,970	16,600	11,500	8,740	5,150	4,660	1,290
17	290	530	320	2,800	8,520	7,590	15,900	10,800	8,730	5,210	4,940	2,020
18	272	471	360	2,830	9,120	7,360	14,200	9,370	8,660	5,240	5,150	2,970
19	331	431	353	2,740	9,820	6,530	13,700	8,890	8,500	5,280	5,470	3,740
20	346	409	361	2,740	10,400	8,090	12,800	10,700	8,250	5,300	5,710	4,260
21	330	398	334	2,680	10,500	9,530	12,300	8,290	7,970	5,290	5,770	4,830
22	351	366	334	2,640	11,200	10,200	12,000	8,150	7,560	5,250	5,680	4,890
23	323	356	1,110	2,610	11,400	10,600	11,900	8,460	7,100	5,230	5,690	5,060
24	330	356	1,810	2,600	11,600	10,700	12,100	8,800	6,730	5,200	5,550	5,130
25	326	350	2,100	2,520	11,800	10,500	12,600	8,770	6,520	5,130	5,560	5,130
26	323	331	2,660	2,720	12,800	10,200	12,700	8,780	6,290	4,760	5,610	5,070
27	311	316	2,920	3,650	12,900	10,300	13,500	8,810	6,090	4,490	5,650	5,030
28	309	352	3,050	3,060	14,300	12,500	13,700	8,880	5,950	4,650	5,750	4,970
29	305	373	3,410	2,850	15,700	16,800	13,900	8,920	5,840	4,820	5,780	5,030
30	299	344	3,560	2,760	-	17,600	14,000	9,480	5,720	5,040	5,790	5,250
31	305	-	3,530	2,640	-	20,600	-	9,950	-	5,580	5,900	-

Month	Observed				Change in contents (equivalent, second-feet)*		Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean	Mean	Per square mile	Runoff in inches		
October.....	11,406	720	272	368	-	-	-	-	-
November.....	25,580	3,250	311	779	-	-	-	-	-
December.....	32,040	3,560	320	1,054	-	-	-	-	-
Calendar year 1943 ..	1,460,712	21,400	272	4,002	-212	3,790	0.739	10.03	-
January.....	98,430	4,230	2,520	3,175	-	-	-	-	-
February.....	222,510	15,700	2,450	7,673	-	-	-	-	-
March.....	385,990	20,600	7,360	12,450	-	-	-	-	-
April.....	517,700	27,500	11,900	17,260	-	-	-	-	-
May.....	362,590	16,700	8,150	11,690	-	-	-	-	-
June.....	248,720	10,300	6,720	8,291	-	-	-	-	-
July.....	157,940	5,630	4,430	5,095	-	-	-	-	-
August.....	167,890	6,210	3,240	5,416	-	-	-	-	-
September.....	154,670	7,500	1,290	5,156	-	-	-	-	-
Water year 1943-44 ..	2,583,066	27,500	272	6,511	+85	6,596	1.29	17.56	-

* Change in contents in Arkabutla and Sardis Reservoirs.

† 8 a.m. gage reading doubtful; discharge computed on basis of 4 p.m. reading.

Note.— Auxiliary gage record doubtful Oct. 27, 29, 31, Nov. 3, 19-21, Dec. 25, Jan. 1, 10, 12, 16, 20-22, Feb. 6, 16, Mar. 11, 15, Apr. 3, 11, 15-15, 24, May 19, 27, June 3, 6-24, 26-28, June 30 to July 16, July 18-20, July 22 to Aug. 16, Aug. 23 to Sept. 13, Sept. 15-25, 29, 29; discharge computed on basis of 8 discharge measurements or interpolated falls.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Yazoo River at Greenwood, Miss.

Location.— Water-stage recorder, lat. 33°31'17", long. 90°11'03", in SW $\frac{1}{4}$ 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 92.07 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

Drainage area.— 7,450 square miles (from reports of Mississippi River Commission).

Records available.— January 1908 to June 1913 and October 1938 to September 1944 in reports of Geological Survey. January 1909 to December 1927 (discharge measurements only), and since January 1928 in reports of Mississippi River Commission. Gage-height records collected at same site since 1904 are contained in reports of U. S. Weather Bureau.

Average discharge.— 10 years (1908-12, 1938-44), 8,592 second-feet.

Extremes.— Maximum discharge during year, 45,700 second-foot (regulated) Apr. 4 (gage height, 58.47 feet); minimum, 536 second-feet (regulated) Oct. 20 (gage height, 4.61 feet).

1908-13, 1938-44: Maximum discharge, that of Apr. 4, 1944; maximum gage height observed, 58.7 feet Apr. 6, 7, 1912 (present datum); minimum discharge, that of Oct. 20, 1943; minimum gage height observed, 1.0 foot, present datum, Oct. 17, 1908.

Maximum discharge determined, 72,900 second-foot 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. 257) and Arkabutla Reservoir on Coldwater River (see p. 264).

Cooperation.— Fifty-four discharge measurements and computations of daily discharge made by Corps of Engineers, U. S. Army; gage-height record obtained, 12 discharge measurements made, and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,220	542	677	4,060	3,990	18,200	37,900	21,500	11,900	65,740	65,620	6,060
2	1,070	572	677	5,100	3,800	19,200	43,600	21,000	11,600	65,580	65,880	6,460
3	944	626	684	5,740	5,100	20,600	45,100	20,400	11,300	5,580	65,860	6,940
4	830	686	684	5,900	5,900	22,000	45,600	21,400	11,000	5,420	65,620	7,180
5	716	626	670	6,140	6,220	23,300	44,000	22,300	10,700	5,420	65,390	7,020
6	638	656	684	6,300	6,300	24,600	41,300	21,900	10,400	5,340	65,140	7,020
7	590	3,930	691	6,220	6,220	25,600	39,400	21,500	10,100	5,260	6,900	7,020
8	590	3,440	698	6,060	6,220	25,600	37,800	21,200	9,800	5,180	5,660	7,180
9	602	4,480	698	5,740	6,460	25,200	37,100	21,200	9,660	5,180	5,660	7,340
10	662	4,890	705	5,260	6,700	24,600	36,200	21,400	9,520	5,100	5,060	7,420
11	695	4,570	712	4,800	7,590	23,700	35,500	21,700	9,400	5,040	5,820	7,340
12	674	3,870	719	4,380	5,700	22,600	35,000	21,900	9,310	5,000	5,100	6,860
13	668	3,030	719	3,990	9,480	21,200	33,500	22,000	9,300	5,000	5,420	6,740
14	656	2,330	726	3,660	10,100	20,000	32,600	22,000	9,250	5,000	5,420	6,250
15	620	1,830	740	3,660	10,500	18,800	31,600	21,900	9,160	5,100	5,420	3,210
16	608	1,530	740	3,730	10,600	17,400	30,800	21,400	9,090	5,100	4,940	2,430
17	596	1,320	754	3,920	10,700	16,200	30,300	20,600	9,040	4,940	5,260	2,040
18	590	1,160	735	4,060	11,000	15,000	29,500	19,600	8,990	4,940	5,260	2,800
19	564	1,060	712	4,180	11,300	14,600	28,700	18,300	8,920	4,940	5,180	3,210
20	536	976	698	4,180	11,600	14,100	28,300	16,900	8,820	5,000	5,260	3,860
21	542	913	698	4,120	11,800	13,600	27,600	15,500	8,690	5,100	5,420	4,250
22	560	864	705	3,990	12,300	13,500	26,800	14,800	8,510	5,020	5,500	4,450
23	566	824	719	3,790	12,800	13,600	26,000	14,500	8,400	5,180	5,500	4,660
24	596	790	885	3,600	14,300	13,600	25,300	14,000	8,750	5,340	5,420	4,730
25	594	761	1,830	3,470	14,900	13,500	24,800	13,600	8,710	5,260	5,420	4,800
26	572	747	2,400	3,990	15,800	13,400	24,000	13,100	8,670	5,100	5,420	4,800
27	572	733	2,850	4,320	16,800	17,000	23,500	12,800	8,300	5,000	5,500	4,730
28	560	705	3,410	4,870	17,100	21,500	23,000	12,500	8,060	5,000	5,500	4,730
29	548	691	3,720	5,020	17,400	25,200	22,300	12,400	8,000	5,000	5,500	4,940
30	542	691	4,000	4,800	-	26,600	21,900	12,300	8,500	5,000	5,580	5,420
31	542	-	4,110	4,380	-	29,600	-	12,100	-	5,740	5,740	-

Month	Observed				Change in contents (equivalent, second-feet)†		Adjusted for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean			Mean	Per square mile	Runoff in inches
October.....	20,243	1,220	536	653	-	-	-	-	-
November.....	49,847	4,890	542	1,662	-	-	-	-	-
December.....	39,448	4,110	670	1,273	-	-	-	-	-
Calendar year 1943.....	1,872,204	24,400	536	5,129	-212	4,917	0.660	8.96	
January.....	143,430	6,300	3,470	4,627	-	-	-	-	-
February.....	291,680	17,400	3,800	10,060	-	-	-	-	-
March.....	613,800	29,600	13,400	19,790	-	-	-	-	-
April.....	969,300	45,800	21,900	32,290	-	-	-	-	-
May.....	567,700	22,300	12,100	18,310	-	-	-	-	-
June.....	267,950	11,900	5,900	8,932	-	-	-	-	-
July.....	159,180	5,740	4,730	5,135	-	-	-	-	-
August.....	173,230	6,860	4,250	5,588	-	-	-	-	-
September.....	158,590	7,420	2,040	5,286	-	-	-	-	-
Water year 1943-44.....	3,453,698	45,600	536	9,436	+85	9,521	1.28	17.42	

† Change in contents in Arkabutla and Sardis Reservoirs.

g Computed from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Railroad bridge, and 6 miles upstream from drainage-canal diversion. Datum of gage is 189.47 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 560 square miles.

Records available.- July 1928 to September 1931 and October 1938 to September 1944 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 24,400 second-feet Mar. 29 (gage height, 20.13 feet); minimum, 44 second-feet Oct. 5-12; minimum gage height, 1.88 feet July 24. 1928-31, 1938-44: Maximum discharge, that of Mar. 29, 1944; 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.- Gage-height record, 19 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Rating table, water year 1943-44 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 6, Feb. 24,
25, Mar. 20-25, Apr. 10, 11)

2.0	53	5.0	800	17.7	9,280
2.2	70	8.5	2,210	18.3	11,400
2.4	100	11.5	3,680	19.0	15,200
3.2	285	16.0	7,080	19.5	18,500
3.7	400	17.0	8,080	20.0	23,400

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	47*	114	198	220	1,940	2,220	460	270	62	148	880
2	46	48	116	605	225	1,500	1,580	415	325	60	182	400
3	46	51	116	1,300	505	852	1,700	361	262	60	124	200
4	45	50	116	888	370	715	1,100	6,330	212	59	85	104
5	44	50	116	730	302	625	800	9,450	196	56	73	108
6	44	86	122	475	290	535	640	5,120	175	56	65	864
7	44	3,060	158	275	292	505	555	2,050	180	56	62	475
8	44	1,860	126	240	275	505	520	1,300	190	56	59	242
9	44	980	122	250	2,620	460	1,930	755	162	55	66	136
10	44	765	124	230	1,620	335	1,680	595	206	55	72	90
11	44	355	152	224	1,180	312	8,390	490	160	56	80	82
12	44	214	156	220	888	305	6,370	415	158	63	235	85
13	50	180	140	195	460	290	2,750	358	128	64	164	82
14	50	160	130	178	894	255	1,620	315	134	55	152	73
15	46	154	124	258	960	245	1,100	288	142	54	97	69
16	45	144	120	370	782	230	960	260	122	53	68	67
17	45	140	116	445	4,070	222	700	240	106	52	72	62
18	46	132	114	520	2,600	292	625	216	100	50	318	62
19	47	130	120	445	1,660	2,780	550	200	96	48	59	59
20	49	130	122	355	1,890	2,380	3,160	200	96	48	56	57
21	47	126	120	280	1,820	1,540	2,160	320	85	48	54	56
22	46	124	120	242	1,300	1,140	1,500	265	79	48	55	56
23	45	120	118	222	2,020	1,020	3,300	358	73	48	76	52
24	49	120	118	208	1,940	800	2,430	535	73	47	88	50
25	49	116	364	220	1,780	595	1,260	430	80	48	73	51
26	48	118	445	950	5,300	415	1,750	240	134	48	63	50
27	48	120	315	610	9,060	2,520	2,520	190	102	50	242	50
28	47	120	505	430	7,710	14,800	1,420	160	74	175	174	67
29	47	118	505	340	4,000	23,400	1,060	212	68	460	132	364
30	48	118	346	285	-	17,700	625	1,010	64	332	128	148
31	47	-	245	245	-	8,570	-	535	-	248	1,790	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October.....	1,433	50	44	46.2	0.062	0.10
November.....	9,756	3,060	47	325	.580	.65
December.....	5,705	505	114	184	.329	.38
Calendar year 1943.....	151,063	11,900	35	359	.641	8.72
January.....	12,444	1,300	178	401	.716	.83
February.....	57,039	9,060	220	1,967	3.51	3.79
March.....	94,133	23,400	222	3,037	5.42	6.25
April.....	56,955	8,380	520	1,898	3.39	3.78
May.....	34,093	9,450	160	1,100	1.96	2.26
June.....	4,235	325	64	141	.252	.28
July.....	2,671	460	47	86.2	.154	.18
August.....	5,124	1,790	54	165	.295	.34
September.....	5,141	880	50	171	.305	.34
Water year 1943-44.....	288,707	23,400	44	789	1.41	19.18

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Coldwater River near Lewisburg, Miss.

Location.— Water-stage recorder, lat. 34°50'27", long. 89°49'32", in center of sec. 10, T. 3 S., R. 6 W. Chickasaw meridian, at county highway bridge, 1.6 miles south of Lewisburg and 4.0 miles upstream from Pigeonroost Creek. Datum of gage is 250.55 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 136 square miles (authority, Corps of Engineers, U. S. Army).

Records available.— October 1941 to September 1944 in reports of Geological Survey.

December 1939 to September 1941 (unpublished) in files of War Department, Corps of Engineers, U. S. Army, Vicksburg, Miss.

Extremes.— Maximum discharge during year, 16,200 second-feet Mar. 29 (gage height, 12.41 feet); minimum, 19 second-feet Oct. 5-7; minimum gage height, 2.45 feet Aug. 21, 1941-44; Maximum discharge observed, 17,200 second-feet Apr. 9, 1942 (gage height, 14.56 feet), from rating curve extended above 2,100 second-feet by velocity-area studies; minimum discharge, that of Oct. 5-7, 1943; minimum gage height, 2.38 feet Oct. 1, 2, 1941.

Remarks.— Records fair.

Cooperation.— Gage-height record, 19 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Rating tables, water year 1943-44, except Nov. 7-9, Dec. 25, Jan. 2, Feb. 8, 17, Mar. 19, Apr. 20, May 30, June 10, July 27, Aug. 31 (gage height in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-21, Jan. 6 to Feb. 7, Aug. 1-26)

Oct. 1 to Mar. 29						Mar. 30 to Sept. 30					
2.4	23	8.8	665	10.7	2,510	2.5	37	7.0	421	9.4	865
4.0	121	9.3	805	11.0	3,350	3.5	109	8.2	574	9.7	1,080
5.5	231	9.6	980	11.3	4,850	5.5	275	9.0	724	10.0	1,360
6.5	329	10.0	1,360	11.5	6,500						
7.9	508	10.4	1,910	11.8	9,500						

Note.— Same as preceding table above 10.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	37	47	75	58	1,150	1,340	117	106	40	50	698
2	20	37	46	145	57	832	916	379	58	39	48	1,040
3	20	39	46	351	57	695	946	242	52	39	45	627
4	20	39	47	307	58	487	770	464	48	39	43	312
5	19	39	46	257	63	469	764	1,150	47	40	42	91
6	19	40	51	137	63	400	587	1,030	51	68	43	113
7	19	107	51	60	197	222	1,230	77	47	42	241	
8	21	101	55	66	868	102	341	816	103	42	41	232
9	23	121	57	60	3,590	79	708	307	109	41	40	96
10	24	193	55	60	4,610	65	1,140	107	262	40	39	51
11	24	134	55	58	2,700	60	1,810	78	323	40	39	46
12	25	71	58	58	1,530	57	1,690	69	197	62	40	45
13	25	57	65	60	761	57	1,440	63	169	51	62	48
14	25	51	58	61	282	55	1,100	61	251	41	78	46
15	27	50	52	60	184	53	522	58	145	40	48	43
16	28	48	51	60	132	52	172	55	75	39	43	41
17	28	46	49	67	423	52	107	54	54	39	40	40
18	29	46	47	69	676	52	87	54	48	39	39	39
19	30	45	47	72	777	371	78	52	45	39	39	38
20	31	48	46	75	1,810	469	147	50	45	37	38	38
21	33	48	49	73	1,680	415	233	50	43	37	37	38
22	33	49	49	71	1,620	578	224	49	43	39	38	38
23	33	48	48	65	2,070	611	3,070	50	43	40	39	38
24	34	47	46	62	1,690	320	2,750	50	43	40	51	37
25	34	46	115	60	1,270	223	2,330	92	47	40	73	37
26	35	46	168	61	996	126	1,690	56	45	40	50	37
27	36	46	152	61	1,160	598	1,440	52	44	114	126	36
28	36	46	218	67	1,150	2,980	985	52	43	397	305	36
29	36	46	204	67	1,810	10,400	722	76	41	235	113	38
30	36	47	166	64	-	4,920	324	177	40	118	46	47
31	36	-	115	61	-	2,250	-	170	-	86	320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	869	36	19	27.7	0.204	0.23
November	1,618	193	37	60.6	.446	.50
December	2,363	218	46	76.2	.560	.65
Calendar year 1943	57,674	7,950	19	158	1.18	15.78
January	2,690	351	58	93.2	.685	.79
February	32,205	4,610	57	1,111	8.17	8.81
March	29,193	10,400	52	942	6.93	7.98
April	28,655	3,070	78	955	7.02	7.84
May	7,310	1,230	49	236	1.74	2.00
June	2,702	323	40	90.1	.662	.74
July	2,048	397	37	66.1	.485	.56
August	2,097	320	37	67.6	.497	.57
September	4,297	1,040	36	143	1.05	1.18
Water year 1943-44	116,437	10,400	19	318	2.34	31.85

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

YAZOO RIVER BASIN

Arkabutla Reservoir near Arkabutla, Miss.

Location.— Water-stage recorder, lat. 34°45'31", long. 90°07'30", in gatehouse of dam on Coldwater River in SW¹/₄ sec. 2, T. 4 S., R. 9 W. Chickasaw meridian, 4 miles north of Arkabutla. Datum of gage is 191.19 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army); gage readings have been reduced to elevations above mean sea level.

Drainage area.— 1,000 square miles (authority, Corps of Engineers, U. S. Army).

Records available.— August 1941 to September 1944.

Extremes.— Maximum elevation during year, 226.87 feet May 7 (contents, 229,740 acre-feet); minimum, 192.88 feet Aug. 24; minimum contents, 30 acre-feet at times during October, November, December, July, August, September.

1941-44: Maximum elevation, that of May 7, 1944; minimum elevation since normal recreational level was first reached, 192.84 feet Aug. 25, 1943; minimum contents, 30 acre-feet at times during 1942-44.

Remarks.— Reservoir is formed by hydraulic-fill earth dam with concrete spillway and outlet tunnel. Storage began Aug. 14, 1941. Dam not complete Sept. 30, 1944. Capacity, 525,300 acre-feet at elevation 238.29 feet (crest of spillway) of which about 493,800 acre-feet is available for flood-control storage and about 31,500 acre-feet is permanent storage which will be maintained for incidental recreational purposes at elevation 209.3 feet (18 feet above sill of outlet tunnel). Figures given herein represent contents above elevation 191.3 feet. Water below elevation 191.3 feet cannot be withdrawn through outlet tunnel. Reservoir used only for flood control.

Cooperation.— Elevations, contents, and capacity table furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Revisions.— Figures of contents for Aug. 15-31, 1941, are given herewith. They supersede those published in Water-Supply Paper 957. Figures published in that report for July 15 to Aug. 31, 1941, should be disregarded.

Contents, in thousands of acre-feet, 1941

Aug. 15	0.04	Aug. 18	0.06	Aug. 21	1.39	Aug. 24	0.45	Aug. 27	0.05	Aug. 30	5.41
16	.09	19	.34	22	1.46	25	.20	28	3.27	31	6.72
17	.34	20	1.39	23	.54	26	.06	29	3.67		

Contents at 8 a.m., in thousands of acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.91	0.03	0.03	0.12	0.04	75.45	145.36	218.34	97.24	0.04	0.77	2.26
2	2.12	.03	.03	.11	.04	76.27	147.89	218.89	89.28	.04	.12	4.34
3	2.33	.03	.03	1.61	.04	73.62	156.25	216.37	81.76	.04	.05	5.32
4	2.54	.03	.03	2.77	.04	70.44	163.13	215.65	73.90	.04	.04	6.20
5	.38	.03	.03	5.99	.04	67.19	164.48	222.51	66.53	.04	.04	6.59
6	.04	.03	.03	4.38	.04	63.04	163.28	229.17	60.66	.04	.04	6.07
7	.03	.04	.04	2.62	.04	68.66	160.74	229.55	54.12	.04	.04	3.89
8	.03	.80	.04	.93	.06	53.34	158.34	226.31	47.81	.04	.04	2.10
9	.03	1.53	.04	.07	6.76	48.07	159.99	222.89	41.13	.04	.04	.77
10	.03	.71	.04	.05	13.06	42.44	169.66	218.52	38.09	.04	.04	.12
11	.03	.11	.04	.05	29.55	37.10	176.38	213.14	29.45	.04	.05	.05
12	.03	.08	.06	.04	33.48	31.87	166.45	207.58	23.77	.03	.04	.05
13	.26	.05	.04	.04	33.43	26.98	192.52	202.20	18.69	.03	.05	.04
14	.80	.04	.04	.04	32.14	22.22	192.18	196.89	15.22	.04	.16	.04
15	1.18	.04	.04	.04	29.55	17.76	190.66	191.67	11.38	.04	.06	.04
16	.05	.04	.04	.04	25.53	13.34	187.63	186.62	8.01	.03	.05	.04
17	.03	.04	.03	.05	21.27	9.20	183.77	191.87	4.87	.03	.03	.03
18	.03	.03	.03	.05	20.55	5.86	178.01	176.95	2.37	.03	.03	.03
19	.03	.03	.03	.05	20.23	3.81	174.73	172.35	.52	.03	.03	.03
20	.03	.03	.03	.06	20.99	4.51	172.04	167.77	.05	.03	.03	.03
21	.03	.03	.03	.06	25.80	10.45	173.46	159.54	.04	.03	.03	.03
22	.03	.03	.03	.05	32.35	12.54	172.04	151.27	.04	.03	.03	.03
23	.03	.20	.03	.05	37.87	12.66	176.22	148.88	.04	.03	.03	.03
24	.03	.79	.05	.05	38.34	11.11	197.56	145.78	.04	.03	.03	.03
25	.03	.04	.05	.04	39.29	9.68	214.40	139.16	.04	.03	.22	.03
26	.03	.03	1.21	.04	38.76	7.88	217.09	132.95	.04	.03	.12	.03
27	.03	.03	1.67	.06	49.66	6.46	223.84	125.96	.04	.03	.05	.03
28	.03	.03	.98	.05	62.50	12.17	227.65	119.18	.04	.12	.14	.03
29	.03	.03	1.29	.05	70.02	57.76	226.70	112.15	.04	.81	.14	.04
30	.03	.03	1.61	.05	-	115.37	223.08	106.87	.04	.67	.10	.15
31	.03	-	.69	.04	-	138.76	-	102.28	-	.43	.06	-

Elevation and contents, 1943-44

Date	Elevation (feet)†	Contents (thousands of acre-feet)	Change in contents during month (equivalent, second-feet)
Sept. 30.....	196.69	1.84	-
Oct. 31.....	192.90	.03	-29.4
Nov. 30.....	193.06	.03	0
Dec. 31.....	195.37	.19	+2.60
Calendar year 1943.....	-	-	-56.1
Jan. 31.....	193.43	.04	-2.44
Feb. 29.....	215.49	74.17	+1,289
Mar. 31.....	221.65	144.09	+1,137
Apr. 30.....	226.36	220.03	+1,276
May 31.....	218.00	98.95	-1,969
June 30.....	193.19	.04	-1,662
July 31.....	196.79	.86	+10.1
Aug. 31.....	198.49	1.68	+16.6
Sept. 30.....	195.13	.18	-25.7
Water year 1944.....	-	-	-2.33

† Elevation at 12 p.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Coldwater River at Arkabutla Dam, near Arkabutla, Miss.

Location.- Water-stage recorder, lat. 34°45'30", long. 90°07'35", in SW¼ sec. 2, T. 4 S., R. 9 W. Chickasaw meridian, 370 feet downstream from outlet tunnel of Arkabutla Dam and 4 miles north of Arkabutla. Datum of gage is 171.29 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,000 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- January 1942 to September 1944 in reports of Geological Survey.

August to December 1941 (unpublished) in files of War Department, Corps of Engineers, U. S. Army, Vicksburg, Miss.

Extremes (regulated).- Maximum discharge during year, 4,610 second-feet May 21; maximum gage height, 18.50 feet Feb. 11; minimum discharge; no flow at times.

1942-44: Maximum discharge observed, 10,200 second-feet Apr. 12, 1942 (gage height, 27.7 feet); no flow at times each year.

Remarks.- Records good except those for period of indefinite stage-discharge relation, which are fair. Flow partly regulated by Arkabutla Reservoir (see preceding page). Records of daily discharge not corrected for storage in Arkabutla Reservoir.

Cooperation.- Gage-height record, 33 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	121	127	307	162	3,840	2,200	3,030	4,050	151	687	1,190
2	0	123	128	514	154	3,790	2,230	3,070	4,310	151	309	1,660
3	0	129	129	934	155	3,700	2,410	3,070	4,140	146	189	1,810
4	e464	130	129	e431	158	3,700	2,410	3,200	3,980	140	167	1,880
5	499	123	128	e969	154	3,660	2,340	3,480	3,790	140	159	1,950
6	235	128	133	1,600	155	3,520	2,310	3,430	3,610	146	152	1,810
7	212	242	138	1,140	162	3,430	2,270	3,300	3,480	156	148	1,450
8	205	742	140	594	534	3,340	2,230	3,160	3,560	156	140	1,030
9	205	964	137	242	2,160	3,200	2,460	3,120	3,980	146	140	639
10	205	594	144	191	3,200	3,030	2,640	3,070	3,790	140	171	298
11	205	334	191	177	4,060	2,910	2,790	h3,070	3,610	140	237	195
12	e61	371	227	177	3,700	2,750	2,910	h3,060	3,430	140	167	165
13	0	212	173	170	3,660	2,600	2,870	2,970	3,500	140	281	152
14	0	169	154	164	3,610	2,450	2,750	2,880	2,930	156	375	e128
15	e260	151	149	169	3,520	2,340	2,680	2,800	2,430	146	246	139
16	212	145	136	184	3,430	2,270	2,640	2,720	1,990	135	175	132
17	140	141	128	191	3,380	2,130	2,560	h2,670	1,490	130	142	126
18	129	136	128	198	3,580	1,740	2,530	h2,590	904	130	130	122
19	127	134	128	212	3,700	1,470	2,450	h2,510	330	130	127	121
20	127	134	128	235	3,700	1,710	2,450	3,610	178	130	122	115
21	127	134	129	227	4,020	2,270	2,490	4,610	151	128	116	115
22	125	e87	129	205	3,740	2,340	2,450	e2,770	140	127	116	115
23	123	0	132	191	3,920	2,410	2,790	e758	135	126	116	111
24	123	e206	132	177	3,880	2,340	3,070	3,700	130	124	124	106
25	123	177	375	166	3,980	2,200	3,070	4,140	151	124	546	106
26	123	136	844	171	3,880	1,980	3,160	4,030	166	124	289	104
27	118	129	934	220	3,880	2,090	3,300	3,890	162	133	221	105
28	118	130	784	212	3,560	2,560	3,250	3,790	156	495	411	105
29	121	129	904	198	3,740	2,090	3,160	3,660	156	807	399	151
30	121	129	934	184	-	2,410	3,120	3,560	151	735	298	411
31	121	-	570	173	-	2,310	-	3,480	-	663	663	-

Month	Observed				Change in contents (equivalent, second-feet)†	Corrected for change in reservoir contents		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Runoff in inches
October.....	4,649	499	0	150	-29.5	120	0.120	0.14
November.....	6,480	964	0	216	0	216	.216	.24
December.....	8,742	934	127	282	+2.60	285	.285	.33
Calendar year 1943 ..	287,918	7,180	0	789	-56.1	733	.733	9.92
January.....	10,923	1,600	164	352	-2.44	350	.350	.40
February.....	77,634	4,060	154	2,677	+1,289	3,966	3.97	4.28
March.....	82,580	3,840	1,470	2,664	+1,137	3,801	3.80	4.38
April.....	79,980	3,300	2,200	2,666	+1,276	3,942	3.94	4.40
May.....	99,378	4,610	758	3,206	-1,969	1,237	1.24	1.43
June.....	60,782	4,310	130	2,026	-1,662	364	.364	.41
July.....	6,435	807	124	208	+10.1	218	.218	.26
August.....	7,563	687	116	244	+16.6	261	.261	.30
September.....	16,539	1,950	104	551	-25.7	525	.525	.59
Water year 1943-44 ..	461,685	4,610	0	1,261	-2.33	1,259	1.26	17.15

† Change in contents of Arkabutla Reservoir.

e Stage-discharge relation indefinite; computed on basis of gate operations.

h Computed from staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pigeonroost Creek near Lewisburg, Miss.

Location.- Water-stage recorder, lat. 34°49'49", long. 89°49'20", in NW¼ sec. 15, T. 3 S., R. 6 W. Chickasaw meridian, at county highway bridge, 1.6 miles upstream from mouth and 2.4 miles south of Lewisburg. Datum of gage is 253.17 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 292 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- October 1941 to September 1944 in reports of Geological Survey.

December 1939 to September 1941 (unpublished) in files of War Department, Corps of Engineers, U. S. Army, Vicksburg, Miss.

Extremes.- Maximum discharge during year, 6,110 second-feet Apr. 23 (gage height, 10.96 feet); minimum, 37 second-feet July 25; minimum gage height, 2.25 feet Nov. 6, 1941-44; Maximum discharge, 34,900 second-feet Apr. 9, 1942 (gage height, 12.2 feet, from graph based on gage readings), from rating curve extended above 4,500 second-feet; minimum, 37 second-feet at times each year; minimum gage height observed, 0.98 foot July 21, 1942.

Remarks.- Records fair.

Cooperation.- Gage-height record, 18 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made, and records reviewed by Geological Survey.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1, 2, Dec. 26, 27)

Oct. 1 to Mar. 29

Mar. 30 to Sept. 30

2.3	38	6.0	525	9.2	2,050	2.7	38	5.5	321	9.7	2,070
2.5	41	6.5	624	9.6	2,590	2.9	43	7.3	636	9.9	2,420
2.7	51	7.5	896	10.0	3,230	3.3	67	8.1	860	10.3	3,620
2.9	69	8.0	1,120	10.7	5,170	4.2	152	9.0	1,260		
3.3	120	8.6	1,510								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	38	42	52	50	285	a955	78	57	40	57	1,050
2	41	38	41	51	50	194	a700	161	51	40	44	147
3	41	38	41	50	53	180	a576	74	51	40	42	99
4	40	38	41	141	51	507	a480	1,720	50	40	42	81
5	40	38	40	88	50	216	a390	1,730	57	41	42	76
6	40	58	42	74	56	147	a300	240	58	40	41	146
7	39	851	40	64	52	150	a220	117	48	40	40	78
8	39	230	40	60	2,790	101	al,000	94	47	39	40	66
9	39	69	40	60	3,580	89	1,610	85	627	39	109	65
10	39	58	41	60	395	88	844	77	236	38	45	62
11	39	53	44	62	177	85	2,270	71	64	38	40	62
12	38	52	41	63	138	80	449	70	52	38	40	61
13	39	50	40	60	106	76	130	66	126	38	41	61
14	38	49	40	63	210	71	99	63	63	38	39	60
15	38	48	40	71	165	70	92	61	50	38	38	60
16	39	48	40	68	129	69	74	59	47	38	38	59
17	38	47	40	69	2,360	70	65	59	44	38	38	59
18	38	46	40	71	855	70	63	58	43	38	38	59
19	38	46	40	76	190	3,110	60	57	42	38	38	59
20	38	46	40	71	2,590	1,060	774	55	42	38	38	58
21	38	44	40	64	731	222	160	56	40	38	38	57
22	38	43	40	60	948	158	77	56	41	38	38	56
23	38	42	40	56	862	606	3,900	56	41	38	39	56
24	38	42	39	55	238	230	2,140	80	42	38	38	56
25	38	42	285	55	168	130	212	341	48	37	38	56
26	38	43	147	60	3,580	101	755	66	41	38	38	54
27	38	43	71	59	2,930	3,670	589	57	40	822	138	54
28	38	42	436	60	2,140	4,450	142	160	40	496	42	54
29	38	42	126	56	1,560	5,230	98	257	40	75	38	122
30	38	42	65	55	-	a2,600	79	331	40	266	62	68
31	38	-	57	51	-	al,380	-	76	-	341	1,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Persquare mile	Runoff in inches
October	1,201	42	38	38.7	0.133	0.15
November	2,364	851	38	78.8	.270	.30
December	2,159	436	39	69.6	.238	.27
Calendar year 1943	57,686	7,310	37	158	.541	7.35
January	3,107	617	51	100	.342	.40
February	27,194	3,580	50	938	3.21	3.46
March	25,506	5,230	69	823	2.82	3.25
April	19,502	3,900	60	650	2.23	2.48
May	6,531	1,730	55	211	.723	.83
June	2,268	627	40	76.6	.269	.29
July	3,004	922	37	96.9	.332	.38
August	7,799	1,400	58	90.3	.309	.38
September	3,101	1,050	54	103	.353	.39
Water year 1943-44	98,736	5,230	37	270	.925	12.66

a No gage-height record; discharge computed on basis of records for Coldwater River near Lewisburg.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Yalobusha River at Graysport, Miss.

Location.— Water-stage recorder and wire-weight gage, lat. 33°49', long. 89°37', in E½ sec. 36, T. 23 N., R. 6 E. Choctaw meridian, at bridge on State Highway 8 (old), half a mile north of Graysport, half a mile downstream from Buttputer Creek, 4½ miles upstream from Redgrass Creek, 11 miles east of Grenada, and 11½ miles upstream from Skuna River.

Drainage area.— 607 square miles.

Records available.— March 1940 to September 1944.

Extremes.— Maximum discharge during year, 39,100 second-feet Mar. 29 (gage height, 27.00 feet), from rating curve extended above 15,000 second-feet; minimum observed, 3.2 second-feet at times in October; minimum gage height observed, 4.68 feet Oct. 6, 11. 1940-44: Maximum discharge, that of Mar. 29, 1944; minimum observed, 3.2 second-feet at times in August, September, October 1943; minimum gage height observed, 4.68 feet Sept. 14-18, Oct. 6, 11, 1943.

Remarks.— Records good. Wire-weight gage read twice daily, and used when stage was below intake and for periods of faulty intake action.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 6 to Nov. 6, Nov. 14 to Dec. 25)

Oct. 1 to Mar. 29					Mar. 30 to Sept. 30				
4.8	3.4	8.8	176	21.8	2,920	5.0	6.9	7.2	88
5.0	4.4	10.0	274	22.3	3,650	5.2	10	8.0	136
5.2	6.2	12.0	475	22.6	5,250	5.4	14	9.5	247
5.4	9.1	14.0	723	23.3	7,900	5.7	23	11.5	447
5.6	14	17.6	1,260	23.9	11,000	6.3	44	14.0	748
6.2	33	20.0	1,660	25.0	19,600	6.7	61	17.6	1,260
6.8	59	20.7	1,820	26.0	28,600				
7.6	100	21.2	2,170						
Note.- Same as preceding table above 17.6 feet.									

Note.— Same as preceding table above 17.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	3.8	8.3	66	124	3,740	5,950	1,440	94	7.5	372	93
2	3.3	8.0	8.0	363	190	3,250	3,970	1,300	68	7.4	223	91
3	3.2	7.5	7.8	1,220	1,330	2,770	3,150	1,596	54	7.2	136	63
4	3.2	6.0	8.3	1,260	1,590	2,270	2,560	1,320	47	6.6	88	43
5	3.2	6.7	8.9	1,010	1,620	1,820	1,930	4,300	44	12	61	35
6	3.2	11	9.7	557	1,590	1,360	1,440	5,770	40	13	50	83
7	3.2	879	11	274	1,250	1,410	644	5,420	37	11	44	164
8	3.2	1,060	11	169	528	1,730	392	4,220	35	9.5	32	239
9	3.2	684	11	133	765	2,080	352	3,430	33	8.2	26	239
10	3.2	283	13	109	1,060	2,630	436	2,640	30	8.2	139	146
11	3.2	169	15	89	908	2,700	1,210	2,170	26	8.0	71	88
12	3.2	112	15	74	632	2,320	1,610	1,620	25	70	38	60
13	3.2	76	16	63	390	1,820	1,660	660	23	60	317	45
14	3.3	56	13	58	350	1,330	1,710	239	26	30	842	34
15	3.4	43	12	142	606	475	1,870	178	27	19	572	28
16	3.4	35	9.5	380	569	274	2,000	146	23	13	250	24
17	3.3	28	9.7	475	569	222	1,930	124	19	10	130	20
18	3.3	23	9.1	410	710	194	1,660	103	17	8.1	82	14
19	3.3	18	8.8	233	737	640	940	88	16	7.4	61	12
20	3.2	16	8.6	202	632	1,300	1,110	79	27	7.2	51	10
21	3.3	14	8.8	155	545	1,420	1,560	79	21	457	38	8.9
22	3.3	12	8.8	121	497	1,440	1,610	132	16	364	30	7.6
23	3.2	11	9.1	100	1,090	1,500	1,680	491	13	100	25	7.4
24	3.2	10	9.9	84	1,620	1,500	1,680	425	12	40	22	7.0
25	3.3	10	25	90	2,560	1,360	1,660	256	10	24	18	7.0
26	3.7	9.7	56	751	5,090	793	1,680	171	10	17	16	6.8
27	3.7	9.5	69	893	6,350	1,730	1,660	130	9.8	13	14	6.5
28	3.6	9.1	133	521	5,590	6,590	1,660	100	9.1	107	14	7.0
29	3.5	8.8	214	292	4,630	30,900	1,470	79	8.2	458	14	14
30	3.5	8.5	162	206	-	31,300	1,440	144	8.0	425	14	55
31	3.6	-	106	158	-	14,800	-	192	-	447	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	102.9	3.7	3.2	3.32	0.0055	0.006
November	3,627.4	1,060	3.8	121	.199	.22
December	1,015.3	214	7.8	32.8	.054	.06
Calendar year 1943	92,465.4	7,140	3.2	253	.417	5.66
January	10,728	1,260	58	346	.570	.66
February	44,112	6,350	124	1,521	2.51	2.70
March	129,668	31,300	194	4,183	6.89	7.94
April	52,534	5,950	352	1,751	2.88	3.22
May	38,242	5,770	79	1,234	2.03	2.34
June	828.1	94	8.0	27.6	.045	.05
July	2,775.3	458	6.6	89.5	.147	.17
August	3,621	842	14	123	.203	.23
September	1,658.2	239	6.5	55.3	.091	.10
Water year 1943-44	289,112.2	31,300	3.2	790	1.30	17.70

Note.— Stage below intake or intake action faulty Oct. 1 to Nov. 6, Nov. 18 to Dec. 24, June 2 to July 11, July 14-20, 25-27, Aug. 8, 9, 21-30, Sept. 14-30; discharge computed on basis of wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Yalobusha River at Grenada, Miss.

Location.- 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 Railroad 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 152.06 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

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 1944 in reports of Geological Survey. December 1931 to September 1938 in reports of Corps of Engineers, U. S. Army.

Average discharge.- 11 years (1908-9, 1910-11, 1928-31, 1938-44), 1,633 second-feet.

Extremes.- Maximum discharge observed during year, 76,800 second-feet Mar. 29 (gage height, 30.53 feet); minimum observed, 38 second-feet Oct. 12 (gage height, 4.30 feet). 1906, 1908-12, 1928-31, 1938-44: Maximum discharge observed, that of Mar. 29, 1944; minimum discharge, 35 second-feet Sept. 8, 19, 20, Nov. 20, 1909 (gage height, 0.9 foot).

Remarks.- Records good. Gage read twice daily.

Cooperation.- Gage-height record, 27 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	40	69	530	484	15,900	28,700	2,570	426	68	1,140	303
2	45	51	69	2,040	918	12,300	14,200	2,110	426	63	700	609
3	42	66	69	3,170	4,460	9,910	10,900	1,870	347	63	359	522
4	42	54	69	3,050	4,740	7,740	8,270	4,750	310	61	321	303
5	42	51	69	2,830	3,940	6,040	6,040	13,300	224	59	250	216
6	40	184	69	2,560	2,980	5,100	4,750	12,000	179	58	192	398
7	40	3,320	69	1,640	2,560	4,620	3,620	11,700	179	57	160	609
8	40	3,020	73	650	2,040	3,860	2,030	12,900	165	57	146	677
9	40	2,410	73	484	2,000	3,710	1,610	11,100	179	56	146	543
10	40	1,820	73	438	2,560	3,560	1,800	8,650	240	53	146	438
11	40	1,050	78	370	3,060	3,360	4,860	6,140	274	51	176	285
12	38	415	78	307	2,940	3,320	6,840	4,800	426	49	233	192
13	40	235	78	288	2,000	3,290	8,090	3,520	292	90	700	160
14	42	184	78	270	1,400	3,130	9,260	1,560	193	146	1,090	153
15	42	160	78	507	1,890	2,680	8,270	835	146	122	1,020	131
16	40	139	73	1,050	2,000	1,610	6,470	667	134	84	700	104
17	40	114	73	1,250	2,260	943	5,100	532	122	62	378	90
18	40	103	69	1,290	2,330	968	4,150	468	117	53	216	84
19	40	92	65	1,200	2,910	2,560	3,670	426	106	50	285	81
20	40	87	65	993	2,750	3,210	4,550	426	95	73	438	79
21	40	82	65	698	2,410	3,210	5,000	621	95	310	285	72
22	40	78	65	554	2,340	3,320	5,000	1,090	95	406	153	69
23	40	73	65	415	3,860	3,320	5,660	1,870	95	398	131	66
24	40	73	65	348	6,250	3,060	5,490	1,640	90	192	176	65
25	40	68	132	307	7,740	2,790	5,150	1,550	84	117	131	61
26	40	69	307	1,680	9,050	2,790	4,700	861	78	104	104	57
27	40	69	307	2,940	13,300	7,410	4,450	532	78	97	90	52
28	40	69	507	2,340	22,000	33,500	4,350	447	73	216	97	61
29	40	69	698	1,290	20,000	72,300	4,050	366	68	285	97	340
30	40	69	650	794	-	70,800	3,520	347	68	1,140	90	418
31	40	-	507	625	-	50,500	-	406	-	1,730	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,258	45	38	40.6	0.086	0.03
November	14,314	3,320	40	477	.308	.34
December	4,805	698	65	155	.100	.12
Calendar year 1943	287,060	16,000	38	786	.507	6.88
January	36,799	3,170	270	1,187	.786	.88
February	137,672	22,000	484	4,747	3.06	3.30
March	350,611	72,300	843	11,310	7.30	8.41
April	190,540	28,700	1,610	6,351	4.10	4.57
May	109,855	13,300	347	3,544	2.29	2.64
June	5,404	426	68	180	.116	.13
July	6,370	1,730	49	205	.132	.15
August	10,274	1,140	90	351	.214	.25
September	7,238	677	52	241	.155	.17
Water year 1943-44	875,140	72,300	38	2,391	1.54	20.99

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Skuna River near Coffeeville, Miss.

Location.- Water-stage recorder and staff gage, 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, ¾ miles upstream from Turkey Creek, 5 miles south of Coffeeville, and 9¼ miles upstream from mouth.

Drainage area.- 435 square miles.

Records available.- March 1940 to September 1944.

Extremes.- Maximum discharge during year, 44,000 second-feet Mar. 29 (gage height, 23.22 feet), from rating curve extended above 16,000 second-feet by velocity-area studies; minimum observed, 5.8 second-feet Oct. 4, 5 (gage height, 3.20 feet).

1940-44: Maximum discharge, that of Mar. 29, 1944; minimum, that of Oct. 4, 5, 1943.

Remarks.- Records good except those above 16,000 second-feet, which are fair. Staff gage read twice daily, and used for periods when clock was stopped or intake action was faulty.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 6 to Nov. 6, Apr. 23 to May 5,
June 16 to July 11, Aug. 3-18)

Oct. 1 to Mar. 29						Mar. 30 to Sept. 30					
3.3	7.6	8.5	505	18.6	5,550	3.3	7.6	5.5	123	15.0	1,430
3.5	12	11.0	881	19.2	7,910	3.5	12	6.5	212	16.0	1,800
3.8	20	13.0	1,250	20.2	13,500	3.8	20	8.0	375	17.0	2,370
4.1	32	16.0	2,010	20.8	17,700	4.1	32	12.0	895	17.4	2,710
4.5	52	17.0	2,480	21.8	26,700	4.5	52	14.0	1,210	17.8	3,340
4.9	80	17.5	2,840	22.8	38,400						
5.5	137	17.8	3,340								
6.5	248	18.2	4,320								

Note.- Same as preceding table above 17.8 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	8.0	16	66	88	6,840	4,790	202	99	12	296	329
2	6.5	10	16	253	159	3,360	2,160	169	84	11	174	348
3	6.5	11	16	894	833	1,780	982	147	135	11	103	127
4	6.0	12	16	1,290	949	644	599	734	69	10	62	55
5	6.0	11	16	1,340	547	397	411	2,250	47	9.7	44	65
6	6.5	15	16	446	278	320	296	6,640	39	10	39	252
7	7.2	578	17	162	195	593	247	5,900	34	11	37	435
8	7.4	1,040	17	105	179	1,210	217	3,050	31	11	30	260
9	7.2	1,170	18	90	531	1,040	217	1,260	31	9.7	27	97
10	7.2	461	18	83	1,130	371	318	360	32	9.7	31	46
11	7.2	115	19	75	1,530	242	1,780	227	a95	29	121	31
12	7.4	56	20	67	1,010	206	5,490	178	a60	17	91	26
13	8.9	38	19	59	423	190	6,640	147	a35	53	101	23
14	8.9	29	19	54	288	179	3,440	123	28	35	89	20
15	8.4	21	18	102	626	152	1,600	108	27	20	77	19
16	8.4	19	18	173	708	137	521	96	25	15	44	18
17	8.2	18	17	254	678	125	296	85	22	14	31	17
18	7.8	18	16	345	1,190	113	237	77	21	13	66	15
19	7.8	18	16	290	1,600	256	197	69	20	11	329	14
20	7.6	17	16	206	1,040	875	866	95	19	11	109	14
21	7.6	16	15	142	575	1,250	1,740	147	19	11	34	14
22	7.6	16	15	103	693	847	3,800	187	18	11	22	14
23	7.4	16	15	78	881	477	2,080	329	17	12	18	16
24	8.0	16	18	65	1,600	533	1,040	252	16	15	16	13
25	8.2	16	36	82	1,870	436	491	217	16	12	14	12
26	8.0	16	77	491	3,180	423	348	151	15	11	14	12
27	8.0	16	103	533	9,380	2,090	599	98	15	11	14	12
28	8.0	16	142	358	11,900	22,100	825	76	14	238	14	28
29	7.8	16	212	218	9,910	38,400	755	64	13	881	14	68
30	8.2	16	248	162	-	22,600	320	123	12	940	17	27
31	8.2	-	120	117	-	11,000	-	102	-	573	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	234.6	8.9	6.0	7.57	0.017	0.02
November	3,825.0	1,170	8.0	128	.294	.33
December	1,345	248	15	43.4	.010	.01
Calendar year 1943	79,592.1	9,700	6.0	218	.501	6.72
January	8,703	1,340	54	281	.646	.74
February	53,771	11,900	88	1,854	4.26	4.60
March	119,186	38,400	113	3,845	8.84	10.19
April	43,302	6,640	197	1,443	3.32	3.70
May	23,663	6,640	64	763	1.75	2.02
June	1,108	135	12	36.9	.085	.09
July	3,038.1	940	9.7	88.0	.225	.26
August	2,129	389	14	68.7	.158	.18
September	2,447	435	12	81.6	.188	.21
Water year 1943-44	262,751.7	38,400	6.0	718	1.65	22.35

a No gage-height record; discharge computed on basis of fragmentary recorder record and records for Yalobusha River at Grenada and Graysport.

Note.- Water below intakes or intakes clogged Oct. 1 to Nov. 6, Nov. 15 to Dec. 24, Sept. 18-22, 25-27, and recorder clock stopped July 7 to Aug. 1; discharge computed on basis of staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sunflower River at Sunflower, Miss.

Location.- Wire-weight gage, lat. 33°32'50", long. 90°32'35", in NE¼ sec. 6, T. 19 N., R. 3 W. Choctaw meridian, at bridge on U. S. Highway 49W (old), half a mile north-west of Sunflower, 2½ miles downstream from Jones Bayou, and 19 miles upstream from Quiver River. Datum of gage is 92.95 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 780 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- October 1933 to September 1944 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, 7,520 second-feet Apr. 1 (gage height, 23.26 feet); minimum observed, 154 second-feet Oct. 18-23; minimum gage height observed, 1.24 feet Dec. 18-22.
1933-44: Maximum discharge observed, that of Apr. 1, 1944; minimum observed, that of Oct. 18-23, 1943.

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Gage-height record, 19 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	167	167	167	290	326	4,460	7,380	1,960	1,120	314	208	452
2	167	174	167	326	359	4,380	7,240	1,820	1,100	302	217	515
3	167	174	167	547	722	4,160	6,830	1,840	1,060	290	208	531
4	167	174	167	668	1,360	3,850	6,350	2,280	945	279	208	531
5	167	174	167	704	1,560	3,520	5,690	3,120	850	268	208	515
6	167	182	167	581	1,480	3,240	5,260	3,570	776	268	199	499
7	167	237	167	483	1,280	2,940	4,910	3,790	722	257	199	467
8	167	422	174	407	1,120	2,600	4,500	3,820	740	247	199	393
9	167	483	174	365	1,120	2,320	4,160	3,720	758	237	199	352
10	167	452	174	314	1,260	2,080	3,880	3,520	740	227	199	302
11	160	393	174	290	1,560	1,620	4,120	3,280	698	227	199	257
12	160	359	174	268	1,660	1,560	4,090	3,020	598	217	199	237
13	160	290	174	279	1,600	1,080	3,920	2,720	531	208	208	227
14	160	247	174	279	1,480	850	3,660	2,400	467	199	199	217
15	160	217	174	326	1,520	668	3,400	2,080	437	199	199	208
16	160	199	174	407	1,340	564	3,160	1,760	452	199	199	199
17	160	190	167	483	1,240	467	2,900	1,480	467	190	199	162
18	154	182	167	564	1,350	422	2,800	1,240	437	182	199	174
19	154	182	167	704	1,820	547	2,300	1,040	422	182	199	167
20	154	174	167	812	1,560	704	2,220	868	393	182	190	160
21	154	174	167	812	1,500	740	2,160	758	352	182	190	160
22	154	174	167	776	1,440	722	2,080	794	326	182	190	167
23	154	174	167	704	1,640	758	2,320	1,340	314	182	190	174
24	160	167	174	650	1,960	776	2,540	1,800	302	182	199	174
25	167	167	208	564	2,500	740	2,700	2,140	290	182	199	167
26	167	167	237	483	2,900	740	2,640	2,200	290	182	208	167
27	167	167	268	452	3,630	1,360	2,540	2,100	290	162	217	174
28	167	167	279	407	4,120	2,920	2,420	1,900	290	190	217	174
29	167	167	288	393	4,380	5,010	2,280	1,680	302	190	217	182
30	167	167	326	379	-	6,590	2,120	1,460	314	190	227	182
31	167	-	314	352	-	7,580	-	1,260	-	199	352	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	5,043	167	154	163	0.209	0.24
November	6,743	463	167	225	.288	.32
December	5,978	326	167	193	.247	.29
Calendar year 1943	202,664	5,100	154	555	.712	9.67
January	15,069	812	268	486	.623	.72
February	49,477	4,380	326	1,706	2.19	2.56
March	69,568	7,380	422	2,244	2.88	3.32
April	112,470	7,380	2,080	3,749	4.81	5.36
May	66,780	3,820	758	2,154	2.76	3.18
June	16,771	1,120	290	559	.717	.80
July	6,717	314	182	217	.278	.32
August	6,440	352	190	208	.267	.31
September	8,308	551	160	277	.355	.40
Water year 1943-44	369,362	7,380	154	1,009	1.29	17.62

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big Black River at Pickens, Miss.

Location.- Water-stage recorder, lat. 32°52'45", long. 89°56'05", in SW 1/4 sec. 14, T. 12 N., R. 3 E. Choctaw meridian, at bridge on U. S. Highway 51 (old), half a mile south-east of Pickens, 6 miles downstream from Seneasha Creek, and 6 miles upstream from Cypress Creek. Datum of gage is 196.26 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (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 1944 in reports of Geological Survey. July 1936 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 35,900 second-feet Mar. 31 (gage height, 20.34 feet); minimum, 39 second-feet Oct. 27 (gage height, 2.30 feet).

1938-44: Maximum discharge, that of Mar. 31, 1944; minimum, 27 second-feet Aug. 31, Sept. 1, 1943 (gage height 2.15 feet).

Maximum stage known 23.7 feet Dec. 29, 1926, from information by local residents. According to information from local residents, floods of 1892 and May 1930 reached a stage of about 23.5 feet.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	42	a70	493	1,270	13,100	29,600	3,700	537	132	2,650	140
2	62	44	a90	683	782	11,400	20,200	3,160	461	122	2,780	169
3	56	45	a100	1,920	1,020	9,500	14,300	2,530	108	108	1,600	162
4	54	60	a95	2,160	2,190	7,980	10,900	1,960	378	105	653	180
5	52	85	a85	2,120	2,610	6,850	8,800	2,680	315	157	438	204
6	50	140	a85	1,920	2,690	5,990	7,360	3,700	269	325	353	183
7	47	286	a85	1,720	2,610	5,450	6,210	10,400	245	253	274	176
8	49	1,100	a90	1,390	2,490	4,980	5,190	24,400	223	203	234	164
9	50	1,570	a90	798	2,490	4,320	4,050	15,600	205	147	197	219
10	52	1,460	a95	512	2,530	3,670	2,490	11,400	216	114	234	219
11	51	1,100	a95	456	2,230	3,590	2,530	8,800	197	101	176	155
12	44	638	92	421	1,790	3,480	3,320	7,360	278	94	211	148
13	44	347	90	429	1,540	3,480	3,530	6,210	253	108	169	150
14	44	224	91	493	1,190	3,590	3,260	5,190	269	114	573	123
15	43	167	89	1,040	1,020	3,530	2,970	3,760	437	137	1,690	114
16	45	137	86	1,690	1,020	2,610	2,790	1,620	269	132	2,090	107
17	45	118	84	1,790	1,020	1,390	2,830	1,210	203	103	2,260	100
18	44	106	78	1,690	1,130	1,060	3,060	1,000	173	87	1,660	95
19	46	98	75	1,690	1,690	2,930	3,210	738	157	79	894	89
20	45	93	71	1,570	2,260	7,030	3,640	602	152	74	448	86
21	47	87	70	1,130	2,230	6,730	4,250	511	152	70	308	81
22	49	85	70	708	1,920	5,790	4,390	766	132	71	250	79
23	44	81	83	532	2,820	5,310	3,990	1,660	122	69	258	76
24	46	78	94	447	3,990	4,980	3,700	2,120	118	64	190	73
25	43	75	161	412	5,460	4,620	3,590	1,990	110	93	169	72
26	41	74	251	833	8,800	4,460	3,590	1,860	111	88	160	72
27	40	75	347	1,540	15,500	7,360	4,050	1,420	112	72	160	71
28	40	71	483	1,920	14,300	16,800	4,250	970	100	75	160	73
29	41	71	616	1,800	13,700	26,600	4,120	766	99	105	151	79
30	42	71	661	1,820	-	25,100	3,990	1,210	112	118	143	80
31	42	-	594	1,720	-	34,300	-	738	-	1,350	131	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,462	65	40	47.2	0.032	0.04
November	8,646	1,570	42	288	.197	.22
December	5,166	661	70	167	.114	.13
Calendar year 1943	250,798	8,300	28	687	.471	6.38
January	37,937	2,160	412	1,224	.838	.97
February	104,282	15,600	782	3,596	2.46	2.66
March	248,170	34,300	1,050	6,005	5.48	6.32
April	180,150	29,600	2,490	6,005	4.11	4.59
May	130,031	24,400	511	4,195	2.87	3.51
June	6,840	537	99	228	.156	.17
July	4,870	1,350	64	157	.108	.12
August	21,874	2,780	131	706	.484	.56
September	3,739	219	71	125	.086	.10
Water year 1943-44	753,167	34,300	40	2,058	1.41	19.19

a No gage-height record; discharge computed on basis of recorded range in stage and records for station near Bovina.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big Black River near Bovina, Miss.

Location.— Water-stage recorder, lat. 32°20'51", long. 90°41'46", in SE¼ sec. 22, T. 16 N., R. 5 E. Washington meridian, at bridge on U. S. Highway 80, 300 feet upstream from Clear Creek, 0.4 mile upstream from Yazoo & Mississippi Valley Railroad bridge, 2 miles east of Bovina, and 12 miles upstream from Fourteenmile Creek. 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 1944 in reports of Geological Survey. January 1936 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.— Maximum discharge during year, 44,400 second-feet Apr. 1 (gage height, 39.04 feet); minimum, 73 second-feet Nov. 1, 2 (gage height, 7.39 feet).
1938-44: Maximum discharge, that of Apr. 1, 1944; minimum, that of Nov. 1, 2, 1943.

Remarks.— Records good.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 17-25, Aug. 29 to Sept. 30)

Oct. 1 to Apr. 1,
Aug. 5 to Sept. 30

Apr. 2 to Aug. 4

7.4	74	21.0	4,060	35.0	15,300	7.8	124	14.0	1,510
8.0	179	24.0	5,320	36.0	17,600	8.4	217	18.0	2,620
9.0	399	28.0	7,850	36.7	20,700	10.0	493	24.0	5,320
13.0	1,400	30.0	9,300	37.5	26,900	11.5	803		
17.0	2,630	34.0	14,000	38.5	37,700				

Note.— Same as preceding table above 24.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	177	73	150	914	2,020	11,100	44,400	6,590	2,080	225	175	376
2	153	78	150	1,460	1,990	11,600	41,600	6,160	2,040	209	168	296
3	142	77	150	2,470	1,940	13,500	39,000	5,850	1,760	193	618	307
4	127	76	197	2,570	1,490	15,300	36,500	5,900	1,180	209	1,450	233
5	117	76	250	2,660	1,330	15,900	34,100	6,940	756	316	2,020	210
6	110	82	210	2,730	1,780	15,500	27,800	6,650	627	333	1,870	228
7	103	2,470	177	2,760	2,310	14,600	21,300	6,320	549	265	1,170	220
8	99	1,900	163	2,630	2,630	13,500	17,000	6,060	493	290	739	252
9	94	1,140	159	2,310	2,660	12,400	15,000	5,850	457	290	814	281
10	91	864	163	1,960	2,990	11,300	13,500	5,560	421	333	531	250
11	89	1,220	165	1,820	2,990	10,400	12,000	5,230	385	307	411	222
12	86	1,520	165	1,040	2,960	9,500	10,700	5,420	394	275	353	216
13	89	1,460	169	814	2,920	8,720	9,500	6,480	358	241	490	245
14	91	1,200	175	964	2,890	8,110	8,630	8,450	358	257	1,570	250
15	91	639	171	1,460	2,730	7,400	7,710	10,400	367	249	708	216
16	88	591	161	2,210	2,500	6,590	6,650	11,200	385	185	555	212
17	84	435	155	2,630	2,630	5,650	5,700	10,800	395	177	579	222
18	80	541	153	2,820	2,370	4,760	7,350	9,900	430	185	1,220	185
19	80	296	151	2,860	2,750	7,680	7,710	8,810	421	209	1,630	167
20	78	254	150	2,660	4,220	8,630	7,400	7,550	358	201	1,870	151
21	80	228	148	2,310	4,840	8,720	7,710	4,950	316	183	1,780	142
22	82	210	146	1,990	4,800	9,600	7,790	2,140	290	163	1,220	136
23	80	197	155	1,720	6,660	12,000	7,790	2,200	265	148	739	126
24	83	185	163	1,300	7,950	14,300	7,870	2,570	257	138	555	120
25	85	175	250	939	8,110	14,800	7,870	2,970	249	130	447	115
26	83	169	307	739	8,360	14,500	7,870	3,120	233	124	864	112
27	84	167	341	664	9,100	14,500	7,870	2,970	225	124	507	110
28	82	161	435	826	9,900	16,300	7,790	2,600	217	122	639	105
29	78	159	639	1,330	10,700	22,700	7,470	2,170	209	130	411	103
30	76	153	764	1,780	-	31,900	7,000	2,200	217	150	318	103
31	74	-	864	1,990	-	41,600	-	2,240	-	177	296	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	2,956	177	74	95.4	0.034	0.04
November	16,796	2,470	75	530	1.19	.22
December	7,596	864	146	245	.087	.10
Calendar year 1943	558,506	13,300	73	1,530	.544	7.40
January	57,000	2,860	664	1,839	.654	.75
February	120,630	10,700	1,330	4,160	1.48	1.60
March	415,170	41,600	4,750	13,590	4.77	5.49
April	450,580	44,400	5,700	15,020	5.35	5.96
May	176,250	11,200	2,140	5,685	2.02	2.33
June	16,682	2,080	209	556	.198	.22
July	6,536	333	122	211	.075	.09
August	26,717	2,020	168	862	.307	.35
September	5,917	376	103	197	.070	.08
Water year 1943-44	1,302,830	44,400	73	3,560	1.27	17.23

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Homochitto River at Eddiceton, Miss.

Location.- Water-stage recorder, lat. 31°30', long. 90°47', in sec. 11, T. 6 N., R. 4 E. Washington meridian, at Mississippi Central Railroad bridge, 900 feet downstream from bridge on U. S. Highway 84, 0.4 mile upstream from McCall Creek, and three-quarters of a mile east of Eddiceton. Datum of gage is 217.22 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

Drainage area.- 180 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum gage height during year, 13.84 feet Mar. 29 (discharge not determined); minimum discharge, 32 second-feet June 20-26.
1938-44: Maximum gage height, that of Mar. 29, 1944; minimum discharge observed, 25 second-feet Aug. 16, 17, 1939.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	36	42	52	142	145	360	101	72	36	44	104
2	36	37	44	411	122	126	560	101	60	39	41	58
3	36	38	47	515	1,910	122	642	126	55	37	45	49
4	36	37	45	127	757	120	306	407	52	37	45	48
5	36	36	44	89	284	109	240	930	50	36	98	58
6	36	37	44	73	205	109	202	245	49	36	148	56
7	36	141	44	69	159	149	185	149	47	37	62	92
8	36	71	42	73	152	105	167	117	48	37	53	76
9	36	50	41	69	327	91	182	101	62	36	54	52
10	36	44	41	64	225	90	271	90	50	37	50	46
11	36	42	41	63	177	91	167	83	142	41	257	45
12	36	41	40	68	149	91	135	75	92	44	97	43
13	40	40	40	416	140	84	113	75	62	38	74	42
14	40	40	51	507	891	79	109	72	48	36	154	40
15	37	40	58	678	537	76	109	70	42	37	66	39
16	36	40	49	298	262	98	101	70	41	36	52	38
17	36	41	44	157	249	140	91	68	38	37	46	38
18	36	41	41	122	313	128	90	68	37	39	54	39
19	36	41	40	103	2,230	3,990	91	65	36	38	78	37
20	36	40	39	91	1,650	988	547	68	34	37	52	36
21	36	40	38	79	1,290	332	298	69	32	38	55	36
22	36	40	38	75	392	3,140	188	143	32	36	51	35
23	36	40	40	69	262	3,380	169	164	33	36	46	35
24	36	40	50	66	234	569	169	103	33	36	78	34
25	36	40	155	69	210	356	128	83	32	36	228	34
26	37	40	104	81	262	287	172	78	33	36	70	34
27	37	41	65	117	213	1,730	231	73	34	38	58	34
28	36	44	284	2,840	162	3,570	152	69	34	38	119	36
29	36	50	163	743	196	17,100	120	76	34	38	68	42
30	36	44	71	293	-	864	107	62	34	38	54	40
31	36	-	56	193	-	485	-	61	-	41	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Persquare mile	Runoff in inches
October.....	1,127	40	36	36.4	0.202	0.23
November.....	1,352	141	36	45.1	.251	.28
December.....	1,940	284	38	62.6	.348	.40
Calendar year 1943.....	58,215	4,230	32	159	.985	12.03
January.....	8,660	2,840	52	279	1.55	1.79
February.....	14,102	2,230	122	486	2.70	2.91
March.....	38,734	17,100	76	1,249	6.94	8.00
April.....	6,402	642	90	213	1.18	1.32
May.....	4,063	930	61	131	.728	.84
June.....	1,448	142	32	48.3	.268	.30
July.....	1,161	44	36	37.5	.208	.24
August.....	2,494	257	41	80.5	.447	.52
September.....	1,593	104	34	45.4	.253	.29
Water year 1943-44.....	82,976	17,100	32	226	1.26	17.12

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Homochitto River near Bude, Miss.

Location.- Water-stage recorder, lat. 31°26', long. 90°51', in NE $\frac{1}{4}$ sec. 45, T. 6 N., R. 3 E. Washington meridian, at bridge on State highway between Bude and Summit, a quarter of a mile downstream from Porter Creek, 1.6 miles southwest of Bude, and 5.0 miles upstream from Middle Fork.

Drainage area.- 399 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum gage height during year, 14.45 feet Mar. 29 (discharge not determined); minimum discharge, 91 second-feet June 27, 28; minimum gage height, 2.01 feet July 31. 1942-44: Maximum gage height, that of Mar. 29, 1944 (discharge not determined); minimum discharge, that of June 27, 28, 1944; minimum gage height, that of July 31, 1944.

Remarks.- Records fair.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 2, 3, Feb. 26 to Mar. 17, Mar. 30 to Apr. 18,
May 10-22, June 13 to Aug. 5)

Oct. 1 to Apr. 18						Apr. 19 to Sept. 30					
2.5	110	3.8	570	6.5	2,660	10.0	14,900	2.0	101	3.9	897
2.7	143	4.3	824	6.9	3,500	11.0	19,800	2.3	188	4.4	1,180
2.9	189	5.0	1,200	7.5	5,250	11.8	24,600	2.6	287	5.0	1,530
3.1	252	5.6	1,610	8.1	7,370			3.0	445	5.6	1,960
3.4	377	6.1	2,080	8.7	9,700			3.4	633	6.3	2,640

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	112	151	221	368	419	1,040	284	245	109	152	270
2	109	118	g182	1,590	319	368	1,580	291	138	144	121	198
3	109	124	290	1,820	2,000	346	1,540	485	179	135	264	161
4	108	119	212	h482	1,370	328	850	488	164	118	129	161
5	106	114	164	h336	721	307	670	1,650	152	107	319	463
6	106	119	156	h282	531	290	555	618	149	104	437	1,920
7	105	1,360	154	h256	434	328	492	391	141	104	185	1,010
8	105	449	149	h290	391	275	443	309	136	104	144	411
9	105	235	145	h256	1,190	249	415	273	207	104	317	232
10	104	201	143	221	610	238	531	256	182	104	g200	204
11	104	184	143	212	467	242	429	236	522	161	392	188
12	103	172	141	232	377	242	354	232	524	307	332	176
13	120	166	139	1,040	341	228	311	226	484	144	g294	161
14	153	164	204	1,230	1,610	221	319	216	185	149	424	149
15	114	160	294	1,410	1,230	215	453	216	144	129	197	138
16	109	158	186	773	630	228	319	213	126	112	144	132
17	109	149	164	453	600	672	282	200	123	112	129	129
18	109	149	158	359	695	462	315	191	123	121	118	126
19	109	147	151	315	2,560	5,530	375	191	144	129	167	132
20	109	145	147	290	2,200	1,690	1,090	194	126	115	158	135
21	109	145	145	263	2,420	798	856	219	121	115	155	135
22	109	143	145	245	1,010	4,760	530	567	115	112	155	132
23	108	143	162	235	772	5,460	2,650	463	107	107	132	126
24	109	141	232	225	695	1,250	870	270	98	107	430	123
25	109	141	1,120	238	739	772	526	207	98	104	513	129
26	109	141	526	324	1,180	595	748	185	93	98	229	126
27	110	141	303	297	670	2,850	736	191	93	98	252	129
28	110	158	1,140	3,710	536	4,030	454	179	93	93	371	132
29	110	206	562	1,410	492	24,700	355	213	96	93	239	258
30	110	160	307	g635	-	2,650	306	207	104	93	194	182
31	110	-	245	g453	-	1,350	-	271	-	118	232	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	3,391	138	103	109	0.273	0.32
November	6,055	1,350	112	202	.506	.56
December	8,340	1,140	139	269	.674	.78
Calendar year 1943	147,160	8,600	100	403	1.01	13.72
January	19,903	3,710	212	642	1.61	1.96
February	27,168	2,560	319	936	2.35	2.53
March	62,083	24,700	215	2,003	5.02	5.79
April	20,394	2,650	282	680	1.70	1.90
May	10,132	1,650	179	327	.820	.94
June	5,264	524	93	175	.439	.49
July	3,760	307	93	121	.303	.35
August	7,525	513	118	243	.609	.70
September	7,968	1,920	123	265	.664	.74
Water year 1943-44	181,953	24,700	93	497	1.25	16.96

g Computed from graph based on gage readings.

h Computed from wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Homochitto River near Doloroso, Miss.

Location.— Water-stage recorder and wire-weight gage, 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), about 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 1944.

Extremes.— Maximum discharge during year not determined, occurred on Mar. 30 (gage height, 18.56 feet); maximum daily discharge, 44,400 second-feet Mar. 30; minimum discharge observed, 215 second-feet July 25-31; minimum gage height, -3.28 feet Sept. 25-27.

1939-44: Maximum discharge, that of Mar. 30, 1944; maximum daily, that of Mar. 30, 1944; maximum gage height, 21.23 feet, July 4, 1940; minimum discharge observed, that of July 25-31, 1944; minimum gage height, that of Sept. 25-27, 1944.

Flood of Apr. 7, 1938, reached a stage of 23.4 feet from information by Corps of Engineers, U. S. Army.

Remarks.— Records good except those above 11,000 second-feet, and those for period of backwater from Mississippi River, and indefinite stage-discharge relation, which are fair. Wire-weight gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	232	352	725	1,280	1,190	4,630	c668	519	365	238	e430
2	247	239	327	2,490	947	984	3,370	c580	789	548	296	e560
3	239	247	507	4,200	1,920	897	4,740	c691	668	601	381	e360
4	239	255	746	3,060	4,400	844	3,770	c1,040	431	400	447	e300
5	232	239	544	1,590	2,700	795	2,200	c1,280	400	371	344	e290
6	232	335	423	1,040	1,320	772	1,710	c1,710	385	331	868	e870
7	225	2,560	379	811	995	844	1,390	c1,010	371	307	868	2,910
8	225	2,700	352	767	978	844	1,250	c764	357	296	492	2,290
9	225	1,090	339	746	1,930	688	1,130	c668	385	285	e560	1,110
10	225	643	327	643	2,250	630	1,070	c645	594	275	e2,240	621
11	225	499	315	583	1,220	630	1,160	c868	990	275	e1,450	456
12	225	423	315	615	901	649	1,010	c601	1,220	256	e900	434
13	239	379	304	2,460	746	630	895	c539	1,250	386	e1,680	385
14	273	365	339	4,510	1,840	577	815	c432	290	285	e620	338
15	327	352	583	4,830	4,100	577	841	c431	580	285	e700	330
16	255	339	623	3,900	2,840	577	895	c431	482	275	e540	321
17	232	327	439	2,160	1,560	772	739	c447	431	247	e450	292
18	225	315	379	1,280	1,560	1,230	665	c447	464	247	e410	258
19	232	304	352	971	4,200	6,200	691	c431	739	247	e410	263
20	232	304	339	833	8,340	11,000	1,990	c400	580	256	e410	263
21	232	304	339	725	6,710	7,460	3,070	c400	447	238	e440	253
22	232	304	352	663	5,100	5,410	2,280	c1,390	385	230	e450	243
23	232	293	352	603	2,860	10,200	1,600	c1,950	344	222	e400	233
24	232	293	460	583	1,980	17,800	2,880	c1,630	351	222	e400	233
25	225	293	1,960	563	1,590	5,590	1,630	c1,320	307	215	e780	222
26	218	293	2,610	603	2,860	3,310	1,190	c1,010	296	215	e1,290	222
27	218	293	1,250	683	2,460	6,250	1,420	c789	296	215	e530	222
28	225	304	2,020	3,650	1,640	7,650	1,380	c691	285	215	e470	231
29	232	365	2,940	7,050	1,390	15,500	1,010	c623	296	215	e600	292
30	232	439	1,400	4,100	-	44,400	895	c559	285	215	e480	662
31	232	-	901	2,070	-	17,500	-	539	-	215	e400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	7,319	327	218	236	0.211	0.24
November	15,318	2,700	232	511	.466	.51
December	22,758	2,940	304	734	.655	.76
Calendar year 1943	333,203	14,500	218	913	.815	11.06
January	59,507	7,050	563	1,920	1.71	1.98
February	72,487	8,340	746	2,500	2.23	2.41
March	172,420	44,400	577	5,562	4.97	5.73
April	53,219	4,740	668	1,741	1.55	1.73
May	24,834	1,950	400	801	.715	.82
June	15,877	1,250	295	529	.472	.53
July	8,954	601	215	289	.258	.30
August	20,544	2,240	238	663	.592	.68
September	15,684	2,910	222	523	.467	.52
Water year 1943-44	487,921	44,400	215	1,333	1.19	16.21

c Backwater from Mississippi River; discharge computed on basis of 4 discharge measurements, stages of Mississippi River at Natchez, and records for stations at Eddleton and Bude.

e Stage-discharge relation indefinite; discharge computed on basis of records for stations at Eddleton and Bude.

Note.— Stage below intakes or faulty recorder operation Oct. 1 to Nov. 6, Nov. 8 to Dec. 2, Dec. 7-14, 18-23, Mar. 9-13, Apr. 5-19, 21, 24-30, May 28 to June 9, June 17, June 21 to July 1, July 4 to Aug. 1, Aug. 16 to Sept. 30; discharge computed from wire-weight gage readings or from graph based on gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Buffalo Bayou near Woodville, Miss.

Location.- Water-stage recorder and wire-weight gage, lat. $31^{\circ}13'35''$, long. $91^{\circ}17'45''$, in S 44° sec. 21, T. 3 N., R. 2 W. Washington meridian, at bridge on U. S. Highway 61 (new), $1\frac{1}{2}$ miles downstream from Fords Creek, $2\frac{1}{2}$ miles west of Wilkinson, $8\frac{1}{2}$ miles north of Woodville, and $31\frac{1}{2}$ miles upstream from mouth.

Drainage area.- 182 square miles.

Records available.- March 1942 to September 1944.

Extremes.- Maximum discharge during year, 11,100 second-feet Mar. 19 (gage height, 9.48 feet), from rating curve extended above 6,100 second-feet by logarithmic plotting; minimum, 21 second-feet July 30; minimum gage height, 1.13 feet Oct. 28.
1942-44: Maximum discharge, 18,300 second-feet Feb. 5, 1943 (gage height, 11.87 feet), from rating curve extended above 6,100 second-feet by logarithmic plotting; minimum, 11 second-feet Aug. 29, 1943; minimum gage height, 0.53 foot May 22, 1943.

Remarks.- Records fair. Wire-weight gage read twice daily and used for periods of faulty intake action.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	29	43	114	130	223	200	70	40	112	28	163
2	28	31	96	1,800	110	196	936	74	33	115	23	102
3	28	33	286	546	457	170	623	117	37	106	25	86
4	28	30	181	200	276	166	270	86	37	47	40	72
5	27	29	102	156	150	158	203	286	35	38	197	67
6	26	29	86	102	123	150	168	189	42	35	391	76
7	26	963	80	100	106	154	150	108	38	33	146	245
8	26	121	72	197	152	117	132	85	38	35	54	286
9	26	46	71	317	726	102	123	71	117	69	31	49
10	26	50	69	95	158	97	114	66	81	30	587	43
11	26	45	69	86	112	90	117	60	105	28	640	41
12	26	43	66	273	88	88	97	58	56	28	182	38
13	37	43	65	1,620	76	78	84	57	53	28	374	36
14	44	43	239	1,080	847	71	90	56	43	29	136	34
15	33	43	140	802	416	67	121	54	40	35	99	33
16	30	42	100	358	214	85	90	52	56	31	83	31
17	30	40	91	223	203	776	80	51	47	29	74	30
18	28	40	90	168	229	412	80	51	43	36	70	28
19	27	41	80	148	1,770	4,130	127	70	45	61	69	28
20	27	41	76	125	561	774	143	61	40	34	77	28
21	27	40	72	104	365	350	765	77	44	35	69	28
22	27	40	71	99	235	2,590	412	628	39	30	67	27
23	27	40	69	102	186	1,610	498	441	38	27	64	26
24	27	39	364	104	158	514	276	78	36	26	76	25
25	28	39	1,150	102	1,280	321	156	52	35	25	126	25
26	26	39	596	125	1,100	287	156	43	35	24	203	25
27	26	40	197	555	469	828	154	43	34	24	90	25
28	25	45	1,220	1,560	304	453	106	43	37	23	77	28
29	26	51	310	482	283	1,100	83	43	38	22	76	48
30	28	45	181	254	-	353	74	40	38	22	110	40
31	28	-	132	166	-	232	-	38	-	36	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Persquare mile	Runoff in inches
October.....	872	44	25	28.1	0.154	0.18
November.....	2,111	853	28	70.4	.387	.43
December.....	6,264	1,220	43	202	1.11	1.28
Calendar year 1943.....	88,044	10,600	13	241	1.32	17.97
January.....	11,943	1,800	86	385	2.12	2.44
February.....	11,244	1,770	76	388	2.13	2.30
March.....	16,719	4,130	67	539	2.96	3.42
April.....	6,578	936	74	219	1.20	1.34
May.....	3,246	628	38	105	.577	.66
June.....	1,357	105	34	45.2	.243	.28
July.....	1,213	115	22	39.1	.215	.25
August.....	4,593	640	23	142	.780	.90
September.....	1,821	286	25	60.7	.534	.37
Water year 1943-44.....	67,761	4,130	22	185	1.02	13.85

Note.- Intakes clogged or silt in well Oct. 1-12, Oct. 18 to Nov. 1, Dec. 12-23, 31, Jan. 1, 16-25, Jan. 30 to Feb. 2, Feb. 4-8, 10-12, 15-18, 21-24, Feb. 27 to Mar. 2, Apr. 24, 25, May 2, 3, 5, 6, June 6, Aug. 26-28, Aug. 30 to Sept. 2, Sept. 8, 10; discharge computed on basis of wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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. Datum of gage is 3,515.6 feet above mean sea level, datum of 1929. Auxiliary water-stage recorder and weir 9 miles upstream from dam.

Drainage area.- About 1,960 square miles, of which 1,380 square miles is probably non-contributing.

Records available.- June 1938 to September 1944.

Extremes.- Maximum discharge during year, about 332 second-feet June 13 (gage height, 5.23 feet, at weir); maximum reservoir gage height during year, 120.46 feet Oct. 1; no flow at times.

1938-44: Maximum discharge, 11,300 second-feet June 6, 1941; maximum reservoir gage height, 130.43 feet June 6, 1941; no flow at times.

Maximum discharge known prior to completion of dam in 1936, 6,100 second-feet May 30, 1937, by slope-area determination at dam site.

Remarks.- Records good. Records given herein represent flow into and contents of reservoir. Discharge for water year 1944 computed from flow at weir 9 miles above dam. Gage-height record at dam utilized in computing reservoir contents. Spillway crest is at gage height 127.0 feet. No flow passed over spillway during the year. Dam completed June 15, 1936. Reservoir capacity, 18,150 acre-feet. Reservoir used for recreational purposes.

Cooperation.- Reservoir and weir gage-height records and reservoir capacity curve furnished by U. S. Soil Conservation Service.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.6	2.0	1.5	2.0	1.3	2.8	0.8	0.4	0	3.8
2		0	.5	2.0	1.5	2.0	1.4	2.3	.8	.3	0	2.0
3		0	.5	2.2	1.5	1.9	1.4	1.5	.6	.2	0	1.0
4		0	.5	2.3	1.5	1.7	1.3	1.2	.4	.2	0	.7
5		0	.5	2.0	1.4	1.6	1.2	1.0	.3	.1	0	.6
6		0	.5	1.9	1.4	1.4	1.2	.9	.2	.1	0	.5
7		0	.5	dl.5	1.4	1.4	1.1	.8	.2	.1	0	.3
8		0	.5	al.7	1.4	1.3	1.1	.7	.7	0	0	.2
9		0	1.5	al.0	1.4	1.2	1.1	.7	1.5	0	0	.1
10		0	4.6	2.3	1.4	1.3	1.1	.8	1.9	.2	0	0
11	0	3.8	1.9	1.0	1.3	1.0	1.1	37	.2	0	0	0
12	0	3.1	1.7	1.2	1.3	1.0	1.2	92	.4	0	0	0
13	0	2.2	1.6	1.5	1.3	1.0	1.1	187	1.1	0	0	0
14	0	1.4	1.5	1.4	1.3	.9	1.0	31	5.7	0	0	0
15	0	1.3	1.5	1.7	1.2	.8	.9	14	9.5	0	0	0
16	0	1.3	1.6	1.6	1.6	1.2	.8	.7	16	4.6	0	0
17	0	1.2	1.5	1.6	1.4	.9	.7	132	3.0	0	0	0
18	.2	1.2	1.7	1.6	1.2	.8	.6	34	1.6	0	0	0
19	.2	1.2	1.4	1.6	1.1	.8	.5	16	.9	0	0	0
20	.4	1.2	1.4	1.6	1.3	.8	.4	8.6	.6	0	0	0
21	.4	1.2	1.4	1.6	1.4	.9	.4	4.4	.5	0	0	0
22	.4	1.2	1.4	1.6	1.2	.9	.4	2.5	.4	0	0	0
23	.4	1.2	1.4	1.5	1.2	1.2	.4	1.6	.4	0	0	0
24	.4	1.2	1.4	1.4	1.2	1.1	.3	1.2	.3	0	0	0
25	.4	1.1	1.5	1.4	1.2	1.0	.3	1.0	.3	0	0	0
26	.5	1.2	1.5	1.3	1.2	.9	.3	.8	.2	0	0	0
27	.7	.9	1.9	1.8	1.1	.8	.9	.6	.1	0	0	0
28	.7	1.0	1.9	2.6	1.0	.8	1.7	.5	.1	0	.9	.9
29	.7	1.5	2.0	2.3	1.1	2.0	1.7	.5	0	13	1.4	1.4
30	.7	1.5	1.9	-	1.2	3.0	1.2	.5	0	12	.8	.8
31	-	1.6	1.6	-	1.2	-	.9	-	0	6.2	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	Contents in acre-feet†
October.....	0	0	0	0	0	6,920
November.....	6.1	.7	0	.20	12	6,440
December.....	41.7	4.6	.5	1.55	83	6,680
Calendar year 1943.....	868.7	-	0	2.38	1,720	-
January.....	53.6	2.3	1.4	1.73	106	6,680
February.....	44.7	2.6	1.0	1.54	89	6,560
March.....	41.4	2.0	1.0	1.34	82	6,090
April.....	35.6	3.0	.9	1.12	67	5,640
May.....	29.4	2.8	.3	.95	58	5,540
June.....	588.6	187	.2	19.6	1,170	5,540
July.....	31.5	9.5	0	1.02	62	5,140
August.....	31.2	13	0	1.01	62	4,460
September.....	12.3	3.8	0	.41	24	4,360
Water year 1943-44.....	914.1	187	0	2.50	1,920	-

† Contents in reservoir at end of month.

a No gage-height record at weir; discharge estimated.

d Gage-height record at weir doubtful; discharge estimated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Prairie Dog Town Fork Red River near Canyon, Tex.

Location.- Water-stage recorder, lat. $35^{\circ}01'$, long. $101^{\circ}54'$, 1.2 miles downstream from confluence of Palo Duro and Tierra Blanca Creeks, 2 miles upstream from Palo Duro Club Dam, $3\frac{1}{2}$ miles northeast of Canyon, Randall County. 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 1944.

Extremes.- 1942-43: Maximum discharge during water year, 1,230 second-feet July 9 (gage height, 10.96 feet); no flow at times.
1943-44: Maximum discharge during water year, 910 second-feet July 12 (gage height, 10.43 feet); no flow at times.
1924-26, 1938-44: Maximum discharge, 6,650 second-feet Oct. 24, 1941 (gage height, 12.03 feet, from floodmark), from rating curve extended above 3,700 second-feet by logarithmic plotting; no flow at times.
Highest known flood prior to reconstruction 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 above 230 second-feet and those for periods of no gage-height record, which are poor. Flow partly regulated by several reservoirs upstream, the principal ones being that near Umbarger on Tierra Blanca Creek (see p. 277) 20 miles upstream (capacity, 18,150 acre-feet), and Amarillo City Lake on Palo Duro Creek (see p. 292), located 13 miles upstream (capacity, about 3,200 acre-feet). The major portion of flood water originating above these reservoirs ordinarily will be retained in them. During the 1943 and 1944 water years no water passed over the spillways.

Discharge, in second-feet, 1942-44

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.5	1.9	2.7	3.2	2.9	2.9	2.3		0	e0.2	
2	0	2.5	1.9	2.5	3.4	2.9	2.9	2.2		0	e.1	
3	96	2.7	1.9	2.5	3.2	2.9	2.9	2.0		e.2	0	
4	30	2.7	1.9	2.7	3.0	2.9	2.7	1.9		e.5	0	
5	8.0	2.7	1.9	2.7	2.9	3.0	2.7	1.7		e.2	0	
6	4.6	2.5	2.0	2.9	3.0	3.0	2.5	1.1		0	0	
7	2.9	2.7	2.2	2.9	2.9	3.0	2.5	1.1		0	0	
8	62.0	2.7	2.2	2.9	2.7	3.0	3.2	1.1		0	0	
9	61.9	2.5	2.2	2.7	2.7	3.0	2.7	1.1	.2	653	0	
10	2.2	2.3	2.2	2.9	2.5	2.9	2.5	1.1		192	0	
11	2.5	2.3	2.2	2.7	2.3	2.9	2.5	.8		29	0	
12	2.5	2.3	2.3	2.7	2.3	2.9	2.3	.6		9.8	0	
13	2.9	2.3	2.3	2.7	2.3	2.9	2.5	.6		6.5	0	
14	3.9	2.3	2.2	2.7	2.3	2.9	2.5	.6		6.1	0	
15	3.9	2.2	2.3	2.9	2.3	2.7	2.5	.6		4.6	0	
16	6.9	2.2	2.3	2.7	2.3	2.5	2.7	e.5		3.4	0	
17	35	2.2	2.3	2.7	2.3	2.7	3.0	e.5	0	3.0	0	
18	36	2.2	2.3	2.7	2.3	2.7	2.9	e.5	0	1.0	0	
19	11	2.2	2.5	2.5	2.5	2.7	2.7	0	0	5.4	.0	
20	6.5	2.1	2.7	2.2	2.5	2.7	2.7	0	0	3.2	0	
21	4.4	2.1	4.1	2.3	2.7	2.5	2.7	0	0	2.7	0	
22	3.6	2.1	4.6	2.3	2.7	2.5	2.7	0	0	2.3	0	
23	3.0	2.1	4.4	2.3	2.7	2.7	2.7	0	0	2.2	0	
24	3.0	2.1	3.9	2.5	2.9	2.5	2.7	0	0	1.9	0	
25	2.9	2.0	3.6	2.5	2.7	2.5	2.9	.4	0	1.9	0	
26	2.9	2.0	3.2	2.7	2.7	2.7	2.7	0	0	1.7	0	
27	2.7	2.0	2.9	2.7	2.7	2.9	2.5	0	0	1.1	0	
28	2.7	2.0	2.5	2.9	2.5	3.0	2.5	0	0	.6	0	
29	2.5	2.0	2.9	3.0	-	3.0	2.5	0	0	e.5	0	
30	2.3	1.9	2.7	3.2	-	3.0	2.3	0	0	e.4	0	
31	2.3	-	2.7	3.4	-	2.9	-	-	-	e.3	0	

e Discharge is all or part seepage through control.

Note.- No gage-height record Nov. 11 to Dec. 1 and May 19 to June 16; discharge computed on basis of range in stage, weather records, and discharge measurements.

Discharge, in second-feet, of Prairie Dog Town Fork Red River near Canyon, Tex., 1942-44--Continued
1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	1.5	1.4	1.7	1.1	e0.2	33	e0.1	e0.1	0
2			0	1.7	1.4	1.7	1.9	e.2	2.2	0	e.1	0
3			0	1.4	1.4	1.7	1.9	e.2	e.5	0	0	0
4			0	1.4	1.4	1.7	1.4	e.1	e.4	0	0	0
5			0	1.1	1.4	1.5	1.2	e.1	e.3	0	0	3.0
6			0	.9	1.2	1.2	1.1	e.1	e.2	0	0	.5
7			0	.8	.9	1.1	.9	e0	e.2	0	0	e.3
8			0	.7	.8	.9	1.1	0	e.3	0	14	e.3
9			0	.8	.8	.8	1.4	0	.3	0	1.0	e.2
10			0	.8	.7	.8	1.2	0	3.1	0	.2	e.2
11			0	.7	.6	.6	.8	0	2.2	0	e.1	e.2
12			0	.7	.5	.5	.6	0	2.2	389	e.1	e.2
13			0	.6	.5	.4	.4	0	1.7	148	0	e.2
14			0	.6	.6	.7	.4	0	1.1	78	0	e.1
15			0	.6	.7	.9	.3	0	.7	18	0	0
16			0	.6	.7	1.1	e.2	0	.6	5.4	0	0
17			0	.8	.8	1.4	e.1	0	e.5	3.2	0	0
18			0	1.4	1.1	1.4	e.1	0	e.4	1.9	0	0
19			0	1.9	1.4	1.2	e.1	0	e.3	.9	0	0
20			0	2.0	1.2	1.2	e.1	0	e.2	.8	0	0
21			0	2.2	1.4	1.4	e.1	0	e.1	.8	0	0
22			0	2.2	1.5	.9	e.1	0	0	.7	0	0
23			0	2.2	1.5	.9	e.2	0	0	.6	0	0
24			0	2.2	1.5	1.9	e.5	0	0	.6	0	0
25			0	2.0	1.5	2.2	e.6	0	0	.6	0	0
26			0	2.5	1.5	2.2	e.2	0	e.2	.4	0	0
27			0	4.6	1.5	1.9	e.2	0	e.3	.2	0	0
28			0	2.9	1.7	1.5	e.2	0	e.3	e.2	0	0
29			0	2.2	1.9	1.4	e.6	0	e.3	e.2	0	0
30			0	1.7	-	1.2	e.3	0	e.2	e.1	0	0
31			.7	1.4	-	1.2	-	.1	-	e.1	0	-

e Discharge is all or part seepage through control.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1942	291.0	96	0	9.39	577
November	68.4	2.7	1.9	2.28	136
December	81.2	4.6	1.9	2.62	161
Calendar year 1942	1,518.3	96	0	4.16	3,010
January 1943	83.7	3.4	2.2	2.70	166
February	74.5	3.4	2.3	2.66	148
March	87.3	3.0	2.5	2.82	173
April	80.0	3.2	2.3	2.87	159
May	25.5	2.3	-	.92	51
June	3.2	-	0	.11	6.3
July	828.5	638	0	26.7	1,640
August	.3	.2	0	.01	2.6
September	0	0	0	0	0
Water year 1942-43	1,623.6	638	-	4.45	3,220
October 1943	0	0	0	0	0
November	0	0	0	0	0
December	.7	.7	0	.02	1.4
Calendar year 1943	1,183.7	638	0	3.24	2,350
January 1944	47.1	4.6	.6	1.52	93
February	33.5	1.9	.5	1.16	66
March	39.2	2.2	.4	1.26	78
April	19.3	1.3	.1	.64	38
May	1.0	-	0	.03	2.0
June	51.8	33	0	1.73	105
July	649.8	389	0	21.0	1,290
August	15.6	14	0	.50	31
September	5.2	3.0	0	.17	10
Water year 1943-44	863.2	389	0	2.36	1,710

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Prairie Dog Town Fork 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 7½ miles southwest of Brice, Hall County.

Drainage area.- 5,650 square miles, of which about 4,330 square miles is probably noncontributing.

Records available.- December 1938 to June 1944 (discontinued).

Extremes.- Maximum discharge during period, 10,400 second-feet June 29 (gage height, 3.20 feet), from rating curve extended above 5,000 second-feet on basis of slope-area determinations at gage heights 3.7 and 4.8 feet; no flow at times.

1938-44: Maximum discharge, 42,100 second-feet Oct. 4, 1941 (gage height, 5.18 feet), from rating curve extended above 5,000 second-feet on basis of slope-area determinations at gage heights 3.7 and 4.8 feet; 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, from information by local resident.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. Auxiliary wire-weight gage 1,200 feet below recorder read once daily and oftener during high water and used when water-stage recorder record was not available. No diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	28	22	69		0	171			
2			0	135	18	14		0	22			
3			0	65	16	6.0		0	6.2			
4			0	42	8.0	1.6		0	a1.1			
5			0	26	.7	0		0	0			
6			0	16	0	0		0	0			
7			0	0	0	0		0	0			
8			0	0	0	0		0	0			
9			0	0	0	0		0	0			
10			263	0	0	0		0	14			
11			125	b10	0	0		763	34			
12			72	0	0	0		108	53			
13			a28	0	0	0		f20	39			
14			a6.0	0	0	0		f13	25			
15			a1.0	0	0	0		0	a2.7			
16			*.2	d7.0	0	0		0	0			
17			0	d4.0	0	0		0	0			
18			0	d2.5	0	0		0	0			
19			0	d1.0	0	0		0	0			
20			0	*.2	0	0		0	0			
21			0	0	0	0		0	0			
22			0	0	0	0		0	0			
23			0	0	0	0		0	0			
24			0	0	0	0		0	18			
25			0	0	*0	0		0	f2.8			
26			0	0	0	0		0	0			
27			0	44	0	0		f9.6	0			
28			0	68	30	0		14	0			
29			0	62	133	7.9		67	1,040			
30			15	45	-	.8		f22	120			
31			1.0	24	-	0		f4.7	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	511.2	263	0	16.5	1,010
Calendar year 1943.....	14,511.6	3,140	0	39.8	28,780
January.....	659.7	135	0	21.3	1,310
February.....	227.7	133	0	7.85	452
March.....	98.3	68	0	3.17	195
April.....	0	0	0	0	0
May.....	1,020.3	763	0	32.9	2,020
June.....	1,546.8	1,040	0	51.6	3,070
July.....	-	-	-	-	-
August.....	-	-	-	-	-
September.....	-	-	-	-	-
The period.....	-	-	-	-	8,060

* Winter discharge measurement made on this day.

a No gage-height record; discharge estimated.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of weather records and records for station near Estelline.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Prairie Dog Town Fork 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 Railway 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 noncontributing.

Records available.- January 1924 to September 1925, April 1938 to September 1944.

Extremes.- Maximum discharge during year, 5,360 second-feet July 12 (gage height, 5.96 feet, from graph based on gage readings); no flow at times.
1924-25, 1938-44: Maximum discharge, 56,000 second-feet June 9, 1941 (gage height, 8.86 feet), from rating curve extended above 14,000 second-feet; no flow at times.
Maximum stage known, about 14 feet in May 1914, from information by local residents.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. Flowing channel away from recorder; daily discharge computed from graph based on wire-weight gage readings made twice daily or oftener, using available recorder record to shape the graph. No diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	20	12	12		0	1,140	16	0	0
2			0	62	20	5.1		0	352	78	0	0
3			0	68	15	7.6		0	18	99	0	0
4			0	37	7.6	a.4		0	.3	11	0	11
5			0	21	5.1	0		0	0	0	0	155
6			0	14	3.2	0		0	0	0	0	168
7			0	8.4	3.7	0		0	0	0	0	36
8			0	a8.0	4.6	0		0	0	0	0	10
9			0	a7.4	2.3	0		0	0	0	113	.4
10			0	6.8	3.2	0		0	0	0	15	0
11			a125	8.4	.3	0		120	0	0	0	49
12				*7.6	a0	0		214	659	1,910	0	26
13			22	2.8	a0	0		44	1,090	1,130	0	1.3
14			5.5	7.6	b.6	0		17	638	166	0	0
15			a2.8	5.1	1.3	123		.4	49	71	0	0
16			*a0	3.7	1.0	48		0	12	40	0	0
17			a0	3.2	1.9	7.6		0	.6	29	71	0
18			.7	2.3	1.0	0		0	0	16	5.0	0
19			2.8	1.4	.6	0		0	78	7.6	0	0
20			.3	*1.4	.7	0		0	24	8.4	0	0
21			0	1.1	.9	0		2.4	1.5	11	0	0
22			0	.7	.7	0		20	0	5.1	0	0
23			0	1.0	.6	0		a.2	0	1.6	0	0
24			0	.7	.4	0		0	0	6.9	0	0
25			0	.8	*0	0		0	0	1.0	10	0
26			0	.8	0	0		73	0	0	9.0	0
27			0	137	7.8	0		135	0	0	0	126
28			7.8	26	40	0		39	0	0	0	392
29			5.1	24	29	26		34	711	0	0	267
30			3.7	20	-	24		44	94	0	0	101
31			3.2	13	-	4.2		22	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	428.9	-	0	13.5	861
Calendar year 1943.....	23,556.7	3,660	0	64.5	46,730
January.....	521.2	137	.7	16.8	1,030
February.....	163.4	40	0	5.63	324
March.....	257.9	123	0	8.32	512
April.....	0	0	0	0	0
May.....	765.0	214	0	24.7	1,520
June.....	4,867.4	1,140	0	162	9,650
July.....	3,617.6	1,910	0	117	7,180
August.....	223.0	113	0	7.19	442
September.....	1,342.7	392	0	44.8	2,650
Water year 1943-44.....	12,187.1	1,910	0	33.3	24,170

* Winter discharge measurement made on this day.

a No gage-height record; discharge estimated.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River near Terral, Okla.

Location.— Water-stage recorder and wire-weight gage, 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 Railway bridge, 1.2 miles south of Terral, Jefferson County, and 3.2 miles downstream from Little Wichita River. Datum 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 noncontributing.

Records available.— April 1938 to September 1944.

Extremes.— Maximum discharge during year, 38,700 second-feet June 16 (gage height, 17.20 feet); minimum observed, 47 second-feet Oct. 19, 23.

1938-44: Maximum discharge, 197,000 second-feet June 8, 1941 (gage height, 28.12 feet); minimum, 43 second-feet Mar. 15, 1939.

Maximum stage known prior to 1938, 27.2 feet, present site and datum, May 19, 1935; floods of 1891 and May 1908 reported to have reached about same stage.

Remarks.— Records fair. Flow slightly regulated by Lake Kemp on Wichita River in Baylor County, Tex.; principal diversion is for irrigation in vicinity of Wichita Falls, Tex. When river channel was away from recorder, the daily discharge was computed from graph based on wire-weight gage readings made twice daily or oftener, using recorder record, when available, to shape the graph.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	156	204	200	568	738	2,850	391	763	1,740	516	1,200	4,250
2	432	181	208	779	896	2,780	610	2,030	1,910	449	1,000	1,950
3	339	152	196	797	837	2,300	1,130	2,460	1,450	374	694	1,000
4	306	122	204	795	787	1,770	542	2,100	2,280	325	716	579
5	339	113	259	828	787	1,170	479	1,500	3,580	321	1,450	379
6	220	110	291	862	804	956	370	1,180	2,300	329	1,010	309
7	276	99	277	921	722	812	402	879	2,000	313	716	398
8	268	156	291	854	555	754	386	738	1,600	281	590	317
9	220	76	310	715	563	691	386	824	2,200	253	476	253
10	204	159	334	668	1,640	602	460	548	4,260	407	393	271
11	196	99	386	542	1,040	575	1,100	491	5,400	379	439	321
12	166	85	386	419	617	497	3,750	419	5,250	497	413	382
13	152	96	402	431	522	466	6,740	397	3,710	369	374	351
14	162	99	497	454	443	437	4,070	365	2,800	285	351	293
15	113	90	472	497	408	543	1,920	324	14,000	274	317	235
16	101	93	431	503	402	479	1,400	277	30,400	2,510	297	271
17	82	104	365	485	531	468	1,140	216	10,100	2,120	501	301
18	93	129	344	454	638	2,270	904	209	5,700	1,650	274	232
19	47	129	349	425	588	2,400	754	229	3,020	1,260	242	193
20	62	122	389	419	491	1,850	638	448	3,500	1,050	209	159
21	99	129	282	419	460	1,710	631	334	2,300	985	199	159
22	85	132	246	443	431	1,650	617	246	1,710	869	264	193
23	54	129	246	491	408	1,450	646	241	1,240	794	434	174
24	97	138	305	460	375	1,450	581	229	967	810	325	130
25	82	138	300	419	370	1,350	466	268	794	1,820	249	123
26	87	148	282	419	349	990	443	263	921	2,300	256	114
27	101	159	381	402	381	763	497	360	904	2,020	267	105
28	113	145	503	408	1,440	631	568	845	617	1,090	256	123
29	113	181	660	431	2,580	522	503	1,100	651	1,300	374	7,660
30	200	208	638	443	-	466	497	1,060	558	2,100	873	4,180
31	225	-	602	454	-	460	-	947	-	1,140	2,680	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,169	432	47	167	10,250
November.....	3,925	208	76	131	7,790
December.....	10,978	660	196	354	21,770
Calendar year 1943.....	718,785	38,300	47	1,969	1,426,000
January.....	17,195	921	402	555	34,110
February.....	20,853	2,590	349	719	41,360
March.....	36,110	2,850	437	1,165	71,820
April.....	33,021	6,740	370	1,100	65,500
May.....	22,069	2,460	208	713	43,810
June.....	119,002	30,400	558	3,967	236,000
July.....	29,190	2,510	253	942	57,900
August.....	17,639	2,680	199	569	34,990
September.....	25,405	7,660	105	847	50,390
Water year 1943-44.....	340,574	30,400	47	931	675,500

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

Red River near Gainesville, Tex.

Location.— Water-stage recorder and wire-weight gage, 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 Railway 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 1944.

Extremes.— Maximum discharge during year, 34,000 second-feet June 16 (gage height, 12.43 feet); minimum, 134 second-feet Nov. 18-20 (gage height, 4.34 feet).
1936-37, 1938-44: Maximum discharge, 168,000 second-feet June 9, 1941 (gage height, 24.15 feet); minimum observed, 48 second-feet Jan. 27, 1940 (result of discharge measurement).

Remarks.— Records good. Records of water analyses May to September 1944 are given in Water-Supply Paper 1022.

Cooperation.— Gage-height record, 42 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	140	191	765	467	6,460	725	905	1,430	700	1,650	1,060
2	1,530	171	211	749	613	4,630	1,510	1,470	1,100	630	1,110	1,790
3	757	275	223	813	903	3,930	2,110	1,720	1,550	595	1,020	3,030
4	813	240	223	1,020	1,130	3,550	1,320	3,010	2,110	560	975	1,650
5	669	211	270	1,070	984	2,750	1,370	2,750	1,590	495	700	975
6	497	183	320	912	885	1,220	950	2,110	3,010	435	890	770
7	377	171	325	861	845	1,280	730	1,370	3,730	408	1,510	630
8	377	159	330	948	885	1,090	650	1,050	2,670	380	930	465
9	401	146	347	948	773	930	1,000	950	2,190	380	700	408
10	a330	a143	347	894	676	885	690	770	1,750	380	560	408
11	305	140	353	757	655	805	575	730	2,510	330	465	390
12	275	137	341	655	1,640	a765	575	610	5,430	330	390	330
13	305	137	371	634	1,200	690	1,470	575	6,630	435	408	330
14	250	137	413	571	805	655	6,180	540	7,030	408	408	435
15	231	137	395	529	634	930	6,460	505	5,430	435	355	408
16	211	137	425	509	550	1,080	3,550	470	19,200	355	355	355
17	203	137	497	550	662	1,550	2,030	440	23,700	308	355	308
18	179	134	451	529	975	975	1,490	390	9,750	1,180	355	265
19	167	134	425	515	1,470	1,620	1,240	350	7,250	1,530	330	265
20	163	134	389	497	1,000	5,780	1,100	470	4,780	1,310	308	285
21	163	a137	377	467	821	4,630	950	470	3,530	1,160	285	245
22	159	137	353	455	676	3,460	905	1,390	2,630	930	245	220
23	155	140	325	437	585	4,230	770	730	2,090	810	245	201
24	a149	146	310	425	503	3,280	770	505	1,530	810	234	183
25	146	155	300	455	805	2,270	730	470	1,210	1,900	285	186
26	140	175	300	515	529	1,020	730	505	a1,020	1,090	380	189
27	137	183	377	529	1,010	1,590	690	950	a850	1,740	355	180
28	137	183	497	529	6,690	1,210	610	1,150	735	2,430	330	186
29	137	183	634	491	12,000	1,020	815	2,430	975	1,790	330	180
30	137	183	765	467	-	885	905	1,890	700	1,060	560	985
31	a140	-	797	455	-	805	-	1,490	-	1,310	770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	10,710	1,530	137	345	21,240
November.....	4,825	275	134	161	9,570
December.....	11,892	797	191	384	23,590
Calendar year 1943.....	920,592	42,700	134	2,522	1,826,000
January.....	19,951	1,070	425	644	39,570
February.....	41,371	12,000	467	1,427	82,060
March.....	87,375	6,460	655	2,173	133,600
April.....	43,600	6,460	575	1,453	86,480
May.....	33,165	3,010	350	1,070	65,780
June.....	128,100	23,700	700	4,270	284,100
July.....	25,614	2,430	308	859	52,790
August.....	17,583	1,650	234	567	34,880
September.....	17,302	3,030	180	577	34,320
Water year 1943-44.....	422,488	23,700	134	1,154	838,000

a No gage-height record; discharge computed from interpolated gage height.

Note.— Discharge computed from wire-weight gage readings Oct. 18-23, 25-30, Nov. 1, 2, 7-9, 11-20, 22-25, Dec. 2, Mar. 9, 10, 12-15, 28-31, Apr. 1, 6-8, 10, 11, 20-30, May 1, 7-21, 23-28, 31, June 1-3, 20-25, 28-30, July 1 to Sept. 17.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

Lake Texoma near Denison, Tex.

Location.- Water-stage recorder, lat. 33°49', long. 96°34', at Denison Dam on Red River, in NE¼ sec. 33, T. 8 S., R. 7 E. Indian Meridian, 1½ miles upstream from Shawnee Creek, 1½ miles upstream from Sand Creek, and 4 miles northwest of Denison. Prior to Mar. 30, 1944, wire-weight gage at same site and datum. Auxiliary gage is staff gage, lat. 34°06', long. 96°34', in Cumberland pool on Washita River arm, in SE¼SE¼ sec. 21, T. 5 S., R. 7 E. Datum of each gage is at mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 38,290 square miles.

Records available.- October 1943 to September 1944.

Extremes.- Maximum contents during year, 1,521,000 acre-feet Sept. 10, 11; minimum, 3,730 acre-feet Oct. 31.

Remarks.- Reservoir is formed by a rolled fill earth dam; flow was diverted through conduits July 27, 1942, regulated storage began Oct. 31, 1943. Outlet works consist of eight 20-foot diameter circular conduits and a 2,000-foot uncontrolled concrete spillway of the Ogee weir type. Three of the conduits are used for flood control purposes and five are reserved for power development, only one of which is now in use. Pertinent data regarding the dam are shown in the following table:

	Elevation in feet	Reservoir capacity in acre-feet
Top of dam	670.0	-
Maximum design pool	661.1	9,459,000
Crest of spillway	640.0	5,716,000
Maximum power pool	617.0	3,025,000
Dead and sediment storage	(*)	1,211,000
Conduit invert (lowest outlet)	523.0	-

* Denison pool 590, Cumberland pool 610.

The reservoir is divided into two pools by protective levees around the Cumberland oil field on the Washita River arm with the bottom of the outlet channel for the upper pool (known as Cumberland pool) at elevation 610 feet. Even at higher elevations the two pools may be at different levels, depending on discharge in the Washita River. Reservoir is used principally for flood control and power development. Figures given represent total contents of both pools on basis of level pools.

Cooperation.- Records furnished by Corps of Engineers, U. S. Army.

Contents at 12 p.m., in thousands of acre-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.57	6.22	18.55	47.56	103.6	340.1	584.3	773.7	1,080	1,439	1,499	1,503
2	8.29	10.39	19.10	49.22	107.4	349.9	610.7	802.5	1,085	1,445	1,500	1,504
3	9.27	11.50	19.75	49.96	110.3	360.5	616.1	827.0	1,088	1,444	1,500	1,507
4	9.13	11.23	20.47	50.88	112.6	375.1	621.8	844.3	1,093	1,447	1,501	1,512
5	8.29	11.05	23.23	51.79	114.6	384.9	623.6	856.4	1,102	1,447	1,502	1,516
6	8.15	11.68	25.31	52.90	116.8	390.5	626.4	864.2	1,106	1,449	1,504	1,518
7	7.87	11.23	25.91	56.55	119.5	394.6	631.4	868.6	1,109	1,450	1,506	1,519
8	7.81	10.79	26.73	60.90	125.8	396.4	633.9	877.1	1,120	1,451	1,509	1,520
9	7.34	10.39	27.40	64.44	130.7	398.2	637.3	880.7	1,129	1,452	1,510	1,519
10	7.20	10.07	28.60	67.71	134.0	399.6	642.6	884.0	1,134	1,453	1,510	1,521
11	7.14	9.83	29.21	70.73	136.4	400.5	645.9	887.6	1,150	1,453	1,508	1,521
12	7.08	9.45	29.97	73.59	138.8	401.6	648.7	891.4	1,154	1,454	1,508	1,520
13	7.20	8.92	30.46	76.55	142.4	402.8	650.3	895.1	1,155	1,454	1,507	1,520
14	7.14	8.78	31.30	76.97	146.8	409.4	664.2	898.2	1,215	1,455	1,506	1,519
15	7.14	8.57	31.60	78.31	150.6	414.8	684.4	898.1	1,245	1,457	1,502	1,519
16	6.89	8.36	31.82	79.93	154.6	425.6	689.1	898.5	1,268	1,457	1,497	1,519
17	6.49	8.22	32.47	81.13	162.8	430.3	710.7	900.1	1,332	1,458	1,495	1,518
18	5.95	8.15	32.84	82.61	167.7	436.9	718.2	902.4	1,367	1,459	1,491	1,519
19	5.52	8.01	33.53	85.92	174.0	465.1	721.5	904.6	1,379	1,461	1,489	1,519
20	5.10	7.91	34.03	85.36	177.0	487.6	723.9	907.0	1,393	1,464	1,489	1,519
21	4.64	11.63	34.72	86.56	180.0	507.6	726.0	917.4	1,401	1,466	1,487	1,519
22	4.03	12.02	35.21	87.70	183.1	523.9	732.1	924.8	1,404	1,468	1,485	1,518
23	4.48	12.84	35.61	88.87	186.3	535.6	734.6	929.8	1,406	1,469	1,484	1,518
24	7.02	13.50	36.12	89.78	190.0	546.0	736.2	935.3	1,412	1,472	1,479	1,517
25	7.08	14.30	36.46	91.15	200.5	554.5	735.4	943.5	1,417	1,475	1,478	1,516
26	6.65	15.07	36.78	92.91	207.4	561.1	740.3	977.3	1,421	1,479	1,483	1,515
27	5.89	15.78	40.53	95.05	228.4	566.1	741.3	1,019	1,425	1,482	1,483	1,515
28	5.20	16.43	43.98	96.77	278.5	571.0	741.2	1,037	1,427	1,486	1,483	1,516
29	4.44	17.02	45.01	98.06	323.4	576.0	749.7	1,051	1,431	1,491	1,483	1,515
30	3.87	17.74	45.67	99.56	-	580.2	755.9	1,067	1,434	1,495	1,498	1,514
31	3.73	-	46.46	101.5	-	583.9	-	1,073	-	1,497	1,501	-

Monthly contents, water year October 1943 to September 1944

Date	Contents (acre-feet)†	Change in contents during month (acre-feet)
Sept. 30.....	7,380	-
Oct. 31.....	3,730	-3,650
Nov. 30.....	17,740	+14,010
Dec. 31.....	46,460	+28,720
Calendar year 1943.....	-	-
Jan. 31.....	101,500	+55,040
Feb. 29.....	323,400	+221,900
Mar. 31.....	583,900	+260,500
Apr. 30.....	755,900	+172,000
May 31.....	1,073,000	+317,100
June 30.....	1,454,000	+381,000
July 31.....	1,497,000	+43,000
Aug. 31.....	1,501,000	+4,000
Sept. 30.....	1,514,000	+13,000
Water year 1944.....	-	1,507,000

† Contents at 12 p.m.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River near Colbert, Okla.

Location.- Water-stage recorder, lat. 33°49', long. 96°31', in E½ sec. 36, T. 8 S., R. 7 E., at old highway toll bridge, 1.3 miles downstream from Sand Creek, 2 miles south of Colbert, and 3 miles downstream from Denison Dam. Datum of gage is 497.36 feet above mean sea level, datum of 1929.

Drainage area.- 38,330 square miles.

Records available.- October 1923 to September 1944. Gage-height records collected at various sites in this vicinity since 1906 are contained in reports of U. S. Weather Bureau.

Average discharge.- 21 years, 5,316 second-feet, unadjusted, (figures published in previous water-supply papers in error).

Extremes.- Maximum discharge during year, 5,640 second-feet (regulated) June 22; (gage height, 12.33 feet); minimum daily and minimum, 12 second-feet (regulated) Jan. 10, 1923-44: Maximum discharge, 201,000 second-feet May 21, 1935 (gage height, 31.8 feet, adjusted to present site and datum); maximum gage height, 32.0 feet Apr. 25, 1942, adjusted to present site and datum (discharge, 183,000 second-feet); minimum discharge, that of Jan. 10, 1944.

Maximum stage known, 45.5 feet May 26, 1908, present site and datum, from records of U. S. Weather Bureau.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Flow regulated by Lake Texoma, 3 miles above station (see p. 284). Records of water analyses May to September 1944 are given in Water-Supply Paper 1022.

Cooperation.- Forty-six discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	857	a430	244	783	235	225	212	g73	100	1,230	751	47
2	1,250	443	235	834	298	221	506	392	95	349	a980	47
3	1,250	665	239	942	203	235	216	a80	92	110	990	44
4	1,590	692	244	g949	186	212	207	a70	87	102	1,040	42
5	1,390	671	398	g949	182	221	216	a60	78	110	814	78
6	1,140	692	420	a949	173	190	263	a55	72	107	173	139
7	1,040	651	443	437	178	186	239	a52	85	.66	958	107
8	887	651	443	100	339	190	235	a52	92	42	1,020	132
9	769	632	443	a22	190	190	230	a58	87	34	1,020	136
10	692	618	426	g12	143	203	216	a52	105	33	985	125
11	665	608	426	g15	125	216	186	a50	200	33	956	127
12	692	592	426	a15	150	190	190	g47	144	30	245	143
13	651	561	420	103	161	212	225	g47	209	31	49	140
14	651	543	415	128	212	203	203	47	110	31	690	140
15	638	530	404	132	173	207	190	51	105	46	1,160	150
16	a620	512	404	146	161	173	194	62	85	90	1,140	156
17	g599	506	404	180	329	182	207	52	105	80	1,160	140
18	599	494	409	154	190	186	203	46	100	92	1,080	120
19	586	483	426	143	178	199	350	74	76	171	714	61
20	574	477	443	143	178	194	499	52	910	447	265	81
21	524	443	454	146	186	203	393	82	2,640	102	763	77
22	506	382	454	146	178	212	366	148	3,480	92	684	104
23	494	339	443	146	173	194	319	76	904	92	636	117
24	567	303	437	173	182	225	319	56	119	105	1,170	47
25	599	283	437	169	288	212	360	143	1,020	107	758	74
26	574	268	437	165	216	212	329	552	124	92	379	154
27	567	263	555	186	616	203	260	1,030	57	90	54	162
28	567	253	685	165	823	182	101	131	62	709	42	158
29	549	244	754	186	225	173	a85	182	82	319	49	130
30	a470	248	747	194	-	194	a62	280	232	82	316	148
31	a410	-	747	190	-	212	-	170	-	78	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	22,967	1,590	410	741	45,550
November.....	14,475	692	244	482	28,710
December.....	18,362	754	235	447	27,490
Calendar year 1943.....	1,868,322	57,400	235	5,119	3,706,000
January.....	8,572	849	12	277	17,000
February.....	6,871	823	125	237	13,630
March.....	6,266	235	173	202	12,430
April.....	7,581	506	62	253	15,040
May.....	4,292	1,030	44	138	8,510
June.....	11,657	3,480	57	389	23,120
July.....	5,112	1,230	30	165	10,140
August.....	21,120	1,170	42	681	41,890
September.....	3,325	162	42	111	6,600
Water year 1943-44.....	126,100	3,480	12	344	250,100

a No gage-height record; discharge interpolated or computed on basis of records at Denison Dam.

g Computed from graph based on once-daily readings of wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944. Gage-height records collected at same site since 1891 are contained in reports of U. S. Weather Bureau.

Average discharge.- 13 years (1906-11, 1936-44), 8,077 second-feet.

Extremes.- Maximum discharge during year, 34,700 second-feet May 3; maximum gage height, 15.97 feet Feb. 29; minimum discharge, 182 second-feet Sept. 26 (gage height, 4.96 feet).

1936-44: 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. Some regulation by Lake Texoma, 101 miles upstream (see p. 264).

Cooperation.- Gage-height record, 35 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	826	715	372	1,840	1,550	22,500	1,250	2,100	16,100	6470	585	650
2	952	1,600	364	1,450	1,570	15,900	5,930	19,400	6,432	400	970	
3	1,450	2,560	354	1,450	2,230	13,400	8,930	32,300	10,100	935	320	788
4	1,900	1,660	350	1,600	3,400	13,900	10,900	25,100	5,030	1,450	348	650
5	1,660	980	368	1,720	2,380	12,500	8,330	17,900	3,970	935	722	475
6	1,550	842	418	1,400	1,570	9,820	3,930	16,100	15,800	6734	900	392
7	1,660	850	520	1,350	1,180	6,220	1,980	14,300	13,700	6550	970	314
8	1,400	770	1,260	1,720	1,680	3,260	1,610	10,900	10,100	6400	865	225
9	1,350	758	1,140	2,140	5,730	2,260	1,570	6,230	5,530	6408	596	372
10	1,120	758	914	2,140	8,930	1,840	1,410	2,800	2,660	6456	668	495
11	1,000	746	806	1,450	7,730	1,550	1,250	2,080	2,280	6376	955	364
12	920	735	715	1,140	5,330	1,400	1,140	1,880	1,930	6356	970	340
13	938	720	695	1,220	4,160	1,350	970	1,570	3,480	6344	970	311
14	842	695	730	1,440	2,500	1,220	858	1,330	8,650	336	900	305
15	878	680	705	1,100	4,080	1,180	818	1,180	7,230	460	614	284
16	1,100	650	685	850	5,930	1,260	800	1,000	3,930	560	380	272
17	1,260	625	655	730	6,030	1,540	794	900	2,500	436	398	260
18	974	610	625	590	8,330	5,230	794	824	1,830	384	837	254
19	830	600	590	710	10,100	6,830	794	746	1,330	352	1,000	254
20	758	590	575	830	7,438	7,430	794	746	1,080	348	1,000	257
21	735	575	550	875	4,300	10,900	830	794	970	360	1,000	242
22	710	565	555	820	2,580	13,700	1,140	1,260	935	368	770	228
23	715	555	585	730	2,660	14,900	1,410	6,130	1,580	465	540	208
24	800	550	590	630	2,330	13,700	1,530	5,630	3,180	420	515	190
25	776	515	600	570	2,380	12,200	1,180	3,480	2,330	352	818	186
26	764	490	600	540	3,730	9,230	970	3,260	1,180	328	800	182
27	776	455	580	540	13,200	4,380	895	9,320	1,080	324	1,110	200
28	758	431	894	780	25,100	2,130	851	23,500	1,180	340	896	190
29	720	404	1,550	1,690	30,100	1,830	844	26,600	6824	340	698	186
30	705	386	3,260	2,130	-	1,650	935	20,700	6680	328	680	206
31	705	-	2,770	1,930	-	1,450	-	20,000	-	420	602	-
Month	Second-foot-days		Maximum		Minimum		Mean		Runoff in acre-feet			
October.....	31,532		1,900		705		1,017		62,540			
November.....	25,050		2,560		386		768		45,720			
December.....	25,305		3,260		350		816		50,190			
Calendar year 1943	2,830,023		92,200		350		7,763		5,613,000			
January.....	38,265		2,140		540		1,234		75,900			
February.....	178,200		30,100		1,180		6,156		353,500			
March.....	216,460		22,300		1,180		6,983		429,300			
April.....	63,435		10,900		794		2,114		125,800			
May.....	280,060		32,300		746		9,034		555,500			
June.....	143,349		16,100		680		4,778		284,300			
July.....	14,727		1,450		324		475		29,210			
August.....	22,787		1,110		320		735		46,200			
September.....	10,338		970		182		346		20,510			
Water year 1943-44.....	1,047,508		32,300		182		2,862		2,078,000			

g computed from graph based on once-daily readings of wire-weight gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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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 1944. Gage-height records collected at same site since 1917 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 87,800 second-feet May 4; maximum gage height, 21.88 feet May 4; minimum discharge, 470 second-feet Sept. 30 (gage height, 4.65 feet).

1936-44: 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. Some regulation by Lake Texoma, 261 miles upstream (see p.284).

Cooperation.- Gage-height record, 37 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	830	1,110	760	3,490	4,500	60,000	7,120	10,000	37,500	2,320	706	2,140
2	830	1,180	750	5,490	5,260	53,700	6,020	28,200	27,900	2,200	720	1,960
3	940	1,300	740	5,260	5,030	44,000	7,560	68,200	20,500	1,960	713	1,840
4	1,140	1,840	730	4,720	4,920	35,500	16,400	87,700	16,100	1,720	699	1,540
5	1,140	2,320	730	4,210	5,140	29,800	20,200	78,000	13,500	1,580	784	1,350
6	1,180	3,200	826	4,120	5,840	26,700	16,900	61,000	11,200	1,530	842	1,530
7	1,600	3,050	837	4,400	6,180	21,300	12,600	45,500	16,600	1,840	720	1,520
8	1,960	2,500	1,070	4,820	5,720	15,900	9,480	31,700	30,000	1,960	692	1,250
9	1,960	2,020	1,110	5,490	5,260	11,000	9,260	21,000	25,000	1,580	699	1,020
10	1,900	1,720	1,130	6,180	11,500	8,000	11,100	15,500	16,700	1,320	1,020	968
11	1,840	1,540	1,490	6,410	20,200	6,200	12,600	11,200	10,100	1,160	1,230	760
12	1,720	1,400	2,280	6,180	21,200	5,170	12,600	8,700	7,140	1,040	1,260	706
13	1,900	1,320	2,760	5,950	15,600	4,450	9,740	8,050	5,840	979	1,060	678
14	1,660	1,270	2,760	5,490	11,500	3,950	7,900	6,400	5,240	819	1,160	744
15	1,560	1,230	2,840	5,140	9,650	3,550	6,680	5,100	5,240	894	1,200	763
16	1,420	1,190	3,000	5,140	10,400	3,500	5,360	4,220	9,640	851	1,260	720
17	1,310	1,150	2,760	4,920	13,200	3,500	4,300	3,560	11,600	800	1,190	695
18	1,370	1,110	2,360	4,210	18,000	4,400	3,600	3,080	8,890	768	1,140	671
19	1,580	1,080	1,980	3,490	19,200	10,300	3,100	2,700	6,240	768	1,060	644
20	1,720	1,040	1,770	3,000	21,700	26,800	3,000	2,630	4,840	876	876	624
21	1,720	1,000	1,600	2,760	19,200	30,300	2,800	2,600	4,030	928	744	604
22	1,520	960	1,490	2,680	14,900	29,600	2,900	3,160	3,360	894	834	573
23	1,360	920	1,370	2,760	10,900	31,000	6,240	5,120	2,910	826	1,090	555
24	1,360	890	1,310	2,760	8,480	28,200	8,040	6,740	2,630	784	1,200	537
25	1,250	870	1,270	2,600	7,330	23,200	6,680	9,940	2,500	784	1,180	520
26	1,240	850	1,230	2,440	7,100	19,600	5,580	10,600	2,810	784	1,050	514
27	1,280	840	1,230	2,280	11,200	16,900	5,900	10,000	3,940	800	953	498
28	1,210	820	1,280	2,050	23,200	15,900	5,140	15,000	3,680	826	953	492
29	1,170	800	1,310	1,910	43,500	13,000	3,900	42,800	2,770	842	1,140	486
30	1,150	770	1,530	1,980	-	10,800	4,200	50,100	2,440	784	1,520	470
31	1,130	-	1,980	2,840	-	8,760	-	43,100	-	720	2,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	43,890	1,960	830	1,416	87,050
November.....	41,290	3,200	770	1,376	81,800
December.....	48,283	3,000	730	1,558	95,770
Calendar year 1943.....	3,571,964	111,000	730	9,786	7,085,000
January.....	125,180	6,410	1,910	4,038	248,300
February.....	365,810	43,500	4,500	12,610	725,600
March.....	604,980	60,000	3,500	19,520	1,200,000
April.....	236,860	20,200	2,800	7,895	469,800
May.....	701,600	87,700	2,600	22,650	1,392,000
June.....	321,140	37,500	2,440	10,700	637,000
July.....	36,037	2,320	720	1,162	71,480
August.....	31,775	2,050	692	1,025	65,020
September.....	27,287	2,140	470	909	54,080
Water year 1943-44.....	2,584,112	87,700	470	7,060	5,126,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River at Garland, Ark.

Location.— Water-stage recorder, lat. 33°21', long. 93°42', in SE $\frac{1}{4}$ 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 and June 1934 to September 1944 in reports of Geological Survey. January 1932 to May 1934 in reports of Corps of Engineers, U. S. Army. Gage-height records collected at same site from February 1890 to December 1899, and results of discharge measurements in September 1893 and November 1902 are contained in reports of Mississippi River Commission.

Average discharge.— 17 years (1927-44), 16,650 second-feet.

Extremes.— Maximum discharge during year, 122,000 second-feet May 5; maximum gage height, 25.58 feet May 6; minimum discharge, 724 second-feet Sept. 29, 30 (gage height, 2.50 feet).

1927-31, 1934-44: 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	1,370	1,150	5,130	7,300	65,800	30,500	15,200	57,500	3,190	1,110	2,560
2	1,000	1,370	1,140	6,590	9,470	70,600	25,600	39,500	52,600	2,860	1,040	2,790
3	1,000	1,460	1,360	8,360	10,600	65,800	22,200	77,900	44,600	2,790	1,000	2,560
4	1,020	1,850	1,140	8,800	10,900	61,800	26,100	110,000	73,500	2,480	1,030	2,410
5	1,150	4,310	1,100	9,020	11,100	58,200	34,800	122,000	729,000	2,190	1,020	2,340
6	1,290	6,290	1,230	9,240	11,100	56,100	36,500	121,000	722,200	1,980	992	2,260
7	1,330	6,690	1,560	9,240	11,100	53,300	34,200	109,000	19,100	1,920	1,000	2,340
8	1,490	6,090	1,500	9,240	10,900	47,800	29,500	98,000	25,600	2,050	1,040	2,410
9	1,850	5,130	2,640	9,930	10,600	40,700	25,600	85,100	32,600	2,340	879	2,260
10	2,120	4,040	4,580	11,100	13,400	33,700	25,200	72,200	27,000	2,260	940	1,980
11	2,050	3,280	4,940	11,800	25,200	27,500	27,500	62,600	19,100	1,980	1,040	1,680
12	2,050	2,870	5,890	11,600	34,200	22,200	29,500	61,900	15,200	1,720	1,110	1,430
13	2,340	2,560	9,470	10,900	34,800	17,700	29,000	49,800	10,400	1,590	1,520	1,250
14	2,340	2,260	11,600	10,400	32,600	13,400	27,000	37,700	9,020	1,540	1,780	1,100
15	2,190	2,050	11,600	10,400	30,000	10,600	24,800	31,000	8,800	1,430	1,630	1,040
16	2,050	1,980	10,400	10,600	28,500	9,700	22,200	24,300	9,470	1,360	1,510	1,020
17	1,850	1,780	8,360	10,400	28,500	12,400	18,400	18,800	12,600	1,330	1,460	1,000
18	1,710	1,680	6,890	9,930	32,000	16,700	14,000	13,400	13,200	1,280	1,550	966
19	1,670	1,600	5,510	9,020	35,400	24,800	10,600	10,600	10,900	1,280	1,540	940
20	1,780	1,540	4,580	7,950	38,900	42,600	8,580	9,020	8,580	1,190	1,470	916
21	1,920	1,490	3,960	7,090	41,300	57,500	7,510	8,360	6,890	1,170	1,360	892
22	1,980	1,400	5,440	6,890	40,100	61,000	7,300	7,930	5,700	1,240	1,150	832
23	1,790	1,330	3,030	6,490	37,100	65,800	10,200	9,930	5,700	1,260	953	808
24	1,720	1,290	2,710	6,090	33,200	62,600	16,100	14,600	5,320	1,250	940	784
25	1,630	1,240	2,640	5,890	29,500	56,800	19,100	18,000	4,400	1,230	1,060	772
26	1,430	1,200	2,480	5,510	26,600	31,900	18,800	20,600	3,780	1,160	1,230	760
27	1,400	1,190	2,340	5,130	25,200	47,200	17,400	20,200	3,700	1,170	1,320	748
28	1,380	1,150	2,340	4,940	31,500	43,900	15,800	22,200	4,400	1,110	1,250	748
29	1,400	1,120	2,410	4,940	46,200	41,300	12,900	35,400	4,400	1,160	1,190	748
30	1,410	1,120	2,650	5,130	-	38,300	10,400	56,800	3,780	1,240	1,540	724
31	1,380	-	3,360	5,890	-	34,800	-	61,000	-	1,170	1,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50,740	2,340	1,000	1,637	100,600
November	72,730	6,690	1,120	2,424	144,300
December	127,710	11,800	1,100	4,120	253,300
Calendar year 1943	4,609,352	111,000	992	12,630	9,142,000
January	253,520	11,800	4,940	8,178	502,800
February	739,270	48,200	7,300	25,490	1,466,000
March	1,312,520	70,600	9,700	42,340	2,603,000
April	637,290	36,500	7,300	21,240	1,264,000
May	1,433,040	122,000	7,930	46,230	2,842,000
June	510,040	57,500	3,700	17,000	1,012,000
July	51,950	3,190	1,110	1,676	103,000
August	38,584	1,850	940	1,245	76,530
September	43,068	2,790	724	1,436	85,420
Water year 1943-44	5,270,442	122,000	724	14,400	10,450,000

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

Note: Discharge computed from graph based on gage readings June 7-12, Aug. 8-31, Sept. 6-27.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River at Shreveport, La.

Location.-- Water-stage recorder, lat. 32°30'55" long. 93°44'25", in SE $\frac{1}{4}$ sec. 30, T. 18 N., R. 13 W., at Illinois Central Railroad bridge at Shreveport, half a mile downstream from Cross Bayou. Datum of gage is 131.48 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Drainage area.-- 59,300 square miles (from reports of Mississippi River Commission).

Records available.-- July 1928 to September 1929 and October 1938 to September 1944 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.

Average discharge.-- 16 years, 23,430 second-feet.

Extremes.-- Maximum discharge during year, 163,000 second-feet May 9 (gage height, 27.70 feet); minimum, 1,420 second-feet Sept. 30; minimum gage height, 3.51 feet Dec. 5. 1928-29, 1938-44: Maximum discharge, 163,000 second-feet May 5, 1942 (gage height, 31.47 feet); minimum, 792 second-feet Nov. 9, 1939 (gage height, 0.24 foot).

Flood of May 26, 1930, reached a stage of 35.91 feet; discharge of 244,000 second-feet measured on May 28, 1930 (from reports of Mississippi River Commission).

Maximum stage known, 45.9 feet (present datum), in August 1849.

Remarks.-- Records good. Discharge Oct. 1 to Dec. 31 computed from hydrograph based on gage heights and frequent discharge measurements; discharge Feb. 9 to Aug. 13 computed from loop curves based on frequent discharge measurements.

Cooperation.-- Fifty-two discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; three discharge measurements made, gage-height record collected, and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,570	2,050	1,670	3,220	9,670	74,500	70,000	27,600	78,700	5,320	1,680	2,290
2	1,600	2,150	1,650	4,000	10,200	86,600	65,500	40,600	76,000	5,190	1,660	2,360
3	1,580	2,000	1,600	6,070	11,900	89,600	59,300	76,400	70,300	3,990	1,650	2,570
4	1,520	1,980	1,570	8,080	14,100	85,600	54,400	114,000	62,700	3,350	1,630	2,920
5	1,490	1,990	1,570	9,960	15,400	79,900	55,300	135,000	56,400	3,040	1,600	3,010
6	1,470	2,180	1,700	10,900	15,700	77,100	61,800	150,000	50,100	2,740	1,600	3,060
7	1,500	3,170	1,670	11,300	15,700	75,600	64,300	158,000	45,000	2,580	1,590	3,340
8	1,560	5,280	1,660	11,900	16,100	72,500	59,900	162,000	40,500	2,460	1,590	3,600
9	1,620	6,210	1,690	12,400	20,900	67,100	55,300	183,000	44,300	2,340	1,580	3,740
10	1,710	6,190	1,780	12,600	25,100	62,600	51,600	143,000	51,800	2,340	1,580	3,940
11	1,880	5,790	2,000	13,600	26,900	55,200	50,600	134,000	49,000	2,290	1,580	3,980
12	2,210	5,180	3,110	15,500	35,200	49,300	51,400	123,000	42,200	2,290	1,580	3,680
13	2,590	4,480	4,250	16,800	42,600	43,300	52,700	112,000	35,200	2,290	1,570	3,150
14	2,750	3,950	5,240	17,000	44,000	38,500	52,100	103,000	29,300	2,220	1,700	2,700
15	2,870	3,500	9,420	17,300	43,100	33,800	49,900	94,200	25,200	2,220	1,660	2,340
16	2,830	3,170	12,100	17,300	41,600	30,300	47,200	83,900	22,400	2,180	2,030	2,080
17	2,820	2,890	12,300	17,300	41,400	28,300	43,900	72,700	20,900	2,040	2,060	1,920
18	2,700	2,690	10,900	17,500	42,300	28,200	39,700	63,200	22,100	1,990	2,020	1,830
19	2,580	2,510	9,530	17,600	44,900	33,400	34,700	55,200	24,400	1,990	1,980	1,760
20	2,450	2,580	8,270	16,800	47,800	42,400	31,400	48,800	22,100	1,910	1,970	1,700
21	2,350	2,270	7,210	15,900	51,200	61,800	28,400	43,900	18,400	1,910	1,970	1,650
22	2,390	2,170	6,420	15,000	53,700	70,900	26,300	41,600	15,800	1,820	1,960	1,600
23	2,510	2,060	5,840	14,100	53,700	74,900	25,300	41,900	14,000	1,750	1,960	1,560
24	2,720	1,990	5,280	13,400	52,200	79,600	25,900	40,700	12,600	1,750	1,920	1,530
25	2,710	1,920	4,800	12,500	50,300	78,800	29,900	41,600	11,700	1,750	1,910	1,490
26	2,520	1,840	4,200	11,900	49,900	74,900	33,000	44,500	10,400	1,750	1,780	1,470
27	2,450	1,800	3,100	11,100	48,900	72,500	35,000	45,600	9,080	1,720	1,740	1,470
28	2,320	1,750	3,830	10,500	49,700	73,500	36,000	46,000	7,830	1,690	1,780	1,460
29	2,190	1,710	3,430	10,000	56,900	80,500	27,700	45,400	7,050	1,680	1,860	1,450
30	2,100	1,690	3,260	9,800	-	80,600	26,400	57,100	6,860	1,660	1,970	1,450
31	2,070	-	3,200	9,650	-	74,300	-	74,200	-	1,660	2,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	67,580	2,870	1,470	2,180	134,000
November.....	88,920	6,210	1,690	2,964	176,400
December.....	145,070	12,300	1,570	4,680	287,700
Calendar year 1943.....	5,720,170	92,000	1,470	15,670	11,340,000
January.....	390,880	17,600	3,220	12,610	775,300
February.....	1,032,070	56,900	9,670	35,690	2,047,000
March.....	1,972,800	89,600	28,200	63,640	3,913,000
April.....	1,336,300	70,000	25,300	44,540	2,651,000
May.....	2,583,100	163,000	27,600	83,530	5,124,000
June.....	922,320	78,700	6,860	32,740	1,948,000
July.....	74,900	6,860	1,660	2,415	148,600
August.....	55,560	2,200	1,570	1,792	110,200
September.....	71,080	3,980	1,430	2,369	141,000
Water year 1943-44.....	8,800,580	163,000	1,430	24,050	17,460,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River at Coushatta, La.

Location.— Wire-weight gage, lat. 32°00'45", long. 93°21'10", in lot 23 (revised), T. 12 N., R. 10 W., at bridge on U. S. Highway 64 at Coushatta, and 242.4 miles upstream from mouth. 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 (authority, Corps of Engineers, U. S. Army).

Records available.— October 1938 to September 1944 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, 141,000 second-feet May 9-11; maximum gage height, 31.2 feet May 11; minimum discharge, 1,600 second-feet Sept. 29; minimum gage height, 2.50 feet Oct. 7-9.

1937-44: Maximum discharge, 181,000 second-feet Mar. 1, 1938; maximum gage height, 35.25 feet May 7, 1942; minimum discharge, 880 second-feet Nov. 10, 11, 1939 (gage height, 1.25 feet).

Flood of June 5, 1892, reached a stage of 39.2 feet.

Remarks.— Records good above 10,000 second-feet and fair below. Gage read twice daily.

Cooperation.— Gage-height record furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,900	2,200	1,800	3,820	11,600	69,000	79,800	34,500	83,600	9,430	1,860	3,100
2	1,830	2,280	1,800	3,940	11,600	84,300	78,000	44,600	85,200	8,850	1,960	2,610
3	1,830	2,280	1,830	4,580	11,600	82,800	72,700	66,700	82,000	8,090	1,960	2,730
4	1,830	2,120	1,900	5,450	13,300	93,000	68,000	99,600	76,400	7,180	1,960	2,550
5	1,830	2,120	1,900	7,190	14,700	92,000	64,300	123,000	67,800	6,460	1,860	3,100
6	1,830	2,120	1,830	8,980	15,700	89,600	69,100	130,000	59,200	5,920	1,860	3,510
7	1,770	2,280	1,900	10,500	16,200	86,000	72,300	135,000	52,000	5,410	1,770	3,510
8	1,830	2,280	1,900	11,100	16,200	84,000	72,300	138,000	45,800	4,900	1,770	3,650
9	1,830	4,060	1,830	12,100	17,000	77,800	68,600	140,000	41,600	4,410	1,770	3,800
10	1,900	5,610	1,830	12,900	20,900	71,700	65,300	141,000	49,200	4,100	1,770	3,950
11	1,970	5,940	1,830	13,300	23,400	66,300	60,500	140,000	51,400	3,950	1,770	4,100
12	2,040	5,770	1,900	14,500	26,300	60,100	60,400	138,000	45,800	3,800	1,770	4,410
13	2,280	5,300	2,370	17,000	35,200	54,000	61,000	129,000	39,400	3,650	1,770	4,250
14	2,550	4,860	3,230	18,600	41,600	49,100	61,500	121,000	32,300	3,650	1,770	3,800
15	2,640	4,810	3,940	19,400	42,200	44,100	60,400	111,000	27,500	3,510	1,680	3,370
16	2,730	3,820	7,010	19,700	41,000	39,600	58,100	100,000	24,600	3,370	1,770	2,970
17	2,820	3,460	10,800	19,700	40,400	37,100	55,300	87,500	23,000	3,100	1,960	2,730
18	2,820	3,230	10,900	19,700	40,400	38,400	52,000	75,000	21,800	2,850	2,170	2,500
19	2,730	3,020	10,200	19,700	41,600	41,600	43,700	65,600	23,400	2,730	2,060	2,280
20	2,640	2,820	9,190	19,400	43,400	45,100	43,000	57,200	24,200	2,610	2,060	2,170
21	2,460	2,730	8,170	18,500	46,600	57,700	39,400	52,600	22,200	2,500	2,060	2,060
22	2,460	2,730	7,190	17,600	49,900	71,400	36,500	50,000	19,200	2,350	2,060	1,960
23	2,370	2,460	6,470	16,400	53,400	76,400	34,900	48,500	17,100	2,280	2,060	1,960
24	2,460	2,280	5,940	15,700	54,800	80,200	33,800	47,800	15,400	2,170	2,060	1,770
25	2,550	2,200	5,450	15,200	52,700	82,600	34,500	48,500	14,400	2,060	2,060	1,770
26	2,640	2,200	5,150	14,500	53,400	80,200	39,000	50,000	13,500	2,060	2,060	1,770
27	2,550	2,120	4,580	13,700	54,800	77,000	40,000	56,400	12,500	2,060	1,960	1,680
28	2,550	2,120	4,060	13,300	54,100	75,400	39,200	56,400	11,200	2,060	1,960	1,680
29	2,460	2,040	4,180	12,800	56,200	78,600	35,400	55,300	10,200	1,960	1,770	1,600
30	2,370	1,970	3,940	12,100	-	81,800	35,400	57,200	9,630	1,960	1,960	1,680
31	2,280	-	3,820	11,800	-	80,600	-	72,400	-	1,960	2,610	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		70,750	2,920	1,770	2,282	140,300
November		93,090	5,940	1,970	3,103	184,600
December		138,440	10,900	1,830	4,466	274,600
Calendar year 1943		5,913,370	91,800	1,770	16,200	11,730,000
January		422,960	18,700	3,820	13,640	838,900
February		1,000,200	56,200	11,600	34,490	1,984,000
March		2,156,500	93,000	37,100	69,560	4,277,000
April		1,631,400	79,800	33,800	54,380	3,236,000
May		2,671,800	141,000	34,500	86,190	5,299,000
June		1,100,530	85,200	9,630	36,680	2,183,000
July		121,430	9,430	1,960	3,917	240,900
August		59,740	2,610	1,680	1,927	118,500
September		83,220	4,410	1,600	2,774	168,100
Water year 1943-44		9,550,060	141,000	1,600	26,090	18,940,000

Note.— Backwater from return of overbank flow Mar. 4-20, Mar. 31 to May 1, May 6-29; discharge computed from loop curves based on frequent discharge measurements.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Red River at Alexandria, La.

Location.— Wire-weight gage, lat. 31°18'46", long. 92°26'34", in SE¼ sec. 10, T. 4 N., R. 1 W., at old bridge on U. S. Highway 165 between Alexandria and Pineville, 1.7 miles downstream from Bayou Rigolette. Datum of gage is 44.26 feet above mean sea level, datum of 1929, supplementary adjustment of 1941, 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 (from reports of Mississippi River Commission).

Records available.— October 1938 to September 1944 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, 146,000 second-feet May 13, 14; maximum gage height, 38.51 feet May 14; minimum discharge, 1,700 second-feet Oct. 11; minimum gage height, 0.95 foot Dec. 5.

1928-44: 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 except those below 5,000 second-feet, which are fair. Gage read twice daily. Discharge computed from loop curves based on frequent discharge measurements.

Cooperation.— Gage-height record, 46 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,200	2,130	2,350	5,400	17,600	69,800	92,100	41,300	81,800	12,100	2,780	4,330
2	2,280	2,020	2,290	6,250	17,500	78,900	92,200	54,800	86,900	11,400	2,770	5,120
3	2,200	2,000	2,310	9,300	17,000	89,700	92,500	75,800	88,900	10,700	2,800	5,420
4	2,170	1,880	2,300	10,300	16,800	98,500	88,600	98,200	87,600	9,900	2,710	5,190
5	2,120	1,890	2,230	10,100	16,900	99,000	85,500	118,000	84,200	8,920	2,700	4,840
6	2,110	2,290	2,300	10,600	17,800	98,400	81,900	127,000	79,300	7,800	2,700	4,950
7	1,950	3,180	2,340	11,400	19,100	95,200	82,100	132,000	73,800	7,130	2,680	4,990
8	1,810	3,110	2,300	12,300	19,900	92,000	84,400	136,000	67,600	6,680	2,670	5,550
9	1,720	2,980	2,270	12,800	20,200	89,100	83,900	139,000	61,200	6,160	2,670	5,750
10	1,720	3,060	2,260	13,100	21,200	86,000	80,800	141,000	55,900	5,710	2,660	5,620
11	1,700	3,930	2,290	14,200	24,900	81,700	76,000	143,000	56,000	5,320	2,630	5,480
12	1,720	5,160	2,300	14,500	28,500	76,200	70,600	145,000	57,300	5,050	2,610	5,280
13	1,910	5,750	2,260	16,100	34,400	70,100	68,000	146,000	54,900	4,760	2,600	5,070
14	1,980	5,820	2,380	22,600	45,100	64,000	67,400	146,000	49,700	4,620	2,590	4,920
15	2,170	5,480	2,590	28,000	50,500	58,100	67,300	144,000	44,000	4,580	2,650	4,750
16	2,320	4,900	3,260	30,600	52,500	52,000	65,200	141,000	39,100	4,490	2,700	4,470
17	2,640	4,420	4,270	31,000	52,800	46,500	61,900	136,000	35,100	4,340	2,630	4,110
18	2,820	3,890	7,110	30,200	52,200	42,200	57,200	130,000	32,100	4,200	2,560	3,660
19	3,000	3,570	9,690	28,900	52,200	40,400	52,600	124,000	30,100	4,010	2,560	3,230
20	3,020	3,280	10,600	29,500	53,800	46,200	46,700	117,000	29,500	3,790	2,660	2,910
21	3,020	2,900	10,100	27,300	55,700	51,600	43,200	108,000	29,500	3,600	2,700	2,720
22	2,710	2,880	9,310	25,700	58,200	64,300	41,000	99,400	28,600	3,410	2,690	2,560
23	2,510	2,810	8,520	24,300	60,600	75,900	38,900	91,700	26,300	3,310	2,660	2,480
24	2,300	2,650	8,100	22,800	61,800	81,900	37,500	85,000	23,800	3,180	2,620	2,410
25	2,180	2,500	8,780	21,200	62,800	86,100	35,300	80,700	21,600	3,080	2,620	2,370
26	2,120	2,490	7,690	20,100	63,000	88,700	38,000	77,900	19,600	3,010	2,600	2,320
27	2,180	2,450	7,100	19,100	64,400	88,600	41,600	76,200	18,000	3,000	2,590	2,230
28	2,240	2,420	6,560	18,200	65,500	87,000	43,600	75,400	16,500	2,960	2,620	2,310
29	2,360	2,410	6,090	17,400	66,600	87,700	41,300	75,000	14,900	2,890	2,760	2,390
30	2,300	2,380	5,720	17,300	-	89,400	38,800	74,400	13,400	2,870	2,700	2,340
31	2,580	-	5,490	17,600	-	91,700	-	74,400	-	2,800	3,030	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	69,800	3,020	1,700	2,252	138,400
November.....	96,620	5,820	1,880	3,221	191,600
December.....	162,200	10,600	2,230	4,910	301,900
Calendar year 1943	6,250,240	84,300	1,700	17,120	12,400,000
January.....	578,250	31,000	5,400	18,650	1,147,000
February.....	1,189,600	66,600	16,800	41,020	2,360,000
March.....	2,366,900	99,000	40,400	76,350	4,695,000
April.....	1,897,000	92,500	36,300	63,230	3,763,000
May.....	3,353,200	146,000	41,300	108,200	8,651,000
June.....	1,407,200	88,900	15,400	46,910	2,791,000
July.....	165,760	12,100	2,800	5,347	328,800
August.....	82,920	3,030	2,650	2,675	164,500
September.....	119,860	5,750	2,310	3,995	237,700
Water year 1943-44	11,479,310	146,000	1,700	31,360	22,770,000

g Computed from estimated gage-height graph.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

Palo Duro Creek near Canyon, Tex.

Location.- Staff gage, lat. 35°02', long. 102°02', at conduit tower in lake, 200 feet upstream from Amarillo city dam, 0.4 mile upstream from Nigger Arroyo Creek, and 6 miles northwest of Canyon, Randall County. Datum of gage is 3,584.42 feet above mean sea level, datum of 1929.

Records available.- August 1942 to September 1944 (gage heights only).

Extremes.- Maximum gage height observed during year, 23.3 feet July 15; minimum, not determined.

Highest stage known occurred June 5-7, 1937, when lake reached a stage of about 54.5 feet (spillway crest at that time, 52.5 feet gage height) according to city of Amarillo Water Department.

Remarks.- Lake is formed by earth-fill dam 39 feet high and 1,600 feet long with 500-foot earthen spillway crest at 50.3 feet gage height. Dam completed February 1927. Capacity at spillway crest about 3,200 acre-feet (estimate by city engineer of Amarillo). No water is diverted from lake. The lower part of lake is surrounded by ten water wells which are used to partly supply city of Amarillo. The lake water is used to recharge sands and gravels supplying water to city wells. This recharge is brought about by natural infiltration of water from lake into underlying sands and gravels. There was no flow in Palo Duro Creek below dam during year. Measurements of discharge of the creek, in second-feet, were made 1.5 miles upstream from dam as follows:

1943		1944	
Nov. 11	1.54	May 9	0.63
Dec. 18	1.61	June 30	1.33
		Aug. 7	.87
1944		Sept. 13	.85
Feb. 27	1.25		
Apr. 13	1.01		

Monthly gage height, water year 1943-44

Date	Gage height (feet)
Oct. 31.....	(a)
Nov. 30.....	(a)
Dec. 31.....	(a)
Jan. 31.....	(a)
Feb. 28.....	(a)
Mar. 31.....	(a)
Apr. 30.....	19.2
May 31.....	19.4
June 30.....	e18.0
July 31.....	18.4
Aug. 31.....	e17.0
Sept. 30.....	e17.0

a No record; water below lower limit of gage.

e Gage height estimated; water below lower limit of gage.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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.

Drainage area.- About 260 square miles, of which about 200 square miles is probably non-contributing.

Records available.- May 1939 to June 1940 (monthly figures only). November 1940 to September 1944.

Extremes.- Maximum discharge during year, 389 second-feet July 11; maximum gage height, 88.56 feet Oct. 2; no flow at times.

1939-44: Maximum discharge, 3,110 second-feet Oct. 4, 1941; maximum gage height, 95.48 feet Oct. 4, 1941; 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 adjustment made for evaporation or seepage losses. Small springs flowing into creek above reservoir are measured occasionally and discharges, when inflow was less than reservoir losses, were estimated on basis of these measurements. Dam completed Jan. 15, 1939. Reservoir capacity, 654 acre-feet. Reservoir used for recreational purposes and water is rarely released through outlet gate, but flow of a spring discharging just below reservoir was measured during year as follows:

Date	Discharge (second-feet)	Date	Discharge (second-feet)
Nov. 10.....	0.18	May 14.....	0.20
Dec. 17.....	.24	July 1.....	.10
Feb. 26.....	.18	Aug. 6.....	.02
Apr. 28.....	.14	Sept. 14.....	.005

Cooperation.- Gage-height record and capacity curve furnished by U. S. Soil Conservation Service.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1.0			1.5			m0.2		e0
2				.6								1.0
3												1.0
4												1.2
5		e0	e0				e.2	e0.2	e0.2			
6										e.2	m0	.4
7				1.7					1.7			
8									.2			
9									2.7			
10		m0	5.1	.6			1.7	4.2	.2			e0
11									1.2	4.4		
12								e.2	.7	1.8		m0
13					e0.2			m.2				
14			e0			e0.2						
15												
16				e.1							1.0	
17			m0									
18		e0					e.2			e.1		e0
19								e.2				
20									e.2			
21												
22			e0									
23												
24										1.1	e0	1.0
25		.8										
26		1.4		2.0	m.2			2.2				e0
27					1.8			1.0				1.4
28			1.4					.7		e.1		
29		e0			e.2		m.2		2.5			
30			e0	e.1			3.8					e0
31							.2	e.2	e.2			

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet	Contents in acre-feet
October.....	0	0	0	0	0	380
November.....	2.2	1.4	0	.07	4.4	352
December.....	7.1	5.1	0	.23	14	366
Calendar year 1943.....	742.5	418	0	2.03	1,480	-
January.....	7.6	2.0	0	.25	15	368
February.....	7.4	1.8	-	.26	15	358
March.....	6.2	-	-	.20	12	337
April.....	12.4	3.8	-	.41	25	313
May.....	13.5	4.2	-	.44	27	296
June.....	13.8	2.7	-	.46	27	264
July.....	11.1	4.4	-	.36	22	240
August.....	1.0	1.0	0	.03	2.0	197
September.....	6.0	1.4	0	.20	12	191
Water year 1943-44.....	88.3	5.1	0	.24	175	-

† Contents in reservoir at end of month.

e Inflow less than reservoir losses; discharge estimated on basis of occasional measurements of spring flow.

m Discharge measurement above reservoir.

Note.- No gage-height record Nov. 3-9.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Salt Fork Red River at Mangum, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 34°52', long. 99°31', in SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1944.

Extremes.- Maximum discharge during year, 16,900 second-feet June 13 (gage height, 10.95 feet); no flow at times.

1905-6, 1937-44: 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 poor. Wire-weight gage read at least once daily and readings used when water-stage recorder record was not available, ordinarily at low water.

Cooperation.- Forty-nine discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	49	53	96	77	35	2,740	31	0.2	a40
2			0	*183	57	72	53	40	1,680	39	0	22
3			0	229	55	61	34	22	189	97	0	8.3
4			0	*148	50	50	22	8.2	80	30	0	2.8
5			0	99	43	43	14	3.4	37	27	0	4.3
6			2.0	106	38	32	13	1.2	17	8.3	0	10
7			0	103	*34	20	11	.4	11	.6	0	a80
8			2.9	b20	37	12	11	.1	14	.2	0	a30
9			32	b10	40	10	48	0	9.2	.1	0	14
10			156	*b20	45	8.6	145	0	7.3	.2	0	6.5
11			210	b25	b15	9.7	22	0	5.1	.1	0	8.7
12			94	b30	*b15	8.2	9.7	0	773	630	0	9.8
13			*48	b40	26	9.2	6.1	0	4,020	1,750	0	7.8
14			27	b50	27	46	3.7	0	876	282	0	54
15			b14	b100	28	536	2.2	0	296	130	0	20
16			*b10	144	*28	798	1.5	0	147	81	0	3.1
17			b10	277	31	122	1.0	0	85	50	0	a.5
18			10	*218	a34	72	.4	0	57	30	0	0
19			12	134	38	70	8.9	0	46	20	2.6	0
20			*22	83	41	55	27	0	33	.76	18	0
21			9.5	55	37	41	24	0	21	94	6.1	0
22			10	45	35	31	10	0	13	108	.7	0
23			9.5	43	37	25	1.9	0	8.3	98	0	0
24			7.5	*43	37	19	1.8	0	91	67	0	0
25			9.5	41	32	16	.8	0	18	46	0	0
26			8.5	40	25	14	.1	0	18	33	65	0
27			17	80	34	11	0	0	40	30	141	17
28			*63	542	77	26	0	0	18	19	71	12
29			*b25	101	155	70	12	222	8.7	14	39	72
30			20	63	-	133	24	137	5.7	12	a20	54
31			20	*55	-	129	-	47	-	4.3	a100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	0	0	0	0	0
November.....	0	0	0	0	0
December.....	849.4	210	0	27.4	1,680
Calendar year 1943.....	9,653.5	580	0	27.0	19,540
January.....	3,176	542	10	102	6,300
February.....	1,204	155	15	41.5	2,390
March.....	2,945.7	836	8.2	95.0	5,840
April.....	585.1	145	0	19.5	1,160
May.....	516.3	222	0	16.7	1,020
June.....	11,364.3	4,020	5.1	379	22,540
July.....	3,785.8	1,750	.1	122	7,510
August.....	463.6	141	0	15.0	920
September.....	476.8	80	0	15.9	946
Water year 1943-44.....	25,367.0	4,020	0	69.3	50,310

Peak discharge.- Mar. 15 (2 p.m.) 2,120 sec.-ft.; Mar. 16 (1:45 a.m.) 2,260 sec.-ft.; June 1 (7 a.m.) 9,240 sec.-ft.; June 2 (1 a.m.) 6,690 sec.-ft.; June 13 (12:45 a.m.) 16,900 sec.-ft.; July 13 (4:15 a.m.) 5,400 sec.-ft.

* Winter discharge measurement made on this day.

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

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Fork 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. 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 1944 (discontinued). March 1930 to September 1932 at site 7 miles downstream (published as North Fork of Red River at Lugert Dam).

Extremes.- Maximum discharge during year, 10,400 second-feet June 13 (gage height, 8.6 feet); no flow at times.

1903-8, 1930-32, 1938-44: Maximum discharge, 23,900 second-feet Apr. 27, 1942 (gage height, 9.55 feet), from rating curve extended above 14,000 second-feet; no flow at times.

Flood of May 18, 1935, reached a stage of 9.8 feet, from information by State Highway Department.

Remarks.- Records fair except those for periods of ice effect, which are poor.

Cooperation.- Forty-seven discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	64	146	272	90	106	3,050	10	116	56
2	0		0	115	128	180	78	134	2,600	8.0	80	30
3	0		0	*167	108	136	72	579	84	47	17	
4	0		0	182	94	102	61	60	301	83	31	10
5	0		0	297	94	84	51	41	180	53	22	10
6	0		0	262	87	73	44	29	106	23	17	9.3
7	0		0	196	*78	62	41	24	78	10	12	6.0
8	0		0	b50	80	47	42	20	78	4.2	9.0	3.3
9	0		0	b20	78	40	78	18	72	1.6	6.0	2.6
10	0		50	*b25	78	35	562	16	61	.6	4.3	2.0
11	0		147	b30	b50	37	102	16	68	.4	6.5	2.6
12	0		162	b30	b50	37	74	15	492	8.7	53	1.3
13	0		133	b35	61	40	56	12	f4,830	846	6.6	.2
14	0		79	b50	74	42	51	40	956	229	2.2	7.4
15	0		a39	*b55	70	794	46	81	432	96	.7	7.2
16	0		f20	b70	*65	458	37	72	344	66	.1	13
17	0		22	b100	83	565	33	45	193	95	.1	15
18	0		20	142	97	272	28	20	146	93	0	7.2
19	0		38	156	92	154	42	11	106	36	0	2.0
20	0		36	165	83	113	66	5.0	83	484	0	.1
21	0		30	186	77	90	110	.9	69	244	0	0
22	0		22	119	73	70	55	.1	53	59	0	0
23	0		28	100	70	62	42	0	40	34	0	0
24	104		25	89	70	59	32	0	124	24	0	0
25	41		24	80	66	52	28	0	120	1,160	0	0
26	1.2		24	*83	58	45	23	.1	58	302	356	0
27	0		32	100	68	38	21	720	35	154	208	3.2
28	0		38	166	106	38	23	454	23	97	78	914
29	0		f18	457	165	67	44	162	17	123	44	416
30	0		28	221	-	104	114	430	12	2,110	46	165
31	0		29	*159	-	102	-	380	-	402	206	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	167.2	104	0	5.39	332
November.....	0	0	0	0	0
December.....	1,044	162	0	33.7	2,070
Calendar year 1943.....	24,931.4	617	0	68.3	49,460
January.....	3,971	457	20	128	7,880
February.....	2,431	165	50	53.8	4,820
March.....	4,249	794	35	137	8,430
April.....	2,149	562	21	71.6	4,260
May.....	3,007.1	720	0	97.0	5,960
June.....	15,306	4,830	12	510	30,360
July.....	6,940.5	2,110	.4	224	13,770
August.....	1,351.5	356	0	43.6	2,680
September.....	1,700.4	914	0	56.7	3,370
Water year 1943-44.....	42,316.7	4,830	0	116	83,930

Peak discharge.- June 1 (8:15 a.m.) 5,220 sec.-ft.; June 2 (10 a.m.) 4,160 sec.-ft.; June 13 (12:30 p.m.) 10,400 sec.-ft.; July 25 (3:30 a.m.) 3,920 sec.-ft.; July 30 (4 p.m.) 4,410 sec.-ft.; Sept. 28 (5 p.m.) 3,260 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed from estimated gage-height graph.

b Stage-discharge relation affected by ice (no gage-height record Jan. 9, 10, 12).

f Computed from partly estimated gage-height record.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

North Fork Red River near Headrick, Okla.

Location.- Water-stage recorder, lat. 34°38', long. 99°06', in center of N $\frac{1}{2}$ sec. 21, T. 2 N., R. 18 W., at bridge on U. S. Highway 82, 2 $\frac{1}{2}$ 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 1944. April to July 1905 (gage heights only), at site a quarter of a mile downstream, published as North Fork Red River near Snyder. July 1905 to March 1908 at Navajo dam site 10 miles upstream.

Extremes.- Maximum discharge during year, 13,600 second-feet June 14 (gage height, 7.44 feet); no flow Oct. 13-24.

1938-44: Maximum discharge, 27,400 second-feet June 10, 1941 (gage height, 10.85 feet); no flow at times.

Maximum stage known, 16.1 feet sometime prior to 1927, from information by State Highway Department.

Remarks.- Records fair except those for period of ice effect, which are poor. Flow partly regulated by Lake Altus, 40 miles above station. Capacity of Lake Altus increased to 82,700 acre-feet (crest of controlled spillway) during water year 1943-44; contents zero Sept. 30, 1943; contents, 8,000 acre-feet Sept. 30, 1944.

Cooperation.- Fifty-three discharge measurements furnished by Corps of Engineers, U. S. Army. Data for Lake Altus furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	26	26	44	54	135	137	131	1,610	67	2,680	46
2	.6	23	26	54	52	174	238	198	3,280	57	840	a90
3	.6	21	24	67	a51	224	238	254	2,680	54	328	a60
4	6.6	19	21	*62	47	198	174	210	1,690	75	254	a40
5	7.4	19	27	62	40	198	139	270	1,130	714	288	a90
6	6.2	18	32	62	40	139	139	198	557	185	288	103
7	4.6	16	32	59	39	131	105	162	270	92	270	64
8	3.2	14	34	b40	43	107	97	135	222	63	288	37
9	2.5	13	45	39	39	94	111	131	2,170	44	270	26
10	1.6	13	74	b25	38	78	238	127	439	39	254	20
11	1.3	14	80	b50	72	2,400	116	162	38	a238	30	
12	1.0	13	*112	b35	63	1,100	110	174	54	198	33	
13	.4	14	116	*b20	38	71	428	103	2,630	636	110	25
14	0	14	107	b35	37	77	288	95	10,400	1,880	87	61
15	0	14	*b45	b45	*36	295	238	87	4,810	649	54	59
16	0	14	b35	62	37	4,160	198	80	1,390	270	37	275
17	0	14	b35	70	38	1,130	162	72	1,909	185	37	198
18	0	14	*b40	74	39	961	139	66	593	152	35	80
19	0	14	44	63	39	761	129	60	400	125	29	47
20	0	14	43	59	42	400	123	59	307	152	20	33
21	0	13	40	54	45	307	171	53	224	224	14	24
22	0	14	39	53	52	224	307	51	174	960	12	19
23	0	14	38	54	54	198	326	47	137	492	8.2	14
24	359	14	36	48	75	162	162	40	127	224	7.6	10
25	761	15	40	46	77	137	139	26	127	174	10	9.6
26	254	22	40	46	78	135	107	24	426	210	35	7.8
27	114	27	45	*60	78	108	94	35	210	375	78	18
28	72	29	44	68	116	116	94	149	121	254	109	30
29	55	26	*47	66	151	108	107	1,190	82	198	114	38
30	42	26	*43	60	-	141	114	198	78	244	78	196
31	31	-	41	59	-	135	-	481	-	1,450	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,722.3	761	0	55.6	3,420
November.....	521	29	13	17.4	1,030
December.....	1,450	116	21	46.8	2,880
Calendar year 1943	61,131.3	1,810	0	167	121,300
January.....	1,588	74	-	51.2	3,150
February.....	1,588	131	30	52.8	3,030
March.....	11,239	4,160	63	363.8	22,290
April.....	8,442	2,400	94	281	16,740
May.....	4,958	1,190	24	160	9,830
June.....	37,539	10,400	78	1,251	74,460
July.....	10,336	1,880	38	333	20,500
August.....	7,133.0	2,680	7.8	230	14,150
September.....	1,780.4	275	7.8	59.3	3,530
Water year 1943-44	88,238.7	10,400	0	241	175,000

Peak discharge.- Mar. 16 (3:30 a.m.) 5,190 sec.-ft.; Apr. 11 (11 a.m.) 3,580 sec.-ft.; June 2 (1:30 p.m.) 4,900 sec.-ft.; June 14 (1:30 a.m.) 15,600 sec.-ft.; July 13 (11:45 p.m.) 3,830 sec.-ft.; Aug. 1 (4:45 a.m.) 3,110 sec.-ft.

* Winter discharge measurement made on this day.

† No gage-height record; discharge computed on basis of records for Elm Fork of North Fork Red River near Mangum, records at Lake Altus, and rainfall records.

‡ Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Elm Fork of North Fork 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, and April 1938 to September 1944.

Extremes.- Maximum discharge during year, 6,200 second-feet July 13 (gage height, 6.12 feet); minimum, 1.7 second-feet Aug. 23.
1930-31, 1938-44: Maximum discharge, 27,800 second-feet Apr. 27, 1942 (gage height, 11.18 feet); 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 except those for periods of no gage-height record, and those for periods of ice effect, which are poor.

Cooperation.- Sixty-three discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	18	21	36	26	40	76	61	1,590	9.0	a32	33
2	24	18	20	*45	27	33	52	35	404	7.8	a17	25
3	22	17	19	50	26	40	25	124	822	a11	17	
4	17	17	19	43	25	26	33	20	77	194	7.9	13
5	14	17	28	36	*24	24	28	19	59	49	7.3	15
6	12	17	33	32	23	22	25	17	38	25	6.3	19
7	10	16	33	33	23	21	24	16	34	16	5.9	14
8	9.5	15	29	b50	25	20	24	16	31	12	5.9	20
9	8.2	15	43	b15	25	19	28	16	g27	11	5.6	14
10	8.2	14	146	*b15	26	19	278	16	g24	9.0	4.6	12
11	8.2	14	109	b20	b17	21	60	16	g20	8.2	11	45
12	8.2	15	58	b25	*b20	19	35	16	537	731	22	90
13	7.7	16	39	b25	22	20	30	16	2,370	1,960	5.6	26
14	7.2	16	34	b25	24	22	24	14	361	278	8.4	326
15	7.2	16	30	*b30	27	1,610	19	13	144	f104	5.3	353
16	7.2	16	17	49	*25	331	19	12	60	f52	4.2	64
17	7.2	16	24	41	26	85	18	11	g37	f42	a3.6	26
18	7.2	16	30	42	24	55	17	11	29	a23	3.1	a16
19	7.2	17	32	38	24	46	40	9.4	24	a15	2.8	a12
20	7.7	17	32	35	23	g39	173	9.0	22	115	f2.8	9.5
21	7.7	17	29	30	23	32	54	8.6	17	327	f2.8	7.9
22	11	17	25	29	24	28	32	8.6	12	f30	2.4	6.6
23	902	17	23	28	23	26	24	8.6	14	f32	2.2	5.9
24	397	17	*23	*28	23	25	19	8.6	343	a20	1.8	5.6
25	91	17	23	28	23	24	17	8.2	72	a17	2.8	4.6
26	52	24	24	29	22	23	16	9.4	20	a12	216	4.9
27	36	27	29	38	29	20	16	14	14	a11	124	11
28	30	28	30	38	42	28	16	16	11	a10	31	309
29	25	28	*b22	38	44	43	32	21	9.4	186	19	352
30	23	22	*b21	30	-	67	80	247	9.4	112	39	84
31	20	-	25	27	-	87	-	464	-	g63	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,860.6	902	7.2	60.0	3,690
November.....	534	28	14	17.8	1,060
December.....	1,070	146	17	34.5	2,120
Calendar year 1943	17,989.8	902	1.0	49.3	35,680
January.....	1,009	50	15	32.5	2,000
February.....	735	44	17	25.3	1,460
March.....	2,904	1,610	19	93.7	5,760
April.....	1,349	278	16	45.0	2,680
May.....	1,182.4	464	8.2	38.1	2,350
June.....	6,533.8	2,370	9.4	218	12,960
July.....	5,323.0	1,960	7.8	172	10,660
August.....	726.3	216	1.3	23.5	1,440
September.....	1,938.0	353	4.6	64.6	3,940
Water year 1943-44	25,166.1	2,370	1.8	68.8	49,920

Peak discharge.- Mar. 15 (7:30 a.m.) 2,470 sec.-ft.; June 1 (1 p.m.) 2,470 sec.-ft.; June 13 (12:45 a.m.) 3,760 sec.-ft.; July 13 (1:50 a.m.) 6,200 sec.-ft.

a Winter discharge measurement made on this day.

* No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

c Computed from partly estimated gage-height record.

g Computed from graph based on once-daily staff-gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 Railway bridge, and 8 miles north of Crowell, Ford County. Datum of gage is 1,330.44 feet above mean sea level (Texas State Highway bench mark).

Drainage area.- About 2,940 square miles, of which about 530 square miles is probably noncontributing.

Records available.- January 1924 to September 1944.

Average discharge.- 19 years (1924-26, 1927-44), 231 second-feet.

Extremes.- Maximum discharge during year, 52,300 second-feet June 14 (gage height, 9.85 feet from graph based on gage readings); no flow at times.

1924-44: Maximum discharge, 106,000 second-feet June 6, 1941; maximum gage height, 13.0 feet Sept. 18, 1936, from graph based on gage readings; no flow at times.

Maximum stage known, 19.6 feet June 4, 1891.

Remarks.- Records fair. Daily discharge published only to show distribution of runoff during year. When river channel was away from recorder, the daily discharge was computed from graph based on readings of wire-weight gage made once daily or oftener, using available recorder record to shape the graph. No diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	0	10	19	19	25	15	25	18	1.6	0	15
2	107	0	7.9	27	20	17	11	16	11	1.3	0	11
3	28	0	7.5	30	25	16	7.5	7.2	5.0	.9	0	6.1
4	15	0	33	28	21	12	6.8	6.1	2.3	.4	0	3.3
5	9.3	0	51	20	16	11	5.7	4.3	1.8	0	0	1,120
6	5.0	0	25	14	11	11	5.0	2.6	2.3	0	0	170
7	3.6	0	23	16	12	5.5	4.3	1.3	4.3	0	0	114
8	2.3	0	20	8.8	13	5.4	4.3	.4	27	0	0	66
9	1.8	0	28	15	12	5.7	6.1	0	746	0	0	34
10	1.6	0	37	30	11	6.1	13	0	51	0	0	20
11	.9	0	36	27	9.3	6.1	11	0	34	0	0	44
12	.9	0	29	22	7.2	5.7	5.7	0	148	803	0	37
13	.5	0	20	18	6.4	9.3	2.8	0	1,420	252	0	32
14	0	0	15	15	9.3	7.9	5.0	0	12,700	100	0	24
15	0	0	9.7	18	7.2	10	0	0	1,120	69	0	16
16	0	0	8.4	17	8.4	24	0	0	195	37	0	7.9
17	0	0	14	12	9.3	20	.4	0	98	20	64	3.8
18	0	0	12	12	7.9	14	1.1	0	50	12	4.3	1.3
19	0	0	11	10	7.5	15	.4	0	33	11	.2	.5
20	0	0	8.8	8.4	7.2	13	6.8	0	22	5.7	0	.5
21	0	2.6	8.4	6.1	7.5	12	6.5	0	16	7.9	0	.9
22	0	3.3	7.9	7.2	8.4	7.5	5.4	0	9.3	9.3	0	2.6
23	0	4.0	7.5	7.9	7.9	5.4	2.7	193	20	6.8	0	3.3
24	0	5.0	9.7	8.8	8.4	5.0	0	98	71	5.4	0	2.8
25	0	4.3	19	9.3	12	4.0	0	56	74	1.3	0	2.0
26	0	52	12	17	6.5	3.8	0	503	23	.2	1,170	2.8
27	0	18	24	20	71	3.3	0	731	11	.2	114	242
28	0	15	24	18	33	2.0	0	172	4.7	0	51	50
29	0	15	18	20	36	22	11	815	2.0	0	30	11
30	0	12	15	19	-	22	57	143	1.8	0	271	8.8
31	0	-	12	17	-	15	-	58	-	0	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	271.9	107	0	8.77	539
November.....	131.2	52	0	4.37	260
December.....	564.8	51	7.5	18.2	1,120
Calendar year 1943.....	29,921.3	9,980	0	82.0	59,350
January.....	517.5	30	6.1	16.7	1,030
February.....	432.4	71	6.5	14.9	858
March.....	342.7	25	2.0	11.1	680
April.....	190.0	57	0	6.33	377
May.....	2,828.9	815	0	91.3	5,610
June.....	15,921.5	12,700	1.8	564	33,560
July.....	1,345.0	803	0	43.4	2,870
August.....	1,726.5	1,170	0	55.7	3,420
September.....	2,052.6	1,120	.5	68.4	4,070
Water year 1943-44.....	27,325.0	12,700	0	74.7	54,190

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cache Creek near Walters, Okla.

Location.- Water-stage recorder, lat. 34°20', long. 98°17', in SE $\frac{1}{4}$ sec. 19, T. 2 S., R. 10 W., at bridge on U. S. Highway 70N, $\frac{1}{2}$ 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 1944.

Extremes.- Maximum discharge during year, 5,240 second-feet Apr. 12 (gage height, 25.76 feet); minimum, 7.8 second-feet Aug. 23.
1938-44: Maximum discharge, 11,300 second-feet June 8, 1941 (gage height, 28.18 feet); no flow at times in 1939, 1940.

Maximum stage known, about 30 feet in 1906, from information by local residents.

Remarks.- Records good except those for periods of ice effect, which are fair. Flow partly 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.- Thirty-seven discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	10	14	25	34	56	41	130	192	26	204	18
2	20	11	14	28	39	36	40	145	91	25	59	18
3	18	10	14	30	38	35	41	160	59	24	31	17
4	25	10	15	*59	41	34	42	206	52	22	23	14
5	18	11	16	28	35	36	41	133	85	21	19	12
6	15	12	18	26	32	35	37	91	47	20	17	46
7	14	12	18	26	31	34	35	75	35	20	16	60
8	14	13	18	25	65	32	35	64	38	19	14	26
9	14	14	18	b22	55	30	35	59	57	18	13	18
10	13	13	19	24	33	30	490	55	57	18	13	16
11	13	13	24	28	29	30	3,020	64	56	17	13	14
12	13	13	32	26	27	29	3,750	56	80	16	12	14
13	12	13	27	b24	26	28	610	49	228	18	12	13
14	12	13	22	b26	26	28	242	45	753	18	12	15
15	12	13	20	b26	26	28	185	45	519	16	12	14
16	12	12	18	28	25	30	171	42	487	16	10	14
17	12	12	18	28	25	36	171	40	242	16	10	13
18	12	12	18	*50	26	40	142	39	162	15	10	12
19	12	11	18	30	26	36	139	36	121	15	10	11
20	11	11	18	28	26	31	148	36	94	17	10	8.6
21	11	11	18	28	26	29	249	36	77	18	10	9.0
22	11	11	17	28	26	28	145	35	66	24	10	10
23	11	12	16	32	24	44	97	31	55	25	8.2	12
24	11	12	16	33	24	55	82	30	53	21	8.2	11
25	11	13	17	30	26	79	109	29	52	22	6.0	11
26	11	14	17	30	26	63	91	34	104	41	11	11
27	10	14	20	30	29	52	70	71	45	24	11	11
28	10	15	20	28	42	47	87	56	34	20	18	578
29	10	16	22	67	42	41	103	39	30	18	27	94
30	10	15	30	53	-	39	94	153	28	18	20	52
31	10	-	23	36	-	40	-	357	-	57	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	408	25	10	13.2	809
November.....	372	16	10	12.4	738
December.....	596	32	14	19.2	1,180
Calendar year 1943	84,286	8,110	10	231	167,200
January.....	942	67	22	30.4	1,870
February.....	930	65	24	32.1	1,840
March.....	1,191	79	28	38.4	2,360
April.....	10,512	3,750	35	350	20,850
May.....	2,426	557	29	78.3	4,810
June.....	4,002	753	28	133	7,940
July.....	663	57	15	21.4	1,320
August.....	670.4	204	8.2	21.6	1,350
September.....	1,172.6	578	8.6	39.1	2,330
Water year 1943-44	23,885.0	3,750	8.2	65.3	47,380

Peak discharge.- Apr. 12 (9 a.m.) 5,240 sec.-ft.; May 31 (1:30 p.m.) 414 sec.-ft.; June 14 (9 a.m.) 945 sec.-ft.; June 16 (12:30 a.m.) 711 sec.-ft.; Sept. 28 (8:30 a.m.) 1,310 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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, Wichita County, 4 miles upstream from Fort Worth & Denver City Railway bridge and 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 1944. February 1900 to January 1902 and October 1910 to December 1911 (gage heights only) at site 4 miles downstream.

Extremes.- Maximum discharge during year, 720 second-feet Mar. 1 (gage height, 5.42 feet from graph based on gage readings); minimum observed, 17 second-feet (regulated) Jan. 13.

1938-44: Maximum discharge observed, 17,900 second-feet Oct. 3, 1941 (gage height, 24.00 feet); minimum observed, 6.0 second-feet Feb. 21, 1939 (ice jam upstream).

Maximum discharge known, 50,000 second-feet June 8, 1915, computed by Vernon L. Sullivan, engineer for Big Wichita River Irrigation Co.

Remarks.- Records good. 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 diversion dam (capacity of diversion reservoir, about 40,000 acre-feet) about 50 miles upstream for irrigation in vicinity of Wichita Falls. Forty-two thousand acres of land are available for irrigation purposes. Gage read twice daily, oftener during floods.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	44	44	71	55	597	31	322	50	71	75	168
2	123	41	47	172	73	121	27	389	52	88	75	121
3	347	35	55	277	95	88	26	90	52	99	88	113
4	177	36	62	126	95	79	23	62	52	99	99	101
5	111	41	68	71	66	77	22	55	53	97	111	66
6	101	41	69	64	53	55	32	52	48	86	116	64
7	81	47	77	47	47	56	35	47	39	75	121	73
8	64	44	69	38	45	60	36	45	77	206	66	66
9	64	44	86	47	42	55	29	47	52	46	206	55
10	68	50	97	60	45	39	29	42	64	73	193	48
11	71	52	101	52	50	38	34	39	73	81	162	48
12	68	53	90	48	42	38	106	45	131	86	156	45
13	68	53	73	17	35	32	59	39	351	113	159	47
14	60	59	64	32	38	35	44	39	203	116	153	45
15	56	60	36	47	38	39	32	41	109	156	147	56
16	55	64	38	44	41	31	34	44	73	116	128	39
17	55	64	45	44	42	31	35	53	62	111	128	52
18	55	64	47	44	42	34	60	68	50	111	139	45
19	56	64	45	41	42	39	68	69	42	126	147	42
20	53	66	45	36	42	39	64	69	39	134	153	42
21	52	64	47	36	42	42	64	69	27	153	159	44
22	50	64	47	39	42	67	75	75	27	180	168	39
23	53	64	44	39	38	150	90	73	32	171	159	41
24	41	64	44	39	36	99	150	75	38	187	171	44
25	41	62	56	41	39	55	111	71	47	196	190	45
26	38	71	71	39	38	52	81	68	60	104	275	50
27	38	77	111	73	61	41	79	71	66	101	351	82
28	50	66	137	79	296	41	84	77	64	95	232	249
29	56	60	177	62	640	39	129	48	64	81	235	159
30	50	55	101	53	-	38	235	47	62	75	451	106
31	47	-	73	50	-	32	-	47	-	73	344	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,318	347	38	74.8	4,600
November.....	1,668	77	35	55.6	3,310
December.....	2,216	187	36	71.5	4,400
Calendar year 1943.....	54,476	3,080	26	149	108,100
January.....	1,928	277	17	62.2	3,820
February.....	2,260	640	35	77.9	4,480
March.....	2,239	597	31	72.2	4,440
April.....	1,924	235	22	64.1	3,820
May.....	2,378	389	39	76.7	4,720
June.....	2,129	351	27	71.0	4,220
July.....	3,417	196	71	110	6,780
August.....	5,547	451	75	179	11,000
September.....	2,175	249	36	72.5	4,310
Water year 1943-44.....	30,199	640	17	82.5	59,900

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 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 1944.

Average discharge.- 12 years, 110 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet Feb. 29 (gage height, 15.57 feet); no flow at times.

1932-44: Maximum discharge, 17,900 second-feet Oct. 31, 1941 (gage height, 26.18 feet); no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	10	4.8	404	0.2	86	7.7	0.1	0.1	105
2	0		0	71	102	50	.2	154	3.8	.1	0	22
3	13		0	181	222	25	.2	161	2.3	.1	0	8.5
4	116		0	62	45	15	.1	54	1.3	0	0	2.7
5	29		.1	24	19	8.1	.1	a15	.8	0	0	.2
6	10		.1	12	10	5.1	.1	a5.4	14	0	0	6.5
7	4.8		.1	7.3	6.0	3.1	.1	2.9	284	0	0	30
8	2.5		0	6.4	3.8	1.8	.1	1.6	104	0	0	4.1
9	1.3		0	7.7	2.9	1.2	.1	1.0	25	0	46	1.3
10	.8		.1	16	1.9	1.0	4.9	.5	19	0	23	.5
11	.4		.1	16	1.3	.9	1.5	.2	22	0	8.5	.2
12	.2		3.5	8.5	1.6	.5	.5	.1	68	0	3.8	.1
13	.2		7.3	6.0	1.5	.5	.2	.1	675	97	2.3	0
14	.1		5.6	4.1	1.2	.4	.1	.1	371	130	1.6	0
15	.1		2.9	2.5	.9	.3	.1	0	194	16	1.0	0
16	.1		1.6	1.9	.6	.2	.1	0	125	3.8	.8	0
17	.1		1.3	1.5	1.9	.2	.1	0	a39	1.5	.5	0
18	.1		.2	1.2	.36	.4	0	0	a28	.9	.3	0
19	0		.5	.9	30	.5	0	0	a22	.4	.2	0
20	0		.3	.6	18	.5	0	0	a19	1.5	.1	0
21	0		.2	.5	10	.6	0	0	a15	3.1	0	0
22	0		.2	.4	5.6	6.3	0	0	a13	.8	0	0
23	0		.1	.3	2.5	10	0	0	a9.0	.2	0	0
24	0		.1	.3	1.8	4.8	0	0	a6.0	.1	0	0
25	0		.1	.3	1.8	6.4	0	0	a4.1	4.9	0	0
26	0		.1	.2	1.9	3.1	0	0	a2.5	2.5	0	0
27	0		.2	.2	17	2.1	0	.5	a1.3	1.6	0	0
28	0		26	2.8	492	1.6	0	9.2	a.5	.9	0	0
29	0		92	10	958	1.0	.1	9.3	.3	.3	0	0
30	0		29	14	-	.6	128	78	.2	.2	9.9	0
31	0		15	6.0	-	.4	-	21	-	.1	306	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	178.7	116	0	5.76	354
November.....	0	0	0	0	0
December.....	187.0	92	0	6.03	371
Calendar year 1943	11,323.6	1,340	0	31.0	22,460
January.....	475.6	181	.2	15.3	943
February.....	2,000.0	958	.6	69.0	3,970
March.....	555.5	404	.2	17.9	1,100
April.....	136.8	128	0	4.56	271
May.....	600.9	161	0	19.4	1,190
June.....	2,074.8	675	.2	69.2	4,120
July.....	266.0	130	0	8.58	528
August.....	404.1	306	0	13.0	802
September.....	181.1	105	0	6.04	359
Water year 1943-44	7,060.5	958	0	19.3	14,010

a No gage-height record due to partly clogged intakes; discharge computed on basis of reconstructed gage-height graph and weather records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River near Cheyenne, Okla.

Location.- Wire-weight gage, lat. 35°38', long. 99°40', on line between SE¼ and SW¼ sec. 5, T. 13 N., R. 23 W., at bridge on U. S. Highway 283, half a mile downstream from Sergeant Major Creek and 1 mile north of Cheyenne. Datum of gage is 1,905.98 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 640 square miles.

Records available.- May 1938 to September 1944.

Extremes.- Maximum discharge during year, 1,240 second-feet May 27 (gage height, 6.25 feet); no flow at times.
1938-44: Maximum discharge, 40,000 second-feet May 23, 1941 (gage height, 13.5 feet); no flow at times.

Remarks.- Records fair except those for period of ice effect, which are poor. Gage read twice daily, oftener during floods.

Cooperation.- Gage-height record, 40 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0.6	30	32	39	30	58	128	3.4	15	0
2	0	0	.6	51	*32	39	30	54	69	0	6.6	0
3	0	0	.6	*38	34	37	29	47	60	0	4.6	0
4	0	0	.7	35	32	29	30	38	38	0	3.4	0
5	0	0	1.9	19	42	25	27	34	27	0	2.6	0
6	0	0	3.4	15	35	25	26	34	25	0	.7	0
7	0	0	2.1	b10	35	27	26	32	24	0	0	0
8	0	0	1.2		*32	22	26	34	27	0	0	0
9	0	0	193		31	24	26	32	37	0	0	0
10	0	.4	46	b20	b20	21	126	32	23	0	0	0
11	0	.3	25		b10	23	54	34	28	0	0	0
12	0	.4	*27		b10	22	45	231	245	0	0	0
13	0	.6	21	b20	42	25	49	327	218	0	0	0
14	0	.6	23		*32	28	37	89	69	0	0	0
15	0	.4	b10		34	89	37	74	49	0	0	0
16	0	.6	b3	b25	32	49	37	56	34	0	0	0
17	0	.6	b5	*b30	29	44	38	54	29	0	8.6	0
18	0	.5	12	60	28	53	31	49	19	0	0	0
19	0	.4	13	34	27	51	47	44	15	0	0	0
20	3.9	.5	*12	37	31	54	42	38	12	41	0	0
21	0	.4	13	42	32	44	35	35	7.0	13	0	0
22	0	.4	15	41	29	51	71	34	5.0	0	0	0
23	72	.5	14	37	28	26	37	31	1.2	0	0	0
24	.4	.6	13	37	28	32	34	26	0	10	0	0
25	0	.7	19	*34	26	34	34	29	0	205	30	0
26	0	3.8	19	34	24	31	34	31	0	205	8.3	0
27	0	2.1	16	62	28	34	34	185	0	41	0	152
28	0	.8	*b10	60	47	37	31	62	0	22	0	331
29	0	.8	*b6	35	39	41	127	82	29	13	0	14
30	0	.8	b10	32	-	47	72	104	17	426	12	4.2
31	0	-	b20	31	-	35	-	76	-	38	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	76.3	72	0	2.46	151
November.....	16.2	3.8	0	.54	32
December.....	556.1	193	.6	17.9	1,100
Calendar year 1943.....	10,902.3	454	0	29.9	21,610
January.....	844	62	-	30.5	1,870
February.....	881	47	10	30.4	1,750
March.....	1,116	89	21	36.0	2,210
April.....	1,302	127	26	43.4	2,580
May.....	2,086	327	26	67.3	4,140
June.....	1,233.2	245	0	41.1	2,450
July.....	1,017.4	426	0	32.8	2,020
August.....	96.8	30	0	3.12	192
September.....	501.2	331	0	16.7	994
Water year 1943-44.....	9,826.2	426	0	26.8	19,490

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River near Clinton, Okla.

Location.- Water-stage recorder, lat. 35°31', long. 98°57', in center of sec. 11, T. 12 N., R. 17 W., at bridge on U. S. Highway 183, 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 1,467.80 feet above mean sea level, datum of 1929.

Drainage area.- 1,990 square miles.

Records available.- October 1935 to September 1944.

Extremes.- Maximum discharge during year, 4,930 second-feet June 13 (gage height, 18.18 feet); minimum, 1.4 second-feet Oct. 8, result of temporary regulation.
1935-44: Maximum discharge observed, 28,900 second-feet June 5, 1936 (gage height, 28.50 feet), from rating curve extended above 13,000 second-feet; minimum discharge, 1.2 second-feet Oct. 25-27, 1940.
Maximum stage known, 33.9 feet from floodmark, Apr. 3-4, 1934.

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

Cooperation.- Forty-five discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a12	22	21	40	64	89	75	273	218	a25	a250	133
2	a22	20	21	46	60	77	66	164	137	a25	a100	52
3	a18	a18	20	51	56	70	58	449	164	a23	a50	33
4	a16	a17	19	66	58	64	54	144	116	a21	a40	g25
5	11	a17	20	73	56	62	54	102	82	a20	a30	154
6	15	a16	21	63	53	57	49	78	64	a20	a25	408
7	8.9	a16	*21	b60	51	51	48	68	53	19	g34	81
8	13	a16	20	b40	51	49	46	64	47	20	g34	39
9	12	a16	34	b30	50	46	71	58	40	95	a25	25
10	12	a16	283	b30	50	45	978	54	40	162	a20	20
11	12	a17	256	*b30	49	45	430	50	37	43	a18	19
12	12	17	115	b30	42	45	264	46	168	a30	a16	16
13	11	17	74	b30	42	46	157	43	3,710	a20	a16	15
14	10	17	62	b30	41	54	114	285	802	a17	15	15
15	9.8	17	36	b35	45	182	87	298	248	a16	15	14
16	9.8	16	b30	b40	49	440	69	169	189	a15	14	12
17	10	*b35	*b50	54	54	182	58	113	127	30	225	11
18	11	17	b40	61	54	131	53	90	85	14	102	10
19	10	16	49	62	52	104	80	75	68	12	30	9.2
20	9.5	16	*39	87	51	85	148	65	56	48	24	8.9
21	9.5	16	38	77	49	81	77	58	46	48	17	8.6
22	12	16	40	68	49	76	84	50	a40	46	14	8.2
23	542	16	35	65	30	70	72	46	75	46	12	8.6
24	1,460	16	35	66	50	65	113	45	1,860	364	11	8.6
25	211	17	34	*63	50	60	91	40	144	780	13	g7.6
26	83	19	32	62	45	56	69	39	65	780	73	g7.9
27	48	21	33	63	48	54	60	210	a45	326	94	16
28	37	20	39	62	54	55	57	324	a35	203	46	41
29	30	19	*b25	80	52	57	125	206	g30	138	21	1,110
30	26	19	*b25	78	-	62	135	368	a25	522	272	221
31	23	-	b30	65	-	66	-	380	-	1,340	232	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	2,726.5	1,460	8.9	88.0	5,410
November.....	539	22	16	17.3	1,030
December.....	1,588	283	19	51.2	3,150
Calendar year 1943.....	44,633.5	2,130	8.9	122	88,530
January.....	1,703	87	30	54.9	3,380
February.....	1,476	64	41	50.9	2,950
March.....	2,626	440	45	84.7	5,210
April.....	3,842	978	46	128	7,620
May.....	4,452	449	39	144	8,830
June.....	8,816	3,710	25	294	17,490
July.....	5,268	1,340	12	170	10,450
August.....	1,888	272	11	60.9	3,740
September.....	2,535.6	1,110	7.6	84.5	5,030
Water year 1943-44.....	37,439.1	3,710	7.6	102	74,270

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated or computed on basis of recorded range in stage, weather records, and records for stations near Cheyenne and Carnegie.

b Stage-discharge relation affected by ice.

g Computed from graph based on twice-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River at Carnegie, Okla.

Location.- Water-stage recorder, lat. 35°07', long. 98°34', near center of north line of sec. 3, T. 7 N., R. 13 W., at bridge on State Highway 9, 1,300 feet upstream from Running Creek and 2.7 miles east of Carnegie.

Drainage area.- 3,230 square miles, including that of Running Creek.

Records available.- October 1942 to September 1944 (include flow of Running Creek). November 1937 to September 1942 at site 6½ miles upstream.

Extremes.- Maximum discharge during year, 12,000 second-feet June 14 (gage height, 22.74 feet); minimum, 26 second-feet Oct. 20.
1937-44: Maximum discharge, that of June 14, 1944; minimum, 6.8 second-feet Nov. 3, 1939.

Remarks.- Records good except those for period of ice effect, which are fair. Some diurnal fluctuation caused by power plant at Carnegie.

Cooperation.- Thirty-seven discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g29	82	53	65	109	86	248	717	g853	204	1,040	214
2	g32	59	54	84	106	88	262	382	g447	204	990	240
3	g31	52	48	74	100	87	178	774	g302	190	408	165
4	g32	56	40	81	93	101	140	1,040	g204	165	240	115
5	g32	59	45	83	90	97	122	550	g197	165	178	112
6	g32	41	54	83	86	92	112	278	g171	159	149	86
7	g34	46	59	96	87	87	106	225	127	157	128	172
8	34	48	51	82	87	84	103	184	768	140	120	310
9	32	41	48	66	85	80	125	165	1,070	135	99	140
10	31	43	61	78	85	77	2,460	154	542	135	123	109
11	30	43	65	*76	81	76	5,960	151	159	328	97	89
12	30	48	240	74	77	74	2,180	146	535	464	88	82
13	29	38	278	b75	79	74	704	143	2,450	184	81	70
14	30	42	*171	b75	76	74	427	142	9,460	135	75	69
15	30	46	123	b75	75	866	302	137	6,640	123	71	66
16	30	40	b75	75	76	2,450	248	195	2,530	102	66	57
17	28	41	b70	78	76	1,000	204	328	704	107	116	58
18	28	43	70	82	76	508	184	248	487	101	95	50
19	28	49	*86	79	83	g353	178	178	371	148	360	46
20	28	41	83	95	82	g197	232	153	294	171	194	44
21	29	44	*79	100	84	464	398	139	248	183	105	42
22	28	43	77	105	83	716	389	133	211	310	81	42
23	760	48	72	118	82	g344	255	124	190	197	70	39
24	768	46	70	107	80	g190	171	112	538	*143	64	38
25	1,090	40	73	102	80	g163	153	106	2,400	129	87	38
26	846	55	73	100	77	g134	151	107	4,010	771	255	38
27	255	46	74	105	81	g118	165	187	956	846	122	45
28	155	43	*75	140	86	g111	138	371	344	704	92	70
29	120	50	70	123	87	g121	165	389	262	390	125	187
30	88	49	65	107	-	g130	693	418	225	700	147	303
31	79	-	*65	99	-	165	-	1,210	-	1,380	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,828	1,090	28	156	9,580
November.....	1,422	82	38	47.4	2,820
December.....	2,559	278	40	82.5	5,080
Calendar year 1943	98,844	6,160	28	271	196,100
January.....	2,789	140	65	90.0	5,530
February.....	2,445	109	75	84.3	4,850
March.....	9,197	2,450	74	297	16,240
April.....	17,153	5,960	103	572	34,020
May.....	9,586	1,210	106	309	19,010
June.....	37,695	9,460	127	1,256	74,770
July.....	9,270	1,380	101	299	18,390
August.....	5,975	1,040	64	193	11,850
September.....	3,136	310	38	105	6,220
Water year 1943-44	106,055	9,460	28	290	210,400

Peak discharge.- Apr. 11 (12:15 p.m.) 6,670 sec.-ft.; June 14 (7:30 a.m.) 12,000 sec.-ft.; June 26 (2:30 p.m.) 4,570 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Computed from graph based on twice-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River near Tabler, Okla.

Location.- Water-stage recorder, lat. 34°58', long. 97°51', in SW¹/₄ sec. 21, T. 6 N., R. 8 W., at county highway bridge, 1 mile downstream from Little Washita River, 5 miles south of Tabler, and 7½ miles upstream from Winter Creek.

Drainage area.- 4,760 square miles.

Records available.- April 1940 to September 1944.

Extremes.- Maximum discharge during year, 5,050 second-feet June 12 (gage height, 18.40 feet); minimum daily, 54 second-feet Oct. 10, 13.

1940-44: Maximum discharge, 14,200 second-feet June 7, 1941 (gage height, 26.02 feet); minimum daily, 26 second-feet at times in October and November 1940.

Maximum stage known, 30.6 feet Apr. 7, 1927 (from high-water mark pointed out by observer), partly caused by release of ponded water by failure of railroad embankment on Little Washita River.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Low flow regulated by power plant at Chickasha, 8 miles above station.

Cooperation.- Thirty-eight discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	169	141	200	241	247	384	g514	598	g675	740	192
2	146	164	119	256	255	297	396	925	1,080	g610	1,150	224
3	101	160	116	210	260	236	373	1,210	928	g549	1,020	183
4	122	138	147	228	247	230	430	783	678	g514	928	236
5	68	148	181	208	248	221	407	1,080	561	g434	a600	402
6	66	91	176	213	209	215	362	1,150	445	a370	a460	300
7	61	142	133	223	238	221	286	840	g380	339	a390	241
8	78	121	133	139	225	209	252	598	g360	309	a330	249
9	64	136	203	99	211	203	286	490	2,750	280	a290	136
10	54	104	267	180	189	209	2,190	445	1,330	280	a260	214
11	99	130	169	255	240	208	3,600	360	1,250	300	a240	370
12	81	132	195	185	211	189	4,050	339	2,940	280	a220	239
13	54	115	182	192	152	187	4,520	290	2,570	236	a200	178
14	100	79	177	156	237	199	3,940	500	2,050	479	a180	173
15	67	131	242	211	185	480	1,550	g280	3,870	514	a180	182
16	86	122	362	202	189	794	1,050	g262	4,280	423	144	147
17	62	117	253	244	199	1,480	g783	g280	4,420	315	183	126
18	72	123	203	250	227	2,550	623	244	4,610	258	168	150
19	73	111	167	230	195	1,720	598	303	3,290	201	150	118
20	65	96	186	239	208	1,030	701	531	1,390	245	220	120
21	68	137	185	250	188	1,000	649	402	1,020	203	235	93
22	151	124	182	234	214	1,070	573	271	g728	244	380	102
23	125	131	155	214	210	1,240	610	954	g646	315	262	167
24	66	96	170	229	213	1,420	586	662	701	343	235	76
25	120	134	203	231	586	g870	573	445	728	391	180	108
26	620	136	180	239	265	a607	g479	300	1,580	329	197	72
27	870	128	200	383	201	g490	g391	391	2,640	254	232	106
28	870	140	253	373	314	g407	g349	370	3,070	451	231	143
29	516	102	212	268	256	g351	g423	360	1,750	928	319	186
30	384	156	207	255	-	g373	g598	445	928	675	230	158
31	222	-	197	310	-	407	-	586	-	662	232	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	5,638	870	54	182	11,180
November.....	3,813	169	79	127	7,560
December.....	5,866	362	116	189	11,640
Calendar year 1943	191,773	8,720	48	525	380,400
January.....	7,108	383	99	229	14,100
February.....	6,813	586	152	235	13,510
March.....	19,360	2,550	187	625	38,400
April.....	32,012	4,520	252	1,067	63,490
May.....	16,410	1,210	244	529	32,550
June.....	53,568	4,610	360	1,786	106,500
July.....	12,404	928	201	400	24,600
August.....	10,786	1,150	144	348	21,390
September.....	5,351	402	72	178	10,610
Water year 1943-44	179,129	4,610	54	489	355,300

Peak discharge.- Apr. 14 (12:15 a.m.) 4,610 sec.-ft.; June 12 (3:30 p.m.) 5,050 sec.-ft.; June 18 (12 p.m.) 4,710 sec.-ft.

a No gage-height record; discharge computed on basis of estimated gage height.

g Computed from graph based on once-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River near Pauls Valley, Okla.

Location.- Water-stage recorder and wire-weight gage, 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 1944. May to December 1899 (gage heights only) at site about 9 miles downstream.

Extremes.- Maximum discharge during year, 8,010 second-feet June 9 (gage height, 21.18 feet); minimum daily, 85 second-feet Oct. 23.
1938-44: Maximum discharge, 22,000 second-feet June 10, 1941 (gage height, 30.60 feet), from rating curve extended above 16,000 second-feet; 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 ice effect, which are poor. Some regulation at low flow by power plant at Chickasha, 82 miles above station.

Cooperation.- Twenty-seven discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	170	362	165	*266	304	362	398	848	588	1,250	738	274
2	218	281	144	274	362	320	a412	2,330	636	876	612	259
3	139	182	176	312	328	304	426	2,690	848	712	905	218
4	149	232	170	328	320	320	417	1,660	1,150	656	1,020	218
5	165	176	165	261	312	288	426	1,260	1,090	576	964	681
6	124	200	228	281	304	281	426	1,090	876	520	820	576
7	134	149	259	281	296	266	466	1,060	636	477	612	398
8	109	160	212	288	328	245	436	1,020	600	446	498	354
9	90	139	218	b250	354	259	380	848	5,450	417	417	266
10	100	144	218	b210	320	252	1,640	686	3,440	398	354	296
11	94	139	288	*b210	281	252	3,000	588	2,300	380	304	232
12	105	154	320	b240	266	252	3,220	531	2,550	354	288	206
13	95	139	252	b240	259	252	4,110	498	5,040	354	245	312
14	119	144	212	b260	288	245	4,690	446	5,800	345	238	296
15	116	154	225	b240	281	245	4,760	398	2,350	304	232	245
16	88	144	212	252	245	589	2,440	371	3,270	408	225	206
17	101	128	200	288	304	848	1,360	371	3,980	477	266	188
18	113	144	345	304	266	792	1,060	345	4,230	426	218	182
19	92	149	304	281	245	2,300	876	354	4,430	354	206	165
20	108	149	281	312	266	2,350	964	794	4,110	281	200	149
21	86	149	245	296	274	1,400	848	964	1,990	328	188	154
22	105	139	206	288	266	1,360	820	612	1,850	296	188	139
23	85	134	218	296	274	1,220	765	820	1,964	281	245	139
24	92	149	232	296	252	934	686	820	792	296	281	127
25	149	149	225	274	274	1,360	661	876	738	417	304	127
26	139	154	232	288	320	1,020	686	686	738	466	252	129
27	116	139	259	312	520	738	636	1,320	1,020	408	232	123
28	499	160	354	*362	509	636	554	1,020	2,070	389	206	135
29	820	170	362	399	417	531	498	905	2,740	520	225	194
30	738	160	296	436	-	446	1,060	738	2,550	490	356	160
31	488	-	281	362	-	426	-	686	-	820	426	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runnoff in acre-feet
October.....	5,746	820	85	185	11,400
November.....	4,972	362	128	166	9,860
December.....	7,504	362	144	242	14,880
Calendar year 1943.....	311,262	13,200	85	853	617,400
January.....	8,997	436	210	290	17,850
February.....	9,035	500	245	312	17,920
March.....	21,093	2,350	245	680	41,840
April.....	39,121	4,760	380	1,304	77,600
May.....	27,625	2,690	345	891	54,790
June.....	68,026	5,800	588	2,268	134,900
July.....	14,502	1,250	281	468	28,760
August.....	12,265	1,020	188	395	24,530
September.....	7,146	661	123	238	14,170
Water year 1943-44.....	226,032	5,800	85	618	448,300

Peak discharge.- Apr. 15 (11 a.m.) 4,900 sec.-ft.; June 9 (4:15 p.m.) 8,010 sec.-ft.; June 13 (1:30 a.m.) 5,980 sec.-ft.; June 14 (12 m.) 7,280 sec.-ft.; June 15 (11 p.m.) 4,560 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge interpolated.

b Stage-discharge relation affected by ice.

Note.- Discharge computed from graph based on once-daily wire-weight gage readings Mar. 23 to Apr. 1, Apr. 3-9, Apr. 17 to May 1, May 5-17, 26, July 3-13.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Washita River near Durwood, Okla.

Location.— Water-stage recorder and wire-weight gage, lat. 34°14', long. 96°58', in SE $\frac{1}{4}$ sec. 3, T. 4 S., R. 3 E., at Mulkey Bridge on State Highway 16, $\frac{1}{2}$ miles downstream from Caddo Creek and 4 miles 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 1944.

Average discharge.— 16 years, 1,501 second-feet.

Extremes.— Maximum discharge during year, 11,800 second-feet June 15 (gage height, 21.20 feet); minimum, 130 second-feet Oct. 21, 22 (gage height, 3.32 feet).
1928-44: Maximum discharge, 81,300 second-feet May 11, 1943; maximum gage height, 44.37 feet Oct. 31, 1941; minimum discharge observed, 17 second-feet Aug. 14, 1934 (gage height, 2.77 feet).

Maximum discharge known, that of May 11, 1943.

Remarks.— Records good. Records of water analyses May to September 1944 are given in

Water-Supply Paper 1022.

Cooperation.— Fifteen discharge measurements furnished by Corps of Engineers, U. S.

Army.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 9-27, Mar. 24 to May 1)

Oct. 1 to Feb. 9

Feb. 10 to Sept. 30

3.3	123	5.0	1,050	3.3	151	5.0	1,120	11.0	4,780
3.6	238	6.0	1,680	3.6	268	6.0	1,740	15.0	7,360
4.0	439	7.0	2,250	4.0	466	7.0	2,330	20.0	10,800
				4.5	771	9.0	3,530		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	613	209	412	541	gl,860	687	1,470	1,620	2,330	975	1,040
2	213	484	200	428	553	1,120	738	2,780	1,180	1,620	906	570
3	243	586	200	507	507	1,260	668	87,900	1,040	gl,180	706	366
4	275	318	196	484	524	1,440	668	5,290	1,080	g940	818	347
5	204	243	234	484	473	940	643	2,450	1,410	g858	1,120	g285
6	181	275	266	439	450	726	619	1,800	1,280	g758	1,040	1,540
7	204	230	247	445	428	594	612	gl,470	1,150	g668	906	906
8	181	238	308	445	518	547	625	1,680	899	g631	893	576
9	177	200	338	380	2,250	512	612	1,560	1,760	g606	g558	461
10	169	200	333	318	1,120	472	570	gl,220	7,040	g547	g611	551
11	140	188	338	375	649	461	1,920	g940	4,280	g517	g397	361
12	144	192	343	369	489	455	3,040	g538	3,040	g483	g337	361
13	192	185	380	333	428	455	3,110	g784	5,800	g450	g304	356
14	192	200	386	318	434	455	3,720	g706	8,840	g434	g277	g272
15	173	200	323	349	423	1,420	4,150	g825	10,400	g434	g247	361
16	162	192	279	385	417	1,400	4,210	g582	4,400	g423	g243	g323
17	173	200	284	364	886	706	2,680	g558	4,400	g412	g268	g277
18	144	200	270	364	791	975	1,620	g535	4,150	g523	g280	g443
19	140	188	266	407	612	1,920	1,250	506	4,210	535	g337	226
20	162	181	390	401	552	4,590	1,500	500	4,280	512	g251	226
21	137	200	354	385	588	3,590	1,320	778	3,780	439	g234	210
22	144	196	335	401	558	2,450	1,080	1,220	2,210	366	g222	187
23	137	196	304	375	517	2,500	1,010	835	1,620	381	g206	187
24	151	192	270	369	469	1,860	975	1,120	1,280	376	g206	183
25	137	188	289	385	466	1,470	872	1,040	1,120	844	g260	176
26	134	192	299	390	444	1,680	818	1,680	1,040	1,010	g304	173
27	162	196	396	434	727	gl,470	798	5,680	975	825	g327	162
28	181	200	456	484	6,550	gl,120	711	6,450	1,120	564	356	183
29	185	192	512	512	6,570	g940	798	5,530	2,080	500	356	218
30	643	196	565	518	-	g818	1,120	2,450	2,680	455	392	450
31	797	-	473	553	-	g752	-	2,270	-	392	1,060	-

	Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October		6,515	797	134	210	12,920
November		7,060	613	181	236	14,000
December		10,040	565	196	324	19,910
Calendar year 1943		677,713	85,400	134	1,857	1,344,000
January		12,729	553	318	411	25,250
February		28,984	6,550	417	999	57,490
March		40,948	4,590	455	1,321	81,220
April		43,204	4,210	570	1,440	85,690
May		61,260	7,900	500	1,976	121,500
June		90,174	10,400	899	3,006	178,900
July		21,013	2,330	366	678	41,680
August		15,027	1,120	206	485	29,810
September		11,617	1,540	162	387	23,040
Water year 1943-44		348,561	10,400	134	952	691,400

Peak discharge.— Feb. 28 (11:30 a.m.) 8,030 sec.-ft.; Mar. 20 (4:30 p.m.) 5,290 sec.-ft.; May 3 (2 p.m.) 9,400 sec.-ft.; May 27 (10:15 p.m.) 8,710 sec.-ft.; June 10 (12:15 p.m.) 7,960 sec.-ft.; June 15 (7:45 a.m.) 11,800 sec.-ft.

g Computed from graph based on twice-daily wire-weight gage readings.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Pond Creek near Fort Cobb, Okla.
(Known locally as Cobb Creek)

Location.- Water-stage recorder, lat. 35°08', long. 98°27', in NW1/4 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.

Drainage area.- 320 square miles.

Records available.- March 1940 to September 1944.

Extremes.- Maximum discharge during year, 12,700 second-feet June 13 (gage height, 17.22 feet), from rating curve extended above 2,600 second-feet on basis of contracted-opening computations at gage heights 16.62 and 17.58 feet; minimum, 8.1 second-feet Oct. 15.

1940-44: Maximum discharge, that of June 13, 1944; minimum, 4.4 second-feet Aug. 31, 1943.

Flood of June 15, 1937, reached a stage of 19.3 feet, from information by local residents.

Remarks.- Records good except those above 50 second-feet and those for period of ice effect, which are fair.

Cooperation.- Thirty-three discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	15	23	33	36	41	70	56	31	31	21	17
2	13	16	23	52	38	40	31	a28	30	19	15	15
3	13	16	23	51	38	39	42	339	26	30	16	14
4	12	17	23	40	35	36	42	100	24	30	15	a13
5	11	18	26	35	34	33	40	51	25	29	16	26
6	10	18	34	33	34	33	38	45	22	28	18	20
7	9.8	18	27	34	34	32	38	43	20	26	16	16
8	9.8	18	26	b25	36	31	38	40	68	24	15	14
9	9.8	18	31	b35	36	31	122	39	36	23	13	14
10	9.3	20	45	47	37	31	2,610	39	28	42	12	13
11	8.9	19	37	*b44	33	33	440	38	24	24	d12	14
12	9.1	20	30	b40	31	34	117	37	54	22	15	17
13	9.1	19	27	b40	33	33	89	36	3,850	21	18	15
14	8.9	19	*26	*b35	36	34	72	35	749	20	12	16
15	8.5	20	b20	40	35	668	61	33	124	20	12	17
16	8.7	20	b20	45	35	318	54	31	70	19	12	d14
17	9.1	20	b25	49	36	70	52	29	55	18	103	13
18	9.8	21	b28	45	36	54	49	28	48	18	52	12
19	9.6	21	30	*42	33	49	49	27	43	18	19	12
20	9.6	21	29	40	35	47	91	25	40	54	16	12
21	11	21	*28	38	36	343	58	24	36	68	d14	-
22	11	22	*28	36	36	491	74	49	33	27	d13	11
23	186	21	27	35	35	82	49	40	32	24	13	10
24	51	22	26	34	33	58	43	28	1,110	24	12	10
25	21	22	31	35	33	52	44	26	328	142	15	10
26	18	23	32	35	31	47	43	26	65	35	47	a10
27	17	24	34	63	34	42	42	46	43	25	23	14
28	17	25	*42	54	70	41	41	36	36	21	18	65
29	17	23	33	41	51	45	58	34	33	25	17	68
30	16	23	34	38	-	87	206	34	32	26	23	28
31	15	-	33	37	-	78	-	38	-	27	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	579.0	186	8.5	18.7	1,150
November.....	603	28	15	20.1	1,200
December.....	901	45	20	29.1	1,790
Calendar year 1943.....	12,880.6	860	5.4	35.3	25,560
January.....	1,251	63	25	40.4	2,480
February.....	1,060	70	31	36.6	2,100
March.....	3,053	668	31	98.5	6,060
April.....	4,823	2,610	38	161	9,570
May.....	1,518	339	24	49.0	3,010
June.....	7,113	3,850	20	237	14,110
July.....	871	142	18	31.3	1,930
August.....	849	103	12	20.9	1,280
September.....	541	68	10	18.0	1,070
Water year 1943-44.....	23,062.0	3,850	8.5	63.0	45,760

Peak discharge.- Apr. 10 (2:30 p.m.) 8,500 sec.-ft.; June 13 (2 p.m.) 12,700 sec.-ft.; June 24 (7:45 p.m.) 1,760 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed from estimated gage height.

b Stage-discharge relation affected by ice.

c Gage readings doubtful; discharge computed from estimated gage heights.

Note.- Discharge computed from graph based on twice-daily wire-weight gage readings Mar. 17-20, 23-29, Apr. 14-17, May 23 to June 1, June 6, 15-17, July 22-24, July 26 to Aug. 10, Aug. 12-16, 19, 20, 23-25, Aug. 27 to Sept. 3, Sept. 5-15, 17-24, 27.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Rush Creek at Purdy, Okla.

Location.- Water-stage recorder and wire-weight gage, lat. 34°42', long. 97°20', in center of NE $\frac{1}{4}$ sec. 26, T. 3 N., R. 4 W., at bridge on State Highway 76, three-quarters of a mile south of Purdy and $8\frac{1}{2}$ miles south of Lindsay.

Drainage area.- 139 square miles.

Records available.- May 1940 to September 1944.

Extremes.- Maximum discharge during year, 8,250 second-feet June 9 (gage height, 17.40 feet); minimum, 2.0 second-feet at times in August, September, but may have been less during period of ice effect in December.

1940-44: Maximum discharge, 15,300 second-feet May 10, 1943 (gage height, 28.1 feet, from graph based on gage readings); no flow at times in 1940.

Remarks.- Records fair except those above 1,000 second-feet, those estimated, and those for periods of ice effect, which are poor. Recorder installed Aug. 23, 1943, but recorded stages only for flows exceeding 500 second-feet until Aug. 29, 1944, complete range in stage thereafter. Wire-weight gage read twice daily for low-water record.

Cooperation.- Gage-height record, 67 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 11 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	4.5	11	25	*14	17	16	22	16	6.0	10	5.5
2	18	4.3	12	28	25	14	24	208	12	58	6.0	3.5
3	8.1	5.2	12	15	18	18	35	10	13	3.5	3.0	
4	12	6.7	12	16	14	16	17	28	11	8.4	4.0	2.0
5	8.1	6.7	93	15	14	15	20	18	58	5.0	2.0	105
6	5.9	7.4	22	15	12	16	15	18	23	5.5	2.0	15
7	5.2	5.9	17	*20	20	14	14	17	19	7.0	2.5	7.7
8	5.2	7.4	14		68	13	14	16	50	7.0	3.5	4.5
9	4.3	7.4	29	b10	19	13	25	18	2,000	6.5	3.0	4.0
10	5.9	8.1	*33		*15	18	1,070	16	49	3.5	2.0	3.5
11	4.5	9.5	27		(*)	17	43	16	15	5.5	2.5	5.0
12	9.5	6.7	20	b15	b8	16	30	18	634	4.5	2.0	5.0
13	12	8.1	20	(*)	22	12	35	13	47	6.5	2.5	3.0
14	4.1	8.8	20	13	23	11	34	13	387	5.0	2.0	5.5
15	6.7	9.5	(*)	18	*22	310	28	14	25	3.0	2.0	9.1
16	4.5	8.8	b5	24	23	26	25	10	20	3.5	2.0	5.0
17	4.3	6.7		21	18	22	27	10	18	3.5	92	5.0
18	4.1	9.5		*21	19	24	50	10	17	3.0	11	3.5
19	4.5	7.4	10	14	18	213	35	14	14	4.5	6.5	3.0
20	5.2	8.1	13	16	21	58	31	27	10	10	5.0	2.5
21	5.9	8.8	11	14	18	121	26	10	10	13	4.0	2.5
22	5.2	8.8	*11	9.5	15	50	27	14	12	9.1	2.5	2.0
23	14	9.5	10	16	19	46	22	27	12	9.1	2.0	2.0
24	5.2	9.5	12	18	16	34	16	14	9.8	638	2.0	2.0
25	5.9	11	20	17	19	22	17	178	13	65	2.0	2.0
26	4.3	16	17	12	18	25	13	e30	9.8	17	43	2.0
27	5.9	12	138	*32	25	22	13	275	7.0	9.8	19	5.0
28	7.4	12	148	16	57	21	16	252	8.4	10	16	66
29	8.1	9.5	*27	11	27	27	56	21	6.5	12	13	14
30	5.2	10	18	17	-	22	32	41	5.0	18	257	7.0
31	4.3	-	*10	13	-	19	-	19	-	11	15	-
<hr/>												
Month				Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff			
									Inches	Acre-feet		
October				223.5	20	4.1	7.21	0.052	0.06	443		
November				254.0	16	4.5	8.47	.061	.07	504		
December				807	148	-	26.0	.187	.22	1,600		
Calendar year 1943				28,505.5	7,580	-	78.1	.562	7.64	56,550		
January				511.5	32	-	16.5	.119	.14	1,010		
February				615	68	-	21.2	.153	.16	1,220		
March				1,272	310	11	41.0	.295	.34	2,520		
April				1,779	1,070	13	59.3	.427	.48	3,530		
May				1,420	275	10	45.8	.329	.38	2,820		
June				3,528.5	2,000	5.0	118	.849	.94	7,000		
July				960.9	638	3.0	31.0	.223	.26	1,910		
August				541.5	257	2.0	17.5	.126	.14	1,070		
September				304.8	105	2.0	10.2	.073	.08	605		
Water year 1943-44				12,217.7	2,000	2.0	33.4	.240	3.27	24,230		

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

c Estimated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 3,280 second-feet Feb. 28 (gage height, 21.5 feet, from graph based on gage readings); no flow at times.
1936-44: Maximum discharge, 18,800 second-feet Feb. 16, 1938 (gage height, 27.94 feet); no flow at times.

Remarks.- Records fair. Gage read twice daily, oftener during high stages.

Cooperation.- Gage-height record, 21 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	0.4	0.3	4.9	9.2	214	37	40	104	5.0	2.4	10
2	31	.6	.4	13	50	130	55	135	69	4.1	.8	3.4
3	13	.5	.5	42	17	130	64	382	53	14	.4	.6
4	5.5	.3	.5	14	18	186	39	197	43	10	.1	.2
5	3.1	.4	1.0	7.8	15	93	31	94	35	6.8	0	.1
6	.8	.5	2.3	3.3	12	68	31	69	29	5.0	0	0
7	.1	.4	2.4	5.6	11	70	27	51	22	3.5	0	0
8	0	.2	1.4	7.4	14	56	26	45	22	2.4	0	0
9	0	.2	1.5	4.2	40	50	24	39	126	1.7	0	0
10	0	.3	1.9	4.5	45	45	24	35	85	1.1	0	0
11	0	.5	5.1	6.2	22	39	21	27	34	.8	0	0
12	0	.6	5.8	7.2	13	39	18	22	66	.7	0	0
13	6.5	.5	3.1	6.9	13	48	16	20	79	.6	0	0
14	61	.6	2.1	7.2	21	31	16	16	397	.5	0	0
15	4.7	.4	1.4	6.9	14	260	14	14	185	.4	0	0
16	2.1	.3	1.2	8.4	11	162	13	11	54	.2	0	0
17	5.7	.2	1.1	6.2	303	62	12	10	31	.1	0	0
18	.8	.1	1.0	6.1	94	45	12	9.0	21	.1	0	0
19	.5	.1	1.2	6.4	38	155	11	8.4	16	.1	0	0
20	.3	.1	1.3	6.1	73	511	19	8.7	11	.2	0	0
21	.2	.1	1.3	5.4	27	213	53	9.6	10	.6	0	0
22	.2	.1	1.3	4.7	20	244	21	12	7.6	1.0	0	0
23	.1	.2	1.2	4.5	15	161	20	12	6.4	.5	0	0
24	1.0	.2	1.1	4.3	12	110	12	9.2	5.5	.4	0	0
25	.7	.2	1.7	5.2	11	99	11	8.6	87	1.0	0	0
26	.6	.2	1.6	4.9	9.1	89	9.4	24	27.	2.4	0	0
27	1.4	.2	1.7	4.2	9.8	62	8.7	1,190	14	.9	0	0
28	1.0	.3	58	11	2,110	59	8.1	437	9.8	.4	0	0
29	.9	.3	36	17	749	55	8.4	179	7.3	.6	0	0
30	.8	.3	11	24	-	47	34	162	6.1	1.2	4.8	0
31	.5	-	6.4	12	-	41	-	199	-	8.4	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	250.5	108	0	8.08	0.029	0.03	497
November	9.3	58	.1	.31	.0011	.001	18
December	172.1	58	.3	5.55	.020	.002	341
Calendar year 1943	52,642.3	10,600	0	144	.514	6.98	104,400
January	271.5	42	3.3	8.76	.031	.04	539
February	3,801.1	2,110	9.1	131	.468	.50	7,540
March	3,574	511	31	115	.411	.47	7,090
April	695.6	64	8.1	23.2	.083	.09	1,380
May	3,475.5	1,190	8.4	112	.400	.46	6,890
June	1,642.7	397	5.5	54.8	.196	.22	3,260
July	74.7	14	.1	2.41	.0085	.01	148
August	42.5	34	0	1.37	.0049	.006	84
September	14.3	10	0	.48	.0017	.002	28
Water year 1943-44	14,023.8	2,110	0	38.3	.137	1.85	27,820

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Blue River near Blue, Okla.

Location.— Wire-weight gage, lat. 33°59', long. 96°15', at south line of SW¼ sec. 34, T. 8 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 1944.

Extremes.— Maximum discharge during year, 10,100 second-feet Feb. 28 (gage height, 27.25 feet, from graph based on gage readings); minimum, 26 second-feet Sept. 25 (gage height, 3.92 feet).

1936-44: Maximum discharge, 34,400 second-feet Feb. 17, 1938 (gage height, 31.81 feet); no flow (estimated) Sept. 15, 16, 1938.

Remarks.— Records good. Low flow regulated by reservoir at Oklahoma State Fish Hatchery, 17 miles above station. Gage read twice daily, oftener during high stages.

Cooperation.— Gage-height record, 29 discharge measurements, and computations of daily discharges furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	192	55	34	59	62	2,030	173	382	590	65	53	128
2	56	428	36	56	512	471	1,560	3,490	387	97	50	56
3	69	208	36	62	307	351	1,840	2,880	327	85	47	39
4	39	50	36	89	156	569	397	1,230	279	85	41	39
5	34	36	148	65	89	527	267	398	255	77	41	36
6	30	34	398	56	73	401	219	255	243	69	44	34
7	30	32	133	90	69	243	195	195	207	69	41	173
8	29	31	62	332	1,040	195	183	173	195	69	41	62
9	29	29	47	153	928	173	173	153	243	73	39	47
10	29	28	47	93	328	163	163	143	207	69	41	41
11	29	29	56	255	163	163	153	133	291	65	34	41
12	30	32	62	279	123	153	133	113	303	69	31	39
13	41	32	50	143	93	153	113	105	457	62	32	36
14	62	34	41	61	473	143	128	101	315	62	32	36
15	47	32	41	69	548	143	123	97	231	89	30	36
16	31	31	36	69	243	478	113	85	243	53	29	50
17	27	32	36	65	1,410	800	105	81	163	56	29	44
18	27	31	34	62	1,170	339	101	77	143	62	28	34
19	27	30	36	59	470	1,710	101	77	128	62	28	32
20	27	31	36	56	231	4,050	93	97	118	59	29	30
21	28	30	36	56	231	2,970	123	358	109	65	28	30
22	28	30	36	56	231	795	153	1,680	105	69	29	28
23	27	32	36	50	243	471	109	402	97	62	29	28
24	50	32	34	50	219	351	101	175	97	65	31	28
25	89	32	36	50	1,550	303	85	195	97	89	32	26
26	34	32	39	50	2,580	255	89	1,040	97	69	44	28
27	28	32	96	56	849	231	77	6,630	89	65	59	28
28	27	34	655	113	6,260	219	69	6,920	89	59	39	28
29	29	34	260	113	5,010	195	89	5,810	85	53	36	30
30	28	34	93	89	-	195	219	2,770	85	53	82	34
31	30	-	62	69	-	183	-	1,140	-	53	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,283	192	27	41.4	0.087	0.10	2,540
November	1,567	428	29	52.2	.109	.12	3,110
December	2,788	655	34	69.9	.188	.22	6,530
Calendar year 1943	105,438	12,500	26	289	.606	6.21	209,100
January	2,945	332	50	95.0	.199	.23	5,840
February	25,661	6,260	62	885	1.86	2.00	50,900
March	19,425	4,050	143	627	1.31	1.51	38,520
April	7,452	1,840	69	248	.520	.58	14,780
May	37,365	6,920	77	1,206	2.53	2.91	74,150
June	6,275	590	85	209	.438	.49	12,450
July	2,119	97	53	68.4	.143	.17	4,200
August	1,296	147	28	41.8	.088	.10	2,570
September	1,321	173	26	44.0	.092	.10	2,620
Water year 1943-44	109,515	6,920	26	299	.627	6.53	217,200

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 2½ miles northwest of Farris. Datum of gage is 446.58 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.— 1,120 square miles.

Records available.— November 1937 to September 1944.

Extremes.— Maximum discharge during year, 16,200 second-feet May 2 (gage height, 34.5 feet, from graph based on gage readings); minimum, 0.4 second-feet July 12, 1937-44: Maximum discharge, 52,500 second-feet Feb. 17, 1938 (gage height, 43.10 feet); no flow at times.

Remarks.— Records good except those for days of rapidly changing stage, which are fair. Gage read twice daily, oftener during high stages.

Cooperation.— Gage-height record, 32 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	343	25	a0.9	170	282	8,050	180	2,010	544	12	5.6	188
2	893	61	a.7	190	526	4,700	3,250	12,500	282	14	6.1	200
3	319	19	.5	398	542	1,280	2,510	13,200	200	15	15	110
4	106	15	a.6	294	370	3,560	760	6,890	130	13	26	60
5	44	10	11	234	270	2,160	476	3,520	321	10	16	a40
6	27	7.0	148	180	200	853	344	633	3,460	8.5	11	23
7	18	5.0	158	130	150	496	262	400	3,630	7.0	8.7	15
8	17	3.5	72	130	1,100	342	204	288	523	5.5	5.6	11
9	10	2.8	51	324	4,320	270	192	264	703	3.7	5.0	8.7
10	7.9	2.4	48	306	4,060	210	170	428	775	2.9	3.9	40
11	6.4	2.2	96	426	1,730	180	141	240	293	1.9	2.9	20
12	13	1.6	112	740	544	180	114	160	221	.4	2.5	15
13	111	1.8	160	644	294	125	102	123	1,360	241	2.0	11
14	398	1.6	104	468	1,080	112	90	98	1,500	144	1.1	8.3
15	701	a1.4	73	318	2,480	125	80	80	815	57	1.0	7.1
16	232	1.4	48	282	1,680	1,390	67	67	412	35	.9	5.8
17	96	1.4	33	a384	3,270	2,900	61	58	234	26	.9	5.6
18	38	1.2	24	462	4,120	1,150	52	52	125	18	4.5	4.5
19	25	1.2	28	574	2,210	5,980	58	44	78	13	4.5	a3.5
20	17	1.2	15	542	828	12,900	228	44	51	9.0	3.2	2.5
21	12	1.2	12	370	1,010	10,500	216	67	38	7.4	2.9	3.2
22	9.1	1.2	10	258	1,370	7,060	534	397	25	6.7	2.0	2.5
23	7.6	1.2	7.6	170	760	2,630	313	855	21	5.8	1.6	2.0
24	7.0	1.2	6.4	125	720	973	150	451	18	6.7	1.1	2.5
25	5.0	1.6	6.7	96	2,570	640	106	341	14	6.4	1.3	1.6
26	4.0	1.6	6.4	84	4,040	460	83	838	13	5.6	1.6	1.1
27	52	2.0	55	686	1,780	358	64	3,720	11	4.8	2.2	.9
28	55	a2.0	1,250	1,270	12,000	288	55	4,410	11	2.9	1.8	.9
29	29	a1.6	1,740	1,040	12,000	252	133	4,880	10	11	2.9	.9
30	18	a1.2	810	631	—	204	2,170	3,940	12	12	33	.9
31	22	—	308	398	—	180	—	2,060	—	7.4	35	—

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	3,643.0	893	4.0	118	0.105	0.12	7,230
November	180.5	61	1.2	6.02	.0054	.006	356
December	5,395.8	1,740	.5	174	.155	.18	10,700
Calendar year 1943	208,736.4	27,900	0	572	.511	6.92	414,000
January	12,404	1,270	84	400	.357	.41	24,600
February	56,306	12,000	150	2,286	2.04	2.20	131,500
March	70,508	12,900	112	2,274	2.03	2.34	139,900
April	13,155	3,250	52	438	.391	.44	26,090
May	65,108	13,200	44	2,100	1.88	2.16	129,100
June	15,630	3,630	10	521	.465	.52	31,000
July	713.5	241	.4	23.0	.021	.02	1,420
August	211.8	35	.9	6.83	.0061	.007	420
September	795.5	200	.9	26.5	.024	.03	1,580
Water year 1943-44	254,051.1	13,200	.4	694	.620	8.43	503,900

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Clear Boggy Creek near Caney, Okla.

Location.- Wire-weight gage, lat. 34°15', long. 96°12', in NW¼SE¼ sec. 36, T. 3 S., R. 10 E., at bridge on U. S. Highway 69 and 75, half a mile below Caney Creek and 1.5 miles north of Caney. Datum of gage is 485.05 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 732 square miles.

Records available.- December 1942 to September 1944.

Extremes.- 1942-43: Maximum discharge during period December to September, 46,000 second-feet May 11 (gage height, 26.3 feet, from graph based on gage readings); minimum observed, 5.6 second-feet Sept. 2 (gage height, 4.76 feet).

1943-44: Maximum discharge during water year, 9,870 second-feet Mar. 19 (gage height, 23.6 feet, from graph based on gage readings); minimum observed, 9.6 second-feet Oct. 26, 27 (gage height, 4.92 feet).

Maximum stage known, 26.9 feet in February 1938, from information by local resident.

Remarks.- Records good except those for periods of rapidly changing stage, which are fair. Gage read twice daily, oftener during high stages.

Cooperation.- Gage-height record, 76 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 4 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, 1942-44

1942-43

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	197	*62	48	235	114	138	67	13	5.8
2			-	176	62	48	192	104	123	53	13	5.7
3			-	155	245	48	166	100	109	46	13	6.8
4			58	135	197	48	136	96	100	40	12	67
5			51	116	175	51	126	79	538	38	12	347
6			62	107	125	51	110	71	4,350	36	12	190
7			65	107	98	48	100	64	3,270	32	11	67
8			69	107	85	51	296	60	1,060	43	11	36
9			73	102	77	48	411	67	307	138	10	22
10			85	94	73	51	310	3,990	265	53	9.2	17
11			85	94	69	51	310	35,700	170	38	9.0	14
12			89	*89	65	58	1,230	16,500	118	32	8.8	13
13			85	85	62	135	2,070	7,170	100	30	8.8	13
14			81	81	58	116	463	4,070	96	29	7.8	12
15			69	81	65	107	235	1,000	159	28	8.4	12
16			73	61	58	85	179	600	96	27	8.0	11
17			69	77	54	69	2,320	435	91	26	7.4	10
18			69	73	58	65	3,610	371	83	26	7.2	9.8
19			69	b55	58	62	4,450	307	159	24	7.0	9.2
20			65	*b47	58	54	4,210	291	76	23	7.2	8.2
21			65	58	58	51	1,010	245	61	21	7.2	8.4
22			125	69	58	51	461	231	57	20	7.4	8.8
23			419	69	58	45	339	217	50	18	5.6	9.6
24			245	69	54	51	275	205	47	18	8.0	9.8
25			165	65	51	554	231	181	60	18	8.0	11
26			145	62	51	1,470	193	159	148	18	8.0	10
27			1,210	54	48	2,200	170	250	109	17	8.2	9.6
28			1,170	58	48	1,580	170	1,710	56	19	8.0	12
29			640	58	-	548	148	667	96	15	7.8	378
30			313	62	-	372	128	193	56	14	7.4	-
31			233	62	-	295	-	159	-	14	6.6	-

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

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Discharge, in second-feet, of Clear Boggy Creek near Caney, Okla., 1942-44--Continued

1943-44											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	217		14	13	70	86	4,480	234	565	889	38
2	77	138	15	86	330	1,850	1,920	5,350	478	38	20
3	32	27	14	109	197	577		5,570	350	37	21
4	20	15	a16	74	140	1,360	259	4,380	280	36	20
5	20	13	40	58	119	680	193	896	252	32	18
6	15	12	116	52	100	398	170	419	224	30	16
7	14	a12	39	52	82	294	148	307	183	30	16
8	12	11	27	58	444	238	138	245	170	29	16
9	12	10	40	104	1,540	210	138	205	366	29	26
10	11	10	52	130	844	183	138	181	210	28	18
11	11	11	66	124	303	170	118	159	170	28	16
12	12	11	55	210	182	170	138	197	27	15	22
13	25	11	55	135	126	158	100	118	686	25	13
14	72	12	44	109	629	146	96	109	414	24	13
15	49	13	30	90	467	135	92	92	575	25	13
16	32	13	25	135	273	1,930	84	84	363	26	12
17	19	13	23	130	1,380	2,300	80	76	170	38	12
18	14	13	29	114	1,710	628	76	69	114	32	11
19	12	14	21	119	546	88	66	86	26	11	17
20	11	16	21	114	323	6,060	100	76	78	24	10
21	11	14	21	95	437	5,670	326	88	70	24	10
22	10	13	21	82	350	4,030	175	1,100	66	21	11
23	a11	14	21	70	308	913	128	499	66	23	12
24	12	14	a20	62	238	537	96	877	55	24	11
25	11	12	20	55	1,800	403	84	734	52	29	24
26	9.6	12	23	52	1,050	323	76	662	52	25	27
27	9.6	12	105	104	540	259	69	4,320	48	24	11
28	15	13	576	146	5,160	231	62	5,750	44	27	19
29	13	12	273	280	5,120	205	92	6,770	43	24	32
30	12	13	182	158	-	181	280	7,500	44	23	32
31	12	-	95	109	-	170	-	4,580	-	21	55

a No gage-height record; discharge computed from estimated gage height.

Monthly discharge, in second-feet, 1942-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
December 4-31, 1942.....	5,847	1,210	51	209	0.286	0.30	11,600
Calendar year	-	-	-	-	-	-	-
January 1943.....	2,744	197	47	88.5	.121	.14	6,440
February	2,230	245	48	79.6	.109	.11	4,420
March	8,514	2,200	48	275	.376	.43	16,890
April	24,274	4,450	100	809	1.11	1.23	48,150
May	75,396	35,700	60	2,432	3.32	3.63	149,500
June	12,151	4,350	47	405	.553	.62	24,100
July	1,021	138	14	32.9	.045	.05	2,030
August	281.0	13	6.6	9.06	.012	.01	557
September	1,343.5	378	5.7	44.8	.061	.07	2,660
The period.....	-	-	-	-	-	-	265,300
October 1943.....	813.2	217	9.6	26.2	.036	.04	1,610
November.....	518	138	10	17.3	.024	.03	1,030
December.....	2,098	576	13	67.7	.092	.11	4,160
Calendar year 1943.....	131,383.5	35,700	5.7	360	.492	6.67	260,500
January 1944.....	3,286	280	52	106	.145	.17	6,520
February.....	24,834	5,160	82	856	1.17	1.26	49,260
March.....	39,219	6,060	135	1,265	1.73	1.99	77,780
April.....	6,242	1,320	62	208	.284	.32	12,350
May.....	51,985	7,500	66	1,677	2.29	2.64	103,100
June.....	6,795	889	43	226	.309	.35	13,480
July.....	867	38	21	28.0	.038	.04	1,720
August.....	561	55	10	18.1	.025	.03	1,110
September.....	1,343	329	13	44.8	.061	.07	2,660
Water year 1943-44.....	138,561.2	7,500	9.6	379	.518	7.05	274,800

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., 1½ 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.

Records available.- December 1925 to September 1931, October 1935 to September 1944.

Average discharge.- 14 years (1926-31, 1935-44), 1,560 second-feet.

Extremes.- Maximum discharge during year, 31,000 second-feet May 2 (gage height, 36.40 feet); minimum, 0.1 second-foot Aug. 22-26, 28.
1925-31, 1935-44: Maximum discharge, 83,700 second-feet Feb. 18, 1938 (gage height, 44.0 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 periods of extremely low flow and rapidly changing stage, which are fair.

Cooperation.- Gage-height record, 32 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 3 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	424	38	868	1,480	20,900	821	11,500	1,980	174	34	210
2	46	1,780	37	1,120	1,770	7,620	4,980	27,500	1,250	244	25	467
3	320	755	34	1,670	2,040	3,430	5,450	26,500	868	177	18	286
4	292	822	33	1,920	1,720	3,220	4,440	21,200	642	126	14	204
5	174	642	39	1,520	1,500	4,520	2,710	8,320	7,080	100	12	144
6	102	439	115	1,100	1,020	2,730	1,930	2,750	21,200	85	10	112
7	72	331	289	912	845	1,920	1,450	2,050	8,130	72	7.6	88
8	56	275	328	1,440	4,080	1,480	1,590	1,600	2,220	62	6.0	69
9	45	231	419	1,520	9,310	1,200	6,540	1,320	1,520	55	5.2	82
10	38	204	665	1,670	8,900	1,000	5,180	4,400	1,520	46	4.0	68
11	32	180	1,100	1,920	4,600	868	4,090	3,020	1,020	40	3.3	46
12	31	159	1,920	2,400	2,580	778	3,530	1,470	868	36	3.0	38
13	217	138	1,720	3,010	1,800	688	2,590	1,020	1,430	32	2.7	31
14	455	120	1,070	2,520	2,810	620	1,870	771	2,940	30	2.2	27
15	575	108	732	1,820	6,430	555	1,420	671	2,940	28	1.4	24
16	439	98	527	1,430	6,300	935	1,150	541	1,520	47	1.0	22
17	331	89	423	1,300	7,750	2,930	946	461	980	34	.7	20
18	207	79	362	1,380	9,520	3,010	796	401	665	26	.6	18
19	153	77	310	1,480	7,020	4,440	696	353	523	23	.6	18
20	115	74	282	1,430	4,060	12,100	5,880	401	427	26	.4	18
21	89	70	247	1,380	2,940	11,200	6,000	557	366	26	.3	18
22	75	68	225	1,180	2,460	5,320	3,680	3,620	822	25	.1	16
23	68	53	210	980	2,040	4,300	2,470	1,150	642	21	.1	15
24	120	59	189	845	1,720	3,390	4,340	591	423	19	.1	12
25	87	55	180	755	3,230	2,530	2,650	771	338	19	.1	12
26	60	51	174	655	8,550	1,990	1,630	2,660	282	18	.1	11
27	50	48	258	989	8,240	1,570	1,200	9,480	338	18	.2	10
28	44	45	1,440	2,600	21,100	1,300	971	10,300	439	14	.1	10
29	39	42	2,560	3,150	25,300	1,150	971	19,000	275	31	.3	9.5
30	38	38	1,920	2,520	-	1,050	6,360	10,700	210	43	4.0	9.0
31	222	-	1,200	1,920	-	971	-	4,680	-	45	258.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,681	575	31	151	0.106	0.12	9,280
November	7,564	1,780	38	252	.177	.20	15,000
December	19,046	2,560	33	614	.432	.50	37,780
Calendar year 1943	352,457.9	48,700	0	966	.680	9.23	699,100
January	49,394	3,150	665	1,593	1.12	1.29	97,970
February	160,965	25,300	845	5,551	3.91	4.22	319,300
March	109,715	20,900	555	3,539	2.49	2.87	217,600
April	88,561	6,540	696	2,952	2.08	2.32	175,700
May	179,758	27,500	353	5,799	4.08	4.71	356,500
June	63,858	21,200	210	2,129	1.50	1.67	126,700
July	1,742	244	14	56.2	.040	.05	3,460
August	415.1	258	.1	15.4	.0094	.01	865
September	2,124.5	467	9.0	70.8	.050	.06	4,210
Water year 1943-44	687,823.6	27,500	.1	1,879	1.32	18.02	1,364,000

Peak discharge.- Feb. 28 (9 p.m.) 27,300 sec.-ft.; May 2 (5:30 p.m.) 31,000 sec.-ft.; May 29 (8:30 a.m.) 21,500 sec.-ft.; June 6 (3 a.m.) 25,700 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Little River near Idabel, Okla.

Location.-- Wire-weight gage, lat. 33°56', long. 94°49', in NE $\frac{1}{4}$ 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 1944.

Average discharge.-- 11 years (1929-31, 1935-44), 1,334 second-feet.

Extremes.-- Maximum discharge observed during year, 35,500 second-feet May 3 (gage height, 34.34 feet); minimum observed, 6.7 second-feet Aug. 24.

1929-31, 1935-44: 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 periods of extremely low flow or rapidly changing stage, and those for period of doubtful gage-height record, which are fair. Gage read twice daily or oftener.

Cooperation.-- Gage-height record, 43 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 4 discharge measurements made and records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	132	62	1,320	1,900	15,300	1,900	8,480	3,000	89	30	96
2	12	814	60	1,290	1,660	10,400	2,720	17,800	1,790	81	24	158
3	28	2,030	58	1,470	2,000	6,870	6,080	33,500	1,210	81	20	364
4	5	1,660	57	1,590	2,140	5,850	6,500	21,300	919	81	17	292
5	26	1,200	70	1,800	1,790	6,250	4,580	12,200	779	71	15	194
6	20	844	158	1,530	1,540	4,620	3,100	7,330	1,120	60	14	144
7	16	662	180	1,380	1,270	3,250	2,080	4,950	1,790	53	12	134
8	13	532	508	1,420	2,170	2,290	1,660	2,940	1,270	46	10	110
9	11	370	688	2,130	7,730	1,720	2,810	1,630	835	40	9.2	88
10	10	350	1,170	2,000	9,850	1,460	4,110	1,270	647	35	8.0	69
11	8.9	290	3,130	1,690	7,370	1,240	4,020	1,010	569	33	7.8	57
12	8.4	250	3,980	1,760	4,500	1,090	3,800	930	725	30	9.2	60
13	17	225	2,870	2,040	2,720	975	2,950	766	835	31	9.2	56
14	15	200	1,830	2,100	2,390	891	2,140	662	1,160	32	10	50
15	19	180	1,320	1,930	5,680	779	1,660	558	1,050	32	13	45
16	23	164	960	1,630	6,820	1,140	1,420	454	910	31	12	40
17	20	150	740	1,390	6,710	4,180	1,120	460	715	25	10	37
18	18	140	662	1,240	8,930	4,700	947	532	554	22	9.2	37
19	16	128	584	1,150	8,800	5,180	779	436	460	21	8.2	41
20	15	118	484	1,120	6,200	7,690	699	558	364	18	7.8	31
21	16	110	436	1,060	4,100	8,470	4,480	636	304	16	7.8	27
22	17	102	388	1,000	2,850	6,640	4,460	610	246	16	6.9	17
23	16	95	364	891	2,300	4,940	3,000	766	202	21	6.8	15
24	21	90	340	807	2,000	3,790	4,090	930	169	27	6.7	14
25	28	85	304	725	1,820	3,000	3,480	883	136	25	7.0	14
26	26	80	292	673	4,960	2,390	2,120	1,840	123	22	9.2	13
27	25	76	268	595	8,160	2,390	1,480	4,740	108	18	12	13
28	55	72	508	699	8,670	2,670	1,210	6,660	147	16	15	13
29	87	70	1,410	1,450	14,900	2,430	1,000	7,050	121	25	19	14
30	81	66	1,470	1,960	-	2,210	2,220	6,770	92	29	26	14
31	68	-	1,380	2,210	-	1,930	-	5,080	-	31	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	780.3	87.0	8.4	25.2	0.023	0.03	1,550
November	11,265	2,030	66	376	.342	.30	22,340
December	26,731	3,980	57	862	.784	.90	53,020
Calendar year 1943	270,193.1	20,400	2.0	740	.673	9.13	535,900
January	44,280	2,210	595	1,427	1.30	1.50	87,770
February	142,030	14,900	1,270	4,898	4.45	4.80	231,700
March	126,755	15,300	779	4,089	3.72	4.29	251,400
April	82,665	6,500	699	2,756	2.51	2.79	164,000
May	153,761	33,500	436	4,960	4.51	5.20	305,000
June	22,400	3,000	92	747	.679	.76	44,430
July	1,156	89	16	373	.034	.04	2,290
August	424.0	52	6.7	13.7	.012	.01	841
September	2,257	364	13	75.2	.068	.08	4,480
Water year 1943-44	614,474.3	33,500	6.7	1,679	1.53	20.78	1,219,000

Note.-- Gage-height record doubtful Nov. 8 to Dec. 5; discharge computed on basis of 4 discharge measurements, rainfall records, and records for station near Horatio, Ark.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Little River near Horatio, Ark.

Location.— Water-stage recorder, lat. 33°55', long. 94°23', in NW¼ sec. 11, T. 10 S., R. 32 W., 1½ miles upstream from Canney Creek, 2 miles southwest of Horatio, and 28 miles upstream from Cossatot River. Datum of gage is 272.69 feet above mean sea level, datum of 1929.

Drainage area.— 2,690 square miles.

Records available.— December 1930 to September 1944.

Average discharge.— 13 years (1931-44), 3,543 second-feet.

Extremes.— Maximum discharge during year, 57,900 second-feet May 3 (gage height, 32.64 feet); minimum, 9.6 second-feet Oct. 5 (gage height, 3.66 feet).

1930-44: 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 period of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	207	141	2,650	3,850	27,300	3,690	21,900	10,000	385	51	86
2	12	940	156	2,440	3,530	22,700	5,710	44,300	6,300	318	51	174
3	12	2,650	130	2,790	3,770	19,700	13,000	57,000	3,690	290	51	336
4	11	3,550	127	3,370	4,010	17,200	13,700	48,400	2,650	267	47	504
5	10	2,440	130	3,610	3,770	16,200	11,300	43,200	2,090	247	44	494
6	15	1,690	367	3,290	3,210	13,500	8,550	35,000	2,580	219	41	550
7	30	1,240	1,690	2,860	2,720	9,800	5,670	26,200	3,530	195	37	397
8	31	974	2,510	3,770	3,140	6,570	4,170	15,900	3,140	165	34	293
9	28	836	1,680	4,170	16,900	4,370	4,960	8,100	2,300	147	31	241
10	26	756	2,370	3,930	23,600	3,610	7,600	4,010	1,750	136	29	192
11	24	678	6,660	3,530	19,000	3,000	8,950	2,930	1,480	121	27	156
12	23	593	9,800	3,290	14,500	2,650	10,400	2,370	1,450	110	30	133
13	92	522	7,600	3,690	9,750	2,370	8,420	2,020	1,630	102	39	116
14	79	463	4,970	4,170	6,600	2,160	6,120	1,750	2,440	99	39	108
15	77	413	3,290	4,090	9,100	2,190	4,570	1,880	3,000	99	36	97
16	56	377	2,370	3,610	12,800	5,850	3,610	2,230	2,440	99	102	89
17	39	339	1,810	3,140	13,800	16,700	2,930	1,690	1,950	105	116	82
18	29	314	1,510	2,860	19,800	16,200	2,440	1,390	1,570	89	97	74
19	24	287	1,300	2,720	19,800	18,400	2,020	1,270	1,240	84	74	69
20	23	263	1,150	2,650	16,300	23,600	1,810	1,270	1,030	82	60	65
21	23	247	1,000	2,510	12,900	21,700	a5,760	1,570	2,020	82	54	56
22	19	229	918	2,370	9,800	17,400	a7,580	1,880	1,950	79	47	51
23	20	216	836	2,160	8,010	14,800	a6,880	4,170	1,360	74	42	47
24	29	201	782	1,380	6,300	11,900	a6,670	3,560	1,030	67	37	44
25	58	189	730	1,690	5,050	8,900	a7,000	2,860	809	62	34	41
26	92	180	678	1,570	6,720	6,660	a5,500	5,780	678	60	49	39
27	65	171	678	1,480	14,400	9,740	5,930	16,400	782	58	47	37
28	79	162	782	1,480	17,000	10,400	2,930	17,200	678	54	41	36
29	156	153	1,450	2,020	25,900	7,950	2,440	14,700	546	58	49	39
30	162	147	2,720	2,930	-	5,760	6,680	15,000	459	56	74	39
31	180	-	2,930	3,690	-	4,490	-	13,200	-	54	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	1,536	180	10	49.5	0.018	0.02	3,050
November	21,407	3,530	147	714	.265	.30	42,460
December	63,445	9,800	127	2,047	.761	.88	125,800
Calendar year 1943	564,499.5	21,300	2.7	1,547	.575	7.80	1,120,000
January	90,410	4,170	1,480	2,916	1.08	1.24	179,300
February	316,030	25,900	2,720	10,900	4.05	4.37	626,800
March	353,970	27,300	2,160	11,420	4.25	4.90	702,100
April	185,990	13,700	1,810	6,200	2.30	2.57	368,900
May	418,420	57,000	1,270	13,500	5.02	5.79	829,900
June	66,572	10,000	459	2,219	.825	.92	132,000
July	4,063	355	54	131	.049	.06	8,000
August	1,607	116	27	51.8	.019	.02	3,190
September	4,687	550	36	156	.058	.06	9,300
Water year 1943-44	1,528,127	57,000	10	4,175	1.55	21.13	3,031,000

a No gage-height record; discharge computed on basis of gage reading on Apr. 24, high-water mark, rainfall records, and records for Little River near Idabel, Okla., and Mountain Fork River near Eagletown, Okla.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Mountain Fork River near Eagletown, Okla.

Location.— Water-stage recorder, lat. 34°03', long. 94°37', in SE¼ 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 Railroad 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 1944.

Average discharge.— 11 years (1929-31, 1935-44), 1,134 second-feet.

Extremes.— Maximum discharge during year, 40,500 second-feet May 2 (gage height, 18.33 feet); no flow at times.

1924-25, 1929-31, 1935-44: 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 good except those for periods of extremely low flow, which are fair.

Cooperation.— Gage-height record, 36 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 4 discharge measurements made and records reviewed by Geological Survey.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 26, 27, July 29 to Aug. 10)

1.2	4.0	2.0	51	3.5	460	6.0	2,790	14.0	21,800
1.3	6.5	2.2	75	4.0	710	7.0	4,540	16.0	29,200
1.4	10	2.4	115	4.5	990	8.0	6,650	18.0	38,700
1.6	19	2.7	175	5.0	1,490	10.0	11,300		
1.8	33	3.0	255	5.5	2,100	12.0	16,300		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	246	52	785	990	5,580	1,070	19,600	2,160	169	11	149
2	0	1,180	51	785	990	3,430	1,950	32,500	1,370	151	9.0	234
3	0	1,890	50	1,030	1,070	2,430	5,710	17,800	955	149	6.8	220
4	0	1,030	46	1,210	1,030	5,650	3,520	5,990	785	139	6.0	153
5	0	710	57	1,070	920	5,480	2,360	3,600	660	113	5.2	111
6	0	540	567	920	835	4,150	1,730	2,360	1,400	84	4.8	97
7	0	415	1,880	860	760	2,360	1,320	1,730	1,120	71	4.2	66
8	0	350	1,260	1,030	7,740	1,730	1,120	1,260	760	61	4.0	51
9	0	314	990	990	14,400	1,320	1,360	1,030	595	52	4.8	41
10	0	283	2,720	860	6,240	1,070	1,790	890	485	46	11	36
11	0	231	7,450	860	3,430	920	4,010	785	510	40	22	31
12	0	200	3,670	990	2,220	835	3,780	660	535	39	19	27
13	0	175	2,040	1,320	1,610	785	2,430	565	610	37	15	22
14	0	159	1,520	1,370	2,040	735	1,790	575	1,610	33	16	20
15	0	145	955	1,160	5,260	665	1,370	920	1,160	41	157	19
16	0	133	785	1,070	4,540	6,290	1,070	735	835	44	99	18
17	0	123	645	990	8,200	9,470	890	540	660	30	53	16
18	0	111	535	990	11,200	4,500	760	402	510	24	38	15
19	0	103	451	1,030	5,040	8,140	660	330	392	22	26	13
20	0	95	388	1,030	3,260	9,530	2,440	314	790	23	20	12
21	0	89	342	990	2,430	5,260	3,300	346	1,740	27	16	11
22	0	82	298	890	2,100	3,780	1,970	899	860	23	13	9.6
23	0	77	272	785	1,970	3,430	1,790	1,430	625	20	11	8.6
24	0	73	240	710	1,670	2,720	2,160	990	446	18	9.6	7.6
25	0	69	225	645	1,550	2,160	1,550	785	342	16	9.3	6.5
26	6.6	66	212	580	8,100	1,790	1,160	8,360	438	16	9.3	6.0
27	11.0	62	218	545	5,740	2,120	955	10,800	456	14	9.0	5.5
28	16.1	59	486	710	14,500	2,790	835	5,600	322	13	8.2	5.2
29	13.1	57	835	990	13,800	2,040	771	5,700	240	12	8.2	5.5
30	11.1	55	990	1,160	-	1,610	8,950	4,840	200	12	11	5.6
31	9.9	-	860	1,160	-	1,260	-	3,100	-	12	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	618.6	161	0	20.0	0.026	0.03	1,230
November	9,112	1,880	55	304	.388	.43	15,070
December	30,811	7,450	48	994	1.27	1.46	61,110
Calendar year 1943	187,487.6	11,480	0	514	.656	8.90	371,900
January	29,515	1,370	545	952	1.21	1.40	58,540
February	133,645	14,540	760	4,608	5.98	6.34	268,100
March	104,030	9,530	665	3,556	4.28	4.94	206,300
April	64,571	8,950	660	2,152	2.74	3.06	128,100
May	135,428	32,500	314	4,369	5.57	6.42	268,600
June	23,571	2,160	200	786	1.00	1.12	46,750
July	1,551	169	12	50.0	.064	.07	3,080
August	656.4	157	4.0	21.2	.027	.03	1,300
September	1,422.0	234	5.2	47.4	.060	.07	2,820
Water year 1943-44	534,929.0	32,500	0	1,462	1.86	25.37	1,061,000

Peak discharge.— Feb. 8 (5:45 p.m.) 18,100 sec.-ft.; Feb. 28 (10:30 p.m.) 22,100 sec.-ft.; May 2 (5 p.m.) 40,500 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 29,100 second-feet May 2 (gage height, 18.70 feet); minimum, 5.0 second-feet Oct. 1 (gage height, 1.93 feet).
1938-44: Maximum discharge, 36,300 second-feet Jan. 24, 1939, Apr. 16, 1939 (gage height, 19.70 feet); minimum, 1.2 second-feet Aug. 30 to Sept. 1, 1943 (gage height, 1.70 feet).

Remarks.- Records good.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	42	25	323	600	2,340	600	15,700	600	34	26	234
2	8.0	223	25	374	544	1,450	1,570	19,400	435	31	22	131
3	20	611	24	684	526	1,030	2,660	7,370	823	29	18	85
4	26	343	24	873	449	1,670	1,670	3,320	251	30	15	60
5	20	213	26	641	409	1,580	1,120	1,960	236	28	13	49
6	16	157	99	478	363	1,030	799	1,330	363	24	12	75
7	14	143	728	409	323	775	620	925	314	22	12	49
8	12	141	410	493	1,180	562	526	684	219	20	14	34
9	10	122	324	435	9,450	463	706	562	172	18	12	28
10	8.9	101	732	374	3,020	397	1,590	449	157	17	10	28
11	8.0	84	1,960	385	1,590	342	3,650	352	196	16	12	24
12	8.0	71	1,150	510	977	304	2,010	286	172	14	12	20
13	24	63	662	775	706	277	1,270	256	175	14	13	18
14	91	56	435	684	922	243	899	385	235	13	14	16
15	143	51	314	600	1,620	358	684	374	196	13	30	15
16	87	49	235	544	1,560	10,800	526	304	151	22	21	14
17	59	46	182	510	3,050	5,280	422	227	120	28	15	13
18	43	151	526	4,270	2,300	342	182	98	20	14	13	13
19	34	41	128	562	2,000	5,280	295	153	84	18	12	12
20	28	38	113	562	1,460	4,630	268	148	141	18	11	11
21	25	36	101	510	1,090	2,430	286	189	377	19	9.5	11
22	24	35	91	435	1,840	1,800	352	624	196	17	8.3	10
23	22	33	84	363	1,890	1,430	2,100	848	135	15	7.4	9.2
24	26	32	79	314	1,330	1,200	1,850	641	101	14	6.5	8.9
25	151	30	79	268	977	1,000	1,090	478	82	14	8.3	8.3
26	167	29	94	235	1,530	821	775	1,240	68	14	16	7.7
27	109	28	114	282	1,590	2,640	600	1,630	59	14	20	7.7
28	80	28	216	681	4,910	2,190	449	1,200	52	17	36	8.3
29	65	26	538	775	6,750	1,450	363	2,040	44	21	32	9.8
30	52	26	526	775	-	1,000	2,500	1,560	39	26	35	11
31	44	-	409	706	-	752	-	925	-	27	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,428.4	167	6.5	46.1	0.128	0.15	2,830
November	2,941	611	26	98.0	.271	.30	5,330
December	9,978	1,960	24	322	.892	1.03	19,790
Calendar year 1943	81,630.5	5,800	1.2	224	.620	8.42	161,900
January	16,086	873	235	519	1.44	1.56	31,910
February	56,006	9,450	323	1,931	5.35	5.77	111,100
March	57,824	10,800	243	1,865	5.17	5.86	114,700
April	32,592	3,650	268	1,086	3.01	3.36	64,550
May	65,742	19,400	148	2,121	5.88	6.78	130,400
June	5,791	600	39	193	.555	.60	11,490
July	627	34	13	20.2	.056	.06	1,240
August	539.0	52	6.5	17.4	.048	.06	1,070
September	1,020.9	234	7.7	34.0	.094	.10	2,020
Water year 1943-44	250,575.3	19,400	6.5	685	1.90	25.83	497,000

Peak discharge.- Feb. 9 (6 a.m.) 14,000 sec.-ft.; Mar. 16 (3 p.m.) 17,400 sec.-ft.; May 1 (3 p.m.) 22,500 sec.-ft.; May 2 (4 p.m.) 29,100 sec.-ft.

Time basis. Central war time. To convert war time to standard time, subtract 1 hour.

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 1944.

Extremes.- Maximum discharge during year, 10,800 second-feet May 1 (gauge height, 16.68 feet); no flow at times.

1938-44: Maximum discharge, 20,100 second-feet (revised) July 14, 1941 (gauge height, 18.75 feet); no flow at times in 1943.

Maximum stage known, 21.9 feet sometime in 1920, from information by local resident.

Revisions.- The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede those published in the Water-Supply Papers indicated.

Water-Supply Paper	Water year	Date	Gage height (feet)	Discharge (second-feet)
877, 957.....	1938-39	Apr. 16	17.10	12,000
897, 957.....	1939-40	May 18	17.00	11,700
927, 957.....	1940-41	July 14	18.75	20,100
957.....	1941-42	Apr. 8	17.07	12,000

Remarks.- Records good except those for periods of extremely low flow, which are fair.

Cooperation.- Gage-height record, 36 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 6 discharge measurements made and records reviewed by Geological Survey.

Revisions.- Revised figures of discharge for high-water periods in water years 1939 to 1942 are given herewith. They supersede those published in Water-Supply Papers 877, 897, 927, and 957.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1938-39		1940-41	
Apr. 16.....	7,070	Nov. 23.....	6,360
1939-40		July 14.....	6,000
May 16.....	4,750	1941-42	
		Apr. 8.....	7,050

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches	Runoff in acre-feet
April 1939.....	22,861	7,070	92	762	6.25	6.97	45,340
Water year 1938-39...	66,057.3	7,070	.2	181	1.48	20.15	131,000
Calendar year 1939...	65,518.1	7,070	.1	180	1.48	19.98	129,900
May 1940.....	13,238	4,750	36	427	3.50	4.04	26,260
Water year 1939-40...	42,341.1	4,750	.1	116	.951	12.90	83,990
November 1940.....	11,691.8	6,360	.2	390	3.20	3.56	23,190
Calendar year 1940...	61,253.4	6,360	.1	167	1.37	18.66	121,500
July 1941.....	9,699.7	6,000	4.4	313	2.57	2.96	19,240
Water year 1940-41...	64,850.0	6,360	.1	178	1.46	19.77	128,600
Calendar year 1941...	60,357.1	6,000	1.0	165	1.35	18.41	119,700
April 1942.....	19,411	7,050	55	647	5.30	5.92	38,500
Water year 1941-42...	61,838.3	7,050	.3	169	1.39	18.86	122,600
Calendar year 1942...	54,802.0	7,050	.3	150	1.23	16.72	108,700

Peak discharge (water year).- 1940-41: Nov. 23 (4 a.m.) 15,200 sec.-ft.; July 14 (2:30 p.m.) 20,100 sec.-ft.

Discharge, in second-feet, of Saline River near Dierks, Ark., 1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	12	4.6	89	191	609	226	6,760	127	4.0	0.2	34
2	0	31	4.6	173	137	420	785	5,980	97	3.1	.2	13
3	0	125	4.6	359	187	329	701	1,680	79	2.8	.2	5.4
4	0	79	5.8	283	147	343	485	1,530	64	2.6	.2	3.6
5	2.4	52	6.9	209	129	243	359	863	434	2.0	.2	3.8
6	2.4	40	125	151	119	202	269	565	615	2.0	.2	22
7	1.3	36	174	143	105	166	209	394	257	1.5	.2	26
8	.4	52	109	181	361	136	191	293	161	1.3	.2	9.0
9	.2	40	190	147	1,760	120	549	240	124	1.3	.2	4.4
10	.1	32	202	126	701	109	2,650	171	94	.9	.2	2.8
11	0	27	584	144	438	100	2,710	136	71	.8	.2	2.3
12	0	23	304	191	304	95	909	112	69	.6	.2	1.8
13	6.3	19	183	245	235	88	565	95	90	.6	.2	1.6
14	86	17	130	219	440	81	420	122	71	.6	.2	1.3
15	37	16	99	197	656	108	332	126	50	.6	.2	1.1
16	21	14	75	189	467	3,720	245	93	38	.6	5.2	1.0
17	15	13	61	183	872	1,290	183	74	29	.5	4.2	.8
18	10	12	51	177	827	814	154	61	23	.5	3.4	.8
19	8.0	e11	43	174	525	1,930	130	49	21	.5	2.4	.7
20	5.2	e9.5	40	158	505	1,240	151	50	27	.5	2.0	.6
21	4.1	e8.5	35	140	413	801	123	65	31	.5	1.4	.6
22	3.5	e7.5	31	122	701	775	109	163	22	.4	.8	.6
23	4.1	e7.0	29	105	653	653	568	248	15	.3	.7	.6
24	11	e6.5	26	94	505	505	352	154	13	.2	.6	.5
25	69	e6.0	28	86	413	424	247	118	10	.2	.4	.4
26	38	e5.6	35	77	427	353	204	266	8.6	.2	1.2	.3
27	26	e5.3	41	258	359	1,420	161	301	7.6	.4	3.8	.3
28	19	e5.0	97	361	1,550	725	113	271	7.1	.4	5.0	.4
29	15	e4.8	150	318	1,110	485	96	329	6.2	.2	5.8	.5
30	12	e4.7	130	310	-	359	1,220	245	5.4	.2	8.6	.3
31	10	-	108	247	-	283	-	155	-	.2	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-foot
October 1943.....	407.0	86	0	13.1	0.107	0.12	807
November.....	771.4	125	4.7	25.7	.211	.24	1,530
December.....	3,006.5	584	4.6	97.0	.795	.92	5,960
Calendar year 1943.....	27,700.7	1,510	0	75.9	.622	8.44	54,940
January 1944.....	5,881	381	77	190	1.56	1.79	11,660
February.....	15,287	1,760	105	527	4.32	4.86	30,320
March.....	18,926	3,720	81	611	5.01	5.77	37,540
April.....	15,217	2,710	96	507	4.16	4.64	30,180
May.....	21,701	6,760	49	700	5.74	6.62	43,040
June.....	2,666.9	615	5.4	88.9	.729	.81	5,290
July.....	30.5	4.0	.2	.98	.008	.009	60
August.....	61.5	13	.2	1.98	.016	.02	122
September.....	140.5	34	.3	4.68	.038	.04	279
Water year 1943-44.....	84,096.3	6,760	0	230	1.89	25.64	166,800

Peak discharge.- Mar. 16 (5:15 a.m.) 6,280 sec.-ft.; Apr. 10 (11:45 p.m.) 6,150 sec.-ft.; May 1

(1:30 a.m.) 10,800 sec.-ft.

* Stage-discharge relation indefinite; discharge computed on basis of records for nearby stations and current-meter measurement made Nov. 23.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Sulphur River near Darden, Tex.

Location.- Wire-weight gage, lat. 33°15', long. 94°37', at bridge on U. S. Highway 67, 0.6 mile upstream from St. Louis Southwestern Railway 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 1944. Gage-height records collected at same sites since 1909 are contained in reports of U. S. Weather Bureau.

Average discharge.- 21 years, 2,125 second-feet.

Extremes.- Maximum discharge during year, 57,900 second-feet May 5 (gage height, 31.71 feet, from graph based on gage readings); minimum observed, 1.5 second-feet Dec. 4, 1923-44: Maximum discharge, 92,900 second-feet Jan. 25, 1938 (gage height, 35.4 feet, adjusted to present site, from floodmarks at site then in use), from rating curve extended above 70,000 second-feet; no flow at times.

Remarks.- Records good. Discharge for periods of rapidly changing stage computed by using rate of change of stage as a factor. Gage read once daily, oftener during high water. No diversion above station.

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

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	9.9	1.9	900	65	4,120	5,130	6,210	15,600	20	7.7	657
2	4.4	8.9	1.8	700	72	5,700	3,840	11,200	13,600	19	6.4	1,490
3	4.5	8.4	1.7	630	134	8,520	3,520	23,500	12,000	17	5.8	2,010
4	6.0	24	1.6	1,260	565	12,800	3,800	40,400	10,700	16	5.3	1,960
5	44	1,050	1.8	1,980	1,140	11,600	4,600	56,800	9,370	18	4.8	1,450
6	102	690	3.8	2,300	1,780	10,700	5,650	53,500	8,720	404	4.7	880
7	148	397	4.3	2,250	1,640	10,700	6,480	43,900	7,820	310	4.3	590
8	100	243	5.4	1,710	1,530	10,700	6,480	32,400	6,280	180	3.4	520
9	65	114	214	1,670	1,600	9,620	6,950	21,600	5,130	99	9.2	486
10	63	54	355	2,250	1,690	8,320	6,590	14,500	4,480	60	39	383
11	58	86	267	2,960	2,260	7,070	5,510	10,700	4,200	42	27	257
12	51	70	409	3,650	2,860	5,800	4,590	8,520	3,450	31	22	172
13	77	50	1,460	4,120	3,470	2,710	3,760	6,590	2,050	63	144	116
14	72	36	2,160	4,120	4,200	1,020	2,240	3,460	1,360	42	142	80
15	117	27	2,110	3,310	4,760	530	1,460	1,610	1,060	32	83	72
16	477	19	1,650	1,830	4,840	550	1,020	820	770	28	49	60
17	644	14	895	1,010	4,600	574	700	458	390	20	47	38
18	500	11	538	800	4,600	818	430	292	257	17	38	30
19	406	9.0	385	540	4,680	3,260	287	176	176	33	30	22
20	325	8.9	249	362	4,760	5,440	545	227	144	65	26	17
21	222	7.0	148	257	5,000	11,500	560	287	109	52	20	14
22	130	3.9	100	186	5,540	21,600	510	635	78	36	23	11
23	78	2.7	75	156	5,940	23,000	1,840	1,240	60	29	17	8.9
24	51	2.4	60	132	5,640	21,000	1,530	1,900	50	24	11	7.5
25	37	2.3	54	103	4,590	18,000	1,260	2,300	45	20	25	6.3
26	26	2.3	49	89	3,520	14,000	845	2,910	45	17	8.4	5.8
27	20	2.7	44	83	2,800	11,300	480	3,600	46	16	6.3	5.5
28	16	2.8	60	78	3,240	9,620	322	4,430	37	10	5.4	5.4
29	14	2.6	58	72	3,900	7,970	545	5,650	29	11	8.9	5.4
30	11	2.2	73	70	7,070	7,690	2,710	7,690	23	9.9	58	5.4
31	11	-	969	68	-	6,200	-	13,000	-	8.9	202	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	3,884.1	644	4.2	125	0.045	0.05	7,700
November	2,931.0	1,030	2.2	97.7	0.035	.04	5,810
December	12,404.3	2,160	1.6	400	.145	.17	24,600
Calendar year 1943	429,382.8	21,600	1.6	1,176	.427	5.79	851,600
January	39,646	4,120	68	1,279	.464	.54	78,640
February	91,416	5,940	66	3,152	1.14	1.23	181,300
March	271,812	23,000	550	9,768	3.18	3.67	539,100
April	83,882	6,950	287	2,796	1.02	1.13	166,400
May	380,495	56,800	176	12,270	4.46	5.14	754,700
June	108,079	15,600	23	3,603	1.31	1.46	214,400
July	1,749.8	404	8.9	56.4	.020	.02	3,470
August	1,083.6	202	3.4	35.0	.013	.01	2,150
September	11,365.2	2,010	5.4	379	.138	.15	22,540
Water year 1943-44	1,068,748.0	56,800	1.6	2,756	1.00	13.61	2,001,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cypress Creek near Pittsburg, Tex.

Location.- Water-stage recorder, lat. 33°01', long. 94°53', at bridge on State Highway 11, 500 feet upstream from Louisiana & Arkansas Railway bridge, half a mile upstream from Williamson Creek, and 4.5 miles east of Pittsburg.

Drainage area.- 334 square miles.

Records available.- March 1943 to September 1944.

Extremes.- 1943: Maximum discharge during March to September, 6,570 second-feet. June 8 (gage height, 14.62 feet); minimum not determined.
1943-44: Maximum discharge during water year, 19,200 second-feet May 2 (gage height, 18.73 feet); minimum, 0.1 second-foot Aug. 10, 11.
Flood of January 1938 reached a stage of about 24 feet and was the highest since 1910, from information by local resident.

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

Discharge, in second-feet, 1943-44

1943											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1						-	140	15	512	23	13
2						-	108	16	352	18	12
3						-	89	23	272	16	11
4						-	77	33	248	13	10
5						-	69	44	145	12	8.5
6						-	62	64	99	9.9	4.6
7						-	57	90	794	8.9	10
8						-	52	104	5,440	8.0	14
9						†46	51	104	2,530	7.6	8.9
10						-	58	96	1,360	7.8	6.4
11						-	101	85	945	10	18
12						-	124	77	655	62	14
13						-	76	71	407	30	8.0
14						-	61	66	193	28	11
15						-	48	58	83	38	4.0
16						-	39	50	56	31	
17						-	33	42	47	34	
18						†272	26	35	43	27	
19						-	24	27	37	23	
20						-	22	19	32	21	
21						-	21	18	28	20	
22						-	20	28	25	19	
23						-	19	70	23	18	
24						-	19	135	21	17	
25						140	18	156	19	16	
26						296	17	164	17	15	
27						352	17	160	16	15	
28						344	16	208	15	17	
29						344	15	256	15	18	
30						326	15	296	17	14	
31						192	-	555	-	14	

† Result of discharge measurement.

Note.- No gage-height record Mar. 31 to Apr. 3, Apr. 13 to May 12, May 15-19, Aug. 7-11, Aug. 15 to Sept. 5, Sept. 13-20; discharge computed on basis of recorded range in stage and records for Cypress Creek near Jefferson and Boggy Creek near Daingerfield.

Discharge, in second-feet, of Cypress Creek near Pittsburg, Tex., 1943-44--Continued

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	7.8	10	87	94	1,980	470	8,740	589	11	2.1	89
2	5.3	6.9	11	95	99	1,260	404	18,100	477	9.9	1.9	38
3	12	7.6	12	156	136	945	431	12,900	352	10	1.6	32
4	31	12	12	168	184	745	512	3,800	352	13	1.0	24
5	25	11	13	160	188	550	512	1,740	320	18	.4	16
6	20	9.0	22	148	178	440	450	1,180	304	17	.4	142
7	16	8.4	41	132	152	352	374	910	344	13	.3	43
8	15	4.8	51	248	136	304	330	556	344	11	.2	32
9	13	4.2	69	312	398	244	2,040	470	374	8.9	.2	49
10	11	4.0	73	320	565	164	3,880	325	324	7.4	.2	43
11	7.1	3.6	68	288	770	116	2,450	232	173	6.5	.7	24
12	5.3	3.4	112	280	598	108	1,440	168	104	5.7	2.3	15
13	53	3.5	104	312	538	144	980	148	80	4.7	3.4	10
14	198	4.0	100	288	585	104	649	144	81	3.4	20	7.8
15	112	4.7	73	272	598	102	418	112	108	3.8	16	6.0
16	103	5.2	44	280	655	120	252	91	79	4.0	8.1	4.7
17	92	5.8	34	288	598	132	152	93	48	3.0	4.1	4.0
18	56	6.7	28	272	550	141	108	70	39	2.3	2.6	3.5
19	31	7.6	24	248	565	1,210	85	63	33	2.1	1.8	3.2
20	23	8.1	22	208	655	2,950	88	144	30	2.0	1.9	2.7
21	18	8.1	20	152	822	2,370	124	168	27	1.7	1.9	2.5
22	13	8.0	21	104	1,060	1,560	166	135	25	1.6	1.1	2.2
23	12	7.8	22	89	1,060	1,260	394	264	22	1.3	.8	2.1
24	42	7.8	22	77	700	1,140	424	320	20	1.3	1.1	1.8
25	40	7.8	24	71	565	910	234	328	18	8.6	1.0	1.5
26	15	8.0	26	67	978	722	104	582	17	14	.6	1.5
27	16	8.5	35	71	1,220	795	70	1,180	15	6.2	.4	1.5
28	26	9.2	72	79	1,420	1,020	53	1,460	14	3.5	.2	1.4
29	20	10	74	87	1,920	945	88	1,610	13	2.5	.7	1.2
30	13	10	72	98	770	770	946	1,100	11	2.1	2.5	1.2
31	9.8	-	77	101	-	580	-	565	-	2.3	41	-

a No gage-height record; discharge computed on basis of records for Cypress Creek near Jefferson and Boggy Creek near Dingerfield.

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

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
March 25-31, 1943.....	1,996	352	140	285	0.853	0.22	3,960
April.....	1,496	140	15	49.9	.149	.17	2,970
May.....	3,156	550	15	102	.305	.35	6,280
June.....	14,446	5,440	15	482	1.44	1.61	28,650
July.....	608.2	62	7.6	19.6	.059	.07	1,210
August.....	103.8	13	-	3.35	.010	.01	206
September.....	86.2	18	-	2.87	.0086	.01	171
The period	-	-	-	-	-	-	43,450
October 1943	995.6	128	4.0	32.1	.096	.11	1,970
November.....	210.5	12	3.4	7.02	.021	.02	418
December.....	1,388	112	10	44.8	.134	.15	2,750
Calendar year	-	-	-	-	-	-	-
January 1944	5,534	320	67	179	.536	.62	10,980
February.....	17,963	1,920	94	619	1.85	2.00	35,630
March.....	24,143	2,350	102	779	2.33	2.59	47,890
April.....	18,623	3,380	53	621	1.86	2.07	36,940
May.....	57,792	18,100	68	1,864	5.58	6.43	114,600
June.....	4,667	589	11	156	.467	.52	9,260
July.....	201.8	18	1.3	6.51	.019	.02	400
August.....	120.5	41	.2	3.89	.012	.01	239
September.....	605.8	142	1.2	20.2	.060	.07	1,200
Water year 1943-44	132,242.2	18,100	.2	361	1.08	14.71	262,300

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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.- 648 square miles.

Records available.- July 1924 to September 1944.

Average discharge.- 20 years, 561 second-feet.

Extremes.- Maximum discharge during year, 30,600 second-feet May 4 (gage height, 24.13 feet); minimum, 1.0 second-foot Oct. 9, 10.

1924-44: Maximum discharge, 37,900 second-feet (revised) May 20, 1930 (gage height, 25.37 feet, from floodmarks); no flow at times.

Revisions.- The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede those published in the water-supply papers indicated.

Water-Supply Paper	Water year	Date	Gage height (feet)	Discharge (second-feet)
687.....	1929	Dec. 20	*21.4	17,000
702.....	1930	May 20	†25.37	37,900
732.....	1932	Jan. 8	*21.1	15,600
857.....	1936	Jan. 26	24.94	35,200
957.....	1942	Apr. 11	21.96	19,800

* From graph based on gage readings.

† From floodmark.

Remarks.- Records good except those for October 1 to January 31, which are fair. Flow partly regulated by Ellison Creek Reservoir (see p. 329), a Cypress Creek tributary. At times up to 40 second-feet is diverted from Cypress Creek into Ellison Creek Reservoir by pumping.

Revisions.- Revised figures of discharge for high-water periods in the water years 1929, 1930, 1936, and 1942 are given herein. They supersede those published in Water-Supply Papers 687, 702, 657, and 957.

Day (water year)	Discharge (second-feet)	Day (water year)	Discharge (second-feet)
1928-29		1937-38	
Dec. 19.....	12,000	Dec. 30.....	15,900
20.....	16,100	31.....	15,200
21.....	12,000	Jan. 25.....	19,400
		26.....	33,500
1929-30		27.....	22,400
May 17.....	15,200	28.....	12,600
18.....	23,800		
19.....	34,000	1941-42	
20.....	36,800	Apr. 11.....	16,600
21.....	28,600	12.....	17,400
22.....	17,400		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches	Runoff in acre-feet
December 1928.....	93,488	16,100	258	3,020	-	-	185,000
Calendar year 1928	311,778.9	16,100	5.1	852	-	-	618,000
Water year 1928-29	351,734.7	16,100	2.6	964	-	-	697,000
May 1930.....	212,423	36,800	338	6,850	-	-	421,000
Water year 1929-30	310,789.9	36,800	1.1	851	-	-	616,000
Calendar year 1930	324,331.4	36,800	1.1	889	-	-	643,000
December 1937.....	52,808	15,900	85	1,703	-	-	104,700
Calendar year 1937	232,905.4	16,900	1.4	638	-	-	461,900
January 1938.....	154,608	33,500	376	4,970	-	-	305,600
Water year 1937-38	357,392.7	33,500	2.2	979	-	-	708,900
Calendar year 1938	301,378.4	33,500	.5	826	-	-	597,800
April 1942.....	94,586	17,400	225	3,153	3.72	4.15	187,600
Water year 1941-42	275,024	17,400	6.6	753	.888	12.06	545,500
Calendar year 1942	254,450	17,400	6.6	697	.822	11.16	504,700

Discharge, in second-feet, of Cypress Creek near Jefferson, Tex., water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	14	12	118	298	3,250	2,030	2,470	2,680	42	6.2	44
2	1.1	12	12	150	318	3,340	1,980	1,980	2,680	61	6.1	85
3	1.1	11	11	219	388	3,710	2,030	18,500	2,640	53	5.6	92
4	1.1	10	11	270	482	3,710	1,980	30,200	2,260	47	5.1	101
5	1.1	9.8	13	261	452	3,430	1,760	26,200	1,980	41	4.8	92
6	1.1	10	23	252	430	3,000	1,610	18,100	1,880	34	4.4	175
7	1.1	13	67	252	408	2,540	1,400	10,800	1,610	30	4.0	219
8	1.1	13	74	328	539	2,140	1,300	6,690	1,370	27	3.7	150
9	1.1	12	51	388	1,370	1,840	1,440	4,630	1,190	25	4.0	164
10	1.1	10	32	398	1,440	1,610	1,760	3,430	1,060	26	3.4	153
11	1.1	5.8	58	408	1,190	1,400	1,930	2,610	910	25	3.2	101
12	1.5	3.4	118	452	982	1,220	2,140	2,140	806	22	3.5	78
13	51	2.6	125	564	966	1,010	3,520	1,760	746	20	5.1	70
14	136	2.4	95	674	982	786	4,310	1,580	640	24	12	59
15	153	2.4	82	728	1,190	608	3,910	1,340	498	22	9.5	43
16	114	3.2	70	766	1,270	522	3,160	1,160	358	19	6.9	33
17	92	4.0	60	766	3,440	486	2,540	1,030	252	16	5.6	25
18	81	4.2	52	746	1,640	452	2,030	910	211	14	4.8	21
19	81	4.4	49	710	1,680	598	1,720	746	184	17	4.4	18
20	78	4.7	42	656	1,640	786	1,400	970	156	15	4.0	16
21	55	4.8	35	592	1,580	866	1,060	1,300	132	19	3.5	14
22	36	5.3	34	536	1,540	1,060	746	1,990	111	17	3.3	13
23	22	5.8	30	486	1,610	1,940	624	3,160	98	14	3.3	11
24	21	6.7	25	430	1,720	3,520	550	2,330	86	12	3.2	10
25	25	7.5	28	368	1,840	3,910	498	1,760	79	11	13	9.2
26	41	8.6	43	308	2,330	3,520	498	1,500	71	9.6	14	8.8
27	46	10	63	270	3,080	3,080	522	1,470	64	8.8	7.8	8.8
28	48	9.8	45	261	3,250	3,160	564	1,610	57	8.2	5.8	9.2
29	42	10	122	270	3,540	3,080	578	1,680	49	7.5	6.6	11
30	30	11	114	288	-	2,610	796	1,720	44	7.2	13	12
31	19	-	111	308	-	2,200	-	2,140	-	7.0	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	1,184.6	153	1.1	38.2	0.045	0.05	2,350
November	231.4	14	2.4	7.71	.0091	.01	459
December	1,757	125	11	56.7	.067	.06	3,480
Calendar year 1943	70,324.3	1,770	-	193	.228	3.06	139,500
January	13,223	766	118	427	.503	.58	26,230
February	39,265	3,340	298	1,354	1.60	1.72	77,280
March	65,394	3,910	452	2,109	2.49	2.67	129,700
April	50,386	4,310	498	1,680	1.98	2.21	99,940
May	163,796	30,200	746	5,284	6.23	7.18	324,900
June	24,802	2,680	44	827	.975	1.09	49,190
July	700.3	61	7.0	22.6	.027	.03	1,390
August	215.8	56	3.2	6.96	.0082	.009	428
September	1,844.0	219	8.8	61.5	.073	.08	3,660
Water year 1943-44	362,789.1	30,200	1.1	991	1.17	15.91	719,600

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Boggy Creek near Daingerfield, Tex.

Location.- Water-stage recorder, lat. 33°02', long. 94°47', at bridge on State Highway 11, 150 feet upstream from Louisiana & Arkansas Railway bridge, 2 miles west of Daingerfield, Morris County, and 8 miles upstream from mouth. Datum of gage is 258.41 feet above mean sea level, datum of 1929.

Drainage area.- 79 square miles.

Records available.- March 1943 to September 1944.

Extremes.- 1943: Maximum discharge during period March to September, 872 second-feet June 1 (gage height, 8.84 feet); no flow July 26 to Sept. 30.

1943-44: Maximum discharge during water year, 9,650 second-feet May 2 (gage height, 12.42 feet); no flow at times.

Maximum stage since 1900, about 16.0 feet in January 1938, from information by local resident.

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

Discharge, in second-feet, 1943-44

1943												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	28	2.6	716	5.9		
2						-	25	7.2	332	4.4		
3						-	25	5.0	97	3.2		
4						-	20	2.9	40	2.5		
5						-	18	2.0	24	2.0		
6						-	17	1.7	28	1.5		
7						-	16	5.9	84	1.2		
8						-	15	9.3	112	1.0		
9						-	16	9.0	80	.8		
10						-	18	11	38	.7		
11						-	18	22	21	.8		
12						-	15	28	15	.6		
13						-	13	20	14	.5		
14						-	11	14	34	20		
15						-	9.6	7.2	57	31		
16						-	9.0	4.7	28	13		
17						-	11	3.7	13	5.6		
18						-	18	2.7	9.7	3.1		
19						-	30	1.7	7.9	1.8		
20						-	20	1.3	6.6	1.1		
21						-	15	2.4	5.5	.8		
22						-	12	34	4.6	.8		
23						34	11	106	4.1	.4		
24						28	9.3	127	3.7	.2		
25						54	8.1	70	3.8	.1		
26						93	7.4	28	3.7	0		
27						110	6.1	35	4.2	0		
28						85	4.0	44	4.2	0		
29						55	3.5	44	5.9	0		
30						40	3.0	115	7.9	0		
31						33	-	446	-	0		

Discharge, in second-feet, of Boggy Creek near Daingerfield, Tex., 1943-44--Continued

1943-44

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0	12	28	620	103	6,230	146	1.5	0	44
2	0		0	20	26	273	108	6,940	77	1.2	0	15
3	0		0	32	40	138	154	1,940	48	1.1	0	5
4	0		0	31	53	108	204	716	32	1.0	0	2.4
5	0		.1	21	49	98	118	449	26	1.0	0	17
6	0		4.5	16	36	94	82	314	88	.9	0	51
7	0		9.6	19	28	80	62	161	114	.8	0	19
8	0		12	65	43	66	60	116	73	.6	0	12
9	0		8.4	78	136	51	827	90	37	.4	0	5.5
10	0		6.2	68	214	45	1,130	76	33	.2	0	3.0
11	0		6.5	38	221	44	519	62	24	.1	a.5	1.8
12	0		7.9	29	100	46	237	49	17	.1	0	a1.3
13	2.9		9.1	40	61	45	103	41	16	0	0	a1.0
14	5.7		8.3	47	90	42	76	56	15	.1	.2	.7
15	10		6.8	48	145	40	62	31	13	37	0	.5
16	3.2		5.7	45	189	71	47	27	9.6	26	0	a.4
17	1.0		5.1	44	118	98	36	23	8.4	5.4	0	a.3
18	.3		4.6	36	104	116	32	20	7.4	2.1	0	a.2
19	0		4.4	29	100	1,160	29	17	5.5	1.2	0	a.2
20	0		4.2	25	118	1,190	32	36	4.8	.8	0	a.1
21	0		4.3	22	174	556	49	64	4.8	.7	0	a.1
22	0		4.4	20	393	344	51	74	4.4	.7	0	a0
23	0		4.7	19	498	349	89	101	3.6	.6	0	a0
24	1.3		5.2	18	318	488	172	104	2.1	.6	0	a0
25	.1		6.3	18	144	294	110	71	2.5	.6	.5	a0
26	0		8.4	18	282	132	52	47	2.3	.6	.2	a0
27	0		11	19	638	223	32	788	2.1	.7	.1	a0
28	0		19	25	987	606	24	1,090	1.7	.4	0	a0
29	0		25	30	1,110	716	47	575	1.4	.2	1.5	a0
30	0		20	32	-	434	1,130	527	1.2	.1	8.8	a0
31	0		15	32	-	202	-	303	-	.1	48	-

Peak discharge-- Feb. 29 (8:30 a.m.) 1,250 sec.-ft.; Mar. 19 (10 p.m.) 1,880 sec.-ft.; Apr. 9 (10:30 p.m.) 1,620 sec.-ft.; May 1 (11:30 a.m.) 8,480 sec.-ft.; May 2 (2:30 p.m.) 9,650 sec.-ft.; May 27 (9 p.m.) 2,060 sec.-ft.

a No gage-height record; discharge computed on basis of engineer's notes and records for stations on nearby streams.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
March 23-31, 1943.....	532	110	28	59.1	0.748	0.25	1,060
April.....	429.8	30	3.0	14.3	.181	.20	852
May.....	1,213.3	446	1.3	39.1	.495	.57	2,410
June.....	1,804.8	716	3.7	60.2	.762	.86	3,580
July.....	105.0	31	0	3.32	.042	.05	204
August.....	0	0	0	0	0	0	0
September.....	0	0	0	0	0	0	0
The period.....	-	-	-	-	-	-	8,110
October 1943.....	24.5	10	0	.79	.010	.01	48
November.....	0	0	0	0	0	0	0
December.....	226.7	25	0	7.31	.093	.11	450
Calendar year.....	-	-	-	-	-	-	-
January 1944.....	996	78	12	32.1	.406	.47	1,980
February.....	6,443	1,110	26	222	2.81	3.03	12,780
March.....	8,774	1,190	40	283	3.58	4.13	17,400
April.....	5,777	1,130	24	193	2.44	2.72	11,460
May.....	21,138	6,940	17	682	8.63	9.95	41,930
June.....	820.8	146	1.2	27.4	.347	.39	1,650
July.....	86.6	37	0	2.79	.035	.04	172
August.....	59.8	48	0	1.93	.024	.03	119
September.....	180.5	51	0	6.02	.076	.08	358
Water year 1943-44.....	44,526.9	6,940	0	122	1.54	20.96	88,330

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Ellison Creek Reservoir near Daingerfield, Tex.

Location.- Water-stage recorder, lat. 32°55'05", long. 94°43'35", 1,700 feet upstream from dam of Lone Star Steel Co., on Ellison Creek, half a mile upstream from Cypress Creek and 7.6 miles south of Daingerfield, Morris County. Datum of gage is 200.14 feet above mean sea level, datum of 1929.

Drainage area.- 47 square miles.

Records available.- January 1943 to September 1944.

Extremes.- Maximum contents during year, 26,600 acre-feet May 1, 2 (gage height, 69.2 feet); minimum, 7,560 acre-feet Oct. 6-11 (gage height, 52.3 feet).
1943-44: Maximum contents, that of May 1, 2, 1944; minimum (after first filling), 23,200 acre-feet Aug. 22, 23, 25, 27, 28, 1944 (gage height, 67.0 feet).

Remarks.- Reservoir is formed by rolled earth-fill type dam, with top of 300-foot concrete service spillway at gage height 68.0 feet. Storage began Jan. 14, 1943, and dam completed in April 1943. Capacity of reservoir (service spillway gage height, 68.0 feet), 24,700 acre-feet. Water-surface in reservoir first reached spillway level in March 1944. Dead storage (below top of conduit discharge box gage height, 35.0 feet), 196 acre-feet. At times water is diverted from Cypress Creek into reservoir by pumping. Capacity of pumps, 40.0 second-feet. Figures given herein represent total contents. Water used by Lone Star Steel Co.'s iron smelter.

Cooperation.- Capacity table and drainage area furnished by Lone Star Steel Co.

Monthly gage height and contents, water year October 1943 to September 1944

Date	Gage height (feet)†	Diversions from Cypress Creek into reservoir (acre-feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 31.....	54.53	900	9,270	+1,630
Nov. 30.....	55.35	770	10,000	+730
Dec. 31.....	57.75	1,300	12,200	+2,200
Calendar year.....	-	-	-	-
Jan. 31.....	60.73	1,020	15,300	+3,100
Feb. 29.....	66.02	0	21,700	+6,400
Mar. 31.....	66.29	0	25,200	+3,500
Apr. 30.....	66.98	0	26,200	+1,000
May 31.....	68.25	0	25,000	-1,200
June 30.....	67.84	0	24,400	-600
July 31.....	67.32	0	23,600	-800
Aug. 31.....	67.65	0	24,100	+500
Sept. 30.....	67.87	0	24,500	+400
Water year 1943-44.....	-	-	-	+16,900

† Gage height at 12 p.m.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Twelvemile Bayou near Dixie, La.

Location.— Wire-weight gage, lat. $32^{\circ}38'45''$, long. $93^{\circ}52'40''$, in NW $\frac{1}{4}$ sec. 14 (revised), T. 19 N., R. 15 W., at bridge on State Highway 995, 0.1 mile downstream from Cottonwood Bayou, $\frac{5}{8}$ miles downstream from Caddo Lake, and 4.2 miles southwest of Dixie. Datum of gage is 145.92 feet above mean sea level, datum of 1929.

Drainage area.— 3,220 square miles.

Records available.— August 1942 to September 1944.

Extremes.— Maximum discharge during year, 26,600 second-feet May 9 (gage height, 30.21 feet); minimum, 7 second-feet Sept. 23 (gage height, 0.84 foot).
1942-44: Maximum discharge, that of May 9, 1944; minimum, that of Sept. 23, 1944.

Remarks. Records good above 3,000 second-feet and fair below. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 2 to Feb. 8)

Oct. 1 to Feb. 8					Feb. 9 to Sept. 30				
1.3	21	3.8	370	0.9	10	2.1	109	9.2	1,930
1.5	35	5.8	817	1.1	18	2.7	194	12.0	2,950
1.8	60	8.8	1,590	1.3	29	3.3	310	15.0	4,300
2.1	88	11.8	2,630	1.5	44	4.2	518	20.0	7,250
2.4	122	14.8	3,800	1.7	63	6.2	1,030	22.0	8,900
2.8	179								

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	35	24	290	2,740	10,500	11,200	8,000	11,400	268	85	57
2	41	35	22	454	2,890	10,800	11,200	7,530	10,900	268	85	59
3	40	35	24	541	2,970	11,100	11,100	9,200	10,600	248	85	58
4	37	34	24	676	2,930	11,200	10,800	11,500	10,500	238	91	57
5	36	34	25	793	2,950	11,400	10,500	14,100	10,100	194	85	55
6	33	35	33	676	2,860	11,400	10,200	13,100	10,000	170	80	51
7	34	37	43	817	2,860	11,400	10,000	22,500	9,600	156	74	38
8	35	35	51	1,010	3,240	11,200	9,800	25,400	9,500	149	72	32
9	37	34	60	1,290	5,290	10,900	9,600	26,600	9,100	142	74	23
10	35	32	51	1,290	6,300	10,600	9,300	26,200	8,700	116	74	19
11	34	29	60	1,310	6,780	10,300	9,300	25,100	8,240	109	80	17
12	33	28	64	1,450	6,780	10,000	9,100	24,000	7,760	109	85	14
13	37	27	64	1,820	6,660	9,600	9,700	22,500	7,110	109	74	14
14	44	26	64	1,990	6,600	9,100	8,500	20,800	6,000	103	80	13
15	56	25	64	2,060	6,600	8,900	8,320	19,100	5,180	103	80	12
16	74	24	64	2,340	6,660	8,320	8,160	17,800	4,580	103	68	11
17	69	24	64	2,740	6,720	8,000	8,000	16,600	4,050	103	63	10
18	56	24	64	3,160	6,900	7,460	7,840	15,400	3,190	103	64	10
19	48	24	64	3,280	7,110	7,040	7,760	14,700	2,590	109	66	11
20	40	24	64	3,160	7,390	6,720	7,760	13,600	2,270	109	68	10
21	35	25	64	3,120	7,600	6,300	7,680	12,700	1,900	109	72	9
22	34	25	a64	3,040	7,680	5,680	7,600	12,300	1,610	109	74	10
23	32	24	a69	2,970	8,000	6,180	7,460	12,000	1,370	109	70	8
24	32	24	a69	2,930	8,240	6,360	7,110	12,000	1,200	a109	63	9
25	32	24	78	2,860	8,500	6,420	6,600	12,100	1,000	103	59	10
26	29	23	88	2,780	9,000	6,480	5,940	12,300	790	91	49	10
27	28	21	94	2,780	9,500	6,600	5,020	12,400	690	85	44	10
28	27	22	99	2,820	9,800	7,390	4,000	12,400	542	65	43	10
29	25	23	104	2,820	10,200	9,800	3,760	12,100	377	91	46	10
30	28	24	128	2,860	-	10,800	4,000	12,000	289	97	52	10
31	32	-	163	2,780	-	11,100	-	11,700	-	97	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	1,196	74	25	38.6	0.012	0.01	2,370
November	836	37	21	27.9	0.0097	0.01	1,660
December	2,013	163	22	64.9	0.020	0.02	5,990
Calendar year 1943	315,421	4,040	21	864	0.268	3.64	625,700
January	62,707	3,280	290	2,023	0.628	0.72	124,400
February	181,730	10,200	2,740	6,267	1.95	2.10	360,500
March	279,250	11,400	5,880	9,008	2.80	3.23	553,900
April	245,310	11,200	3,760	8,210	2.55	2.84	488,500
May	490,530	26,600	6,000	15,850	4.92	5.87	975,200
June	160,738	11,400	289	5,568	1.66	1.86	316,800
July	4,074	268	65	131	0.041	0.05	8,080
August	2,160	91	43	69.7	0.022	0.02	4,280
September	667	59	8	22.2	0.0069	0.008	1,320
Water year 1943-44	1,432,311	26,600	8	3,913	1.22	16.54	2,841,000

a No gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Black Bayou near Hosston, La.

Location.- Staff gage, lat. 32°52'55", long. 93°53'55", in SE¼ sec. 22, T. 22 N., R. 15 W., at bridge on State Highway 109, 75 feet below Black Bayou Dam, 1 mile upstream from an unnamed tributary, and 1½ miles west of Hosston. Datum of gage is 171.09 feet above mean sea level, datum of 1929. Auxiliary gage is wire-weight gage at station near Gilliam, 6.1 miles downstream. Datum of auxiliary gage is 155.73 feet above mean sea level, datum of 1929.

Drainage area.- 225 square miles.

Records available.- April 1943 to September 1944 (discontinued).

Extremes.- Maximum discharge during year, 3,200 second-feet May 4 (gage height, 13.0 feet, from Floodmark); no flow Oct. 1-12, July 31 to Aug. 24, Sept. 23-25, 1943-44: Maximum discharge, that of May 4, 1944; no flow on many days.

Remarks.- Records fair except those below 1 second-foot and those for periods of doubtful gage-height record, which are poor.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.8	4.7	64	248	1,430	1,590	1,010	722	21	0	0.3
2	0	2.3	5.0	65	251	1,310	1,430	1,780	746	20	0	.3
3	0	3.0	5.4	73	288	1,250	1,310	2,680	803	18	0	.3
4	0	4.0	5.9	76	340	1,130	1,210	3,160	779	13	0	.3
5	0	5.0	6.1	80	387	1,030	1,090	3,160	741	11	0	.3
6	0	5.4	7.2	91	387	822	1,010	3,060	670	8.9	0	.2
7	0	5.7	8.6	102	412	703	950	2,860	600	7.8	0	.2
8	0	5.7	10	114	412	584	705	2,410	545	7.2	0	.1
9	0	5.4	12	128	518	492	749	1,740	491	6.8	0	.1
10	0	5.0	15	138	1,080	416	795	1,540	3420	4.7	0	.1
11	0	4.7	22	142	1,040	356	876	1,390	3360	3.1	0	.1
12	0	4.4	27	209	894	357	854	1,150	3320	2.4	0	.1
13	3.4	4.1	28	279	854	340	811	870	288	2.0	0	.1
14	4.4	d4.0	32	320	811	318	764	726	248	1.7	0	.1
15	.7	d3.8	36	365	854	284	712	552	225	1.5	0	.1
16	.5	d3.8	39	390	894	d280	712	484	188	1.2	0	.1
17	d.4	d3.8	40	390	894	d300	684	400	162	1.1	0	.1
18	d.3	3.8	41	387	894	340	623	348	135	.9	0	.1
19	d.3	d3.8	41	364	932	387	657	242	112	.6	0	.1
20	d.2	d3.8	41	318	932	438	657	359	97	.4	0	.1
21	d.2	d3.8	d40	271	932	438	600	354	81	.3	0	.1
22	d.1	d3.8	d40	244	969	438	518	502	70	.2	0	.1
23	d.1	d3.8	40	d220	1,060	854	572	706	61	.2	0	0
24	d.1	d4.0	42	d200	1,150	894	800	1,010	55	.2	0	0
25	.3	d4.0	44	d190	1,250	894	572	1,300	52	.2	.1	0
26	.5	d4.0	45	d180	1,520	894	438	1,370	45	.2	.1	.1
27	.7	4.0	47	d180	1,570	854	318	1,210	40	.1	.2	.1
28	.9	4.1	49	d180	1,520	885	255	1,080	35	.1	.2	.1
29	1.1	4.2	51	d190	1,470	1,030	255	889	33	.1	.2	.1
30	1.3	4.4	55	255	-	1,550	387	805	26	.1	.2	.1
31	1.6	-	62	255	-	1,680	-	752	-	0	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	17.1	4.4	0	0.55	0.0024	0.003	34
November	125.4	5.7	1.8	4.11	.018	.02	245
December	941.9	62	4.7	30.4	.135	.16	1,870
Calendar year	-	-	-	-	-	-	-
January	6,460	390	64	208	.924	1.07	12,810
February	24,763	1,570	248	854	3.80	4.09	49,120
March	23,018	1,680	280	743	3.30	3.90	45,660
April	22,709	1,590	255	757	3.36	3.75	45,040
May	40,009	3,160	342	1,291	5.74	6.61	79,560
June	9,150	803	26	505	1.36	1.51	18,150
July	135.0	21	0	4.35	.019	.02	268
August	1.3	.3	0	.04	.00018	.0002	2.6
September	3.9	.3	0	.13	.00058	.0006	7.7
Water year 1943-44	127,331.6	3,160	0	348	1.55	21.03	252,600

d Doubtful gage-height record; discharge computed on basis of records for station near Gilliam.
 Note.- Discharge Feb. 23 to Mar. 12; Mar. 28 to Apr. 11, May 8 to June 6 computed by using fall as determined by twice-daily readings of auxiliary wire-weight gage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Black Bayou near Gilliam, La.

Location.- Wire-weight gage, lat. 32°48'55", long. 93°52'15", in NW 1/4 sec. 13, T. 21 N., R. 15 W., at bridge on State Highway 992, 0.2 mile downstream from Red Bayou and 2 miles southwest of Gilliam. Datum of gage is 155.73 feet above mean sea level, datum of 1929. Auxiliary gages are water-stage recorder on Red River at Shreveport and wire-weight gage on Twelvemile Bayou near Dixie.

Drainage area.- 360 square miles.

Records available.- August 1942 to September 1944.

Extremes.- Maximum discharge during year, 6,270 second-feet May 4; maximum gage height, 22.60 feet May 9; minimum discharge, 2.9 second-feet Oct. 22; minimum gage height, 2.84 feet Oct. 2, 3.

1942-44: Maximum discharge, that of May 4, 1944; maximum gage height, that of May 9, 1944; minimum discharge, 1.6 second-feet July 26, 1943 (gage height, 2.75 feet).

Remarks.- Records fair below 300 second-feet and poor above.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	5.6	16	67	251	1,840	1,520	2,000	1,390	40	11	23
2	3.6	7.0	22	133	242	1,660	1,480	3,600	1,390	38	11	18
3	3.1	7.6	16	133	412	1,510	1,370	5,610	1,100	34	11	17
4	4.0	4.3	17	126	470	1,350	1,140	5,910	757	32	11	15
5	3.6	4.3	17	126	439	1,230	941	5,330	730	28	11	11
6	3.6	5.6	49	121	365	1,000	879	3,700	512	26	11	11
7	3.9	2.8	49	159	365	936	750	2,720	543	24	11	11
8	3.6	16	46	166	614	810	691	2,100	517	23	11	9.4
9	3.6	14	40	166	2,870	525	928	1,920	526	22	12	8.8
10	3.6	14	49	166	2,320	516	1,080	1,550	392	17	11	9.4
11	3.6	13	59	159	1,640	465	1,110	5,140	566	16	12	11
12	3.6	12	49	261	1,320	408	936	1,240	549	19	12	10
13	10	10	56	354	1,120	355	862	5,190	500	18	12	10
14	9.6	11	56	342	1,140	541	771	5,030	5270	14	14	9.4
15	55	10	59	365	1,160	346	768	592	5240	14	12	8.8
16	40	10	56	412	5,200	368	621	5670	5210	15	12	8.5
17	21	10	56	400	5,430	578	582	5686	5190	15	11	8.8
18	13	10	52	377	1,410	592	514	5713	5160	14	11	8.5
19	4.5	10	52	354	1,240	757	590	5718	5140	14	10	8.8
20	4.3	10	52	320	1,360	810	574	5799	5120	14	10	8.5
21	3.6	12	49	300	5,330	816	595	5917	107	14	9.4	8.5
22	3.1	14	49	280	1,470	960	551	1,370	94	14	9.7	8.2
23	3.3	13	52	261	1,960	1,280	508	2,150	82	13	9.4	7.6
24	16	14	52	232	1,930	1,150	856	2,100	73	13	9.4	7.9
25	6.2	13	76	205	2,060	1,120	989	1,650	70	13	18	8.8
26	4.5	13	73	205	2,660	1,060	724	1,210	64	12	12	8.5
27	10	15	76	205	2,370	1,010	520	1,92	58	12	10	8.2
28	14	15	107	197	2,040	2,760	352	699	55	12	9.1	8.8
29	21	16	100	270	1,920	3,350	525	592	49	12	12	11
30	7.6	16	94	290	-	2,740	644	606	43	12	20	9.7
31	6.2	-	88	270	-	2,160	-	1,380	-	12	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	297.8	55	3.1	9.61	0.027	0.05	591
November	353.4	28	4.3	11.8	.033	.04	701
December	1,684	107	16	54.3	.151	.17	3,340
Calendar year 1943	48,212.0	972	2.0	132	.367	4.99	95,650
January	7,482	412	67	241	.669	.77	14,840
February	39,108	2,870	242	1,349	3.75	4.04	77,570
March	34,603	3,350	341	1,116	3.10	3.57	68,630
April	24,305	1,520	259	810	2.25	2.51	48,210
May	67,444	5,910	592	1,983	5.15	5.93	113,900
June	10,607	1,390	43	354	.983	1.10	21,040
July	576	40	12	18.6	.052	.06	1,140
August	372.0	26	9.1	12.0	.033	.04	738
September	313.1	23	7.6	10.4	.029	.03	621
Water year 1943-44	177,145.3	5,910	3.1	484	1.34	18.29	351,300

c Discharge computed from partly estimated fall.

d Doubtful gage-height record; discharge interpolated.

e Slope-stage-discharge relation indefinite; discharge computed on basis of records for station near Hosston.

Note.- Discharge Feb. 9 to June 13 computed by using fall as determined by auxiliary water-stage recorder and twice-daily readings of auxiliary wire-weight gage as a factor.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Bodcau near Sarepta, La.

Location.- Water-stage recorder, lat. 32°54'15", long. 93°28'55", in NW 1/4 sec. 15, T. 22 N., R. 11 W. Louisiana meridian, at bridge on State Highway 70, 2 miles west of Sarepta and 9 1/2 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.- 615 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge during year, 8,170 second-feet May 7 (gage height, 20.28 feet); minimum, 0.2 second-foot July 29, Aug. 3-7 (gage height, 1.90 feet).

1938-44: Maximum discharge, 12,600 second-feet July 6, 1940 (gage height, 22.16 feet); minimum, 0.1 second-foot Aug. 3-15, 1939, and at times in August and September 1943; minimum gage height, that of July 29, Aug. 3-7, 1944.

Flood of May 22, 23, 1930, exceeded 25 feet. Flood of 1905 may have reached a stage of 27 feet, from information by local residents.

Remarks.- Records good except those below 20 second-feet, which are fair. Water used by paper mill at Springhill is pumped from wells and discharged later as waste into 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 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 22-30)

Oct. 1 to May 7

May 8 to Sept. 30

2.1	0.4	3.5	43	10.0	765	16.0	2,760	1.9	0.2	2.6	10
2.4	1.1	4.0	69	12.0	1,150	17.0	3,700	2.0	.9	2.8	16
2.4	3.8	5.0	135	13.0	1,390	18.0	4,830	2.2	3.2	3.0	22
2.6	8.4	6.0	219	14.0	1,700	19.0	6,120	2.4	6.4		
2.8	14	7.0	324	15.0	2,120	20.2	8,000				
3.0	22	8.0	453	15.5	2,380						

Note.- Same as preceding table above 3.5 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	9.5	7.9	399	386	k3,710	k3,780	k1,120	1,340	9.4	0.4	a13
2	.8	9.8	7.9	399	399	k3,470	k3,300	k2,120	1,150	7.9	.3	a12
3	.8	8.4	7.9	425	467	k3,170	3,130	k5,320	950	6.8	.2	a10
4	.7	7.6	8.2	453	570	3,040	3,130	k6,550	765	6.1	.2	a8
5	.5	9.8	8.4	481	697	2,940	3,040	6,400	585	5.0	.2	a6
6	.5	21	11	510	819	2,760	2,760	k7,770	439	4.6	.2	a5
7	.7	34	12	510	893	2,520	2,380	8,000	279	4.0	.2	a4
8	7.2	33	12	510	1,020	2,260	2,120	k6,820	210	3.4	.3	a3.5
9	29	31	14	525	1,290	2,070	1,980	k5,380	206	3.1	.4	a3
10	26	27	16	555	k1,930	1,850	1,980	k3,960	210	2.6	.4	a2.5
11	18	22	21	570	k2,680	1,660	1,980	k3,120	228	2.2	.4	a2
12	13	18	24	632	k2,680	1,600	1,980	k2,190	219	1.9	.4	a1.8
13	14	15	33	680	2,380	1,390	2,020	k2,120	183	1.6	.4	a1.6
14	12	14	40	714	2,120	1,290	1,890	k1,870	159	1.9	.4	a1.4
15	14	12	44	748	1,810	1,220	1,700	k1,610	135	2.3	.4	a1.2
16	43	11	47	765	1,630	1,170	1,440	k1,410	135	2.3	.4	a1.1
17	90	9.8	54	731	1,560	1,130	1,240	1,340	118	3.6	.4	1.0
18	121	8.3	58	664	1,560	1,070	1,170	90	4.0		.4	.9
19	139	8.4	60	570	1,850	1,110	970	1,070	75	3.2	.4	.8
20	143	8.2	64	510	2,070	1,170	950	1,030	62	2.6		3
21	121	7.9	72	467	2,020	1,240	k1,690	912	52	2.2	.4	4.4
22	87	8.2	75	425	2,020	1,340	k2,700	934	56	2.0	.4	4.0
23	59	8.4	75	386	2,120	1,440	2,600	1,290	56	1.9	.4	3.4
24	44	8.4	87	348	k2,780	1,390	2,380	1,660	50	1.7	.4	3.1
25	30	8.4	121	324	k3,630	1,310	2,120	1,810	41	1.6	.4	2.6
26	24	8.4	179	301	k4,470	1,240	1,890	1,770	31	.8	.6	2.3
27	19	8.4	233	279	k4,970	1,150	1,660	1,810	23	.5	1.3	2.0
28	16	8.4	268	253	k4,690	k1,480	1,390	1,700	17	.3	1.2	2.3
29	14	8.2	290	268	k4,110	k2,780	1,150	1,630	13	.3	1.1	4.9
30	12	7.9	336	301	-	k5,530	1,010	1,560	10	.4	1.7	2.7
31	9.8	-	373	348	-	k4,890	-	1,500	-	.4	a8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	1,109.8	143	0.5	35.8	0.070	0.08	2,200
November	401.4	34	7.6	13.4	.026	.03	796
December	2,659.3	373	7.9	85.8	.167	.19	5,270
Calendar year 1943	115,953.0	2,780	-1	318	.617	8.37	230,000
January	15,051	765	258	486	.944	1.09	29,850
February	59,521	4,970	386	2,056	3.99	4.31	118,300
March	64,290	5,530	1,070	2,074	4.03	4.64	127,500
April	61,370	3,780	950	2,046	3.97	4.43	121,700
May	87,346	8,000	912	2,818	5.47	6.31	172,800
June	7,897	1,340	10	263	.511	.57	15,640
July	90.6	9.4	.3	2.92	.0057	.007	180
August	22.7	8	.2	.73	.0014	.002	45
September	113.5	13	.8	3.78	.0073	.008	225
Water year 1943-44	299,962.3	8,000	.2	820	1.59	21.67	594,900

a No gage-height record; discharge computed on basis of weather records and recorded range in stage.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

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., at bridge on U. S. Highway 80, three-quarters of a mile upstream from Louisiana & Arkansas Railroad bridge, 3 miles west of Minden, and 22 miles upstream from Bistineau Dam. 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 (authority, Corps of Engineers, U. S. Army).

Records available.- July 1928 to September 1929 and October 1938 to September 1944 in reports of Geological Survey. October 1929 to September 1931 and December 1935 to September 1938 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 20,800 second-feet May 7 (gage height, 20.36 feet); minimum not determined.

1928-29, 1938-44: Maximum discharge, that of May 7, 1944; minimum not determined, probably no flow at times due to backwater effect from Lake Bistineau.

Maximum stage known, 22.95 feet May 21, 1930 (discharge, 63,000 second-feet, from rating curve extended above 30,000 second-feet) from reports of Corps of Engineers, U. S. Army.

Remarks.- Records good. Stage-discharge relation affected by backwater from Bistineau Dam preventing determination of low flow.

Cooperation.- Nine discharge measurements and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 7 discharge measurements made, gage-height record collected, and records reviewed by Geological Survey.

Revisions.- Owing to effect of Lake Bistineau on the low-water stage-discharge relation, records below 200 second-feet during May to September 1943 (published in Water-Supply Paper 977) are subject to large error and should be disregarded.

Rating table, water year 1943-44 (gage height, in feet, and discharge,

in second-feet)

(Shifting-control method used Dec. 28 to Jan. 20, Mar. 17-22)

4.3	197	8.0	1,290	15.0	5,270	18.0	10,600
4.5	251	8.5	1,490	16.0	6,580	19.0	14,600
5.5	521	11.0	2,690	17.0	8,180	20.0	19,000
6.0	662	13.0	3,860	17.5	9,060	20.3	20,800

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	260	704	10,400	9,350	3,960	2,340			
2			-	300	773	9,910	9,160	4,620	2,200			
3			-	319	920	8,040	8,680	5,970	2,010			
4			-	321	1,020	7,240	7,960	9,130	1,730			
5			-	335	1,070	6,520	6,950	15,000	1,420			
6			-	340	1,490	5,830	5,860	19,800	1,160			
7			-	345	1,200	5,240	5,070	20,300	917			
8			†14.1	350	1,310	4,780	4,560	17,300	707			
9			-	342	1,990	4,370	4,190	13,200	513			
10			-	325	2,380	3,970	4,190	9,250	381			
11			-	335	2,590	3,590	4,440	7,440	386			
12			-	380	2,840	3,230	4,380	5,940	451			
13			-	600	3,210	2,870	4,150	5,130	551			
14	†3.2		-	660	3,560	2,560	3,860	4,600	508			
15			-	830	3,800	2,260	3,560	4,170	367			
16			-		972	3,940	1,970	3,280	3,760	259		
17			-		1,080	4,170	1,680	3,030	3,340	211		
18			-		1,160	4,280	1,330	2,860	2,920	200		
19			-		1,230	4,250	1,360	2,770	2,520	211		
20			-		1,280	4,060	1,750	2,670	2,230	251		
21			-		1,280	3,810	1,840	2,560	2,060	275		
22			-		1,210	3,630	1,840	2,430	1,970	256		
23			-		1,100	3,580	2,130	2,330	1,900	200		
24			-		972	3,760	2,270	2,270	1,780			
25			-		854	4,200	2,320	2,360	1,750			
26			-		752	5,380	2,360	2,570	1,870			
27			-		683	7,400	2,410	2,800	2,280	e88		
28			229		615	9,650	2,930	3,000	2,520			
29		†12.0	245		584	11,300	5,170	3,150	2,570			
30			262		647	-	8,390	3,520	2,540			
31			268		668	-	9,560	-	2,450	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Inches	Runoff Acre-feet
October							
November							
December							
Calendar year							
January	21,162	1,280	260	683	0.627	0.72	41,970
February	102,267	11,300	704	3,526	3.23	3.49	202,800
March	129,120	10,400	1,330	4,165	3.82	4.41	256,100
April	127,960	9,350	2,270	4,265	3.91	4.37	253,800
May	184,290	20,300	1,750	5,945	5.45	6.29	365,800
June	18,120	2,340	-	604	.554	.62	35,940
July	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-
Water year	-	-	-	-	-	-	-

† Discharge measurement 6.5 miles upstream.

e Stage-discharge relation affected by backwater from Bistineau Dam; discharge computed on basis of records for Bayou Bodcau.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cypress Bayou near Keithville, La.

Location.- Water-stage recorder, lat. 32°18'00", long. 93°49'40", in SW $\frac{1}{4}$ sec. 8, T. 15 N., R. 14 W., at bridge on U. S. Highway 171, immediately downstream from Texas & Pacific Railway bridge, 2 miles south of Keithville and 6 miles upstream from confluence with Boggy Bayou. 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 (authority, Corps of Engineers, U. S. Army).

Records available.- November 1938 to September 1944.

Extremes.- Maximum discharge during year, 8,250 second-feet Apr. 30 (gage height, 11.60 feet); no flow on many days.

1938-44: Maximum discharge, that of Apr. 30, 1944; no flow during long periods. Maximum stage known, 18.0 feet, from 1933 floodmark.

Remarks.- Records fair.

Cooperation.- Gage-height record, 14 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Rating table, water-year 1943-44 (gage-height, in feet, and discharge, in second-feet)

0.9	0	2.5	16	8.0	265	9.0	590
1.1	.9	3.0	26	8.2	290	9.3	800
1.4	3.0	4.0	56	8.4	340	9.6	1,350
1.7	5.9	5.0	96	8.6	410	10.0	2,450
2.0	9.4	6.0	145	8.8	490	10.5	4,100

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	7.6	52	88	42	2,510	16	0	0	f28
2			0	28	27	44	46	3,780	8.7	9.3	0	f15
3			0	98	25	32	139	2,690	6.4	5.7	0	f7.4
4			0	33	25	27	54	905	5.1	1.8	0	1.7
5			0	16	21	25	28	1,710	4.0	.6	0	.8
6			0	10	17	23	20	274	14	.3	0	.4
7			0	8.5	15	75	16	53	11	.4	0	3.5
8			0	46	16	43	18	27	5.8	.4	0	1.1
9			0	89	272	24	28	20	38	.2	0	1.0
10			0	29	294	18	24	16	18	0	0	.3
11		.1	17	62	19	26	12	8.8	0	0	0	0
12		.7	80	30	25	21	9.6	9.2	0	0	0	0
13		.8	1,980	20	23	13	12	13	0	0	0	0
14		1.6	791	84	18	11	19	6.6	0	0	0	0
15		1.3	800	213	16	9.8	10	4.2	0	0	0	0
16		.9	935	69	15	9.0	7.4	3.2	0	0	0	0
17		.6	505	42	15	7.6	5.7	2.6	0	0	0	0
18		.4	206	44	15	6.6	4.8	2.2	0	0	0	0
19		.3	88	40	161	5.9	4.9	2.0	0	0	0	0
20		.3	48	55	442	5.5	15	1.6	0	0	0	0
21		.3	32	62	97	7.1	10	1.4	0	0	0	0
22		.4	24	75	96	14	408	1.1	0	0	0	0
23		1.9	20	1,580	1,180	232	1,290	1.0	0	0	0	0
24		8.3	18	950	320	243	194	.8	0	0	0	0
25		52	16	418	65	25	31	.6	0	0	0	0
26		53	16	1,400	35	13	21	.4	0	0	0	0
27		28	16	2,010	25	9.9	202	.4	0	0	0	0
28		105	68	331	222	8.1	160	.4	0	0	0	0
29		121	69	233	2,420	7.5	30	.3	0	0	0	0
30		24	330	-	587	3,880.0	43	.1	0	0	f3.3	0
31		12	171	-	85	-	144	-	0	0	f16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acres-feet
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	412.9	121	0	13.3	.222	.26	819
Calendar year 1943	1,597.7	154	0	4.38	.073	1.00	3,170
January	6,595.1	1,980	7.6	213	3.55	4.09	13,080
February	8,482	2,010	15	292	4.87	5.26	16,820
March	6,280	2,420	15	203	3.38	3.89	12,460
April	4,970	3,880	5.5	166	2.77	3.08	9,860
May	14,618.4	3,780	4.8	472	7.87	9.06	29,000
June	186.8	38	.1	6.23	.104	.12	371
July	18.7	9.3	0	.50	.010	.01	37
August	19.3	16	0	.62	.010	.01	38
September	59.2	28	0	1.97	.033	.04	117
Water year 1943-44	41,642.5	3,880	0	114	1.90	25.82	82,600

Peak discharge.- Apr. 30 (11:45 a.m.) 8,250 sec.-ft.; May 1 (8 p.m.) 3,080 sec.-ft.; May 2 (6 p.m.) 6,350 sec.-ft.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Boggy Bayou near Keithville, La.

Location.- Wire-weight gage (corrected), lat. 32°22'35", long. 93°49'20" (revised), in NW 1/4 sec. 17, T. 16 N., R. 14 W., at bridge on U. S. Highway 171, 0.4 mile downstream from Gilmer Bayou, 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 (authority, Corps of Engineers, U. S. Army).

Records available.- December 1938 to September 1944.

Extremes.- Maximum discharge during year, 6,470 second-feet May 2 (gage height, 18.43 feet); no flow on many days.

1938-44: Maximum discharge, 9,090 second-feet May 18, 1942 (gage height, 19.24 feet), from rating curve extended above 6,000 second-feet; no flow during long periods.

Maximum stage known, 26.7 feet, from 1933 floodmark.

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Gage-height record, 13 discharge measurements, and computations of daily discharge furnished by Corps of Engineers, U. S. Army; 1 discharge measurement made and records reviewed by Geological Survey.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

8.8	0	10.4	14.0	14.0	214	16.6	1,070
9.2	1.6	11.0	28	15.0	360	16.8	1,450
9.4	2.6	12.5	73	16.0	530	17.0	2,010
9.6	4.2	13.0	102	16.2	610	18.0	5,100
10.0	8.0	13.5	150	16.4	770		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.5	13.6	189	368	119	2,160	90	0.6	0	11.3
2		0	.5	30	70	112	73	4,940	24	1.1	0	12.5
3		0	.4	131	62	57	73	3,720	10.4	1.0	0	6.7
4		0	.6	78	92	49	66	1,100	7.3	.6	0	2.9
5		0	.9	24	69	44	47	1,160	8.6	.4	0	3.1
6		0	1.4	13.6	44	44	30	515	152	.3	0	5.0
7		0	1.8	11.1	31	68	22	246	133	.2	0	4.1
8		0	3.4	34	42	78	17.1	64	38	.1	0	1.8
9		0	4.2	134	519	52	61	31	140	0	0	.7
10		.7	3.6	80	761	28	238	22	61	0	0	.4
11		2.4	2.8	41	436	23	225	17.7	12.9	0	0	0
12		1.9	2.1	91	192	23	82	12.9	7.4	0	0	.1
13		1.4	1.8	402	62	24	44	10.4	6.1	0	0	0
14		1.0	1.6	875	142	22	24	9.3	5.5	0	0	0
15		.7	1.6	1,010	376	17.7	15.8	8.6	4.4	0	0	0
16		.5	1.6	980	273	15.5	11.8	8.0	3.9	0	0	0
17		.4	1.6	716	160	14.4	9.5	7.2	3.2	0	0	0
18		.3	1.6	489	200	17.7	7.7	6.4	2.8	0	0	0
19		.2	1.6	285	124	128	7.0	6.5	2.4	0	0	0
20		.2	1.5	107	78	419	6.7	10.8	2.1	0	0	0
21		.1	1.4	60	65	397	8.6	9.8	1.8	0	0	0
22		0	1.5	42	69	362	14.4	18.6	1.7	0	0	0
23		0	2.3	20	110	560	172	76	1.6	0	0	0
24		0	4.8	23	108	557	412	55	1.4	0	0	0
25		0	24	21	116	320	125	22	1.3	0	0	0
26		0	97	18.6	2,460	97	35	24	1.2	0	0	0
27		0	73	19.9	1,670	51	16.6	238	1.0	0	0	0
28		.2	135	90	689	136	10.2	217	.9	0	0	0
29		.3	325	276	524	1,130	17.5	51	.8	0	0	0
30		.4	175	365	1,070	536	24	6	.6	0	0	0
31		-	39	378	-	404	-	260	-	0	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	0	0	0	0	0	0	0
November	10.7	2.4	0	.36	.0033	.004	21
December	913.1	325	.4	29.5	.273	.31	1,810
Calendar year 1943	3,625.7	325	-	9.93	.092	1.23	7,190
January	6,858.8	1,010	11.1	221	2.05	2.36	13,600
February	9,733	2,460	31	336	3.11	3.35	19,310
March	6,688.3	1,130	14.4	216	2.00	2.30	13,270
April	2,526.9	536	6.7	84.2	.780	.87	5,010
May	15,051.2	4,940	6.4	486	4.50	5.18	29,850
June	727.3	152	.6	24.2	.224	.25	1,440
July	4.3	1.1	0	.14	.0033	.001	8.5
August	1.4	1.4	0	.05	.0046	.0005	2.8
September	48.8	12.5	0	1.63	.015	.02	97
Water year 1943-44	42,563.8	4,940	0	116	1.07	14.65	84,420

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Saline Bayou near Lucky, La.

Location.- Wire-weight gage, lat. 32°15', long. 92°59', in SW1/4 sec. 27, T. 15 N., R. 6 W., 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 1944.

Extremes.- Maximum discharge during year, 6,200 second-feet Feb. 28 (gage height, 10.6 feet, from graph based on gage readings); minimum, 5.6 second-feet Oct. 11, 12; minimum gage height, 1.84 feet July 29, 30.
1940-44: Maximum discharge, 8,920 second-feet May 19, 1942 (gage height, 11.62 feet); minimum, 4.8 second-feet Sept. 16, 1943; minimum gage height, 1.73 feet Aug. 30, 31, 1943.

Remarks.- Records fair. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 5					May 6 to Sept. 30				
1.9	5.6	5.4	161	7.0	860	1.8	6.2	4.5	99
2.5	11	5.6	199	7.5	1,290	2.5	17	5.0	151
3.0	17	5.8	245	8.0	1,790	3.0	26	5.5	220
3.5	26	6.0	295	9.0	3,060	3.5	42	5.8	275
4.0	40	6.2	370	10.0	4,890	4.0	65	6.0	330
4.5	64	6.4	465						
5.0	106	6.6	580						

Note.- Same as preceding table above
6.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.3	7.4	13	26	170	1,020	900	282	104	11	7.0	151
2	8.8	11	13	40	170	710	610	745	123	11	8.3	151
3	7.8	11	13	85	161	492	520	1,680	118	10	11	108
4	7.0	10	13	85	145	415	392	2,370	71	10	9.6	58
5	6.2	10	13	74	153	312	330	2,500	48	9.6	8.8	24
6	5.8	9.7	15	61	161	258	282	2,500	35	9.5	8.4	18
7	5.8	12	16	53	161	199	245	1,400	29	9.4	8.0	15
8	5.8	15	16	53	138	170	199	820	25	9.2	8.3	a15
9	5.8	17	15	53	138	138	170	520	24	8.9	13	a17
10	5.7	16	16	53	145	118	161	390	24	8.6	14	a15
11	5.6	13	17	53	179	100	170	300	23	8.3	11	a13
12	5.6	12	18	70	210	85	189	235	22	8.0	9.4	a12
13	10	11	17	100	233	77	233	183	25	7.7	10	a11
14	10	11	16	145	270	74	270	151	26	7.7	17	a11
15	9.2	11	15	270	245	70	282	123	25	8.6	13	a10
16	8.3	12	14	330	233	70	233	95	32	8.0	10	9.6
17	7.8	13	13	370	233	74	170	77	25	7.7	8.6	9.5
18	7.0	13	13	415	245	70	124	60	22	7.7	8.2	9.5
19	7.0	12	13	415	221	170	85	55	19	8.2	8.0	9.2
20	7.0	12	13	370	199	295	61	74	17	7.6	8.0	9.0
21	7.0	12	12	330	179	330	58	113	16	7.6	8.4	9.0
22	6.5	12	13	270	170	370	61	220	15	7.6	8.3	8.9
23	6.5	11	26	199	221	440	61	345	13	7.4	7.7	8.3
24	7.4	11	40	145	312	392	58	350	12	7.6	7.6	8.0
25	8.3	11	67	112	415	350	53	330	12	7.6	9.2	8.0
26	8.8	11	74	85	640	270	48	288	11	7.4	9.2	8.3
27	8.3	11	70	85	2,690	210	44	205	11	7.1	11	9.8
28	7.8	12	74	81	4,620	245	40	176	10	7.1	9.8	13
29	7.8	13	40	95	2,160	562	38	176	9.6	6.8	9.4	19
30	7.8	13	36	131	-	1,770	114	176	10	7.0	12	20
31	7.8	-	30	153	-	2,270	-	151	-	7.1	6.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Inches	Runoff Acres-feet
October	228.5	10	5.6	7.37	0.747	0.05	453
November	356.1	17	7.4	11.9	.076	.08	708
December	774	74	12	25.0	.159	.18	1,540
Calendar year 1943	14,145.2	674	4.8	38.8	.247	3.34	28,050
January	4,797	415	26	155	.987	1.14	9,510
February	15,217	4,620	138	525	3.34	3.60	30,180
March	12,126	2,270	70	391	2.49	2.87	24,050
April	6,201	900	38	207	1.32	1.47	12,300
May	17,100	2,500	55	552	3.52	4.05	33,920
June	957.6	123	9.6	31.9	.203	.23	1,900
July	257.0	11	6.8	8.29	.053	.06	510
August	354.2	62	7.0	11.4	.073	.08	703
September	788.1	151	8.0	26.3	.168	.19	1,560
Water year 1943-44	59,156.5	4,620	5.6	162	1.03	14.00	117,300

a No gage-height record; discharge computed on basis of records for Black Lake Bayou near Castor and Dugdemons River near Jonesboro.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

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., 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 1944.

Extremes.- Maximum discharge during year, 11,000 second-feet Mar. 31 (gage height, 12.65 feet); minimum, 11 second-feet at times during October, July, August; minimum gage height, 2.00 feet Oct. 10-12.

1940-44: Maximum discharge, 11,000 second-feet May 20, 1942, Mar. 31, 1944; maximum gage height, that of Mar. 31, 1944; minimum discharge, 5.6 second-feet Aug. 29 to Sept. 1, 1943 (gage height, 1.78 feet).

Remarks.- Records good above 400 second-feet and fair below. Gage read twice daily.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 22 to Dec. 26, Dec. 31 to Jan. 2)

2.0	11	3.5	46	6.6	255	9.0	2,030
2.2	15	4.0	61	6.8	310	9.5	2,750
2.4	19	5.0	100	7.0	380	10.0	3,690
2.6	24	6.0	159	7.5	600	11.0	6,010
2.8	28	6.2	181	8.0	950	12.0	8,940
3.0	34	6.4	210	8.5	1,440	12.5	10,600

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	15	26	131	500	6,300	7,590	1,200	600	28	11	310
2	34	16	26	144	480	3,420	4,120	2,410	500	27	11	362
3	28	19	25	181	500	2,590	2,750	4,580	440	26	11	345
4	21	26	25	210	525	2,030	2,030	7,120	360	24	12	288
5	17	30	25	195	575	1,660	1,660	8,290	268	21	12	220
6	13	24	25	181	550	1,330	1,330	6,960	295	21	12	230
7	11	24	28	169	525	1,130	1,130	5,270	310	20	12	230
8	11	36	41	169	525	950	1,040	4,120	181	20	11	181
9	11	44	44	195	575	790	910	2,750	151	21	12	180
10	11	46	41	195	690	690	870	2,030	169	20	13	84
11	11	38	36	181	755	600	950	1,550	181	18	13	64
12	11	30	38	195	720	550	1,040	1,230	159	17	14	55
13	14	31	41	362	790	480	1,180	1,000	159	16	15	46
14	19	34	38	550	910	440	1,440	790	169	15	17	41
15	30	31	36	720	1,080	380	1,440	630	159	14	20	38
16	31	28	31	870	1,230	362	1,280	460	144	14	18	34
17	22	27	28	950	1,230	362	1,130	345	125	13	15	32
18	18	27	26	950	1,130	380	870	255	110	13	13	31
19	16	26	25	910	1,040	550	660	210	100	13	12	28
20	14	25	25	910	950	830	500	210	88	12	12	27
21	14	24	25	910	870	1,000	400	242	76	12	13	25
22	13	22	27	910	870	1,000	362	525	72	12	13	24
23	13	22	34	910	950	1,180	328	950	61	12	12	22
24	13	21	61	830	1,230	1,330	280	1,230	52	12	12	20
25	14	21	96	690	1,550	1,440	255	1,230	49	12	14	19
26	15	20	120	600	2,590	1,280	230	1,180	41	12	19	19
27	16	21	159	460	5,920	1,130	210	1,180	36	12	22	18
28	16	22	159	380	9,610	1,230	195	1,130	34	12	28	21
29	16	25	159	362	9,280	2,030	181	1,040	31	11	27	32
30	16	26	151	420	-	3,500	358	870	28	11	27	41
31	15	-	144	500	-	10,300	-	690	-	11	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	529	34	11	17.1	0.040	0.05	1,050
November	801	46	15	26.7	.062	.07	1,590
December	1,765	159	25	56.9	.133	.15	3,500
Calendar year 1943	44,409.7	1,350	5.6	122	.284	3.84	88,100
January	15,340	950	131	495	1.15	1.33	30,430
February	48,150	9,610	480	1,660	3.87	4.17	95,500
March	51,244	10,300	362	1,653	3.85	4.44	101,600
April	36,719	7,590	181	1,224	2.85	3.18	72,830
May	81,777	8,290	210	1,993	4.65	5.36	122,500
June	5,168	600	28	172	.401	.45	10,250
July	502	28	11	16.2	.038	.04	966
August	551	98	11	17.8	.041	.05	1,090
September	2,987	362	18	99.6	.232	.26	5,920
Water year 1943-44	225,533	10,300	11	616	1.44	19.55	447,300

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Ouachita River near Mountain Pine, Ark.

Location.- Water-stage recorder, lat. 34°36', long. 93°12', in NW 1/4 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 404.16 feet above mean sea level, datum of 1929.

Drainage area.- 1,100 square miles.

Records available.- June 1936 to September 1944.

Extremes.- Maximum discharge during year, 56,000 second-feet Apr. 23 (gage height, 26.50 feet); minimum, 36 second-feet Oct. 12 (gage height, 2.58 feet).
1936-44: 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 except those below 100 second-feet, which are fair.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 13 to Dec. 10, Sept. 11-30)

2.6	38	3.4	207	6.0	1,980	14.0	15,100
2.7	50	3.7	315	7.0	3,030	17.0	22,400
2.8	66	4.0	450	8.0	4,300	20.0	31,000
3.0	103	4.5	735	10.0	7,260	23.0	41,400
3.2	148	5.0	1,090	12.0	10,800		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	168	105	794	1,420	9,910	2,230	19,000	2,280	258	87	450
2	42	247	105	978	1,260	5,100	3,090	27,400	1,430	237	91	460
3	41	584	103	1,520	1,090	3,520	5,910	26,500	1,090	204	89	436
4	39	1,050	101	1,840	1,010	4,110	4,720	13,500	829	207	76	299
5	56	849	109	1,740	941	6,810	3,270	6,590	691	179	66	224
6	58	578	353	1,380	801	5,160	2,460	4,300	1,580	159	59	176
7	52	476	648	1,130	722	3,390	2,030	3,150	1,890	141	53	146
8	46	402	1,300	1,050	906	2,580	1,740	2,380	1,170	131	49	124
9	42	366	1,090	941	7,210	2,030	2,380	1,980	856	120	49	111
10	40	375	1,050	906	10,000	1,700	3,390	1,790	716	111	74	101
11	38	328	2,750	906	5,150	1,420	14,500	1,560	654	103	71	95
12	39	284	4,210	1,050	3,030	1,260	9,270	1,300	722	95	69	85
13	165	254	2,640	1,470	2,230	1,130	4,720	1,090	249	99	107	80
14	165	237	1,650	1,700	2,030	1,010	3,150	1,420	1,050	83	156	74
15	129	214	1,170	1,520	2,900	941	2,480	1,700	1,050	78	168	71
16	126	198	906	1,340	3,270	9,630	1,980	1,050	842	73	156	68
17	179	182	722	1,300	7,680	18,800	1,610	822	660	69	111	63
18	162	170	595	1,340	14,200	9,410	1,340	672	533	68	89	59
19	148	162	506	1,470	8,560	10,200	1,260	578	450	66	91	54
20	129	154	450	1,560	4,720	12,300	10,400	544	388	63	78	53
21	118	146	402	1,520	3,520	8,240	7,410	555	393	66	64	52
22	107	141	366	1,340	3,390	5,310	6,510	572	1,300	66	61	48
23	99	136	328	1,170	3,640	4,300	49,900	768	761	63	63	45
24	116	129	303	1,050	3,030	3,640	18,000	866	539	49	63	42
25	122	122	299	906	2,380	2,920	18,360	781	426	56	69	41
26	118	120	284	801	2,480	2,380	14,160	672	393	56	71	40
27	129	116	284	775	3,770	7,220	13,270	1,010	506	66	95	40
28	185	114	375	2,160	9,940	7,040	2,480	1,560	416	109	95	41
29	198	109	578	2,540	16,700	4,860	1,980	1,740	323	122	93	44
30	173	109	863	1,930	-	3,520	2,640	1,890	269	103	105	46
31	168	-	941	1,650	-	2,750	-	2,490	-	95	272	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	3,275	198	38	106	0.096	0.11	6,500
November	8,520	1,050	109	284	0.258	.29	16,900
December	25,586	4,210	101	825	0.750	.86	50,750
Calendar year 1943	323,929	12,100	21	887	1.806	10.95	642,500
January	41,777	2,540	775	1,348	1.23	1.42	82,860
February	127,880	16,700	722	4,410	4.01	4.32	253,600
March	162,601	18,800	941	5,245	4.77	5.50	322,500
April	184,660	49,900	1,260	6,155	5.60	6.25	366,300
May	130,220	27,400	544	4,201	3.82	4.40	258,300
June	25,058	2,280	269	835	0.759	.85	49,700
July	3,395	258	56	110	0.100	.12	6,730
August	2,840	272	49	91.6	0.083	.10	5,630
September	3,668	460	40	122	0.111	.12	7,280
Water year 1943-44	719,478	49,900	38	1,966	1.79	24.34	1,427,000

Peak discharge.- Feb. 17 (3 a.m.) 15,300 sec.-ft.; Feb. 29 (2 a.m.) 18,600 sec.-ft.; Mar. 17 (2 a.m.) 21,600 sec.-ft.; Apr. 11 (4 p.m.) 20,100 sec.-ft.; Apr. 23 (2 p.m.) 56,000 sec.-ft.; May 2 (11 p.m.) 33,900 sec.-ft.

a No gage-height record; discharge computed on basis of typical recession curve.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

Ouachita River near Malvern, Ark.

Location.- Water-stage recorder, lat. 34°23', long. 92°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 228.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,570 square miles.

Records available.- March 1903 to April 1905, June 1922 to September 1924, March 1937 to September 1944. January 1925 to March 1937, at site at Remmel Dam, 6 miles upstream, published as Ouachita River at Remmel Dam, near Malvern.

Extremes.- Maximum discharge during year, 83,000 second-feet Apr. 23 (gage height, 25.20 feet); minimum, 46 second-feet Oct. 6, 8, 12, Nov. 16; minimum daily, 49 second-feet Oct. 6, 11, Nov. 16.
1903-5, 1922-24, 1937-44: 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 tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 23					Apr. 24 to Sept. 30				
0.5	41	2.0	493	13.0	15,400	1.4	220	3.0	1,240
.6	52	2.5	806	15.0	20,300	1.6	298	4.0	2,100
.8	80	3.0	1,170	17.0	26,600	1.8	399	5.0	3,100
1.0	116	4.0	2,010	19.0	35,400	2.0	517	7.0	5,310
1.2	161	5.0	2,960	21.0	47,600	2.5	854	9.0	7,910
1.4	220	7.0	5,150	23.0	62,900				
1.6	294	9.0	7,910						
1.8	386	11.0	11,300						

Note.- Same as preceding table below 1.4 feet and above 8.8 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	172	172	201	694	2,100	15,400	3,790	42,200	2,420	202	548	124
2	145	274	242	319	2,640	9,560	9,440	42,500	2,320	72	972	187
3	52	198	150	698	2,530	6,120	6,130	34,700	1,740	278	226	208
4	82	168	58	785	2,040	6,180	8,060	21,700	512	206	576	158
5	57	163	58	836	1,480	4,670	5,660	11,900	1,330	138	280	162
6	49	179	113	1,270	274	9,830	2,960	8,700	1,500	247	213	203
7	121	62	117	1,450	1,160	6,010	3,260	4,850	1,430	528	736	284
8	52	69	496	1,170	1,670	2,860	3,460	3,730	1,680	299	404	190
9	84	112	430	400	2,440	4,120	9,920	3,200	1,870	156	334	152
10	51	52	414	819	1,940	4,010	6,180	3,100	1,440	466	376	109
11	49	73	80	942	2,660	2,860	14,200	2,840	474	714	249	280
12	70	90	118	1,430	2,660	2,320	16,500	1,770	1,500	944	234	204
13	198	53	503	1,720	2,570	2,450	8,540	1,650	1,660	790	234	265
14	87	56	302	1,690	3,330	1,900	5,030	1,130	1,500	758	226	328
15	175	52	468	928	4,230	1,860	3,060	1,720	2,030	596	336	402
16	270	49	620	449	5,550	6,690	2,760	2,150	2,060	106	566	278
17	124	64	842	1,250	11,400	17,400	2,960	1,920	1,140	411	502	69
18	90	62	360	1,090	18,400	16,800	2,960	1,520	450	828	242	154
19	176	68	88	1,510	14,700	22,900	2,960	1,480	894	699	214	611
20	117	97	214	1,410	10,800	17,900	10,200	812	820	237	84	194
21	84	55	838	1,570	4,970	13,700	9,870	267	804	158	430	1,080
22	134	50	1,130	1,780	5,030	10,400	9,190	1,150	846	124	1,060	968
23	492	56	972	1,170	4,910	6,160	62,800	1,200	938	117	561	360
24	128	85	620	1,690	5,400	4,420	27,700	1,360	466	225	700	158
25	73	76	194	1,730	4,340	4,760	13,300	876	351	404	570	772
26	210	94	60	1,720	4,450	2,760	9,240	1,120	902	699	270	1,270
27	166	112	1,110	2,030	2,480	9,870	3,620	1,060	896	628	144	442
28	189	56	1,470	2,200	9,580	11,900	3,200	196	696	422	394	162
29	247	70	1,640	2,140	22,000	8,500	3,200	108	439	182	432	215
30	308	156	1,510	1,250	-	5,150	5,490	535	406	162	246	152
31	76	-	1,090	1,830	-	3,570	-	2,080	-	128	241	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	4,308	492	49	139	8,540
November.....	2,912	274	49	97.1	5,780
December.....	16,508	1,640	58	533	32,740
Calendar year 1943.....	493,352	16,700	49	1,352	978,600
January.....	40,000	2,200	319	1,290	79,340
February.....	157,734	22,000	274	5,439	312,900
March.....	243,030	22,900	1,860	7,840	482,000
April.....	275,840	62,800	2,760	9,188	546,700
May.....	203,504	42,500	108	6,565	403,600
June.....	35,514	2,420	351	1,134	70,440
July.....	11,924	944	72	335	23,650
August.....	12,620	1,060	84	407	25,030
September.....	10,141	1,270	69	338	20,110
Water year 1943-44.....	1,013,835	62,800	49	2,770	2,011,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Quachita River at Monroe, La.

Location.- Wire-weight gage, lat. 32°30'19", long. 92°07'32", in sec. 54, T. 18 N., R. 3 E., at bridge on U. S. Highway 80 at Monroe, 0.4 mile upstream from Illinois Central Railroad bridge and 5½ miles upstream from lock and dam No. 4. Datum of gage is 31.40 feet above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army). Auxiliary staff gage 7.6 miles downstream.

Drainage area.- 15,400 square miles (from reports of Mississippi River Commission).

Records available.- October 1938 to September 1944 in reports of Geological Survey.

1884 to 1891 (gage heights), 1892 to 1927 (gage heights and discharge observations), and January 1928 to September 1944 (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 U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 72,200 second-feet May 19 (result of discharge measurement); maximum gage height, 45.46 feet May 18, 19; minimum discharge not determined (pool stage); minimum gage height observed, 12.1 feet Jan. 3, 1938-44: Maximum discharge, that of May 19, 1944; maximum gage height, that of May 18, 19, 1944; minimum discharge not determined (pool stage); minimum gage height observed, that of Jan. 3, 1944.

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 No. 4. Daily discharge computed from graphs based on gage-height record and frequent discharge measurements.

Cooperation.- Forty-six discharge measurements, gage-height record, and computation of daily discharge furnished by Corps of Engineers, U. S. Army; records reviewed by Geological Survey.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	3,280	6,100	33,900	45,100	54,100	61,700	33,100	-	-
2	-	-	†329	4,890	6,990	34,700	48,300	54,200	61,000	32,000	-	-
3	-	-	-	7,890	8,950	38,400	51,500	54,800	60,000	30,800	-	-
4	-	-	-	5,760	10,500	39,500	54,200	55,800	58,400	29,500	†1,920	-
5	†585	†571	-	5,760	11,600	40,300	55,900	58,200	56,400	28,000	-	-
6	-	-	-	5,600	14,100	40,400	56,300	60,900	54,200	26,400	-	-
7	-	-	-	5,600	14,400	40,500	56,300	64,100	53,100	24,700	-	-
8	-	-	-	5,430	14,300	40,500	56,300	66,300	52,000	22,700	-	-
9	-	-	-	5,600	13,400	40,400	56,400	68,400	51,100	20,700	-	-
10	-	-	†980	5,600	13,000	40,300	56,500	70,200	50,300	18,600	-	-
11	-	-	-	5,740	13,700	40,100	56,600	70,700	49,600	15,300	-	-
12	-	-	-	5,910	15,500	39,800	56,700	71,100	48,900	11,200	-	-
13	-	-	-	6,220	16,600	39,600	56,700	71,300	48,300	5,300	-	†1,630
14	-	-	-	6,810	17,400	39,300	56,700	71,500	47,600	3,240	-	-
15	†211	-	-	7,890	18,200	38,900	56,600	71,700	47,100	2,100	-	-
16	-	-	-	9,690	18,800	38,700	56,500	71,800	46,500	-	-	-
17	-	†765	†3,080	10,600	19,200	38,500	56,500	72,000	45,800	-	-	-
18	-	-	-	11,800	19,800	38,300	56,500	72,100	45,100	-	-	-
19	-	-	-	11,900	20,200	38,000	56,400	72,200	44,300	†1,320	-	-
20	-	-	-	11,900	20,500	37,900	56,200	72,000	43,600	-	-	-
21	-	-	-	11,600	20,700	37,800	55,600	71,800	42,900	-	-	-
22	-	-	†2,420	11,400	21,000	37,700	55,000	71,600	42,100	-	-	-
23	-	-	-	10,000	21,700	37,700	54,800	71,300	41,200	-	†1,440	-
24	-	-	-	4,990	22,800	37,700	54,700	70,500	40,400	†1,650	-	-
25	-	-	-	8,910	23,900	37,700	54,500	69,500	39,400	-	-	-
26	-	†459	-	8,160	25,000	37,700	54,400	67,400	38,400	-	-	-
27	-	-	-	7,600	26,500	37,800	54,200	64,700	37,400	-	-	-
28	-	-	†2,960	6,210	28,700	38,000	54,200	64,000	36,400	-	-	†951
29	†626	-	-	6,090	31,300	39,000	54,100	63,300	35,300	-	-	-
30	-	-	-	5,900	-	40,500	54,100	62,500	34,200	-	-	-
31	-	-	-	5,900	-	42,400	-	62,100	-	-	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	-	-	-	621	0.040	0.05	39,200
November	-	-	-	641	.042	.05	38,130
December	-	-	-	1,821	.118	.14	112,000
Calendar year 1943	-	39,100	-	8,427	.547	7.45	6,100,000
January	232,620	11,900	3,280	7,504	.487	.56	481,400
February	514,840	31,300	6,100	17,750	1.15	1.24	1,021,000
March	1,202,000	42,400	33,900	39,770	2.52	2.90	2,384,000
April	1,647,800	56,700	45,100	54,930	3.57	3.98	3,268,000
May	2,062,100	72,200	54,100	66,520	4.32	4.98	4,090,000
June	1,412,700	61,700	34,200	47,090	3.06	3.41	2,802,000
July	-	33,100	-	10,600	.688	.79	651,600
August	-	-	-	1,611	.105	.12	99,070
September	-	-	-	1,672	.109	.12	99,480
Water year 1943-44	-	72,200	-	20,750	1.35	18.34	15,060,000

† Result of discharge measurement.

Note.- Daily discharge below about 3,000 second-feet not sufficiently accurate for publication. Monthly discharge October to December and July to September computed on basis of occasional discharge measurements, gage heights at auxiliary gage 7.6 miles downstream, and incomplete daily discharge records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., 1½ 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 1931, July 1937 to September 1944.

Average discharge.— 10 years (1928-31, 1937-44), 583 second-feet.

Extremes.— Maximum discharge during year, 33,600 second-feet May 1 (gage height, 16.60 feet); minimum, 7.7 second-feet Sept. 26-28 (gage height, 1.82 feet).

1927-31, 1937-44: Maximum discharge observed, 54,500 second-feet (revised) Jan. 24 1938 (gage height, 17.50 feet); minimum, 2.9 second-feet Sept. 1, 1943.

Maximum stage known, about 21 feet in April 1927, from information by Arkansas State Highway Department.

Revision.— The maximum discharge for the water year 1941 has been revised to 44,800 second-feet Nov. 23 (gage height, 17.03 feet), superseding figure published in Water-Supply Paper 927.

Remarks.— Records good.

Cooperation.— One discharge measurement furnished by Corps of Engineers, U. S. Army.

Revisions.— Revised figures of discharge, in second-feet, for high-water periods in the water years 1938 and 1941, superseding those published in Water-Supply Papers 857, 877, and 927, are given herewith:

Jan. 24, 1938..... 26,400

Feb. 18, 1938..... 27,900

Nov. 23, 1940..... 20,400

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches	Runoff in acre-feet
January 1938.....	83,453	26,400	107	2,692	7.08	8.16	165,600
February 1938.....	64,596	27,900	260	2,307	6.07	6.32	128,100
Water year 1937-38	310,730	27,900	8	851	2.24	30.41	616,300
Calendar year 1938	279,041.9	27,900	6.0	764	2.01	27.31	553,400
November 1940.....	35,607	20,400	15	1,187	3.12	3.48	70,630
Calendar year 1940	163,198.6	20,400	7.1	448	1.17	15.96	323,702
Water year 1940-41	196,853.5	20,400	8.0	539	1.42	19.26	390,463

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	41	25	276	502	2,000	884	27,700	691	38	31	138
2	61	195	25	468	465	1,370	4,120	19,600	508	43	41	76
3	39	418	24	484	1,050	3,100	5,890	390	38	31	61	
4	29	271	24	713	401	2,060	1,900	4,860	316	31	21	38
5	22	189	29	566	346	1,280	1,320	2,990	410	29	17	31
6	18	142	140	447	316	1,050	977	1,960	1,540	25	15	46
7	16	131	453	401	285	844	796	1,320	713	24	12	46
8	15	165	295	465	474	655	1,530	969	477	23	12	48
9	13	138	243	395	4,460	560	4,140	781	390	22	12	38
10	12	111	490	331	2,230	484	2,680	607	310	20	14	25
11	12	94	1,800	341	1,370	430	5,380	484	243	19	16	22
12	13	82	901	502	901	395	2,310	395	217	18	17	21
13	100	70	566	684	691	352	1,470	401	796	18	20	16
14	380	64	401	600	1,180	305	1,090	579	447	17	21	15
15	152	59	300	546	1,960	411	852	641	305	16	29	14
16	92	53	230	508	1,420	7,890	648	390	226	16	53	13
17	61	50	185	477	3,980	3,640	520	295	177	15	31	12
18	48	46	155	471	3,300	2,310	447	243	145	15	23	12
19	39	43	135	471	1,900	6,260	384	209	119	18	17	12
20	32	39	119	453	1,800	3,910	765	213	114	18	15	12
21	29	38	111	412	1,470	2,360	553	243	114	17	14	11
22	25	36	99	368	1,610	2,060	727	460	94	17	12	10
23	26	34	92	326	1,520	1,800	8,290	662	79	17	13	9.8
24	76	32	84	290	1,160	1,370	2,520	502	68	19	15	8.7
25	185	31	86	252	910	1,110	1,520	368	59	19	14	8.2
26	116	30	92	230	844	910	1,280	676	55	16	50	7.7
27	82	30	108	702	795	5,010	986	1,280	55	18	44	7.7
28	64	29	173	1,230	3,520	3,260	670	1,760	46	16	35	10
29	53	28	430	844	3,580	2,200	566	2,750	43	20	36	13
30	46	26	390	750	-	1,520	2,820	1,370	39	29	44	14
31	41	-	326	607	-	1,130	-	1,090	-	35	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff
						Inches Acre-feet
October.....	2,005	380	12	64.7	0.170	0.20 3,980
November.....	2,705	418	26	90.2	.237	.26 5,370
December.....	8,531	1,800	24	275	.724	.83 16,920
Calendar year 1943	125,372.5	7,440	3.2	358	.889	12.06 244,700
January.....	15,938	1,230	230	514	1.35	1.56 31,610
February.....	43,975	4,460	316	1,513	3.98	4.29 87,020
March.....	59,976	7,880	305	1,935	5.09	5.87 119,000
April.....	55,245	8,290	384	1,842	4.85	5.41 109,600
May.....	81,868	27,700	209	2,641	6.95	8.01 182,400
June.....	9,188	1,540	39	306	.805	.80 18,220
July.....	689	43	15	22.2	.068	.07 1,370
August.....	789	59	12	25.3	.067	.08 1,560
September.....	786.1	138	7.7	26.2	.069	.08 1,560
Water year 1943-44	281,590.1	27,700	7.7	769	2.02	27.56 558,600

Peak discharge.— Mar. 16 (1:30 p.m.) 12,300 sec.-ft.; Apr. 23 (6:30 a.m.) 15,000 sec.-ft.; May 1 (8 a.m.) 38,600 sec.-ft.; May 2 (12:30 p.m.) 28,800 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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 and 5 miles upstream from Hudgin Creek.

Drainage area.— 2,040 square miles.

Records available.— August 1937 to September 1944.

Extremes.— Maximum discharge during year, 32,800 second-feet May 8 (gage height, 26.77 feet); minimum, 9.1 second-feet Oct. 1, 2 (gage height, 4.07 feet).
1937-44: Maximum discharge, 42,300 second-feet Jan. 27, 1938 (gage height, 28.0 feet, from graph based on gage readings); minimum, 8.1 second-feet Sept. 27-29, 1943 (gage height, 4.06 feet).
Maximum stage known, 30.5 feet in April 1927.

Remarks.— Records good.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 30, July 3 to Sept. 30)

4.0	10	5.5	210	20.0	7,470
4.1	15	6.0	319	21.6	9,050
4.2	21	7.0	570	22.6	10,700
4.3	28	8.2	839	23.6	13,700
4.5	47	10.0	1,630	24.6	18,100
4.7	71	13.0	3,040	25.6	24,100
5.0	116	16.5	5,040	26.7	32,000

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	41	52	153	292	5,500	9,590	8,470	870	85	75	1,010
2	9.1	54	51	198	296	5,180	9,310	11,200	870	79	75	452
3	10	42	49	308	378	4,790	9,890	13,300	775	70	188	252
4	10	39	49	402	439	4,490	9,310	15,700	744	65	276	263
5	10	39	48	402	378	4,610	8,930	18,600	584	58	267	235
6	10	40	57	390	342	4,730	8,930	21,600	439	57	229	204
7	10	44	54	477	308	4,870	8,850	29,700	366	54	200	186
8	11	44	54	714	319	4,670	8,930	32,000	308	48	190	190
9	11	49	54	806	1,250	4,730	9,050	26,900	477	45	182	220
10	12	51	58	714	1,350	4,730	9,180	21,000	426	43	149	218
11	13	46	70	570	699	4,670	9,050	16,600	285	38	111	188
12	12	45	85	477	530	4,550	8,930	13,700	244	36	97	250
13	15	44	85	426	904	4,250	8,580	11,200	239	33	81	168
14	16	47	106	414	1,510	3,840	8,260	9,740	254	32	84	102
15	14	52	144	426	2,080	3,080	7,790	8,470	239	31	82	74
16	14	54	180	426	2,170	2,120	7,400	7,320	252	29	69	66
17	14	60	330	464	2,440	1,940	7,170	5,760	274	28	59	57
18	15	66	390	530	2,540	1,900	7,320	3,140	261	27	53	52
19	32	67	330	543	2,640	2,220	7,550	1,390	233	27	47	47
20	40	66	276	530	2,120	3,180	7,790	972	233	25	43	43
21	40	64	235	490	2,940	3,790	7,710	904	233	24	42	41
22	52	60	204	477	3,040	4,130	7,400	1,720	218	23	39	39
23	64	57	184	452	3,460	4,550	6,870	4,130	202	22	37	35
24	72	57	170	426	3,900	4,980	6,310	3,400	194	22	38	33
25	64	54	180	402	4,370	5,440	5,700	2,120	172	22	45	32
26	57	55	157	378	4,670	6,240	5,370	1,270	146	22	74	30
27	51	55	140	366	5,300	7,170	5,300	938	126	22	77	29
28	45	54	144	342	5,500	8,930	5,240	775	111	25	77	30
29	43	52	133	319	5,630	14,950	5,820	744	100	28	61	33
30	41	52	135	308	-	15,300	7,100	744	94	38	71	33
31	41	-	142	308	-	12,000	-	714	-	90	482	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	857.2	72	9.1	27.7	0.014	0.02	1,700
November	1,550	67	39	51.7	0.025	.03	3,070
December	4,346	390	48	140	0.069	.08	8,620
Calendar year 1943	388,214.4	9,900	8.1	1,064	.522	7.07	770,000
January	13,538	806	153	440	.218	.25	27,050
February	61,315	5,630	292	2,114	1.04	1.12	121,600
March	167,180	15,300	1,900	5,393	2.64	3.04	331,600
April	234,410	9,590	5,240	7,814	3.83	4.27	464,900
May	294,221	32,000	714	9,491	4.65	5.36	583,600
June	9,969	870	94	332	.163	.18	19,770
July	1,247	90	22	40.2	.020	.02	2,470
August	3,810	482	37	116	.057	.07	7,160
September	4,612	1,010	29	154	.075	.08	9,150
Water year 1943-44	766,955.2	32,000	9.1	2,177	1.07	14.52	1,581,000

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Bartholomew near Beekman, La.

Location.- Wire-weight gage, lat. 32°52'20", long. 91°52'04", in NW¼ sec. 28, T. 22 N., R. 6 E., at bridge on State Highway 204, 0.8 mile downstream from Bayou des Glaisses, 4 miles south of Beekman, and 7 miles north of Bastrop. Datum of gage is 70.69 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,645 square miles (authority, Corps of Engineers, U. S. Army).

Records available.- August 1928 to September 1929 and October 1933 to September 1944 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; since August 1932 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 8,780 second-feet Mar. 31 (gage height, 25.33 feet); minimum, 81 second-feet at times during November and December; minimum gage height, 0.90 foot Dec. 18.

1928-29, 1938-44: Maximum discharge, that of Mar. 31, 1944; minimum, that during November and December 1943; minimum gage height, that of Dec. 18, 1943.

Maximum stage known, 26.75 feet Apr. 17, 1937, from floodmark (affected by overflow from Mississippi River); discharge of 12,400 second-feet (gage height, 25.78 feet) was measured by Corps of Engineers, U. S. Army, Jan. 12, 1932.

Remarks.- Records good except those for period of backwater from Ouachita River, which are fair. Gage read twice daily.

Cooperation.- Gage-height record and 1 discharge measurement furnished by Corps of Engineers, U. S. Army.

Rating table, water year 1943-44, except for period of backwater from Ouachita River (gage height, in feet, and discharge, in second-feet)

0.9	81	4.0	527	12.0	2,600	20.0	5,750
1.4	144	6.0	891	14.0	3,300	22.0	6,840
2.0	225	8.0	1,360	16.0	4,060	24.0	8,000
3.0	370	10.0	1,920	18.0	4,850	25.3	8,780

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	87	87	124	232	6,610	8,660	6,870	4,950	479	131	237
2	105	87	87	212	311	8,400	8,420	9,750	4,690	416	124	237
3	105	87	87	311	463	6,180	8,120	6,790	4,550	355	138	239
4	105	87	81	296	560	5,960	7,820	7,070	4,370	311	131	212
5	112	81	81	267	681	5,700	7,580	7,410	4,260	267	138	198
6	112	87	87	253	792	5,510	7,350	7,880	4,090	253	131	185
7	112	87	87	225	891	5,370	7,180	7,940	3,940	225	124	185
8	105	93	87	253	975	5,240	7,010	7,880	3,920	212	131	185
9	99	99	87	311	1,080	5,060	6,840	7,700	3,680	198	144	198
10	93	99	87	296	1,180	4,930	6,750	7,470	3,480	198	138	198
11	93	99	87	239	1,210	4,770	6,730	7,130	3,340	165	144	225
12	93	105	87	212	1,180	4,590	6,670	6,730	3,230	171	138	253
13	93	105	87	253	1,210	4,570	6,670	6,230	3,060	171	131	253
14	93	112	81	325	1,310	4,450	6,620	5,910	2,950	164	131	267
15	93	112	87	432	1,440	4,370	6,620	5,600	2,740	164	131	267
16	93	105	87	543	1,490	4,250	6,560	5,370	2,560	158	124	267
17	93	99	81	560	1,520	4,130	6,510	5,150	2,360	158	124	282
18	87	99	81	577	1,520	4,020	6,510	5,020	2,110	158	124	282
19	87	99	81	560	1,540	4,020	6,450	4,850	1,980	151	124	296
20	87	d98	81	527	1,580	4,130	6,560	4,770	1,840	151	124	311
21	87	d95	81	527	1,580	4,170	6,730	4,650	1,680	144	124	311
22	87	d92	87	511	1,580	4,330	6,840	4,610	1,540	131	124	325
23	87	d89	87	495	1,600	4,450	7,070	4,650	1,410	131	124	325
24	93	87	93	479	2,140	4,450	7,180	4,650	1,260	131	124	325
25	87	d87	131	447	2,530	4,330	7,240	4,810	1,110	131	124	311
26	87	87	144	416	3,060	4,170	7,180	5,150	975	131	131	311
27	87	87	124	401	4,130	4,250	7,130	5,280	871	124	144	282
28	87	87	131	370	5,510	4,730	7,010	5,240	754	131	144	267
29	87	87	131	340	6,730	6,290	6,840	5,150	645	124	138	253
30	87	87	124	325	-	8,060	6,730	5,110	560	124	144	239
31	87	-	124	311	-	8,780	-	5,020	-	131	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Acre-feet
October	2,935	112	87	94.7	0.058	0.07	5,820
November	2,635	112	81	94.5	.057	.06	5,630
December	2,955	144	81	95.3	.058	.07	5,860
Calendar year 1943	258,840	4,610	81	709	.431	5.86	513,490
January	11,398	577	124	368	.224	.26	22,610
February	50,275	6,730	282	1,734	1.05	1.14	99,720
March	158,270	8,780	4,020	5,105	3.10	3.58	313,900
April	211,620	8,660	6,450	7,054	4.29	4.78	419,700
May	184,620	7,940	4,610	5,955	3.62	4.17	366,200
June	78,675	4,850	560	2,622	1.59	1.78	156,000
July	5,978	479	124	193	.117	.14	11,860
August	4,158	212	124	134	.081	.09	8,250
September	7,786	325	185	260	.158	.18	15,440
Water year 1943-44	721,506	8,780	81	1,971	1.20	16.32	1,431,000

d Doubtful gage-height record; discharge interpolated.

Note.- Backwater from Ouachita River May 11 to June 15; discharge computed on basis of gage-height record, 1 discharge measurement, and gage-height records for Ouachita River at Monroe.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

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., at bridge on U. S. Highway 167, 1½ miles south of Dubach and 8 miles upstream from Middle Fork Bayou D'Arbonne. Datum of gage is 83.25 feet above mean sea level, datum of 1929 (levels by Louisiana Department of Public Works).

Drainage area.- 348 square miles.

Records available.- June 1940 to September 1944.

Extremes.- Maximum discharge during year, 15,400 second-feet Mar. 29 (gage height, 21.47 feet, from floodmark); minimum, no flow Oct. 1-11, Aug. 16-23.

1940-44: Maximum discharge, that of Mar. 29, 1944; minimum, no flow at times in August, September, October 1943, August 1944.

Revisions.- The maximum discharge for the water year 1941 has been revised to 13,100 second-feet May 6, 1941 (gage height, 21.08 feet, from graph based on gage readings), superseding figure published in Water-Supply Paper 927.

Remarks.- Records good above 30 second-feet and poor below. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 15-30)

Oct. 1 to Mar. 29						Mar. 30 to Sept. 30			
4.3	0	5.7	53	15.0	1,480	19.5	6,040	4.7	0
4.4	.1	6.0	88	16.0	1,730	20.0	7,790	4.8	.4
4.6	.5	6.5	151	17.0	2,130	20.5	9,950	5.0	3.8
4.8	1.0	7.5	292	17.5	2,480	21.0	12,500	5.2	13
5.0	2.7	9.0	515	18.0	3,000				
5.2	8.5	11.0	825	18.5	3,700				
5.4	23	14.0	1,310	19.0	4,730				

Note.- Same as preceding table above 6.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.9	4.7	171	425	2,400	2,770	994	365	9.4	0.2	870
2	0	1.1	4.9	178	470	1,940	2,130	1,600	389	8.9		515
3	0	1.2	4.9	178	515	1,620	1,790	4,730	292	8.3	5.4	278
4	0	1.3	4.9	192	546	1,380	1,500	6,350	192	8.3	20	72
5	0	1.3	5.6	192	561	1,140	1,290	7,030	144	6.4	10	34
6	0	1.5	6.0	192	747	873	1,080	4,500	138	5.8	8.3	34
7	0	2.2	7.4	206	809	718	857	3,000	220	4.8	2.7	47
8	0	3.8	7.1	206	925	608	716	2,250	151	4.5	2.7	17
9	0	6.7	7.1	206	841	530	732	1,830	125	6.4	1.0	13
10	0	14	9.8	292	889	485	921	1,450	82	9.4	.4	3.8
11	0	21	12	395	955	440	1,180	1,140	77	5.1	.2	5.4
12	.3	34	14	515	1,020	401	1,320	825	51	3.6	.2	5.4
13	.5	19	12	623	1,080	380	1,430	608	60	2.7	.4	3.8
14	.6	14	9.8	732	1,180	350	1,390	485	263	2.0	1.6	11
15	.8	22	9.2	857	1,290	321	1,140	401	179	1.8	.2	10
16	1.0	24	12	953	1,210	321	889	350	158	2.5	0	10
17	1.3	17	12	969	1,030	365	654	292	151	1.1	0	6.4
18	2.0	13	11	889	889	425	500	248	94	1.2	0	6.4
19	2.7	9.8	9.8	825	905	592	410	234	51	1.1	0	4.5
20	4.0	7.4	7.8	763	985	1,020	350	631	53	.9	0	5.1
21	4.2	6.0	7.4	690	1,130	1,180	335	685	43	.4	0	4.1
22	4.0	6.0	7.1	610	1,470	1,260	321	810	42	.4	0	4.5
23	3.8	5.6	10	6540	1,790	1,240	321	1,020	35	.2	0	3.4
24	3.1	5.6	21	4460	3,240	1,140	321	985	31	.2	17	3.1
25	1.9	5.3	442	380	6,120	1,020	292	732	21	.2	88	2.5
26	1.4	5.3	464	4321	12,500	841	292	546	20	.3	20	2.0
27	1.2	4.9	100	4355	7,700	905	305	425	17	.2	34	1.5
28	.9	4.9	4125	4350	4,730	1,390	263	321	14	.2	29	1.8
29	.9	4.9	4138	365	3,390	9,560	220	321	12	.1	14	2.0
30	.9	4.9	4151	380	-	10,900	434	335	11	.2	6.8	3.1
31	.8	-	164	395	-	4,730	-	350	-	.2	340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	36.3	4.2	0	1.17	0.0034	0.004	72
November	265.6	34	.9	8.95	.026	.03	533
December	1,001.5	164	4.7	32.3	.093	.11	1,990
Calendar year 1943	46,153.7	2,960	0	126	.362	4.94	91,540
January	14,360	969	171	463	1.33	1.53	28,480
February	59,240	12,500	425	2,043	5.87	6.33	117,500
March	50,473	10,900	321	1,628	4.68	5.39	100,100
April	26,154	2,770	220	872	2.51	2.80	51,880
May	45,478	7,030	234	1,467	4.22	4.86	90,280
June	3,472	380	11	116	.333	.37	6,890
July	95.7	9.4	-	3.12	.0090	.01	192
August	603.0	340	0	19.5	.056	.06	1,200
September	1,778.8	670	1.5	59.3	.170	.19	3,530
Water year 1943-44	202,961.9	12,500	0	555	1.59	21.68	402,600

d Doubtful gage-height record; discharge computed on basis of records for Cormie Bayou near Lillie and Middle Fork Bayou D'Arbonne near Bernice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

RED RIVER BASIN

Middle Fork Bayou D'Arbonne near Bernice, La.

Location.- Wire-weight gage, lat. 32°46', long. 92°39', in SW $\frac{1}{4}$ sec. 35, T. 21 N., R. 3 W., at bridge on U. S. Highway 167, 4 miles south of Bernice and 8 miles upstream from mouth. Datum of gage is 97.08 feet above mean sea level, datum of 1929 (levels by Louisiana Department of Public Works).

Drainage area.- 192 square miles.

Records available.- June 1940 to September 1944.

Extremes.- Maximum discharge during year, 6,400 second-feet Mar. 30 (gage height 10.00 feet); no flow at times.

1940-44: Maximum discharge, that of Mar. 30, 1944; no flow at times in 1940, 1942-44.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are poor. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 30						Mar. 31 to Sept. 30			
0.6	0	2.3	23	6.4	378	0.6	0	1.8	13
.8	.2	2.6	35	6.5	515	.8	.2	2.0	18
1.0	.9	3.0	48	7.2	815	1.0	1.1	2.5	33
1.2	2.3	3.5	73	7.6	1,320	1.2	3.4	3.0	51
1.4	4.4	4.0	103	8.0	1,970	1.4	6.3	3.5	74
1.6	7.0	5.0	180	8.5	2,960	1.6	9.6		
1.8	10	5.5	227	9.0	4,050				
2.0	15	6.0	294	10.0	6,400				

Note.- Same as preceding table above 3.6 feet.

Discharge, in second-feet, water year October 1943 to September 1944.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	1.5	131	238	1,320	1,810	374	171	2		1.0
2		0	1.4	124	250	1,040	1,450	945	163	2		.7
3		0	1.3	139	278	815	1,800	1,990	155	1.5		1.0
4		0	1.3	147	354	635	878	3,830	140	1.2		2.8
5		0	1.3	155	405	515	570	2,750	120	1.0		4.4
6		0	1.7	163	354	515	470	1,620	100	.8		2.6
7		12	2.9	131	354	378	405	1,190	90	.7		1.0
8		18	3.1	137	354	332	378	815	70	.6		1.0
9		18	2.9	103	405	294	378	715	60	.8		1.0
10		17	4.2	103	515	263	405	635	50	1.2		.7
11		26	7.3	117	635	227	570	515	40	.7		.4
12		18	8.7	147	715	198	1,040	354	35	.5		.2
13		12	8.4	198	925	189	1,040	263	45	.4		.2
14		8.2	9.1	250	1,040	171	815	227	60	.3		.2
15		6.7	10	332	925	163	635	198	70	.2		.1
16		5.1	12	435	815	163	435	163	70	.3		0
17		4.4	11	515	635	180	312	131	60	.2		0
18		4.0	9.4	515	515	198	250	117	45	.2		0
19		3.3	6.9	435	515	332	227	103	35	.1		0
20		2.9	5.9	515	515	435	207	163	26	.1		0
21		2.7	5.6	470	470	570	180	263	22	.1		0
22		2.3	5.1	470	435	635	171	238	18	0		0
23		2.1	9.2	405	570	635	180	354	14	0		0
24		2.0	14	294	635	635	189	354	11	0		0
25		2.0	23	217	1,040	570	198	332	9	0		0
26		1.8	31	163	1,970	570	207	294	7	0		0
27		1.7	48	163	3,830	570	171	278	5	0		0
28		1.7	79	163	1,970	1,230	147	238	4	0		0
29		1.6	103	163	1,320	4,070	131	180	3.5	0		0
30		1.5	131	207	-	6,160	198	189	3	0		0
31		-	131	227	-	3,740	-	189	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	0	0	0	0	0	0	0
November	167.0	26	0	5.57	.029	.03	331
December	690.1	131	1.3	22.3	.116	.13	1,370
Calendar year 1943	25,084.7	1,100	0	68.7	.358	4.85	49,800
January	7,714	515	103	249	1.30	1.49	15,300
February	22,982	3,830	238	792	4.12	4.45	45,580
March	27,748	6,160	163	895	4.66	5.37	55,040
April	15,867	1,810	131	529	2.76	3.07	31,450
May	19,987	3,830	103	645	3.56	3.87	39,640
June	1,691.6	171	3	56.4	.294	.33	3,860
July	14.9	2	0	.48	.0025	.003	30
August	0	0	0	0	0	0	0
September	17.3	4.4	0	.58	.0030	.003	34
Water year 1943-44	96,868.8	6,160	0	265	1.38	18.75	192,100

Note.- Doubtful or no gage-height record June 4 to July 21, Sept. 3, 4; discharge computed on basis of records for Bayou D'Arbonne near Dubach and Cormie Bayou near Lillie.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Cornie Bayou near Lillie, La.

Location.- Wire-weight gage, lat. 32°53', long. 92°39', in sec. 15 (revised), T. 22 N., R. 3 W., at bridge on U. S. Highway 167, 2 miles upstream from confluence with Little Cornie Bayou and 3 miles south of Lillie.

Drainage area.- 475 square miles.

Records available.- June 1940 to September 1944.

Extremes.- Maximum discharge during year, 11,000 second-feet Mar. 31 (gage height, 16.78 feet); minimum, 0.2 second-foot Nov. 1; minimum gage height, 0.42 foot Aug. 9, 10, 19, 22, 23.

1940-44: Maximum discharge, 15,100 second-feet May 7, 1941 (gage height, 17.48 feet); minimum, 0.2 second-foot Sept. 8, 1941, Nov. 1, 1943; minimum gage height, that of Aug. 9, 10, 19, 22, 23, 1944.

Remarks.- Records fair except those for periods of doubtful gage-height record, which are poor. Gage read twice daily. Some regulation by Cornie Lake about 6 miles above station.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 30

Mar. 31 to Sept. 30

0.5	0.4	2.0	14	0.5	0.6	4.0	101	12.0	1,180
7	1.2	2.5	28	6	1.0	4.5	127	12.5	1,460
1.0	2.4	3.0	48	8	2.2	5.0	159	13.0	1,820
1.4	4.5	4.0	95	1.0	4.2	6.0	239	13.5	2,270
1.6	6.3	5.0	157	1.3	8.9	7.0	335	14.0	2,890
1.8	9.2	6.0	239	1.6	15	9.0	567	14.5	3,840
				2.0	25	10.0	708	15.0	5,090
				2.5	41	11.0	880	16.0	8,010
				3.0	59	11.5	1,000	16.7	10,600

Note.- Same as following table above 6.0 feet.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.2	d2.0	157	295	4,310	6,790	1,070	678	11	d0.7	25
2	.8	.3	d1.7	212	355	3,050	2,740	1,850	621	9.9	1.0	19
3	.8	.3	d1.5	221	410	2,270	2,270	4,620	504	9.1	1.3	21
4	.7	.4	d1.5	239	528	1,820	1,670	8,330	366	7.8	1.0	42
5	.8	.5	d1.5	257	528	1,460	1,400	8,860	248	7.1	.6	165
6	.9	.6	d2.0	188	528	1,280	1,180	7,390	166	5.8	.4	166
7	1.0	1.3	d3.5	143	480	1,070	975	6,210	181	5.0	.4	166
8	1.0	2.3	d6.0	143	635	925	880	4,330	92	4.5	.4	152
9	1.1	3.5	d9.0	143	723	841	880	2,920	74	3.1	.4	133
10	1.1	4.9	d13	117	975	678	1,340	2,000	59	2.4	.4	111
11	1.1	5.9	d13	111	1,070	607	2,270	1,520	52	2.6	.4	97
12	1.1	6.1	d12	129	1,180	528	2,270	1,140	48	2.1	.8	88
13	1.5	6.3	d10	257	1,070	432	1,740	900	70	1.7	.7	97
14	1.3	6.4	d9.0	388	1,340	366	1,520	788	88	1.4	.7	121
15	.9	6.8	d8.0	468	1,460	305	1,230	554	83	.8	.5	116
16	.6	6.8	d7.0	504	1,820	305	1,070	399	97	1.0	.5	111
17	.6	6.8	d6.5	516	1,890	335	925	275	116	.8	.4	105
18	.6	6.8	d6.2	504	1,340	468	823	197	127	.7	.4	101
19	.6	6.6	d6.0	492	1,140	678	708	189	127	.6	.4	97
20	.5	6.6	d10	468	1,070	805	580	275	101	.6	.4	83
21	.4	6.4	14	468	1,040	805	492	257	74	.5	.4	70
22	.5	d6.2	d18	410	1,040	805	421	325	55	.5	.4	70
23	.6	d6.0	d22	355	1,180	860	480	468	41	.5	.4	66
24	.6	d5.5	d27	285	1,460	900	665	504	31	.5	.4	62
25	.6	d5.0	d35	230	2,160	925	900	516	25	.5	.4	55
26	.7	4.7	d45	188	3,420	925	975	516	24	.5	.5	50
27	.7	d4.0	61	164	5,090	925	950	593	19	.4	.8	45
28	.6	d3.5	d100	172	4,820	1,320	880	739	16	.8	.8	41
29	.6	d3.0	d130	172	5,090	4,740	755	823	14	.9	.9	40
30	.5	d2.5	157	196	-	8,330	880	805	12	.8	.7	34
31	.3	-	164	266	-	10,600	-	723	-	d.7	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	23.9	1.5	0.3	0.77	0.0016	0.002	47
November	126.3	6.8	2	4.21	0.0089	.01	250
December	902.4	164	1.5	29.1	.061	.07	1,790
Calendar year 1943	63,623.3	3,040	.2	174	.366	4.98	126,200
January	8,563	516	111	275	.581	.67	16,980
February	43,887	5,090	295	1,513	3.19	3.43	87,010
March	53,893	10,800	305	1,731	3.64	4.20	106,400
April	40,687	6,790	421	1,356	2.85	3.19	80,700
May	59,888	8,660	189	1,932	4.07	4.69	118,800
June	4,149	678	12	138	.291	.32	8,230
July	84.6	11	.4	2.73	.0057	.007	168
August	32.6	15	.4	1.05	.0022	.003	64
September	2,548	166	19	84.9	.179	.20	5,050
Water year 1943-44	214,537.6	10,800	.2	586	1.23	16.79	425,500

d Doubtful gage-height record; discharge computed on basis of records for Bayou D'Arbonne near Dubach and Middle Fork Bayou D'Arbonne near Bernice.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Desiard at Monroe, La.

Location.- Wire-weight gage, lat. 32°33'18", long. 92°07'06" (revised), in lot 35 (revised), T. 18 N., R. 3 E., 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 1944 (elevations only).

Extremes.- Maximum elevation observed during year, 69.84 feet May 30; minimum observed, 63.93 feet Dec. 22.
1939-44: Maximum elevation observed, that of May 30, 1944; minimum observed, that of Dec. 22, 1943.

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 floodgates.

Cooperation.- Record collected in cooperation with city of Monroe.

Elevation, in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.72	4.06	4.20	4.41	7.02	8.74	8.72	8.56	9.82	8.62	7.99	8.18
2	4.41	4.05	4.19	4.62	7.02	8.76	8.80	8.59	9.82	8.53	7.98	8.15
3	4.70	4.02	4.18	4.84	7.06	8.80	8.83	8.88	9.82	8.46	7.98	8.12
4	4.67	4.02	4.16	4.87	7.05	8.86	8.83	9.14	9.82	8.40	7.97	8.06
5	4.60	3.99	4.15	4.92	7.05	8.85	8.83	9.25	9.80	8.38	7.95	8.05
6	4.58	4.01	4.17	4.95	7.06	8.88	8.83	9.32	9.80	8.36	7.95	8.05
7	4.55	4.48	4.16	4.97	7.07	8.88	8.82	9.33	9.78	8.32	7.95	8.02
8	4.53	4.49	4.15	5.06	7.09	8.88	8.82	9.39	9.78	8.28	7.94	8.00
9	4.55	4.48	4.15	5.10	7.12	8.85	8.85	9.42	9.78	8.25	7.99	7.96
10	4.48	4.46	4.13	5.14	7.15	8.83	8.88	9.45	9.74	8.24	7.99	7.95
11	4.48	4.45	4.13	5.18	7.15	8.81	8.81	9.46	9.74	8.20	7.98	7.94
12	4.47	4.44	4.10	5.22	7.15	8.78	8.76	9.48	9.73	8.16	7.96	7.95
13	4.51	4.42	4.08	5.45	7.15	8.73	8.72	9.49	9.72	8.14	7.95	7.94
14	4.50	4.41	4.07	5.55	7.22	8.68	8.70	9.50	9.73	8.20	7.98	7.92
15	4.49	4.40	4.06	5.54	7.26	8.65	8.68	9.50	9.72	8.16	7.97	7.90
16	4.45	4.40	4.04	5.77	7.29	8.60	8.64	9.52	9.70	8.18	7.95	7.90
17	4.41	4.39	4.00	6.00	7.32	8.54	8.61	9.53	9.68	8.15	7.93	7.90
18	4.39	4.36	3.98	6.12	7.37	8.50	8.58	9.50	9.67	8.13	7.92	7.89
19	4.37	4.35	3.97	6.29	7.40	8.56	8.54	9.49	9.65	8.15	8.09	7.88
20	4.35	4.34	3.95	6.39	7.43	8.50	8.52	9.52	9.62	8.11	8.07	7.88
21	4.30	4.32	3.94	6.50	7.46	8.46	8.52	9.59	9.61	8.09	8.02	7.85
22	4.29	4.30	3.93	6.61	7.50	8.44	8.51	9.68	9.60	8.08	8.00	7.84
23	4.28	4.28	3.94	6.68	7.71	8.45	8.51	9.74	9.58	8.06	7.98	7.82
24	4.26	4.24	3.95	6.78	8.02	8.43	8.48	9.76	9.55	8.05	7.95	7.80
25	4.25	4.24	4.24	6.80	8.15	8.42	8.42	9.77	9.52	8.04	7.93	7.78
26	4.25	4.22	4.28	6.86	8.34	8.40	8.43	9.80	9.49	8.02	7.92	7.77
27	4.22	4.24	4.30	6.91	8.52	8.55	8.40	9.82	9.32	8.00	7.94	7.75
28	4.16	4.21	4.35	6.92	8.58	8.58	8.39	9.83	9.10	8.00	7.90	7.75
29	4.12	4.23	4.36	6.97	8.64	8.66	8.38	9.83	8.90	8.00	7.89	7.75
30	4.10	4.20	4.38	6.98	-	8.68	8.50	9.84	8.75	8.00	7.88	7.75
31	4.09	-	4.40	7.00	-	8.68	-	9.83	-	7.99	8.22	-

Note.- Add 60 feet to obtain elevation above mean sea level.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Boeuf River near Girard, La.

Location.- Wire-weight gage, lat. 32°28'50", long. 91°47'55", on line between sec. 1, T. 17 N., R. 6 E., and sec. 6, T. 17 N., R. 7 E., at bridge on U. S. Highway 80, 200 feet upstream from Illinois Central Railroad bridge, 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). Prior to July 11, 1944, staff gage at site 200 feet downstream at same datum.

Records available.- October 1938 to September 1944 in reports of Geological Survey. Daily gage heights as follows: 1888 to 1894 in reports of U. S. Weather Bureau; September 1925 to December 1931 (unpublished) in files of Corps of Engineers, U. S. Army; January 1932 to September 1944 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge during year, 2,540 second-feet Apr. 11, 12 (gage height, 18.00 feet, affected by backwater from Ouachita River); minimum, 30 second-feet Nov. 4, 5; minimum gage height, 0.95 foot July 28 to Aug. 2, Aug. 18, 19.

1938-44: Maximum discharge, 2,730 second-feet Apr. 19, 1942; maximum gage height, that of Apr. 11, 12, 1944; minimum discharge, 30 second-feet Oct. 28 to Nov. 7, 1939, Nov. 4, 5, 1943; minimum gage height, 0.90 foot at times in 1939, 1940.

Maximum stage known, 29.5 feet May 7, 1927 (affected by overflow from Mississippi River).

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Gage-height record and two discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	36	70	140	619	1,930	2,090	1,800	1,410	158	75	170
2	45	36	70	245	563	1,950	2,160	1,950	1,350	146	81	182
3	42	32	70	362	635	2,020	2,260	2,090	1,270	134	87	194
4	38	30	70	535	507	2,120	2,320	2,270	1,190	128	87	194
5	35	30	70	633	493	2,160	2,360	2,460	1,100	123	87	194
6	33	34	70	675	703	2,240	2,380	2,430	1,030	111	87	170
7	33	40	70	689	878	2,240	2,420	2,300	970	99	81	152
8	33	36	70	689	966	2,270	2,450	2,190	895	99	75	140
9	33	36	70	689	1,040	2,240	2,490	2,090	855	93	81	123
10	33	39	70	675	1,070	2,240	2,510	2,020	815	87	81	123
11	33	43	70	661	1,100	2,160	2,540	1,970	780	93	87	128
12	35	45	64	647	1,120	2,120	2,540	1,920	740	99	87	123
13	43	48	83	675	1,140	2,020	2,510	1,900	715	99	87	111
14	41	50	62	703	1,150	1,900	2,470	1,870	680	99	87	105
15	36	53	58	816	1,170	1,790	2,400	1,850	650	87	87	111
16	36	57	56	891	1,190	1,630	2,320	1,820	600	93	87	117
17	34	61	58	951	1,190	1,460	2,220	1,730	568	93	87	117
18	34	64	57	996	1,170	1,310	2,140	1,640	527	93	81	117
19	34	64	56	1,030	1,170	1,220	2,020	1,510	495	87	70	111
20	34	70	53	1,060	1,100	1,170	1,950	1,390	463	87	75	99
21	34	70	54	1,070	1,030	1,170	1,870	1,310	420	87	75	99
22	34	70	54	1,070	1,120	1,190	1,800	1,370	387	87	81	93
23	34	70	58	1,060	1,330	1,220	1,780	1,470	353	81	111	93
24	38	70	70	1,030	1,460	1,260	1,750	1,510	319	81	111	93
25	34	70	99	981	1,570	1,280	1,730	1,510	297	81	117	93
26	34	70	99	936	1,630	1,280	1,730	1,470	258	81	123	87
27	34	70	117	876	1,720	1,370	1,730	1,470	219	81	128	81
28	34	75	140	801	1,790	1,570	1,750	1,450	206	75	134	75
29	35	75	146	745	1,830	1,900	1,750	1,450	194	75	140	93
30	35	70	146	703	-	2,040	1,780	1,450	170	75	140	87
31	35	-	140	647	-	2,090	-	1,450	-	75	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,115	51	33	36.0	2,210
November	1,614	75	30	53.8	3,200
December	2,420	146	53	78.1	4,800
Calendar year 1943	127,405	1,720	30	349	252,700
January	23,681	1,070	140	764	46,970
February	32,452	1,830	493	1,119	64,370
March	54,510	2,270	1,170	1,758	108,100
April	64,220	2,540	1,730	2,141	127,400
May	55,110	2,460	1,310	1,778	109,530
June	19,826	1,410	170	664	39,520
July	2,987	158	75	96.4	5,920
August	2,975	158	70	96.0	5,900
September	3,675	194	81	122	7,290
Water year 1943-44	264,685	2,540	30	723	525,000

Note.- Stage-discharge relation affected by backwater from Ouachita River Apr. 3 to June 24; discharge computed from loop curve based on 3 discharge measurements.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou La Fourche near Crew Lake, La.

Location.- Water-stage recorder, lat. 32°29'55", long. 91°55'05", in SW¼ sec. 36, T. 18 N., R. 5 E., at bridge on U. S. Highway 80, 1.1 miles upstream from Illinois Central Railroad bridge and 2½ miles west of town 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). Prior to Aug. 11, 1944, staff gage at same site and datum.

Records available.- December 1938 to September 1944.

Extremes.- Maximum discharge during year, 8,480 second-feet May 6, 7 (gage height, 7.7 feet); minimum, 6.4 second-feet Aug. 1-7.
1938-44: Maximum discharge, 9,230 second-feet Apr. 12, 1942 (gage height, 7.90 feet); minimum, 1 second-foot on many days.
Maximum stage known, 9.30 feet in December 1931, from floodmark; a discharge of 17,000 second-feet was measured on Dec. 24, 1931, at a stage of 9.22 feet (from reports of Corps of Engineers, U. S. Army).

Remarks.- Records fair except those for October to December, June, and July, which are poor. Gage read twice daily.

Cooperation.- Gage-height record and one discharge measurement furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	14	-	175	370	6,750	7,610	4,020	1,710		6.4	107
2	23	14	-	190	320	6,750	7,180	4,360	1,530		ae.4	123
3	23	14	-	280	300	6,750	7,610	5,100	1,370		ae.4	136
4	23	14	-	345	280	6,330	8,040	5,910	-		ae.4	136
5	22	13	-	470	260	6,330	8,040	6,750	-		ae.4	129
6	22	14	-	470	241	6,330	8,040	8,480	-		6.4	118
7	22	-	-	470	223	6,330	8,040	8,480	-		6.4	106
8	22	-	-	580	206	6,330	8,040	8,040	-		7.8	87
9	22	-	-	520	400	5,910	8,040	7,610	-		9.3	68
10	17	-	-	470	580	5,500	8,040	7,180	-		9.3	51
11	14	-	-	430	830	5,100	8,040	6,750	-		8.1	41
12	13	-	-	400	950	4,720	8,040	6,330	-		7.5	36
13	14	-	-	400	950	4,360	7,180	5,100	-		7.5	30
14	17	-	-	430	950	4,020	6,750	4,720	-		9.6	24
15	17	-	-	580	1,370	3,400	6,330	4,020	-		9.2	19
16	16	-	-	650	1,530	2,830	5,910	3,700	-		9.3	17
17	16	-	-	830	1,530	2,330	5,500	3,400	-		8.6	14
18	16	-	-	950	1,530	1,710	5,100	3,110	-		7.5	13
19	15	-	-	1,080	1,530	1,530	4,720	2,330	124		8.1	12
20	15	-	-	1,220	1,370	1,530	4,360	1,900	113		9.3	11
21	15	-	-	1,370	1,370	1,530	4,020	2,110	103		9.3	11
22	15	t23	t27	1,530	1,220	1,220	4,020	2,330	93		9.2	10
23	15	-	-	1,370	1,530	1,370	3,700	2,570	84		8.6	9.5
24	15	-	-	1,220	1,900	1,530	3,700	2,830	75		7.8	8.7
25	14	-	-	950	2,330	1,710	3,700	3,110	-		7.2	8.2
26	14	-	124	830	2,830	1,710	3,400	2,570	-		9.7	8.1
27	14	-	161	730	4,020	1,900	3,400	2,330	-		24	8.1
28	15	-	148	650	5,500	3,110	3,400	2,330	-		49	8.2
29	15	-	148	520	5,500	4,360	3,400	2,110	-		68	9.2
30	14	-	161	470	-	5,500	3,700	2,110	-		76	9.3
31	14	-	175	400	-	6,750	-	1,900	-		88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	532	23	13	17.2	1,060
November.....	-	-	13	421	1,250
December.....	-	175	-	451	5,140
Calendar year 1943	-	2,130	3.0	296	214,600
January.....	20,960	1,530	175	677	41,610
February.....	41,920	5,500	206	1,446	83,150
March.....	125,530	6,750	1,220	4,049	249,000
April.....	177,050	8,040	3,400	5,902	351,200
May.....	133,590	8,480	1,900	4,309	265,000
June.....	-	1,710	-	4431	25,650
July.....	-	-	-	d14	861
August.....	511.7	88	6.4	16.5	1,010
September.....	1,367.3	136	8.1	45.6	2,710
Water year 1943-44	-	8,480	6.4	1,413	1,028,000

† Result of discharge measurement.
a No gage-height record; discharge interpolated.
d Doubtful or no gage-height record during all or part of month; monthly discharge computed on basis of available daily records, discharge measurements, and records for stations on nearby streams.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tensas River at Tendal, La.

Location.- Wire-weight gage, lat. 32°25'55", long. 91°22'00", in NW¼ sec. 29, T. 17 N., R. 11 E., at bridge on U. S. Highway 80 at Tendal, 200 feet upstream from Illinois Central Railroad bridge 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). Prior to July 11, 1944, staff gage at site 1,000 feet upstream at same datum.

Records available.- October 1938 to September 1944 in reports of Geological Survey. December 1935 to September 1938 in reports of Corps of Engineers, U. S. Army. Daily gage heights, October 1938 to September 1944 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum daily discharge during year, 2,270 second-feet Mar. 31; maximum gage height, 21.50 feet Apr. 1; minimum discharge, about 4 second-feet in October. 1938-44: Maximum discharge observed, 2,440 second-feet July 15, 1940; maximum gage height, that of Apr. 1, 1944; minimum, 4 second-feet Sept. 2, 3, 1941, and in August, September, and October 1943. Maximum stage known, 34.02 feet May 15, 1927 (affected by overflow from Mississippi River).

Remarks.- Records poor. Gage read twice daily.

Cooperation.- Gage-height record and 2 discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	-	28	d46	d1,400	2,180	533	-	-	+11	12
2		-	-	206	d42	d1,200	2,100	503	-	37	d20	12
3		-	-	356	d38	d1,000	2,040	518	-	36	22	12
4		-	-	414	d34	d900	1,870	1,340	-	33	21	13
5		-	-	396	31	d750	1,820	1,790	-	32	21	13
6		-	-	358	36	d650	1,790	2,010	162	30	21	12
7		-	-	344	34	d550	d1,700	2,040	142	29	20	12
8		-	-	304	33	443	d1,600	1,930	132	29	19	12
9		7	-	253	37	d390	d1,600	1,870	122	29	19	12
10		16	-	229	44	d320	d1,500	d1,700	112	26	19	13
11		24	-	217	43	d260	1,410	d1,600	103	26	16	13
12		27	-	253	41	d220	1,320	d1,400	94	25	16	13
13		-	-	278	47	195	1,280	d1,300	-	24	16	13
14		-	-	d340	59	162	1,230	d1,200	-	24	17	13
15		-	-	d420	59	152	1,210	d1,100	-	24	16	14
16		-	-	d500	63	142	1,120	d950	-	23	16	14
17		-	-	d550	67	127	1,100	d850	-	22	16	14
18		-	-	d550	63	127	1,040	d750	-	21	15	13
19		-	-	d500	63	229	1,020	d650	-	-	16	12
20		-	-	d440	67	317	982	596	-	-	16	13
21		-	-	d360	76	400	970	533	-	-	14	12
22		-	-	304	90	443	798	473	-	-	13	13
23		-	-	265	132	533	870	445	-	-	13	12
24	†4	-	-	229	1,040	518	834	440	-	-	13	13
25		†7	-	162	1,540	473	798	440	-	-	13	11
26		-	†36	d120	1,640	400	763	460	†29	-	12	10
27		-	-	d95	1,640	518	729	460	-	-	13	9
28		-	-	d80	1,610	1,280	695	440	-	-	13	8
29		-	-	d55	d1,500	2,180	612	420	-	-	13	9
30		-	27	d55	-	2,240	596	380	-	-	12	9
31		-	26	d50	-	2,270	-	340	-	-	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	-	-	-	44.5	278
November.....	-	-	-	49	536
December.....	-	-	-	d12	738
Calendar year 1943.....	-	1,110	-	103	74,530
January.....	8,714	550	28	281	17,280
February.....	10,215	1,640	31	352	20,260
March.....	20,779	2,270	127	670	41,210
April.....	37,477	2,180	596	1,249	74,330
May.....	29,459	2,040	340	950	58,430
June.....	-	-	-	d94	5,590
July.....	-	-	-	d22	1,350
August.....	494	22	11	15.9	980
September.....	361	14	8	12.0	716
Water year 1943-44.....	-	2,270	4	305	221,700

† Result of discharge measurement.
d Doubtful gage-height record; discharge computed on basis of precipitation records and records for Bayou Macon near Delhi and Bayou Bartholomew near Beckman.

Note.- Backwater from tributary inflow or return of overbank flow Mar. 29 to Apr. 20; discharge computed from rating curve based on 4 discharge measurements.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Macon near Delhi, La.

Location.- Wire-weight gage, lat. 32°27'20", long. 91°26'30", in SE¼ sec. 13, T. 17 N., R. 10 E., at bridge on U. S. Highway 80, 150 feet upstream from Illinois Central Railroad bridge 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). Prior to July 12, 1944, staff gage at site 150 feet downstream at same datum.

Records available.- October 1932 to September 1944 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 U. S. Weather Bureau; September 1925 to December 1931 (unpublished) in files of Corps of Engineers, U. S. Army; January 1932 to September 1944 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum daily discharge during year, 4,420 second-feet Mar. 30, 31; maximum gage height, 21.55 feet Apr. 2; minimum discharge, 58 second-feet Dec. 20-21.
1938-44: Maximum discharge, 5,330 second-feet Apr. 13, 14, 1942 (gage height, 21.95 feet), from rating curve extended above 3,500 second-feet; minimum, 47 second-feet Sept. 28, 29, 1939.
Maximum stage known, 34.6 feet May 10, 11, 1927 (affected by overflow from Mississippi River).

Remarks.- Records fair. Gage read twice daily.

Cooperation.- Gage-height record and two discharge measurements furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	67	67	95	245	3,700	4,340	3,010	2,140	598	233	195
2	90	67	67	430	233	3,620	4,200	2,840	2,010	572	233	195
3	95	67	67	476	233	3,500	3,940	2,840	1,920	540	220	195
4	85	62	67	508	245	3,260	3,820	3,340	1,820	524	220	195
5	85	62	62	476	328	3,010	3,660	4,240	1,770	508	220	207
6	95	67	62	430	492	2,800	3,580	4,240	1,690	476	207	207
7	85	90	62	370	604	2,580	3,500	4,160	1,660	445	207	207
8	80	80	62	328	620	2,430	3,460	3,980	1,600	430	207	207
9	72	76	62	286	652	2,260	3,460	3,860	1,570	415	207	195
10	72	76	62	246	620	2,140	3,460	3,740	1,540	400	207	195
11	72	76	62	220	604	1,980	3,460	3,660	1,490	385	233	195
12	72	80	62	195	620	1,900	3,420	3,540	1,450	385	207	195
13	80	80	62	300	636	1,820	3,420	3,500	1,400	385	195	195
14	76	80	62	328	684	1,730	3,360	3,360	1,350	370	195	195
15	76	80	62	445	700	1,660	3,360	3,340	1,320	370	183	195
16	72	80	62	604	764	1,590	3,380	3,120	1,260	356	171	195
17	72	80	62	732	828	1,520	3,380	2,870	1,210	342	171	195
18	67	76	62	796	860	1,450	3,340	2,670	1,160	328	171	195
19	67	76	62	796	876	1,600	3,260	2,520	1,120	328	159	195
20	67	76	59	780	908	1,730	3,180	2,370	1,050	314	159	195
21	67	76	58	716	908	1,820	3,180	2,310	1,000	300	159	195
22	72	76	58	636	940	1,860	3,340	2,640	940	300	159	195
23	72	72	62	556	1,440	1,820	3,500	3,080	892	286	159	195
24	72	72	72	476	2,010	1,770	3,620	3,460	860	286	171	195
25	72	67	105	400	2,580	1,690	3,700	3,420	828	272	171	183
26	67	67	95	356	3,040	1,600	3,740	3,300	780	272	183	183
27	62	67	85	314	3,300	1,790	3,700	3,120	732	259	183	183
28	62	67	95	286	3,540	2,550	3,580	2,870	684	259	183	171
29	62	67	85	259	3,700	3,940	3,460	2,730	652	246	183	171
30	62	67	85	259	-	4,420	3,220	2,460	636	246	183	171
31	62	-	85	245	-	4,420	-	2,260	-	246	183	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,292	95	62	73.9	4,550
November	2,186	80	62	72.9	4,340
December	2,141	105	58	69.1	4,250
Calendar year 1943	148,759	2,740	58	408	295,100
January	13,345	796	95	430	28,470
February	33,212	3,700	233	1,145	66,880
March	73,960	4,420	1,450	2,386	146,700
April	106,060	4,340	3,180	3,555	210,400
May	98,870	4,240	2,260	3,189	196,100
June	38,534	2,140	636	1,284	76,430
July	11,433	539	246	268	22,680
August	5,922	233	159	191	11,750
September	5,790	207	171	193	11,480
Water year 1943-44	393,745	4,420	58	1,076	781,000

Note.- Backwater from return of overbank flow Mar. 30 to Apr. 21, May 5-14; discharge computed from backwater curves based on 4 discharge measurements.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Dugdemona River near Jonesboro, La.

Location.— Water-stage recorder, lat. 32°13', long. 92°48', in sec. 8, T. 14 N., R. 4 W., at bridge on State Highway 13, 2 miles downstream from Potts Creek and Big Creek and 6 miles southwest of Jonesboro.

Drainage area.— 351 square miles.

Records available.— October 1938 to September 1944.

Extremes.— Maximum discharge during year, 7,820 second-feet Feb. 28 (gage height, 15.52 feet); minimum, 1.5 second-feet (regulated) Oct. 7 (gage height, 3.37 feet).
1938-44: Maximum discharge, 16,600 second-feet May 19, 1942 (gage height, 17.64 feet); minimum, 1.0 second-foot (regulated) Aug. 17, 1943; minimum gage height, 3.09 feet Sept. 21, 1939.

Remarks.— Records good except those below 4 second-feet, which are poor. Water used by paper mill at Hodge is pumped from wells and discharged into stream about 7 miles above station. Part of effluent is discharged continually whenever mill is operating but that containing waste material is stored in a reservoir and released whenever river flow is sufficient to materially dilute it.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 13)

3.4	1.3	5.0	57	10.0	490	13.0	2,550
3.5	2.6	6.0	109	10.5	635	14.0	4,150
3.6	4.9	7.0	164	11.0	840	15.0	6,380
3.8	11	8.0	226	11.5	1,120	15.2	6,940
4.0	17	9.0	321	12.0	1,490		
4.5	35	9.5	390	12.5	1,950		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	4.1	5.8	26	241	3,620	3,290	617	378	8.4	5.8	60
2	6.4	5.2	5.8	36	258	2,290	2,060	1,850	375	8.4	5.2	87
3	5.4	4.9	5.6	82	241	1,750	1,570	5,380	298	7.8	7.8	153
4	4.1	4.3	6.0	126	219	1,330	1,330	6,940	206	7.5	9.2	200
5	3.7	3.3	6.2	142	206	1,060	1,060	6,940	126	5.5	8.1	182
6	3.3	4.3	6.7	148	249	840	890	5,850	82	2.3	7.2	98
7	1.9	7.6	6.9	98	258	670	790	4,340	63	3.1	6.9	47
8	3.5	7.8	6.2	74	241	515	670	2,690	50	7.5	6.9	56
9	4.1	7.4	5.8	67	212	390	515	1,850	43	7.8	7.5	101
10	4.1	6.7	6.0	65	206	321	405	1,260	35	7.8	7.5	72
11	4.1	5.6	6.4	64	233	277	361	940	20	7.2	7.8	42
12	4.1	4.9	6.0	72	277	233	347	710	20	6.9	7.2	27
13	5.4	4.7	6.0	160	298	212	347	515	21	6.9	6.4	20
14	6.2	5.4	6.0	277	309	200	347	361	22	7.5	6.9	17
15	5.8	5.6	5.8	375	347	188	309	258	22	7.8	7.5	15
16	5.2	6.7	5.4	490	390	176	241	290	24	7.8	7.2	14
17	5.2	6.7	5.8	600	405	159	194	182	33	6.8	7.8	13
18	5.4	6.2	5.8	710	425	148	153	153	35	6.9	7.8	12
19	5.2	5.6	5.8	750	445	246	131	128	28	7.8	7.2	11
20	4.9	5.4	5.8	710	405	465	109	171	21	8.4	7.8	10
21	4.9	5.6	5.8	670	347	710	93	241	17	7.5	8.4	9.0
22	4.9	5.4	5.8	570	321	940	87	432	15	7.2	6.9	8.4
23	4.5	5.4	9.0	445	375	1,110	98	825	13	7.2	7.5	7.2
24	4.7	5.2	12	334	575	1,150	112	1,260	12	6.6	7.5	7.2
25	5.2	4.9	18	249	925	1,060	98	1,330	12	6.6	7.5	6.6
26	4.9	5.2	20	200	2,020	890	90	1,330	12	6.4	7.8	6.4
27	4.5	4.9	15	164	3,660	750	90	1,120	11	6.1	7.2	6.6
28	4.5	5.2	12	148	6,940	827	77	840	9.8	6.1	6.9	7.8
29	4.7	6.0	24	148	6,110	2,020	66	570	10	6.1	6.9	8.4
30	4.3	6.0	31	170	-	3,970	223	405	9.2	6.6	8.7	8.1
31	3.9	-	27	206	-	4,940	-	347	-	6.9	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acres-feet
October	147.8	8.8	1.9	4.77	0.014	0.02	293
November	166.2	7.8	3.3	5.54	.016	.02	330
December	299.4	31	5.4	9.66	.028	.03	594
Calendar year 1943	26,845.4	1,240	1.9	73.5	.209	2.86	53,260
January	8,376	750	26	270	.769	.89	16,810
February	27,138	6,940	208	936	2.67	2.88	53,830
March	33,507	4,940	148	1,081	3.08	3.55	66,460
April	16,153	3,290	66	538	1.53	1.71	32,040
May	50,035	6,940	128	1,614	4.60	5.30	99,240
June	2,020.0	375	9.2	67.3	.192	.21	4,010
July	213.2	8.4	2.3	6.88	.020	.02	423
August	254.0	33	5.2	8.19	.023	.03	504
September	1,312.7	200	6.4	43.8	.125	.14	2,600
Water year 1943-44	139,622.3	6,940	1.9	381	1.09	14.80	276,900

Peak discharge.— Feb. 28 (8 p.m.) 7,820 sec.-ft.; Mar. 31 (7 a.m.) 5,380 sec.-ft.; May 4 (10 p.m.) 7,520 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Dugdemona River near Winnfield, La.

Location.- Wire-weight gage, lat. 31°58', long. 92°39', in sec. 34, T. 12 N., R. 3 W., at bridge on U. S. Highway 167, 300 feet upstream from Chicago & Rock Island Railroad bridge, 4 miles north of Winnfield, and 7 miles downstream from Big Creek. Datum of gage is 81.14 feet above mean sea level (Louisiana Geodetic Survey bench mark).

Drainage area.- 659 square miles.

Records available.- April 1939 to September 1944.

Extremes.- Maximum discharge during year, 12,700 second-feet May 6 (gage height, 19.79 feet); minimum, 3.9 second-feet Oct. 11; minimum gage height, 1.61 feet July 13, 1939-44; Maximum discharge, 13,900 second-feet May 21, 1942 (gage height, 20.10 feet); minimum, 1.4 second-feet Aug. 24-26, 1943 (gage height, 1.33 feet).

Remarks.- Records good. Gage read twice daily. Water used by paper mill at Hodge is pumped from wells and discharged into stream about 30 miles above station. Part of effluent is discharged continually whenever mill is operating but that containing waste material is stored in a reservoir and released whenever river flow is sufficient to materially dilute it.

Discharge in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	5.3	5.6	61	606	4,800	4,520	812	1,360	9.5	4.8	108
2	18	5.5	5.8	136	552	7,250	5,650	1,980	1,230	11	5.2	114
3	23	6.8	5.8	220	503	5,870	5,240	5,110	1,060	9.1	9.3	204
4	17	6.8	5.8	309	455	4,520	4,350	8,590	880	8.7	14	228
5	11	6.8	6.0	347	431	3,470	3,340	11,200	725	9.7	10	188
6	8.7	7.8	6.0	337	431	2,710	2,710	12,700	606	10	13	166
7	7.0	12	6.2	291	409	2,980	2,280	11,500	503	9.7	16	173
8	6.4	12	6.7	282	398	1,960	1,960	9,300	357	10	34	188
9	5.3	14	7.1	245	431	1,720	1,720	6,940	204	9.3	26	166
10	4.3	16	7.8	237	479	1,420	1,520	4,870	126	7.5	16	120
11	4.1	18	9.0	237	491	1,300	1,300	3,600	84	6.1	12	78
12	4.5	14	9.4	246	491	1,350	1,160	2,710	75	5.0	10	78
13	6.2	11	11	409	479	940	1,000	2,220	64	4.7	8.7	90
14	5.8	10	15	592	515	750	860	1,880	46	6.5	9.9	72
15	5.7	7.8	15	840	680	620	710	1,620	32	9.9	9.5	51
16	6.0	7.6	14	1,030	725	303	606	1,340	26	8.1	8.5	36
17	6.8	7.3	12	1,100	780	409	527	1,100	24	7.2	6.8	25
18	7.0	6.7	11	1,190	800	347	479	790	25	6.8	6.8	19
19	6.8	6.2	11	1,230	800	620	431	650	27	8.3	7.7	16
20	6.6	5.8	11	1,180	760	930	377	539	26	7.5	8.3	14
21	5.7	5.6	d11	1,160	760	1,100	309	515	32	7.9	8.1	13
22	5.3	5.6	d11	1,060	760	1,130	246	772	34	7.5	7.2	12
23	5.3	5.6	11	940	800	1,290	220	1,200	30	6.8	6.1	11
24	5.3	5.8	14	900	980	1,350	196	1,340	25	6.5	5.8	9.9
25	5.3	5.8	23	860	1,200	1,340	196	1,340	19	6.5	6.5	9.1
26	5.1	5.6	41	820	1,420	1,300	204	1,420	16	6.5	7.5	8.3
27	5.3	5.8	66	800	1,720	1,300	212	1,480	14	6.0	7.2	7.5
28	5.3	5.6	90	725	1,960	1,340	180	1,480	13	5.8	6.5	7.0
29	5.5	5.8	102	680	2,220	1,320	162	1,480	11	5.5	8.7	9.5
30	5.3	5.8	96	710	-	2,350	190	1,620	10	5.2	14	7.9
31	5.3	-	78	725	-	3,740	-	1,460	-	5.1	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	229.9	23	4.1	7.42	0.011	0.01	456
November	244.4	18	5.3	8.15	.012	.01	486
December	724.2	102	5.6	23.4	.036	.04	1,440
Calendar year 1943	45,127.3	1,130	1.4	124	.188	2.54	89,520
January	19,890	1,230	61	642	.974	1.12	39,450
February	23,036	2,220	398	794	1.20	1.30	45,690
March	61,359	7,250	347	1,981	3.01	3.46	121,800
April	42,845	5,650	152	1,429	2.17	2.42	84,980
May	103,428	12,700	515	3,336	5.06	5.84	205,100
June	7,684	1,360	10	256	.388	.43	15,240
July	233.9	11	4.7	7.55	.011	.01	464
August	365.1	51	4.8	11.8	.018	.02	724
September	2,229.2	228	7.0	74.3	.113	.13	4,420
Water year 1943-44	266,308.7	12,700	4.1	717	1.09	14.79	520,200

d Doubtful gage-height record; discharge interpolated.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Castor near Grayson, La.

Location.- Wire-weight gage, lat. $32^{\circ}04'55''$, long. $92^{\circ}12'24''$, in SW $\frac{1}{4}$ sec. 30, T. 13 N., R. 3 E., at bridge on State Highway 110, 6 miles upstream from Bayou Beaucoup and $\frac{1}{2}$ miles northwest of Grayson.

Drainage area.- 270 square miles.

Records available.- May 1940 to September 1944.

Extremes.- Maximum discharge during year, 6,970 second-feet May 5 (gage height, 13.32 feet); no flow Oct. 1, July 13 to Aug. 9, Aug. 20-26.
1940-44: Maximum discharge, 7,980 second-feet May 20, 1942 (gage height, 13.66 feet); no flow at times in 1943, 1944.

Remarks.- Records good above 5 second-feet and poor below. Gage read once daily October to December 31 and twice daily thereafter.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 21 to Dec. 25)

Oct. 1-6					Oct. 7 to Sept. 30						
	0.8	0	2.0	13		0.8	0	2.6	19	9.5	610
	1.0	.3	2.5	25		1.0	.2	3.0	32	10.0	810
	1.2	1.1	3.0	40		1.2	.6	4.0	73	10.5	1,110
	1.4	3.0	4.0	82		1.4	1.2	5.0	127	11.0	1,570
	1.6	5.9	5.0	130		1.6	2.1	6.0	192	11.5	2,410
						1.8	3.5	8.0	351	12.0	3,520
						2.2	9.9	9.0	494	13.2	6,690

Discharge, in second-feet, water year October 1943 to September 1944												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.2	5.4	192	68	1,570	2,620	407	55	d0.4	0	4.9
2	13	2.8	6.5	315	98	1,270	1,570	860	13	.8	0	26
3	50	2.4	5.3	371	121	1,040	1,190	2,840	12	1.1	0	35
4	91	4.5	8.3	361	133	810	975	5,810	8.2	1.0	0	45
5	110	7.8	5.4	342	127	610	760	6,690	7.4	.8	0	73
6	130	11	5.4	324	88	494	610	4,520	6.9	.4	0	109
7	115	22	5.2	307	68	394	494	2,410	8.6	.3	0	93
8	59	55	6.9	307	68	333	421	1,460	11	d.2	0	64
9	11	53	8.4	307	124	267	371	1,110	26	.2	0	18
10	4.6	30	9.7	307	139	185	315	860	9.3	.1	24	d6.0
11	3.3	18	11	283	127	127	259	640	2.0	.1	22	3.8
12	2.0	14	13	267	98	73	199	515	2.3	d.1	5.2	2.9
13	2.7	14	14	283	98	55	127	394	2.6	0	1.3	d2.5
14	2.4	18	14	136	139	47	88	324	3.3	0	.8	2.2
15	7.3	17	17	537	213	39	73	267	3.7	0	d.6	1.4
16	8.2	16	17	610	228	39	55	158	2.9	0	.5	.9
17	3.5	12	15	675	220	35	43	75	2.7	0	.3	.4
18	2.4	11	13	675	213	43	30	30	1.9	0	d.2	4.0
19	2.0	7.8	12	675	220	235	26	17	2.0	0	.1	.3
20	6.9	4.9	10	640	243	585	34	17	2.1	0	0	d.3
21	7.8	4.6	11	585	283	421	53	32	2.1	0	0	d.2
22	6.9	3.9	10	537	315	421	83	151	1.2	0	0	d.2
23	6.2	3.1	11	455	315	585	133	299	.8	0	0	d.2
24	6.7	2.9	25	394	382	610	186	220	.6	0	0	d.2
25	5.3	2.6	45	342	537	640	139	199	.5	0	0	d.1
26	5.3	2.6	88	283	760	585	109	192	.4	0	0	d.1
27	6.2	2.9	104	220	975	515	83	185	.4	0	1.8	d.1
28	4.7	3.6	127	145	1,360	560	64	178	.3	0	1.3	d.1
29	3.8	5.0	151	83	1,570	915	47	173	d.2	0	.8	.1
30	3.1	5.2	171	68	-	1,460	115	145	d.2	0	.6	.1
31	2.4	-	185	64	-	3,060	-	133	-	0	2.6	

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.2	5.4	192	68	1,570	2,620	407	55	d0.4	0	4.9
2	13	2.8	6.5	315	98	1,270	1,570	860	13	.8	0	26
3	50	2.4	5.3	371	121	1,040	1,190	2,840	12	1.1	0	35
4	91	4.5	5.3	361	133	810	975	5,310	8.2	1.0	0	45
5	110	7.8	5.4	342	127	610	760	6,690	7.4	.8	0	73
6	130	11	5.4	324	88	494	610	4,520	6.9	.4	0	109
7	115	22	5.2	307	68	394	494	2,410	8.6	.3	0	93
8	59	55	6.9	307	68	333	421	1,460	11	d.2	0	64
9	11	53	8.4	307	124	267	371	1,110	26	.2	0	18
10	4.6	30	9.7	307	139	185	315	860	9.3	.1	24	d6.0
11	3.3	18	11	283	127	127	259	640	2.0	.1	22	3.8
12	2.0	14	13	267	98	73	199	515	2.3	d.1	5.2	2.9
13	2.7	14	14	283	98	55	127	394	2.6	0	1.3	d2.5
14	2.4	18	14	136	139	47	88	324	3.3	0	.8	2.2
15	7.3	17	17	537	213	39	73	267	3.7	0	d.6	1.4
16	8.2	16	17	610	228	39	55	158	2.9	0	.5	.9
17	3.5	12	15	675	220	35	43	73	2.7	0	.3	.5
18	2.4	11	13	675	213	43	30	1.9	0	d.2	0	.4
19	2.0	7.8	12	675	220	235	26	17	2.0	0	.1	.3
20	6.9	4.9	10	640	243	585	34	17	2.1	0	0	d.3
21	7.8	4.6	11	585	283	421	53	32	2.1	0	0	d.2
22	6.9	3.9	10	537	315	421	83	151	1.2	0	0	d.2
23	6.2	3.1	11	455	315	585	133	299	.8	0	0	d.2
24	6.7	2.9	25	394	382	810	185	220	.6	0	0	d.2
25	5.3	2.6	45	342	537	640	139	199	.5	0	0	d.1
26	5.3	2.6	88	283	760	585	109	192	.4	0	0	d.1
27	6.2	2.9	104	220	975	515	83	185	.4	0	1.8	d.1
28	4.7	3.6	127	145	1,360	560	64	178	.3	0	1.3	d.1
29	3.8	5.0	151	83	1,570	915	47	178	d.2	0	.8	.1
30	3.1	5.2	171	68	-	1,460	115	145	d.2	0	.6	.1
31	2.4	-	185	64	-	3,060	-	133	-	0	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	682.7	130	0	22.0	0.081	0.09	1,350
November	359.8	55	2.2	12.0	0.044	.06	714
December	1,127.5	185	5.2	36.4	.135	.16	2,240
Calendar year 1943	16,107.7	393	0	44.1	.163	2.23	31,940
January	11,315	675	64	365	1.35	1.56	22,440
February	9,330	1,570	68	322	1.19	1.29	18,510
March	18,023	3,060	35	551	2.15	2.48	35,750
April	11,271	2,620	26	376	1.39	1.55	22,360
May	30,814	6,690	17	994	3.68	4.24	61,120
June	189.6	55	.2	6.32	.023	.03	376
July	5.5	1.1	0	.18	.00067	.0008	11
August	62.1	24	0	2.00	.0074	.009	123
September	490.5	109	.1	16.4	.061	.07	973
Water year 1943-44	83,670.7	6,690	0	229	.848	11.53	166,000

d Doubtful gage-height record; discharge interpolated or computed on the basis of rainfall records.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Funny Louis near Trout, La.

Location.- Wire-weight gage, lat. 31°42'58", long. 92°13'20", in SE¼NW¼ sec. 36, T. 9 N., R. 2 E., at bridge on U. S. Highway 84, 0.4 mile downstream from Jumping Gulley Creek, 3 miles northwest of Trout, and about 12 miles upstream from mouth.

Drainage area.- 93.5 square miles.

Records available.- April 1939 to September 1944.

Extremes.- Maximum discharge during year, 1,990 second-feet May 5 (gage height, 15.94 feet); minimum, 0.2 second-foot Sept. 24-27; minimum gage height, 1.04 feet Sept. 26. 1939-44: Maximum discharge, 3,320 second-feet Apr. 9, 1942 (gage height, 16.98 feet); no flow Aug. 20-28, 1943.

Remarks.- Records fair. Gage read twice daily.

Rating table, water year 1943-44 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 29 to Sept. 30)

1.1	0.2	2.5	14	10.0	582
1.3	.7	3.0	27	12.0	696
1.5	1.6	4.0	66	14.0	1,250
1.7	2.9	6.0	199	16.0	2,090
2.0	5.9	8.0	368		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	0.5	1.0	65	63	148	276	18	6.3	0.6	26	35
2	27	.5	.9	271	250	108	530	456	5.4	a.7	13	30
3	16	.5	.9	855	904	59	523	1,160	4.4	a.3	6.9	18
4	6.4	.6	.9	929	744	14	323	1,690	3.9	.9	3.3	8.0
5	3.3	.6	.9	427	255	30	134	1,990	3.4	1.0	5.2	7.6
6	2.1	.6	1.0	116	114	28	78	1,460	3.3	.9	8.7	5.1
7	1.6	4.2	1.3	172	78	75	53	929	2.3	1.9	13	5.3
8	1.5	26	1.4	120	56	78	95	282	2.6	2.6	26	5.9
9	1.1	22	1.4	78	120	56	479	73	3.0	2.0	33	4.0
10	.9	6.9	1.4	63	108	39	457	47	4.2	1.4	27	3.4
11	.8	5.9	1.5	47	68	24	368	39	18	1.0	18	2.6
12	1.4	5.0	1.2	a60	130	21	191	30	20	.8	16	1.8
13	2.0	a4	1.3	a140	363	20	73	21	7.5	.5	10	1.3
14	1.7	a5.5	1.6	542	731	17	45	16	4.2	.6	10	1.0
15	1.4	a3	2.1	1,280	656	15	32	14	5.1	.6	17	.7
16	1.2	2.0	1.8	1,090	417	41	26	12	2.6	.5	6.4	.9
17	.9	1.5	1.8	578	191	78	20	9.8	2.4	.5	4.0	.7
18	.8	1.4	1.9	235	114	316	27	11	2.0	.5	3.0	1.9
19	.7	1.3	2.1	162	162	990	30	15	1.7	.6	2.1	1.2
20	.6	1.2	1.9	90	427	1,170	39	17	1.4	.6	2.5	.7
21	.5	1.1	1.7	53	698	746	78	69	1.0	.9	2.7	.5
22	.5	1.0	1.7	45	596	344	108	387	.3	.6	1.6	.4
23	.4	.9	8.3	41	279	464	309	447	.9	.6	1.2	.3
24	.6	.8	130	30	148	356	255	215	.9	.6	.9	.3
25	.7	.7	239	27	155	134	114	96	.8	.7	1.0	.2
26	.6	.8	247	27	127	116	58	45	.7	.7	1.4	.2
27	.5	.9	155	30	102	321	35	27	.7	.6	1.7	.4
28	.5	1.3	114	78	78	1,020	24	18	.5	.4	1.7	1.8
29	.5	1.2	134	96	141	1,350	17	12	.5	.4	3.0	4.5
30	.5	1.0	84	90	-	1,430	13	9.5	.6	.3	12	3.3
31	.5	-	49	84	-	1,040	-	7.5	-	4.7	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	117.2	40	0.4	3.78	0.040	0.05	232
November	100.9	26	.5	3.36	.036	.04	200
December	1,192.1	247	.9	38.5	.412	.47	2,360
Calendar year 1943	16,429.8	1,690	0	45.0	.491	6.53	32,600
January	7,921	1,280	27	256	2.74	3.15	15,710
February	8,365	964	56	288	3.08	3.33	16,590
March	10,645	1,430	14	343	3.57	4.23	21,110
April	4,810	530	13	160	1.71	1.91	3,540
May	9,642.8	1,990	7.5	311	3.33	3.84	19,130
June	109.8	20	.6	3.66	.039	.04	218
July	29.6	4.7	.3	.955	.010	.01	59
August	311.3	38	.9	10.0	.107	.12	617
September	147.5	35	.2	4.82	.053	.06	293
Water year 1943-44	43,392.2	1,990	.2	119	1.27	17.25	86,060

a No gage-height record; discharge interpolated or computed on basis of weather records.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Big Creek at Pollock, La.

Location.- Water-stage recorder, lat. 31°32'00", long. 92°24'20", in NW¼NE¼ sec. 6, T. 8 N., R. 1 E., at bridge on U. S. Highway 165, a quarter of a mile upstream from Sugar Branch, three-eighths of a mile upstream from Missouri Pacific Railroad bridge, half a mile north of Pollock, five-eighths of a mile upstream from Camp Livingston water-supply diversion dam, and 1½ miles downstream from Dyson Creek. Datum of gage is 76.69 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

Drainage area.- 51.4 square miles.

Records available.- January 1942 to September 1944.

Extremes.- Maximum discharge during year, 865 second-feet May 5 (gage height, 7.71 feet); minimum, 11 second-feet Oct. 12 (gage height, 1.10 feet).
1942-44: Maximum discharge, 4,460 second-feet Apr. 9, 1942 (gage height, 11.82 feet); minimum, 9.8 second-feet Aug. 23, 26-29, 1943; minimum gage height, 1.05 feet Aug. 25, 1943.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	15	15	21	39	33	52	38	25	19	13	111
2	18	16	15	308	36	31	116	208	24	19	17	37
3	16	16	16	285	80	30	203	565	24	18	21	25
4	16	16	16	68	93	30	73	398	23	19	18	21
5	15	15	16	46	49	30	53	732	22	27	16	64
6	13	18	20	37	41	28	45	240	23	21	26	37
7	14	97	22	35	38	27	40	90	27	19	27	25
8	14	48	18	43	39	25	37	67	25	21	16	22
9	13	22	17	41	71	24	76	58	30	19	17	20
10	14	17	16	53	54	24	55	54	27	17	18	19
11	13	15	15	30	41	25	45	49	28	17	22	19
12	12	15	15	38	35	26	36	44	27	16	17	19
13	19	15	15	129	33	25	32	40	25	15	36	18
14	22	15	23	205	170	25	32	37	22	17	36	17
15	15	14	27	459	176	24	34	36	21	19	21	16
16	13	14	19	242	67	24	30	34	21	16	18	16
17	13	13	17	98	58	24	27	31	20	15	16	16
18	13	14	16	61	52	32	27	30	19	14	16	15
19	13	14	16	50	55	285	30	30	19	15	16	16
20	13	14	15	45	70	188	31	46	19	13	16	16
21	13	13	15	41	94	63	232	40	19	13	16	15
22	13	13	15	38	60	78	126	170	19	13	16	15
23	13	13	25	36	48	133	168	151	18	13	16	14
24	16	13	51	35	47	67	97	61	17	14	15	14
25	17	14	78	34	45	48	50	46	17	15	15	14
26	15	14	56	39	42	40	42	40	16	15	14	14
27	15	15	33	70	39	169	37	37	16	15	15	16
28	15	18	34	75	36	181	33	33	16	13	14	18
29	15	19	34	60	35	296	30	30	19	12	60	163
30	15	18	27	60	-	100	33	28	18	13	48	33
31	15	-	23	47	-	63	-	27	-	15	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	465	25	12	15.0	0.292	0.34	922
November	573	97	13	19.1	.372	.41	1,140
December	740	78	15	23.9	.465	.54	1,470
Calendar year 1943	9,365	326	10	25.7	.500	6.78	18,580
January	2,799	459	21	80.3	1.76	2.03	5,550
February	1,743	176	33	60.1	1.17	1.26	3,480
March	2,195	296	24	70.8	1.38	1.59	4,350
April	1,924	232	27	64.1	1.25	1.39	3,820
May	3,490	732	27	113	2.20	2.53	6,920
June	648	30	16	21.6	.420	.47	1,290
July	507	27	12	16.4	.319	.37	1,010
August	722	90	13	23.5	.453	.52	1,430
September	865	163	14	28.8	.560	.63	1,720
Water year 1943-44	16,671	732	12	45.5	.885	12.08	33,080

Peak discharge.- Jan. 15 (2 a.m.) 488 sec.-ft.; Jan. 15 (6 p.m.) 473 sec.-ft.; May 3 (2:30 a.m.) 644 sec.-ft.; May 5 (2 a.m.) 865 sec.-ft.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tangipahoa River at Robert, La.

Location.- Water-stage recorder, lat. 30°30'23", long. 90°21'42", in lot 39 (revised), 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 Chappeeela Creek. Datum of gage is 6.87 feet above mean sea level, datum of 1929, supplementary adjustment of 1941.

Drainage area.- 646 square miles.

Records available.- October 1938 to September 1944.

Extremes.- Maximum discharge during year, 8,860 second-feet Mar. 31 (gage height, 15.55 feet); minimum, 339 second-feet July 31 (gage height, 3.67 feet)
1938-44: Maximum discharge, 35,500 second-feet Mar. 22, 1943 (gage height, 20.87 feet); minimum, 264 second-feet on several days in October 1939; minimum gage height, 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 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	558	375	423	k1,400	1,100	1,030	k6,210	785	558	423	342	678
2	543	384	423	k1,450	971	847	k4,000	738	543	453	360	588
3	513	375	438	k2,530	909	754	k2,370	k910	528	528	363	603
4	498	369	543	k3,270	1,030	708	2,300	k1,670	513	693	387	558
5	468	369	663	k3,070	1,190	663	k1,820	k2,850	528	528	453	528
6	453	366	603	k2,200	1,030	633	k1,440	k5,110	498	453	528	663
7	453	k1,170	528	k1,630	909	618	k1,220	k4,590	483	423	618	k1,140
8	438	k2,930	498	1,870	847	618	1,060	k3,070	468	408	693	k2,230
9	423	3,560	463	1,940	909	588	971	k1,770	453	393	785	k1,880
10	423	k2,590	483	k1,650	1,060	558	878	k1,300	468	390	708	k1,430
11	408	k1,560	453	k1,330	1,060	558	847	1,060	528	408	785	1,290
12	408	k1,070	453	k1,490	1,100	543	815	909	k1,150	498	940	1,030
13	408	847	438	k3,130	940	543	785	816	k1,460	453	785	770
14	423	708	468	k3,690	k1,080	513	754	738	k1,130	453	738	648
15	438	633	785	4,310	k1,790	513	738	678	816	468	678	573
16	423	588	1,310	4,140	2,080	513	708	633	633	468	558	528
17	408	543	1,190	k3,390	k1,810	528	678	603	558	423	483	498
18	393	513	940	k2,370	k1,510	k1,260	648	598	528	384	453	468
19	387	498	755	k1,750	1,290	k2,610	648	573	633	390	438	453
20	384	483	693	k1,430	1,190	k3,330	663	573	693	408	438	453
21	384	483	633	k1,210	k1,530	3,560	693	k945	618	408	453	438
22	381	468	588	1,060	k1,910	k4,910	754	k1,640	528	387	468	438
23	378	453	558	971	k1,780	k6,640	k984	1,720	483	372	438	603
24	375	453	543	878	k1,430	k6,310	k2,010	1,910	453	369	465	573
25	369	438	678	k1,180	k1,170	k4,060	2,520	k1,490	438	360	513	468
26	360	438	k1,700	k2,220	1,100	k2,910	k1,920	k1,070	423	357	603	453
27	357	438	k2,180	2,340	1,100	k1,850	k1,480	847	408	354	633	423
28	357	438	2,220	k1,920	1,100	k2,110	1,250	738	408	348	663	423
29	357	438	2,140	k1,510	1,220	k3,410	1,100	663	423	345	678	423
30	363	438	k2,000	k1,330	-	k5,490	909	618	423	342	573	558
31	363	-	k1,730	1,250	-	8,330	-	588	-	342	708	-

Month	Second-foot-days	Maximum	Minimum	Mean	Persquare mile	Runoff in inches
October.....	12,894	558	357	416	0.644	0.74
November.....	24,416	3,560	366	814	1.26	1.41
December.....	27,570	2,220	423	889	1.38	1.59
Calendar year 1943	431,115	32,300	351	1,181	1.83	24.83
January.....	63,906	4,310	878	2,062	3.19	3.68
February.....	36,135	2,090	847	1,246	1.93	2.08
March.....	67,528	8,330	513	2,178	3.37	3.69
April.....	43,174	6,210	648	1,439	2.23	2.49
May.....	43,193	5,110	573	1,393	2.16	2.49
June.....	17,784	1,460	408	593	.918	1.02
July.....	13,029	693	342	420	.650	.75
August.....	17,748	940	342	572	.985	1.02
September.....	21,799	2,230	423	727	1.13	1.26
Water year 1943-44	369,177	8,330	342	1,063	1.65	22.41

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Tickfaw River at Holden, La.

Location.- Water-stage recorder, lat. 30°30'13", long. 90°40'38" (revised), in sec. 28, T. 6 S., R. 5 E. St. Helena meridian, at bridge on U. S. Highway 190, half a mile west of Holden and 4 miles upstream from Big Hog Branch. Prior to Sept. 13, 1944, wire-weight gage at same site and datum.

Drainage area.- 271 square miles.

Records available.- November 1940 to September 1944.

Extremes.- Maximum discharge during year, 2,340 second-feet Apr. 1 (gage height, 13.4 feet, from graph based on gage readings); minimum, 93 second-feet Nov. 1 (gage height, 3.00 feet).

1940-44: Maximum discharge, 9,680 second-feet Mar. 22, 1943 (gage height, 19.75 feet, from graph based on gage readings), from rating curve extended above 5,800 second-feet; minimum observed, 90 second-feet Oct. 16, 1940; minimum gage height observed, 2.95 feet Oct. 24, 25, 1941.

Remarks.- Records fair except those for periods of doubtful gage-height record, which are poor. Prior to Sept. 13 wire-weight gage read twice daily.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	93	110	399	d260	d220	2,180	161	d150	125	104	181
2	142	98	110	466	d240	d200	1,500	161	d140	151	104	161
3	133	104	110	663	d230	d190	982	161	d140	161	104	142
4	125	104	184	898	d280	d180	679	225	d130	142	110	133
5	125	98	365	890	d340	171	633	400	d130	142	117	125
6	117	123	414	648	d290	171	492	788	d120	142	133	133
7	117	695	247	466	247	161	365	479	d120	133	151	214
8	117	1,050	181	589	225	161	293	401	d120	125	214	458
9	110	1,110	161	603	247	151	258	269	d120	110	341	603
10	110	1,030	150	603	305	151	225	214	d130	117	353	377
11	110	718	142	588	377	142	214	181	d180	117	329	353
12	110	389	133	663	401	142	203	161	d380	117	377	281
13	110	247	125	898	466	142	192	151	d460	117	353	203
14	110	161	142	1,070	505	142	171	161	d360	117	293	171
15	110	151	257	1,320	532	142	171	142	d240	117	281	151
16	110	133	603	1,280	546	142	161	133	d180	117	214	142
17	110	133	532	1,260	532	151	161	133	d150	110	161	133
18	104	133	353	971	518	203	151	125	d140	110	142	125
19	104	125	260	679	518	611	151	125	d260	110	142	125
20	104	125	210	427	532	828	151	125	329	151	142	117
21	104	125	170	377	546	1,050	151	133	317	161	142	117
22	104	125	151	305	588	1,160	225	305	281	142	d140	117
23	104	117	142	247	603	1,720	d360	618	329	125	d150	117
24	104	117	161	236	546	2,080	d500	727	203	117	d150	110
25	104	110	236	236	d400	2,130	d600	618	161	110	d170	110
26	104	110	600	317	d300	1,440	546	d440	151	110	d170	110
27	98	110	1,070	401	d240	916	377	d320	142	104	d150	110
28	98	110	1,210	589	247	532	247	d240	125	104	d130	110
29	98	117	1,070	353	d260	773	214	d200	125	104	133	117
30	98	110	880	317	-	1,160	181	d180	125	104	142	181
31	98	-	560	d280	-	1,600	-	d160	-	104	161	-

Month	Second-foot-days	Maximum	Minimum	Mean	Persquare mile	Runoff in inches
October.....	3,434	142	98	111	0.410	0.47
November.....	7,971	1,110	93	266	.982	1.09
December.....	11,039	1,210	110	356	1.31	1.51
Calendar year 1943.....	144,010	8,900	93	395	1.46	19.75
January.....	18,818	1,320	236	607	2.24	2.58
February.....	11,321	603	225	390	1.44	1.55
March.....	18,962	2,130	142	612	2.26	2.60
April.....	12,704	2,180	151	423	1.56	1.74
May.....	8,637	788	125	279	1.03	1.19
June.....	5,938	460	120	198	.731	.81
July.....	3,816	161	104	123	.464	.52
August.....	5,603	377	104	187	.690	.80
September.....	5,527	603	110	184	.679	.76
Water year 1943-44.....	113,970	2,180	93	311	1.15	15.62

d Doubtful gage-height record; discharge computed on basis of records for Amite River near Denham Springs and Tangipahoa River at Robert.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Amite River near Denham Springs, La.

Location.- Water-stage recorder, lat. 30°27'50", long. 90°59'25", in lot 2 (revised), 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 1944.

Extremes.- Maximum discharge during year, 11,000 second-feet Mar. 23 (gage height, 21.17 feet); minimum, 365 second-feet Oct. 26-31; minimum gage height, 5.09 feet Oct. 29.

1938-44: Maximum discharge, 40,200 second-feet Mar. 23, 1943 (gage height, 28.63 feet); minimum, 279 second-feet Nov. 18, 1938 (gage height, 4.56 feet). Maximum stage known, 35.4 feet Mar. 15, 1921, from floodmark.

Remarks.- Records good.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	398	510	k3,040	1,720	k2,030	k6,430	1,350	835	522	410	810
2	550	398	510	2,750	1,420	k1,460	6,890	1,210	775	510	422	735
3	522	398	k1,020	k4,550	1,320	1,280	k4,600	1,210	730	550	670	840
4	510	398	k5,080	k6,290	1,600	1,140	k3,630	k1,710	715	715	715	780
5	485	398	6,370	k6,640	1,800	1,040	k3,080	k3,540	670	715	722	675
6	472	398	k4,130	gk5,000	1,580	965	k2,210	k4,010	640	805	865	900
7	460	k1,740	k1,780	gk3,170	1,350	895	k1,650	k3,110	610	685	1,020	930
8	460	k7,420	k1,090	k3,630	1,350	955	1,420	k1,990	610	610	1,420	k1,910
9	448	k10,500	865	4,270	1,420	805	1,280	k1,430	730	565	1,680	k3,600
10	448	k8,540	805	k3,260	2,100	805	1,180	1,210	760	510	2,390	k3,160
11	435	k4,850	730	k2,160	2,320	775	1,350	1,040	870	485	1,950	k1,590
12	435	k2,210	685	k2,100	2,000	745	1,240	930	1,460	472	1,830	1,060
13	448	k1,240	655	k3,850	1,560	730	1,070	865	1,640	455	2,270	840
14	472	830	800	k5,750	k1,890	715	1,000	805	1,140	522	2,230	760
15	485	835	k2,460	k7,900	k4,160	700	965	775	965	510	2,190	675
16	485	745	k5,870	k8,920	k5,550	685	895	745	805	485	1,340	630
17	460	715	k2,550	k7,880	k4,560	685	895	715	700	472	930	600
18	435	655	k1,520	k5,510	k2,830	715	835	685	640	472	780	570
19	410	625	1,140	k3,390	k2,050	k2,160	865	670	1,140	g472	705	555
20	410	610	930	k2,130	k2,370	k6,260	1,040	730	1,240	g535	720	540
21	410	g595	835	k1,730	k4,380	k8,520	1,070	k1,600	865	g610	705	528
22	410	565	775	1,490	4,900	k9,650	965	k2,160	760	g565	675	515
23	410	565	730	1,350	k4,110	k10,900	k1,580	k2,760	685	g485	660	515
24	410	550	829	1,240	k2,670	k9,940	k4,600	k5,280	595	g460	645	502
25	398	535	gk4,530	1,280	k1,890	k9,190	k7,020	k4,600	550	g448	938	490
26	385	522	gk8,120	1,840	k1,550	k9,130	k8,660	k2,440	522	g435	1,060	490
27	385	510	gk0,600	1,960	k1,470	k5,560	k7,620	k1,430	510	g422	735	478
28	385	522	gk0,910	2,140	k2,530	k5,570	k4,450	1,140	498	g422	660	478
29	385	510	k7,780	2,230	3,060	k7,910	k2,500	1,040	510	g410	900	585
30	385	510	k6,860	2,410	-	k7,380	k1,670	1,000	510	g410	1,430	930
31	385	-	k6,280	2,280	-	k6,490	-	930	-	410	1,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	13,758	580	385	444	0.334	0.38
November	49,397	10,500	398	1,646	1.24	1.39
December	98,849	10,600	510	3,027	2.28	2.62
Calendar year 1943	800,444	38,400	365	2,193	1.65	22.37
January	112,140	8,920	1,240	3,617	2.72	3.14
February	71,480	5,550	1,320	2,465	1.85	2.00
March	114,685	10,900	685	3,700	2.78	3.21
April	82,660	8,660	835	2,765	2.07	2.31
May	53,110	5,280	670	1,713	1.29	1.49
June	23,560	1,640	498	786	.591	.66
July	16,174	805	410	522	.392	.45
August	34,807	2,390	410	1,123	.844	.97
September	27,661	3,600	478	922	.693	.77
Water year 1943-44	693,291	10,900	385	1,894	1.42	19.38

g Computed from graph based on gage readings.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Comite River near Olive Branch, La.

Location.- Wire-weight gage, lat. 30°45'35", long. 91°02'50", in SW¼NE¼ sec. 25, T. 3 S., R. 2 E. St. Helena meridian, at bridge on State Highway 56, 500 feet downstream from Knighton Bayou and 1.8 miles northeast of Olive Branch. Prior to Aug. 24, 1944, staff gage at same site and datum.

Drainage area.- 149 square miles (revised).

Records available.- August 1942 to September 1944.

Extremes.- Maximum discharge during year, 3,110 second-feet Apr. 24 (gage height, 15.92 feet); minimum, 51 second-feet Oct. 11-13, Oct. 17 to Nov. 2 (gage height, 3.36 feet). 1942-44: Maximum discharge, 12,400 second-feet Feb. 6, 1943 (gage height, 20.6 feet, from graph based on gage readings), from rating curve extended above 6,300 second-feet; minimum, 46 second-feet Aug. 25-27, 31, 1943; minimum gage height, 3.10 feet Sept. 15, Oct. 19-24, 1942.

Remarks.- Records good. Gage read twice daily.

Rating tables, water year 1943-44 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 7												Nov. 8 to Sept. 30											
3.3	47	5.0	180	10.0	1,040	3.5	50	5.5	258	12.0	1,720	3.5	60	5.5	242	12.0	1,560	3.7	65	6.0	333	14.0	2,330
4.0	95	6.0	317	13.0	1,860	4.0	89	7.0	508	15.5	2,890	4.5	136	8.0	715	16.0	2,990	4.5	136	8.0	715	16.0	2,990
4.5	134	8.0	653			5.0	192	10.0	1,190														

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	51	65	168	126	102	168	98	77	98	57	115
2	60	52	65	310	116	98	146	98	73	121	121	146
3	56	53	264	1,400	192	89	414	146	73	116	126	81
4	56	56	527	984	244	89	308	146	73	81	81	73
5	53	53	219	244	157	89	146	330	69	175	77	65
6	53	56	136	180	136	89	126	314	69	121	73	65
7	53	1,750	107	179	146	85	112	146	89	77	89	627
8	52	2,560	94	547	136	85	107	107	69	65	164	1,860
9	52	1,080	89	349	272	77	102	98	65	65	707	733
10	52	180	85	192	287	77	419	94	65	61	210	136
11	51	116	81	146	180	77	201	89	77	61	269	98
12	51	98	77	136	168	81	136	85	98	89	584	89
13	56	85	77	614	136	81	107	81	130	69	572	81
14	74	81	186	1,530	648	77	98	81	85	61	595	73
15	84	77	629	1,370	1,140	77	98	81	77	73	168	73
16	56	73	230	638	427	77	107	77	69	61	98	69
17	51	73	146	272	230	98	89	77	77	57	81	69
18	51	69	116	192	192	317	89	73	69	57	73	65
19	51	69	102	157	305	1,840	192	77	73	65	69	65
20	51	69	94	136	551	2,600	204	146	73	89	69	61
21	51	65	85	126	547	1,840	126	228	69	65	69	65
22	51	65	85	116	272	420	176	220	85	61	85	61
23	51	65	81	107	180	1,340	1,040	963	69	57	73	61
24	51	61	151	107	146	1,400	2,810	357	65	57	140	61
25	51	61	2,050	112	136	426	1,610	146	61	55	81	57
26	51	61	2,230	180	136	204	230	107	61	54	73	57
27	51	61	1,460	180	168	515	180	94	61	54	69	57
28	51	61	939	204	126	780	136	89	57	54	89	98
29	51	65	1,420	470	112	365	116	94	61	53	350	385
30	51	65	585	244	-	650	107	94	65	54	126	388
31	51	-	230	180	-	260	-	61	-	56	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October	1,688	84	51	54.5	0.366	0.42
November	7,131	2,360	51	238	1.60	1.78
December	12,708	2,230	65	410	2.75	3.17
Calendar year 1943	97,152	10,200	46	266	e1.79	e24.25
January	11,770	1,530	107	380	2.55	2.94
February	7,812	1,140	112	269	1.81	1.95
March	14,405	2,600	77	465	3.12	3.60
April	9,900	2,810	99	330	2.21	2.47
May	4,917	963	73	159	1.07	1.23
June	2,214	160	57	73.8	.495	.56
July	2,282	175	53	73.6	.494	.57
August	5,515	707	57	178	1.19	1.38
September	5,934	1,860	57	198	1.33	1.48
Water year 1943-44	86,276	2,810	51	236	1.58	21.54

e Computed on basis of revised drainage area.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

MISSISSIPPI RIVER DELTA

Comite River near Comite, La.

Location.- Wire-weight gage, lat. 30°30'45", long. 91°04'25", in NW¼ sec. 24, T. 6 S., R. 1 E. St. Helena meridian, at bridge on State Highway 877, half a mile downstream from Blackwater Bayou and 2.6 miles west of Comite.

Drainage area.- 332 square miles.

Records available.- March to September 1944.

Extremes.- Maximum discharge during period, 3,440 second-feet Apr. 25 (gage height, 18.12 feet); minimum, 66 second-feet July 31 (gage height, 4.29 feet).

Remarks.- Records good. Gage read twice daily. Records of water analyses March to September 1944 are given in Water-Supply Paper 1022.

Rating table, March to September 1944 (gage height, in feet, and discharge, in second-feet)

4.4	72	7.0	371	14.0	1,990
4.8	100	8.0	541	16.0	2,660
5.2	137	10.0	940	18.0	3,400
6.0	229	12.0	1,410		

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	387	192	127	104	75	158
2						-	297	169	118	92	110	180
3						-	436	180	137	127	576	180
4						-	1,050	204	118	158	208	114
5						-	341	495	109	180	356	109
6						-	255	672	104	158	297	356
7						-	229	371	100	127	137	326
8						-	204	229	104	127	234	1,080
9						-	180	180	326	100	521	2,130
10						-	180	158	192	85	1,240	838
11						-	537	147	298	78	406	255
12						-	356	137	771	78	401	158
13						-	216	127	559	82	615	127
14						-	169	118	242	85	691	114
15						-	169	104	147	88	497	104
16						-	158	104	118	85	216	104
17						-	158	104	104	78	147	92
18						-	147	109	109	78	127	88
19						-	229	109	630	78	118	85
20						-	371	280	322	88	137	82
21						-	326	577	169	104	118	82
22						-	216	436	118	78	114	85
23						-	1,220	1,290	118	82	127	82
24						-	3,010	1,720	96	75	158	82
25						-	3,400	694	92	75	436	78
26						-	2,610	371	92	72	229	75
27						-	766	216	96	72	127	78
28						-	356	192	78	72	109	82
29						-	269	269	92	72	185	224
30						896	229	192	104	66	435	704
31						808	-	158	-	75	180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
October						
November						
December						
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	18,470	3,400	147	616	1.86	2.07
May	10,304	1,720	104	332	1.00	1.15
June	5,780	771	78	193	.581	.65
July	919	180	66	94.2	.284	.33
August	317	1,240	75	301	.907	1.04
September	8,252	2,130	75	275	.828	.92
Water year	-	-	-	-	-	-

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Atchafalaya River at Krotz Springs, La.

Location.- Water-stage recorder, lat. 30°32'48" (revised), long. 91°45'04" (revised), in sec. 7, T. 6 S., R. 7 E. Louisiana meridian, at bridge on U. S. Highway 90, half a mile north of town of Krotz Springs, 0.6 mile upstream from New Orleans, Texas & Mexico Railway bridge, 10 miles upstream from 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, and 0.03 foot below mean sea level, datum 1929, supplementary adjustment of 1941 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1934 to September 1944. Gage height records collected since 1932 at railroad bridge 0.6 mile downstream are contained in reports of Mississippi River Commission; some records prior to that date on file in office of Missouri Pacific Railroad Co.

Average discharge.- 10 years, 135,000 second-feet.

Extremes.- Maximum discharge during year, 447,000 second-feet May 22; maximum gage height, 35.04 feet May 22; minimum discharge, 32,100 second-feet Oct. 29 (gage height, 5.09 feet).

1934-44: Maximum discharge, that of May 22, 1944; maximum gage height, 37.80 feet Feb. 28, 1937; minimum discharge, 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 railroad bridge 0.6 mile downstream.

Remarks.- Records excellent. Flow is from entire Red River Basin except for natural diversion through Old River either from or into Mississippi River.

Gage height at S a.m., in feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	5.4	6.8	6.3	e9.6	20.4	30.1	32.2	32.9	22.6	12.0	8.2
2	7.5	5.5	6.7	6.3	e9.4	20.9	30.2	32.4	32.4	22.6	11.7	8.3
3	7.4	5.7	6.7	6.8	9.3	21.6	30.4	32.4	31.9	22.5	11.4	8.6
4	7.1	6.1	6.5	7.4	9.2	22.3	30.4	32.6	31.4	22.5	11.2	8.8
5	6.8	6.4	6.4	8.0	9.3	23.2	30.6	32.8	31.0	22.5	11.0	9.1
6	6.4	6.6	6.2	8.3	9.2	24.0	30.5	33.0	30.6	22.4	10.7	9.4
7	6.2	7.1	6.2	8.5	9.2	24.8	30.6	33.1	30.2	22.3	10.5	9.6
8	5.9	7.3	6.0	8.8	9.4	25.3	30.6	e33.3	29.8	22.2	10.3	10.6
9	5.7	7.2	5.9	9.0	9.8	25.9	30.7	33.5	29.6	21.9	10.2	11.4
10	5.5	7.0	5.8	9.2	10.2	26.2	30.7	33.7	29.3	21.6	10.0	12.0
11	5.4	6.9	5.7	9.4	10.5	26.6	30.8	33.9	29.0	21.3	9.8	12.4
12	5.4	6.8	5.5	9.6	10.7	e26.5	30.8	34.0	28.7	20.9	9.5	12.5
13	5.5	6.8	5.6	10.7	10.9	27.0	30.8	34.3	28.4	20.4	9.1	12.4
14	5.7	6.8	5.7	11.6	11.4	e27.2	30.9	34.4	28.2	20.0	8.7	12.1
15	5.7	7.0	5.7	12.3	12.2	27.2	31.0	34.6	27.8	19.5	8.4	11.8
16	5.6	7.1	5.6	12.9	12.8	27.3	31.0	34.7	27.3	19.0	8.2	11.4
17	5.4	7.1	5.6	13.2	13.1	27.4	31.0	e34.8	27.0	18.5	8.2	10.9
18	5.4	7.2	5.6	13.3	13.6	27.4	31.0	34.8	26.6	17.9	8.1	10.3
19	5.3	7.3	5.7	13.3	14.3	e27.5	31.0	34.9	26.2	17.4	8.1	9.6
20	5.3	7.4	5.9	13.3	15.1	27.9	31.1	35.0	26.0	16.9	8.2	9.3
21	5.3	7.6	6.2	12.9	15.7	28.0	31.2	35.0	25.7	16.5	8.1	8.8
22	5.3	7.7	6.5	12.4	16.1	28.0	31.3	35.0	25.4	16.0	8.0	8.3
23	5.3	7.7	6.7	11.7	16.4	28.2	e31.4	35.0	25.1	15.4	7.8	7.8
24	5.4	7.6	6.8	11.1	16.7	28.3	31.5	34.9	24.7	15.0	7.6	7.3
25	5.4	7.4	7.1	10.6	17.2	28.5	31.5	34.8	24.5	14.5	7.5	6.9
26	5.4	7.3	7.3	10.3	17.8	28.6	31.7	34.7	24.0	14.0	7.5	6.7
27	5.3	7.2	7.2	10.1	18.6	28.8	31.8	34.5	23.6	13.6	7.6	6.6
28	5.2	7.2	7.2	10.0	19.3	29.1	32.0	34.2	23.2	13.2	7.6	6.6
29	5.1	7.1	7.0	9.8	20.0	29.4	32.0	34.0	23.0	12.8	7.7	6.7
30	5.1	7.0	6.7	9.8	-	29.7	32.1	33.6	22.7	12.4	7.8	6.3
31	5.2	-	6.5	9.7	-	30.0	-	e33.2	-	12.2	8.0	-

e Interpolated.

MISSISSIPPI RIVER DELTA

Discharge, in second-feet, of Atchafalaya River at Krotz Springs, La., water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	47,200	35,600	42,100	39,800	459,400	157,000	307,000	366,000	370,000	184,000	76,500	53,600
2	47,800	36,800	41,400	41,500	58,400	184,000	309,000	373,000	363,000	184,000	74,900	55,100
3	46,600	38,200	41,300	44,800	57,600	173,000	311,000	375,000	350,000	183,000	73,400	57,200
4	43,300	40,900	41,000	48,400	57,900	182,000	313,000	375,000	340,000	182,000	72,100	59,600
5	41,700	42,400	40,600	51,400	58,800	194,000	313,000	367,000	332,000	181,000	71,100	61,600
6	39,900	43,000	40,400	53,100	59,500	205,000	316,000	366,000	325,000	180,000	70,200	63,900
7	38,600	45,700	39,800	54,800	60,300	214,000	317,000	374,000	311,000	180,000	69,200	67,700
8	37,500	46,300	38,800	56,400	62,000	223,000	321,000	384,000	300,000	177,000	68,100	73,900
9	36,800	46,800	37,700	57,600	64,800	232,000	324,000	393,000	290,000	174,000	67,500	79,700
10	35,400	45,300	36,600	59,600	67,000	238,000	325,000	400,000	282,000	170,000	66,700	84,900
11	34,800	44,800	35,700	61,600	68,500	243,000	327,000	406,000	279,000	164,000	65,200	87,700
12	34,800	44,600	36,000	65,000	69,700	249,000	327,000	411,000	276,000	159,000	61,600	87,700
13	35,900	44,300	36,900	71,400	71,700	254,000	326,000	419,000	273,000	153,000	57,500	86,100
14	36,400	44,000	37,700	78,500	75,600	256,000	326,000	419,000	271,000	147,000	55,900	82,400
15	36,300	44,800	37,700	83,700	82,100	258,000	326,000	419,000	263,000	141,000	53,300	77,800
16	35,200	45,800	37,600	87,700	87,000	257,000	325,000	423,000	255,000	134,000	53,000	74,900
17	34,100	46,000	37,600	89,400	90,400	256,000	321,000	432,000	247,000	129,000	52,800	71,700
18	33,700	46,600	37,700	88,900	96,000	258,000	325,000	441,000	239,000	125,000	52,700	68,000
19	33,600	47,400	38,200	88,600	101,000	261,000	326,000	440,000	233,000	121,000	53,000	64,300
20	33,600	48,500	39,300	87,700	108,000	269,000	328,000	441,000	229,000	118,000	53,300	60,700
21	33,600	50,400	40,600	85,300	112,000	266,000	333,000	441,000	223,000	115,000	53,000	57,400
22	33,600	51,500	41,900	81,300	115,000	264,000	339,000	444,000	218,000	110,000	52,200	54,200
23	33,700	51,100	42,900	74,900	118,000	267,000	342,000	446,000	213,000	106,000	50,700	50,700
24	34,000	49,000	43,700	69,300	122,000	269,000	344,000	444,000	207,000	101,000	49,600	47,500
25	35,800	47,200	44,700	65,600	128,000	271,000	345,000	441,000	204,000	97,700	49,000	44,700
26	36,000	46,100	43,800	63,900	132,000	278,000	347,000	439,000	200,000	94,600	50,100	41,300
27	35,400	45,500	43,200	62,800	135,000	287,000	352,000	437,000	197,000	91,700	50,500	40,600
28	35,500	45,200	43,200	62,000	143,000	292,000	358,000	435,000	191,000	88,800	50,700	40,400
29	32,100	44,400	42,300	61,400	152,000	301,000	360,000	416,000	186,000	84,600	50,900	40,400
30	32,700	42,200	41,300	61,200	-	308,000	363,000	400,000	185,000	80,800	51,500	40,400
31	33,600	-	40,500	60,200	-	308,000	-	4383,000	-	78,200	52,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,137,800	47,800	32,100	36,700	2,287,000
November.....	1,350,400	51,500	35,600	45,010	2,678,000
December.....	1,242,000	44,700	35,700	40,260	2,463,000
Calendar year 1943.....	55,531,200	380,000	32,100	152,100	110,200,000
January.....	2,058,100	89,400	39,800	66,390	4,082,000
February.....	2,614,500	152,000	57,600	90,160	5,186,000
March.....	7,654,000	308,000	157,000	246,900	15,180,000
April.....	9,896,000	363,000	307,000	329,900	19,630,000
May.....	12,740,000	446,000	366,000	411,000	25,270,000
June.....	7,851,000	370,000	185,000	261,700	15,570,000
July.....	4,234,400	184,000	78,200	136,600	8,399,000
August.....	1,826,600	76,500	49,000	58,920	3,623,000
September.....	1,876,100	87,700	40,400	62,540	3,721,000
Water year 1943-44.....	54,480,900	446,000	32,100	148,900	108,100,000

a No gage-height record; discharge computed from interpolated gage heights.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou des Glaisses diversion channel at Moreauville, La.

Location.- Wire-weight gage, lat. 31°01'59", long. 91°58'47", in NE 1/4 sec. 29, T. 1 N., R. 5 E., at bridge on State Highway 30, at Moreauville, 150 feet downstream from point of diversion from Bayou des Glaisses. Datum of gage is 22.62 feet above mean sea level (Corps of Engineers, U. S. Army, bench mark).

Records available.- July 1943 to September 1944.

Extremes.- 1943: Maximum discharge during July to September, 399 second-feet July 1, 2; maximum gage height, 7.03 feet July 1; minimum discharge, 19 second-feet Aug. 26, 27 (gage height, 4.92 feet).

1943-44: Maximum discharge during water year, 2,340 second-feet Mar. 30 (gage height, 11.48 feet), from rating curve extended above 1,700 second-feet; minimum observed, 11 second-feet July 13 (gage height, 4.74 feet).

Remarks.- Records good. Gage read twice daily. Diversion on channel carries natural flow of Bayou des Glaisses except when operation of floodgates 12 miles downstream from point of diversion regulates flow into or out of bayou depending on stage in the Red River and Old River overflow area. Channel discharges into West Protection levee borrow pit diversion channel 6 miles downstream.

Discharge, in second-feet, 1943-44

1943											
Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1	399	34	31	11	80	35	77	21	32	31	124
2	399	31	49	12	67	34	64	22	31	26	150
3	372	29	69	13	55	35	56	23	21	23	141
4	372	28	98	14	49	36	45	24	21	22	124
5	346	28	111	15	47	37	43	25	34	22	101
6	264	27	74	16	45	39	40	26	35	20	93
7	214	27	72	17	43	40	43	27	36	20	84
8	160	27	69	18	41	39	52	28	37	20	74
9	124	26	80	19	37	39	62	29	37	20	64
10	101	30	87	20	34	37	82	30	36	20	60
								31	36	20	-

1943-44												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	44	69	d640	1,080	805	2,230	839	1,260	17	22	426
2	53	46	79		1,040	740	2,170	805	1,120	23	21	399
3	51	46	87	d730	994	678	2,120	875	1,080	22	27	332
4	51	44	62	d800	913	678	2,060	913	994	17	36	291
5	48	44	88	d900	875	590	2,010	1,120	875	22	40	226
6	46	50	90	d960	805	562	1,900	1,310	839	20	48	191
7	45	124	90	d990	772	507	1,840	1,420	772	20	49	180
8	42	453	80	d980	740	453	1,740	1,470	709	16	39	180
9	41	562	79	d970	709	426	1,630	1,470	648	d16	37	132
10	41	590	78	d960	709	372	1,520	1,420	590	17	31	d100
11	40	619	73	953	709	399	1,470	1,420	590	15	43	84
12	38	619	69	913	678	372	1,360	1,310	619	14	66	79
13	43	590	68	994	678	332	1,260	1,310	619	13	84	64
14	42	562	73	1,260	709	304	1,170	1,260	590	16	56	60
15	42	534	75	1,520	805	278	1,120	1,220	534	15	51	53
16	45	480	83	1,520	839	278	1,040	1,170	480	15	49	50
17	48	453	93	1,580	875	372	953	1,120	399	15	36	42
18	47	372	91	1,580	839	480	805	1,040	318	16	34	39
19	46	318	88	1,580	805	1,180	839	1,040	226	15	32	39
20	46	251	86	1,520	1,040	1,360	875	994	132	14	42	36
21	44	180	80	1,470	1,080	1,420	839	1,040	98	16	41	32
22	43	141	77	1,420	1,120	1,680	953	1,360	82	15	32	29
23	41	108	77	1,360	1,080	2,060	913	1,680	67	18	54	26
24	43	97	191	1,260	1,040	2,010	875	1,630	62	16	55	23
25	42	84	345	1,170	1,040	2,010	953	1,630	52	18	45	22
26	39	77	426	1,120	994	2,010	994	1,630	45	19	37	26
27	38	74	453	1,120	953	2,170	994	1,580	37	20	48	24
28	37	74	534	1,220	875	2,170	953	1,520	45	19	69	28
29	39	70	590	1,220	839	2,280	953	1,470	37	24	59	31
30	41	70	590	1,170	-	2,340	875	1,420	21	17	80	26
31	42	-	590	1,120	-	2,280	-	1,310	-	20	276	-

d Doubtful gage-height record; discharge computed on basis of rainfall records and records for Chatlin Lake Canal near Lecompte.

Monthly discharge, in second-feet, 1943-44

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1943.....	3,624	399	31	117	7,190
August.....	992	40	20	29.1	1,790
September.....	2,312	150	31	77.1	4,590
The period.....	-	-	-	-	13,570
October 1943.....	1,359	55	37	43.8	2,700
November.....	7,776	619	44	259	15,420
December.....	5,567	180	68	180	11,040
January 1944.....	35,680	1,580	640	1,151	70,770
February.....	25,635	1,120	678	884	50,850
March.....	33,576	2,340	278	1,063	66,600
April.....	39,414	2,230	805	1,314	78,180
May.....	39,796	1,680	805	1,284	78,930
June.....	13,940	1,260	21	465	27,650
July.....	541	24	13	17.5	1,070
August.....	1,619	276	21	52.2	3,210
September.....	3,269	426	22	109	6,480
Water year 1943-44.....	206,172	2,340	13	569	412,900

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Chatlin Lake Canal near Lecompte, La.

Location.- Wire-weight gage, lat. $31^{\circ}07'10''$, long. $92^{\circ}20'40''$, in NW $\frac{1}{4}$ sec. 26, T. 2 N., R. 1 E., at bridge on State Highway 457, 1.2 miles downstream from Indian Bayou, and 3.7 miles northeast of Lecompte. Datum of gage is 42.96 feet above mean sea level (Louisiana Geodetic Survey bench mark).

Records available.- August 1942 to September 1944.

Extremes.- Maximum discharge during year, 2,280 second-feet Mar. 19 (gage height, 16.60 feet); minimum, 2.5 second-feet July 19 (gage height, 1.72 feet).

1942-44: Maximum discharge, that of Mar. 19, 1944; minimum, that of July 19, 1944.

Remarks.- Records fair. Flow, formerly entering Bayou Boeuf through Bayou Lamourie, is diverted by canal into Bayou du Lac and thence into Bayou des Glaisses. Flow in Bayou Lamourie can be in either direction but is usually from Bayou Boeuf to canal. Diversion through Bayou Lamourie, depending on stage in Bayou Boeuf, may be controlled by changing elevations of a sill at town of Lamourie. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	42	60	234	c420	314	c347	238	238	8.7	3.8	178
2	51	42	60	kl,240	c375	275	c368	289	214	11	8.1	100
3	51	45	64	kl,320	c357	250	c550	k655	166	14	25	58
4	45	45	70	c820	c350	225	c590	k915	136	15	21	44
5	45	45	70	c550	c322	190	c317	kl,590	112	13	14	35
6	42	103	70	c455	c317	168	c284	kl,190	130	8.0	10	301
7	40	kl,020	74	c415	c318	148	c265	k870	142	7.5	9.3	111
8	40	k879	70	c410	c305	130	c253	k654	136	8.8	8.7	64
9	40	k652	67	c395	c460	114	c243	578	118	12	9.7	58
10	37	k478	64	c365	c415	106	c234	511	100	9.6	25	58
11	37	314	64	c340	c333	95	c220	470	106	8.3	25	58
12	37	214	64	c335	c297	88	c201	431	136	5.5	19	49
13	42	168	64	kl,110	c280	84	179	405	148	5.2	15	36
14	51	130	70	kl,590	k740	80	145	379	124	4.7	14	33
15	51	106	98	cl,620	k699	74	130	366	100	4.7	15	26
16	48	91	95	cl,260	k697	74	114	340	82	5.3	11	22
17	45	80	88	c920	592	74	106	327	71	4.4	8.7	19
18	45	74	80	c675	524	114	95	301	66	3.5	6.9	17
19	42	67	74	c565	kl,150	k2,100	88	275	62	2.6	5.6	15
20	40	60	70	c510	kl,210	cl,840	244	275	55	6.4	5.6	14
21	40	57	70	c475	kl,020	cl,270	405	275	55	11	6.4	12
22	40	57	67	c450	k801	c980	k622	k749	52	22	6.3	11
23	37	54	106	c423	k645	c960	k894	kl,080	49	19	6.1	10
24	40	54	202	c402	565	c725	k785	k823	44	15	6.6	9.4
25	64	51	444	c385	497	c620	k694	k634	39	15	11	8.8
26	48	51	497	c390	457	c540	457	524	37	23	19	8.3
27	48	51	405	kl,130	431	c515	366	470	35	21	15	8.3
28	45	51	497	c990	392	c495	314	405	28	15	14	11
29	45	54	457	c800	379	c490	262	379	4.4	12	42	31
30	42	60	353	c645	-	c440	238	340	3.4	6.9	124	24
31	42	-	275	c500	-	c390	-	288	-	5.0	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	1,371	64	37	44.2	2,720
November.....	5,255	1,090	42	175	10,420
December.....	4,799	497	60	155	9,520
Calendar year 1943	50,455	1,370	12	138	100,100
January.....	21,919	1,820	234	707	43,480
February.....	15,548	1,210	280	536	30,840
March.....	13,869	2,100	74	447	27,510
April.....	9,713	894	88	324	19,270
May.....	17,056	1,590	238	560	33,830
June.....	2,788.8	238	3.4	93.0	5,630
July.....	323.2	23	2.6	10.4	641
August.....	675.8	166	3.8	21.8	1,340
September.....	1,429.8	301	8.3	47.7	2,840
Water year 1943-44	94,747.6	2,100	2.6	259	187,900

c Stage-discharge relation affected by backwater; discharge determined directly from curves based on frequent discharge measurements.

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

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Bayou Cocodrie near Clearwater, La.

Location.- Water-stage recorder, lat. 31°00'00", long. 92°22'46", in NW1/4 sec. 4, T. 1 S., R. 1 E. Louisiana meridian, just below bridge on State Highway 26, seven-eighths of a mile downstream from Chicago, Rock Island & Pacific Railway bridge, 1 1/8 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 at present site (published as Bayou Cocodrie near Meeker) and October 1937 to September 1944.

Extremes.- Maximum gage height during year, 16.86 feet Mar. 23, 24 (discharge not determined); minimum discharge, 85 second-feet Aug. 22-24 (gage height, 5.46 feet).

1922-25, 1937-44: Maximum gage height observed, 21.50 feet Apr. 9, 1938, present datum (discharge not determined); negative flow Nov. 13-15, 1922, probably caused by heavy rains in basin below station.

Remarks.- Records good below 700 second-feet and poor above.

Rating table, water year 1942-43 (gage height, in feet,
and discharge, in second-feet)
(Shifting-control method used Jan. 13-20)

5.4	83	10.0	412
6.0	108	12.0	601
7.0	158	14.0	798
8.0	235	16.0	998

Discharge, in second-feet, water year October 1943 to September 1944

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	376	89	226	525	868	698	958	649	553	99	89	394
2	349	91	214		848	678	948	640	534	126	97	440
3	313	93	205		828	659	958	649	515	124	122	431
4	278	95	197		818	640	958	678	496	120	115	412
5	235	95	189	e800	798	620	938		478	113	113	394
6	201	105	185		788	601	918	e840	459	108	108	376
7	168	349	182		768	582	898		431	106	104	349
8	146	630	174		748	563	878		412	106	99	322
9	131	688	164	808	738	544	868		394	104	99	296
10	117	678	165	798	738	525	838		367	102	97	261
11	110	659	146	778	728	506	818	818	340	99	97	226
12	106	649	141	768	708	487	798	798	331	97	99	195
13	108	630	136	768	698	478	778	778	315	95	102	161
14	110	601	136	582	708	459	758	758	287	95	102	141
15	108	582	144	918	748	440	738	738	261	93	99	124
16	108	563	146	1,190	778	431	718	718	235	93	95	115
17	104	544	152	1,170	798	440	698	688	201	91	93	108
18	104	525	164	1,100	768	450	678	669	174	91	89	106
19	102	506	171	1,040	778		659	649	152	91	89	102
20	99	487	171	1,010	798		659	630	136	93	87	99
21	97	468	164	988	808		669	620	126	102	87	97
22	95	450	155	968	808		659	620	120	104	85	98
23	93	431	152	948	798		649	630	115	106	85	93
24	93	412	197	928	788	e1,030	728	620	110	106	89	91
25	93	385	322	908	778		748	611	108	108	141	91
26	93	358	431	898	758		738	601	104	106	178	89
27	93	331	487	898	748		728	601	102	104	218	89
28	93	305	525	908	728		708	601	99	99	226	91
29	91	278	534	908	708		688	601	97	95	205	113
30	91	252	544	898	-	998	669	582	97	93	193	115
31	89	-	534	878	-	978	-	572	-	89	300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,394	376	89	142	0.626	0.72	8,720
November	12,329	688	89	411	1.81	2.02	24,450
December	7,443	544	136	240	1.06	1.22	14,760
Calendar year 1943	105,639	688	74	289	1.27	17.31	209,500
January	27,183	1,190	525	877	3.86	4.45	53,920
February	22,362	868	688	771	3.40	3.66	44,350
March	23,107	-	431	745	3.28	3.79	45,830
April	23,615	958	659	784	3.45	3.86	46,940
May	21,559	-	572	695	3.06	3.53	42,760
June	9,147	553	97	272	1.20	1.33	16,160
July	3,158	126	89	102	.449	.52	6,260
August	3,802	300	85	123	.542	.62	7,540
September	6,014	440	89	200	.881	.99	11,930
Water year 1943-44	163,013	-	85	445	1.96	26.70	323,300

e Stage-discharge relation indefinite; discharge computed on basis of mean curve and information for previous backwater periods.

Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Measurements of stream flow in the lower Mississippi River Basin made at points other than gaging stations are given in the following table:

Miscellaneous discharge measurements in the lower Mississippi River Basin during water year October 1943 to September 1944

Meramec River Basin				
Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Apr. 13	Meramec River...	Mississippi River	NW $\frac{1}{4}$ sec. 23, T. 44 N., R. 5 E., at bridge on U. S. Highway 66, 2 miles east of Valley Park, Mo.	19,800
13	....do.....	....do.....	....do.....	18,200
23	....do.....	....do.....	....do.....	23,400
23	....do.....	....do.....	....do.....	24,200
May 4	....do.....	....do.....	....do.....	25,400
Apr. 23	Crooked Creek...	Meramec River...	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 35 N., R. 4 W., at spillway of Blackwell Lake, in Indian Trail State Park, 4 miles southeast of Sligo, Mo. Drainage area, 5.95 square miles.	47.2
Oct. 6	Woodlock Spring.	Huzzah Creek....	NE $\frac{1}{4}$ sec. 30, T. 36 N., R. 2 W., at Davisville, Mo.	1.95
River Aux Vases Basin				
Jan. 11	River Aux Vases.	Mississippi River	5 $\frac{1}{2}$ miles south of Ste. Genevieve, Mo., and 5 $\frac{1}{2}$ miles northwest of St. Marys, Mo.	20.6
Apple Creek Basin				
Jan. 11	Apple Creek....	Mississippi River	NW $\frac{1}{4}$ sec. 4, T. 33 N., R. 12 E., at bridge on State Highway 25, at Old Appleton, Mo., 1 mile south of Uniontown, Mo.	17.0
White River Basin				
Oct. 25	Flat Creek.....	James River.....	NW $\frac{1}{4}$ sec. 28, T. 23 N., R. 27 W., at county highway bridge at Cassville, Mo.	3.65
Dec. 22	Jackson Mill Springs	Beaver Creek....	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 25 N., R. 17 W., 8 miles southwest of Awa, Mo.	2.39
Feb. 3	Crooked Creek...	White River.....	SE $\frac{1}{4}$ sec. 35, T. 19 N., R. 17 W., $\frac{1}{2}$ mile below Georges Creek and 4 miles northwest of Yellville, Ark.	65.8
3	....do.....	....do.....	NE $\frac{1}{4}$ sec. 6, T. 18 N., R. 16 W., 1 $\frac{3}{4}$ miles northwest of Yellville, Ark.	70.8
3	....do.....	....do.....	NW $\frac{1}{4}$ sec. 9, T. 18 N., R. 16 W., at south edge of Yellville, Ark., 1,200 feet above State Highway 14.	45.6
3	....do.....	....do.....	NE $\frac{1}{4}$ sec. 9, T. 18 N., R. 16 W., $\frac{1}{2}$ mile southeast of Yellville, Ark.	23.8
3	....do.....	....do.....	SW $\frac{1}{4}$ sec. 35, T. 19 N., R. 15 W., at bridge on State Highway 101, 8 miles northeast of Yellville, Ark.	0
Oct. 1	North Fork River	....do.....	SE $\frac{1}{4}$ sec. 9 T. 22 N., R. 12 W., above mouth of Bryant Creek, 2 miles north of Tecumseh, Mo.	*372
Nov. 3	Althea Spring...	North Fork River.	Sec. 25, T. 23 N., R. 12 W., 5 miles northeast of Tecumseh, Mo.	23.1
Oct. 1	Bryant Creek....	....do.....	NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 22 N., R. 12 W., at mouth, $\frac{1}{2}$ mile north of Tecumseh, Mo.	174
Nov. 3	Pittman Spring..	Black River.....	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 28 N., R. 3 E., 6 miles southwest of Piedmont, Mo., and 6 miles northwest of Leeper, Mo.	34.6
Oct. 1	Jacks Fork.....	Current River....	W $\frac{1}{2}$ sec. 36, T. 28 N., R. 7 W., at bridge on State Highway 17, 3 $\frac{1}{2}$ miles north of Mountain View, Mo.	22.7
Sept. 8	Falling Spring..	Hurricane Creek..	NW $\frac{1}{4}$ sec. 4, T. 25 N., R. 3 W., 1 mile west of New Liberty, Mo., and 6 $\frac{3}{4}$ miles northeast of Greer, Mo.	.14
* Computed by subtracting discharge of Bryant Creek from discharge of North Fork River at Tecumseh, Mo.				
Arkansas River Basin				
Oct. 6	Mud Creek.....	Arkansas River...	Sec. 24, T. 23 S., R. 49 W., 4 miles southeast of Caddoa, Colo., and 5 miles above mouth.	0
15	....do.....	....do.....	....do.....	0
29	....do.....	....do.....	....do.....	0
Nov. 2	....do.....	....do.....	....do.....	0
3	....do.....	....do.....	....do.....	.1
4	....do.....	....do.....	....do.....	.1
6	....do.....	....do.....	....do.....	.1
8	....do.....	....do.....	....do.....	.1
22	....do.....	....do.....	....do.....	.2
Dec. 3	....do.....	....do.....	....do.....	.1
12	....do.....	....do.....	....do.....	0
20	....do.....	....do.....	....do.....	.1
28	....do.....	....do.....	....do.....	.1
Jan. 10	....do.....	....do.....	....do.....	.1
20	....do.....	....do.....	....do.....	.5
25	....do.....	....do.....	....do.....	.1
Feb. 9	....do.....	....do.....	....do.....	.1
16	....do.....	....do.....	....do.....	.1
21do.....do.....do.....	.1
29do.....do.....do.....	.1
Mar. 10do.....do.....do.....	.1

MISCELLANEOUS DISCHARGE MEASUREMENTS

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Miscellaneous discharge measurements in the lower Mississippi River Basin during water year
October 1943 to September 1944--Continued

Arkansas River Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Mar. 13	Mud Creek.....	Arkansas River...	Sec. 24, T. 23 S., R. 49 W., 4 miles south- east of Caddoa, Colo., and 6 miles above mouth.	0.1
Apr. 25	.....do.....	.....do.....	.....do.....	.1
3	.....do.....	.....do.....	.....do.....	.1
7	.....do.....	.....do.....	.....do.....	0
11	.....do.....	.....do.....	.....do.....	.4
17	.....do.....	.....do.....	.....do.....	.2
24	.....do.....	.....do.....	.....do.....	.2
29	.....do.....	.....do.....	.....do.....	2.5
29	.....do.....	.....do.....	.....do.....	389
30	.....do.....	.....do.....	.....do.....	16.7
May 3	.....do.....	.....do.....	.....do.....	104
3	.....do.....	.....do.....	.....do.....	51.6
4	.....do.....	.....do.....	.....do.....	7.4
5	.....do.....	.....do.....	.....do.....	2.8
10	.....do.....	.....do.....	.....do.....	.2
16	.....do.....	.....do.....	.....do.....	.1
22	.....do.....	.....do.....	.....do.....	.1
June 21	.....do.....	.....do.....	.....do.....	.1
July 7	.....do.....	.....do.....	.....do.....	.1
11	.....do.....	.....do.....	.....do.....	.1
19	.....do.....	.....do.....	.....do.....	.1
24	.....do.....	.....do.....	.....do.....	.1
29	.....do.....	.....do.....	.....do.....	.1
30	.....do.....	.....do.....	.....do.....	46.7
31	.....do.....	.....do.....	.....do.....	.3
Aug. 4	.....do.....	.....do.....	.....do.....	.3
16	.....do.....	.....do.....	.....do.....	.2
21	.....do.....	.....do.....	.....do.....	6.7
Sept. 2	.....do.....	.....do.....	.....do.....	0
9	.....do.....	.....do.....	.....do.....	0
16	.....do.....	.....do.....	.....do.....	0
21	.....do.....	.....do.....	.....do.....	0
May 6	Little Arkansas River.	.....do.....	At Murdock Ave. Bridge in Wichita, Kans.....	5,500
4	Old mill race.	Little Arkansas River.	At quarter-section corner between secs. 29 and 32, T. 26 S., R. 1 E., on Arkansas Ave., North Wichita, Kans.	458
Nov. 23	Cimarron River.	Arkansas River....	SW $\frac{1}{4}$ sec. 27, T. 30 S., R. 37 W., north of Hugoton, Kans.	1.5
23	.....do.....	.....do.....	SE $\frac{1}{4}$ sec. 25, T. 33 S., R. 32 W., near Arkaton, Ark.	22.9
23	.....do.....	.....do.....	NE $\frac{1}{4}$ sec. 14, T. 35 S., R. 30 W., south of Plains, Kans.	51.4
Mar. 9	Cottonwood Creek.	Cimarron River....	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 15 N., R. 4 W., 2 miles northwest of Navina, Okla.	3.68
Apr. 4	.....do.....	.....do.....	.....do.....	6.75
June 27	.....do.....	.....do.....	.....do.....	1.90
July 19	.....do.....	.....do.....	.....do.....	.78
Aug. 24	.....do.....	.....do.....	.....do.....	0
Nov. 18	.....do.....	.....do.....	SW $\frac{1}{4}$ sec. 9, T. 15 N., R. 3 W., 2 miles west of Seward, Okla.	2.30
Mar. 9	Deer Creek.....	Cottonwood Creek..	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 14 N., R. 4 W., 6 miles northwest of Edmond, Okla.	4.66
Apr. 4	.....do.....	.....do.....	.....do.....	9.04
May 18	.....do.....	.....do.....	.....do.....	2.41
June 27	.....do.....	.....do.....	.....do.....	0
July 19	.....do.....	.....do.....	.....do.....	0
Aug. 24	.....do.....	.....do.....	.....do.....	0
Nov. 18	Chisholm Creek.	.....do.....	SE $\frac{1}{4}$ sec. 9, T. 15 N., R. 3 W., $1\frac{1}{2}$ miles southwest of Seward, Okla.	.86
Mar. 9	.....do.....	.....do.....	.....do.....	1.58
Apr. 4	.....do.....	.....do.....	.....do.....	2.55
May 18	.....do.....	.....do.....	.....do.....	3.40
June 27	.....do.....	.....do.....	.....do.....	1.62
July 19	.....do.....	.....do.....	.....do.....	2.47
Aug. 24	.....do.....	.....do.....	.....do.....	0
Apr. 11	Hominy Creek...	Bird Creek.....	On line between secs. 11 and 12, T. 12 N., R. 12 E., at bridge on State Highway 11, 1 mile north of Sperry, Okla.	9,600
Oct. 28	Spring River...	Lake O' The Cherokees.	SW $\frac{1}{4}$ sec. 13, T. 28 N., R. 28 W., at bridge on State Highway 37, 2 miles north of Scotts City, Mo.	147
Aug. 13	.....do.....	.....do.....	NW $\frac{1}{4}$ sec. 4, T. 28 N., R. 30 W., at county highway bridge, $4\frac{1}{2}$ miles east of Carthage, Mo.	90.4
Oct. 28	Big Spring.....	Spring River.....	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 28 N., R. 27 W., 4 miles west of Mount Vernon, Mo.	20.5
Oct. 25	.....do.....	.....do.....	.....do.....	16.6
Aug. 13	McMahon Spring.	Hickory Creek....	SE $\frac{1}{4}$ sec. 28, T. 25 N., R. 31 W., 2 miles southeast of Neosho, Mo.	5.33
June 14	Eagle Tail ditch.	Chicoicra Creek...	Lat. 36°39'15", long. 104°32'35", 200 feet below U. S. Highway 85 and 8 miles north of Maxwell, N. Mex.	48.6
14	Vermejo ditch..	Vermejo River.....	Lat. 36°36'40", long. 104°45'20", 100 feet below head and $1\frac{1}{2}$ miles northwest of Colfax, N. Mex.	59.3
14	.....do.....	.....do.....	Lat. 36°34'20", long. 104°41'50", 50 feet below Maxwell-Dawson road crossing and 3 miles southeast of Colfax, N. Mex.	43.8

MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in the lower Mississippi River Basin during water year October 1943 to September 1944--Continued

Arkansas River Basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Nov. 4	North Canadian River.	Canadian River...	NW $\frac{1}{4}$ sec. 36, T. 14 N., R. 10 W., 5 $\frac{1}{2}$ miles east of Geary, Okla.	0.03
5	do.	do.	do.	56.7
5	do.	do.	do.	66.1
6	do.	do.	do.	50.2
7	do.	do.	do.	23.7
8	do.	do.	do.	20.4
10	do.	do.	do.	8.91
12	do.	do.	do.	2.47
15	do.	do.	do.	.50
Feb. 14	do.	do.	do.	64.1
15	do.	do.	do.	69.0
16	do.	do.	do.	96.8
17	do.	do.	do.	165
18	do.	do.	do.	139
19	do.	do.	do.	122
20	do.	do.	do.	117
22	do.	do.	do.	104
24	do.	do.	do.	107
26	do.	do.	do.	86.9
28	do.	do.	do.	120
29	do.	do.	do.	117
Mar. 2	do.	do.	do.	158
4	do.	do.	do.	163
7	do.	do.	do.	162
11	do.	do.	do.	76.0
15	do.	do.	do.	108
Feb. 17	do.	do.	SW $\frac{1}{4}$ sec. 1, T. 13 N., R. 9 W., 1 $\frac{1}{2}$ miles north of Cullumet, Okla.	141
18	do.	do.	do.	153
19	do.	do.	do.	134
Nov. 10	do.	do.	SW $\frac{1}{4}$ sec. 4, T. 12 N., R. 5 W., 2 miles north of Yukon, Okla.	8.64
June 15	do.	do.	do.	686
Nov. 9	do.	do.	SW $\frac{1}{4}$ sec. 1, T. 13 N., R. 5 W., 3 miles northeast of Yukon, Okla.	6.26
10	do.	do.	do.	5.95
12	do.	do.	do.	.54
Feb. 17	do.	do.	do.	65.8
19	do.	do.	do.	127
20	do.	do.	do.	118
26	do.	do.	do.	93.5
29	do.	do.	do.	103
Mar. 4	do.	do.	do.	157
7	do.	do.	do.	134
11	do.	do.	do.	82.0
18	do.	do.	do.	125
Feb. 20	Indian Creek...	North Canadian River.	NW $\frac{1}{4}$ sec. 25, T. 22 N., R. 20 W., 6 miles southeast of Woodward, Okla.	4.74
20	Sand Creek....	do.	SW $\frac{1}{4}$ sec. 4, T. 12 N., R. 19 W., 6 miles southeast of Sharon, Okla.	.41
20	Persimmon Creek	do.	NW $\frac{1}{4}$ sec. 31, T. 12 N., R. 18 W., 2 miles north of Mutual, Okla.	7.75
20	Bent Creek....	do.	SE $\frac{1}{4}$ sec. 21, T. 20 N., R. 17 W., 2 miles east of Richmond, Okla.	2.03

Yazoo River Basin

Oct. 5	Yocona River...	Tallahatchie River.	NW $\frac{1}{4}$ sec. 28, T. 9 S., R. 3 W. Chickasaw meridian, at bridge on State Highway 7, 8 miles south of Oxford, Miss. Drainage area, 251 square miles.	4.86
July 7	Batupan River..	Yalobusha River	NE $\frac{1}{4}$ sec. 17, T. 22 N., R. 5 E. Choctaw meridian, at bridge on State Highway 8, $\frac{1}{2}$ mile southeast of Grenada, Miss. Drainage area, 222 square miles.	19.6

Big Black River Basin

Oct. 4	Big Black River	Mississippi River	NW $\frac{1}{4}$ sec. 32, T. 17 N., R. 6 E. Choctaw meridian, at bridge on State Highway 35, 3 $\frac{1}{2}$ miles southeast of Vaiden, Miss. Drainage area, 810 square miles.	13.3
Nov. 1	do.	do.	do.	14.8
Oct. 8	do.	do.	SE $\frac{1}{4}$ sec. 10, T. 9 N., R. 1 W. Choctaw meridian, at Illinois Central Railroad bridge, 0.7 mile south of Ragin, Miss. Drainage area, 2,300 square miles.	80.1
26	do.	do.	do.	66.8
Nov. 10	do.	do.	do.	1,680
10	do.	do.	do.	1,670
Dec. 11	do.	do.	do.	163
Jan. 18	do.	do.	do.	2,790
Feb. 17	do.	do.	do.	1,890
Mar. 10	do.	do.	do.	6,680
May 17	do.	do.	do.	6,660
Aug. 3	do.	do.	do.	2,090
Oct. 8	Osburns Creek..	Big Black River..	NW $\frac{1}{4}$ sec. 15, T. 8 N., R. 2 W. Choctaw meridian, at bridge on county road, 5 miles west of Flora, Miss. Drainage area, 89 square miles.	.02

Miscellaneous discharge measurements in the lower Mississippi River Basin during water year October 1943 to September 1944--Continued

Bayou Pierre Basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (sec.-ft.)
Oct. 6	Bayou Pierre...	Mississippi River	NE $\frac{1}{4}$ sec. 22, T. 12 N., R. 5 E. Washington meridian, at bridge on unnumbered State highway, 2 miles southwest of Carpenter, Miss. Drainage area, 579 square miles.	24.9
Nov. 4	....do.....	....do.....	....do.....	29.7

Homochitto River basin

Oct. 4	McCalls Creek...	Homochitto River.	SW $\frac{1}{4}$ sec. 6, T. 6 N., R. 6 E. Washington meridian, at bridge on U. S. Highway 84, 0.8 mile east of Lucien, Miss. Drainage area, 60 square miles.	10.7
Nov. 3	....do.....	....do.....	....do.....	12.8
3	Middle Fork Creek.	....do.....	On line between secs. 27 and 28, T. 6 N., R. 3 E. Washington meridian, at bridge on U. S. Highway 84, 0.6 mile west of Meadville, Miss. Drainage area, 95 square miles.	26.9

Red River Basin

Sept. 20	Quitague Creek†	Los Lingos Creek.	Western quarter of $\frac{1}{4}$ sec. 111, blk. G & M, Floyd County, 100 feet below Quitague Falls and 11.4 miles southwest of Quitague, Tex.	13.54
Aug. 5	....do.....	....do.....	In NE $\frac{1}{4}$ sec. 107, blk. 4, Texas & Pacific Railway Co. survey, Floyd County, 8.5 miles southwest of Quitague, Tex.	2.32
Sept. 20	Wilson Creek...	Quitague Creek...	In NE $\frac{1}{4}$ sec. 55, blk. G & M, Floyd County, at confluence with Quitague Creek, 9.9 miles southwest of Quitague, Tex.	.43
Aug. 6	Roaring Springs	South Pease River.	Just below source and 75 feet above confluence with South Pease River, $\frac{3}{4}$ miles south of town of Roaring Springs, Motley County, Tex.	1.21
Sept. 29	Wildhorse Creek	Washita River....	NW $\frac{1}{4}$ sec. 26, T. 1 N., R. 1 E., 4 miles east of Hoover, Okla.	2.90
Mar. 9	Loggy Bayou....	Red River.....	SE $\frac{1}{4}$ sec. 31, T. 15 N., R. 10 W., at bridge on U. S. Highway 71, 2 miles southeast of Ninock, La.	10,900
14	....do.....	....do.....	....do.....	9,480
May 13	....do.....	....do.....	....do.....	14,900

† Measurement of a stream on Feb. 18, 1943, shown as Quitague Creek in Water-Supply Paper 977, p. 380, actually was a measurement of Los Lingos Creek, $\frac{7}{8}$ miles west of Quitague, Tex.

‡ Wilson Creek enters Quitague Creek about 3.0 miles downstream; see measurement of same date for Wilson Creek.

Mississippi River Delta

Dec. 13	Bayou Teche...	Gulf of Mexico...	In lot 63, T. 7 S., R. 5 E. Louisiana meridian, at bridge on State Highway 355 in Arnaudville, La.	453
Jan. 2	....do.....	....do.....	....do.....	728
Feb. 21	....do.....	....do.....	....do.....	701
Apr. 4	....do.....	....do.....	....do.....	852
May 15	....do.....	....do.....	....do.....	695
June 12	....do.....	....do.....	....do.....	756
Aug. 7	....do.....	....do.....	....do.....	252
Sept. 24	....do.....	....do.....	....do.....	451
Oct. 11	Vermilion River	....do.....	NW $\frac{1}{4}$ sec. 12, T. 10 S., R. 4 E. Louisiana meridian, at bridge on U. S. Highway 90, 0.9 mile south of Lafayette, La.	519
Nov. 17	....do.....	....do.....	....do.....	1,020
Dec. 16	....do.....	....do.....	....do.....	572
Jan. 2	....do.....	....do.....	....do.....	**166
27	....do.....	....do.....	....do.....	1,200
Feb. 21	....do.....	....do.....	....do.....	888
Apr. 5	....do.....	....do.....	....do.....	862
May 15do.....do.....do.....	610
June 12do.....do.....do.....	529
Aug. 7do.....do.....do.....	322

** Flow was in upstream direction.

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