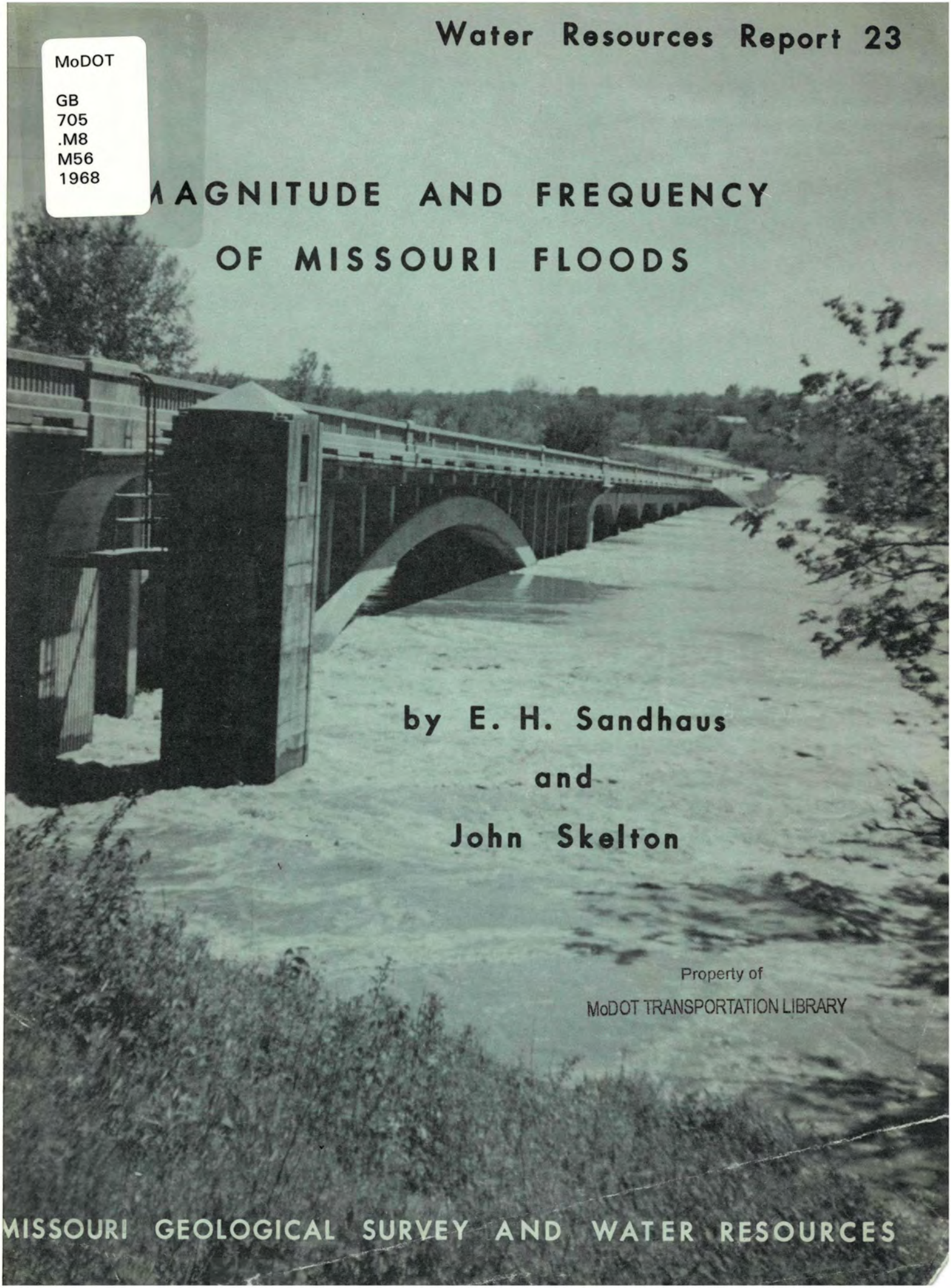
Water Resources Report 23

MAGNITUDE AND FREQUENCY OF MISSOURI FLOODS



by E. H. Sandhaus

and

John Skelton

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES

WATER RESOURCES

REPORT 23

MAGNITUDE AND FREQUENCY OF MISSOURI FLOODS

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E. H. Sandhaus

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John Skelton

Water Resources Division, U. S. Geological Survey

Prepared in cooperation

with

Missouri Geological Survey and Water Resources

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(Missouri Cooperative Highway Research Report 68-2)

and

U. S. Department of Transportation
Federal Highway Administration
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ABSTRACT

This report presents the results of a statistical analysis of available floodflow information from streams in the State of Missouri.

Equations are presented for estimating the magnitude of future floods with recurrence intervals of 1.2, 2.33, 5, 10, 25, and 50 years at ungaged sites on most Missouri streams. Only two basin characteristics, drainage area and the average slope of the stream, are required to solve the equations.

The appendices to the report contain information on peak stages and discharges at gaging stations and miscellaneous sites, and flood-frequency data for gaging stations.

INTRODUCTION

A knowledge of the magnitude and probable frequency of flooding is necessary in flood plain zoning and in the design and location of structures such as dams, bridges, culverts, levees, water-supply and sewage-disposal plants, and industrial buildings. For many projects, the most practical structural design is based on floods that may be exceeded at intervals averaging 10, 25, or 50 years. The method of flood-frequency analysis presented in this report will provide data which are sufficient for many of these design problems where loss of life is not involved and data which are useful for comparative purposes when other methods of design are employed.

The purpose of the report is to present, for the State of Missouri, (1) a method for determining the frequency and magnitude of floods on ungaged streams, (2) a tabulation of observed peak stages and discharges, and (3) a tabulation of flood-frequency data for stream-gaging stations.

The report was prepared by the Water Resources Division of the U. S. Geological Survey under the supervision of Anthony Homyk, District Chief; in cooperation with the Missouri Geological Survey and Water Resources, Dr. W. C. Hayes, State Geologist; the Missouri State Highway Commission, M. J. Snider, Chief Engineer; and U. S. Bureau of Public Roads. M. A. Benson, A. R. Green, and D. M. Thomas, hydraulic engineers of the Washington, D. C. office of the U. S. Geological Survey, provided valuable technical advice and assistance during the preparation of the report.

This report is a revision and extension of Geological Survey Circular 370 "Floods in Missouri, Magnitude and Frequency" by Searcy (1955). It contains the analysis of an additional 13 years of streamflow record, collected in cooperation with the Missouri Geological Survey, the Corps of Engineers, the Missouri Highway Commission, and other agencies and includes

station records which were too short for publication in Circular 370.

The opinions, findings, and conclusions expressed in this publication are not necessarily those of the Bureau of Public Roads.

DEFINITION OF TERMS AND CONVERSION OF UNITS

Hydrologists often use terms and concepts that are unfamiliar to others. A few of the terms used in this report are defined here.

1. Continuous-record station.-- A site on a stream where continuous records of discharge are obtained.
2. Cubic feet per second (cfs).-- The unit expressing rate of discharge. One cfs is the rate of discharge of a stream having a cross-sectional area of 1 square foot and an average velocity of 1 foot per second.

   1 cfs = 0.646 million of U. S. gallons per day
3. Miscellaneous site.-- A site on a stream where data are collected during floods or droughts to give better areal coverage to those events. There is no systematic data collection at these sites.
4. Partial-record station.-- A site on a stream where flood-peak and/or low-flow data are collected systematically over a period of years.
5. Recurrence interval.-- The average interval of time within which the given flood will be exceeded once. Recurrence intervals are averages and do not imply regularity of occurrence; an event of 50-year recurrence interval might be exceeded in consecutive years or it might not be exceeded in a 100-year period. Putting it another way, a 50-year flood has a 2-percent chance of being exceeded in any one year.
6. Water year.-- The 12-month period October 1 to September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1966 is called the 1966 water year.

DESCRIPTION OF AREA

Topography

Missouri has four distinct topographic divisions: in the north, glaciated plains; in the west, plains or prairie; in the extreme southeast, lowlands; and between them, the Missouri Ozarks, part of the Ozark uplift.

The plains section, including glaciated plains in the north and unglaciated plains in the west, comprise nearly all the area north of the Missouri River, and a large area south of the river in the western part of the State. The eastern part of the area is generally an undulating prairie with rolling hills, while the western part is more hilly. Elevations range from 450 feet above sea level near the Mississippi River to 800-1,000 feet above sea level on the western plains. The region has numerous wide, flat valleys cut by the rivers that drain it.

The Ozarks comprise about half the State. It is a rugged area of deep, narrow valleys, with sharp ridges separating the valleys. Elevations range from 1,000 to more than 1,600 feet above sea level.

The Southeastern Lowlands is a relatively flat region of about 3,000 square miles. Elevations range from 230 to 300 feet above sea level over most of the area. Crowley's Ridge, about 500 feet above sea level, lies diagonally across the area. The region is well drained

for the most part by a system of drainage ditches and canals and contains excellent farmland.

Climate

Missouri is an inland state with a continental climate; that is, the weather is changeable with large variations in temperature and precipitation. The average annual precipitation ranges from 32 inches in the northwest to 48 inches in the southeast, and the average annual temperature range from northwest to southeast is 12.2 to 15.0 degrees Celsius (Centigrade).

The state's total seasonal snowfall from year to year ranges from 5 to nearly 40 inches and averages about 18 inches, but it seldom plays an important part in the occurrence of floods.

Summer rainfall frequently occurs as thundershowers which are occasionally severe. At times, more than 10 inches of rainfall have been recorded in 24 consecutive hours. The world's most severe recorded rainfall, a total of 12 inches in 42 minutes, was measured at Holt, Missouri, on June 22, 1947 (U. S. Department of Commerce, Weather Bureau, 1960).

SEASONAL DISTRIBUTION OF FLOODS

A knowledge of the seasonal distribution of floods is necessary for many purposes, including planning for construction in an area subject to flooding. A study of seasonal flood distribution in Missouri revealed that the state receives more rainfall and experiences more flood peaks in June than in any other month. The study also revealed that spring rainfall produces greater flood peaks than equivalent amounts of rain in the fall. In the spring, the ground is more saturated, resulting in more rejection of rainfall and more runoff.

In general, floods in Missouri are more likely to occur during June, with March and April in second and third place respectively. Floods are least likely to occur during the 3 month period, November through January.

METHODS OF ANALYSIS

Analysis of Flood Records

The flood-frequency analysis used in this report involved three distinct operations.

The first step in the statewide flood-frequency analysis was the compilation of flood records collected from the network of streamgaging stations throughout the state. Appendix I contains a complete listing of these records for 280 gaging stations and miscellaneous sites, and Plate 1 shows the geographic distribution of the sites.

The next step in the analysis was the determination of flood-frequency data from the flood records of gaging stations throughout the state. These data were computed for 208 gaging stations in Missouri which met the following criteria:

1. Ten or more annual peak discharges available.
2. More than 25-percent difference in drainage area between gaging stations located on the same stream.
3. Flood peaks not materially affected by regulation. Flood record prior to regulation by reservoirs was used for some stations.
4. Adequate definition of the stage-discharge relation.

For each of the 208 sites a flood-frequency curve was defined using methods suggested by Dalrymple (1960, pp. 7-24):

1. Annual peak discharges were listed for each station selected for frequency analysis.

2. The peaks were arranged in order of magnitude and recurrence intervals computed by the formula $RI=\frac{N+1}{M}$, where RI is recurrence interval in years, N is the number of years of record, and M is the rank, starting with the highest as 1.
3. Each peak flow was plotted against its respective recurrence interval on a special graph paper, and a relation line drawn through the plot as shown in Figure 1. The graph paper is designed to produce a straight-line relation if the flood peaks conform to an extreme-value distribution (Gumbel, 1958) but for the Missouri flood records, many relations were found to be curves. Recurrence intervals are less accurately computed for the extreme floods than for average floods in each record. For this reason, extreme floods were given less weight than average floods when drawing the curves.

Magnitudes of the 1.2, 2.33, 5, and 10-year recurrence interval floods were determined from each of the 208 frequency curves and tabulated for use in the next step of the analysis. For those sites where the flood record was of adequate length so that the frequency curve could confidently be drawn to the 25-year and 50-year recurrence interval, the magnitude of these floods was also tabulated. Appendix II contains the tabulation of flood-frequency data for unregulated gaging stations in Missouri.

Reliability of Station Frequency Curves

Flood-frequency data at streamgaging stations are the basis for a regional analysis. The reader may well ask, "How reliable is the foundation upon which every premise in this report is based?"

Obviously, flood magnitudes or frequencies computed from short-time records may vary from the true, long-term value. Benson (1960) made a study of the variations in frequency curves computed from short records and reached the conclusions shown in Table 1.

Table 1. Length of record necessary to define a flood within 25 percent of the correct value 95 and 80 percent of the time.

Recurrence interval of flood (years)	Length of record necessary (years)	
	95 percent of the time	80 percent of the time
2.33	12	--
10	18	8
25	31	12
50	39	15

The data in Table 1 are based on an array of 1,000 hypothetical annual floods rather than actual flood events, and they indicate the variations resulting from chance alone where frequency data are based on records from a single station.

The length of flood records from small drainage areas in Missouri range from 12 to 25 years; therefore, the prediction of rare flood events from these limited data could be considerably in error. However, these records are the best hydrologic tools available for small drainage area studies in the state. Collection of flood data from small drainage areas and the search for simpler, more accurate methods of frequency analysis are continuing.

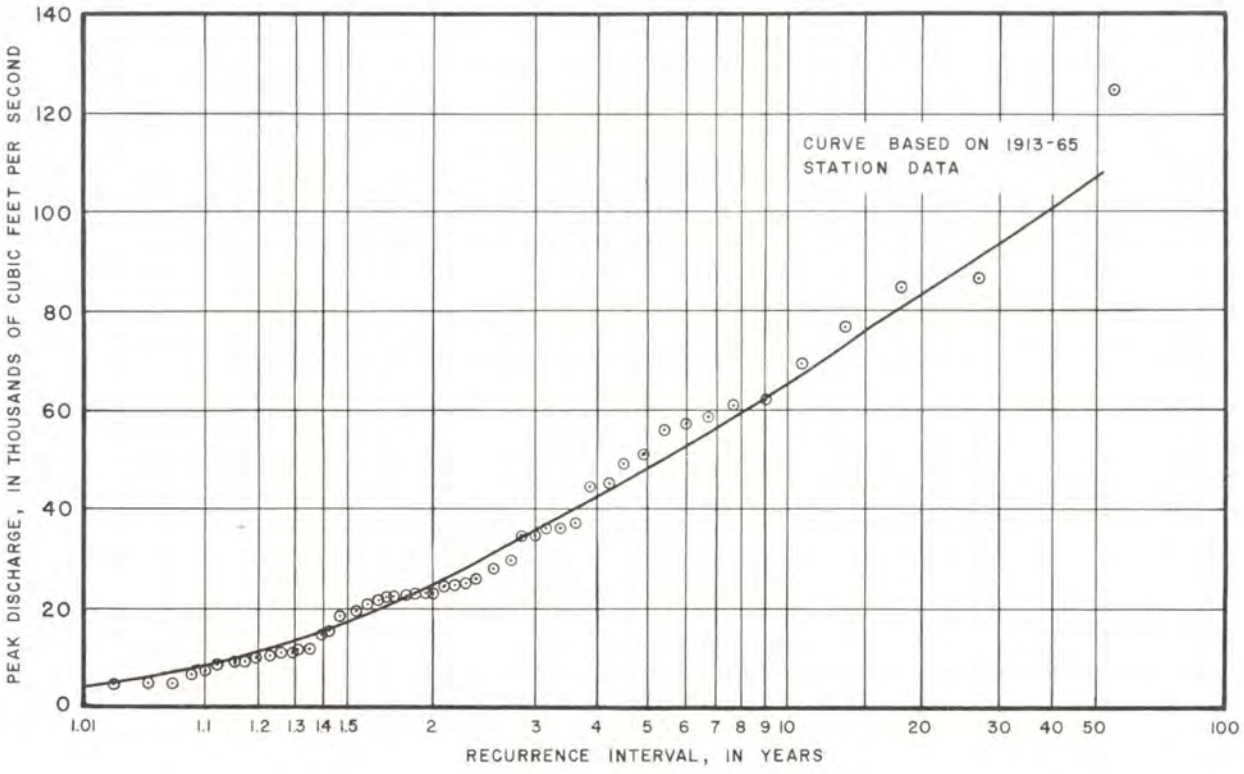

Figure 1. Flood-frequency curve for Current River at Van Buren, Missouri.

Collection of flood records in Missouri began with large drainage areas; as a result, long-time flood records in the state have been collected from drainage areas greater than 50 square miles. Estimates of flood frequency at these stations, as shown by Benson's study, are sufficiently accurate for most design purposes where loss of life or great property damage are not involved.

Definition of Statewide Flood-Frequency Equations

Statewide flood-frequency equations were defined for this report by multiple regression techniques similar to those described by Benson (1962). These equations are a composite of hydrologic experience in Missouri and should be used to compute estimates of flood magnitude and frequency at ungaged sites in the state.

Multiple regression is a statistical technique for evaluating the relation between a dependent variable and one or more independent variables. For this analysis of Missouri floods, the dependent variable was a characteristic selected from each of the 208 frequency curves, and the independent variables were measures of the differences between the 208 drainage basins. Results of a regression analysis are a mathematical expression of the best possible relation between the variables along with several statistics that evaluate both the overall accuracy of the relation and the usefulness of each independent variable used.

Basin Characteristics

There are many possible measures for the differences between drainage basins. Six selected for use as independent variables in this study are as follows:

1. Drainage area (A), in square miles.
2. Slope (S), in feet per mile (average slope between points 10 and 85 percent of total main stem distance upstream from the gage).
3. Mean annual precipitation (P), in inches.
4. Elevation (E), in feet (mean sea level at gaging station).
5. Forest cover (F), in percent of basin.
6. Length of main channel (L), in miles, from gage to divide.

Values of these six indices were computed for each of the 208 stations.

Regression Analysis

The many calculations required for regression analysis were performed on an electronic digital computer. The procedure used was to submit to the computer a dependent variable, for example the 1.2 year flood for each of the 208 sites, along with the six basin characteristics for these sites. The mathematical relation along with the evaluation statistics were determined for this set of data. The computer then automatically recomputed another relation and evaluation statistics that omitted the least effective basin characteristic. This process of recomputation, omitting the least effective basin characteristic, was repeated until only one basin characteristic remained. At this point the computer began computations on a new set of data, for example the 2.33 year floods as dependent variables, along with the six basin characteristics as independent variables. The entire set of calculations produced six relations for each of the six independent variables.

Analysis of the statistics obtained from the computer program revealed that only two independent variables, area and average slope, should be included in the equations defining the frequency and magnitude of floods in Missouri. These two factors were found to be statistically significant at the 99 percent effectiveness level for all relations. Two other basin characteristics, mean annual precipitation and elevation, were significant in two of the equations, but were eliminated from consideration because their inclusion only slightly improved the accuracy of the relations as indicated by the standard error of estimate.

Statewide Flood-Frequency Equations

The equations defined from the statistical analysis are presented in Table 2 and can be used to estimate magnitude and frequency of floods on most streams in Missouri (for exceptions, see subsequent section "Limitations of Equations").

The interpretation of the standard error of estimate column in Table 2 should be made in the following ways, using the equation for the 50-year flood as an example.

1. A statement that the actual value for the 50-year flood lies within 1 standard error (36.9 percent) of that obtained from the equation will be correct 2 out of 3 times, on the average.
2. A statement that the actual value for the 50-year flood lies within two standard errors (73.8 percent) of that obtained from the equations will be correct 19 times out of 20, on the average.

The values of the standard error are given so that the user will be able to evaluate the accuracy of results from the equations.

Table 2. Equations for determining magnitude and frequency of Missouri floods.

Frequency of flood (years)	Magnitude of flood (cfs)	Standard error of estimate (percent)
1.2	$61.5\ A^{.651}S^{.191}$	50.7
2.33	$72.3\ A^{.719}S^{.330}$	44.1
5	$82.3\ A^{.743}S^{.411}$	44.8
10	$90.1\ A^{.757}S^{.462}$	45.6
25	$74.8\ A^{.776}S^{.654}$	36.9
*50	$70.4\ A^{.804}S^{.680}$	36.9

*Fifty-year flood-frequency estimates at gaging stations were obtained from data for drainage areas in excess of 50 square miles. There is no evidence to support the use of the 50-year equation for drainage areas less than 50 square miles.

The solution of the flood-frequency equations is somewhat laborious; therefore, graphical solutions to the equations are presented in Figure 2.

Analysis of residual errors. Residual errors are defined as the ratio of observed values to the values computed from the equations. A ratio of 1.00 indicates an exact agreement

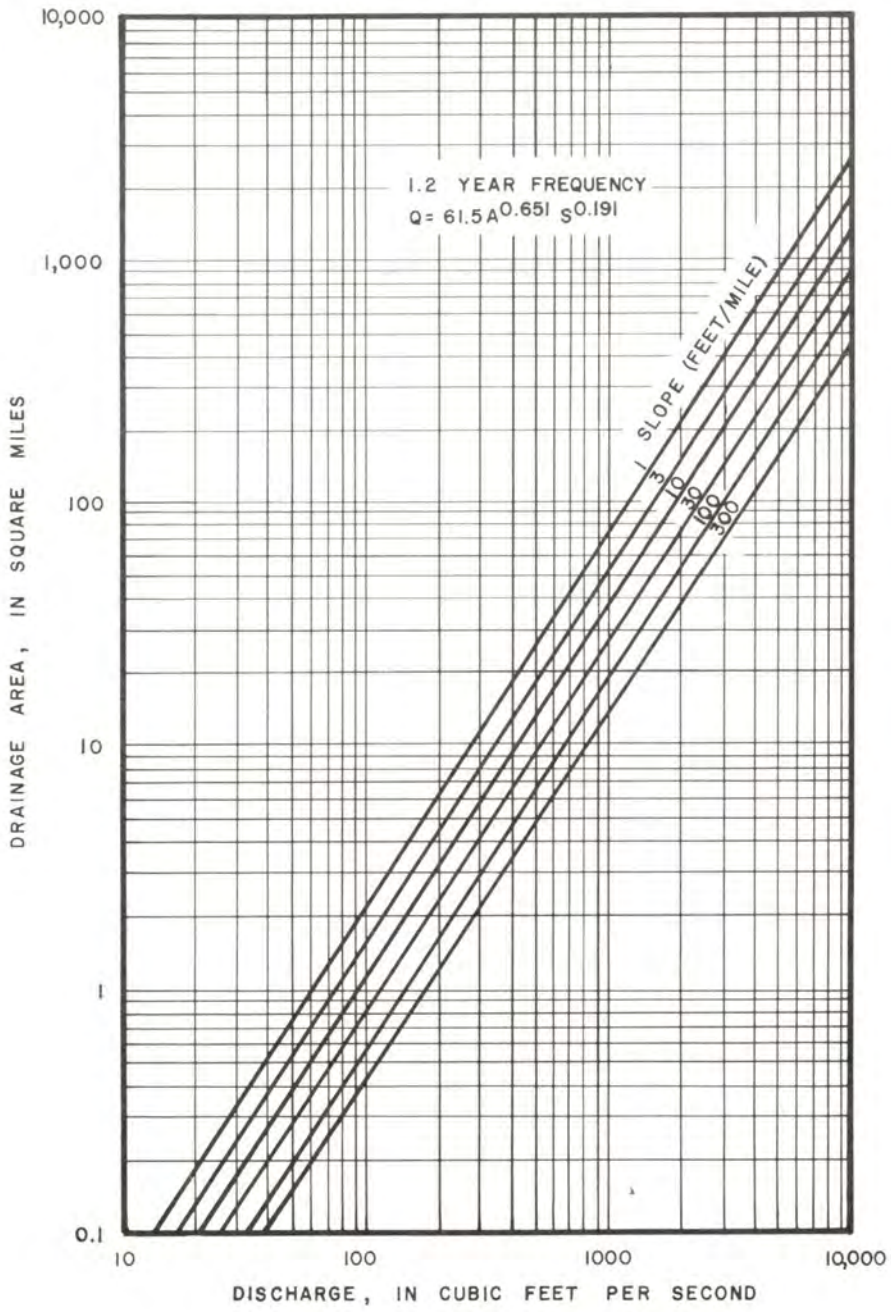

Figure 2a. Graphical solution of 1.2-year equation.

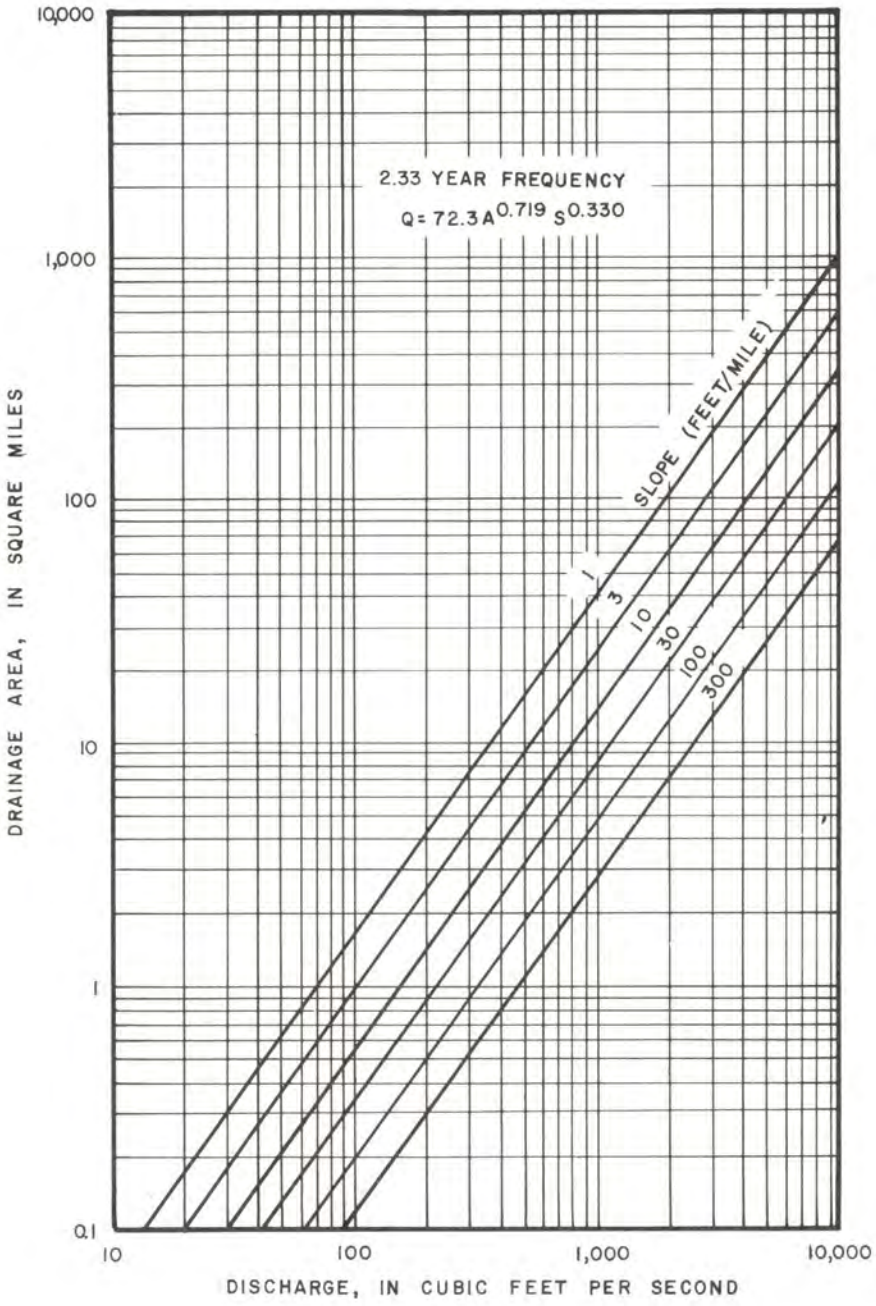

Figure 2b. Graphical solution of the 2.33-year equation.

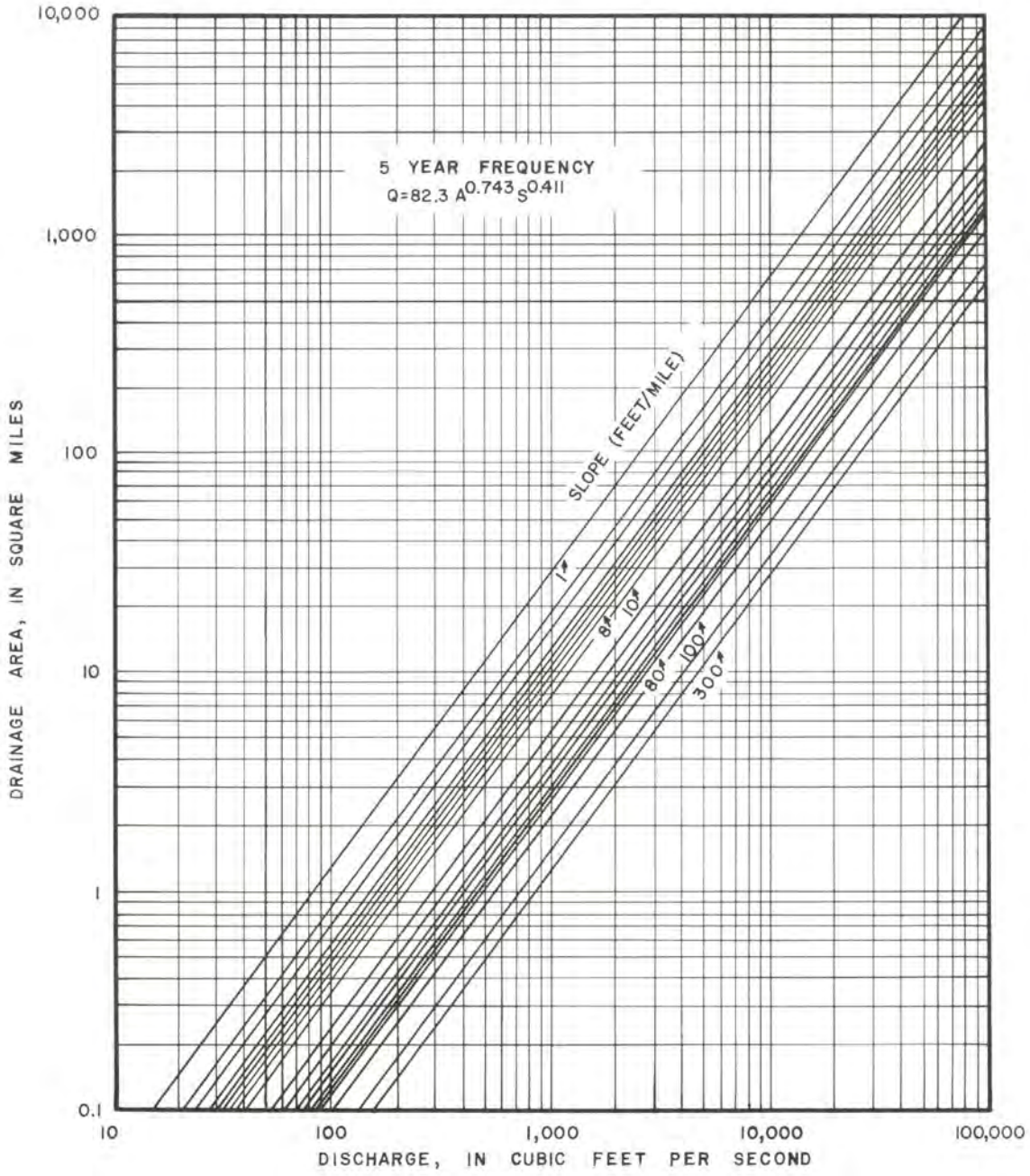

Figure 2c. Graphical solution of the 5-year equation.

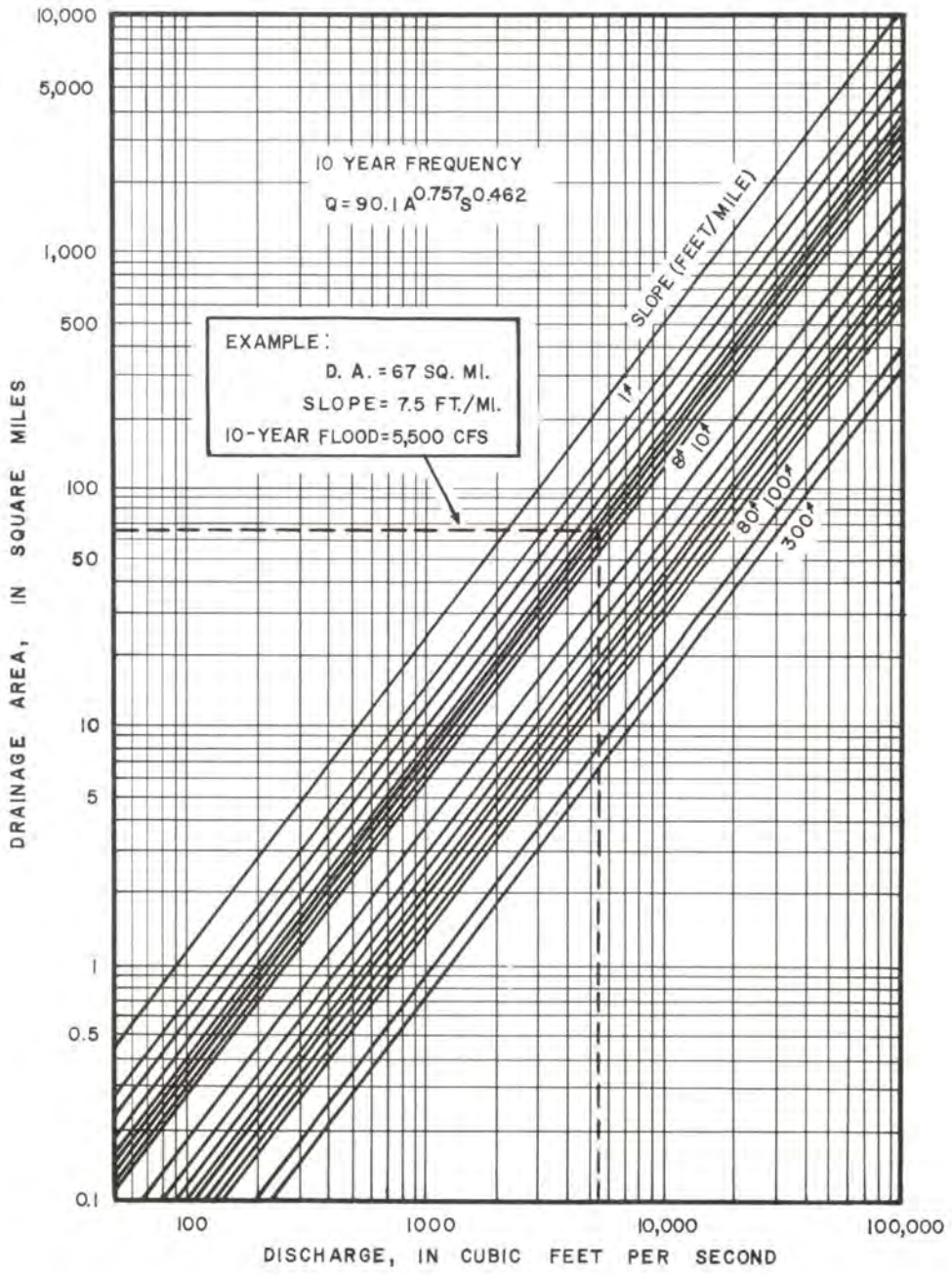

Figure 2d. Graphical solution of the 10-year equation.

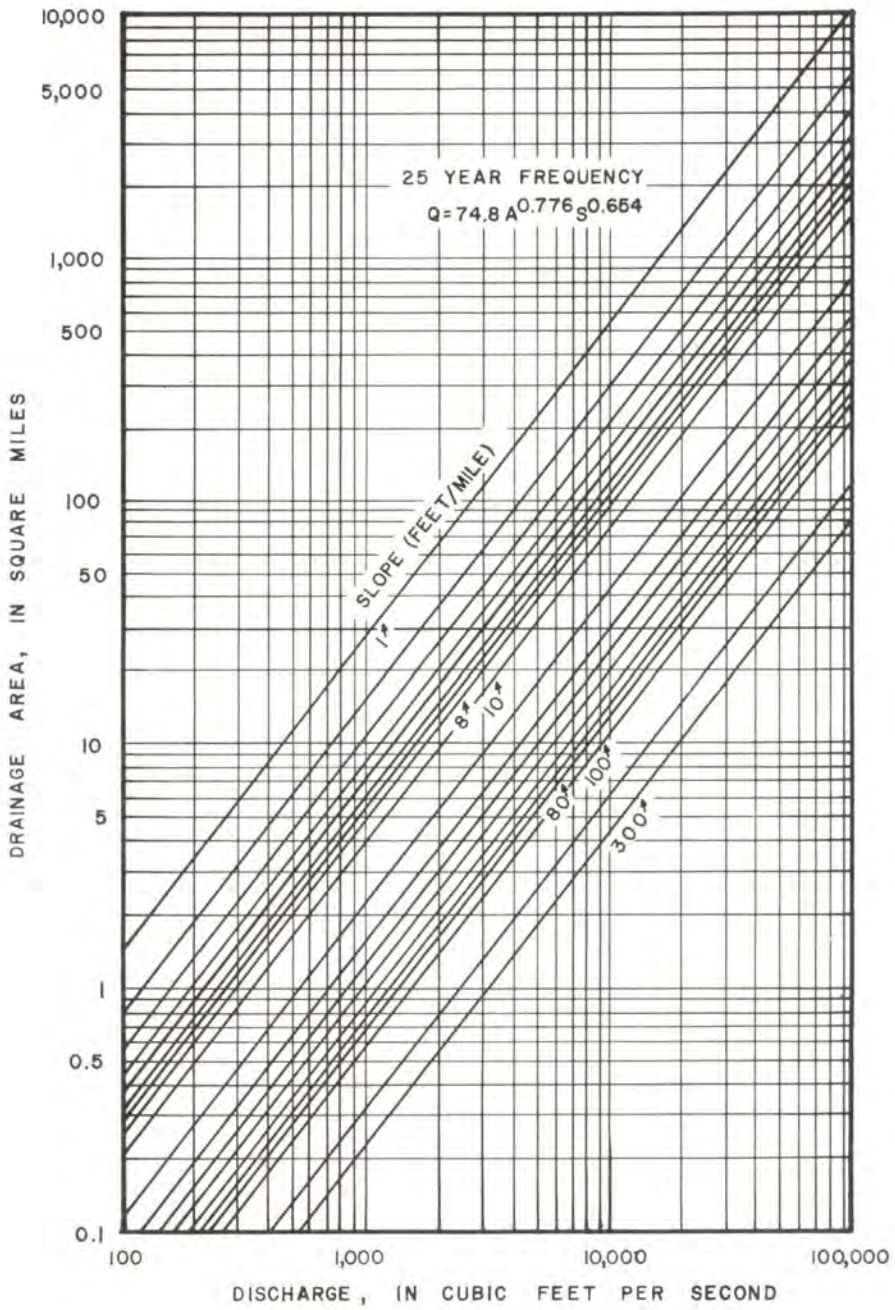

Figure 2e. Graphical solution of the 25-year equation.

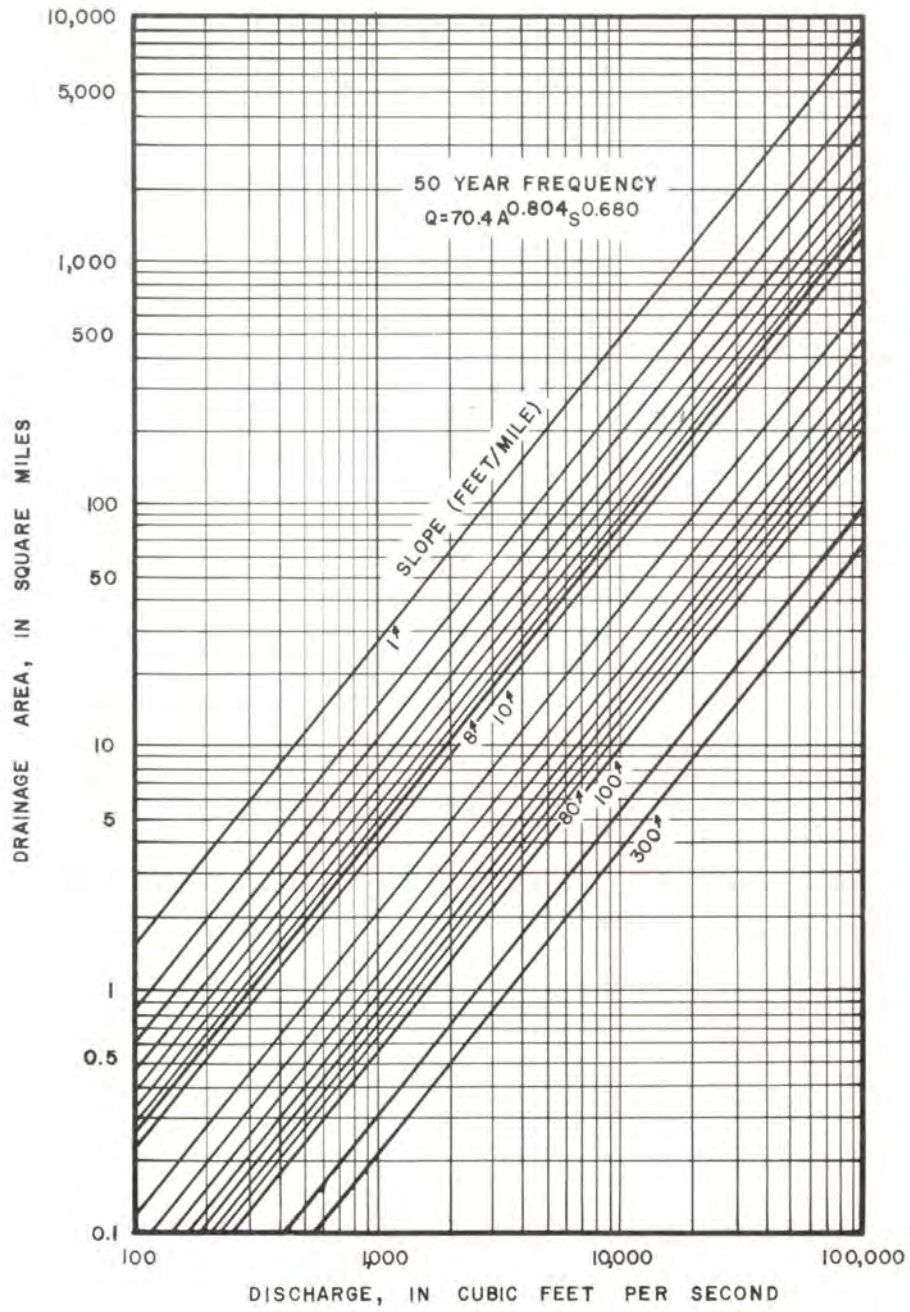

Figure 2f. Graphical solution of the 50-year equation.

between observed and computed values, whereas a large departure from 1.00 indicates a large disagreement. These ratios are an expression of the validity of the equations. If a residual pattern exists in an area, some significant hydrologic variable has been omitted from the analysis for that area, and a geographic correction factor must be applied to the appropriate equation.

Residuals were computed for each of the equations and were plotted on separate maps to determine if any geographic patterns existed. The resulting plots showed a random distribution pattern and no geographic corrections were considered necessary.

Application of equations. The use of flood-frequency equations may be illustrated by a hypothetical problem. Assume that a consultant wishes to design a structure that will pass a flood with a recurrence interval of 10 years. The following steps would be necessary in computing the magnitude of this flood:

1. Determine the size of the contributing drainage area from the best topographic maps available. For this example, assume a drainage area of 67.4 square miles.
2. Compute average slope of the streambed. This should be done as follows: (a) determine elevations from a topographic map at points along the main stem which are 10 percent and 85 percent of the total distance from the proposed site to the basin divide, (b) find the arithmetic difference between these elevations and divide by the distance between the points.

   For this problem, assume that the length of the main stem upstream from the site of the structure is 26.7 miles, the elevation at the 10 percent point (2.7 miles) is 500 feet and the elevation at the 85 percent point (22.7 miles) is 650 feet. The average slope of the streambed is $\frac{650 \text{ feet} - 500 \text{ feet}}{20 \text{ miles}}$ or 7.5 feet per mile.
3. Select applicable equation from Table 2 and compute flood magnitude. For this problem, the equation is as follows:

$$\text{10-year flood} = 90.1\ A^{.757} S^{.462}$$
$$= (90.1)\ (67.4)^{.757} (7.5)^{.462}$$
$$= 5{,}520 \text{ cfs}$$

   or,

   select applicable graphical solution. For this problem, Figure 2d should be used. Interpolating between slopes of 7 and 8 feet per mile provides a value of 5,500 cfs for the 10-year flood.

Limitations of equations. The flood-frequency equations in this report may be used to estimate frequency and magnitude of floods on most Missouri streams. However, the equations do not apply near the mouths of streams draining into larger streams because of backwater effect.

The equations are not applicable to the Mississippi and Missouri Rivers or to regulated interior streams in the state, nor do they apply in areas of extensive man-made changes. Flood frequency relations for the Upper Mississippi River are presented by Patterson and Gamble (in press) and for the Lower Mississippi River by Patterson (1964). Flood characteristics of the Missouri River above Sioux City, Iowa, are presented by Patterson (1966) and

for the river below Sioux City by Matthai (in press).

The equations for 1.2-year to 25-year floods are applicable for streams with drainage areas of 0.1 to 10,000 square miles. The 50-year equation should be used only for drainage areas greater than 50 square miles.

SUMMARY

1. Observed flood data are the basis for statewide flood-frequency equations.
2. Analysis of the statistics obtained from a computer program revealed that the two independent variables, drainage area and average slope, have the greatest effect on flood frequency in Missouri.
3. Flood-frequency equations are a composite of regional hydrologic experience. They should be used to estimate flood magnitude and frequency at ungaged sites on most Missouri streams.
4. Equations are provided for estimating flood frequency for drainage areas between 0.1 and 10,000 square miles.
5. The statewide equation should not be used to estimate the 50-year flood if the drainage area at a proposed site is less than 50 square miles.
6. The distribution of residual errors for the equations was random, and therefore no geographic corrections were necessary.

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APPENDIX I

Flood Records at Missouri Gaging Stations and Miscellaneous Sites

This appendix contains a description of all gaging stations and miscellaneous sites where flood records are available, and a listing of flood peaks through the 1965 water year. It is divided into two parts, with Part I containing information collected at continuous-record and partial-record stations, and Part II presenting flood data collected at miscellaneous sites.

In Part I, station records are presented in downstream order in accordance with the system currently used in U. S. Geological Survey Water-Supply Papers. Downstream order numbers precede the station name and locate the station in relation to drainage basin and downstream direction along the main stem. The part of the station number preceding the dash indicates the major drainage basin in which the station is located. Missouri stations are in three major basins: Part 5, the Hudson Bay and Upper Mississippi River basins; Part 6, the Missouri River basin; and Part 7, the Lower Mississippi River basin. In numbering, no distinction is made between continuous-record and partial-record gaging stations. Following the station name are descriptive paragraphs containing information on the location, drainage area upstream from the gage, average slope[1] between points 10 and 85 percent of the total main stem distance upstream from the gage, type of gage, definition of the stage-discharge relation, bankfull stage, and base for the partial-duration series. Flood data are tabulated following the descriptive paragraphs. At most continuous-record stations all peaks that exceed the selected base are listed. At some continuous-record and all partial-record stations, only the annual peaks are listed. Underlines in the table of peak stages and discharges have the following significance:

1. Line in water year column means a discontinuous record.
2. Line beginning at date column and continuing through discharge column means a change in site and datum.
3. Line in date and discharge column means a change in site without a change in datum.
4. Line in gage height column means a change in datum only.
5. No underlines are used for changes in site and datum if records have been adjusted to present conditions.

Part II contains a listing of miscellaneous sites in downstream order, a brief reference to nearby towns, the size of drainage area upstream from the site, and the date and discharge of the maximum flood observed at the site.

All gaging stations and miscellaneous sites are shown on the location map, Plate 1.

[1]Values of average slope are point data. Do not interpolate between points on the same stream or extrapolate the data to other basins.

PART I

PEAK STAGES AND DISCHARGES AT CONTINUOUS-RECORD AND PARTIAL-RECORD STATIONS

MISSISSIPPI RIVER MAIN STEM

5-4745. Mississippi River at Keokuk, Iowa

Location.--Lat 40°23'35", long 91°22'25", in SE¼SW¼ sec.30, T.65 N., R.4 W., near right bank in tailwater at downstream end of new lock below dam and powerplant of Union Electric Co. at Keokuk, 2.8 miles upstream from Des Moines River, and 364.2 miles upstream from Ohio River.

Drainage area.--119,000 sq mi, approximately.

Gage.--Nonrecording prior to May 1913; recording thereafter. Prior to May 1913 at Galland (formerly Nashville), 8 miles upstream; zero of gage was set to low-water mark of 1864, or 497.94 ft above mean sea level, adjustment of 1912. Datum of gage is 477.41 ft above mean sea level, datum of 1929 (levels by Corps of Engineers); 477.83 ft above mean sea level, adjustment of 1912; 477.34 ft above mean gulf level; and 484.65 ft above Memphis datum.

Stage-discharge relation.--Since 1913, discharge computed from records of operation of turbines in powerplant and spillway gates in dam.

Remarks.--Keokuk Dam completed in 1913. Records January 1878 to September 1932 from report of Iowa State Planning Board; since October 1932, furnished by Union Electric Co. Only annual maximum daily discharges are shown.

Maximum daily discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1851	June 6, 1851	a13.5	360,000	1926	Sept. 28, 1926	-	146,000
				1927	Apr. 3, 1927	-	175,000
1878	June 11, 1878	-	150,000	1928	Apr. 12, 1928	-	150,000
1879	June 2,3, 1879	-	110,000	1929	Mar. 23, 1929	-	247,000
1880	June 29, 1880	-	271,000	1930	June 18, 1930	-	163,000
1881	Apr.23,24, 1881	-	241,000	1931	July 4, 1931	-	52,500
1882	Oct. 31, Nov. 1, 1881	-	293,000	1932	Apr.24,25, 1932	-	106,000
1883	May 18, 1883	-	201,000	1933	Apr. 9, 1933	-	160,000
1884	Apr. 1, 1884	-	236,000	1934	Apr. 22, 1934	-	83,500
1885	Oct.9,10, 1884	-	170,000	1935	Apr.11,12, 1935	-	138,000
				1936	Apr.9,10, 1936	-	148,000
1886	May 6, 1886	-	212,000	1937	Mar. 10, 1937	-	190,000
1887	May 4, 1887	-	156,000	1938	Sept. 26, 1938	-	193,800
1888	May 18, 1888	b12.0	314,000	1939	Oct. 1, 1938	-	159,100
1889	Apr. 20, June 8, 18, 1889	-	84,200	1940	Apr. 19, 1940	-	81,700
1890	July 1, 1890	-	178,000	1941	Apr. 27, 1941	-	154,400
				1942	June 16, 1942	-	200,900
1891	May 3, 1891	-	141,000	1943	Apr. 18, 1943	-	174,000
1892	June 29, 1892	-	306,000	1944	May27,28, 1944	-	254,500
1893	May15-17, 1893	-	203,000	1945	Mar. 26, 1945	-	203,300
1894	June 4, 1894	-	158,000				
1895	Mar. 11, 1895	-	59,200	1946	Jan. 11, 1946	-	223,300
				1947	June 21, 1947	-	245,700
1896	June 3, 1896	-	161,000	1948	Mar. 23, 1948	-	233,600
1897	Apr.28,29, 1897	-	230,000	1949	Mar. 12, 1949	-	150,700
1898	Mar. 20, 1898	-	108,000	1950	Apr.25,26, 1950	-	175,900
1899	June 29, 1899	-	159,000				
1900	Apr.5, 6, 1900	-	124,000	1951	Apr. 29, 1951	-	265,100
				1952	Apr. 27, 1952	-	253,800
1901	Mar24-26, 1901	-	150,000	1953	Apr.1, 2, 1953	-	137,200
1902	July21,22, 1902	-	181,000	1954	May 17, 1954	-	181,400
1903	June 6, 1903	-	270,000	1955	Apr. 25, 1955	-	156,600
1904	Oct. 7, 1903	-	186,000				
1905	June 10, 1905	-	212,000	1956	Apr. 22, 1956	-	131,500
				1957	July 15, 1957	-	106,000
1906	Apr.26-28, 1906	-	192,000	1958	June 13, 1958	-	99,000
1907	Apr.17-18, 1907	-	178,000	1959	Apr. 5, 1959	-	182,000
1908	June 9, 1908	-	178,000	1960	Apr. 4, 1960	-	289,500
1909	May 5-7, 1909	-	181,000				
1910	Mar.20-23, 1910	-	124,000	1961	Apr. 5, 1961	-	208,400
				1962	Apr. 7, 1962	-	224,100
1911	Feb. 21, 1911	-	156,000	1963	Mar. 22, 1963	-	128,700
1912	Apr. 6,7, 1912	-	220,000	1964	May 21, 1964	-	96,400
1913	Mar. 29, 1913	-	169,000	1965	May 1, 1965	-	327,000
1914	June 24, 1914	-	122,000				
1915	Feb. 28, 1915	-	142,000				
1916	May 9, 1916	-	213,000				
1917	June 17, 1917	-	163,000				
1918	June 12, 1918	-	192,000				
1919	May 8, 1919	-	205,000				
1920	Apr.10-11, 1920	-	230,000				
1921	May12-13, 1921	-	108,000				
1922	Apr24-25, 1922	-	240,000				
1923	Apr.9-10, 1923	-	148,000				
1924	Apr.24-25, 1924	-	160,000				
1925	June 23, 1925	-	112,000				

a Estimated; stage at present site and datum, 21.0 ft.
b Stage at present site and datum, 19.6 ft.

FOX RIVER BASIN

5-4950. Fox River at Wayland, Mo.
(Published as "near Wayland" prior to 1930)

Location.--Lat 40°23'45", long 91°35'50", in NW¼ sec.31, T.65 N., R.6 W., on left bank 90 ft downstream from bridge on U.S. Highway 136, three-quarters of a mile west of Wayland, and 5 miles downstream from Brush Creek.

Drainage area.--400 sq mi, approximately; 392 sq mi prior to Oct. 1, 1929. Slope.--4.5 ft per mi.

Gage.--Nonrecording Feb. 22, 1922, to June 11, 1936; recording thereafter. Prior to Oct. 1, 1929, at site 2.8 miles upstream at different datum. Datum of gage is 501.52 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; frequent shifts in relation occur.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	[a] 21.4	
1922	July 12, 1922	11.00	2,400
1923	Mar. 16, 1923	9.75	1,980
1924	Aug. 6, 1924	13.32	3,250
1925	Apr. 26, 1925	14.9	3,760
1926	Sept.10, 1926	14.60	4,160
	Sept.17, 1926	17.50	6,570
1927	Oct. 2, 1926	17.90	6,900
	Apr. 20, 1927	18.30	7,300
	May 25, 1927	16.12	5,240
	June 5, 1927	16.00	5,150
	June 13, 1927	15.55	4,830
1928	Oct. 1, 1927	19.10	8,100
	Oct. 12, 1927	15.10	4,430
	Feb. 8, 1928	14.56	4,070
	June 19, 1928	17.70	6,700
	July 5, 1928	15.00	4,350
	Sept.12, 1928	15.95	5,150
1929	Nov. 18, 1928	20.0	16,100
	Mar. 1, 1929	[b] 15.00	-
	Mar. 14, 1929	15.80	5,400
	Apr. 21, 1929	18.80	12,600
	Apr. 25, 1929	17.60	9,470
	June 3, 1929	17.00	8,010
	July 15, 1929	15.40	4,700
1930	June 16, 1930	14.16	3,460
1931	Apr. 21, 1931	17.20	7,090
	June 7, 1931	18.35	9,940
1932	Nov. 24, 1931	16.85	6,440
	Jan. 2, 1932	16.74	6,020
1933	Dec. 24, 1932	15.22	4,000
	Jan. 19, 1933	17.00	6,650
	May 12, 1933	17.13	6,870
	June 29, 1933	21.53	25,000
1934	Apr. 5, 1934	10.92	1,780
1935	June 2, 1935	19.38	13,300
1936	Feb. 26, 1936	17.65	8,060
1937	Feb. 22, 1937	[b] 18.52	-
	Mar. 5, 1937	13.72	3,540
1938	Apr. 6, 1938	14.88	4,070
1939	Mar. 13, 1939	18.22	9,260
	Apr. 16, 1939	17.10	6,390
1940	Apr. 24, 1940	9.08	1,640
1941	June 11, 1941	12.75	3,080
1942	Oct. 11, 1941	15.80	4,510
	Nov. 2, 1941	15.7	4,420
	Feb. 7, 1942	15.41	4,260
1943	May 17, 1943	16.45	5,290
1944	Mar. 16, 1944	16.00	4,800
	Apr. 24, 1944	18.50	10,200
1945	Feb. 17, 1945	15.70	4,510
	May 16, 1945	17.27	6,810
	June 17, 1945	17.34	6,810
1946	Jan. 7, 1946	18.10	8,950
	June 19, 1946	20.66	19,900
	July 19, 1946	18.40	9,880
1947	Apr. 6, 1947	18.20	9,260
	June 7, 1947	19.12	12,200
	June 14, 1947	17.30	6,810
	June 19, 1947	15.1	4,060
1948	Feb. 29, 1948	15.8	5,290
	Mar. 20, 1948	18.2	11,900
	July 26, 1948	16.17	6,310
1949	Feb. 20, 1949	[b] 15.50	-
	Apr. 1, 1949	12.90	3,350
1950	June 16, 1950	17.79	9,560
	June 20, 1950	17.20	7,960
1951	Feb. 20, 1951	[b] 15.40	-
	Mar. 29, 1951	14.85	4,860
	May 12, 1951	15.27	5,250
	June 27, 1951	15.21	5,160
	July 23, 1951	13.84	4,180
1952	Apr. 23, 1952	14.65	4,720
	June 23, 1952	16.3	6,400
1953	Apr. 1, 1953	17.2	7,960
1954	Apr. 21, 1954	13.60	4,050
1955	Jan. 6, 1955	15.98	6,000
1956	Aug. 9, 1956	6.98	1,030
1957	June 11, 1957	16.35	6,130
1958	June 14, 1958	15.42	4,650
	July 31, 1958	15.51	4,750
1959	May 31, 1959	15.72	4,950
	Aug. 8, 1959	18.33	9,840
	Sept.28, 1959	15.18	4,470
1960	Oct. 7, 1959	18.24	9,570
	Mar. 30, 1960	20.17	13,400
	Apr. 17, 1960	14.64	4,080
	May 8, 1960	16.77	6,480
	May 27, 1960	14.65	4,220
	June 24, 1960	18.37	10,100
	July 1, 1960	17.16	7,200
	July 13, 1960	16.28	5,760

FOX RIVER BASIN

Peak stages and discharges of Fox River at Wayland, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Sept.14, 1961	14.69	4,290				
1962	Nov. 18, 1961	15.05	4,500				
	Mar. 12, 1962	16.82	6,480				
1963	Mar. 5, 1963	16.27	5,760				
1964	Apr. 21, 1964	16.79	6,180				
1965	Jan. 2, 1965	14.72	4,070				
	Mar. 18, 1965	15.70	5,100				
	Apr. 6, 1965	15.97	5,300				
	Sept.22, 1965	15.56	4,970				

a At present site prior to construction of highway fill in 1928.
b Backwater from ice.

FOX RIVER BASIN

5-4951. Big Branch tributary near Wayland, Mo.

Location.--Lat 40°18'52", long 91°34'34", in NW¼SE¼ sec.29, T.64 N., R.6 W., at culvert under U.S. Highway 61, 5.6 miles south of Wayland.

Drainage area.--0.70 sq mi. Slope.--80.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	-	(a)	[b] 30				
1956	July 7, 1956	5.62	10				
1957	May 10, 1957	6.95	130				
1958	June 10, 1958	8.68	360				
1959	Sept.29, 1959	6.49	80				
1960	June 30, 1960	7.81	240				
1961	Apr. 22, 1961	6.91	126				
1962	June 3, 1962	6.37	65				
1963	Mar. 4, 1963	6.31	60				
1964	Apr. 19, 1964	7.11	150				
1965	Jan. 1, 1965	7.05	142				

a Not determined; peak stage did not reach bottom of gage.
b Less than figure shown.

WYACONDA RIVER BASIN

5-4960. Wyaconda River above Canton, Mo.
(Published as "near Canton" prior to 1933)

Location.--Lat 40°08'30", long 91°33'55", in SE¼ sec.28, T.62 N., R.6 W., on left bank on downstream side of bridge on State Highway 16, 1 mile upstream from Sugar Creek, and 2 miles west of Canton.

Drainage area.--393 sq mi; 447 sq mi prior to Oct. 1, 1932. Slope.--4.5 ft per mi.

Gage.--Nonrecording prior to May 1, 1939; recording thereafter. Prior to Oct. 1, 1932, at site 2 miles downstream at different datum. Datum of gage is 515.41 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--18 ft.

Remarks.--Records for sites "near" and "above" considered equvalent for flood-frequency study. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	11.66	3,270
1923	Mar. 16, 1923	10.10	2,630
	Sept. 28, 1923	10.10	2,630
1924	June 27, 1924	12.26	3,520
1925	Apr. 26, 1925	10.18	2,670
1926	Sept. 27, 1926	15.76	5,300
1927	Oct. 3, 1926	17.95	6,700
	Apr. 21, 1927	15.65	5,180
	June 13, 1927	15.30	5,000
1928	Oct. 3, 1927	18.78	7,300
1929	Nov. 18, 1928	26.7	16,000
	Apr. 1, 1929	15.94	5,340
	Apr. 21, 1929	20.54	8,750
	Apr. 26, 1929	19.10	7,540
	June 3, 1929	16.73	5,820
	July 16, 1929	17.70	6,490
1930	Feb. 13, 1930	10.88	3,040
1931	June 7, 1931	19.00	7,460
1932	Aug. 15, 1932	15.04	4,930
1933	Dec. 25, 1932	22.40	6,620
	May 13, 1933	23.80	7,870
	June 30, 1933	30.00	17,700
1934	Apr. 5, 1934	10.56	1,470
1935	June 3, 1935	29.30	16,200
1936	Feb. 27, 1936	22.84	6,960
1937	Feb. 22, 1937	a21.61	3,120
1938	Apr. 7, 1938	18.84	4,430
1939	Mar. 13, 1939	24.54	9,200
	Apr. 16, 1939	21.54	5,980
1940	Apr. 24, 1940	12.92	2,300
1941	June 10, 1941	14.25	2,720
1942	Feb. 7, 1942	21.7	6,510
1943	Aug. 9, 1943	20.4	5,600
1944	Mar. 16, 1944	21.48	6,350
	Apr. 12, 1944	19.56	5,100
	Apr. 24, 1944	24.45	9,040
1945	June 17, 1945	25.03	8,590
1946	Jan. 6, 1946	25.40	9,100
	June 20, 1946	22.90	6,670
	July 19, 1946	24.70	8,260
1947	Apr. 6, 1947	26.40	11,200
	June 7, 1947	27.14	12,400
	June 14, 1947	21.10	5,440
1948	Mar. 20, 1948	24.10	8,020
1949	Mar. 27, 1949	15.53	2,950
1950	June 20, 1950	26.07	10,800
1951	Feb. 20, 1951	21.79	5,900
	July 22, 1951	20.89	5,320
1952	Mar. 19, 1952	16.5	3,280
	Apr. 24, 1952	16.5	3,280
1953	Apr. 1, 1953	21.05	5,380
1954	Apr. 22, 1954	14.36	2,600
1955	Jan. 7, 1955	21.12	5,460
1956	Oct. 5, 1955	13.27	2,280
1957	June 11, 1957	14.16	2,540
1958	Aug. 2, 1958	18.35	3,800
1959	Aug. 9, 1959	19.64	4,580
1960	Oct. 7, 1959	23.24	7,140
	Mar. 31, 1960	23.64	7,560
	June 25, 1960	20.98	5,380
	July 2, 1960	25.87	10,600
1961	Sept. 14, 1961	17.99	-
	Sept. 15, 1961	-	3,530
1962	Nov. 18, 1961	20.14	4,790
1963	Mar. 6, 1963	22.23	6,250
1964	Apr. 22, 1964	21.20	5,520
1965	Jan. 3, 1965	21.34	5,590

a Backwater from ice.

FABIUS RIVER BASIN

5-4970. North Fabius River at Monticello, Mo.

Location.--Lat 40°06'30", long 91°42'55", in SW¼SE¼ sec.6, T.61 N., R.7 W., near center of span on downstream side of bridge on State Highway 16, 1 mile south of Monticello, and 19 miles upstream from Middle Fabius River.

Drainage area.--452 sq mi. Slope.--4.8 ft per mi.

Gage.--Nonrecording. Prior to Nov. 22, 1930, at site 400 ft downstream at datum 0.03 ft lower. Datum of gage is 540.73 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements; large shift in relation occurred in 1936.

Bankfull stage.--22 ft.

Historical data.--Flood of June 30, 1933, is maximum known since at least 1874.

Remarks.--Considerable improvement work completed on tributaries and main channel upstream from gaging station prior to establishment. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 13, 1922	18.60	5,140
1923	Mar. 16, 1923	15.70	3,590
1924	June 26, 1924	22.9	8,310
1925	Apr. 25, 1925	18.18	4,910
1926	Sept. 16, 1926	23.2	8,580
1927	Oct. 3, 1926	23.10	8,490
	Apr. 20, 1927	23.50	8,760
	June 13, 1927	20.30	6,210
1928	Oct. 1, 1927	22.60	8,040
	June 19, 1928	25.00	10,300
1929	Nov. 18, 1928	30.0	16,000
	Apr. 1, 1929	21.00	6,700
	Apr. 21, 1929	22.00	7,500
	Apr. 25, 1929	24.00	9,300
	June 3, 1929	23.30	8,670
	July 16, 1929	26.80	12,200
1930	Oct. 29, 1929	20.50	6,350
1931	Apr. 21, 1931	22.40	7,860
	June 6, 1931	22.80	8,220
1932	Nov. 23, 1931	21.40	7,020
	Jan. 1, 1932	21.42	7,020
	Aug. 15, 1932	21.50	7,100
	Aug. 18, 1932	20.65	6,420
1933	Dec. 24, 1932	25.70	11,000
	Jan. 19, 1933	20.50	6,350
	May 13, 1933	24.00	9,300
	June 30, 1933	30.8	17,400
1934	Sept. 29, 1934	8.80	1,270
1935	May 24, 1935	25.85	10,900
	May 28, 1935	20.58	6,340
	June 3, 1935	29.62	15,700
	June 19, 1935	22.17	7,480
1936	Feb. 25, 1936	25.68	10,800
	Sept. 28, 1936	21.3	7,800
1937	Feb. 21, 1937	21.34	7,650
1938	May 28, 1938	17.44	4,830
1939	Mar. 13, 1939	26.0	12,100
	Apr. 16, 1939	25.25	10,200
1940	Apr. 24, 1940	12.4	2,360
1941	June 10, 1941	18.0	5,380
1942	Feb. 7, 1942	23.14	9,120
	July 15, 1942	22.30	8,450
1943	May 16, 1943	20.15	6,850
1944	Mar. 16, 1944	21.05	7,410
	Apr. 11, 1944	19.46	6,360
	Apr. 24, 1944	25.1	11,100
1945	Feb. 15, 1945	19.80	6,570
	May 15, 1945	19.65	6,430
	May 17, 1945	20.40	6,990
	June 17, 1945	26.7	13,000
1946	Jan. 6, 1946	25.77	11,900
	Mar. 17, 1946	19.80	6,570
	Mar. 24, 1946	19.42	6,290
	June 19, 1946	21.70	7,970
	July 18, 1946	27.00	13,300
1947	Apr. 6, 1947	28.00	14,700
	May 29, 1947	20.36	6,990
	June 7, 1947	28.65	15,600
	June 14, 1947	24.98	11,000
	June 19, 1947	20.00	6,710
	June 22, 1947	19.50	6,360
1948	Dec. 5, 1947	20.00	6,710
	Feb. 28, 1948	21.70	7,970
	Mar. 20, 1948	24.61	10,500
1949	Feb. 24, 1949	a23.2	6,500
1950	June 20, 1950	25.93	11,200
1951	Feb. 19, 1951	21.3	7,170
	July 22, 1951	24.0	9,410
1952	Mar. 11, 1952	19.02	5,580
1953	Mar. 31, 1953	21.8	7,550
1954	Apr. 21, 1954	18.7	5,270
1955	Jan. 6, 1955	22.6	8,190
1956	Aug. 9, 1956	13.90	2,500
1957	June 11, 1957	15.65	3,320
1958	Aug. 1, 1958	21.05	6,100
1959	Aug. 7, 1959	23.58	8,700
1960	Oct. 7, 1959	23.84	8,800
	Mar. 29, 1960	24.10	9,210
	May 8, 1960	23.19	8,300
	June 24, 1960	21.16	6,380
	July 2, 1960	25.85	11,200

FABIUS RIVER BASIN

Peak stages and discharges of North Fabius River at Monticello, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Sept. 14, 1961	19.14	4,670				
1962	Nov. 17, 1961	22.22	7,300				
1963	Mar. 5, 1963	22.80	7,900				
1964	Apr. 21, 1964	21.36	6,530				
1965	Jan. 2, 1965	21.98	7,200				
	Mar. 18, 1963	21.30	6,640				

a Backwater from ice.

FABIUS RIVER BASIN

5-4975. Middle Fabius River near Baring, Mo.

Location.--Lat 40°19'55", long 92°12'50", in NW¼NW¼ sec.26, T.64 N., R.12 W., on right bank at downstream side of bridge on State Highway 15, 1 mile downstream from confluence of North and South Forks, and 6 miles north of Baring.

Drainage area.--185 sq mi. Slope.--6.8 ft per mi.

Gage.--Nonrecording prior to Sept. 17, 1934; recording Sept. 17, 1934, to Aug. 21, 1961; crest-stage gage since Mar. 7, 1963. Datum of gage is 679.69 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6.200 cfs; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 2,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1875	July 1875	a27		1951	Feb. 20, 1951	19.59	4,180
					Apr. 8, 1951	17.26	2,710
1931	Apr. 21, 1931	19.70	4,840		July 22, 1951	17.17	2,660
	May 29, 1931	18.00	3,830				
	June 6, 1931	18.55	4,160	1952	Apr. 23, 1952	17.26	2,710
	July 3, 1931	15.85	2,840		June 3, 1952	17.30	2,710
1932	Nov. 24, 1931	18.90	4,340	1953	Mar. 31, 1953	21.43	6,160
	Aug. 15, 1932	18.70	4,220				
				1954	Apr. 21, 1954	17.15	2,660
1933	Dec. 24, 1932	16.00	2,790				
	Jan. 19, 1933	18.10	3,880	1955	Jan. 6, 1955	21.89	6,490
	May 12, 1933	19.90	4,940		Feb. 19, 1955	17.32	2,830
	June 29, 1933	24.23	8,740		May 13, 1955	17.10	2,730
1934	Apr. 4, 1934	8.60	800	1956	Oct. 6, 1955	13.75	1,470
1935	May 4, 1935	15.94	2,740	1957	May 14, 1957	14.58	1,710
	May 24, 1935	19.78	4,880				
				1958	Oct. 24, 1957	17.66	3,030
1936	Feb. 27, 1936	15.76	2,700		Dec. 20, 1957	16.88	2,640
	Sept. 27, 1936	20.10	5,000		May 5, 1958	17.12	2,730
					July 20, 1958	17.65	2,980
1937	Oct. 11, 1936	16.38	2,980		Aug. 1, 1958	18.37	3,440
	Feb. 21, 1937	20.07	5,060				
	Mar. 4, 1937	15.75	2,700	1959	Aug. 6, 1959	22.18	5,800
1938	Apr. 7, 1938	15.13	2,230	1960	Oct. 6, 1959	21.64	5,250
					Mar. 28, 1960	21.98	5,610
1939	Mar. 12, 1939	22.31	7,060		May 7, 1960	22.30	5,900
	Apr. 15, 1939	21.62	6,460		July 1, 1960	23.18	7,100
1940	Mar. 3, 1940	15.40	2,130	1961	Apr. 22, 1961	18.03	b2,870
1941	June 10, 1941	19.07	4,500	1963	Mar. 5, 1963	14.6	b1,650
1942	Nov. 1, 1941	17.5	3,350	1964	Apr. 20, 1964	21.56	b5,210
	Dec. 24, 1941	16.4	2,660				
	Feb. 7, 1942	19.24	4,570	1965	Sept. 22, 1965	23.13	b6,950
1943	Dec. 28, 1942	17.52	3,350				
	Apr. 27, 1943	16.9	2,960				
	May 17, 1943	17.0	3,020				
1944	Mar. 15, 1944	20.4	5,490				
	Apr. 23, 1944	24.06	8,640				
1945	May 16, 1945	16.3	2,600				
	June 16, 1945	25.1	9,540				
	June 21, 1945	18.2	3,840				
1946	Jan. 5, 1946	22.2	6,970				
	Mar. 23, 1946	18.3	3,900				
	July 17, 1946	22.80	7,480				
1947	Apr. 5, 1947	22.0	6,800				
	June 5, 1947	24.2	8,730				
	June 13, 1947	23.40	8,010				
1948	Dec. 5, 1947	17.91	3,480				
	Feb. 28, 1948	19.70	4,940				
	Mar. 20, 1948	21.73	6,540				
1949	June 26, 1949	16.6	2,720				
1950	June 19, 1950	24.55	9,000				

a. About.
b. Annual peak only.

FABIUS RIVER BASIN

5-4977. Bridge Creek Branch near Baring, Mo.

Location.--Lat 40°15'30", long 92°13'00", in NE¼NE¼ sec.22, T.63 N., R.12 W., at culvert under State Highway 15, 1 mile northwest of Baring.

Drainage area.--2.54 sq mi. Slope.--43.2 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 140 cfs and extended on basis of indirect measurements.

Bankfull stage.--13 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Jan. 5, 1955	13.26	455				
1956	July 1, 1956	11.17	207				
1957	July 28, 1957	12.55	360				
1958	Oct. 23, 1957	13.91	552				
1959	Nov. 17, 1958	9.49	94				
1960	June 23, 1960	15.20	800				
1961	Apr. 22, 1961	10.81	170				
1962	Nov. 16, 1961	14.45	650				
1963	Mar. 4, 1963	13.04	400				
1964	July 12, 1964	12.29	315				
1965	Jan. 2, 1965	13.39	465				

FABIUS RIVER BASIN

5-4980. Middle Fabius River near Monticello, Mo.

Location.--Lat 40°05'40", long 91°44'10", in SE¼ sec.12, T.61 N., R.8 W., near center of span on upstream side of bridge on State Highway 16, 2½ miles southwest of Monticello, 8 miles downstream from Radish Branch, and 17 miles upstream from mouth.

Drainage area.--393 sq mi. Slope.--4.1 ft per mi.

Gage.--Nonrecording. Datum of gage is 540.46 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 8, 1946	19.2	6,520	1958	Oct. 24, 1957	18.05	5,600
	July 20, 1946	16.88	4,880		Dec. 20, 1957	14.35	3,580
1947	Apr. 5, 1947	20.9	8,100	1959	Aug. 9, 1959	15.12	3,930
	May 29, 1947	15.0	3,880				
	June 7, 1947	26.28	16,200	1960	Oct. 9, 1959	19.00	6,360
	June 16, 1947	18.4	5,880		Mar. 31, 1960	19.51	6,770
	June 19, 1947	16.0	4,380		May 9, 1960	17.90	5,530
					June 23, 1960	14.36	3,580
1948	Mar. 1, 1948	14.50	3,630		July 3, 1960	20.08	7,310
	Mar. 22, 1948	18.04	5,600				
				1961	Mar. 22, 1961	14.56	3,500
1949	Feb. 21, 1949	17.2	5,060		Apr. 21, 1961	15.02	3,700
	July 21, 1949	18.45	5,880		Sept. 13, 1961	16.02	4,230
					Sept. 23, 1961	16.17	4,350
1950	June 21, 1950	20.9	8,300				
				1962	Nov. 3, 1961	15.80	4,280
1951	Feb. 22, 1951	16.5	4,960		Nov. 16, 1961	14.70	3,730
	July 23, 1951	20.1	6,610		Mar. 21, 1962	14.53	3,630
1952	June 3, 1952	15.7	4,230	1963	Mar. 6, 1963	17.38	5,190
1953	Apr. 2, 1953	18.4	5,880	1964	Apr. 23, 1964	18.48	6,000
1954	Mar. 25, 1954	12.33	2,580	1965	Jan. 2, 1965	19.98	7,300
					Jan. 23, 1965	15.45	4,000
1955	Jan. 8, 1955	18.06	5,670		Mar. 17, 1965	16.02	4,300
					Apr. 6, 1965	15.80	4,200
1956	Oct. 5, 1955	10.50	1,860		Sept. 24, 1965	15.50	4,050
1957	May 10, 1957	13.70	3,230				

FABIUS RIVER BASIN

5-4985. North Fabius River at Taylor, Mo.

Location.--Lat 39°56'05", long 91°31'35', in NE¼SE¼ sec.2, T.59 N., R.6 W., at bridge on U. S. Highway 61 at Taylor, 6.5 miles upstream from mouth.

Drainage area.--930 sq mi, approximately. Slope.--4.0 ft per mi.

Gage.--Nonrecording Apr. 12, 1930, to Sept. 17, 1934; recording thereafter. Datum of gage is 469.65 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur. Relation affected at times by backwater from Mississippi River.

Bankfull stage.--15 ft.

Remarks.--New channel dug from near gage to mouth prior to establishment of gaging station. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Nov. 19, 1928	23.5	26,000	1936	Feb. 26, 1936	14.50	12,100
				1937	Feb. 23, 1937	11.31	8,480
1931	June 8, 1931	14.29	11,400	1938	Apr. 10, 1938	10.64	7,460
1932	Aug. 19, 1932	14.36	11,600	1939	Mar. 14, 1939	15.67	16,200
1933	June 30, 1933	22.85	30,300	1940	Mar. 4, 1940	7.18	3.790
1934	Sept. 29, 1934	6.18	2,380				
1935	June 4, 1935	19.44	24,400	1941	June 11, 1941	8.35	5,050
				1942	Feb. 8, 1942	15.10	13,100

FABIUS RIVER BASIN

5-5000. South Fabius River near Taylor, Mo.

Location.--Lat 39°53'50", long 91°34'50", in SW¼NW¼ sec.21, T.59 N., R.6 W., on right bank at downstream side of highway bridge, 4½ miles southwest of Taylor, 5 miles downstream from Grassy Creek, and 5.3 miles upstream from confluence with North Fabius River.

Drainage area.--620 sq mi; 630 sq mi at site used prior to May 14, 1936. Slope.--3.4 ft per mi.

Gage.--Nonrecording Dec. 16, 1934, to Dec. 2, 1940; recording thereafter. Prior to May 14, 1936, at site 4 miles downstream at datum 21.94 ft lower. Datum of gage is 482.91 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended above.

Bankfull stage.--11 ft.

Remarks.--Channel improvements made in Fabius River, 5.3 miles below station, and for distance of 7.5 miles in South Fabius River, about 34 miles upstream from station. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	November 1928	a18.49	17,800	1946	Jan. 7, 1946	13.60	10,400
					Mar. 26, 1946	8.80	4,210
1933	June 1933	a18.42	17,700		May 6, 1946	8.80	4,210
1935	May 2, 1935	17.7	6,670	1947	Oct. 17, 1946	10.40	6,030
	May 9, 1935	17.8	6,760		Nov. 2, 1946	9.85	5,310
	May 14, 1935	17.4	6,400		Dec. 13, 1946	9.14	4,520
	May 30, 1935	18.1	7,030		Apr. 6, 1947	17.30	15,700
	June 4, 1935	22.9	11,830		May 30, 1947	10.48	6,150
	June 19, 1935	23.38	12,400		June 8, 1947	19.5	19,700
					June 20, 1947	11.2	6,990
1936	Feb. 26, 1936	21.85	10,600				
	Sept. 29, 1936	9.11	5,110	1948	Dec. 7, 1947	8.68	4,070
					Feb. 27, 1948	9.25	4,620
1937	Feb. 21, 1937	9.80	5,959		Mar. 21, 1948	11.88	7,830
	July 13, 1937	8.80	4,780				
				1949	July 20, 1949	12.19	8,210
1938	Jan. 24, 1938	8.10	4,010		July 22, 1949	9.0	4,400
	Mar. 30, 1938	10.91	7,190				
	Apr. 10, 1938	10.80	7,060	1950	Apr. 4, 1950	8.34	3,650
	May 28, 1938	8.14	4,014				
	Aug. 28, 1938	9.00	5,000	1951	Feb. 20, 1951	9.57	5,070
					Mar. 29, 1951	10.40	6,030
1939	Nov. 7, 1938	8.40	4,340		July 24, 1951	10.17	5,790
	Mar. 13, 1939	12.82	9.510				
	Apr. 17, 1939	11.50	7,730	1952	Mar. 10, 1952	8.97	4,330
	May 27, 1939	10.40	6,300		Mar. 19, 1952	9.66	5,100
	June 22, 1939	9.60	5,360		Apr. 25, 1952	10.05	5,430
	Aug. 11, 1939	8.90	4,590		June 9, 1952	9.07	4,440
	Aug. 18, 1939	9.00	4,700				
				1953	Apr. 2, 1953	10.18	5,670
1940	Mar. 3, 1940	7.8	3,470		July 21, 1953	9.61	4,990
1941	Apr. 20, 1941	6.93	2,580	1954	Aug. 17, 1954	8.10	3,490
1942	Nov. 1, 1941	9.33	4,760	1955	Jan. 6, 1955	9.34	4,730
	Dec. 26, 1941	8.70	4,070		Feb. 20, 1955	11.58	7,470
	Feb. 4, 1942	10.10	5,670		Apr. 23, 1955	10.90	6,630
	Feb. 7, 1942	13.62	10,400		May 28, 1955	15.25	12,300
	Mar. 16, 1942	9.50	4,950				
	Apr. 10, 1942	8.80	4,180	1956	Oct. 6, 1955	9.65	5,070
	Apr. 29, 1942	9.12	4,510				
	June 26, 1942	10.10	5,670	1957	May 17, 1957	11.40	6,290
	July 15, 1942	10.20	5,790				
				1958	Oct. 26, 1957	14.44	9,820
1943	Dec. 27, 1942	10.80	6,540		July 3, 1958	11.90	6,840
	May 21, 1943	14.38	11,700		July 15, 1958	13.08	8,190
	June 9, 1943	9.91	5,430				
	June 19, 1943	9.24	4,620	1959	Feb. 10, 1959	9.21	3,990
	July 15, 1943	9.00	4,400				
				1960	Mar. 30, 1960	12.35	7,850
1944	May 17, 1944	13.44	10,200		Apr. 16, 1960	9.28	4,730
	Apr. 11, 1944	14.30	11,600		June 24, 1960	11.25	6,630
	Apr. 24, 1944	13.15	9,700		July 1, 1960	8.86	4,370
	Aug. 21, 1944	10.35	5,970		July 12, 1960	9.80	5,230
1945	Mar. 20, 1945	10.35	6,030	1961	Mar. 13, 1961	8.68	4,150
	Mar. 25, 1945	10.09	5,670		Apr. 25, 1961	10.16	5,540
	Apr. 13, 1945	11.78	7,870		May 8, 1961	10.76	6,140
	Apr. 16, 1945	9.20	4,630		Sept. 14, 1961	12.94	8,390
	May 17, 1945	10.45	6,030		Sept. 26, 1961	11.16	6,540
	June 9, 1945	12.20	8,430				
	June 18, 1945	13.05	9,550	1962	Nov. 5, 1961	10.21	5,540
	Sept. 29, 1945	9.30	4,740		Nov. 18, 1961	9.92	5,240
					Mar. 12, 1962	9.05	4,420
					Mar. 21, 1962	11.61	6,950
					July 3, 1962	10.93	6,240

FABIUS RIVER BASIN

Peak stages and discharges of South Fabius River near Taylor, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1963	Mar. 4, 1963	10.05	5,340				
	May 16, 1963	8,75	4,330				
1964	Apr. 5, 1964	9.47	4,870				
	Apr. 22, 1964	9.14	4,510				
1965	Jan. 4, 1965	14.81	10,800				
	Jan. 24, 1965	12.15	7,610				
	Mar. 17, 1965	11.37	6,740				
	Apr. 6, 1965	12.49	7,940				

a From floodmark, present site and datum.

NORTH RIVER BASIN

5-5005. North River at Bethel, Mo.

Location.--Lat 39°52'29", long 92°01'26", in NE¼NW¼ sec.33, T.59 N., R.10 W., at left abutment on downstream side of bridge on State Highway 15 at Bethel, 2½ miles upstream from Messner Branch.

Drainage area.--58 sq mi, approximately. Slope.--5.0 ft per mi.

Gage.--Nonrecording prior to Apr. 17, 1956; recording thereafter. Datum of gage is 683.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,600 cfs.

Bankfull stage.--14 ft.

Historical data.--Floods of Apr. 5, 1947, and Oct. 24, 1957, reached maximum stages known since at least 1875, from information by local resident.

Remarks.--Base for partial-duration series, 600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 31, 1937	a10.6	-
	Feb. 9, 1937	a8.8	-
	Feb. 13, 1937	a11.57	-
	May 3, 1937	8.3	518
1938	Apr. 10, 1938	9.36	777
1939	Mar. 12, 1939	17.1	4,280
	Apr. 16, 1939	10.15	972
	June 21, 1939	10.20	972
	Aug. 11, 1939	9.90	894
1940	Mar. 3, 1940	8.6	596
1941	Jan. 17, 1941	7.5	420
1942	Oct. 22, 1941	8.8	652
	Nov. 1, 1941	10.7	1,110
	Dec. 24, 1941	8.8	652
	Feb. 6, 1942	15.10	2,960
	Mar. 17, 1942	10.2	973
	Apr. 10, 1942	10.5	1,050
	July 14, 1942	9.6	824
1943	Dec. 27, 1942	9.3	756
	Feb. 4, 1943	8.6	613
	May 16, 1943	8.8	652
	May 20, 1943	12.1	1,530
	June 9, 1943	9.9	897
	June 11, 1943	9.3	756
	June 17, 1943	12.2	1,560
1944	Mar. 15, 1944	18.04	4,900
	Apr. 11, 1944	16.3	3,750
	Apr. 23, 1944	13.0	1,840
	May 24, 1944	9.4	778
1945	Mar. 26, 1945	10.9	1,190
	Apr. 17, 1945	9.5	801
	Apr. 26, 1945	9.9	897
	May 17, 1945	12.2	1,560
	June 10, 1945	12.1	1,530
	June 16, 1945	17.3	4,410
	July 1, 1945	9.3	756
	Sept. 29, 1945	13.0	1,840
1946	Jan. 5, 1946	16.07	3,620
	Mar. 24, 1946	11.4	1,310
	May 4, 1946	9.1	713
	May 7, 1946	9.3	756
1947	Dec. 13, 1946	9.9	897
	Apr. 5, 1947	20.9	6,930
	May 29, 1947	11.1	1,220
	June 2, 1947	10.0	922
	June 6, 1947	18.8	5,460
	June 19, 1947	16.4	3,810
	June 21, 1947	14.6	2,530
	Sept. 21, 1947	9.2	713
1948	Dec. 5, 1947	10.66	1,110
	Feb. 28, 1948	10.60	1,080
	Mar. 19, 1948	16.75	4,070
	Apr. 8, 1948	8.78	652
1949	Jan. 16, 1949	a9.45	-
	Feb. 14, 1949	a9.45	-
	Feb. 19, 1949	9.97	922
	Feb. 24, 1949	8.60	613
	Mar. 27, 1949	9.80	872
	June 3, 1949	8.67	632
	June 27, 1949	11.25	1,250
	July 20, 1949	10.40	1,030
1950	Oct. 21, 1949	8.73	632
	Jan. 14, 1950	9.22	734
	Apr. 4, 1950	9.50	801
	Apr. 25, 1950	8.80	652
	June 15, 1950	8.80	652
1951	Feb. 20, 1951	a12.4	900
	June 27, 1951	11.49	1,020
1952	Mar. 10, 1952	11.8	1,110
	Mar. 19, 1952	10.9	850
	Apr. 23, 1952	16.0	3,280
1953	Apr. 1, 1953	11.5	1,020
1954	Apr. 6, 1954	13.6	1,800
	Aug. 8, 1954	9.8	618
	Aug. 17, 1954	12.2	1,240
1955	Jan. 6, 1955	12.12	1,200
	Feb. 19, 1955	12.0	1,170
	May 28, 1955	13.68	1,850
	June 20, 1955	10.93	860
1956	Oct. 6, 1955	10.48	776
	Aug. 3, 1956	10.64	795
1957	May 18, 1957	9.55	670
	July 29, 1957	10.77	930
1958	Oct. 24, 1957	20.90	5,870
	Nov. 19, 1957	9.30	614
	Dec. 21, 1957	9.51	650
	Dec. 26, 1957	9.88	730
	Feb. 24, 1958	9.62	670
	July 2, 1958	9.34	614
	July 16, 1958	13.70	1,720
	Aug. 1, 1958	12.69	1,410
1959	Feb. 10, 1959	12.28	1,300
	May 31, 1959	9.19	608
1960	Oct. 6, 1959	9.56	665
	Mar. 28, 1960	15.01	2,170
	Apr. 16, 1960	9.87	800
	May 7, 1960	10.56	940
	July 1, 1960	9.68	762
	July 11, 1960	14.69	2,050
1961	Mar. 9, 1961	9.17	667
	Mar. 14, 1961	10.05	820
	Apr. 23, 1961	11.54	1,120
	May 6, 1961	9.25	667
	Sept. 14, 1961	15.52	2,370
	Sept. 24, 1961	14.83	2,090

NORTH RIVER BASIN

Peak stages and discharges of North River at Bethel, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Oct. 31, 1961	10.46	920	1964	Apr. 6, 1964	9.46	724
	Nov. 3, 1961	14.70	2,050		Apr. 21, 1964	13.42	1,620
	Nov. 16, 1961	13.79	1,740				
	Jan. 6, 1962	9.50	667	1965	Jan. 2, 1965	18.15	3,890
	Feb. 5, 1962	11.55	1,100		Jan. 23, 1965	13.95	1,800
	Mar. 12, 1962	11.20	1,060		Mar. 17, 1965	13.27	1,590
	Mar. 21, 1962	13.02	1,500		Apr. 6, 1965	15.65	2,410
					Sept. 16, 1965	9.78	781
1963	Mar. 5, 1963	12.98	1,500		Sept. 20, 1965	8.94	611
	May 16, 1963	9.54	724				

a Backwater from ice.

NORTH RIVER BASIN

5-5010. North River at Palmyra, Mo.

Location.--Lat 39°49'05", long 91°31'15", in SE¼SW¼ sec.13, T.58 N., R.6 W., on right bank 100 ft upstream from city waterworks dam, 1,000 ft upstream from bridge on U. S. Highways 24 and 61, half a mile north of Palmyra, and 7 miles upstream from mouth.

Drainage area.--373 sq mi. Slope.--5.0 ft per mi.

Gage.--Nonrecording Dec. 14, 1934, to June 22, 1951; recording thereafter. Prior to Oct. 1, 1945, at site 1,000 ft downstream at same datum. Datum of gage is 464.81 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs; a large shift in relation occurred in 1951.

Bankfull stage.--19 ft.

Historical data.--Maximum stage known, about 28 ft, from floodmarks, date unknown.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 9, 1935	18.15	a8,790	1947	Oct. 18, 1946	16.80	6,430
					Nov. 3, 1946	16.20	5,980
1936	Feb. 26, 1936	21.00	15,000		Nov. 9, 1946	15.48	5,300
					Dec. 13, 1946	14.70	4,480
1937	Feb. 21, 1937	15.36	5,350		Apr. 5, 1947	21.65	15,600
	July 13, 1937	18.45	9,220		May 29, 1947	14.37	4,170
	July 19, 1937	16.84	6,550		June 1, 1947	22.4	19,000
					June 7, 1947	b21.41	11,000
1938	Mar. 29, 1938	15.63	5,510		June 20, 1947	b20.02	8,000
	Mar. 31, 1938	18.00	8,380				
	May 28, 1939	17.54	7,500	1948	Dec. 4, 1947	16.39	6,130
					Dec. 7, 1947	16.04	5,800
1939	Mar. 12, 1939	19.70	12,200		Feb. 28, 1948	15.10	4,900
	Apr. 17, 1939	17.39	7,600		Mar. 6, 1948	15.04	4,800
	May 27, 1939	18.80	10,100		Mar. 19, 1948	18.84	8,490
	June 21, 1939	17.20	7,310		Mar. 22, 1948	15.09	4,900
	July 25, 1939	20.50	14.600				
	Aug. 12, 1939	16.00	5,920	1949	Feb. 13, 1949	21.0	12,300
	Aug. 17, 1939	15.40	5,350		June 2, 1949	15.4	5,200
					June 24, 1949	20.55	11,600
1940	Mar. 3, 1940	12.4	3,330		June 26, 1949	17.0	6,600
					July 20, 1949	22.3	16,000
1941	Apr. 19, 1941	12.0	3,110		July 22, 1949	22.2	15,600
1942	Oct. 5, 1941	15.52	5,480	1950	Oct. 21, 1949	14.68	4,480
	Oct. 21, 1941	15.52	5,480		Dec. 21, 1949	15.56	5,400
	Nov. 1, 1941	16.32	6,310		Jan. 3, 1950	15.56	5,400
	Feb. 7, 1942	18.95	10,800		Apr. 4, 1950	15.13	5,000
	Mar. 16, 1942	14.90	5,370				
	Apr. 10, 1942	16.90	7,240	1951	Feb. 19, 1951	14.45	4,170
	June 19, 1942	b14.90	-		Mar. 29, 1951	22.72	17,900
	June 26, 1942	20.48	15,200		June 27, 1951	18.69	8,460
	July 10, 1942	15.00	5,450				
	July 15, 1942	19.00	10,800	1952	Nov. 12, 1951	17.80	7,350
					Mar. 10, 1952	15.19	5,000
1943	Dec. 27, 1942	19.27	11,500		Mar. 18, 1952	17.94	7,460
	May 16, 1943	15.78	6,120		May 9, 1952	14.48	4,280
	May 18, 1943	18.00	8,800				
	May 21, 1943	16.00	6,300	1953	Mar. 31, 1953	15.39	5,200
	June 8, 1943	15.19	5,610		June 14, 1953	15.26	5,100
	June 10, 1943	18.30	9,350				
				1954	June 1, 1954	13.42	2,900
1944	Mar. 15, 1944	19.80	12,800				
	Apr. 11, 1944	22.96	27,400	1955	Jan. 5, 1955	16.63	6,240
	Apr. 23, 1944	19.50	12,000		Feb. 19, 1955	20.33	11,000
	May 28, 1944	b13.40	-		Apr. 24, 1955	18.87	8,750
					May 28, 1955	24.42	23,000
1945	Mar. 21, 1945	18.77	10,400				
	Mar. 25, 1945	b18.77	-	1956	Apr. 29, 1956	15.49	5,160
	Apr. 13, 1945	19.18	11,300		June 21, 1956	17.05	6,600
	Apr. 16, 1945	15.98	6,300				
	Apr. 26, 1945	15.60	5,940	1957	Apr. 22, 1957	15.35	5,060
	May 17, 1945	18.42	9,540		Apr. 27, 1957	15.95	5,660
	June 9, 1945	19.00	10,800		May 17, 1957	19.00	8,900
	June 16, 1945	20.30	14,400		June 8, 1957	16.81	6,420
	July 1, 1945	15.70	6,030		June 12, 1957	14.71	4,320
	Sept. 28, 1945	17.00	7,350		July 29, 1957	16.83	6,420
1946	Jan. 6, 1946	18.40	8,290	1958	Oct. 25, 1957	16.96	4,820
	Jan. 9, 1946	18.6	8,560		July 16, 1958	21.60	11,100
	May 11, 1946	14.72	4,485		July 20, 1958	18.96	6,840
					July 31, 1958	19.70	7,790

NORTH RIVER BASIN

Peak stages and discharges of North River at Palmyra, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 10, 1959	21.38	10,600	1963	Mar. 5, 1963	18.88	6,710
	June 1, 1959	17.09	4,900		May 16, 1963	18.07	5,790
1960	Mar. 28, 1960	17.86	5,590	1964	Apr. 5, 1964	18.76	6,580
	Apr. 17, 1960	16.50	4,470		Apr. 19, 1964	17.22	4,980
	July 1, 1960	16.00	4,150				
	July 11, 1960	17.23	4,980	1965	Jan. 2, 1965	18.27	5,990
	July 13, 1960	17.14	4,900		Jan. 24, 1965	19.07	6,940
					Mar. 17, 1965	19.06	6,920
1961	May 8, 1961	20.67	9,320		Apr. 6, 1965	20.89	9,620
	July 1, 1961	16.92	4,750		Sept. 16, 1965	16.70	4,610
	July 23, 1961	16.68	4,610				
	Sept. 14, 1961	23.58	15,400				
1962	Nov. 3, 1961	17.53	5,230				
	Nov. 16, 1961	17.49	5,230				
	Mar. 21, 1962	21.07	9,980				
	July 2, 1962	17.24	4,980				

a Annual peak only.
b Backwater from Mississippi River.

SOUTH RIVER BASIN

5-5012. Nichols Branch near Palmyra, Mo.

Location.--Lat 39°44'30", long 91°32'00", in SE¼SE¼ sec.11, T.57 N., R.6 W., at culvert on county road 4 miles south of Palmyra.

Drainage area.--2.58 sq mi. Slope.--52.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements.

Bankfull stage.--22 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 21, 1949	-	3,700	1961	May 8, 1961	19.60	669
				1962	Mar. 20, 1962	18.95	490
1955	-	(a)	-	1963	Mar. 4, 1963	18.20	310
1956	July 7, 1956	15.76	-	1964	June 21, 1964	17.73	220
1957	June 8, 1957	16.29	-	1965	June 29, 1965	20.95	1,000
1958	-	16.12	-				
1959	-	(a)	-				
1960	July 12, 1960	17.64	210				

a Not determined; peak stage did not reach bottom of gage.

BEAR CREEK BASIN

5-5020. Bear Creek at Hannibal, Mo.

Location.--Lat 39°40'43", long 91°24'33", in SE¼NW¼ sec.1, T.56 N., R.5 W., on right bank 400 ft downstream from upstream bridge on dual U. S. Highway 61 at Hannibal, 4-3/4 miles upstream from mouth.

Drainage area.--31.0 sq mi. Slope.--15.4 ft per mi.

Gage.--Nonrecording prior to Mar. 25, 1948; recording thereafter. Prior to Oct. 1, 1953, at datum 2.00 ft higher. Datum of gage is 508.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current meter measurements below 4,000 cfs and extended above; shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--High flow regulated by Bear Creek Reservoir since Aug. 7, 1961. Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 13, 1937	10.8	6,050	1955	Feb. 19, 1955	8.66	1,700
					May 28, 1955	10.47	2,780
1939	Mar. 11, 1939	7.53	2,740		June 29, 1955	10.43	2,710
	Apr. 17, 1939	6.58	1,970		July 5, 1955	9.66	2,260
	June 19, 1939	7.50	2,740		Aug. 29, 1955	10.74	2,920
	June 21, 1939	9.5	4,670				
	Aug. 11, 1939	6.60	1,970	1956	Oct. 5, 1955	8.99	1,850
					June 19, 1956	8.73	1,700
1940	Apr. 17, 1940	6.50	1,890				
	Aug. 5, 1940	9.86	5,070	1957	June 8, 1957	9.12	1,900
					June 14, 1957	13.62	5,880
1941	Sept. 2, 1941	7.4	2,610		July 28, 1957	12.39	4,460
					July 29, 1957	9.72	2,260
1942	July 14, 1942	7.1	2,280		Aug. 3, 1957	14.05	6,500
1948	Apr. 7, 1948	7.39	2,090	1958	July 15, 1958	10.67	2,920
					July 19, 1958	11.19	3,300
1949	June 2, 1949	7.60	2,200		July 31, 1958	8.90	1,650
	June 23, 1949	10.80	4,900		Aug. 21, 1958	11.68	3,750
	July 21, 1949	10.95	5,120				
	Sept. 12, 1949	8.30	2,640	1959	Nov. 17, 1958	9.92	1,800
					Feb. 10, 1959	10.05	1,850
1950	Oct. 21, 1949	8.20	2,580				
	Dec. 21, 1949	7.60	2,200	1960	July 12, 1960	8.74	1,400
1951	July 28, 1951	7.84	2,380	1961	May 8, 1961	12.46	3,970
1952	Mar. 18, 1952	5.15	988	1962	Mar. 21, 1962	6.25	1,240
1953	Mar. 21, 1953	2.31	208	1963	May 16, 1963	6.41	1,320
1954	Apr. 30, 1954	5.59	415	1964	Apr. 5, 1964	6.09	1,170
				1965	Sept. 16, 1965	7.20	1,480

SALT RIVER BASIN

5-5025. Salt River near Shelbina, Mo.

Location.--Lat 39°44'25", long 92°02'26", in SW¼NE¼ sec.17, T.57 N., R.10 W., on right bank on downstream side of right pier of bridge on State Highway 15, 3 miles north of Shelbina, and 15 miles upstream from Black Creek.

Drainage area.--481 sq mi. Slope.--3.9 ft per mi.

Gage.--Nonrecording prior to Mar. 1, 1934; recording thereafter. Datum of gage is 664.58 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Some channel improvements made in drainage basin upstream from gage during period 1906-20. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	23.42	a17,700
1928	June 1928	23.54	a18,000
1931	Apr. 23, 1931	12.58	3,890
	June 8, 1931	17.88	8,270
1932	Nov. 19, 1931	12.30	3,720
	Nov. 26, 1931	13.00	4,110
	Jan. 2, 1932	11.85	3,460
	Aug. 3, 1932	13.04	4,110
	Aug. 18, 1932	16.32	5,920
1933	Dec. 26, 1932	17.20	7,390
	May 14, 1933	15.34	5,490
	July 1, 1933	22.62	16,000
1934	Sept. 30, 1934	10.48	2,800
1935	Nov. 5, 1934	11.74	3,360
	May 3, 1935	14.10	4,660
	May 10, 1935	13.60	4,360
	May 12, 1935	17.78	8,140
	May 22, 1935	11.37	3,220
	May 29, 1935	16.78	6,930
	June 3, 1935	20.63	12,300
	June 19, 1935	14.90	5,180
1936	Feb. 27, 1936	17.40	7,040
	Sept. 28, 1936	14.15	4,720
1937	Feb. 15, 1937	b12.32	-
	Feb. 21, 1937	b13.94	4,000
1938	Mar. 30, 1938	12.68	3,780
	Apr. 11, 1938	13.24	4,050
1939	Mar. 13, 1939	17.72	7,880
	Apr. 17, 1939	15.80	5,810
	June 22, 1939	14.05	4,500
	Aug. 2, 1939	12.10	3,480
1940	Mar. 4, 1940	12.11	3,560
1941	Jan. 18, 1941	7.69	1,590
1942	Nov. 2, 1941	13.60	4,270
	Dec. 25, 1941	12.00	3,480
	Feb. 7, 1942	17.65	7,750
	Mar. 17, 1942	12.80	3,840
	Apr. 11, 1942	14.40	4,760
1943	Dec. 28, 1942	13.00	3,940
	May 21, 1943	16.00	5,990
	June 10, 1943	15.60	5,630
	June 18, 1943	16.35	6,380
1944	Mar. 16, 1944	18.60	9,160
	Apr. 12, 1944	18.10	8,440
	Apr. 24, 1944	19.39	10,400
	May 4, 1944	11.10	3,010
1945	Mar. 27, 1945	13.60	4,270
	Apr. 18, 1945	12.40	3,630
	Apr. 27, 1945	12.00	3,430
	May 18, 1945	16.00	5,990
	June 11, 1945	15.00	5,160
	June 18, 1945	18.74	9,310
	Sept. 30, 1945	11.72	3,290
1946	Jan. 7, 1946	20.66	11,700
	Mar. 25, 1946	14.10	4,560
1947	Apr. 6, 1947	20.90	13,000
	June 1, 1947	14.20	4,630
	June 3, 1947	15.20	5,310
	June 7, 1947	27.4	23,000
	June 15, 1947	13.9	4,440
	June 20, 1947	21.8	13,400
1948	Dec. 6, 1947	12.97	3,940
	Feb. 29, 1948	13.60	4,270
	Mar. 20, 1948	17.80	7,920
1949	Feb. 15, 1949	11.27	3,100
	Feb. 21, 1949	14.20	4,630
	July 12, 1949	11.50	3,080
	July 22, 1949	13.56	4,270
1950	June 17, 1950	12.60	3,730
	June 21, 1950	13.35	4,160
1951	Feb. 21, 1951	15.81	5,810
	June 28, 1951	16.23	6,180
	July 25, 1951	15.32	5,390
1952	Mar. 11, 1952	15.14	5,230
	Mar. 21, 1952	12.73	3,780
	Apr. 24, 1952	14.35	4,760
1953	Apr. 1, 1953	17.00	7,010
1954	Apr. 7, 1954	9.19	2,020
	June 2, 1954	9.25	-
1955	Jan. 7, 1955	15.84	5,440
	Feb. 20, 1955	16.10	5,740
	May 14, 1955	13.56	3,900
	May 29, 1955	15.30	5,000
	July 6, 1955	12.51	3,360
1956	July 4, 1956	10.79	2,580
1957	May 18, 1957	13.82	3,800
	July 31, 1957	12.80	3,200
1958	Oct. 25, 1957	20.38	10,600
	Feb. 25, 1958	12.78	3,300
	July 17, 1958	16.44	5,670
	July 20, 1958	12.76	3,300
	Aug. 1, 1958	17.41	6,740
1959	Feb. 12, 1959	13.65	3,700
1960	Oct. 7, 1959	12.81	3,500
	Mar. 30, 1960	18.14	7,850
	May 8, 1960	16.94	6,500
	July 2, 1960	16.12	5,690
	July 12, 1960	12.64	3,420
1961	Mar. 15, 1961	12.90	3,550
	Mar. 22, 1961	12.27	3,300
	Apr. 24, 1961	13.45	3,810
	May 7, 1961	12.18	3,260
	Sept. 15, 1961	17.15	6,830
	Sept. 26, 1961	13.67	3,990

SALT RIVER BASIN

Peak stages and discharges of Salt River near Shelbina, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Oct. 31, 1961	13.53	3,650	1965	Jan. 3, 1965	20.93	11,200
	Nov. 4, 1961	15.46	4,870		Jan. 24, 1965	15.89	5,420
	Nov. 18, 1961	15.28	4,710		Mar. 19, 1965	17.59	7,000
	Mar. 13, 1962	14.89	4,430		Apr. 7, 1965	16.91	6,310
	Mar. 23, 1962	15.92	5,210		June 7, 1965	13.44	3,790
					Sept. 17, 1965	14.44	4,330
1963	Mar. 6, 1963	15.69	5,030		Sept. 23, 1965	13.92	4,040
1964	Apr. 6, 1964	13.53	3,840				
	Apr. 22, 1964	14.91	4,660				

a Annual peak only.
b Backwater from ice.

SALT RIVER BASIN

5-5027. Easdale Branch near Shelbyville, Mo.

Location.--Lat 39°48'17", long 92°00'27", in SE¼SW¼ sec.22, T.58 N., R.10 W., at culvert under State Highway 168, 1.8 miles east of Shelbyville.

Drainage area.--0.71 sq mi. Slope.--76.1 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements to 95 cfs and extended above on basis of indirect measurement of flow through culvert at 159 and 431 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 30, 1958	6.70	431				
1959	May 19, 1959	5.25	255				
1960	July 10, 1960	8.75	770				
1961	May 7, 1961	6.75	435				
1962	Nov. 16, 1961	4.85	210				
1963	Mar. 4, 1963	4,33	160				
1964	June 2, 1964	7.87	610				
1965	June 2, 1965	5.90	330				

SALT RIVER BASIN

5-5030. Douglas Creek near Emden, Mo.

Location.--Lat 39°45'30", long 91°55'00", in NW¼ sec.9, T.57 N., R.9 W., at culvert under county highway, 4 miles southwest of Emden.

Drainage area.--2.69 sq mi. Slope.--32.3 ft per mi.

Gage.--Recording. Altitude of gage is 700 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 200 cfs and extended above on basis of indirect measurement of flow through culvert at 1,200 cfs.

Remarks.--Base for partial-duration series, 350 cfs. Only annual peaks are shown after 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	June 20, 1956	7.86	1,200	1960	July 12, 1960	5.55	745
1957	June 8, 1957	3.70	401	1961	Sept. 13, 1961	5.62	749
	June 28, 1957	3.63	393				
	July 28, 1957	3.74	409	1962	Nov. 15, 1961	4.01	453
1958	July 4, 1958	3.60	385	1963	Mar. 4, 1963	3.57	380
	July 14, 1958	4.53	538				
	July 19, 1958	3.67	393	1964	June 21, 1964	3.77	412
	July 30, 1958	4.99	631				
				1965	June 5, 1965	5.44	715
1959	May 31, 1959	3.51	369				
	Aug. 5, 1959	4.80	593				

SALT RIVER BASIN

5-5035. Salt River near Hunnewell, Mo.

Location.--Lat 39°40'05", long 91°54'10", in SW¼NW¼ sec.10, T.56 N., R.9 W., at bridge on U. S. Highway 36, 1½ miles downstream from Black Creek, and 2 miles west of Hunnewell.

Drainage area.--626 sq mi. Slope.--3.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 615.64 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Some channel improvements made in drainage basin upstream from gage during period 1906-20. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	June 8, 1931	18.50	9,280	1936	Feb. 26, 1936	18.83	9,590
1932	Aug. 20, 1932	15.22	6,560	1937	Feb. 22, 1937	13.09	4,700
1933	July 1, 1933	21.20	15,400	1938	Mar. 31, 1938	14.9	6,000
1934	Sept. 15, 1934	10.00	2,920	1939	Mar. 14, 1939	18.34	9,150
1935	June 4, 1935	19.80	11,300	1940	Mar. 5, 1940	11.05	3,600

SALT RIVER BASIN

5-5047. Bean Creek near Mexico, Mo.

Location.--Lat 39°15'30", long 91°49'50", in NW¼SW¼ sec.29, T.52 N., R.8 W., at culvert under County Road J, 6.5 miles north of Mexico.

Drainage area.--3.02 sq mi. Slope.--33.1 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current meter measurements to 30 cfs and extended on basis of culvert flow measurements of 564 and 853 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Apr. 16, 1960	9.15	564				
1961	May 5, 1961	10.00	950				
1962	July 3, 1962	8.48	410				
1963	May 16, 1963	7.25	200				
1964	May 12, 1964	10.38	850				
1965	July 20, 1965	9.53	640				

SALT RIVER BASIN

5-5050. South Fork Salt River at Santa Fe, Mo.

Location.--Lat 39°21'45", long 91°49'05", in NW¼NE¼ sec.20, T.53 N., R.8 W., on right bank on downstream side of highway bridge, a quarter of a mile south of Santa Fe, 1 mile upstream from Elm Creek, and at mile 96.2 above mouth of Salt River.

Drainage area.--298 sq mi. Slope.--3.6 ft per mi.

Gage.--Nonrecording prior to Feb. 5, 1940; recording thereafter. Datum of gage is 613.05 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,300 cfs; shifts in relation occur.

Bankfull stage.--14 ft.

Historical data.--Flood in about 1929 washed away county highway bridge 100 ft upstream from gage; magnitude of flood unknown.

Remarks.--Base for partial-duration series, 5,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 11, 1940	13.97	5,460	1951	Mar. 17, 1951	15.88	7,210
1941	Apr. 19, 1941	16.78	7,780	1952	Mar. 18, 1952	13.79	5,410
1942	Oct. 5, 1941	19.10	10,400	1953	June 14, 1953	10.20	3,030
	Oct. 31, 1941	16.30	7,390				
	June 27, 1942	19.20	10,500	1954	June 2, 1954	5.42	865
1943	Dec. 27, 1942	20.10	11,700	1955	Feb. 19, 1955	12.02	4,100
	May 8, 1943	19.20	10,600				
	May 19, 1943	20.36	12,100	1956	Apr. 29, 1956	18.00	9,280
1944	Apr. 11, 1944	17.10	8,190	1957	Apr. 18, 1957	11.49	3,740
	Apr. 23, 1944	21.10	13,100				
	Apr. 27, 1944	14.90	6,470	1958	July 20, 1958	17.89	9,060
					July 31, 1958	20.62	12,300
1945	Mar. 2, 1945	14.40	5,890				
	Mar. 21, 1945	15.20	6,580	1959	Feb. 10, 1959	16.93	8,000
	Apr. 14, 1945	14.86	6,320				
	May 16, 1945	16.90	8,180	1960	Mar. 28, 1960	15.99	7,120
	June 7, 1945	16.55	7,880				
	Sept. 22, 1945	15.85	7,120	1961	May 8, 1961	19.62	11,700
	Sept. 28, 1945	16.10	7,400		July 1, 1961	17.06	8,850
					Sept. 25, 1961	16.51	8,240
1946	Jan. 9, 1946	16.30	7,580				
				1962	Mar. 21, 1962	16.54	8,240
1947	Apr. 25, 1947	17.43	8,680				
				1963	May 16, 1963	7.03	1,460
1948	Mar. 23, 1948	9.30	2,570				
				1964	Apr. 5, 1964	10.54	3,300
1949	Sept. 13, 1949	14.82	6,230				
				1965	Apr. 11, 1965	14.04	5,840
1950	Oct. 21, 1949	17.27	8,580		Sept. 16, 1965	14.54	6,290

SALT RIVER BASIN

5-5060. Youngs Creek near Mexico, Mo.

Location.--Lat 39°18'40", long 91°56'40", in NW¼SW¼ sec.5, T.52 N., R.9 W., on downstream side of bridge on State Highway 15, 6 miles upstream from Long Branch, and 11 miles north of Mexico.

Drainage area.--67.4 sq mi. Slope.--7.5 ft per mi.

Gage.--Nonrecording prior to June 1, 1956; recording thereafter. Datum of gage is 704.31 ft above mean sea level, datum of 1929 (levels by Missouri Highway Department).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--13 ft.

Historical data.--Maximum stage known, about 15.1 ft, date unknown, from information by Missouri State Highway Department.

Remarks.--Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1937	May 3, 1937	5.08	1,080
1938	Apr. 8, 1938	6.10	1,570
	July 17, 1938	7.80	2,470
1939	Mar. 12, 1939	7.20	2,140
	Apr. 16, 1939	6.60	1,820
	May 27, 1939	8.00	2,580
	June 20, 1939	7.65	2,360
	June 27, 1939	7.61	2,360
	Aug. 12, 1939	6.20	1,620
	Aug. 17, 1939	12.0	5,960
1940	June 11, 1940	7.0	2,030
1941	Jan. 17, 1941	4.0	610
1942	Oct. 5, 1941	7.35	2,450
	Oct. 21, 1941	6.96	2,190
	Oct. 31, 1941	6.45	1,820
	Mar. 16, 1942	7.17	2,320
	June 19, 1942	6.10	1,640
	June 26, 1942	12.19	6,140
1943	Dec. 27, 1942	10.1	4,390
	May 8, 1943	7.37	2,450
	May 11, 1943	6.20	1,700
	May 15, 1943	8.68	3,330
	May 18, 1943	9.50	3,920
	June 6, 1943	6.18	1,700
	June 10, 1943	5.80	1,480
	June 22, 1943	5.67	1,430
1944	Mar. 15, 1944	7.62	2,580
	Apr. 11, 1944	9.33	3,780
	Apr. 23, 1944	9.06	3,620
	Apr. 27, 1944	7.20	2,320
	May 1, 1944	7.42	2,450
1945	Mar. 21, 1945	6.90	2,120
	Mar. 25, 1945	5.80	1,480
	Apr. 14, 1945	7.30	2,380
	Apr. 17, 1945	7.33	2,380
	June 7, 1945	8.5	3,190
	Sept. 22, 1945	6.90	2,120
1946	Jan. 5, 1946	5.85	1,890
1947	Nov. 3, 1946	5.01	1,420
	Nov. 10, 1946	5.00	1,420
	Mar. 13, 1947	5.18	1,520
	Apr. 1, 1947	5.90	1,950
	Apr. 5, 1947	5.30	1,600
	Apr. 11, 1947	5.41	1,660
	Apr. 25, 1947	7.05	2,610
	June 7, 1947	5.23	1,550
	June 18, 1947	6.60	2,360
1948	July 21, 1948	4.4	1,060
1949	Sept. 13, 1949	4.5	1,120
1950	Oct. 21, 1949	7.85	3,130
	Dec. 20, 1949	7.3	2,800
1951	Feb. 20, 1951	5.8	1,890
	Mar. 17, 1951	6.46	2,310
	June 26, 1951	6.29	2,190
	July 12, 1951	5.10	1,470
1952	Mar. 18, 1952	6.00	2,010
	Aug. 21, 1952	6.64	2,370
1953	Mar. 31, 1953	3.6	655
1954	June 3, 1954	2.98	330
1955	Oct. 11, 1954	6.1	1,750
	Jan. 6, 1955	6.01	1,700
	Feb. 19, 1955	6.00	1,700
	June 24, 1955	6.1	1,750
	Aug. 29, 1955	7.63	2,570
1956	Oct. 5, 1955	7.50	2,510
	Apr. 29, 1956	7.76	2,610
	July 16, 1956	6.65	1,860
1957	May 17, 1957	6.25	1,650
1958	July 16, 1958	8.05	2,530
	July 20, 1958	9.40	3,570
	July 31, 1958	12.52	6,530
1959	Feb. 10, 1959	7.40	2,030
1960	Mar. 28, 1960	7.67	2,670
1961	Apr. 25, 1961	6.08	1,450
	May 8, 1961	10.48	4,520
	Sept. 13, 1961	6.03	1,400
	Sept. 24, 1961	7.80	2,390
1962	Nov. 16, 1961	5.80	1,400
	Mar. 21, 1962	8.83	3,310
	July 3, 1962	8.80	3,310
	July 6, 1962	6.76	1,980
1963	Mar. 4, 1963	5.67	1,200
1964	Apr. 5, 1964	6.32	1,670
1965	Mar. 17, 1965	7.57	2,380
	Apr. 6, 1965	8.58	3,040
	June 5, 1965	5.86	1,500
	Sept. 16, 1965	8.80	3,180

SALT RIVER BASIN

5-5065. Middle Fork Salt River at Paris, Mo.

Location.--Lat 39°29'00", long 91°59'50", in SW¼SW¼ sec.2, T.54 N., R.10 W., on right bank on downstream side of Wabash Railroad bridge in Paris, 12⅓ miles upstream from Elk Fork Salt River, and at mile 104.6 above mouth of Salt River.

Drainage area.--356 sq mi. Slope.--2.9 ft per mi.

Gage.--Nonrecording prior to Jan. 22, 1940; recording thereafter. Datum of gage is 621.71 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 2,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 4, 1940	9.35	2,070	1953	Apr. 2, 1953	14.54	4,800
1941	Sept. 3, 1941	10.60	2,520	1954	Apr. 22, 1954	9.82	2,160
1942	Oct. 4, 1941	11.60	3,040	1955	Jan. 6, 1955	11.43	2,720
	Nov. 2, 1941	10.93	2,670		Feb. 20, 1955	12.67	3,680
	Feb. 8, 1942	12.96	3,860		May 29, 1955	18.93	7,920
	Mar. 18, 1942	10.50	2,470		July 7, 1955	10.44	2,430
	Apr. 8, 1942	11.60	3,040				
	Apr. 11, 1942	11.44	2,930	1956	July 31, 1956	10.08	2,300
	June 27, 1942	21.76	10,500				
				1957	May 17, 1957	10.97	2,720
1943	Dec. 27, 1942	11.58	3,040		June 15, 1957	11.40	2,930
	May 17, 1943	16.78	6,430				
	June 10, 1943	11.68	3,400	1958	Oct. 27, 1957	11.20	2,670
					July 21, 1958	23.48	10,800
1944	Mar. 17, 1944	16.86	6,500		Aug. 1, 1958	29.94	23,100
	Apr. 12, 1944	18.52	7,730				
	Apr. 24, 1944	17.50	6,960	1959	Feb. 12, 1959	12.69	3,840
					Mar. 7, 1959	12.38	3,670
1945	Mar. 26, 1945	11.40	2,930				
	Apr. 14, 1945	13.60	4,240	1960	Mar. 30, 1960	15.41	5,090
	Apr. 17, 1945	11.91	3,210		Apr. 17, 1960	10.86	2,720
	May 18, 1945	12.29	3,440		May 6, 1960	10.69	2,520
	June 11, 1945	14.94	5,080		July 2, 1960	17.55	6,770
	June 18, 1945	11.07	2,770				
				1961	Mar. 14, 1961	10.95	2,820
1946	Oct. 1, 1945	10.80	2,620		May 7, 1961	14.63	4,790
	Jan. 7, 1946	17.2	6,640		Sept. 15, 1961	25.37	13,400
					Sept. 24, 1961	10.55	2,570
1947	Nov. 3, 1946	10.50	2,480				
	Apr. 6, 1947	19.75	8,670	1962	Nov. 3, 1961	10.72	2,620
	May 28, 1947	10.95	2,720		Nov. 16, 1961	10.79	2,670
	June 8, 1947	18.80	7,840		Mar. 21, 1962	12.66	3,620
	June 20, 1947	17.15	6,640		July 4, 1962	10.70	2,620
1948	Feb. 28, 1948	10.40	2,430	1963	Mar. 5, 1963	11.30	2,920
	Mar. 21, 1948	14.65	4,870		May 16, 1963	11.28	2,920
1949	June 29, 1949	11.80	3,150	1964	Apr. 6, 1964	11.61	3,070
					Apr. 21, 1964	11.10	2,820
1950	Dec. 22, 1949	10.63	2,520				
				1965	Jan. 4, 1965	11.71	3,240
1951	Mar. 29, 1951	13.68	4,280		Jan. 24, 1965	12.56	3,690
	June 30, 1951	14.88	5,060		Mar. 17, 1965	12.73	3,740
					Apr. 8, 1965	12.63	3,690
1952	Mar. 10, 1952	11.01	2,720		Sept. 16, 1965	15.02	5,090
	Mar. 19, 1952	10.83	2,620				
	Apr. 24, 1952	11.40	2,930				
	Sept. 3, 1952	10.65	2,520				

SALT RIVER BASIN

5-5070. Elk Fork Salt River near Paris, Mo.

Location.--Lat 39°26'25", long 92°00'05", in SE¼SE¼ sec.22, T.54 N., R.10 W., on left bank on upstream side of bridge on State Highway 15, 2½ miles south of Paris, and 11 miles upstream from mouth.

Drainage area.--262 sq mi. Slope.--3.5 ft per mi.

Gage.--Nonrecording Apr. 3, 1930, to Jan. 21, 1935 (fragmentary record); recording thereafter. Datum of gage is 630.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs; large shift in relation occurred May 27, 1939.

Bankfull stage.--14 ft.

Historical data.--Flood of June 1928 was higher than that of 1902 but might have been exceeded by the flood of 1875, from information by local residents. Flood of July 31, 1958, reached the highest stage since at least 1875.

Remarks.--Base for partial-duration series, 3,600 cfs; only annual peaks are shown prior to 1935.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1928	June 1928	19.1	18,400
1931	June 12, 1931	12.50	10,100
1932	Aug. 14, 1932	10.46	7,820
1933	May 13, 1933	12.32	9,480
1934	Sept. 12, 1934	8.64	5,400
1935	Mar. 7, 1935	9.03	5,700
	May 3, 1935	9.11	5,810
	May 14, 1935	10.70	7,570
	May 28, 1935	11.08	8,020
	June 2, 1935	8.80	5,500
1936	Feb. 26, 1936	12.20	9,360
1937	Feb. 21, 1937	7.57	4,400
	May 3, 1937	6.88	3,600
1938	Mar. 29, 1938	8.31	5,000
	Apr. 9, 1938	8.02	4,700
	May 23, 1938	12.99	10,400
	July 18, 1938	7.24	3,900
1939	Mar. 12, 1939	9.76	6,580
	May 27, 1939	11.28	5,850
	June 21, 1939	13.45	8,860
	June 28, 1939	14.45	10,300
	July 25, 1939	14.20	10,000
	Aug. 17, 1939	12.67	7,910
1940	June 11, 1940	9.56	4,610
1941	Jan. 17, 1941	6.40	2,420
1942	Oct. 4, 1941	10.97	5,640
	Oct. 22, 1941	10.04	4,860
	Oct. 31, 1941	10.07	4,940
	Feb. 6, 1942	8.45	3,700
	Mar. 16, 1942	9.41	4,420
	Apr. 7, 1942	9.55	4,560
	Apr. 10, 1942	10.06	4,940
	June 27, 1942	20.22	20,600
1943	Dec. 27, 1942	12.75	8,040
	May 18, 1943	14.42	10,300
	June 10, 1943	11.70	6,700
1944	Mar. 15, 1944	13.58	9,140
	Apr. 10, 1944	16.66	14,000
	Apr. 23, 1944	16.55	13,800
	May 1, 1944	9.18	4,560
1945	Mar. 20, 1945	10.40	5,570
	Mar. 25, 1945	11.62	6,700
	Apr. 14, 1945	12.44	7,550
	May 17, 1945	9.88	5,140
	June 8, 1945	12.25	7,330
	June 30, 1945	8.82	4,240
1946	Jan. 6, 1946	9.32	4,640
	Mar. 23, 1946	9.76	5,050
1947	Nov. 3, 1946	9.84	5,050
	Nov. 10, 1946	9.06	4,480
	Apr. 1, 1947	9.08	4,480
	Apr. 5, 1947	9.82	5,050
	Apr. 25, 1947	9.75	5,050
	June 7, 1947	11.83	6,900
	June 19, 1947	13.4	8,860
1948	Feb. 27, 1948	8.38	4,000
1949	Jan. 16, 1949	7.86	3,560
1950	Oct. 21, 1949	8.45	3,930
	Dec. 21, 1949	11.90	7,000
	Jan. 3, 1950	8.07	3,700
1951	Feb. 20, 1951	8.10	3,700
	Mar. 17, 1951	9.26	4,640
	Mar. 29, 1951	11.73	6,800
1952	Mar. 10, 1952	9.5	4,800
	Mar. 18, 1952	10.0	5,220
	Aug. 22, 1952	13.86	9,560
1953	Apr. 1, 1953	8.65	4,080
1954	Apr. 11, 1954	4.58	1,480
1958	July 31, 1958	21.03	22,300

SALT RIVER BASIN

5-5075. Salt River near Monroe City, Mo.

Location.--Lat 39°32'25", long 91°40'20° in NE¼NW¼ sec.22, T.55 N., R.7 W., on left bank on downstream side of old bridge pier, 135 ft upstream from highway bridge at Joanna, 2,500 ft downstream from Indian Creek, 2 miles upstream from Lick Creek, 8 miles southeast of Monroe City, and at mile 63.5.

Drainage area.--2,230 sq mi, approximately. Slope.--2.8 ft per mi.

Gage.--Recording. Datum of gage is 520.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 67,000 cfs; shifts in relation occur.

Bankfull stage.--26 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	June 1928	a36	-	1951	Feb. 21, 1951	19.36	22,300
					Mar. 18, 1951	19.76	23,000
1940	Mar. 3, 1940	13.40	12,600		Mar. 30, 1951	19.83	23,000
1941	Apr. 20, 1941	15.30	15,600	1952	Mar. 19, 1952	19.22	21,900
1942	Oct. 5, 1941	21.70	26,200	1953	Apr. 1, 1953	16.75	17,800
	Nov. 1, 1941	19.70	22,500				
	Feb. 6, 1942	20.60	24,100	1954	Apr. 22, 1954	9.64	6,400
	Mar. 17, 1942	19.00	21,200				
	June 28, 1942	28.7	44,900	1955	Feb. 20, 1955	21.04	25,500
					May 29, 1955	18.18	20,000
1943	Dec. 28, 1942	26.27	38,000				
	May 18, 1943	30.04	48,800	1956	Apr. 29, 1956	18.53	20,600
	June 11, 1943	21.68	26,200				
				1957	June 14, 1957	20.66	23,600
1944	Mar. 16, 1944	23.52	30,400				
	Apr. 12, 1944	29.63	47,600	1958	July 16, 1958	21.41	23,400
	Apr. 24, 1944	30.34	49,700		July 21, 1958	30.34	44,400
	May 1, 1944	18.64	20,600		Aug. 1, 1958	34.81	71,100
1945	Mar. 21, 1945	21.34	25,400	1959	Feb. 10, 1959	22.16	24,800
	Mar. 26, 1945	21.65	26,000				
	Apr. 14, 1945	23.45	30,100	1960	Mar. 30, 1960	23.37	27,000
	Apr. 17, 1945	18.60	20,500				
	May 17, 1945	22.50	28,000	1961	May 9, 1961	29.00	39,600
	June 9, 1945	23.45	30,100		Sept. 15, 1961	27.74	35,800
	June 16, 1945	18.68	20,700		Sept. 25, 1961	20.05	21,100
1946	Jan. 9, 1946	22.8	28,600	1962	Mar. 22, 1962	24.32	29,900
1947	Apr. 6, 1947	21.30	26,300	1963	Mar. 5, 1963	16.76	16,500
	Apr. 25, 1947	21.10	25,800				
	June 9, 1947	24.17	32,700	1964	Apr. 6, 1964	19.21	20,400
	June 20, 1947	23.65	31,400				
				1965	Jan. 24, 1965	19.89	21,600
1948	Feb. 28, 1948	16.20	16,500		Mar. 18, 1965	21.82	25,000
					Apr. 6, 1965	22.46	26,400
1949	July 20, 1949	13.94	12,800		Sept. 17, 1965	25.09	31,500
1950	Dec. 22, 1949	20.49	24,400				

a Approximate; from information by local resident.

SALT RIVER BASIN

5-5080. Salt River near New London, Mo.

Location.--Lat 39°36'44", long 91°24'30", in NE¼NW¼ sec.36, T.56 N., R.5 W., on left bank 180 ft upstream from upstream bridge on dual U. S. Highway 61, 2 miles north of New London, 8 miles upstream from Spencer Creek, and at mile 35.5.

Drainage area.--2,480 sq mi, approximately. Slope.--2.5 ft per mi.

Gage.--Nonrecording prior to Jan. 18, 1935; recording thereafter. Prior to Apr. 7, 1931, at present site at datum 0.03 ft higher, and Apr. 7, 1931 , to Jan. 17, 1935, at site 180 ft downstream at datum 0.04 ft lower. Datum of gage is 477.03 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 25,000 cfs

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1858	July 14, 1959	a27.6		1943	Dec. 29, 1942	24.20	37,500
					May 19, 1943	27.18	51,600
1922	Mar. 16, 1922	24.15	39,800		June 11, 1943	21.28	27,900
1923	Mar. 12, 1923	15.50	15,800	1944	Mar. 17, 1944	22.55	31,800
					Apr. 13, 1944	26.08	45,900
1924	June 13, 1924	14.21	13,700		Apr. 25, 1944	26.48	47,900
1925	Mar. 19, 1925	14.70	14,500	1945	Mar. 22, 1945	21.38	28,200
					Mar. 26, 1945	21.45	28,200
1926	Apr. 8, 1926	26.64	41,700		Apr. 15, 1945	22.53	31,400
	Sept. 6, 1926	26.00	49,800		May 18, 1945	21.95	29,900
					June 10, 1945	23.2	33,800
1927	Mar. 21, 1927	23.46	36,600				
	Apr. 2, 1927	23.35	36,200	1946	Jan. 10, 1946	22.11	30,200
	Apr. 14, 1927	22.60	32,800				
				1947	Apr. 7, 1947	21.04	25,200
1928	June 21, 1928	28.8	58,700		Apr. 26, 1947	21.02	25,200
					June 10, 1947	22.77	31,100
1929	Nov. 19, 1928	24.00	37,800		June 21, 1947	23.0	31,700
	Mar. 17, 1929	23.26	35,100				
	Apr. 26, 1929	21.65	29,400	1948	Mar. 23, 1948	16.96	16,800
	May 15, 1929	21.30	28,500				
	May 20, 1929	22.30	31,600	1949	July 20, 1949	15.65	14,600
1930	Feb. 13, 1930	16.45	17,400	1950	Dec. 23, 1949	19.78	22,400
1931	June 13, 1931	22.54	33,400	1951	Mar. 18, 1951	19.91	23,500
1932	Aug. 15, 1932	18.70	23,500	1952	Mar. 19, 1952	19.13	21,800
1933	Dec. 25, 1932	20.80	29,600	1953	Apr. 1, 1953	17.1	17,800
	May 14, 1933	21.72	32,400				
	May 27, 1933	20.36	28,300	1954	Apr. 22, 1954	10.64	7,700
1934	Sept. 30, 1934	15.40	15,800	1955	Feb. 20, 1955	20.40	23,500
1935	May 4, 1935	20.60	28,900	1956	Apr. 30, 1956	18.43	19,900
	May 15, 1935	20.26	27,900				
	May 30, 1935	19.95	27,000	1957	June 15, 1957	20.44	24,600
1936	Feb. 28, 1936	22.90	36,500	1958	July 22, 1958	27.17	46,500
					Aug. 2, 1958	29.92	64,700
1937	Feb. 21, 1937	15.77	16,900				
				1959	Feb. 11, 1959	21.90	25,600
1938	May 24, 1938	18.31	22,400				
				1960	Mar. 30, 1960	22.55	29,000
1939	Mar. 13, 1939	21.13	26,900				
	Apr. 18, 1939	21.31	27,500	1961	May 9, 1961	25.70	39,600
	June 22, 1939	22.47	31,000		Sept. 16, 1961	25.08	36,600
	July 26, 1939	20.66	25,900				
				1962	Mar. 22, 1962	23.08	30,500
1940	Mar. 3, 1940	13.97	12,600				
				1963	Mar. 5, 1963	17.22	16,800
1941	Apr. 20, 1941	16.37	17,600				
				1964	Apr. 6, 1964	19.15	20,700
1942	Oct. 6, 1941	21.36	28,200				
	Feb. 7, 1942	20.49	25,800	1965	Apr. 7, 1965	21.53	26,000
	June 29, 1942	25.55	43,500		Sept. 18, 1965	23.61	32,000

a About present site and datum; from comparison with crest of June 1928 at stone marker 1 mile below gage.

BRYANTS CREEK BASIN

5-5134. Knox Branch near Elsberry, Mo.

Location.--Lat 39°08'30", long 90°52'46", in SE¼NE¼ sec. 34, T.51 N., R.1 E., at culvert on Route B, 5½ miles southwest of Elsberry.

Drainage area.--1.17 sq mi. Slope.--91.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by estimated flow of 7 cfs and extended above on basis of slope-area measurement at 287 cfs.

Bankfull stage.--10 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 11, 1954	3.68	400				
1956	July 29, 1956	3.18	265				
1957	June 14, 1957	3.57	360				
1958	July 19, 1958	3.87	465				
1959	Aug. 17, 1959	3.92	485				
1960	June 30, 1960	4.20	580				
1961	May 7, 1961	3.65	385				

KINGS LAKE BASIN

5-5134.5. Lost Creek tributary near Elsberry, Mo.

Location.--Lat 39°06'48", long 90°49'11", in NE¼SE¼ sec.7, T.50 N., R.2 E., 100 ft downstream from private road crossing, 4 miles southwest of Elsberry.

Drainage area.--0.33 sq mi. Slope.--253 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by estimated flow of 0.6 cfs and extended above on basis of slope-area measurement at 158 cfs.

Bankfull stage.--4 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	2.85	115				
1956	Oct. 6, 1955	3.45	205				
1957	June 14, 1957	4.26	335				
1958	July 19, 1958	2.95	130				
1959	Aug. 4, 1959	2.71	97				
1960	June 30, 1960	4.26	335				
1961	May 7, 1961	4.00	292				

KINGS LAKE BASIN

5-5134.7. North Fork Lost Creek near Elsberry, Mo.

Location.--39°08'47", long 90°49'24", in NE¼ sec.31, T.51 N., R.2 E., 2½ miles southwest of Elsberry.

Drainage area.--2.23 sq mi. Slope.--70.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 16 cfs and extended above on basis of slope-area measurement at 380 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 11, 1954	2.13	680				
1956	July 29, 1956	1.90	520				
1957	Apr. 22, 1957	1.72	380				
1958	July 19, 1958	(a)	b100				
1959	Aug. 5, 1959	3.51	1,220				
1960	June 30, 1960	2.80	990				
1961	May 7, 1961	1.85	480				

a Not determined; peak stage did not reach bottom of gage.
b Less than figure shown.

KINGS LAKE BASIN

5-5135. Lost Creek at Elsberry, Mo.

Location.--Lat 39°09'20", long 90°48'20", in NW¼SE¼ sec.29, T.51 N., R.2 E., three-quarters of a mile southwest of Elsberry.

Drainage area.--12.2 sq mi. Slope.--64.6 ft per mi.

Gage.--Recording. Altitude of gage is 450 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 170 cfs and extended above on basis of slope-area measurement at 3,880 cfs.

Remarks.--Base for partial-curation series, 300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 2, 1954	6.41	665	1958	June 25, 1958	4.85	321
	Oct. 11, 1954	8.77	1,340		July 19, 1958	8.42	1,590
	Jan. 4, 1955	5.06	355		July 30, 1958	7.70	1,240
	May 26, 1955	5.99	565				
	May 28, 1955	5.31	405	1959	Feb. 10, 1959	5.40	445
	July 14, 1955	7.25	865		Aug. 4, 1959	6.61	810
	Aug. 7, 1955	9.39	2,190		Aug. 17, 1959	7.03	970
					Aug. 29, 1959	5.80	560
1956	Oct. 6, 1955	7.86	1,330				
	Apr. 29, 1956	8.12	1,430	1960	Oct. 10, 1959	9.53	2,260
	July 18, 1956	5.71	530		Mar. 27, 1960	5.47	458
	July 29, 1956	9.34	2,130		Mar. 30, 1960	4.80	310
					Mar. 6, 1960	4.93	343
1957	Mar. 24, 1957	5.03	360		May 25, 1960	9.30	2,130
	Apr. 8, 1957	4.99	345		June 30, 1960	11.48	3,880
	May 13, 1957	5.29	420		July 12, 1960	4.86	321
	May 17, 1957	4.89	325				
	May 19, 1957	7.06	970	1961	Apr. 25, 1961	5.01	354
	May 21, 1957	7.56	1,200		May 5, 1961	8.95	1,950
	May 22, 1957	6.42	740		May 8, 1961	10.50	3,000
	June 14, 1957	10.88	3,340				

KINGS LAKE BASIN

5-5136. Camp Creek near Elsberry, Mo.

Location.--Lat 39°06'56", long 90°46'23", in southwest portion of Survey 1724, T.50 N., R.2 E., at culvert on State Highway 79, 3.6 miles south of Elsberry.

Drainage area.--1.50 sq mi. Slope.--126 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 90 cfs and extended above on basis of slope-area measurement at 668 cfs.

Bankfull stage.--5 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	3.74	440	1961	May 7, 1961	4.39	710
				1962	July 4, 1962	4.16	620
1956	July 29, 1956	3.37	320	1963	Mar. 4, 1963	2.17	75
1957	May 21, 1957	4.77	950	1964	July 10, 1964	2.39	105
1958	July 19, 1958	3.54	370	1965	Aug. 26, 1965	3.25	285
1959	Aug. 4, 1959	2.95	200				
1960	June 30, 1960	3.94	530				

KINGS LAKE BASIN

5-5136.5. Hurricane Creek near Elsberry, Mo.

Location.--Lat 39°06'29", long 90°46'13", in southwest portion of Survey 1724, T.50 N., R.2 E., at culvert on State Highway 79, 4.1 miles south of Elsberry.

Drainage area.--3.06 sq mi. Slope.--86.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 210 cfs and extended above on basis of culvert flow measurement at 1,620 cfs.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	7.76	780	1961	May 7, 1961	5.46	200
				1962	July 4, 1962	7.07	710
1956	July 29, 1956	8.43	1,070	1963	Mar. 4, 1963	5.09	115
1957	June 14, 1957	9.56	1,620	1964	July 12, 1964	5.95	310
1958	July 19, 1958	7.70	760	1965	Aug. 7, 1965	7.68	1,050
1959	Aug. 4, 1959	5.79	280				
1960	Oct. 10, 1959	7.56	960				

CUIVRE RIVER BASIN

5-5137. Mams Slough Creek near Wellsville, Mo.

Location.--Lat 39°09'45", long 91°39'40", in NW¼NW¼ sec.35, T.51 N., R.7 W., at bridge on U. S. Highway 54, 8 miles northwest of Wellsville.

Drainage area.--5.08 sq mi. Slope.--14.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements to 20 cfs and extended on basis of slope-area measurements of 86.8 and 838 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	-	-	302				
1956	-	-	480				
1957	-	-	390				
1961	-	-	650				
1962	-	-	820				
1963	-	-	255				
1964	-	-	145				
1965	-	-	842				

CUIVRE RIVER BASIN

5-5142. Reid Branch near Bowling Green, Mo.

Location.--Lat 39°15'15", long 91°02'50", in SE¼ west part of Survey No. 1685, T.52 N., R.1 W., upstream from culvert on U. S. Highway 61, 3.9 miles south of Cyrene, and 10 miles south of Bowling Green.

Drainage area.--0.54 sq mi. Slope.--93.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert-flow measurements between 140 and 500 cfs.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Apr. 22, 1955	3.37	66	1961	July 25, 1961	6.97	390
				1962	July 3, 1962	4.63	160
1956	July 3, 1956	4.65	162	1963	May 12, 1963	6.46	330
1957	June 8, 1957	4.57	156	1964	-	(b)	(c)
1958	July 19, 1958	5.37	223	1965	Sept. 16, 1965	4.01	112
1959	July 17, 1959	a6.0	280				
1960	May 25, 1960	8.15	498				

a About.
b Peak stage did not reach bottom of gage.
c Discharge not determined.

CUIVRE RIVER BASIN

5-5145. Cuivre River near Troy, Mo.

Location.--Lat 39°00'59", long 90°59'00", in SE¼ sec.14, T.49 N., R.1 W., on downstream side of center pier of bridge on U. S. Highway 61, 1½ miles downstream from confluence of North and West Forks, and 2 miles north of Troy.

Drainage area.--903 sq mi. Slope.--4.6 ft per mi.

Gage.--Nonrecording prior to July 11, 1939; recording thereafter. Prior to Oct. 1, 1930, at site 3 miles downstream at datum 4.31 ft lower. Datum of gage is 450.27 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 101,000 cfs.

Bankfull stage.--21 ft.

Historical data.--Flood of October 1941 exceeded the previously known maximum flood of December 1895 by 5 or 6 ft at Frenchmens Bluff, 3 miles downstream, and is highest flood since Frenchmens Bluff bridge was built in 1888.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	24.50	44,200	1943	Dec. 27, 1942	27.58	41,500
	Apr. 8, 1922	23.30	36,700		May 11, 1943	24.34	23,100
	Apr. 15, 1922	21.00	24,800		May 18, 1943	27.00	37,000
1923	Mar. 12, 1923	22.46	32,200	1944	Apr. 11, 1944	25.86	30,500
	Aug. 17, 1923	22.40	31,600		Apr. 22, 1944	26.92	36,400
1924	Dec. 13, 1923	20.42	22,400	1945	Mar. 26, 1945	24.9	25,600
					May 15, 1945	24.53	23,900
1925	Mar. 19, 1925	20.24	21,600		Sept. 23, 1945	23.60	20,500
					Sept. 29, 1945	23.48	20,100
1926	Nov. 6, 1925	21.20	25,700				
	Apr. 7, 1926	22.90	34,400	1946	Jan. 9, 1946	24.0	21,900
	Sept. 5, 1926	25.40	50,000				
				1947	Nov. 1, 1946	26.00	30,000
1927	Oct. 1, 1926	21.45	26,600		Nov. 3, 1946	24.80	24,200
	Oct. 3, 1926	20.40	22,400		Apr. 25, 1947	27.1	37,200
	Nov. 15, 1926	20.95	24,800				
	Mar. 9, 1927	23.00	34,900	1948	July 26, 1948	23.11	18,000
	Apr. 1, 1927	23.40	37,300				
	Apr. 13, 1927	23.40	37,300	1949	Jan. 24, 1949	24.30	21,000
	May 8, 1927	20.00	20,800		July 21, 1949	25.88	29,200
	May 25, 1927	20.35	22,400				
				1950	Dec. 22, 1949	23.94	19,400
1928	Apr. 6, 1928	22.15	30,500				
	June 20, 1928	23.77	39,700	1951	Feb. 21, 1951	25.80	28,600
					Mar. 18, 1951	25.49	26,900
1929	Oct. 9, 1928	20.85	24,000				
	Mar. 16, 1929	24.40	43,500	1952	Apr. 12, 1952	19.51	10,300
	May 3, 1929	20.00	20,800				
	May 13, 1929	21.20	25,700	1953	May 5, 1953	17.70	8,050
	May 18, 1929	25.75	52,600				
	June 13, 1929	20.00	20,800	1954	July 2, 1954	7.88	1,960
1930	Jan. 2, 1930	19.10	18,100	1955	July 15, 1955	21.48	13,100
1931	May 20, 1931	23.58	21,300	1956	Apr. 29, 1956	19.25	9,290
1932	Aug. 13, 1932	20.20	13,900	1957	June 8, 1957	23.95	21,000
1933	May 13, 1933	24.22	26,200	1958	July 20, 1958	25.51	20,200
					Aug. 1, 1958	26.54	23,100
1934	Sept. 29, 1934	20.20	13,900				
				1959	Feb. 10, 1959	24.96	19,200
1935	May 15, 1935	24.78	30,000				
				1960	Oct. 11, 1959	24.46	21,700
1936	Nov. 5, 1935	22.69	19,000		Mar. 28, 1960	25.13	24,700
1937	Nov. 3, 1936	25.80	36,900	1961	May 8, 1961	25.32	25,700
1938	Apr. 9, 1938	23.7	23,300	1962	Mar. 21, 1962	26.00	31,500
1939	Mar. 12, 1939	23.80	23,900	1963	Mar. 5, 1963	18.65	9,000
	Apr. 16, 1939	25.03	31,300				
				1964	Apr. 6, 1964	17.00	7,420
1940	June 28, 1940	15.20	8,540				
				1965	Sept. 23, 1965	23.92	21,000
1941	Apr. 20, 1941	26.4	41,300				
1942	Oct. 5, 1941	33.4	120,000				
	Oct. 31, 1941	24.20	22,700				
	June 26, 1942	24.00	21,900				

PERUQUE CREEK BASIN

5-5147. Dry Branch near Wentzville, Mo.

Location.--Lat 38°49'10", long 90°54'20", in NW¼ sec.22, T.47 N., R.1 E., at bridge on Point Prairie Road 3 miles northwest of Wentzville.

Drainage area.--0.97 sq mi. Slope.--68.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown, except for 1957.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 10, 1955	12.44	-	1961	May 8, 1961	12.02	-
				1962	Mar. 20, 1962	12.34	-
1956	-	(a)	-	1963	Sept. 11, 1963	11.9	-
1957	June 15, 1957	15.42	752	1964	May 28, 1964	10.8	-
1958	-	(a)	-	1965	Aug. 26, 1965	11.19	-
1959	-	(a)	-				
1960	June 29, 1960	12.64	-				

a Not determined; peak stage did not reach bottom of gage.

MISSISSIPPI RIVER MAIN STEM

5-5875. Mississippi River at Alton, Ill.

Location.--Lat 38°53'06", long 90°10'51", in sec.14, T.5 N., R.10 W., near left bank in downstream end of intermediate lock wall at lock and dam 26 at Alton, 300 ft downstream from Missouri & Illinois Bridge & Belt Railroad bridge, 7.7 miles upstream from Missouri River, and at mile 202.7 above Ohio River.

Drainage area.--171,500 sq mi, approximately.

Gage.--Nonrecording 1879 to Jan. 4, 1937, and Nov. 11, 1937, to Jan. 31, 1938; recording Jan. 5 to Nov. 10, 1937, and since Feb. 1, 1938. Prior to Mar. 20, 1933, at Grafton 15.3 miles upstream at datum 403.79 ft higher than present datum; Mar. 20, 1933, to Jan. 31, 1938, at present site at datum 395.48 ft higher than present datum. Datum of gage is mean sea level, datum of 1929 (levels by Corps of Engineers). Since July 11, 1940, auxiliary recording gage 5.9 miles downstream; previously various combinations of gages were used. Gage heights listed herein are converted to present datum.

Stage-discharge relation.--Affected by backwater from Missouri River. Fall between auxiliary gage and reference gage used as a factor in computing discharge.

Bankfull stage.--421 ft.

Historical data.--Maximum stage known, 432.10 ft, present datum, in June 1844.

Remarks.--Alton gage-height record and discharge record January 1928 to February 1933 (published as "at Grafton" prior to January 1933), February 1938 to September 1939 furnished by Corps of Engineers. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin and by diversion through Chicago Sanitary and Ship Canal from Lake Michigan into Illinois River. Peak gage height usually occurs at different time than peak discharge. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	a432.10		1926	Sept. 30, 1926	416.8	
				1927	Apr. 25, 1927	426.7	
1851	June 1851	427.9		1928	Apr. 9, 1928	-	216,000
					June 22, 1928	417.3	-
1858	June 1858	428.2	b573,000	1929	Apr. 29, 1929	425.6	365.000
				1930	June 21, 1930	412.0	186,000
1880	July 10, 1880	417.15					
				1931	June 14, 1931	408.0	145,000
1881	May 5, 1881	423.92		1932	Nov. 30, 1931	414.2	182,000
				1933	May 17, 1933	418.9	265,000
1888	June 19, 1888	420.40		1934	Apr. 24, 1934	405.0	97,200
				1935	May 17, 1935	424.4	231,000
1896	May 26, 1896	418.9					
1897	May 2, 1897	421.93		1936	Mar. 1, 1936	413.5	218,000
1898	May 23, 1898	417.58		1937	Mar. 15, 1937	414.9	255,000
1899	May 26, 1899	416.4		1938	Apr. 11, 1938	416.9	268,000
1900	Mar. 16, 1900	415.2		1939	Mar. 17, 1939	421.2	240,000
				1940	Apr. 19, 1940	407.10	137,000
1901	Apr. 12, 1901	414.2					
1902	July 25, 1902	418.5		1941	Apr. 21, 1941	417.27	220,000
1903	June 9, 1903	429.3		1942	June 22, 1942	423.72	253,000
1904	Apr. 29, 1904	424.4		1943	May 24, 1943	429.91	437,000
1905	Sept. 20, 1905	419.4		1944	Apr. 30, 1944	429.33	c394,600
				1945	June 13, 1945	424.14	308,000
1906	Apr. 14, 1906	416.6					
1907	July 25, 1907	417.6		1946	Jan. 14, 1946	419.10	314,000
1908	June 18, 1908	425.1		1947	July 3, 1947	429.40	380,000
1909	July 15, 1909	425.2		1948	Mar. 28, 1948	424.41	366,000
1910	May 10, 1910	414.93		1949	Mar. 13, 1949	415.08	219,000
				1950	June 24, 1950	417.20	261,000
1911	Feb. 23, 1911	412.9					
1912	Apr. 9, 1912	422.8		1951	May 10, 1951	429.47	333,000
1913	Apr. 14, 1913	418.7		1952	Apr. 30, 1952	424.47	340,000
1914	June 22, 1914	410.9		1953	Apr. 5, 1953	413.50	232,000
1915	June 4, 1915	422.1		1954	May 19, 1954	409.58	198,000
				1955	Apr. 28, 1955	409.66	212,000
1916	Jan. 31, 1916	421.6					
1917	June 14, 1917	423.5		1956	Apr. 30, 1956	406.30	166,000
1918	June 16, 1918	414.1		1957	June 16, 1957	411.69	180,000
1919	May 11, 1919	419.6		1958	July 21, 1958	418.98	209,000
1920	Apr. 24, 1920	420.6		1959	Apr. 8, 1959	413.31	221,000
				1960	Apr. 10, 1960	424.84	377,000
1921	May 13, 1921	416.8					
1922	Apr. 19, 1922	427.1		1961	Apr. 9, 1961	421.62	247,000
1923	June 17, 1923	412.2		1962	Mar. 26, 1962	421.42	337,000
1924	July 3, 1924	418.3		1963	Mar. 23, 1963	409.58	179,000
1925	June 25, 1925	411.6		1964	Apr. 22, 1964	410.17	214,000
				1965	May 3, 1965	420.75	380,000

a Maximum stage known.
b Computed by Corps of Engineers
c Excludes diversion from Missouri River.

TARKIO RIVER BASIN

6-8125. West Tarkio Creek near Westboro, Mo.

Location.--Lat 40°32'30", long 95°23'00", in NW¼ sec.13, T.66 N., R.40 W., at bridge on county highway C, 3½ miles west of Westboro, and 6 miles upstream from confluence with Middle Tarkio Creek.

Drainage area.--105 sq mi. Slope.--7.4 ft per mi.

Gage.--Nonrecording prior to July 19, 1934, recording gage thereafter. Datum of gage is 926.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,630 cfs and by indirect measurements at 8,720 cfs.

Bankfull stage.--25 ft.

Remarks.--Base for partial-duration series, 1,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Sept.26, 1934	5.50	172				
1935	June 1, 1935	9.76	1,710				
	June 17, 1935	14.55	4,640				
	June 26, 1935	12.72	3,430				
1936	Feb. 26, 1936	9.46	1,960				
	Apr. 28, 1936	14.69	5,310				
	May 12, 1936	10.02	2,260				
	June 5, 1936	11.00	2,830				
1937	Feb. 13, 1937	9.82	2,150				
	Mar. 2, 1937	9.42	1,930				
	July 29, 1937	22.10	8,720				
1938	June 11, 1938	16.87	5,600				
	June 16, 1938	10.00	2,280				
	Aug. 20, 1938	12.00	3,190				
	Sept.10, 1938	8.70	1,740				
1939	Mar. 8, 1939	8.76	1,670				
	Mar. 11, 1939	18.91	6,810				
	June 10, 1939	9.05	2,378				
	June 22, 1939	11.89	3,741				
1940	July 27, 1940	16.14	a5,760				

a Annual peak only

TARKIO RIVER BASIN

6-8130. Tarkio River at Fairfax, Mo.

Location.--Lat 40°20'20", long 95°24'20", in SW¼SW¼ sec.22, T.64 N., R.40 W., on downstream side of left bridge pier 0.5 mile west of Fairfax, and 2 miles downstream from unnamed creek.

Drainage area.--508 sq mi. Slope.--4.93 ft per mi.

Gage.--Nonrecording prior to Oct. 23, 1953 at site 50 ft downstream, and at datum 2.0 ft higher prior to Oct. 1, 1931. Recording gage since Oct. 23, 1953. Datum of gage is 867.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs. Levees confine flow to channel until overtopped or crevassed.

Bankfull stage.--17 ft.

Remarks.--Gage heights adjusted to present datum. Channel was straightened and improved prior to beginning of records. Base for partial-duration series, 4,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 9, 1922	15.06	2,850
1923	May 11, 1923	8.60	1,100
1924	June 12, 1924	17.95	6,610
	June 24, 1924	16.64	5,700
	July 17, 1924	17.00	5,960
	July 19, 1924	16.10	5,380
1925	June 15, 1925	14.80	4,530
1926	June 13, 1926	15.70	5,120
	Sept. 4, 1926	19.3	7,940
1927	Oct. 3, 1926	9.53	1,740
1928	Sept.12, 1928	18.71	7,090
1929	Mar. 6, 1929	17.60	6,350
	July 7, 1929	22.33	15,000
	July 15, 1929	18.00	6,610
1930	June 19, 1930	8.86	1,560
1931	June 15, 1931	16.15	5,310
1932	Nov. 23, 1931	15.70	5,810
	May 30, 1932	15.96	6,000
	Aug. 15, 1932	15.20	5,500
1933	Aug. 21, 1933	11.80	3,570
1934	Sept.26, 1934	5.90	710
1935	Oct. 19, 1934	14.80	4,860
	June 1, 1935	18.00	6,670
1936	Apr. 28, 1936	15.22	5,080
1937	Mar. 2, 1937	15.05	6,300
	Apr. 20, 1937	17.15	8,600
	July 30, 1937	17.20	8,730
1938	June 11, 1938	14.50	5,800
	Aug. 6, 1938	17.7	9,480
	Aug. 21, 1938	14.00	5,300
1939	Mar. 12, 1939	18.8	10,900
	June 21, 1939	16.00	7,410
1940	July 28, 1940	17.00	5,800
	Aug. 27, 1940	17.5	6,150
1941	June 9, 1941	20.3	12,400
	Sept.15, 1941	17.80	7,690
1942	Oct. 4, 1941	16.90	6,600
	Oct. 7, 1941	17.70	7,560
	Oct. 22, 1941	18.55	8,870
	Oct. 31, 1941	16.10	5,770
	May 5, 1942	18.63	8,870
	May 11, 1942	12.70	6,170
	June 20, 1942	18.91	16,300
	June 25, 1942	20.50	13,800
1943	June 5, 1943	17.05	6,710
	June 10, 1943	17.7	7,560
	June 16, 1943	17.00	6,710
1944	May 3, 1944	18.00	7,960
1945	May 14, 1945	15.65	5,310
	July 5, 1945	16.00	5,670
	Aug. 3, 1945	18.91	9,400
	Aug. 14, 1945	15.20	4,960
1946	Sept. 4, 1946	12.0	4,760
1947	June 5, 1947	17.87	11,800
	June 12, 1947	18.56	12,700
	June 18, 1947	19.5	14,000
	June 22, 1947	12.50	5,310
1948	Mar. 19, 1948	14.1	7,340
1949	Feb. 18, 1949	a15.12	--
	Feb. 24, 1949	a20.44	b4,000
	Mar. 4, 1949	a15.2	6,980
	June 2, 1949	19.0	12,800
	June 28, 1949	19.85	14,100
1950	May 9, 1950	18.0	11,200
	June 9, 1950	14.0	5,600
1951	Oct. 2, 1950	13.36	5,000
	Apr. 25, 1951	14.70	8,780
	May 1, 1951	17.50	12,700
	June 2, 1951	16.90	10,500
	June 22, 1951	12.75	5,080
	June 26, 1951	12.70	4,970
	Aug. 26, 1951	13.10	5,420
1952	June 21, 1952	14.08	6,630
	June 27, 1952	13.10	5,420
	July 14, 1952	15.35	8,360
1953	June 9, 1953	11.06	2,120
1954	June 9, 1954	11.81	2,660
1955	Feb. 18, 1955	15.0	5,000
1956	July 8, 1956	15.32	4,630
1957	May 30, 1957	16.16	5,860
	June 7, 1957	17.40	7,610
	June 18, 1957	19.00	10,400
1958	July 2, 1958	16.80	6,700
	July 4, 1958	18.10	8,770
	July 19, 1958	20.95	14,200
	July 30, 1958	20.30	12,800
	Aug. 6, 1958	19.28	10,900
1959	May 30, 1959	18.82	9,990
	June 30, 1959	16.13	5,730
	Aug. 31, 1959	15.45	4,860

TARKIO RIVER BASIN

Peak stages and discharges of Tarkio River at Fairfax, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 13, 1960	19.9	12,000				
	Mar. 29, 1960	19.8	11,900				
	May 16, 1960	16.4	7,920				
	Aug. 18, 1960	15.35	6,030				
	Aug. 29, 1960	17.6	8,750				
1961	Apr. 11, 1961	14.40	4,830				
	July 2, 1961	18.50	9,900				
	Sept.13, 1961	18.36	9,770				
	Sept.30, 1961	14.80	5,310				
1962	May 28, 1962	16.25	7,000				
	July 22, 1962	14.55	5,070				
1963	Apr. 29, 1963	17.12	8,120				
1964	Apr. 27, 1964	13.45	5,000				
	May 8, 1964	14.00	5,660				
	May 26, 1964	15.90	7,880				
	June 20, 1964	17.65	9,920				
	June 23, 1964	17.50	9,800				
1965	Mar. 1, 1965	16.36	8,960				
	May 26, 1965	13.36	5,000				
	July 2, 1965	20.60	13,800				
	July 20, 1965	19.63	9,440				
	Sept.21, 1965	15.60	7,520				

a Backwater from ice.
b Mean daily discharge.

NODAWAY RIVER BASIN

6-8155.5. Staples Branch near Burlington Junction, Mo.

Location.--Lat 40°26'15", long 95°12'05", in SW¼SE¼ sec .17, T.65 N., R.38 W., on right bank just upstream from culvert under State Highway 4, about 7.3 miles west of Burlington Junction, 0.3 mile west on State Highway 4 from junction of County Route YY and junction State Highway 4.

Drainage area.--0.49 sq mi. Slope.--61.1 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed June 3, 1965.

Stage-discharge relation.--Defined by indirect measurements to 370 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 4, 1959	13.78	248				
1960	June 4, 1960	12.70	163				
1961	Oct. 29, 1960	10.56	31				
1962	May 28, 1962	15.20	371				
1963	May 4, 1963	13.02	190				
1964	June 21, 1964	15.72	430				
1965	July 1, 1965	14.16	280				

MILL CREEK BASIN

6-8160. Mill Creek at Oregon, Mo.

Location.--Lat 39°58'55", long 95°07'35", in NE¼NE¼ sec.35, T.60 N., R.38 W., on left bank 15 ft downstream from bridge on U. S. Highway 275, half a mile upstream from Rock Creek, 1 mile southeast of Oregon, and 7 miles upstream from mouth.

Drainage area.--4.90 sq mi. Slope.--42.3 ft per mi.

Gage.--Recording. Datum of gage is 921.26 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 1, 1950	4.37	678	1958	May 3, 1958	3.72	385
	Mar. 2, 1951	4.75	840		May 4, 1958	2.97	184
	Apr. 27, 1951	3.78	365		June 12, 1958	3.73	389
	June 15, 1951	4.04	518		June 12, 1958	4.80	930
	June 19, 1951	4.17	576		July 10, 1958	3.50	305
	June 21, 1951	4.40	695		July 11, 1958	3.87	446
	June 22, 1951	3.75	397		July 15, 1958	4.00	500
	June 26, 1951	3.42	274		July 17, 1958	3.14	214
	June 27, 1951	3.90	458		July 25, 1958	4.20	590
	June 28, 1951	4.10	545		July 30, 1958	7.0	2,640
	July 5, 1951	3.03	169		Aug. 1, 1958	3.22	228
	Aug. 9, 1951	3.83	429		Aug. 20, 1958	3.32	255
	Aug. 14, 1951	4.13	558		Sept. 6, 1958	3.97	487
	Aug. 15, 1951	4.37	678		Sept. 9, 1958	5.50	1,420
	Aug. 24, 1951	3.80	417		Sept. 23, 1958	3.60	341
	Aug. 27, 1951	3.39	264				
	Aug. 31, 1951	3.08	180	1959	Nov. 17, 1958	3.0	177
	Sept. 2, 1951	3.20	208		May 12, 1959	2.88	153
	Sept. 9, 1951	3.17	201		May 21, 1959	3.77	405
					May 29, 1959	3.22	228
1952	Nov. 12, 1951	3.14	194		May 30, 1959	3.11	201
	May 21, 1952	2.98	158		May 31, 1959	3.50	307
					June 11, 1959	2.96	169
1953	Nov. 17, 1952	2.51	78		June 29, 1959	4.00	500
					July 4, 1959	3.45	292
1954	Aug. 21, 1954	4.20	590		Aug. 5, 1959	3.22	228
	Aug. 23, 1954	3.10	184				
				1960	June 30, 1960	4.48	739
1955	Oct. 4, 1954	3.84	433				
	Feb. 18, 1955	a	a	1961	Sept. 3, 1961	7.10	2,730
	June 3, 1955	3.34	248				
	June 24, 1955	4.42	706	1962	May 28, 1962	4.5	750
	July 6, 1955	3.95	479				
				1963	May 16, 1963	4.45	722
1956	July 2, 1956	3.8	417				
	July 3, 1956	3.10	184	1964	June 21, 1964	4.61	816
	Aug. 8, 1956	3.41	270				
				1965	June 4, 1965	4.92	1,000
1957	Apr. 2, 1957	3.50	301				
	June 14, 1957	3.71	381				
	June 25, 1957	3.17	221				

a Gage height and discharge unknown.

NODAWAY RIVER BASIN

6-8175. Nodaway River near Burlington Junction, Mo.

Location.--Lat 40°26'40", long 95°05'20", in NW¼ sec.17, T.65 N., R.37 W., on downstream side of left pier of bridge on State Highway 4, a quarter of a mile upstream from Mill Creek, 0.5 mile downstream from Wabash Railroad bridge, and 1½ miles west of Burlington Junction.

Drainage area.--1,240 sq mi, approximately. Slope.--4.21 ft per mi.

Gage.--Nonrecording prior to June 29, 1939; recording gage thereafter. At present site at approximately same datum prior to Oct. 26, 1928. At site half a mile upstream at different datum Oct. 26, 1928, to June 9, 1929. At present site and datum since June 10, 1929. Datum of present gage is 896.17 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Remarks.--Channel improvement made above and below gage prior to establishment of station. Base for partial-duration series, 8,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 29, 1922	10.42	6,710	1942	June 20, 1942	13.95	13,200
					June 25, 1942	15.95	16,800
1923	Mar. 26, 1923	7.94	3,480				
				1943	June 5, 1943	15.30	16,700
1924	June 9, 1924	12.60	9,900		June 10, 1943	15.5	17,200
	June 26, 1924	13.42	10,200		June 16, 1943	13.60	13,300
					Aug. 3, 1943	12.73	11,600
1925	June 14, 1925	9.50	5,000				
				1944	Apr. 23, 1944	12.16	10,400
1926	Feb. 2, 1926	13.38	10,200		May 2, 1944	16.9	20,300
	June 13, 1926	12.26	8,550		June 4, 1944	12.13	10,400
	Sept. 3, 1926	19.5	18,200				
				1945	Mar. 15, 1945	12.25	10,900
1927	Oct. 3, 1926	13.25	6,800		Apr. 16, 1945	13.20	12,900
					May 14, 1945	15.93	18,500
1928	June 17, 1928	13.79	9,420		May 21, 1945	11.23	9,100
	July 21, 1928	15.70	12,800		July 5, 1945	12.30	11,100
					Aug. 14, 1945	11.20	9,100
1929	Mar. 6, 1929	15.60	12,600				
	Mar. 14, 1929	16.20	13,800	1946	Mar. 26, 1946	13.9	13,900
	Apr. 21, 1929	14.20	10,000		June 19, 1946	11.29	9,000
	June 1, 1929	17.59	16,800				
	July 6, 1929	19.40	21,000	1947	Apr. 10, 1947	14.20	18,700
	July 15, 1929	17.50	16,600		May 28, 1947	10.12	8,860
					June 6, 1947	17.90	28,800
1930	May 7, 1930	11.20	6,220		June 14, 1947	19.0	32,000
					June 18, 1947	13.60	17,100
1931	Sept. 25, 1931	9.40	4,100		June 21, 1947	16.00	23,800
1932	Nov. 23, 1931	14.45	13,900	1948	Mar. 19, 1948	14.6	19,700
	Aug. 15, 1932	15.00	15,400				
				1949	Feb. 24, 1949	a18.3	9,000
1933	Apr. 1, 1933	6.55	1,750		Mar. 5, 1949	a19.69	10,000
					June 2, 1949	15.97	23,500
1934	Sept. 27, 1934	7.20	2,150		June 27, 1949	15.70	22,700
1935	May 31, 1935	13.45	10,600	1950	May 9, 1950	13.74	17,400
	June 2, 1935	12.62	9,760				
	June 18, 1935	11.97	8,500	1951	Feb. 26, 1951	9.65	11,500
					Mar. 28, 1951	12.07	13,400
1936	Feb. 25, 1936	10.95	6,520		Apr. 25, 1951	10.18	9,070
					May 1, 1951	16.42	24,600
1937	Mar. 4, 1937	14.55	17,100		May 10, 1951	10.28	9,280
	May 21, 1937	11.97	11,300		May 25, 1951	14.90	20,500
	July 19, 1937	11.50	10,300		June 2, 1951	15.50	22,200
					June 15, 1951	12.05	13,200
1938	May 31, 1938	17.07	19,800		July 3, 1951	11.40	11,700
	June 14, 1938	12.50	10,700		July 6, 1951	13.90	17,900
	Aug. 21, 1938	11.99	9,860		Aug. 15, 1951	10.40	9,490
					Aug. 26, 1951	10.17	9,070
1939	Mar. 21, 1939	16.7	19,600		Sept. 9, 1951	10.25	9,070
	June 21, 1939	12.00	10,300				
	July 4, 1939	15.41	17,000	1952	Mar. 11, 1952	9.63	9,920
					May 22, 1952	10.10	8,860
1940	July 28, 1940	11.74	8,140		June 22, 1952	12.44	14,100
1941	June 4, 1941	12.80	11,200	1953	June 9, 1953	7.53	4,300
	June 9, 1941	18.44	22,100				
	Sept. 15, 1941	16.47	17,700	1954	May 31, 1954	8.45	5,680
1942	Oct. 7, 1941	13.32	12,000	1955	Feb. 18, 1955	11.6	12,200
	Oct. 22, 1941	15.26	15,600				
	Oct. 31, 1941	15.20	15,400	1956	July 8, 1956	10.85	10,000
	May 5, 1942	16.95	19,000				
	May 11, 1942	11.93	9,850	1957	June 18, 1957	8.70	5,820

Peak stages and discharges of Nodaway River near Burlington Junction, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 3, 1958	13.29	16,200	1962	Mar. 11, 1962	10.00	10,800
	July 19, 1958	16.87	26,000		Mar. 20, 1962	9.60	10,600
	July 30, 1958	14.22	18,600		May 29, 1962	12.20	16,300
					July 22, 1962	10.00	10,000
1959	May 11, 1959	11.65	11,700				
	May 30, 1959	15.55	22,400	1963	Apr. 29, 1963	14.83	22,900
	June 30, 1959	15.50	22,200		May 15, 1963	9.15	9,800
	Aug. 6, 1959	11.0	10,200				
	Sept. 26, 1959	13.52	16,200	1964	Apr. 13, 1964	8.30	9,020
					Apr. 27, 1964	8.78	9,020
1960	Jan. 12, 1960	16.90	26,000		May 8, 1964	10.00	11,400
	Jan. 14, 1960	11.52	11,400		May 26, 1964	13.87	20,600
	Mar. 28, 1960	16.10	25,700		June 15, 1964	9.27	9,800
	June 5, 1960	13.12	17,500		June 20, 1964	11.95	15,800
	June 30, 1960	11.43	13,000		June 23, 1964	13.15	18,800
	Aug. 29, 1960	12.70	16,400		Sept. 7, 1964	9.70	10,800
1961	Mar. 13, 1961	11.30	14,200	1965	Mar. 1, 1965	12.25	24,200
	Mar. 27, 1961	9.82	11,000		Mar. 17, 1965	12.50	19,600
	Apr. 12, 1961	10.97	13,500		Apr. 6, 1965	8.20	8,830
	Sept. 13, 1961	11.60	14,900		Apr. 8, 1965	9.12	10,000
					June 29, 1965	9.60	10,600
1962	Oct. 12, 1961	9.15	9,400		July 2, 1965	16.75	28,100
	Nov. 16, 1961	9.83	11,000		Sept. 21, 1965	10.10	11,400
	Feb. 15, 1962	9.80	10,000				

a Backwater from ice; discharge is estimated mean for day.

MISSOURI RIVER MAIN STEM

6-8180. Missouri River at St. Joseph, Mo.
(Published as "at Leavenworth, Kans." prior to 1929)

Location.--Lat 39°45'10", long 94°51'28", in sec.17, T.57 N., R.35 W., on downstream side of left pier of St. Joseph & Grand Island Railroad bridge in St. Joseph and at mile 448.2.

Drainage area.--424,300 sq mi; 425,000 sq mi prior to Oct. 1, 1928.

Gage.--Nonrecording prior to Oct. 20, 1931; recording gage thereafter. At site 52.1 miles downstream from and at datum 74.66 ft lower prior to Oct. 1, 1928. At present site at datum 5.50 ft higher Oct. 1, 1928, to Jan. 1, 1934. Datum of present gage is 788.19 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage.--17 ft.

Remarks.--Gage heights adjusted to present datum. Records for sites "at St. Joseph" and "at Leavenworth" considered equivalent for flood-frequency study. Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,175,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	a24.5	350,000	1943	Apr. 18, 1943	18.30	154,000
1881	Apr. 29, 1881	a27.2	370,000	1944	Apr. 19, 1944		
					June 18, 1944	-	161,000
1903	June 2, 1903	a20.5	252,000		June 19, 1944	19.1	-
1922	June 28, 1922	46.6	242,000	1945	June 16, 1945	17.4	152,000
1923	July 8, 1923	48.3	241,000	1946	June 19, 1946	14.70	114,000
1924	June 28, 1924	49.3	221,000	1947	June 16, 1947	20.4	180,000
1925	June 16, 1925	47.7	235,000	1948	Mar. 20, 1948	17.50	158,000
1926	June 23, 1926	43.8	75,000	1949	Mar. 8, 1949	b21.3	170,000
1927	May 18, 1927	49.3	213,000	1950	Apr. 30, 1950	19.0	178,000
	June 30, 1927	49.3	213,000				
				1951	May 3, 1951	19.9	198,000
1928	June 9, 1928	46.4	-				
	June 18, 1928	-	146,000	1952	Apr. 23, 1952	26.82	397,000
1929	June 4, 1929	15.6	196,000	1953	June 28, 1953	17.30	118,000
1930	May 14, 1930	13.2	106,000	1954	June 22, 1954	16.41	104,000
1931	June 23, 1931	12.3	65,600	1955	June 25, 1955	15.7	91,600
1932	June 20, 1932	15.8	156,000	1956	July 3, 1956	13.20	58,600
1933	May 30, 1933	14.2	112,000	1957	June 18, 1957	17.80	126,000
1934	Mar. 6, 1934	12.9	94,700	1958	July 11, 1958	18.75	139,000
1935	June 29, 1935	15.42	116,000	1959	May 31, 1959	18.00	133,000
1936	Mar. 12, 1936	14.10	108,000	1960	Apr. 6, 1960	22.05	175,000
1937	June 28, 1937	14.85	100,000	1961	Sept. 13, 1961	17.53	106,000
1938	July 17, 1938	17.05	124,000	1962	May 30, 1962	19.08	138,000
1939	Apr. 10, 1939	15.85	141,000	1963	June 26, 1963	16.26	89,600
1940	June 10, 1940	12.39	65,600	1964	June 21, 1964	18.63	109,000
1941	June 11, 1941	16.29	115,000	1965	June 30, 1965	20.77	164,000
1942	June 25, 1942	17.15	134,000				

a Present site and datum.
b Backwater from ice.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8189. Platte River at Ravenwood, Mo.
(Published as "at Conception Junction" prior to 1958)

Location.--Lat 40°20'42", long 94°41'10", in SE¼SE¼ sec.14, T.64 N., R.34 W., on downstream side of left pier of bridge on State Highways 4 and 46, three-quarters of a mile west of Ravenwood, and 1 mile downstream from Honey Creek.

Drainage area.--486 sq mi; 492 sq mi prior to Sept. 30, 1932. Slope.--4.45 ft per mi.

Gage.--Nonrecording prior to Sept. 30, 1932, recorder since Sept. 10, 1958. At site 5 miles downstream and at datum 20 ft lower, Aug. 6, 1928, to Sept. 30, 1932. At site 4 miles downstream at different datum prior to Aug. 6, 1928. Altitude of gage is 960 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 9,600 cfs.

Bankfull stage.--18 ft.

Remarks.--Channel improvement made in vicinity of gage during 1923-24. Channel has been improved for some distance upstream and downstream from gage. Only annual peaks are shown prior to 1958. Subsequent to 1958, base for partial-duration series is 4,000 cfs. Records for sites "at Ravenwood" and "at Conception Junction" considered equivalent for flood frequency study.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 10, 1922	20.62	8,730	1961	Feb. 18, 1961	14.25	7,460
					Mar. 13, 1961	13.75	7,100
1923	Nov. 13, 1922	17.45	3,900		Mar. 27, 1961	14.53	7,730
					Apr. 12, 1961	11.20	4,760
1929	July 6, 1929	21.70	12,200		Sept. 13, 1961	14.60	7,820
					Sept. 30, 1961	13.00	6,380
1930	June 16, 1930	14.02	4,200				
				1962	Oct. 11, 1961	13.93	7,190
1931	Sept. 25, 1931	10.42	1,810		Nov. 3, 1961	10.72	4,340
					Nov. 16, 1961	14.85	8,000
1932	Nov. 24, 1931	17.12	10,200		Feb. 5, 1962	-	4,000
					Mar. 20, 1962	-	4,000
1959	Mar. 26, 1959	13.22	6,350		May 29, 1962	13.26	6,650
	Apr. 20, 1959	12.58	5,810				
	May 5, 1959	11.05	4,370	1963	Mar. 4, 1963	10.80	4,420
	May 31, 1959	17.78	10,500				
	July 1, 1959	14.10	7,160	1964	June 14, 1964	12.95	6,380
	Sept. 26, 1959	15.37	8,330		June 22, 1964	17.45	10,400
					Sept. 6, 1964	11.45	4,940
1960	Jan. 13, 1960	16.95	9,770				
	Mar. 29, 1960	18.40	11,000	1965	Mar. 17, 1965	13.70	7,010
	June 5, 1960	12.28	5,540		Apr. 8, 1965	10.30	4,020
	July 1, 1960	14.95	7,970		June 29, 1965	10.47	4,180
	Aug. 26, 1960	13.30	6,170		July 2, 1965	17.35	10,400
	Aug. 29, 1960	14.09	6,800		Sept. 21, 1965	16.50	9,530
	Sept. 24, 1960	13.14	6,080				

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8195. One Hundred and Two River near Maryville, Mo.
(Published as "at Maryville" prior to 1935)

Location.--Lat 40°23'15", long 94°49'35", in SE¼SW¼ sec.34, T.65 N., R.35 W., on right bank in front of steel-pier of county highway bridge 2½ miles northeast of Maryville and 3½ miles downstream from Norvey Creek.

Drainage area.--500 sq mi, approximately; 515 sq mi prior to June 20, 1934. Slope.--5.72 ft per mi.

Gage.--Nonrecording prior to Sept. 15, 1958; recording gage thereafter. At site 3 miles downstream at datum 5.68 ft lower than present datum prior to June 20, 1934. Datum of gage is 969.90 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--19 ft.

Remarks.--Channel improvements made prior to establishment of station. Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 16, 1926	21.2	a14,500
1933	Aug. 22, 1933	8.20	2,920
1934	May 14, 1934	3.60	500
1935	June 1, 1935	19.60	10,300
	June 18, 1935	15.45	4,470
1936	Feb. 26, 1936	b17.95	-
	Sept. 5, 1936	17.55	6,330
1937	Mar. 4, 1937	15.50	4,530
	July 19, 1937	14.20	3,840
1938	June 1, 1938	16.1	4,900
1939	Mar. 13, 1939	20.4	12,600
	June 21, 1939	16.4	5,110
	July 4, 1939	19.6	10,300
1940	June 10, 1941	20.51	11,800
	Sept. 15, 1941	17.10	5,170
1942	Oct. 7, 1941	14.60	3,540
	Oct. 9, 1941	16.80	4,910
	Oct. 22, 1941	18.0	6,180
	Nov. 2, 1941	19.2	8,280
	Mar. 6, 1942	16.0	4,340
	Mar. 26, 1942	14.9	3,690
	May 5, 1942	16.4	4,610
	June 20, 1942	17.4	5,470
	Aug. 26, 1942	15.40	3,980
1943	May 16, 1943	17.9	6,050
	June 5, 1943	19.4	8,730
	June 12, 1943	20.02	10,300
	June 16, 1943	17.2	5,270
	Aug. 3, 1943	18.5	6,930
1944	Apr. 23, 1944	18.9	7,680
	May 2, 1944	20.2	10,900
1945	Mar. 15, 1945	16.6	4,750
	Apr. 11, 1945	14.4	3,510
	Apr. 16, 1945	18.94	7,680
	May 14, 1945	19.1	8,080
1946	Mar. 26, 1946	17.9	6,180
	May 4, 1946	14.35	3,510
1947	Apr. 11, 1947	19.3	8,480
	June 6, 1947	20.70	12,400
	June 14, 1947	21.2	14,200
	June 18, 1947	15.8	4,220
	June 23, 1947	19.9	10,000
1948	Mar. 19, 1948	18.1	6,330
1949	Feb. 24, 1949	16.60	4,750
	June 2, 1949	20.07	10,600
1950	May 10, 1950	18.56	7,080
1951	Feb. 26, 1951	13.72	4,090
	Mar. 28, 1951	13.55	3,630
	Apr. 25, 1951	14.70	4,270
	May 1, 1951	19.70	10,500
	May 10, 1951	16.10	5,230
	May 26, 1951	18.70	8,330
	June 3, 1951	14.50	4,150
	June 26, 1951	13.40	3,520
	July 6, 1951	20.10	11,600
	Aug. 26, 1951	14.10	3,910
1952	Nov. 12, 1951	17.30	6,300
	Mar. 13, 1952	13.82	3,740
	Apr. 22, 1952	13.38	3,520
	May 23, 1952	16.54	5,560
	June 21, 1952	16.80	5,820
1953	June 9, 1953	12.20	2,900
1954	June 1, 1954	12.60	3,100
1955	Feb. 19, 1955	15.86	5,080
1956	July 8, 1956	12.20	2,840
1957	May 14, 1957	13.80	3,740
1958	May 4, 1958	14.48	4,150
	May 17, 1958	15.23	4,570
	July 4, 1958	14.13	3,910
	July 19, 1958	19.31	8,510
	July 31, 1958	18.30	6,870
1959	Mar. 26, 1959	15.78	4,930
	Apr. 20, 1959	15.5	4,750
	May 5, 1959	14.4	4,090
	May 11, 1959	14.58	4,210
	May 31, 1959	18.85	7,570
	July 1, 1959	19.0	7,930
	Sept. 26, 1959	17.7	6,280
1960	Jan. 13, 1960	20.8	14,100
	Mar. 29, 1960	20.18	12,700
	May 16, 1960	14.85	4,540
	June 5, 1960	17.1	6,470
	July 1, 1960	19.53	10,000
	Aug. 7, 1960	14.48	3,680
	Aug. 18, 1960	14.55	4,210
	Aug. 26, 1960	16.73	5,730
	Aug. 29, 1960	19.63	10,200
	Sept. 24, 1960	13.84	3,740
1961	Feb. 18, 1961	17.60	6,150
	Mar. 13, 1961	19.15	8,450
	Mar. 28, 1961	19.10	8,260
	Apr. 12, 1961	17.70	6,250
	Sept. 13, 1961	17.30	5,890
	Sept. 30, 1961	16.90	5,590
1962	Oct. 10, 1961	15.83	4,850
	Oct. 13, 1961	13.56	3,650
	Nov. 3, 1961	13.35	3,550
	Nov. 16, 1961	19.36	7,570

PLATTE RIVER BASIN (IOWA-MISSOURI)

Peak stages and discharges of One Hundred and Two River near Maryville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feec)	Discharge (cfs)
1962	Feb. 5, 1962	15.20	4,400	1964	May 9, 1964	16.32	5,230
	Feb. 15, 1962	16.47	5,150		May 26, 1964	17.15	5,810
	Mar. 12, 1962	18.46	6,470		July 21, 1964	19.94	10,000
	Mar. 20, 1962	15.10	4,350		Sept. 7, 1964	19.05	8,080
	May 29, 1962	19.80	8,430				
	July 22, 1962	16.08	4,910	1965	Mar. 17, 1965	17.60	6,060
					June 5, 1965	18.60	7,390
1963	Mar. 4, 1963	14.00	3,800		June 9, 1965	18.35	7,110
	Apr. 30, 1963	19.10	7,120		June 29, 1965	14.72	4,270
	May 15, 1963	16.40	5,090		July 2, 1965	20.90	13,600
					Sept. 21, 1965	18.96	8,080

a Annual peak only.
b Backwater from ice.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8200. White Cloud Creek near Maryville, Mo.

Location.--Lat 40°23'22", long 94°54'33", in NW¼NW¼ sec.1, T.64 N., R.36 W., on downstream side of left pier of bridge on U. S. Highway 71, 4 miles upstream from Big Slough and 4½ miles northwest of Maryville.

Drainage area.--6.06 sq mi. Slope.--19.5 ft per mi.

Gage.--Recording. Altitude of gage is 1,070 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and by indirect measurements at 2,250 and 4,100 cfs.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 1, 1949	13.41	4,100	1955	Feb. 18, 1955	6.76	198
	June 21, 1949	8.13	328		Feb. 26, 1955	6.90	209
	June 24, 1949	6.48	164		Mar. 1, 1955	6.40	161
	June 27, 1949	8.76	422		Apr. 13, 1955	10.27	900
	July 12, 1949	8.03	314				
				1956	July 7, 1956	8.30	395
1950	May 9, 1950	6.95	196				
	July 17, 1950	8.15	328	1957	Apr. 3, 1957	6.52	169
	Aug. 12, 1950	6.62	170				
	Aug. 15, 1950	7.29	227	1958	May 3, 1958	8.97	510
	Aug. 28, 1950	6.65	174		May 4, 1958	9.29	580
					May 16, 1958	11.58	1,660
1951	Feb. 20, 1951	8.80	431		July 15, 1958	8.14	372
	Mar. 28, 1951	7.51	248		July 19, 1958	12.25	2,300
	Apr. 25, 1951	9.00	470				
	Apr. 30, 1951	10.54	920	1959	Mar. 26, 1959	8.55	438
	June 15, 1951	7.38	237		Apr. 19, 1959	8.29	395
	June 19, 1951	8.62	396		May 5, 1959	6.73	193
	June 21, 1951	8.89	450		May 10, 1959	6.75	193
	June 22, 1951	8.72	413		May 30, 1959	11.32	1,430
	June 26, 1951	8.36	357		May 31, 1959	8.26	388
	July 6, 1951	8.05	314		June 30, 1959	7.58	295
	July 22, 1951	9.13	502		July 31, 1959	8.26	388
	Aug. 15, 1951	9.27	548		Aug. 5, 1959	9.63	675
	Aug. 24, 1951	7.88	301		Sept. 23, 1959	9.54	645
	Aug. 25, 1951	8.71	431		Sept. 26, 1959	10.93	1,200
	Sept. 9, 1951	7.98	321				
				1960	May 16, 1960	11.45	1,540
1952	Nov. 12, 1951	10.78	1,020				
	Apr. 21, 1952	8.15	335	1961	Sept. 12, 1961	11.35	1,460
	May 22, 1952	9.85	695				
	June 21, 1952	11.56	1,610	1962	May 28, 1962	10.19	860
	June 22, 1952	7.37	242				
				1963	May 15, 1963	5.38	102
1953	Apr. 30, 1953	5.45	107				
				1964	June 22, 1964	10.20	860
1954	May 31, 1954	7.33	256				
	Apr. 26, 1954	6.48	169	1965	July 2, 1965	11.70	1,750

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8203. Big Slough near Wilcox, Mo.

Location.--Lat 40°23'23", long 94°55'32", on south line of SW¼ sec.35, T.65 N., R.36 W., at culvert on U. S. Highway 71, 3 miles southeast of Wilcox.

Drainage area.--1.30 sq mi. Slope.--35.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 125 cfs and by indirect measurements at 462, 614 and 1,040 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	--	2.37	280				
1951	Apr. 30, 1951	3.74	478				
1952	June 21, 1952	5.40	705				
1953	Apr. 30, 1953	2.98	378				
1954	May 31, 1954	2.78	353				
1955	--	(a)	50				
1956	July 3, 7, 1956	1.78	97				
1957	--	(a)	50				
1958	July 19, 1958	3.62	462				
1959	Sept. 26, 1959	4.52	585				
1960	May 16, 1960	4.74	614				
1961	Sept. 12, 1961	4.58	593				
1962	May 28, 1962	3.54	450				
1963	--	--	(b)				
1964	cJune 17, 1964	6.43	1,040				
1965	July 2, 1965	4.05	460				

a a Stage did not reach gage during year.
b Less than 50 cfs
c Revised

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8205. Platte River near Agency, Mo.
(Published as "at Agency" prior to 1932)

Location.--Lat 39°41'20", long 94°42'15", in NE¼NW¼ sec.10, T.56 N., R.34 W., near center of left span on upstream side of bridge on U. S. Highway 169, 1½ miles downstream from Third Fork and 3½ miles northeast of Agency.

Drainage area.--1,760 sq mi, approximately; prior to May 13, 1932, 1,790 sq mi, approximately. Slope.--3.76 ft per mi.

Gage.--Nonrecording. At site 4 miles downstream at different datum prior to May 13, 1932. Datum of gage is 807.38 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; slope is a factor at extremely high stages.

Bankfull stage.--20 ft.

Remarks.--Channel improvement made in vicinity of station during 1921 and 1930. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	June 27, 1924	20.38	11,800	1943	May 17, 1943	18.50	10,900
					June 16, 1943	23.53	24,800
1925	June 4, 1925	22.60	15,200		Aug. 4, 1943	15.00	7,100
1926	Oct. 5, 1925	16.25	7,600	1944	Apr. 23, 1944	22.60	20,200
	Sept. 10, 1926	20.60	12,000		May 5, 1944	24.4	38,300
	Sept. 18, 1926	26.83	22,600		May 24, 1944	14.90	7,010
					June 9, 1944	17.00	9,050
1927	Oct. 7, 1926	22.22	14,500		Aug. 5, 1944	14.90	7,010
	Apr. 16, 1927	17.25	8,300				
	Apr. 21, 1927	19.90	11,100	1945	Apr. 17, 1945	22.50	19,800
					May 17, 1945	22.88	21,300
1928	June 10, 1928	19.30	10,300		June 17, 1945	22.60	20,200
	June 19, 1928	20.15	11,500				
	July 26, 1928	20.80	12,300	1946	Jan. 6, 1946	21.5	17,100
	Sept. 14, 1928	22.67	15,300		Mar. 17, 1946	16.60	9,280
					Mar. 27, 1946	16.40	9,030
1929	Nov. 4, 1928	19.65	10,600		June 20, 1946	15.20	7,620
	Nov. 18, 1928	22.70	15,600				
	Mar. 2, 1929	17.25	8,300	1947	Apr. 5, 1947	18.60	12,100
	Mar. 7, 1929	18.45	9,320		Apr. 12, 1947	18.80	12,400
	Mar. 16, 1929	20.50	11,900		May 29, 1947	15.90	8,430
	Apr. 16, 1929	15.40	7,100		June 9, 1947	24.80	26,000
	Apr. 22, 1920	25.40	20,100		June 23, 1947	30.46	50,000
	June 3, 1929	26.60	22,300				
	July 8, 1929	25.30	19,900	1948	Mar. 17, 1948	15.7	8,070
					Mar. 20, 1948	17.9	11,000
1930	June 6, 1930	14.66	6,690				
				1949	Feb. 19, 1949	a17.83	-
1933	Sept. 27,,1933	13.36	5,560		Feb. 26, 1949	a24.7	12,000
					June 4, 1949	19.25	13,000
1934	May 14, 1934	6.01	1,020		July 12, 1949	17.80	10,800
1935	May 28, 1935	15.90	7,800	1950	May 11, 1950	17.35	10,200
	June 4, 1935	23.10	21,800		Aug. 15, 1950	19.2	13,000
	June 20, 1935	19.75	13,500				
				1951	Mar. 3, 1951	14.75	7,100
1936	Mar. 5, 1936	13.54	6,150		Mar. 29, 1951	15.33	7,520
					Apr. 26, 1951	15.45	7,740
1937	Feb. 13, 1937	a19.60	b7,120		May 3, 1951	23.50	18,800
	Mar. 6, 1937	17.90	11,400		May 12, 1951	17.80	9,430
	July 13, 1937	15.10	8,150		May 27, 1951	16.33	7,970
					June 16, 1951	18.10	9,760
1938	June 2, 1938	12.13	6,380		June 22, 1951	22.45	16,200
					June 28, 1951	20.70	13,200
1939	Mar. 15, 1939	16.76	9,010		July 7, 1951	22.97	17,500
	June 23, 1939	16.05	8,100		July 11, 1951	15.76	7,530
					Aug. 27, 1951	17.10	8,700
1940	Aug. 15, 1940	12.38	4,870		Sept. 10, 1951	16.65	8,760
1941	June 13, 1941	20.97	15,900	1952	Nov. 13, 1951	19.17	12,200
	Sept. 19, 1941	15.15	7,280		Mar. 12, 1952	18.90	11,800
					Apr. 24, 1952	15.70	7,770
1942	Oct. 9, 1941	16.20	8,250		May 24, 1952	16.40	8,540
	Oct. 24, 1941	15.10	7,190		June 23, 1952	17.43	9,720
	Nov. 3, 1941	18.70	11,200				
	Jan. 20, 1942	15.00	7,100	1953	May 1, 1953	14.74	6,800
	Mar. 7, 1942	15.20	7,280				
	Mar. 27, 1942	16.00	8,050	1954	May 3, 1954	15.00	7,070
	June 22, 1942	19.20	12,100				
	June 26, 1942	24.2	28,600	1955	Feb. 19, 1955	21.16	11,900

PLATTE RIVER BASIN (IOWA-MISSOURI)

Peak stages and discharges of Platte River near Agency, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 4, 1955	16.0	8,100	1961	Mar. 14, 1961	22.95	17,900
	Apr. 14, 1955	15.85	7,880		Mar. 28, 1961	21.36	13,700
	June 25, 1955	16.40	8,540		Apr. 13, 1961	19.53	10,400
					Sept. 3, 1961	21.22	13,300
1956	July 3, 1956	13.94	6,050		Sept. 14, 1961	25.50	26,500
1957	Apr. 4, 1957	16.75	8,980	1962	Oct. 1, 1961	17.85	8,400
					Oct. 12, 1961	20.95	12,900
1958	May 5, 1958	20.36	10,600		Nov. 3, 1961	21.35	13,700
	July 16, 1958	22.94	16,700		Nov. 17, 1961	23.30	18,800
	July 20, 1958	19.40	9,170		Feb. 6, 1962	a24.40	10,000
	Aug. 1, 1958	21.13	12,000		Feb. 16, 1962	19.42	10,200
					Mar. 13, 1962	20.75	12,500
1959	Mar. 27, 1959	19.19	9,060		Mar. 21, 1962	20.10	11,200
	Apr. 21, 1959	19.58	9,620		May 20, 1962	17.86	8,500
	May 6, 1959	17.25	7,060		May 30, 1962	23.72	20,000
	May 21, 1959	17.6	7,390				
	June 2, 1959	22.9	16,700	1963	Mar. 5, 1963	18.43	10,100
	July 2, 1959	18.82	8,580		May 16, 1963	20.46	11,900
	Sept. 24, 1959	18.72	8,470				
	Sept. 27, 1959	20.47	11,200	1964	May 10, 1964	17.20	7,800
					June 15, 1964	18.85	9,480
1960	Oct. 6, 1959	19.0	8,800		June 21, 1964	a26.3	32,100
	Jan. 16, 1960	23.3	17,900		Sept. 7, 1964	19.87	10,500
	Mar. 31, 1960	26.09	29,100				
	June 5, 1960	18.1	8,930	1965	Mar. 18, 1965	22.70	17,000
	July 2, 1960	21.8	14,100		Apr. 7, 1965	16.60	7,240
	Aug. 19, 1960	17.9	8,500		Apr. 9, 1965	16.50	7,150
	Aug. 27, 1960	16.4	7,060		June 6, 1965	16.70	7,330
	Aug. 30, 1960	19.1	9,830		June 30, 1965	19.94	11,100
	Sept. 25, 1960	18.7	9,370		July 3, 1965	23.40	17,300
					July 20, 1965	35.05	53,000
1961	Feb. 19, 1961	18.85	9,480		Sept. 22, 1965	25.95	21,700

a Backwater from ice.
b Daily discharge.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8210. Jenkins Branch at Gower, Mo.

Location.--Lat 39°37'29", long 94°36'01", in SW¼NW¼ sec.34, T.56 N., R.33 W., on right bank at upstream side of culvert on U. S. Highway 169, 0.8 mile north of Gower, and 4.4 miles upstream from mouth.

Drainage area.--2.72 sq mi. Slope.--34.0 ft per mi.

Gage.--Recording gage and concrete control. Altitude of gage is 903 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs and by indirect measurements at 1,730 and 3,400 cfs.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 15, 1951	4.02	362	1962	Nov. 2, 1961	6.75	1,020
	June 19, 1951	3.24	221		Nov. 15, 1961	3.66	237
	June 21, 1951	5.04	582		June 6, 1962	5.80	744
	June 22, 1951	4.40	440				
	June 26, 1951	3.79	324	1963	Oct. 15, 1962	4.12	330
	June 27, 1951	3.62	310		May 15, 1963	4.82	486
	July 5, 1951	4.78	526				
	July 11, 1951	3.29	230	1964	Apr. 12, 1964	7.67	1,290
	July 12, 1951	3.39	252		Apr. 20, 1964	6.17	856
	Aug. 8, 1951	3.49	276		Apr. 26, 1964	4.62	440
	Aug. 15, 1951	3.60	304		June 21, 1964	10.77	2,420
	Aug. 28, 1951	3.52	283		June 22, 1964	3.93	297
	Sept. 9, 1951	3.75	314		June 22, 1964	4.42	396
1952	Sept. 1, 1952	3.00	181	1965	June 29, 1965	4.78	486
					July 2, 1965	4.42	396
1953	May 5, 1953	2.51	97		July 19, 1965	5.25	597
					July 20, 1965	13.27	3,460
1954	May 31, 1954	3.71	335		Sept.16, 1965	8.06	1,420
	June 2, 1954	5.36	666		Sept.21, 1965	9.38	1,870
1955	Oct. 3, 1954	3.75	314				
	Oct. 4, 1954	3.82	324				
	Oct. 13, 1954	4.01	362				
	Feb. 18, 1955	3.78	324				
	June 24, 1955	4.55	471				
1956	May 30, 1956	9.03	1,730				
	July 13, 1956	3.46	259				
1957	Apr. 3, 1957	2.22	53				
1958	May 3, 1958	4.70	462				
	June 12, 1958	4.72	462				
	June 14, 1958	3.88	286				
	July 11, 1958	4.33	385				
	July 15, 1958	5.24	597				
	July 17, 1958	4.44	407				
	July 27, 1958	4.42	396				
	July 30, 1958	5.50	662				
1959	Aug. 5, 1959	5.86	772				
	Sept.22, 1959	6.62	968				
1960	Oct. 4, 1959	4.38	396				
	Oct. 22, 1959	3.55	216				
	Mar. 27, 1960	4.17	341				
	June 21, 1960	4.60	440				
	June 23, 1960	4.72	462				
	June 30, 1960	6.33	884				
	July 10, 1960	4.05	319				
	Aug. 7, 1960	4.47	407				
	Aug. 17, 1960	5.70	716				
1961	Apr. 22, 1961	4.68	462				
	May 5, 1961	3.53	208				
	May 7, 1961	8.75	1,660				
	July 23, 1961	4.31	374				
	July 26, 1961	4.90	510				
	Sept.13, 1961	4.37	385				
	Sept.20, 1961	4.50	418				
1962	Oct. 12, 1961	4.33	385				
	Oct. 29, 1961	6.40	912				

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8211.3 First Creek near Nashua, Mo.

Location.--Lat 39°17'20", long 94°35'05", in NW¼SW¼ sec.26, T.52 N., R.33 W., on right bank just upstream from culvert on farm road, 1 mile south on U. S. Highway 169 from junction of new U. S. Highway 169 and 71 Bypass, approximately 150 ft east on farm road from center line of U. S. Highway 169.

Drainage area.--0.55 sq mi. Slope.--59.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined below 310 cfs by current meter measurements and at 831 cfs by indirect measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 4, 1959	8.11	23				
1960	Apr. 15, 1960	9.41	64				
1961	May 7, 1961	13.25	310				
1962	Nov. 2, 1961	11.20	160				
1963	Oct. 6, 1962	8.63	35				
1964	Apr. 20, 1964	8.45	30				
1965	July 19, 1965	18.40	831				

MISSOURI RIVER MAIN STEM

6-8930. Missouri River at Kansas City, Mo.

Location.--Lat 39°06'43", long 94°35'16", in sec.32, T.50 N., R.33 W., on downstream side of right pier of Chicago, Burlington Quincy Railroad bridge at Kansas City, 1.4 miles downstream from Kansas River and at mile 366.1.

Drainage area.--489,200 sq mi.

Gage.--Nonrecording Aug. 1, 1928, to May 3, 1931, and May 16, 1947, to Feb. 28, 1948. Recording gage, May 4, 1931, to May 15, 1947, and since Feb. 29, 1948. Datum of gage is 716.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,640,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 15, 1844	38.0	625,000	1948	Mar. 21, 1948	21.25	208,000
1903	June 2, 1903	34.95	548,000	1949	Mar. 8, 1949	20.4	195,000
1929	June 5, 1929	23.4	254,000	1950	July 21, 1950	20.70	198,000
1930	May 9, 1930	16.7	149,000	1951	July 14, 1951	36.2	573,000
1931	June 24, 1931	12.0	64,000	1952	Apr. 24, 1952	30.63	400,000
1932	June 21, 1932	20.90	178,000	1953	May 8, 1953	-	128,000
1933	May 31, 1933	14.7	109,000		June 29, 1953	14.98	-
1934	Mar. 7, 1934	13.45	87,100	1954	June 23, 1954	16.03	122,000
1935	June 6, 1935	23.80	230,000	1955	June 25, 1955	15.15	111,000
1936	Mar. 12, 1936	16.30	117,000	1956	July 4, 1956	11.55	71,300
1937	June 30, 1937	15.55	102,000	1957	June 19, 1957	17.05	143,000
1938	July 19, 1938	19.30	137,000	1958	July 31, 1958	20.80	193,000
1939	Apr. 10, 1939	17.40	135,000	1959	May 31, 1959	16.74	155,000
1940	June 21, 1940	13.25	68,100	1960	Apr. 4, 1960	22.95	251,000
1941	June 13, 1941	24.66	215,000	1961	Sept. 14, 1961	18.35	178,000
1942	June 22, 1942	24.25	206,000	1962	May 30, 1962	18.30	182,000
1943	June 18, 1943	29.1	366,000	1963	June 26, 1963	12.38	96,600
1944	Apr. 24, 1944	27.67	311,000	1964	June 24, 1964	17.77	158,000
1945	June 18, 1945	25.30	242,000	1965	July 21, 1965	22.80	225,000
1946	June 20, 1946	15.75	123,000				
1947	June 25, 1947	27.01	-				
	June 27, 1947	-	261,000				

BLUE RIVER BASIN

6-8935. Blue River near Kansas City, Mo.

Location.--Lat 38°57'25", long 94°33'32", in SE¼NE¼ sec.28, T.48 N., R.33 W., on downstream side of right pier of bridge on County Highway W, 0.4 mile downstream from Indian Creek and 1.7 miles southeast of Kansas City.

Drainage area.--188 sq mi. Slope.--12.4 ft per mi.

Gage.--Nonrecording prior to July 1, 1939; recording gage thereafter. Datum of gage is 753.73 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--14 ft.

Historical data.--Maximum stage known prior to 1961, about 39 ft Nov. 17, 1928, occurred before construction of present bridge and major changes in channel at gage site.

Remarks.--Base for partial-duration series, 5,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 25, 1939	21.52	a8,140	1951	July 6, 1951	21.90	7,740
					July 11, 1951	38.30	31,100
1940	Apr. 27, 1940	17.66	5,990		Sept. 4, 1951	19.1	6,200
	May 18, 1940	18.20	6,250		Sept. 9, 1951	20.20	6,800
	June 23, 1940	19.58	7,000				
				1952	Mar. 10, 1952	23.00	8,380
1941	Apr. 4, 1941	18.65	6,460				
				1953	Apr. 30, 1953	9.48	1,760
1942	Oct. 31, 1941	19.15	6,730				
	June 19, 1942	20.10	7,280	1954	Aug. 2, 1954	16.27	4,650
	July 25, 1942	21.2	7,890				
				1955	Oct. 20, 1954	19.38	6,360
1943	June 10, 1943	17.06	5,650		May 28, 1955	26.33	8,560
1944	Apr. 23, 1944	35.88	26,400	1956	Oct. 5, 1955	13.04	1,270
	May 21, 1944	19.80	7,010				
				1957	May 16, 1957	20.37	6,710
1945	Mar. 24, 1945	17.89	6,000		June 30, 1957	29.65	14,300
	Apr. 16, 1945	26.3	11,100				
	May 16, 1945	22.40	8,460	1958	July 17, 1958	23.16	9,180
	June 30, 1945	22.90	8,740		July 20, 1958	19.00	6,160
					July 25, 1958	19.70	6,640
1946	May 10, 1946	21.36	7,890		July 31, 1958	37.80	21,700
					Aug. 16, 1958	21.50	7,900
1947	Mar. 13, 1947	21.15	7,780				
	Apr. 3, 1947	20.9	7,620	1959	Apr. 27, 1959	17.36	5,120
	Apr. 5, 1947	27.35	12,100				
	Apr. 10, 1947	20.00	7,120	1960	Apr. 16, 1960	21.59	7,980
	June 21, 1947	21.80	8,120		Apr. 30, 1960	21.54	7,900
	June 23, 1947	28.98	14,100				
				1961	May 6, 1961	26.49	8,200
1948	Mar. 19, 1948	22.32	7,970		July 6, 1961	26.40	7,780
	July 22, 1948	22.26	7,970		Sept. 13, 1961	44.46	41,000
	July 26, 1948	24.88	9,540		Sept. 24, 1961	25.92	7,430
1949	May 21, 1949	20.93	7,180	1962	Nov. 2, 1961	28.19	9,140
	June 6, 1949	23.74	8,800		Nov. 16, 1961	25.38	7,090
	June 7, 1949	19.10	6,200				
				1963	July 13, 1963	20.05	4,390
1950	Oct. 21, 1949	30.85	16,400				
	July 12, 1950	19.13	6,200	1964	May 26, 1964	25.45	7,090
	Aug. 27, 1950	20.93	7,180		May 28, 1964	26.93	8,130
1951	June 26, 1951	21.20	7,350	1965	June 5, 1965	30.13	12,100
	June 29, 1951	19.80	6,580		Sept. 4, 1965	26.77	9,050

a Annual peak only

LITTLE BLUE RIVER BASIN

6-8940. Little Blue River near Lake City, Mo.

Location.--Lat 39°06'00", long 94°18'00", in SW¼SE¼ sec.35, T.50 N., R.31 W., at downstream side of right pier of upstream bridge on dual State Highway 78, 3 miles southwest of Lake City, and 10½ miles upstream from mouth.

Drainage area.--184 sq mi. Slope.--6.26 ft per mi.

Gage.--Nonrecording prior to July 24, 1957; recording gage thereafter. Datum of gage is 719.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 20, 1948	24.97	6,000				
	July 26, 1948	22.6	3,200				
1949	Jan. 16, 1949	19.4	2,060				
	Feb. 12, 1949	19.9	2,200				
	Mar. 31, 1949	19.4	2,060				
	May 22, 1949	21.7	2,800				
	July 12, 1949	19.5	2,080				
	Sept.13, 1949	20.7	2,450				
1950	Oct. 22, 1949	24.7	5,580				
1951	June 30, 1951	19.9	2,200				
	July 6, 1951	19.4	2,060				
	July 11, 1951	26.1	6,400				
	Sept. 4, 1951	21.0	2,560				
1952	Oct. 6, 1951	19.4	2,060				
	Mar. 10, 1952	23.2	3,690				
1953	Apr. 30, 1953	19.73	2,140				
1954	Mar. 3, 1954	21.60	2,820				
1955	May 29, 1955	23.65	4,000				
1956	July 2, 1956	11.0	408				
1957	July 1, 1957	18.16	1,680				
1958	Aug. 1, 1958	24.02	4,350				
1959	Apr. 28, 1959	16.27	1,290				
1960	May 1, 1960	21.14	2,600				
1961	Mar. 13, 1961	22.08	2,780				
	Apr. 10. 1961	21.28	2,730				
	May 6, 1961	24.30	4,740				
	July 25, 1961	21.98	2,950				
	Sept. 4, 1961	20.36	2,220				
	Sept.14, 1961	27.94	9,460				
	Sept.25, 1961	23.62	4,100				
1962	Oct. 31, 1961	21.00	2,460				
	Nov. 3, 1961	24.18	4,640				
1963	Oct. 13, 1962	19.50	1,900				
1964	May 29, 1964	20.49	2,240				
1965	June 5, 1965	19.92	2,240				
	June 30, 1965	21.51	2,690				
	July 20, 1965	25.03	5,200				
	Sept.22, 1965	22.95	3,500				

FISHING RIVER BASIN

6-8945. East Fork Fishing River at Excelsior Springs, Mo.

Location.--Lat 39°20'20", long 94°12'45", in SE¼ sec.1, T.52 N., R.30 W., on downstream side of right abutment of Golf Hill Bridge in Excelsior Springs, three-quarters of a mile upstream from Dry Fork Fishing River and 6-3/4 miles upstream from mouth.

Drainage area.--20.0 sq mi. Slope.--21.9 ft per mi.

Gage.--Recording. Datum of gage is 759.46 ft (revised) above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by indirect measurement at 12,000 cfs.

Historical data.--Flood of June 22, 1947 reached a stage 3.7 ft higher than flood of July 6, 1951 at a point 200 ft upstream.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 21, 1951	7.10	1,080	1960	Oct. 4, 1959	6.51	680
	June 28, 1951	9.20	a2,900		Mar. 27, 1960	8.57	1,920
	July 6, 1951	15.3	a12,000		Apr. 29, 1960	7.30	985
	July 8, 1951	9.00	1,620		May 6, 1960	6.02	520
	July 11, 1951	8.40	1,080		June 21, 1960	6.03	535
	Aug. 9, 1951	10.90	a4,110		June 30, 1960	8.08	1,480
	Aug. 28, 1951	12.00	a5,800				
	Sept. 4, 1951	9.35	a2,180	1961	Mar. 26, 1961	8.11	2,100
					May 5, 1961	6.05	704
1952	Mar. 10, 1952	6.05	670		May 7, 1961	9.81	3,460
	June 21, 1952	5.80	597		July 23, 1961	6.72	1,000
	Aug. 21, 1952	7.80	1,440		July 25, 1961	6.14	715
					Aug. 1, 1961	8.10	2,100
1953	Apr. 24, 1953	5.45	500		Sept. 13, 1961	12.00	5,700
	May 5, 1953	6.28	750				
				1962	Oct. 12, 1961	6.98	992
1954	May 2, 1954	6.60	865		Oct. 30, 1961	10.28	3,950
					Nov. 2, 1961	9.35	3,080
1955	Feb. 18, 1955	6.30	742		Nov. 15, 1961	7.82	1,800
	Mar. 14, 1955	5.90	620		Feb. 4, 1962	6.66	718
	May 12, 1955	6.86	965		Mar. 20, 1962	6.50	640
	June 25, 1955	7.87	1,480				
	Aug. 7, 1955	6.30	760	1963	May 15, 1963	6.35	600
					May 26, 1963	6.30	570
1956	Oct. 6, 1955	6.65	885		Aug. 1, 1963	6.16	500
	July 4, 1956	8.15	1,710				
	July 13, 1956	10.05	a3,750	1964	Apr. 5, 1964	6.85	905
					June 11, 1964	8.72	2,780
1957	May 16, 1957	6.10	685		June 12, 1964	7.20	1,200
					June 21, 1964	9.13	2,800
1958	Feb. 27, 1958	6.17	700				
	June 14, 1958	6.34	768	1965	Nov. 15, 1964	7.65	1,540
	July 11, 1958	10.95	a5,000		Jan. 1, 1965	6.25	570
	July 15, 1958	7.95	1,360		Mar. 16, 1965	7.97	1,780
	July 30, 1958	8.70	2,020		June 5, 1965	6.76	850
					July 19, 1965	16.05	10,400
1959	Oct. 7, 1958	8.40	1,730		Aug. 16, 1965	9.24	2,080
	Oct. 17, 1958	6.05	535		Aug. 30, 1965	10.05	2,900
	July 8, 1959	7.00	860		Sept. 13, 1965	9.03	1,860
					Sept. 16, 1965	8.63	1,460
					Sept. 20, 1965	10.92	3,980

a Revised.

CROOKED RIVER BASIN

6-8950. Crooked River near Richmond, Mo.

Location.--Lat 39°20', long 93°59', in NW¼ sec.7, T.52 N., R.27 W., on downstream side of third pier from left end of bridge on State Highway 13, 4 miles north of Richmond, 8½ miles upstream from West Fork Crooked River and 24½ miles upstream from mouth.

Drainage area.--159 sq mi. Slope.--5.17 ft per mi.

Gage.--Nonrecording prior to Dec. 4, 1951, recording and nonrecording thereafter. Datum of gage is 706.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 20, 1948	20.91	2,860	1959	Oct. 8, 1958	19.45	2,000
	June 21, 1948	18.69	1,960		Nov. 18, 1958	23.07	3,840
	Aug. 13, 1948	17.20	1,560				
				1960	Oct. 4, 1959	17.67	1,530
1949	Feb. 19, 1949	20.7	2,780		Mar. 28, 1960	24.75	5,790
	Mar. 31, 1949	18.1	1,760		Apr. 15, 1960	18.65	1,760
	June 2, 1949	21.8	3,300		Apr. 16, 1960	22.35	3,340
	June 14, 1949	21.7	3,250		Apr. 30, 1960	19.65	2,070
	Sept. 13, 1949	21.34	3,050		July 1, 1960	23.95	4,700
1950	Jan. 1, 1950	15.2	1,110	1961	Mar. 14, 1961	19.32	1,980
					Mar. 27, 1961	21.30	2,720
1951	June 22, 1951	19.25	2,140		Apr. 10, 1961	17.92	1,580
	June 29, 1951	21.4	3,100		May 6, 1961	20.16	2,640
	July 6, 1951	28.8	27,000		May 8, 1961	21.12	2,640
	July 12, 1951	22.5	3,700		Sept. 14, 1961	26.97	12,200
	Aug. 9, 1951	21.1	2,960				
	Aug. 28, 1951	23.75	4,620	1962	Oct. 30, 1961	21.20	2,680
	Sept. 5, 1951	23.4	4,290		Nov. 3, 1961	24.28	5,050
					Nov. 17, 1961	23.18	3,920
1952	Mar. 11, 1952	22.28	3,580		Feb. 5, 1962	20.78	2,520
	Aug. 22, 1952	21.26	2,725		Mar. 11, 1962	18.85	1,820
					Mar. 21, 1962	18.70	1,800
1953	May 6, 1953	21.35	2,760				
				1963	Mar. 16, 1963	21.48	2,980
1954	May 2, 1954	18.47	1,800				
				1964	Apr. 5, 1964	18.35	1,840
1955	Feb. 19, 1955	21.57	2,860		Apr. 21, 1964	17.24	1,610
	May 12, 1955	17.87	1,580		June 12, 1964	20.18	2,440
	June 25, 1955	18.00	1,600		June 22, 1964	27.83	15,000
1956	July 13, 1956	18.84	1,820	1965	Jan. 2, 1965	18.34	1,830
					Mar. 17, 1965	19.00	2,020
1957	May 17, 1957	16.23	1,220		June 6, 1965	17.11	1,590
					June 13, 1965	18.90	1,990
1958	Feb. 28, 1958	18.95	1,880		July 20, 1965	30.7	29,000
	May 4, 1958	20.55	2,440		Aug. 31, 1965	19.35	2,160
	June 15, 1958	19.20	1,940		Sept. 16, 1965	17.25	1,610
	July 12, 1958	24.56	5,470		Sept. 21, 1965	26.39	7,700
	July 16, 1958	23.34	4,000				
	July 31, 1958	19.90	2,180				

MISSOURI RIVER MAIN STEM

6-8955. Missouri River at Waverly, Mo.

Location.--Lat 39°12'51", long 93°30'57", in sec.14, T.51 N., R.24 W., on downstream side of second pier from right bank of bridge on U. S. Highway 65 at Waverly and at mile 293.4.

Drainage area.--491,200 sq mi.

Gage.--Nonrecording Mar. 1, 1929, to Apr. 4, 1934, and June 14, 1943, to Sept. 15, 1944; recording gage Apr. 5, 1934, to June 13, 1943, and since Sept. 16, 1944. At datum 5.00 ft lower prior to Jan. 1, 1934. Datum of gage is 646.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements. Relation affected by levee breaks during extreme floods.

Bankfull stage.--18 ft.

Remarks.--Gage heights adjusted to present datum. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 5, 1929	19.9	263,000	1949	Mar. 8, 1949	-	187,000
					June 30, 1949	20.74	-
1930	May 9, 1930	15.6	146,000	1950	July 21, 1950	21.75	197,000
1931	June 25, 1931	12.4	65,500	1951	July 14, 1951	28.20	-
1932	June 23, 1932	19.00	167,000		July 16, 1951	-	549,000
1933	June 1, 1933	15.4	111,000	1952	Apr. 24, 1952	28.10	-
					Apr. 26, 1952	-	369,000
1934	Mar. 8, 1934	13.6	82,600	1953	May 8, 1953	-	126,000
1935	June 8, 1935	22.02	215,000		June 29, 1953	17.30	-
1936	Mar. 13, 1936	15.20	120,000	1954	June 23, 1954	18.50	119,000
1937	June 30, 1937	14.45	105,000	1955	June 26, 1955	17.10	106,000
1938	July 20, 1938	17.20	137,000	1956	July 5, 1956	14.42	67,500
1939	Apr. 11, 1939	16.65	133,000	1957	June 19, 1957	20.50	142,000
1940	June 21, 1940	12.55	70,800	1958	July 13, 1958	23.10	-
					Aug. 1, 1958	-	184,000
1941	June 14, 1941	20.9	185,000	1959	June 1, 1959	19.60	154,000
1942	June 27, 1942	21.84	200,000	1960	Mar. 31, 1960	-	249,000
1943	June 19, 1943	24.3	310,000		Apr. 4, 1960	25.80	-
1944	Apr. 24, 1944	24.4	347,000	1961	Sept. 14, 1961	23.40	216,000
1945	Apr. 18, 1945	22.4	240,000	1962	May 31, 1962	-	185,000
					June 29, 1962	21.83	-
1946	June 21, 1946	15.7	116,000	1963	June 27, 1963	16.60	98,200
1947	June 26, 1047	25.1	273,000	1964	June 25, 1964	22.71	162,000
1948	Mar. 22, 1948	21.60	215,000	1965	July 22, 1965	26.80	276,000

WAKENDA CREEK BASIN

6-8960. Wakenda Creek at Carrollton, Mo.

Location.--Lat 39°21', long 93°30', in NE¼SE¼ sec.5, T.52 N., R.23 W., on left bank near upstream side of bridge on U. S. Highway 65 in Carrollton, half a mile downstream from Brush Creek and 14 miles upstream from mouth.

Drainage area.--248 sq mi. Slope.--5.27 ft per mi.

Gage.--Nonrecording prior to May 21, 1958; recording gage thereafter. Datum of gage is 641.17 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater when the Missouri River is at extremely high stages.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 20, 1948	22.64	7,000	1958	Oct. 24, 1957	20.05	3,550
	June 23, 1948	20.8	4,190		Dec. 20, 1957	19.30	3,110
					Feb. 28, 1958	20.50	3,950
1949	Jan. 16, 1949	20.8	4,190		June 15, 1958	19.47	3,230
	Feb. 19, 1949	20.3	3,610		July 12, 1958	19.38	3,170
	May 9, 1949	20.2	3,180		July 20, 1958	20.20	3,710
	May 21, 1949	20.1	3,110		July 31, 1958	19.95	3,550
	June 3, 1949	21.6	4,500				
				1959	Feb. 10, 1959	18.46	2,720
1950	June 23, 1950	19.7	3,040				
	July 20, 1950	21.65	5,320	1960	Mar. 29, 1960	22.3	6,460
	Aug. 16, 1950	22.26	6,460		Apr. 30, 1960	21.8	5,630
					May 7, 1960	22.08	6,120
1951	June 22, 1951	21.0	4,450		July 2, 1960	22.6	7,000
	June 27, 1951	20.56	3,950				
	June 29, 1951	21.52	5,170	1961	Mar. 27, 1961	21.27	4,870
	July 7, 1951	23.4	6,640		May 6, 1961	19.53	3,230
	July 12, 1951	21.5	5,170		May 8, 1961	22.27	6,460
	Aug. 10, 1951	21.1	4,590		Sept. 14, 1961	23.07	6,460
	Aug. 15, 1951	20.32	3,610		Sept. 24, 1961	19.95	3,130
	Aug. 29, 1951	21.2	4,730				
	Sept. 5, 1951	21.2	4,730	1962	Oct. 13, 1961	19.95	3,130
					Oct. 31, 1961	22.60	5,660
1952	Nov. 12, 1951	20.20	3,500		Nov. 3, 1961	22.25	5,020
	Mar. 11, 1952	21.10	4,590		Nov. 17, 1961	22.24	5,020
	Aug. 22, 1952	20.90	3,460		Feb. 5, 1962	19.80	3,020
					Mar. 21, 1962	20.30	3,310
1953	May 6, 1953	20.2	2,940				
				1963	May 16, 1963	18.50	2,720
1954	Mar. 25, 1954	17.9	1,930				
				1964	Apr. 20, 1964	19.86	3,070
1955	Feb. 19, 1955	20.10	3,400		June 22, 1964	22.88	6,140
	Aug. 7, 1955	22.8	5,000				
				1965	Jan. 2, 1965	20.05	3,130
1956	Oct. 5, 1956	19.0	2,330		Jan. 23, 1965	20.95	3,730
					Mar. 17, 1965	19.80	3,610
1957	May 17, 1957	19.6	3,230		July 21, 1965	22.90	5,500
					Sept. 22, 1965	23.00	6,300

GRAND RIVER BASIN

6-8961.8. Demoss Branch near Stanberry, Mo.

Location.--Lat 40°13'10", long 94°33'35", in NE¼SE¼ sec.36, T.63 N., R.33 W., on left bank just upstream from culvert on State Highway 4, three-quarters of a mile west of Stanberry.

Drainage area.--0.38 sq mi. Slope.--106 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Aug. 6, 1959 to June 2, 1965.

Stage-discharge relation.--Defined by current-meter measurements below 65.7 cfs and by indirect measurements at 79.2, 157, 248 and 399 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	13.23	12				
1956	June 18, 1956	17.19	248				
1957	Apr. 3, 1957	13.61	30				
1958	July 19, 1958	18.81	399				
1959	Sept.22, 1959	17.49	275				
1960	June 5, 1960	17.99	320				
1961	Sept.3,13,1961	17.18	246				
1962	Feb. 4, 1962	15.49	138				
1963	July 13, 1963	15.03	110				
1964	June 20, 1964	15.33	125				
1965	July 2, 1965	17.39	274				

GRAND RIVER BASIN

6-8965. Thompson Branch near Albany, Mo.

Location.--Lat 40°12'50", long 94°19'55", in SE¼SE¼ sec.36, T.63 N., R.31 W., at bridge on State Highway 85, 1.8 miles upstream from East Fork Grand River, and 2 miles south of Albany.

Drainage area.--5.58 sq mi. Slope.--30.9 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 550 cfs, by indirect measurements at 147, 622, and 1,640 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 1, 1956	6.39	456				
1957	Apr. 3, 1957	5.08	148				
1958	May 3, 1958	11.32	1,630				
1959	Sept. 23, 1959	11.6	1,700				
1960	Oct. 6, 1959	8.47	953				
1961	Mar. 5, 1961	9.69	1,250				
1962	May 28, 1962	6.69	528				
1963	May 27, 1963	4.36	160				
1964	Sept. 6, 1964	10.1	1,350				
1965	July 1, 1965	10.70	1,490				

GRAND RIVER BASIN

6-8967. O'Neill Branch at Osborn, Mo.

Location.--Lat 39°45'25", long 94°20'35", in SW¼NE¼ sec.14, T.57 N., R.31 W., on left bank just upstream from culvert under U. S. Highway 38, 1 mile northeast of Osborn, and 5.5 miles northwest of Cameron.

Drainage area.--0.80 sq mi. Slope.--50.9 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since July 19, 1962.

Stage-discharge relation.--Defined by indirect measurements at 146, 239, 427, and 1,320 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 4, 1954	16.10	239				
1956	Apr. 28, 1956	13.46	60				
1957	Apr. 2, 1957	13.46	60				
	May 16, 1957	13.46	60				
1958	July 30, 1958	24.20	1,320				
1959	May 18, 1959	16.24	250				
1960	June 30, 1960	15.00	160				
1961	May 5, 1961	18.68	520				
1962	May 19, 1962	20.05	720				
1963	Sept.25, 1963	15.72	240				
1964	June 21, 1964	18.38	520				
1965	July 19, 1965	18.28	510				

GRAND RIVER BASIN

6-8970. East Fork Big Creek near Bethany, Mo.

Location.--Lat 40°17'50", long 94°01'55", in SE¼ sec.34, T.64 N., R.28 W., on right bank 50 ft downstream from bridge on U. S. Highway 69, 2 miles north of Bethany and 4 miles upstream from confluence with West Fork.

Drainage area.--95 sq mi, approximately. Slope.--7.24 ft per mi.

Gage.--Nonrecording prior to June 26, 1934; recording gage thereafter. Datum of gage is 854.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,600 cfs and by velocity-area studies.

Historical data.--Maximum stage known, 23.8 ft July 6, 1909.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 6, 1909	23.8	-
1934	June 23, 1934	4.17	590
1935	May 31, 1935	12.04	3,500
	June 2, 1935	10.25	2,520
	June 6, 1935	5.80	1,130
	June 18, 1935	10.40	2,610
1936	Feb. 24, 1936	a9.65	-
	Feb. 26, 1936	a7.87	860
	May 23, 1936	5.27	980
1937	Jan. 30, 1937	7.4	1,610
	Feb. 13, 1937	a12.10	1,460
	Feb. 18, 1937	a10.55	1,460
	Mar. 2, 1937	a10.20	1,400
	Apr. 29, 1937	6.00	1,090
1938	Aug. 21, 1938	3.01	210
1939	Mar. 12, 1939	7.70	1,680
	June 21, 1939	6.00	1,090
	June 25, 1939	8.6	1,960
	Aug. 2, 1939	8.86	2,060
1940	May 8, 1940	8.09	1,780
	July 30, 1940	6.2	1,120
1941	June 3, 1941	10.6	2,770
	June 9, 1941	11.00	2,950
1942	Oct. 9, 1941	6.35	1,190
	Oct. 31, 1941	7.05	1,400
	Dec. 23, 1941	5.60	925
	Feb. 15, 1942	5.55	925
	Mar. 6, 1942	6.6	1,330
	Mar. 26, 1942	6.6	1,330
	June 21, 1942	14.3	5,320
	June 26, 1942	15.9	6,600
1943	Oct. 30, 1942	5.70	958
	Dec. 26, 1942	7.80	1,680
	Feb. 3, 1943	8.70	2,000
	May 16, 1943	11.23	3,110
	May 19, 1943	5.6	925
	June 5, 1943	10.0	2,470
	June 8, 1943	6.85	1,330
	June 10, 1943	6.35	1,190
	June 11, 1943	9.4	2,240
	June 16, 1943	11.15	3,070
1944	Mar. 15, 1944	6.2	1,120
	Apr. 22, 1944	11.38	3,210
	May 2, 1944	10.30	2,620
	June 9, 1944	9.2	2,170
1945	Apr. 16, 1945	11.80	3,490
	May 15, 1945	12.70	4,120
	June 16, 1945	9.60	2,310
	July 13, 1945	9.70	2,350
1946	Jan. 5, 1946	13.10	4,400
	Mar. 16, 1946	7.50	1,580
	June 19, 1946	7.90	1,720
	June 30, 1946	16.10	6,770
	Sept. 27, 1946	8.60	1,960
1947	Apr. 5, 1947	9.40	2,240
	June 6, 1947	17.65	8,120
	June 13, 1947	11.00	2,970
	June 21, 1947	12.10	3,700
	June 23, 1947	13.80	4,920
1948	Mar. 15, 1948	6.60	1,260
	May 6, 1948	9.56	2,310
1949	Feb. 24, 1949	a10.9	b2,000
	Mar. 30, 1949	5.4	859
1950	Feb. 8, 1950	a7.67	-
	May 9, 1950	6.34	1,160
	Sept. 20, 1950	6.72	1,300
1951	Feb. 19, 1951	5.43	859
	Mar. 3, 1951	6.11	1,090
	May 1, 1951	10.92	2,920
	June 14, 1951	6.13	1,090
	June 22, 1951	7.90	1,720
	June 27, 1951	8.85	2,030
	July 6, 1951	5.97	1,060
	July 22, 1951	5.80	991
1952	Nov. 12, 1951	7.07	1,440
	Mar. 10, 1952	7.65	1,610
	Mar. 19, 1952	6.60	1,090
	Apr. 23, 1952	6.52	1,230
	June 21, 1952	11.0	2,970
	June 22, 1952	9.5	2,280
1953	Mar. 31, 1953	5.56	925
1954	June 1, 1954	6.80	1,330
1955	Feb. 20, 1955	7.32	1,500
	June 25, 1955	9.35	2,240
	July 10, 1955	7.30	1,500
1956	July 2, 1956	10.97	1,560
	Aug. 2, 1956	13.48	2,500
1957	May 2, 1957	11.18	1,620
1958	July 15, 1958	11.70	1,780
	July 19, 1958	11.70	1,780
1959	Oct. 9, 1958	16.28	3,800
	Nov. 17, 1958	14.60	3,000
	Mar. 26, 1959	10.08	1,500
	Apr. 20, 1959	13.07	2,660
	May 30, 1959	16.97	5,100
	Aug. 5, 1959	15.07	3,660
	Sept. 23, 1959	12.22	2,280
	Sept. 26, 1959	11.20	1,890

GRAND RIVER BASIN

Peak stages and discharges of East Fork Big Creek near Bethany, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 5, 1959	11.75	2,280	1962	Nov. 2, 1961	13.00	2,630
	Mar. 30, 1960	16.54	4,650		Nov. 16, 1961	13.33	2,750
	May 6, 1960	10.86	1,960		Feb. 5, 1962	10.30	1,760
	June 5, 1960	10.14	1,680		Mar. 12, 1962	10.50	1,820
	June 30, 1960	16.58	4,740		June 11, 1962	15.86	3,880
	July 1, 1960	11.10	2,040				
				1963	Mar. 4, 1963	a14.57	2,100
1961	Feb. 18, 1961	9.70	1,760				
	Mar. 6, 1961	-	-	1964	June 19, 1964	10.69	1,880
	Apr. 12, 1961	8.95	1,520		Sept. 6, 1964	11.50	1,910
	Sept. 3, 1961	13.30	3,100				
	Sept. 13, 1961	18.78	5,700	1965	Mar. 17, 1965	10.15	1,730
	Sept. 30, 1961	11.17	2,300		Sept. 21, 1965	15.12	3,480

a Backwater from ice.
b Daily discharge.

GRAND RIVER BASIN

6-8972. Simpson Branch near Bethany, Mo.

Location.--Lat 40°15'55", long 93°58'55", in SE¼SW¼ sec.7, T.63 N., R.27 W., on right downstream wingwall of bridge on U. S. Highway 136, 2.3 miles east of Bethany.

Drainage area.--4.72 sq mi. Slope.--27.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 45.2 cfs, and by indirect measurements at 283 and 3,720 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb. 19, 1955	6.83	335				
1956	Aug. 1, 1956	14.42	4,500				
1957	May 20, 1957	6.99	283				
1958	July 19, 1958	9.54	1,470				
1959	Sept.26, 1959	12.48	3,250				
1960	Aug. 29, 1960	13.26	3,720				
1961	Sept.13, 1961	11.31	2,500				
1962	Nov. 2, 1961	10.76	1,800				
1963	June 27, 1963	10.82	1,800				
1964	June 22, 1964	9.32	1,050				
1965	Sept.21, 1965	9.68	1,180				

GRAND RIVER BASIN

6-8975. Grand River near Gallatin, Mo.

Location.--Lat 39°55'35", long 93°56'35", in SW¼NW¼ sec.16, T.59 N., R.27 W., on downstream side of left bank pier of bridge on State Highway 6, 100 ft downstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 1 mile northeast of Gallatin, and 6 miles upstream from Honey Creek.

Drainage area.--2,250 sq mi, approximately. Slope.--4.11 ft per mi.

Gage.--Nonrecording prior to Nov. 15, 1937; recording gage thereafter. At site 100 ft upstream prior to Jan. 31, 1922. At site 1,100 ft upstream at datum 0.17 ft higher Jan. 31, 1922, to Nov. 15, 1936. Datum of gage is 712.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--28 ft.

Remarks.--Some channel improvement work done below Honey Creek. Base for partial-duration series, 18,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 8, 1909	40	a70,800
1922	July 12, 1922	36.50	51,400
1923	Nov. 15, 1922	29.30	19,100
1924	June 27, 1924	31.10	22,400
1925	June 4, 1925	30.20	20,800
1926	Sept. 17, 1926	36.80	53,200
	Sept. 21, 1926	30.20	20,800
1927	Oct. 5, 1926	33.90	37,100
	Apr. 21, 1927	32.40	29,600
	June 4, 1927	28.64	18,000
1928	June 19, 1928	29.79	20,000
	July 24, 1928	33.00	32,600
	Sept. 15, 1928	28.74	18,100
1929	Nov. 4, 1928	31.40	24,900
	Nov. 19, 1928	35.50	45,400
	Mar. 8, 1929	28.30	18,100
	Apr. 22, 1929	33.40	34,600
	June 2, 1929	37.38	56,800
	July 8, 1929	34.02	37,600
1930	June 6, 1930	17.00	6,800
1931	Sept. 26, 1931	23.95	12,800
1932	Nov. 16, 1931	29.98	21,100
	Nov. 19, 1931	29.16	19,600
	Nov. 25, 1931	33.16	33,600
	Jan. 3, 1932	31.36	24,900
1933	Aug. 22, 1933	23.96	16,600
1934	Apr. 4, 1934	14.25	6,420
1935	May 29, 1935	25.98	19,300
	June 4, 1935	33.60	40,100
1936	Feb. 26, 1936	23.75	16,400
1937	Mar. 5, 1937	22.75	15,700
1938	June 1, 1938	11.72	5,480
1939	June 22, 1939	22.67	18,800
1940	May 8, 1940	16.2	10,900
1941	June 11, 1941	27.45	26,300
1942	Nov. 2, 1941	22.82	19,100
	Mar. 27, 1942	23.49	20,200
	June 23, 1942	31.0	34,200
	June 26, 1942	26.35	24,500
1943	May 17, 1943	24.52	21,500
	June 7, 1943	22.82	18,800
	June 12, 1943	26.99	25,800
	June 17, 1943	25.00	22,400
1944	Apr. 24, 1944	31.55	35,700
	May 4, 1944	26.60	25,100
	June 10, 1944	22.89	19,000
1945	Dec. 5, 1944	21.30	21,100
	Apr. 18, 1945	28.66	39,200
	May 17, 1945	30.35	43,600
	June 18, 1945	26.05	32,400
1946	Jan. 8, 1946	25.76	31,900
	Mar. 18, 1946	21.66	22,000
1947	Apr. 5, 1947	23.10	25,500
	Apr. 11, 1947	19.65	18,000
	May 29, 1947	19.74	18,200
	June 8, 1947	33.30	62,500
	June 15, 1947	24.24	28,200
	June 20, 1947	23.50	26,500
	June 24, 1947	34.55	69,100
1948	Mar. 20, 1948	18.52	16,000
1949	Feb. 25, 1949	20.3	19,400
1950	May 10, 1950	16.78	13,600
1951	May 3, 1951	23.7	27,000
	May 11, 1951	20.15	19,400
	June 23, 1951	20.3	19,600
	June 28, 1951	19.9	18,900
	July 8, 1951	27.50	38,100
1952	Mar. 11, 1952	21.32	21,500
1953	Apr. 1, 1953	15.83	13,000
1954	May 3, 1954	17.26	15,200
1955	Feb. 20, 1955	17.35	15,600
1956	July 3, 1956	15.63	11,900
1957	Apr. 4, 1957	17.22	14,300
1958	May 5, 1958	20.40	20,700
	July 19, 1958	23.52	27,100
	July 21, 1958	23.52	27,100
	July 31, 1958	21.20	21,300
1959	Nov. 19, 1958	19.75	18,700
	Mar. 27, 1959	21.4	21,700
	Apr. 21, 1959	22.15	23,500
	June 2, 1959	24.32	28,200
	Sept. 24, 1959	20.80	20,500
	Sept. 28, 1959	22.20	23,500

GRAND RIVER BASIN

Peak stages and discharges of Grand River near Gallatin, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 7, 1959	22.05	23,000	1962	Feb. 5, 1962	20.70	22,000
	Jan. 14, 1960	20.60	20,100		Mar. 12, 1962	21.60	23,800
	Mar. 31, 1960	30.45	49,300		May 30, 1962	20.35	20,400
	June 6, 1960	21.55	22,900				
	July 2, 1960	24.15	28,600	1963	Mar. 5, 1963	20.15	22,200
1961	Mar. 14, 1961	21.50	22,600	1964	June 15, 1964	18.84	19,600
	Mar. 27, 1961	21.30	22,200		June 24, 1964	21.84	25,600
	Apr. 12, 1961	20.70	21,000		Sept. 7, 1964	19.99	21,800
	Sept. 4, 1961	20.10	19,800				
	Sept. 15, 1961	29.45	45,200	1965	Mar. 18, 1965	22.05	26,000
					July 2, 1965	22.08	26,200
1962	Nov. 4, 1961	23.30	27,300		July 21, 1965	19.05	20,000
	Nov. 18, 1961	24.25	29,200		Sept. 23, 1965	27.05	38,000

a Determination by Corps of Engineers; annual peak only.

GRAND RIVER BASIN

6-8977. Grand River tributary near Utica, Mo.

Location.--Lat 39°44'22", long 93°38'18", in SW¼NE¼ sec.19, T.57 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 36, ¼-mile west of Utica, and about 6 miles west of Chillicothe.

Drainage area.--1.44 sq mi. Slope.--120 ft per mi.

Gage.--Crest-stage gage; supplemental roving recorder installed May 18, 1966.

Stage-discharge relation.--Defined at 997, 818, 405, and 311 cfs by indirect measurements.

Remarks.--Only annual peaks are shown. Gage removed March 1959. Reinstalled Nov. 6, 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 30, 1958	16.28	997				
1960	June 30, 1960	8.87	a				
1961	June 7, 1961	10.74	a				
1962	Nov. 16, 1961	9.26	a				
1963	May 15, 1963	10.31	405				
1964	Sept. 6, 1964	11.25	a				
1965	Sept. 20, 1965	12.67	a				

a Discharge not determined.

GRAND RIVER BASIN

6-8981. Thompson River at Mount Moriah, Mo.

Location.--Lat 40°20'10", long 93°46'05", on line between SE¼ sec.13 and NE¼ sec.24, T.64 N., R.26 W., on downstream side of right pier of bridge on U. S. Highway 136, 0.7 mile upstream from Panther Creek, and 1½ miles northeast of Mount Moriah.

Drainage area.--891 sq mi. Slope.--3.69 ft per mi.

Gage.--Recording. Datum of gage is 784 ft above mean sea level, datum of 1929 (from data furnished by Missouri Highway Commission).

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Remarks.--Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 6, 1961	12.55	14,200				
	Mar. 13, 1961	9.78	8,870				
	Sept.13, 1961	17.8	22,700				
	Sept.30, 1961	12.3	12,000				
1962	Nov. 2, 1961	14.50	16,200				
	Nov. 16, 1961	12.80	12,900				
	Mar. 12, 1962	11.00	9,700				
	June 11, 1962	21.10	30,200				
1963	Mar. 4, 1963	10.12	8,510				
	Apr. 30, 1963	10.02	8,000				
	June 2, 1963	10.10	8,170				
1964	June 22, 1964	13.14	10,700				
1965	Mar. 17, 1965	11.57	11,500				
	Apr. 8, 1965	10.42	8,680				
	Apr. 10, 1965	12.17	11,900				
	May 8, 1965	10.90	9,530				
	Sept.21, 1965	16.45	19,100				

GRAND RIVER BASIN

6-8985. Weldon River near Mercer, Mo.

Location.--Lat 40°33', long 93°36', in SW¼ sec.3, T.66 N., R.24 W., at county highway bridge, 4½ miles northwest of Mercer and 5 miles upstream from Little River.

Drainage area.--246 sq mi. Slope.--7.54 ft per mi.

Gage.--Nonrecording; crest-stage gage since 1961. Datum of gage is 850.96 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs.

Bankfull stage.--22 ft.

Historical data.--Flood of Mar. 12, 1939, was the highest stage during the period 1922-39, from information by local resident.

Remarks.--Channel improvement work done in 1922. Base for partial-duration series, 4,300 cfs. Only annual peaks are shown subsequent to 1960.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 12, 1939	21.6	a16,000	1950	May 9, 1950	11.59	4,820
					June 15, 1950	13.9	6,990
1940	May 7, 1940	15.7	8,460		June 19, 1950	22.16	21,000
	July 27, 1940	20.9	15,200				
	July 30, 1940	15.9	8,680	1951	Apr. 6, 1951	10.25	4,520
					May 1, 1951	12.36	6,940
1941	June 9, 1941	9.68	2,350		May 10, 1951	11.20	5,620
					June 21, 1951	10.4	4,740
1942	Oct. 31, 1941	13.0	5,500		June 26, 1951	11.6	6,060
	June 20, 1942	23.81	19,400		July 16, 1951	11.0	5,400
	June 26, 1942	18.8	11,200		July 22, 1951	14.0	8,800
1943	Dec. 26, 1942	13.7	6,240	1952	Mar. 12, 1952	10.0	4,300
	Feb. 3, 1943	12.5	5,000		May 23, 1952	10.0	4,300
	May 15, 1943	20.7	14,900		June 21, 1952	12.0	6,500
	May 19, 1943	14.6	7,210				
	June 6, 1943	15.6	8,340	1953	Mar. 30, 1953	13.2	7,940
	June 11, 1943	16.59	9,520				
	June 16, 1943	12.2	4,700	1954	June 11, 1954	10.4	4,580
1944	Apr. 23, 1944	16.8	9,760	1955	July 9, 1955	10.4	4,580
	May 2, 1944	17.7	10,900				
	June 8, 1944	14.0	6,550	1956	Aug. 2, 1956	11.70	5,040
	Sept. 21, 1944	13.27	5,820				
				1957	Apr. 3, 1957	12.43	5,880
1945	Mar. 15, 1945	13.14	5,600				
	Mar. 25, 1945	15.85	8,570	1958	July 27, 1958	12.0	5,050
	Apr. 16, 1945	21.30	15,700		July 30, 1958	17.0	11,200
	May 14, 1945	22.0	16,700				
	May 16, 1945	12.2	4,700	1959	Nov. 17, 1958	12.28	5,380
	June 15, 1945	12.5	5,000		Mar. 26, 1959	14.17	7,490
					Apr. 20, 1959	17.0	11,200
1946	Jan. 5, 1946	22.2	19,700		Apr. 28, 1959	12.40	4,840
	June 18, 1946	19.3	14,800		May 5, 1959	12.50	4,740
	Aug. 24, 1946	16.0	9,700		May 11, 1959	12.0	5,100
					May 21, 1959	19.27	14,800
1947	Mar. 13, 1947	13.2	6,220		May 29, 1959	17.05	11,200
	Apr. 5, 1947	14.40	7,580		Aug. 6, 1959	28.4	50,000
	Apr. 20, 1947	12.05	4,920		Sept. 26, 1959	14.0	7,250
	June 5, 1947	25.71	28,000				
	June 13, 1947	16.8	10,900	1961	Sept. 13, 1961	20.8	19,300
	June 21, 1947	23.2	21,700				
				1962	June 11, 1962	20.42	18,600
1948	Feb. 27, 1948	15.11	8,580				
	Mar. 19, 1948	11.27	4,320	1963	Mar. 4, 1963	12.96	7,700
1949	Feb. 18, 1949	b10.5	-	1964	Sept. 6, 1964	17.16	13,600
	Feb. 24, 1949	b16.5	-				
	Sept. 12, 1949	18.74	13,700	1965	Sept. 21, 1965	19.40	17,000

a Annual peak only.
b Backwater from ice.

GRAND RIVER BASIN

6-8990. Weldon River at Mill Grove, Mo.

Location.--Lat 40°18', long 93°36', in SE¼SE¼ sec.28, T.64 N., R.24 W., on left bank at downstream side of county highway bridge in Mill Grove, 8½ miles upstream from West Muddy Creek.

Drainage area.--494 sq mi. Slope.--5.05 ft per mi.

Gage.--Nonrecording prior to Dec. 9, 1959, recording gage thereafter. Datum of gage is 786.03 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 24,000 cfs.

Bankfull stage.--16 ft.

Historical data.--Maximum stage known prior to that of Aug. 7, 1959, about 23.9 ft in July 1909.

Remarks.--Channel improvements made prior to establishment of gaging station and additional work in vicinity of station done in September 1945. Base for partial-duration series, 6,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	23.9	a18,000	1948	Feb. 28, 1948	15.7	7,600
1930	Oct. 29, 1929	13.08	2,910	1949	Feb. 24, 1949	14.56	6,910
					Sept. 12, 1949	14.46	8,560
1931	Sept. 26, 1931	13.94	3,320				
				1950	Feb. 8, 1950	13.0	6,930
1932	Nov. 24, 1931	19.70	11,200		June 15, 1950	13.7	7,210
	Jan. 1, 1932	18.58	8,020		June 19, 1950	18.70	22,200
	Aug. 2, 1932	20.1	12,400				
	Aug. 18, 1932	19.32	10,000	1951	Feb. 20, 1951	11.53	8,360
					Mar. 3, 1951	9.95	6,350
1933	Sept. 27, 1933	17.08	5,400		Apr. 30, 1951	13.00	10,900
					May 10, 1951	13.17	11,300
1934	Apr. 4, 1934	11.73	2,280		June 21, 1951	12.30	9,710
					June 24, 1951	11.28	8,050
1935	May 24, 1935	19.35	10,300		June 26, 1951	10.40	6,830
	June 3, 1935	20.5	13,200		July 22, 1951	13.64	12,000
	June 18, 1935	20.25	12,400				
				1952	Mar. 10, 1952	10.02	6,350
1936	Feb. 26, 1936	b15.06	2,900		Mar. 13, 1952	9.90	6,240
					June 21, 1952	11.35	8,200
1937	Feb. 20, 1937	16.40	5,540				
				1953	Mar. 30, 1953	11.5	8,360
1938	Aug. 16, 1938	10.50	2,380				
				1954	Apr. 27, 1954	11.2	7,900
1939	Mar. 12, 1939	20.75	14,000				
				1955	Oct. 5, 1954	8.2	4,580
1940	May 8, 1940	17.27	7,300				
	July 31, 1940	16.32	6,240	1956	Aug. 2, 1956	12.51	8,700
1941	June 9, 1941	16.80	6,740	1957	Apr. 3, 1957	12.00	7,950
					May 21, 1957	11.00	6,650
1942	Nov. 2, 1941	18.00	8,750				
	June 21, 1942	22.0	18,000	1958	July 15, 1958	10.95	6,650
	June 26, 1942	20.50	14,100		July 30, 1958	12.8	9,180
1943	Dec. 27, 1942	17.50	7,880	1959	Oct. 9, 1958	11.03	6,560
	May 16, 1943	21.8	17,400		Nov. 18, 1958	12.0	7,700
	June 7, 1943	18.05	8,750		Mar. 26, 1959	14.35	10,700
	June 12, 1943	18.03	8,750		Apr. 20, 1959	16.6	13,900
					Apr. 28, 1959	11.94	7,580
1944	Apr. 22, 1944	19.00	10,800		May 11, 1959	10.6	6,150
	May 3, 1944	19.35	11,700		May 21, 1959	15.22	11,700
	June 9, 1944	17.30	7,560		May 29, 1959	14.3	10,500
					Aug. 7, 1959	26.02	46,000
1945	Mar. 16, 1945	16.40	7,080		Sept. 26, 1959	13.22	9,140
	Mar. 25, 1945	18.02	9,700				
	Apr. 16, 1945	20.20	14,600	1960	Oct. 5, 1959	13.1	9,020
	May 15, 1945	20.76	16,200		Dec. 28, 1959	13.15	9,140
	June 16, 1945	18.25	10,100		Jan. 12, 1960	12.87	8,780
					Jan. 15, 1960	11.05	6,560
1946	Jan. 6, 1946	21.6	23,800		Mar. 29, 1960	17.95	17,100
	Mar. 17, 1946	14.80	6,120		Apr. 17, 1960	14.17	11,600
	June 19, 1946	18.60	14,800		May 7, 1960	16.22	14,200
	Aug. 25, 1946	15.00	6,320		May 16, 1960	12.70	9,610
					May 20, 1960	10.16	6,480
1947	Mar. 13, 1947	14.80	6,120		July 1, 1960	16.52	14,600
	Apr. 5, 1947	18.62	14,800				
	June 5, 1947	22.79	27,600	1961	Oct. 31, 1960	10.20	6,860
	June 13, 1947	17.60	12,000		Feb. 18, 1961	13.50	12,000
	June 22, 1947	20.62	20,700		Mar. 6, 1961	14.45	13,500

Peak stages and discharges of Weldon River at Mill Grove, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 13, 1961	12.80	10,800	1963	Mar. 4, 1963	13.70	13,200
	Mar. 27, 1961	10.45	7,120		June 2, 1963	10.35	8,060
	Apr. 12, 1961	10.25	6,860				
	July 16, 1961	13.55	12,100	1964	Apr. 20, 1964	10.34	8,060
	July 21, 1961	11.30	7,840		June 20, 1964	11.90	10,300
	Sept. 14, 1961	19.40	19,900		June 22, 1964	10.15	7,780
	Sept. 30, 1961	16.80	15,100		Sept. 6, 1964	14.80	15,100
					Sept. 23, 1964	11.95	10,500
1962	Oct. 11, 1961	10.67	7,100				
	Oct. 13, 1961	10.04	6,240	1965	Mar. 17, 1965	13.85	13,400
	Nov. 2, 1961	17.9	20,000		Apr. 5, 1965	10.97	8,900
	Nov. 16, 1961	16.9	17,800		Apr. 8, 1965	12.90	11,900
	Mar. 12, 1962	11.4	8,860		Apr. 11, 1965	13.80	12,400
	May 29, 1962	15.25	14,700		Apr. 25, 1965	10.70	7,910
	June 11, 1962	18.40	21,300		Sept. 21, 1965	17.23	18,400

a Determination by Corps of Engineers; annual peak only.
b Backwater from ice.

GRAND RIVER BASIN

6-8995. Thompson River at Trenton, Mo.
(Published as "near Hickory" prior to 1929)

Location.--Lat 40°04'45", long 93°38'35", in SW¼ sec.18, T.61 N., R.24 W., on right bank at downstream side of bridge on State Highway 6, 1 mile west of Trenton and 1-3/4 miles downstream from Weldon River.

Drainage area.--1,670 sq mi, approximately; prior to Sept. 6, 1923, 1,700 sq mi approximately. Slope.--3.67 ft per mi.

Gage.--Nonrecording June 25, 1921, to Aug. 26, 1923, and Aug. 1, 1928, to Dec. 7, 1959; recording gage thereafter. At two sites 12 miles downstream at different datums 1921-23. At site 1½ miles downstream at datum 3.46 ft lower Sept. 16, 1930, to May 31, 1945. Datum of gage is 721.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 73,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood of July 6, 1909, reached a stage of 30.7 ft at present site, from information by local residents.

Remarks.--The channel has been straightened and improved from the Iowa-Missouri line to the Grundy-Livingston county line; work completed in vicinity of gage in 1925. Base for partial-duration series, 15,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 6, 1909	a30.7	b50,000
1922	July 13, 1922	24.05	16,000
1923	Nov. 17, 1922	22.92	12,500
1928	July 23, 1928	22.5	27,000
1929	Nov. 18, 1928	22.31	26,700
	Feb. 26, 1929	20.95	23,600
	Apr. 20, 1929	21.40	24,600
	June 2, 1929	21.55	25,000
1930	Oct. 30, 1929	11.40	5,980
	June 17, 1930	11.86	5,980
1931	Sept. 25, 1931	10.94	5,100
1932	Nov. 14, 1931	18.25	20,300
	Nov. 24, 1931	20.48	25,400
	Dec. 31, 1931	21.1	26,700
1933	Sept. 26, 1933	14.94	13,500
1934	June 23, 1934	10.42	5,130
1935	May 20, 1935	17.38	18,800
	May 24, 1935	16.20	16,300
	May 30, 1935	16.70	17,400
	June 1, 1935	19.82	24,000
	June 18, 1935	18.86	22,000
1936	Feb. 25, 1936	12.40	5,650
1937	Feb. 20, 1937	14.60	13,900
1938	Sept. 1, 1938	11.1	6,340
1939	Mar. 13, 1939	18.15	22,700
1940	Aug. 18, 1940	14.9	15,700
1941	June 10, 1941	20.0	32,300
1942	Nov. 1, 1941	15.28	21,600
	June 20, 1942	20.35	29,300
	June 27, 1942	22.2	35,400
1943	May 16, 1943	19.0	26,800
	June 8, 1943	16.17	18,000
	June 16, 1943	17.45	21,600
1944	Mar. 15, 1944	15.33	15,400
	Apr. 22, 1944	21.3	34,800
	May 3, 1944	18.00	23,500
	June 9, 1944	15.60	16,200
1945	Mar. 25, 1945	17.00	18,300
	Apr. 16, 1945	20.78	27,600
	May 15, 1945	19.90	25,400
	June 16, 1945	20.2	28,300
1946	Jan. 6, 1946	22.6	45,800
	May 3, 1946	16.10	20,700
	June 19, 1946	14.60	16,100
1947	Mar. 13, 1947	14.20	15,000
	Apr. 5, 1947	20.65	35,500
	June 6, 1947	25.7	95,000
	June 14, 1947	19.70	32,300
	June 18, 1947	16.55	22,300
	June 23, 1947	22.80	47,500
1948	Mar. 19, 1948	16.00	20,400
1949	Feb. 24, 1949	15.6	19,200
1950	Feb. 8, 1950	c14.9	-
	June 19, 1950	16.62	22,300
1951	May 2, 1951	15.62	20,800
	June 22, 1951	14.48	17,700
	June 27, 1951	15.10	19,500
1952	Mar. 13, 1952	13.42	15,000
	June 21, 1952	13.70	16,600
1953	Mar. 30, 1953	13.7	16,600
1954	June 3, 1954	11.40	7,090
1955	June 25, 1955	12.24	9,590
1956	Aug. 2, 1956	15.25	19,200
1957	Apr. 3, 1957	14.30	15,900
1958	July 15, 1958	16.32	19,200
	July 19, 1958	16.00	18,200
	July 31, 1958	15.87	17,800
1959	Oct. 9, 1958	18.4	26,900
	Mar. 26, 1959	15.6	21,100
	Apr. 20, 1959	18.0	29,000
	May 11, 1959	15.0	18,200
	May 21, 1959	15.1	18,500
	May 30, 1959	17.0	25,700
	Aug. 8, 1959	22.5	47,300
	Sept. 27, 1959	16.6	21,100
1960	Oct. 5, 1959	17.56	27,700
	Dec. 28, 1959	15.1	19,500
	Jan. 12, 1960	15.3	20,100

GRAND RIVER BASIN

Peak stages and discharges of Thompson River at Trenton, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 15, 1960	16.6	24,400	1963	Mar. 4, 1963	18.65	37,300
	Mar. 30, 1960	21.25	44,200				
	Apr. 17, 1960	15.6	25,000	1964	June 22, 1964	15.10	23,000
	May 6, 1960	19.65	41,600		Sept. 6, 1964	15.7	25,400
	May 16, 1960	14.35	20,200		Sept. 23, 1964	13.06	15,100
	May 20, 1960	14.0	18,600				
	July 1, 1960	19.2	39,900	1965	Mar. 17, 1965	16.95	26,200
	Aug. 26, 1960	13.3	15,900		Apr. 8, 1965	16.40	23,900
					Apr. 11, 1965	17.10	26,600
1961	Feb. 18, 1961	14.60	21,800		Apr. 25, 1965	15.20	19,400
	Mar. 6, 1961	15.15	23,400		May 8, 1965	15.70	21,300
	Mar. 13, 1961	14.95	22,600		Sept. 21, 1965	20.40	40,200
	Mar. 27, 1961	14.30	19,800				
	Apr. 12, 1961	15.55	25,000				
	Sept. 13, 1961	21.10	36,800				
	Sept. 30, 1961	18.30	26,400				
1962	Oct. 11, 1961	15.20	20,200				
	Oct. 13, 1961	14.10	17,100				
	Nov. 2, 1961	20.70	46,500				
	Nov. 16, 1961	19.85	42,500				
	Feb. 5, 1962	14.20	19,400				
	Mar. 11, 1962	16.10	27,000				
	May 29, 1962	16.62	29,000				
	June 11, 1962	20.95	47,800				

a Present site and datum.
b Determination by Corps of Engineers; annual peak only.
c Backwater from ice.

GRAND RIVER BASIN

6-8996. West Fork Leaky Branch near Chillicothe, Mo.

Location.--Lat 39°53'00", long 93°32'30", in NE¼SE¼ sec.36, T.59 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 65, 6 miles north of Chillicothe.

Drainage area.--0.21 sq mi. Slope.--63.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 22.2, 283, 327, and 331 cfs.

Remarks.--Only annual peaks are shown.

Peaks stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 2, 1955	6.10	50				
1956	Aug. 1, 1956	10.80	331				
1957	July 22, 1957	9.32	283				
1958	July 30, 1958	10.60	326				
1959	Nov. 17, 1958	7.90	168				
1960	June 5, 1960	7.04	105				
1961	Sept.13, 1961	6.70	82				
1962	June 6, 1962	7.32	125				
1963	Aug. 19, 1963	4.6	1				
1964	Sept.17, 1964	6.31	60				
1965	Sept.21, 1965	7.37	130				

GRAND RIVER BASIN

6-8997. Shoal Creek near Braymer, Mo.

Location.--Lat 39°40'05", long 93°46'05", in NW¼NE¼ sec.13, T.56 N., R.26 W., on upstream side of bridge on Caldwell County Road O, 1-3/4 miles downstream from Panther Creek, and 6 miles north of Braymer.

Drainage area.--391 sq mi. Slope.--2.92 ft per mi.

Gage.--Nonrecording Oct. 1 to Nov. 20, 1957, and Apr. 4 to Sept. 30, 1962; recording gage Nov. 21, 1957, to Apr. 3, 1962. Altitude of gage is 700 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Feb. 28, 1958	18.7	3,520	1962	Oct. 31, 1961	18.60	3,040
	June 15, 1958	-	3,000		Nov. 4, 1961	25.30	7,500
	July 12, 1958	-	4,000		Nov. 14, 1961	18.58	3,040
	July 16, 1958	25.0	7,360		Feb. 6, 1962	-	4,000
	Aug. 1, 1958	23.0	5,900		Mar. 12, 1962	22.00	4,760
					June 8, 1962	20.00	3,620
1959	Nov. 18, 1958	25.5	7,760				
	Feb. 11, 1959	18.7	3,520	1963	Oct. 14, 1962	17.35	3,110
	May 20, 1959	19.95	4,150		Mar. 5, 1963	19.73	4,150
	Sept. 24, 1959	-	4,000		May 17, 1963	24.90	7,230
1960	Mar. 29, 1960	25.3	7,600	1964	June 13, 1964	18.55	3,140
	Apr. 15, 1960	21.0	4,650		June 22, 1964	28.00	26,000
	June 12, 1960	17.7	3,060				
	June 24, 1960	19.0	3,650	1965	Jan. 3, 1965	23.40	5,730
	July 2, 1960	25.6	7,840		Mar. 18, 1965	17.87	3,060
					July 22, 1965	26.00	8,600
1961	Mar. 14, 1961	21.03	4,140		Sept. 18, 1965	20.70	4,050
	Mar. 28, 1961	21.37	4,370		Sept. 22, 1965	26.10	8,750
	May 9, 1961	21.30	4,310				
	Sept. 15, 1961	25.94	8,100				

GRAND RIVER BASIN

6-9000. Medicine Creek near Galt, Mo.

Location.--Lat 40°07'45", long 93°21'45", in SW¼NW¼ sec.34, T.62 N., R.22 W., on left pier of bridge on State Highway 6, 1½ miles east of Galt and 2 miles upstream from West Medicine Creek.

Drainage area.--225 sq mi. Slope.--5.00 ft per mi.

Gage.--Nonrecording prior to Apr. 26, 1956; recording gage thereafter. At site 125 ft downstream prior to Dec. 3, 1934. At datum 6.97 ft higher than present gage prior to Oct. 1, 1924, at datum 4.97 ft higher than present gage Oct. 1, 1924, to Sept. 30, 1926, at datum 1.97 ft higher than present gage Oct. 1, 1926, to Dec. 2, 1934, and at datum 2.00 ft higher than at present gage Dec. 3, 1934, to Sept. 30, 1956. Datum of present gage is 767.48 ft above mean sea level, datum of 1929. All gage heights prior to 1927 have been converted to datum 2.00 ft higher than present datum.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs.

Bankfull stage.--17 ft.

Historical data.--Flood of July 1909 reached a discharge at abour 8,000 cfs, determined by Corps of Engineers.

Remarks.--Major channel improvements made on creek during 1919-20. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	-	8,000
1922	July 13, 1922	18.58	2,960
1923	Nov. 15, 1922	18.00	2,230
1924	June 28, 1924	17.56	3,170
1925	Apr. 25, 1925	17.20	3,000
1926	June 19, 1926	16.40	3,040
	Sept. 14, 1926	17.64	3,700
	Sept. 17, 1926	19.00	4,640
1927	Apr. 19, 1927	14.60	3,720
1928	June 18, 1928	14.18	6,260
	Sept. 12, 1928	14.20	6,260
1930	Oct. 31, 1929	7.64	1,890
1931	Apr. 20, 1931	9.17	3,910
1932	Oct. 7, 1931	8.90	3,280
	Nov. 14, 1931	10.40	5,400
	Nov. 17, 1931	9.05	3,400
	Dec. 31, 1931	11.68	7,440
	Aug. 2, 1932	11.86	7,760
	Aug. 17, 1932	9.78	4,500
1933	May 13, 1933	7.32	1,660
1934	Sept. 13, 1934	5.56	456
1935	May 20, 1935	9.75	4,440
	June 1, 1935	11.00	6,340
	June 18, 1935	11.08	6,500
	July 3, 1935	10.30	5,220
1936	Feb. 25, 1936	6.99	1,210
1937	Feb. 13, 1937	9.05	3,280
	Feb. 21, 1937	11.0	6,340
1938	June 2, 1938	6.81	1,090
1939	Mar. 12, 1939	12.9	12,300
	Apr. 15, 1939	8.12	3,720
	June 21, 1939	9.60	6,250
1940	Aug. 18, 1940	7.4	2,820
1941	June 3, 1941	7.94	3,070
	June 9, 1941	12.84	10,000
1942	June 26, 1942	14.3	12,400
1943	Dec. 27, 1942	7.93	3,070
	May 16, 1943	13.17	10,700
	June 8, 1943	8.55	4,120
	June 16, 1943	8.75	4,360
1944	Apr. 21, 1944	10.9	7,180
1945	Oct. 2, 1944	7.40	3,390
	Apr. 15, 1945	8.46	4,460
	May 14, 1945	10.30	6,510
	June 9, 1945	7.40	3,390
	June 16, 1945	10.52	7,010
1946	Jan. 6, 1946	8.61	4,560
1947	Apr. 4, 1947	16.88	16,900
	June 6, 1947	18.9	24,200
	June 12, 1947	8.90	7,110
	June 18, 1947	10.40	9,300
	June 23, 1947	8.40	6,410
	July 6, 1947	8.00	5,850
1948	Feb. 27, 1948	7.66	5,460
	Mar. 19, 1948	11.53	11,000
1949	Feb. 24, 1949	6.0	3,400
	June 14, 1949	12.6	12,700
	Sept. 13, 1949	6.0	3,400
1950	June 15, 1950	11.29	13,000
	June 19, 1950	7.5	8,300
1951	Feb. 20, 1951	4.75	3,830
	Apr. 7, 1951	5.48	4,950
	May 10, 1951	5.15	4,470
	June 22, 1951	5.85	5,430
	June 25, 1951	4.80	3,830
	June 28, 1951	4.80	3,830
	July 22, 1951	11.0	14,500
1952	Apr. 22, 1952	5.22	4,470
	June 22, 1952	6.63	6,430
1953	Mar. 31, 1953	5.94	4,840
	Apr. 30, 1953	5.8	4,680
	May 5, 1953	5.49	4,200
1954	June 2, 1954	6.8	5,510
1955	May 12, 1955	5.6	4,360
1956	July 3, 1956	7.86	3,490
1957	May 22, 1957	7.67	1,590
1958	July 15, 1958	16.30	12,400
	July 31, 1958	10.64	3,980

GRAND RIVER BASIN

Peak stages and discharges of Medicine Creek near Galt, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	11.0	4,500	1962	Nov. 2, 1961	14.03	8,900
	Aug. 7, 1959	19.0	14,900		Nov. 16, 1961	12.15	6,950
					May 27, 1962	8.85	4,180
1960	Oct. 6, 1959	12.40	6,530		May 29, 1962	10.90	5,740
	Jan. 13, 1960	8.82	3,220				
	Mar. 29, 1960	14.55	9,010	1963	Mar. 4, 1963	10.15	6,200
	May 6, 1960	12.65	6,750		Mar. 31, 1963	7.17	3,280
	June 30, 1960	12.83	6,970				
				1964	Apr. 20, 1964	6.76	2,500
1961	Mar. 27, 1961	9.30	3,820				
	Sept. 13, 1961	10.81	4,990	1965	Jan. 23, 1965	10.80	5,440
	Sept. 23, 1961	9.21	3,680		Mar. 17, 1965	7.77	3,200
					Apr. 5, 1965	7.90	3,270
					Apr. 10, 1965	8.55	3,760
					Sept. 21, 1965	12.25	6,680

a Determination by Corps of Engineers; annual peak only.

GRAND RIVER BASIN

6-9005. Medicine Creek near Sturges, Mo.

Location.--Lat 39°52'45", long 93°26'45", on line between sec.35, T.59 N., R.23 W., and sec.2, T.58 N., R.23 W., at county highway bridge 3 miles east of Sturges.

Drainage area.--368 sq mi.

Gage.--Nonrecording. Datum of gage is 691.60 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 9,200 cfs.

Historical data.--Flood in July 1909 reached a discharge of 12,000 cfs, determined by Corps of Engineers.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Gage Discharge (cfs)
1909	July	--	12,000				
1929	Apr. 21, 1929	15.74	10,400				
1930	Oct. 30, 1929	10.4	3,800				
1931	June 6, 1931	10.36	5,700				
1932	Nov. 24, 1931	12.44	9,190				
1933	Dec. 24, 1932	9.04	3,660				

GRAND RIVER BASIN

6-9010. Locust Creek near Milan, Mo.

Location.--Lat 40°11'00", long 93°10'10", in SW¼ sec.8, T.62 N., R.20 W., at bridge on county highway, 3½ miles southwest of Milan.

Drainage area.--225 sq mi. Slope.--5.13 ft per mi.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by current-meter measurements below 3,100 cfs.

Bankfull stage.--18 ft.

Historical data.--Flood in July 1909 reached a discharge of 8,000 cfs, determined by Corps of Engineers.

Remarks.--24 miles of new channel was dug in 1920, all work being 8 or more miles downstream from station. Base for partial-duration series, 2,150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	--	a8,000				
1922	Apr. 8, 1922	15.00	2,240				
	July 12, 1922	16.75	2,840				
	July 18, 1922	16.90	2,880				
1923	Nov. 14, 1922	15.05	2,240				
1924	June 10, 1924	15.40	2,360				
	June 27, 1924	15.75	2,490				
1925	Apr. 25, 1925	17.70	3,200				
1926	Jan. 5. 1926	b15.10	--				
	Sept.11, 1926	16.50	2,740				
	Sept.17, 1926	18.10	3,260				
	Sept.22, 1926	15.20	2,300				
1927	Oct. 5, 1926	16.60	2,770				
	Apr. 3, 1927	15.95	2,590				
	Apr. 21, 1927	16.18	2,650				
	June 5, 1927	15.84	2,530				
1928	June 19, 1928	17.30	2,980				
	Sept.12, 1928	17.20	2,950				
1929	Nov. 2, 1928	19.92	3,820				
	Nov. 18, 1928	20.07	3,880				
	Mar. 1, 1929	b17.10	2,400				
	Mar. 8, 1929	15.30	2,380				
	Apr. 20, 1929	19.40	3,650				
	June 3, 1929	17.14	2,920				
1930	Oct. 13, 1929	15.40	2,410				
	Nov. 1, 1929	15.5	2,440				
1931	Apr. 22, 1931	14.80	2,230				
	June 6, 1931	15.97	2,650				
1932	Oct. 8, 1931	15.20	2,350				
	Nov. 15, 1931	16.72	2,800				
	Nov. 25, 1931	17.62	3,070				
	Jan. 2, 1932	16.80	2,830				
	Apr. 22, 1932	15.36	2,410				
	Aug. 3, 1932	18.00	3,200				
	Aug. 8, 1932	15.18	2,350				
	Aug. 18, 1932	18.12	3,230				
1933	Dec. 26, 1932	14.87	2,260				

a Determination by Corps of Engineers; annual peak only.
b Backwater from ice.

GRAND RIVER BASIN

6-9013. Moffet Branch near Reger, Mo.

Location.--Lat 40°08'00", long 93°15'00", in NW¼ sec.34, T.62 N., R.21 W., on left bank just upstream from culvert under State Highway 6, 2½ miles west of Reger, and 3-3/4 miles east of Humphreys.

Drainage area.--0.13 sq mi. Slope.--150 ft per mi.

Gage.--Crest-stage gage; supplemental recorder Apr. 24, 1964 to May 19, 1965.

Stage-discharge relation.--Defined by indirect measurements at 188, 230, and 349 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 14, 1955	6.35	230				
1956	Oct. 5, 1955	7.58	370				
1957	July 15, 1957	4.15	135				
1958	July 15, 1958	7.40	349				
1959	Nov. 17, 1958	4.37	150				
1960	June 30, 1960	5.76	232				
1961	Apr. 21, 1961	4.20	140				
1962	Nov. 2, 1961	5.88	240				
1963	July 15, 1963	6.26	265				
1964	June 12, 1964	3.60	105				
1965	Apr. 24, 1965	5.02	185				

GRAND RIVER BASIN

6-9015. Locust Creek near Linneus, Mo.

Location.--Lat 39°53'45", long 93°14'10", in NW¼NE¼ sec.34, T.59 N., R.21 W., on right bank 25 ft downstream from county highway bridge, 2 miles northwest of Linneus and 5 miles downstream from West Locust Creek.

Drainage area.--550 sq mi, approximately. Slope.--4.22 ft per mi.

Gage.--Nonrecording prior to July 27, 1956; recording gage thereafter. Datum of gage is 692.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current meter measurements below 15,000 cfs and by indirect measurement at 38,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Gage located on 24-mile reach of new channel, dug in 1920. Base for partial-duration series, 7,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	-	a18,000
1930	June 30, 1930	14.44	7,920
1931	Apr. 20, 1931	15.86	8,800
	June 6, 1931	15.73	8,610
1932	Nov. 23, 1931	16.04	8,900
	Dec. 31, 1931	15.70	8,610
1933	Dec. 24, 1932	11.14	4,390
1934	Apr. 5, 1934	6.22	900
1935	May 28, 1935	15.05	7,940
	June 2, 1935	18.97	11,800
	July 4, 1935	15.11	8,040
1936	Feb. 26, 1936	9.89	3,100
	Sept. 26, 1936	9.99	3,100
1937	Jan. 30, 1937	b14.67	5,110
1938	Apr. 10, 1938	5.81	639
	June 7, 1938	5.74	639
1939	June 21, 1939	21.3	15,400
1940	Aug. 18, 1940	10.6	3,110
1941	June 11, 1941	16.7	11,800
1942	June 26, 1942	21.2	19,000
1943	Dec. 26, 1942	15.5	8,930
	May 18, 1943	15.5	8,930
	June 8, 1943	16.6	10,700
	June 10, 1943	16.64	10,800
	June 16, 1943	15.52	8,930
1944	Apr. 23, 1944	22.50	20,100
	June 10, 1944	14.78	7,720
1945	Apr. 18, 1945	14.80	7,720
	May 16, 1945	16.80	10,700
	June 9, 1945	15.60	8,920
	June 16, 1945	20.45	16,500
1946	Jan. 6, 1946	15.6	8,920
1947	Apr. 6, 1947	19.60	15,200
	May 28, 1947	16.00	9,520
	June 6, 1947	26.93	38,000
	June 13, 1947	18.60	14,600
	June 19, 1947	20.11	17,100
	June 23, 1947	17.75	13,300
1948	Mar. 20, 1948	16.87	11,900
1949	June 1, 1949	15.3	9,420
	June 15, 1949	15.4	9,570
	July 12, 1949	14.2	7,600
1950	June 16, 1950	17.2	13,200
	June 20, 1950	15.3	11,100
1951	Apr. 6, 1951	14.2	9,320
	June 2, 1951	14.1	9,160
	June 21, 1951	15.0	10,600
	June 27, 1951	13.8	8,680
	July 24, 1951	16.2	12,300
1952	June 22, 1952	13.5	8,200
1953	Mar. 31, 1953	17.8	14,000
1954	June 2, 1954	13.7	7,280
1955	June 25, 1955	14.19	8,000
1956	July 3, 1956	15.99	5,640
1957	Apr. 4, 1957	9.40	1,910
	May 21, 1957	9.40	1,910
1958	May 5, 1958	18.6	9,190
	July 15, 1958	24.7	24,000
	July 19, 1958	21.1	15,000
	July 31, 1958	21.2	15,200
1959	Nov. 17, 1958	18.35	10,300
1960	Oct. 7, 1959	17.72	8,870
	Mar. 30, 1960	19.60	12,100
	May 6, 1960	17.92	9,190
	June 30, 1960	20.50	13,800
	July 2, 1960	19.50	12,000
1961	Mar. 13, 1961	17.06	7,990
	Apr. 22, 1961	18.14	9,520
	Sept. 13, 1961	18.16	9,690
1962	Nov. 11, 1961	19.00	11,000
	Nov. 17, 1961	18.80	10,700
1963	Mar. 4, 1963	18.12	9,520
1964	Apr. 21, 1964	14.48	5,180
1965	Jan. 1, 1965	20.14	13,000
	Sept. 21, 1965	20.92	12,700

a Determination by Corps of Engineers; annual peak only.
b Backwater from ice.

GRAND RIVER BASIN

6-9020. Grand River near Sumner, Mo.

Location.--Lat 39°38'25", long 93°16'25", in NE¼ sec.39, T.56 N., R.21 W., on downstream side of right pier of main truss of bridge on County Highway E, 120 ft downstream from Chicago, Burlington & Quincy Railroad bridge, 2 miles southwest of Sumner and 2½ miles downstream from Locust Creek.

Drainage area.--6,880 sq mi, approximately. Slope.--3.15 ft per mi.

Gage.--Nonrecording at site 80 ft upstream prior to July 11, 1926, at present site July 11, 1926, to July 9, 1939, and Aug. 9, 1952, to Nov. 12, 1953. Recording gage at site 80 ft upstream July 10, 1939, to Aug. 8, 1952, and at present site since Nov. 13, 1953. Datum of all gages is 630.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 163,000 cfs. Slope is a factor at high stages.

Bankfull stage.--25 ft.

Remarks.--Extensive channel improvement and drainage work in basin above station prior to establishment of gaging station. Base for partial-duration series, 38,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	36.7	ab150,000
1922	July 1922	31.5	b51,000
1923	Nov. 1922	32.0	b54,000
1924	July 1, 1924	28.56	36,600
1925	Apr. 27, 1925	28.00	33,000
1926	Sept. 21, 1926	32.42	56,400
1927	Oct. 8, 1926	30.50	45,200
	Apr. 22, 1927	30.80	47,800
1928	Sept. 17, 1928	30.70	46,900
1929	Nov. 20, 1928	35.35	107,000
	Mar. 2, 1929	29.95	41,500
	Apr. 23, 1929	33.60	79,400
	June 4, 1929	35.25	110,000
1930	Feb. 10, 1930	23.22	18,200
1931	Apr. 22, 1931	28.00	35,600
1932	Nov. 19, 1931	31.32	52,600
	Nov. 26, 1931	33.30	84,600
	Jan. 4, 1932	30.92	48,700
1933	Dec. 26, 1932	25.35	22,800
1934	Apr. 5, 1934	15.29	8,280
1935	May 23, 1935	29.61	42,900
	June 4, 1935	33.25	72,000
	June 21, 1935	29.30	41,000
1936	Feb. 28, 1936	29.10	41,000
1937	Feb. 22, 1937	c30.28	-
	Mar. 6, 1937	28.60	36,800
1938	June 2, 1938	14.99	8,120
1939	June 24, 1939	29.95	45,300
1940	Mar. 3, 1940	23.79	18,000
1941	June 12, 1941	29.9	45,500
1942	June 28, 1942	35.83	89,900
1943	Dec. 28, 1942	30.46	44,700
	May 18, 1943	30.44	42,600
	June 4, 1943	31.89	55,200
	June 19, 1943	32.22	60,600
1944	Apr. 25, 1944	36.55	115,000
	May 6, 1944	30.37	47,100
1945	Apr. 19, 1945	32.60	67,800
	May 18, 1945	33.5	86,200
	May 19, 1945	34.32	-
	June 11, 1945	30.58	52,200
	June 18, 1945	33.32	79,300
1946	Jan. 8, 1946	34.2	89,300
	Mar. 19, 1946	30.10	43,100
1947	Mar. 15, 1947	30.22	40,600
	Apr. 7, 1947	35.05	98,000
	May 31, 1947	30.75	51,700
	June 8, 1947	39.5	180,000
	June 16, 1947	31.78	56,900
	June 25, 1947	37.15	145,000
1948	Mar. 21, 1948	31.8	61,000
1949	Feb. 27, 1949	31.2	54,000
1950	June 20, 1950	29.96	35,200
1951	May 4, 1951	30.70	45,800
	June 24, 1951	31.34	52,400
	June 29, 1951	32.3	57,000
	July 9, 1951	31.57	60,000
1952	Mar. 12, 1952	31.6	57,100
1953	Apr. 2, 1953	31.46	59,100
1954	June 3, 1954	28.6	23,800
1955	Feb. 21, 1955	30.7	45,800
1956	Aug. 4, 1956	29.80	32,200
1957	Apr. 4, 1957	27.95	22,500
1958	May 6, 1958	30.40	41,200
	July 17, 1958	35.57	89,500
	Aug. 1, 1958	32.59	62,400
1959	Nov. 20, 1958	31.75	52,300
	Mar. 29, 1959	31.90	42,700
1960	Oct. 8, 1959	32.48	50,000
	Jan. 17, 1960	32.60	52,400
	Apr. 1, 1960	37.20	104,000
	May 8, 1960	32.35	46,800
	July 3, 1960	33.48	76,500
1961	Mar. 15, 1961	32.47	52,000
	Mar. 29, 1961	32.20	46,000
	Sept. 17, 1961	35.26	65,600
1962	Nov. 5, 1961	35.20	94,700
	Nov. 19, 1961	34.46	88,500
	Mar. 14, 1962	32.56	52,400
1963	Mar. 6, 1963	32.26	45,200

GRAND RIVER BASIN

Peak stages and discharges of Grand River near Sumner, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1964	June 25, 1964	32.26	45,200				
1965	Jan. 3, 1965	31.89	45,200				
	Mar. 19, 1965	32.28	45,200				
	Sept. 23, 1965	35.44	77,300				

a Determination by Corps of Engineers.
b Annual peak only.
c Backwater from ice.

GRAND RIVER BASIN

6-9022. West Yellow Creek near Brookfield, Mo.

Location.--Lat 39°50'40", long 93°01'36", in SE¼NE¼ sec.16, T.58 N., R.19 W., at right downstream pier of county highway bridge, 3½ miles northeast of Brookfield, and 1⅝ miles below Bear Creek.

Drainage area.--135 sq mi. Slope.--3.92 ft per mi.

Gage.--Recording. Altitude of gage is 738 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,040 cfs.

Remarks.--Base for partial duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 15, 1960	12.65	2,100				
	Mar. 28, 1960	13.66	3,750				
	Apr. 18, 1960	11.17	825				
	Apr. 30, 1960	12.40	1,800				
	May 8, 1960	13.15	3,000				
	May 17, 1960	11.96	1,200				
	May 22, 1960	12.26	1,650				
	June 14, 1960	12.38	1,800				
	July 1, 1960	13.80	3,900				
1961	Mar. 8, 1961	12.57	1,180				
	Mar. 13, 1961	13.14	1,840				
	Mar. 19, 1961	12.72	1,300				
	Mar. 27, 1961	12.87	1,450				
	Apr. 22, 1961	13.48	2,350				
	May 8, 1961	12.70	1,300				
	July 25, 1961	13.14	1,840				
	Sept.14, 1961	13.96	3,700				
	Sept.25, 1961	12.40	1,080				
1962	Oct. 30, 1961	13.10	1,760				
	Nov. 3, 1961	13.10	1,760				
	Nov. 16, 1961	13.15	1,840				
	Nov. 22, 1961	12.74	1,350				
	Jan. 29, 1962	-	1,000				
	Feb. 5, 1962	-	1,600				
	Feb. 14, 1962	-	1,100				
	Mar. 13, 1962	12.93	1,560				
	Mar. 21, 1962	-	1,200				
1963	Mar. 6, 1963	13.17	1,840				
1964	Apr. 7, 1964	12.09	920				
	Apr. 22, 1964	12.40	1,080				
1965	Jan. 2, 1965	13.73	3,120				
	Jan. 23, 1965	12.81	1,400				
	Feb. 7, 1965	11.90	845				
	Mar. 17, 1965	13.05	1,690				
	Apr. 6, 1965	12.71	1,300				
	Apr. 12, 1965	12.19	970				
	Sept.16, 1965	12.71	1,300				
	Sept.21, 1965	14.62	5,140				

GRAND RIVER BASIN

6-9025. Hamilton Branch near New Boston, Mo.

Location.--Lat 39°57'08", long 92°54'08", in SE¼SW¼ sec.3, T.59 N., R.18 W., at bridge on State Highway 11, 0.5 mile upstream from New Boston Branch, and 2½ miles west of New Boston.

Drainage area.--2.51 sq mi. Slope.--27.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 45.8 cfs and by indirect measurements at 612 and 637 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 2, 1956	6.81	612				
1957	July 29, 1957	6.33	520				
1958	July 15, 1958	7.45	693				
1959	Feb. 9, 1959	4.55	203				
1960	June 30, 1960	8.10	800				
1961	Apr. 21, 1961	7.35	675				
1962	Oct. 29, 1961	5.90	414				
1963	Mar. 4, 1963	4.77	232				
1964	June 14, 1964	5.50	350				
1965	Sept.20, 1965	8.55	880				

GRAND RIVER BASIN

6-9028. Onion Branch at St. Catherine, Mo.

Location.--Lat 39°47'46", long 92°59'17", in NE¼SE¼ sec.35, T.58 N., R.19 W., on right downstream wingwall of culvert under State Highway 11, and in left bank upstream from culvert, 0.3 mile northeast of St. Catherine, and 5 miles northeast of Brookfield.

Drainage area.--1.04 sq mi. Slope.--49.3 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since Nov. 27, 1961.

Stage-discharge relation.--Defined by indirect measurements at 285 and 982 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	15.39	285				
1956	Oct. 5, 1955	12.54	78				
1957	May 16, 1957	15.65	340				
1958	July 15, 1958	17.11	982				
1959	Sept.23, 1959	15.91	410				
1960	May 16, 1960	14.43	190				
1961	July 25, 1961	16.71	725				
1962	Oct. 29, 1961	13.41	120				
1963	June 28, 1963	10.73	20				
1964	Sept. 6, 1964	13.28	110				
1965	Sept.21, 1965	16.70	430				

GRAND RIVER BASIN

6-9030. Yellow Creek near Rothville, Mo.

Location.--Lat 39°38', long 93°05', on line between NW¼ sec.31, T.56 W., R.19 W., and NE¼ sec.36, T.56 N., R.20 W., at bridge on State Highway 11, 2½ miles southwest of Rothville and 3 miles downstream from East Yellow Creek.

Drainage area.--405 sq mi. Slope.--4.27 ft per mi.

Gage.--Nonrecording prior to 1952; crest-stage gage since 1961. Datum of gage is 664.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,900 cfs.

Bankfull stage.--19 ft.

Historical data.--Maximum stage known, 23.1 ft in June 1947. Flood of July 1909 reached a discharge of 15,000 cfs, determined by Corps of Engineers.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	-	ab15,000	1950	Jan. 2, 1950	18.8	2,230
					June 4, 1950	17.7	1,880
1929	Nov. 1928	b22.0	-		June 17, 1950	21.40	9,000
1930	Oct. 12, 1929	17.6	1,900	1951	Feb. 22, 1951	19.80	2,710
	Nov. 1, 1929	17.4	1,840		Apr. 9, 1951	20.52	3,640
	Feb. 9, 1930	17.9	1,970		June 24, 1951	20.85	4,900
	July 2, 1930	19.56	2,630		June 29, 1951	21.26	8,200
1931	Apr. 23, 1931	20.60	5,450	1961	Sept. 14, 1961	22.23	b6,160
	June 9, 1931	20.4	3,700				
	June 14, 1931	19.3	2,470	1962	Nov. 5, 1961	20.95	b4,500
1932	Nov. 19, 1931	20.6	3,920	1963	Mar. 6, 1963	18.79	b2,230
	Nov. 25, 1931	21.16	7,400				
———	Jan. 3, 1932	20.7	4,400	1964	Apr. 6, 1964	18.45	b2,100
1947	June 1947	b23.1	-	1965	Sept. 1965	22.73	b8,350
1949	Jan. 16, 1949	17.4	1,810				
	Feb. 26, 1949	17.4	1,810				
	June 3, 1949	21.19	7,400				
	July 14, 1949	17.8	1,910				
	Sept. 14, 1949	17.7	1,880				

a Determination by Corps of Engineers.
b Annual peak only.

CHARITON RIVER BASIN

6-9045. Chariton River at Novinger, Mo.
(Published as "at Elmer" prior to 1931)

Location.--Lat 40°14'05", long 92°41'14", on south line SE¼NE¼ sec.28, T.63 N., R.16 W., attached to downstream side of left pier of bridge over new channel on State Highway 6, 1,000 ft downstream from Chicago, Burlington & Quincy Railroad bridge, 0.6 mile east of Novinger, 1 mile downstream from Rye Creek, and 2 miles upstream from Spring Creek.

Drainage area.--1,370 sq mi, approximately; prior to Oct. 1, 1930, 1,660 sq mi approximately. Slope.--2.63 ft per mi.

Gage.--Nonrecording prior to Dec. 20, 1939 and Aug. 2, 1956, to May 16, 1957; recording gage Dec. 20, 1939, to Sept. 30, 1952, Oct. 1, 1954, to Aug. 1, 1956, and since May 16, 1957. At site 36½ miles (prior to 1952 shortening) downstream prior to Oct. 1, 1930. At datum 43.80 ft lower July 1, 1921, to Sept. 30, 1924. At datum 46.80 ft lower Oct. 1, 1924, to Sept. 30, 1926, and at datum 49.80 ft lower than present gage Oct. 1, 1926, to Sept. 30, 1930. Datum of gage is 737.65 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs at former site; below 20,000 cfs at present site.

Bankfull stage.--20 ft.

Remarks.--Channel improved from point 6 miles downstream from former site to mouth prior to June 1921. Channel improvement made in vicinity of former site during 1922-23 and channel improvement below present gage completed in June 1952. Base for partial-duration series, 6,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 1917	a28.6	27,000	1940	Aug. 18, 1940	18.42	3,680
1922	July 13, 1922	19.64	7,350	1941	June 11, 1941	23.90	9,860
	July 18, 1922	19.30	7,080	1942	Nov. 2, 1941	22.7	6,900
1923	Nov. 14, 1922	17.24	5,560	1943	Dec. 28, 1942	23.14	7,710
1924	Mar. 29, 1924	16.00	6,000		May 21, 1943	24.28	10,600
1925	Apr. 27, 1925	18.66	7,200		June 17, 1943	24.07	10,000
1926	Sept. 21, 1926	24.56	18,700	1944	Mar. 17, 1944	22.69	6,640
1927	Oct. 4, 1926	22.00	16,400		Apr. 16, 1944	22.74	6,640
	Apr. 2, 1927	17.4	8,620		Apr. 23, 1944	25.86	15,200
	Apr. 21, 1927	26.10	21,800		June 14, 1944	23.32	8,060
	June 4, 1927	19.1	11,300	1945	May 20, 1945	25.37	13,700
1928	Oct. 2, 1927	22.67	17,800		June 10, 1945	23.12	7,540
	Oct. 11, 1927	17.3	8,480		June 17, 1945	26.34	16,400
	June 18, 1928	20.0	12,800		June 21, 1945	23.66	9,020
	July 11, 1928	16.2	7,060	1946	Jan. 6, 1946	23.92	9,540
	Sept. 17, 1928	17.15	8,340		Jan. 11, 1946	24.25	10,300
1929	Nov. 17, 1928	24.06	22,500		Mar. 24, 1946	23.80	9,280
	Mar. 5, 1929	15.4	8,200		June 23, 1946	26.0	15,500
	Apr. 22, 1929	20.6	16,900		July 21, 1946	23.93	8,720
	June 5, 1929	15.4	8,200	1947	Apr. 6, 1947	24.95	12,000
1930	Nov. 1, 1929	13.80	6,200		June 7, 1947	28.50	22,900
1931	Apr. 21, 1931	22.17	6,500		June 13, 1947	28.50	22,900
	June 7, 1931	22.60	7,160		June 19, 1947	25.37	12,300
1932	Nov. 24, 1931	26.03	15,400		June 28, 1947	24.68	9,940
	Aug. 17, 1932	25.47	14,000	1948	Mar. 20, 1948	25.23	11,600
1933	Dec. 25, 1932	22.02	6,500	1949	Feb. 25, 1949	b23.85	-
1934	Sept. 12, 1934	16.96	3,250		Feb. 27, 1949	23.10	6,510
1935	May 21, 1935	22.17	6,500		Apr. 1, 1949	23.10	6,510
	June 2, 1935	24.98	12,600		June 16, 1949	23.6	7,640
	June 22, 1935	24.04	10,100	1950	June 15, 1950	26.22	15,000
	July 9, 1935	23.08	8,100		June 20, 1950	26.66	16,700
1936	Feb. 26, 1936	19.50	4,000	1951	Feb. 20, 1951	24.12	8,020
1937	Feb. 21, 1937	b23.84	6,820		Apr. 8, 1951	24.16	8,340
1938	June 4, 1938	11.89	1,690		July 23, 1951	24.32	8,660
1939	Mar. 13, 1939	24.99	12,600	1952	Mar. 13, 1952	23.87	7,380
	Mar. 17, 1939	25.09	12,900	1955	Jan. 6, 1955	23.1	6,200
	Apr. 17, 1939	23.52	8,940	1956	Oct. 6, 1955	18.18	-
					July 4, 1956	-	2,400
				1957	July 29, 1957	20.60	4,940
				1958	Aug. 2, 1958	23.10	7,900

CHARITON RIVER BASIN

Peak stages and discharges of Chariton River at Novinger, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Mar. 27, 1959	20.80	6,820	1962	Nov. 3, 1961	20.53	8,680
	May 27, 1959	21.13	7,100		Nov. 7, 1961	19.23	7,970
	June 1, 1959	23.20	9,710		Nov. 16, 1961	20.93	9,780
	Aug. 8, 1959	22.03	9,300		Nov. 22, 1961	19.20	7,970
					Feb. 5, 1962	19.30	8,070
1960	Oct. 7, 1959	22.35	10,100		Mar. 12, 1962	18.50	8,000
	Jan. 15, 1960	19.77	7,250		Mar. 22, 1962	20.20	9,820
	Apr. 2, 1960	26.65	22,000				
	Apr. 7, 1960	24.04	13,400	1963	Mar. 5, 1963	22.03	12,100
	May 26, 1960	19.55	7,050				
	July 1, 1960	23.98	13,400	1964	Apr. 20, 1964	20.20	10,100
	July 10, 1960	20.25	7,450				
				1965	Jan. 2, 1965	18.22	8,000
1961	Mar. 8, 1961	18.95	7,770		Mar. 17, 1965	20.10	12,200
	Mar. 13, 1961	20.70	9,560		Apr. 6, 1965	17.90	9 900
	Mar. 27, 1961	19.85	8,570		Apr. 11, 1965	20.97	13,700
	Apr. 22, 1961	17.80	6,670		Apr. 15, 1965	18.82	11,300
	Sept. 13, 1961	19.55	8,370		Apr. 25, 1965	14.75	7,200
	Sept. 24, 1961	19.30	8,070		June 4, 1965	17.70	10,100
					June 6, 1965	17.52	9,900
					Sept. 21, 1965	22.14	15,000

a At present site; annual peak only.
b Backwater from ice.

CHARITON RIVER BASIN

6-9047. Strop Branch near Novinger, Mo.

Location.--Lat 40°13'05", long 92°42'55", in NE¼SW¼ sec.32, T.63 N., R.16 W., on left bank about 15 ft downstream from culvert and 1 mile southwest of Novinger.

Drainage area.--0.96 sq mi. Slope.--94.7 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 62.6 and 1,730 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 23, 1955	14.15	210				
1956	July 1, 1956	16.46	1,730				
1957	Apr. 3, 1957	13.25	52				
1958	July 30, 1958	15.36	770				
1959	Oct. 7, 1958	13.41	65				
1960	June 12, 1960	15.01	550				
1961	Sept.13, 1961	14.51	330				
1962	Oct. 29, 1961	14.33	270				
1963	Mar. 4, 1963	14.53	330				
1964	Apr. 5, 1964	13.63	100				
1965	Sept.20, 1965	15.45	840				

CHARITON RIVER BASIN

6-9055. Chariton River near Prairie Hill, Mo.
(Published as "near Keytesville" prior to Oct. 1, 1953)

Location.--Lat 39°32'25", long 92°47'23", in SW¼SW¼ sec.26, T.55 N., R.17 W., on right bank on downstream side of bridge on State Highway 129, 3.2 miles northwest of Prairie Hill, and 13½ miles upstream from Puzzle Creek.

Drainage area.--1,870 sq mi, approximately. Slope.--2.25 ft per mi.

Gage.--Nonrecording prior to July 3, 1958, recording gage thereafter. At site 8½ miles downstream at datum 13.68 ft lower prior to Oct. 1, 1953. Datum of present gage is 632.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Remarks.--During 1906 channel 33½ miles long dug from Missouri River at Chariton-Macon county line to replace 290 miles of natural channel. Channel improvement extended upstream after 1909. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Nov. 18, 1928	22.54	a24,000
1930	Nov. 2, 1929	18.64	6,800
1931	June 8, 1931	20.02	9,690
1932	Nov. 19, 1931	19.92	9,100
	Nov. 27, 1931	21.46	17,500
	Jan. 6, 1932	19.86	9,100
	Aug. 21, 1932	21.47	17,500
1933	Dec. 25, 1932	20.64	12,500
	May 13, 1933	20.47	12,000
1934	Apr. 5, 1934	15.78	4,760
1935	May 29, 1935	22.23	15,000
	June 3, 1935	22.72	18,000
1936	Feb. 27, 1936	21.04	9,200
1937	Feb. 21, 1937	b21.66	-
	Feb. 22, 1937	b21.29	8,700
1938	Apr. 11, 1938	18.3	6,020
1939	Mar. 20, 1939	21.5	12,000
	Apr. 19, 1939	21.39	9,600
	June 22, 1939	21.57	10,600
1940	Mar. 4, 1940	16.3	4,350
1941	June 14, 1941	20.8	8,370
1942	June 26, 1942	23.41	21,000
1943	May 20, 1943	22.08	13,000
	June 11, 1943	21.53	10,200
	June 17, 1943	21.89	21,000
1944	Mar. 16, 1944	21.76	11,400
	Apr. 12, 1944	21.30	9,500
	Apr. 24, 1944	23.01	17,200
1945	May 22, 1945	22.17	13,300
	June 10, 1945	21.98	12,300
	June 19, 1945	22.76	16,200
1946	Jan. 5, 1946	23.0	17,200
	Mar. 26, 1946	21.56	10,500
	June 27, 1946	22.16	12,700
1947	Apr. 6, 1947	22.80	15,600
	June 2, 1947	22.20	12,700
	June 9, 1947	25.3	25,600
	June 16, 1947	24.10	20,000
	June 19, 1947	24.92	23,700
	July 1, 1947	22.55	13,300
1948	Mar. 20, 1948	22.6	13,300
	Mar. 23, 1948	22.6	13,300
1949	June 26, 1949	20.1	9,620
1950	June 23, 1950	22.36	14,900
1951	June 28, 1951	21.87	10,400
1952	Mar. 19, 1952	19.25	9,590
1953	Apr. 2, 1953	21.55	13,800
1954	June 2, 1954	13.6	7,670
1955	Jan. 5, 1955	17.2	13,500
	Feb. 19, 1955	14.28	9,020
1956	July 3, 1956	13.3	7,620
1957	July 29, 1957	14.67	7,910
1958	Oct. 24, 1957	17.52	10,200
	July 16, 1958	19.7	14,400
	July 20, 1958	18.61	11,800
	Aug. 1, 1958	20.22	15,600
1959	June 2, 1959	16.78	10,900
1960	Oct. 7, 1959	16.15	9,960
	Apr. 4, 1960	20.4	21,500
	May 1, 1960	15.7	10,500
	May 8, 1960	19.05	17,600
	May 27, 1960	15.47	10,100
	July 2, 1960	19.34	18,400
1961	Mar. 13, 1961	16.70	12,900
	Mar. 28, 1961	16.00	11,700
	Apr. 22, 1961	16.65	12,700
	Sept. 14, 1961	20.10	15,400
	Sept. 25, 1961	17.44	9,900
1962	Nov. 3, 1961	17.80	14,600
	Nov. 8, 1961	14.70	10,000
	Nov. 17, 1961	17.30	15,000
	Nov. 22, 1961	16.65	13,700
	Jan. 28, 1962	14.60	10,300
	Feb. 5, 1962	15.45	11,600
	Mar. 12, 1962	14.30	9,780
	Mar. 21, 1962	17.02	14,400
1963	Mar. 5, 1963	17.70	15,800
1964	Apr. 21, 1964	16.60	13,700
1965	Jan. 2, 1965	19.25	19,100
	Jan. 22, 1965	14.00	9,300
	Mar. 17, 1965	18.60	17,700
	Apr. 6, 1965	17.75	15,200
	Apr. 12, 1965	17.40	14,400
	Apr. 16, 1965	15.80	11,600
	June 6, 1965	15.50	11,800
	Sept. 16, 1965	14.50	9,780
	Sept. 22, 1965	19.90	17,500

a Annual peak only.
b Backwater from ice.

CHARITON RIVER BASIN

6-9057. Puzzle Creek near Salisbury, Mo.

Location.--Lat 39°26'30", long 92°47'30", in SW¼NW¼ sec.35, T.54 N., R.17 W., on right bank just upstream from culvert on State Highway 129, three-quarters of a mile north of Salisbury.

Drainage area.--0.80 sq mi. Slope.--55.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 100 and 556 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 18, 1955	5.73	100				
1956	July 2, 1956	6.23	150				
1957	June 14, 1957	6.05	130				
1958	July 19, 1958	8.50	556				
1959	Feb. 9, 1959	5.67	95				
1960	June 30, 1960	6.64	200				
1961	Sept.13, 1961	7.60	401				
1962	July 15, 1962	6.27	155				
1963	Mar. 4, 1963	6.06	130				
1964	July 11, 1964	5.67	95				
1965	June 6, 1965	7.80	390				

CHARITON RIVER BASIN

6-9060. Mussel Fork near Musselfork, Mo.

Location.--Lat 39°31'26", long 92°56'59", in SW¼SW¼SE¼ sec.32, T.55 N., R.18 W., at downstream side of left pier of bridge on State Highway 5, 4½ miles southwest of Musselfork, and 1½ miles upstream from Long Branch.

Drainage area.--267 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1952; recording since October 1962. Datum of gage is 639.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined below 3,750 cfs by current-meter measurements.

Historical data.--Maximum stage known, 20.7 ft in June 1947, from information by local resident.

Remarks.--Base for partial-duration series, 1,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 16, 1949	-	2,420				
	Feb. 21, 1949	-	1,200				
	Feb. 26, 1949	-	1,650				
	June 3, 1949	-	2,460				
	Sept.15, 1949	-	1,650				
1950	Jan. 2, 1950	15.9	1,600				
	June 3, 1950	16.9	1,940				
	June 17, 1950	18.7	2,650				
1951	Feb. 22, 1951	17.53	2,120				
	Apr. 9, 1951	17.55	2,160				
	June 3, 1951	16.45	1,800				
	June 24, 1951	18.05	2,300				
	June 29, 1951	18.96	4,380				
	July 12, 1951	15.36	1,550				
	July 25, 1951	14.90	1,430				
1963	Mar. 7, 1963	17.22	1,960				
	May 17, 1963	17.32	1,990				
1964	Apr. 5, 1964	17.94	2,190				
	Apr. 22, 1964	16.59	1,800				
1965	Jan. 3, 1965	20.10	3,020				
	Jan. 23, 1965	18.75	2,500				
	Feb. 8, 1965	15.04	1,470				
	Mar. 17, 1965	18.93	2,540				
	Apr. 6, 1965	18.75	2,500				
	Sept.18, 1965	19.42	2,740				
	Sept.23, 1965	19.85	2,900				

LITTLE CHARITON RIVER BASIN

6-9063. East Fork Chariton River near Huntsville, Mo.

Location.--Lat 39°27'19", long 92°34'09", in NE¼NW¼NW¼ sec.26, T.54 N., R.15 W., at downstream side of left pile bent of bridge on County Highway C, 1 mile downstream from Sugar Creek, and 1½ miles northwest of Huntsville.

Drainage area.--220 sq mi.

Gage.--Recording. Datum of gage is 656.43 ft above mean sea level, datum of 1929 (levels by Missouri Highway Department).

Stage-discharge relation.--Defined by current-meter measurement below 3,280 cfs.

Remarks.--Base for partial-duration series, 1,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1963	Mar. 4, 1963	15.65	1,210				
	May 18, 1963	14.93	1,110				
1964	Apr. 7, 1964	15.43	1,180				
	Apr. 21, 1964	14.80	1,100				
1965	Jan. 4, 1965	16.97	3,620				
	Jan. 26, 1965	15.67	1,430				
	Mar. 20, 1965	15.90	1,530				
	Apr. 6, 1965	15.97	1,600				
	Sept. 20, 1965	16.64	2,900				

SLOUGH CREEK BASIN

6-9066. Burge Branch near Arrow Rock, Mo.

Location.--Lat 39°02'45", long 92°56'35", in SW¼NE¼ sec.1, T.49 N., R.19 W., on right bank just upstream from culvert under county road about 1½ miles south of Arrow Rock.

Drainage area.--0.33 sq mi. Slope.--76.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by indirect measurements at 90 and 97 cfs.

Remarks.--Base for partial-duration series, 25 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 4, 1959	-	20	1962	Mar. 20, 1962	3.24	40.0
	Mar. 27, 1960	2.44	12.3		Aug. 4, 1962	3.31	43.6
	May 6, 1960	3.23	39.5				
	July 1, 1960	3.38	47.8	1963	Aug. 9, 1963	3.78	20.8
1961	Nov. 15, 1960	3.63	64	1964	Apr. 5, 1964	3.92	27.0
	Mar. 7, 1961	4.17	112				
	May 5, 1961	3.38	47.8	1965	June 3, 1965	5.75	90
	July 5, 1961	2.98	28.7		June 3, 1965	6.01	95
	July 25, 1961	3.46	53		June 4, 1965	5.80	91
	Sept. 13, 1961	4.38	134		June 29, 1965	4.11	36.5
					July 14, 1965	5.82	91
1962	Oct. 30, 1961	3.18	37.1		July 15, 1965	7.00	115
	Nov. 15, 1961	3.39	48.4		July 19, 1965	4.15	38.5

LAMINE RIVER BASIN

6-9067. Flat Creek near Sedalia, Mo.

Location.--Lat 38°39'35", long 93°15'10", in NW¼SE¼ sec.20, T.45 N., R.21 W., on downstream side of left pier of bridge on U. S. Highway 65, 1 mile upstream from Spring Fork, and 1½ miles south of Sedalia.

Drainage area.--148 sq mi. Slope.--8.1 ft per mi.

Gage.--Recording. Altitude of gage is 765 ft (from topographic map).

Stage-discharge relation.--Defined below 9,300 cfs by current-meter measurement.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 10, 1959	12.70	6,180				
	Mar. 5, 1959	9.85	3,840				
1960	Mar. 27, 1960	13.9	7,350				
	Apr. 16, 1960	16.7	12,200				
	Apr. 17, 1960	11.1	4,880				
	May 6, 1960	16.6	11,900				
1961	Mar. 12, 1961	9.70	3,760				
	Apr. 9, 1961	9.60	3,560				
	May 6, 1961	16.80	11,700				
	May 8, 1961	15.95	9,950				
	July 25, 1961	11.00	4,610				
	Aug. 2, 1961	16.65	11,300				
	Sept.13, 1961	17.80	14,100				
1962	Nov. 2, 1961	13.82	7,250				
	Nov. 16, 1961	10.91	4,720				
	Mar. 20, 1962	16.25	10,900				
1963	Mar. 4, 1963	11.45	5,120				
	June 21, 1963	10.46	4,400				
	Sept. 7, 1963	10.35	4,320				
1964	Apr. 5, 1964	14.25	7,670				
	Apr. 21, 1964	13.10	6,550				
	Apr. 23, 1964	13.25	6,650				
	May 28, 1964	12.12	5,680				
	June 14, 1964	16.30	11,100				
1965	Mar. 17, 1965	11.10	4,690				
	Apr. 3, 1965	10.15	4,010				
	Apr. 5, 1965	12.35	5,760				
	July 1, 1965	15.50	9,080				
	July 20, 1965	14.5	7,730				
	Aug. 24, 1965	9.81	3,710				
	Aug. 27, 1965	10.15	4,010				
	Sept. 4, 1965	15.20	8,630				
	Sept.21, 1965	12.0	5,420				

LAMINE RIVER BASIN

6-9070. Lamine River at Clifton City, Mo.

Location.--Lat 38°45'20", long 93°01'10", in NW¼ sec.16, T.46 N., R.19 W., at left end of county highway bridge, 300 ft upstream from Missouri-Kansas-Texas Railroad bridge, three-quarters of a mile east of Clifton City, and 8 miles downstream from Otter Creek.

Drainage area.--598 sq mi. Slope.--3.6 ft per mi.

Gage.--Nonrecording prior to Sept. 3, 1958, recording gage thereafter. Datum of gage is 621.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs.

Bankfull stage.--15 ft.

Historical data.--Maximum stage known, 35.3 ft Sept. 18, 1905 (discharge, about 90,000 cfs).

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Sept. 18, 1905	35.3	a90,000
1907	Jan. 20, 1907	33.2	a70,000
1922	Apr. 8, 1922	31.5	a55,000
1923	July 4, 1923	19.9	9,300
1924	June 25, 1924	18.85	7,640
1925	Mar. 19, 1925	20.60	10,100
1926	Sept. 10, 1926	21.64	11,300
1927	Mar. 20, 1927	27.40	22,700
	Apr. 1, 1927	27.85	25,000
	Apr. 13, 1927	22.70	12,500
	May 8, 1927	22.02	11,700
1928	Oct. 3, 1927	18.11	7,620
1929	Nov. 18, 1928	22.60	12,400
	Apr. 10, 1929	23.50	13,600
	May 3, 1929	24.35	14,800
	May 13, 1929	27.60	23,800
	May 19, 1929	29.00	33,000
	June 4, 1929	24.62	15,100
1930	Feb. 7, 1930	17.60	7,260
1931	Sept. 25, 1931	19.10	8,500
1932	Nov. 23, 1931	21.65	11,200
1933	Dec. 25, 1932	26.10	17,800
	May 14, 1933	21.80	11,500
1934	Sept. 29, 1934	14.12	5,190
1935	Nov. 23, 1934	21.40	11,000
	May 29, 1935	26.38	18,600
	June 2, 1935	26.19	18,000
	June 21, 1935	22.36	12,200
	June 27, 1935	27.76	25,000
1936	Nov. 5, 1935	23.20	13,200
	Sept. 29, 1936	22.93	12,800
1937	Mar. 20, 1937	22.00	11,700
	May 4, 1937	21.95	11,700
	May 23, 1937	27.30	22,200
	June 10, 1937	22.20	11,900
	June 17, 1937	22.80	12,700
1938	May 24, 1938	25.5	16,600
1939	Apr. 16, 1939	29.86	40,200
	May 9, 1939	21.57	11,200
1940	June 12, 1940	13.5	4,280
1941	Apr. 20, 1941	26.5	18,600
1942	Oct. 5, 1941	27.00	19,800
	Oct. 31, 1941	27.5	21,400
	Mar. 17, 1942	21.52	10,300
	June 27, 1942	24.70	14,700
1943	Dec. 28, 1942	26.00	17,200
	May 8, 1943	24.00	13,600
	May 18, 1943	32.0	60,000
	June 5, 1943	21.80	10,700
1944	Apr. 11, 1944	28.00	25,000
	Apr. 23, 1944	29.0	32,500
1945	Apr. 17, 1945	24.0	12,200
	June 11, 1945	23.6	11,800
1946	Jan. 7, 1946	21.80	10,000
	May 11, 1946	25.5	14,500
	Aug. 15, 1946	23.40	11,600
1947	Mar. 14, 1947	22.01	10,200
	Apr. 11, 1947	23.32	11,500
	Apr. 26, 1947	25.4	14,300
1948	June 19, 1948	28.14	25,600
	June 23, 1948	29.0	32,500
1949	Jan. 24, 1949	22.6	10,800
	June 7, 1949	24.2	12,400
	June 9, 1949	23.6	11,800
1950	Dec. 22, 1949	23.5	11,700
	May 31, 1950	23.0	11,200
	June 4, 1950	24.0	12,200
1951	Feb. 21, 1951	24.25	12,400
	June 25, 1951	23.0	11,200
	June 29, 1951	32.5	65,500
	July 4, 1951	22.0	10,200
	July 7, 1951	28.85	30,900
	July 13, 1951	24.4	12,700
	Sept. 10, 1951	23.0	11,200
	Sept. 13, 1951	22.0	10,200
1952	Nov. 13, 1951	21.50	9,750
1953	Mar. 4, 1953	16.00	5,360
1954	May 2, 1954	13.30	3,830
1955	Aug. 31, 1955	20.71	8,260
1956	Oct. 7, 1955	25.70	14,000
1957	May 26, 1957	18.66	6,740
1958	Mar. 10, 1958	22.9	10,100
	July 21, 1958	28.1	25,500

LAMINE RIVER BASIN

Peak stages and discharges of Lamine River at Clifton City, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 11, 1959	22.82	9,980	1963	May 26, 1963	17.55	5,990
1960	Apr. 17, 1960	26.3	15,800	1964	Apr. 6, 1964	24.20	11,300
	May 6, 1960	28.5	28,700		June 15, 1964	27.75	23,200
1961	May 6, 1961	27.17	19,400	1965	Sept. 5, 1965	27.30	19,900
	May 9, 1961	25.30	13,100		Sept. 22, 1965	24.90	12,300
	Sept. 15, 1961	29.51	11,700				
1962	Mar. 21, 1962	27.02	18,400				

a Annual peak only.

LAMINE RIVER BASIN

6-9072. Shaver Creek tributary near Clifton City, Mo.

Location.--Lat 38°45'29", long 93°04'25", in NE¼SE¼ sec.13, T.46 N., R.20 W., on left bank just upstream from culvert under State Highway 135, 2 miles southwest of Clifton City, and 9.5 miles northeast of Sedalia.

Drainage area.--1.65 sq mi. Slope.--46.4 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Oct. 18, 1961 to Apr. 16, 1964. Datum of gage is 759.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 107 cfs and by indirect measurements at 187, 480, and 1,230 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 30, 1955	11.68	1,230				
1956	May 29, 1956	8.13	370				
1957	June 29, 1957	8.26	390				
1958	July 19, 1958	11.85	1,600				
1959	Jan. 21, 1959	8.13	370				
1960	July 1, 1960	11.20	a850				
1961	May 5, 1961	11.38	966				
1962	Nov. 15, 1961	7.05	250				
1963	May 25, 1963	8.36	406				
1964	June 13, 1964	10.41	625				
1965	June 4, 1965	11.65	1,200				

a Revised.

LAMINE RIVER BASIN

6-9075. South Fork Blackwater River near Elm, Mo.
(Published as "East Branch South Fork Blackwater River" prior to 1964)

Location.--Lat 38°49'05", long 94°02'05", in SW¼SE¼ sec.5, T.46 N., R.28 W., on left bank at downstream side of bridge on county highway, 2½ miles southeast of Elm, and 3 miles upstream from mouth.

Drainage area.--16.4 sq mi. Slope.--22.2 ft per mi.

Gage.--Recording gage and concrete control. Datum of gage is about 795 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 600 cfs and by indirect measurement at 5,600 cfs.

Bankfull stage.--7.0 ft.

Historical data.--Flood of July 1951, reached a stage of 14.8 ft, from information by local residents.

Remarks.--Base for partial-duration series, 1,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 1951	14.8	–	1961	Mar. 26, 1961	8.74	2,500
					Apr. 23, 1961	5.98	1,130
1954	May 2, 1954	6.68	a1,420		May 5, 1961	9.22	2,840
					July 24, 1961	7.90	2,020
1955	May 27, 1955	8.50	2,380		July 25, 1961	7.20	1,650
					Sept. 13, 1961	11.72	5,270
1956	Apr. 28, 1956	3.92	447				
				1962	Nov. 15, 1961	6.80	1,460
1957	Sept. 21, 1957	6.68	1,420				
				1963	May 26, 1963	6.47	1,330
1958	Oct. 23, 1957	8.01	2,080				
	July 17, 1958	6.02	1,130	1964	Apr. 5, 1964	6.75	1,460
	July 25, 1958	6.41	1,290				
	July 31, 1958	b8.56	2,440	1965	June 13, 1965	5.98	1,130
					June 19, 1965	11.12	4,610
1959	Aug. 31, 1959	6.55	1,380		Aug. 8, 1965	6.20	1,210
					Sept. 4, 1965	7.57	1,860
1960	Apr. 15, 1960	12.0	5,600		Sept. 20, 1965	7.87	2,020
	Apr. 30, 1960	8.39	2,320				
	May 6, 1960	8.08	2,140				

a Annual peak only.
b Revised.

LAMINE RIVER BASIN

6-9077. Blackwater River at Valley City, Mo.

Location.--Lat 38°52'10", long 93°37'15", in SW¼NW¼ sec.13, T.47 N., R.25 W., at right bank at downstream side of bridge on County Highway E, 0.5 mile upstream from Blackjack Creek, 0.5 mile northwest of Valley City, and 1 mile downstream from Clear Creek.

Drainage area.--547 sq mi. Slope.--5.05 ft per mi.

Gage.--Recording. Datum of gage is 650.23 ft above mean sea level, datum of 1929. Auxiliary recording gage 4½ miles downstream since Oct. 11, 1961, at datum 2.75 ft lower.

Stage-discharge relation.--Defined below 58,100 cfs by current-meter measurement.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 22, 1959	22.92	5,750				
1960	Mar. 27, 1960	26.25	12,900				
	Apr. 16, 1960	30.4	66,500				
	Apr. 30, 1960	26.75	15,900				
	May 6, 1960	27.70	20,900				
1961	Mar. 13, 1961	26.2	10,200				
	Mar. 27, 1961	26.3	10,500				
	Apr. 9, 1961	26.6	11,700				
	May 6, 1961	28.5	23,500				
	July 26, 1961	27.2	14,700				
	Sept. 4, 1961	26.25	10,200				
	Sept.14, 1961	31.1	55,000				
	Sept.25, 1961	26.7	12,200				
1962	Oct. 30, 1961	26.22	11,900				
	Nov. 3, 1961	26.80	15,500				
	Nov. 16, 1961	26.65	14,300				
	Mar. 21, 1962	27.60	20,900				
1963	Oct. 13, 1962	24.50	7,000				
1964	June 14, 1964	25.80	9,800				
1965	Apr. 6, 1965	26.00	10,700				
	June 5, 1965	26.85	15,500				
	June 13, 1965	25.90	10,200				
	July 20, 1965	31.15	57,000				
	Sept. 5, 1965	26.70	14,900				
	Sept.16, 1965	26.30	12,500				
	Sept.20, 1965	26.50	13,700				

LAMINE RIVER BASIN

6-9080. Blackwater River at Blue Lick, Mo.

Location.--Lat 38°59'30", long 93°12'15", on line between secs.27 and 34, T.49 N., R.21 W., on right bank, 25 ft upstream from bridge on U. S. Highway 65, three-quarters of a mile downstream from Finney Creek, and 1 mile south of Blue Lick.

Drainage area.--1,120 sq mi, approximately. Slope.--2.50 ft per mi.

Gage.--Nonrecording prior to Dec. 4, 1956; recording gage thereafter. At site 75 ft downstream at datum 0.10 ft lower prior to July 25, 1925. At site 25 ft downstream at present datum July 25, 1925, to Sept. 30, 1933, and May 23, 1938, to Dec. 3, 1956. Datum of gage is 593.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs and extended by logarithmic plotting.

Bankfull stage.--25 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Sept. 1905	36	a26,000	1945	June 10, 1945	31.85	12,600
1923	July 4, 1923	30.9	9,280	1946	Jan. 8, 1946	31.3	11,300
1924	June 30, 1924	29.05	10,800	1947	Mar. 16, 1947	30.76	10,200
					Apr. 7, 1947	31.9	12,900
1925	June 19, 1925	24.10	7,060		July 3, 1947	31.09	10,800
1926	Apr. 8, 1926	28.05	10,000	1948	June 25, 1948	32.80	15,600
1927	Mar. 22, 1927	32.01	17,400	1949	June 10, 1049	30.6	9,760
	Apr. 3, 1927	31.0	15,400				
	Apr. 16, 1927	30.25	14,000	1950	Oct. 23, 1949	32.0	13,200
	Apr. 21, 1927	28.95	11,800				
	May 9, 1927	30.68	14,900	1951	July 1, 1951	-	18,000
					July 8, 1951	34.2	20,400
1928	Oct. 4, 1927	34.17	21,800		July 14, 1951	35.06	23,900
	Feb. 9, 1928	28.60	11,200		Aug. 29, 1951	31.06	10,800
1929	Nov. 18, 1928	41.25	54,000	1952	Nov. 15, 1951	28.48	7,100
	Apr. 2, 1929	31.30	16,000				
	Apr. 11, 1929	30.00	13,600	1953	Apr. 3, 1953	27.16	5,880
	May 14, 1929	32.10	17,600				
	May 21, 1929	30.10	13,800	1954	June 4, 1954	22.90	3,290
	June 5, 1929	31.19	15,800				
				1955	Feb. 22, 1955	26.45	5,170
1930	Feb. 10, 1930	26.42	7,990				
				1956	Oct. 10, 1955	24.40	3,960
1931	Sept. 24, 1931	18.77	3,200				
				1957	June 29, 1957	22.25	3,150
1932	Nov. 26, 1931	27.85	9,680				
				1958	June 18, 1958	28.95	8,100
1933	May 14, 1933	25.88	6,900				
				1959	Mar. 5, 1959	22.80	3,570
1938	May 25, 1938	34.18	19,600				
				1960	Apr. 19, 1960	33.0	16,200
1939	Apr. 18, 1939	29.6	9,810		May 9, 1960	30.7	10,600
1940	Apr. 20, 1940	25.0	5,300	1961	May 9, 1961	33.5	17,800
					Sept. 16, 1961	36.5	30,000
1941	Jan. 28, 1941	23.8	3,800				
				1962	Mar. 23, 1962	30.83	10,800
1942	June 23, 1942	31.83	12,400				
	June 29, 1942	32.2	13,400	1963	May 29, 1963	22.84	3,450
1943	May 20, 1943	36.45	27,900	1964	June 21, 1964	25.84	5,310
1944	Mar. 18, 1944	31.50	12,600	1965	July 23, 1965	37.50	26,000
	Apr. 13, 1944	32.50	15,300		Sept. 18, 1965	31.04	10,400
	Apr. 24, 1944	37.0	32,400				

a Annual peak only.

LAMINE RIVER BASIN

6-9083. Trent Branch near Waverly, Mo.

Location.--Lat 39°12'06", long 93°34'46", in SE¼NE¼ sec.19, T.51 N., R.24 W., on right bank just upstream from culvert on U. S. Highway 24, and 3.8 miles west of Waverly.

Drainage area.--0.97 sq mi. Slope.--69.2 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage July 23, 1959, to July 18, 1962.

Stage-discharge relation.--Defined by current-meter measurement at 21.5 cfs and by indirect measurements at 282, 544, 878, and 1,190 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	15.76	544				
1956	Apr. 28, 1956	18.16	878				
1957	June 30, 1957	14.17	370				
1958	June 14, 1958	16.59	660				
1959	July 4, 1959	13.46	282				
1960	June 30, 1960	14.95	450				
1961	Aug. 1, 1961	19.87	1,190				
1962	Sept. 8, 1962	13.80	320				
1963	July 15, 1963	13.55	290				
1964	June 21, 1964	13.91	330				
1965	Nov. 16, 1964	12.80	220				

LAMINE RIVER BASIN

6-9085. Shiloh Branch near Marshall, Mo.

Location.--Lat 39°07'00", long 93°05'50", in NW¼ sec.15, T.50 N., R.20 W., on left bank 15 ft upstream from double culvert under State Highway 41, 08 mile upstream from unnamed tributary, 2.5 miles upstream from Salt Branch, 3.6 miles upstream from mouth and 5½ miles east of Marshall.

Drainage area.--2.87 sq mi. Slope.--40.1 ft per mi.

Gage.--Recording gage and concrete control. Datum of gage is 677.39 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 200 cfs and indirect measurements at 713 and 873 cfs.

Bankfull stage.--7.0 ft.

Remarks.--Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Mar. 31, 1953	1.90	145	1961	Mar. 27, 1961	3.13	424
					Apr. 24, 1961	3.26	455
1954	Aug. 1, 1954	5.64	741		May 6, 1961	3.22	440
					July 23, 1961	4.84	653
1955	Feb. 18, 1955	3.26	455		July 25, 1961	4.53	618
	May 28, 1955	4.84	653		Aug. 1, 1961	3.79	527
	June 2, 1955	6.92	871		Sept. 13, 1961	7.58	934
	Aug. 29, 1955	3.61	499				
				1962	Oct. 30, 1961	2.97	400
1956	Oct. 5, 1955	2.60	336		Sept. 8, 1962	3.14	424
1957	June 29, 1957	3.63	499	1963	May 4, 1963	2.90	391
1958	June 14, 1958	3.13	424	1964	Apr. 20, 1964	4.92	664
	July 3, 1958	6.65	842				
	July 15, 1958	7.04	880	1965	July 14, 1965	6.00	782
					Sept. 15, 1965	7.2	898
1959	Sept. 23, 1959	4.56	630				
1960	Oct. 4, 1959	3.47	485				
	Mar. 27, 1960	4.11	424				
	Apr. 29, 1960	3.14	424				
	May 6, 1960	4.78	653				
	July 1, 1960	4.31	594				

MISSOURI RIVER MAIN STEM

6-9090. Missouri River at Boonville, Mo.

Location.--Lat 38°58'40", long 92°45'15", in sec.35, T.49 N., R.17 W., on downstream side of second pier from right abutment of Missouri-Kansas-Texas Railroad bridge at Boonville, and at mile 196.6.

Drainage area.--505,700 sq mi.

Gage.--Nonrecording prior to May 10, 1931; recording gage thereafter. At site 0.4 mile downstream at datum 3.14 ft lower prior to Oct. 1, 1928, and at different datum May 10, 1931, to Apr. 12, 1934. At site 50 ft upstream at present datum Oct. 1, 1928, to May 9, 1931. Datum of gage is 565.42 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage.--21 ft.

Historical data.--Flood of June 21, 1844, reached a stage of 32.7 ft (discharge, about 710,000 cfs, computed by Corps of Engineers). Flood of June 6, 1903, reached a stage of 30.5 ft (discharge, about 612,000 cfs, computed by Corps of Engineers).

Remarks.--Gage heights adjusted to present datum. Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,640,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 21, 1844	32.7	a710,000	1946	Jan. 10, 1946	17.44	150,000
1903	June 6, 1903	30.5	a612,000	1947	June 27, 1947	32.02	448,000
1926	Sept. 25, 1926	17.4	175,000	1948	Mar. 24, 1948	24.20	247,000
1927	Apr. 23, 1927	23.9	381,000	1949	Mar. 9, 1949	21.15	196,000
1928	June 20, 1928	19.6	224,000	1950	July 20, 1950	21.30	209,000
1929	June 7, 1929	23.7	344,000	1951	July 17, 1951	32.62	550,000
1930	May 11, 1930	16.2	150,000	1952	Apr. 27, 1952	27.70	360,000
1931	June 10, 1931	12.8	79,200	1953	May 8, 1953	17.90	150,000
1932	Nov. 28, 1931	21.5	221,000	1954	June 5, 1954	16.98	132,000
1933	June 4, 1933	14.9	105,000	1955	Feb. 21, 1955	16.80	128,000
1934	Mar. 9, 1934	12.2	77,000		June 27, 1955	16.80	128,000
1935	June 4, 1935	26.7	306,000	1956	July 6, 1956	14.40	89,200
1936	Mar. 14, 1936	15.4	134,000	1957	June 20, 1957	19.12	145,000
1937	July 25, 1937	15.70	123,000	1958	July 22, 1958	25.77	252,000
1938	July 19, 1938	18.10	142,000	1959	June 2, 1959	21.40	175,000
1939	Apr. 18, 1939	20.00	170,000	1960	Apr. 5, 1960	28.15	332,000
1940	Aug. 17, 1940	13.44	76,700	1961	Sept. 16, 1961	26.30	267,000
1941	June 17, 1941	22.40	201,000	1962	Nov. 4, 1961	20.90	200,000
1942	June 29, 1942	27.50	312,000	1963	May 17, 1963	15.95	118,000
1943	June 22, 1943	28.82	366,000	1964	June 25, 1964	21.70	184,000
1944	Apr. 27, 1944	30.93	504,000	1965	Sept. 24, 1965	b26.05	261,000
1945	Apr. 20, 1945	-	280,000				
	June 21, 1945	25.25	-				

a Computed by Corps of Engineers
b Occurred July 23, 1965

BONNE FEMME CREEK BASIN

6-9094. Cottonwood Creek tributary at Estill, Mo.

Location.--Lat 39°02'55", long 92°44'38", in NW¼SE¼NE¼ sec.17, T.49 N., R.16 W., on right bank just upstream from culvert under State Highway 5, 0.2 mile north of Estill, and 2 miles north of New Franklin.

Drainage area.--0.30 sq mi. Slope.--87.0 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 70.2 and 265 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 3, 1958	15.92	265				
1959	Sept. 24, 1959	6.55	71				
1960	June 30, 1960	6.37	68				
1961	May 5, 1961	8.52	112				
1962	July 6, 1962	5.62	48				
1963	Aug. 19, 1963	5.84	55				
1964	Apr. 5, 1964	5.33	41				
1965	Sept. 15, 1965	7.35	90				

MONITEAU CREEK BASIN

6-9095. Moniteau Creek near Fayette, Mo.

Location.--Lat 39°07'15", long 92°33'40", in SE¼SE¼ sec.14, T.50 N., R.15 W., on right bank just upstream from county highway bridge, 1 mile downstream from Hungry Mother Creek, 7½ miles east of Fayette, and 15 miles upstream from mouth.

Drainage area.--81 sq mi, approximately. Slope.--8.47 ft per mi.

Gage.--Nonrecording prior to Aug. 14, 1957; recording gage thereafter. Datum of gage is 607.93 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Historical data.--Maximum stage known, 22.9 ft, probably in April 1944, from information by local resident.

Remarks.--Base for partial-duration series, 900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Apr. 1944	22.9	-	1957	July 27, 1957	17.50	2,520
1949	Jan. 16, 1949	16.5	1,750	1958	Dec. 25, 1957	14.4	1,240
	Jan. 24, 1949	14.5	1,080		Feb. 27, 1958	15.9	1,780
	Feb. 13, 1949	14.4	1,060		June 1, 1958	13.53	999
	May 9, 1949	14.0	964		June 15, 1958	15.65	1,660
	May 24, 1949	13.98	964		July 15, 1958	18.75	3,370
	June 1, 1949	18.16	2,570		July 19, 1958	14.73	1,340
					July 20, 1958	17.54	2,520
1950	Oct. 21, 1949	18.09	2,510		July 31, 1958	17.90	2,740
	Dec. 22, 1949	18.48	2,760				
	Jan. 13, 1950	14.10	986	1959	Feb. 10, 1959	18.20	2,920
	Feb. 13, 1950	13.75	924		Mar. 5, 1959	18.05	2,800
	June 3, 1950	17.08	2,000		Apr. 20, 1959	14.10	1,160
	July 19, 1950	13.82	924				
				1960	Mar. 27, 1960	17.72	2,640
1951	Feb. 20, 1951	17.50	2,180		Apr. 16, 1960	18.39	3,050
	Mar. 17, 1951	17.54	2,180		Apr. 30, 1960	13.30	950
	Mar. 29, 1951	18.06	2,510		May 6, 1960	18.96	3,560
	June 26, 1951	16.10	1,600		July 1, 1960	18.43	3,050
	July 11, 1951	18.0	2,430				
	Aug. 9, 1951	14.8	1,160	1961	Mar. 12, 1961	(a)	(a)
	Aug. 15, 1951	14.0	964		Apr. 25, 1961	(a)	(a)
					May 6, 1961	18.70	3,200
1952	Nov. 12, 1951	17.83	2,400		May 8, 1961	16.45	1,760
	Mar. 10, 1952	16.64	1,790		July 23, 1961	16.40	1,760
	Mar. 18, 1952	17.30	2,080		July 25, 1961	15.20	1,330
	Apr. 23, 1952	14.00	964		Aug. 2, 1961	17.50	2,280
	Aug. 21, 1952	14.10	986		Sept. 13, 1961	19.6	4,330
					Sept. 24, 1961	17.65	2,340
1953	May 5, 1953	11.42	593				
				1962	Oct. 30, 1961	17.10	2,080
1954	May 21, 1954	15.4	1,350		Nov. 2, 1961	17.56	2,340
					Nov. 16, 1961	17.57	2,340
1955	Feb. 19, 1955	16.7	1,850		Mar. 21, 1962	18.05	2,600
	June 25, 1955	19.2	3,760				
	July 6, 1955	17.9	2,530	1963	Mar. 4, 1963	15.34	1,360
	Aug. 30, 1955	17.5	2,290				
				1964	Apr. 21, 1964	16.77	1,940
1956	Oct. 5, 1955	19.47	4,180				
	Apr. 29, 1956	16.72	1,900	1965	Mar. 17, 1965	16.60	1,850
	May 27, 1956	16.50	1,800		Apr. 3, 1965	13.33	910
					Apr. 6, 1965	16.77	1,940
1957	May 17, 1957	15.8	1,740		Apr. 11, 1965	14.90	1,240
	May 25, 1957	16.8	2,170		June 5, 1965	17.95	2,600
	June 14, 1957	14.9	1,400		Sept. 16, 1965	17.34	2,180
	June 30, 1957	15.0	1,440		Sept. 20, 1965	15.07	1,300

a Gage height and discharge unknown.

PETITE SALINE CREEK BASIN

6-9097. Petite Saline Creek tributary near Bellair, Mo.

Location.--Lat 38°50'34", long 92°50'31", in SW¼NE¼ sec.13, T.47 N., R.18 W., on right bank just upstream from culvert under State Highway 5, at junction of Highways 5 and F, half a mile north of Bellair, and 10½ miles southwest of Boonville.

Drainage area.--0.49 sq mi. Slope.--78.4 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since Apr. 17, 1964.

Stage-discharge relation.--Defined by current-meter measurements below 56.6 cfs and by indirect measurements at 237 and 573 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	14.43	237				
1956	July 23, 1956	13.30	118				
1957	May 16, 1957	13.32	119				
1958	July 16, 1958	14.54	248				
1959	July 30, 1959	13.22	108				
1960	May 6, 1960	14.19	210				
1961	May 5, 1961	17.25	573				
1962		(a)	(b)				
1963	Apr. 28, 1963	13.64	150				
1964	June 14, 1964	13.14	95				
1965	June 4, 1965	19.49	900				

a Stage did not reach gage during year.
b Less than 100 cfs.

PETITE SALINE CREEK BASIN

6-9100. Petite Saline Creek near Boonville, Mo.

Location.--Lat 38°55'00", long 92°39'20", in SW¼SE¼ sec.15, T.48 N., R.16 W., on right bank 50 ft upstream from county highway bridge, half a mile downstream from Clarks Fork Creek, 7 miles southeast of Boonville, and 14½ miles upstream from mouth.

Drainage area.--182 sq mi. Slope.--6.35 ft per mi.

Gage.--Nonrecording prior to July 26, 1952; recording and nonrecording thereafter. Datum of gage is 573.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--17 ft.

Historical data.--Maximum stage known prior to 1949, 23.2 ft in June 1921 (discharge, 5,860 cfs).

Remarks.--Base for partial-duration series, 1,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	June 1921	23.2	5,860	1957	May 26, 1957	17.98	1,560
1949	Nov. 3, 1948	18.9	2,530	1958	Feb. 28, 1958	18.90	2,170
	Jan. 15, 1949	17.8	1,800		Mar. 10, 1958	18.40	1,790
	Jan. 24, 1949	18.3	2,110		May 5, 1958	18.83	2,040
	June 7, 1949	19.1	2,670		June 15, 1958	20.74	3,700
	Sept. 13, 1949	22.26	5,110		July 18, 1958	19.10	2,340
					July 31, 1958	19.50	2,680
1950	Oct. 21, 1949	23.50	6,120				
	Dec. 21, 1949	20.90	4,000	1959	Feb. 10, 1959	19.16	2,420
	Apr. 29, 1950	17.20	1,610		Mar. 5, 1959	20.30	3,360
	May 31, 1950	19.82	3,170				
	June 3, 1950	23.42	6,030	1960	Mar. 28, 1960	19.70	2,980
	Aug. 14, 1950	18.00	1,910		Apr. 17, 1960	20.85	3,860
	Aug. 16, 1950	18.05	1,910		Apr. 30, 1960	17.82	1,600
					May 6, 1960	23.10	5,810
1951	Feb. 20, 1951	19.3	2,810				
	Mar. 11, 1951	18.25	2,040	1961	Mar. 13, 1961	18.20	1,880
	Mar. 17, 1951	21.48	4,470		Apr. 26, 1961	19.37	2,740
	Apr. 13, 1951	17.97	1,910		May 6, 1961	21.60	4,500
	May 11, 1951	17.2	1,610		May 9, 1961	20.70	3,780
	June 25, 1951	18.4	2,180		July 6, 1961	22.07	4,910
	June 29, 1951	22.8	5,520		July 22, 1961	19.60	2,900
	July 7, 1951	20.2	3,470		July 25, 1961	18.55	2,140
	July 12, 1951	20.0	3,320		Sept. 14, 1961	22.20	5,000
	Aug. 29, 1951	20.6	3,770		Sept. 25, 1961	19.43	2,740
	Sept. 4, 1951	18.55	2,320				
	Sept. 10, 1951	17.48	1,680	1962	Oct. 30, 1961	18.10	1,820
	Sept. 13, 1951	17.34	1,630		Nov. 3, 1961	18.76	2,280
					Nov. 16, 1961	18.70	2,210
1952	Nov. 13, 1951	18.40	2,180		Jan. 26, 1962	18.45	2,000
	Feb. 4, 1952	17.66	1,750		Mar. 21, 1962	21.00	4,020
	Mar. 11, 1952	18.10	1,980				
	Mar. 18, 1952	19.10	2,670	1963	July 8, 1963	18.26	1,940
	Aug. 21, 1952	19.18	2,740				
				1964	Apr. 5, 1964	19.54	2,820
1953	Apr. 8, 1953	17.35	1,610		June 15, 1964	20.00	3,220
1954	June 2, 1954	17.01	1,460	1965	Mar. 17, 1965	17.72	1,620
					Apr. 6, 1965	18.51	2,070
1955	Jan. 5, 1955	17.58	1,690		Apr. 11, 1965	18.41	2,000
	Feb. 20, 1955	18.05	1,910		June 3, 1965	19.35	2,740
	June 25, 1955	17.95	1,910		June 5, 1965	21.95	4,840
	Aug. 7, 1955	18.73	1,840		Sept. 5, 1965	18.62	2,140
	Aug. 31, 1955	20.30	2,960		Sept. 16, 1965	18.52	2,070
					Sept. 22, 1965	18.18	1,880
1956	Oct. 6, 1955	21.52	3,980				

PERCHE CREEK BASIN

6-9102. Cow Branch near Columbia, Mo.

Location.--Lat 39°00'10", long 92°19'25", in NW¼ sec.30, T.49 N., R.12 W., on left bank just upstream from culvert under U. S. Highway 63, 2.7 miles north of Columbia.

Drainage area.--1.01 sq mi. Slope.--57.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 2.57 cfs and by indirect measurements at 374 and 620 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	11.68	374				
1956	Oct. 4, 1955	12.02	430				
1957	July 27, 1957	11.43	336				
1958	July 18, 1958	13.13	625				
1959	Nov. 16, 1958	11.19	300				
1960	May 6, 1960	13.09	620				
1961	May 5, 1961	12.89	582				
1962	Oct. 30, 1961	9.55	100				
1963	July 2, 1963	9.62	110				
1964	Apr. 5, 1964	11.19	300				
1965	Sept.15, 1965	11.59	360				

BONNE FEMME CREEK BASIN

6-9102.5. Traxler Branch near Columbia, Mo.

Location.--Lat 38°51'15", long 92°19'45", in NE¼SE¼ sec.13, T.47 N., R.13 W., on left bank just upstream from culvert under county road N about 5½ miles south of Columbia.

Drainage area.--0.55 sq mi. Slope.--119 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Aug. 15, 1960 to Apr. 27, 1964.

Stage-discharge relation.--Defined by current-meter measurements below 416 cfs and by indirect measurements at 112, 419, and 668 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 18, 1958	14.97	668				
1959	Feb. 9, 1959	11.01	a266				
1960	May 25, 1960	12.60	419				
1961	May 5, 1961	12.01	a361				
1962	Nov. 15, 1961	10.03	180				
1963	July 6, 1963	9.10	104				
1964	June 14, 1964	9.58	142				
1965	Apr. 5, 1965	12.20	380				

a Revised.

PEDEN BRANCH BASIN

6-9103. Peden Branch near Jefferson City, Mo.

Location.--Lat 38°38'55", long 92°18'30, in NW¼SW¼ sec.13, T.45 N., R.13 W., 8 ft upstream from concrete culvert on Cole County road "A", 2 miles northwest of Church State Prison Farm, and 8.6 miles west of Jefferson City.

Drainage area.--0.18 sq mi. Slope.--220 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 48.4, 49.6, and 142 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Aug. 16, 1957	13.26	144				
1958	June 25, 1958	13.21	140				
1959	Feb. 9, 1959	11.66	50				
1960	Oct. 10, 1959	13.24	140				
1961	Aug. 9, 1961	12.99	128				
1962	Oct. 30, 1961	11.48	45				
1963	May 16, 1963	12.10	73				
1964	Apr. 23, 1964	11.26	35				
1965	Sept. 4, 1965	13.09	130				

BALDWIN BRANCH BASIN

6-9104. Baldwin Branch near Jefferson City, Mo.

Location.--Lat 38°39'35", long 92°13'25", in SE¼SE¼ sec.24, T.45 N., R.12 W., on right bank just upstream from culvert on U. S. Highway 63, 5.4 miles northwest of Jefferson City.

Drainage area.--0.60 sq mi. Slope.--144 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 60.6 cfs and by indirect measurements at 360, 421, 707, and 1,580 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Aug. 16, 1957	16.10	1,580				
1958	July 18, 1958	13.84	690				
1959	Oct. 9, 1958	10.13	340				
1960	Oct. 10, 1959	10.95	420				
1961	Sept.13, 1961	14.0	695				
1962	Mar. 20, 1962	8.46	a				
1963	May 4, 1963	11.52	470				
1964	Apr. 27, 1964	8.85	60				
1965	June 3, 1965	13.3	650				

a Less than 50 cfs.

MOREAU RIVER BASIN

6-9105. Moreau River near Jefferson City, Mo.

Location.--Lat 38°30'25", long 92°15'20", in N½ sec.4, T.43 N., R.12 W., on downstream side of right pier of bridge on U. S. Highway 54, 5 miles southwest of Jefferson City, and 5-3/4 miles downstream from confluence of North and South Moreau Creeks.

Drainage area.--531 sq mi. Slope.--4.64 ft per mi.

Gage.--Nonrecording prior to Aug. 17, 1958; recording thereafter. Datum of gage is 562.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood in 1905 reached a stage of 38.20 ft, flood in 1943, 35.11 ft, and flood in 1929, 32.91 ft, from floodmarks and information by local resident.

Remarks.--Base for partial-duration series, 7,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 23, 1948	27.0	a23,000				
1949	Nov. 3, 1948	21.0	11,800				
	Jan. 24, 1949	23.0	15,100				
	June 7, 1949	23.75	16,500				
	June 8, 1949	19.4	9,680				
1950	Oct. 22, 1949	22.50	14,200				
	Jan. 3, 1950	18.0	8,200				
	Jan. 14, 1950	18.0	8,200				
	Mar. 12, 1950	17.85	8,020				
	Apr. 29, 1950	18.0	8,200				
	May 20, 1950	17.5	7,750				
1951	Feb. 21, 1951	23.00	15,100				
	Mar. 11, 1951	18.25	8,400				
	June 24, 1951	17.75	8,020				
	June 29, 1951	18.55	8,800				
	July 7, 1951	23.75	16,500				
	July 13, 1951	22.57	14,400				
1952	Oct. 7, 1951	18.00	8,200				
	Oct. 24, 1951	18.00	8,200				
	Nov. 13, 1951	17.66	7,930				
	Feb. 4, 1952	17.90	8,110				
1953	Mar. 4, 1953	16.82	7,120				
1954	May 2, 1954	10.0	2,790				
1955	Feb. 20, 1955	21.0	11,800				
1956	Oct. 6, 1955	19.0	9,200				
1957	May 26, 1957	24.0	a16,900				
1958	Feb. 28, 1958	18.57	8,800				
	Mar. 9, 1958	20.84	11,500				
	June 15, 1958	22.57	14,400				
	July 18, 1958	22.10	13,600				
	July 31, 1958	17.90	8,110				
1959	Feb. 10, 1959	20.62	11,200				
1960	Oct. 11, 1959	20.85	11,500				
	Apr. 17, 1960	18.80	9,000				
	May 7, 1960	23.30	15,600				
1961	May 6, 1961	22.80	13,100				
	May 8, 1961	25.06	17,100				
1962	Mar. 21, 1962	26.40	19,800				
1963	Mar. 5, 1963	18.02	7,960				
	May 26, 1963	18.83	8,640				
1964	Apr. 5, 1964	19.30	9,080				
	June 15, 1964	27.20	20,200				
1965	Apr. 6, 1965	20.95	10,800				
	Sept. 6, 1965	24.30	15,300				
	Sept.15, 1965	22.12	12,100				
	Sept.23, 1965	26.35	18,800				

a Annual peak only.

MOREAU RIVER BASIN

6-9107. Hazel Branch tributary near Wardsville, Mo.

Location.--Lat 38°28'15", long 92°12'35", in NE¼SE¼ sec.14, T.43 N., R.12 W., 6 ft upstream from concrete culvert under Cole County Road "B", 2.5 miles southwest of Wardsville.

Drainage area.--0.13 sq mi. Slope.--141 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements at 12.9, 15.4, and 16.2 cfs and by indirect measurements at 60 and 180 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	July 9, 1957	10.56	a96				
1958	June 12, 1958	11.63	a142				
1959	Feb. 9, 1959	9.08	a42				
1960	July 13, 1960	9.48	a56				
1961	May 5, 1961	11.88	a152				
1962	June 9, 1962	10.01	a75				
1963	May 16, 1963	11.76	a148				
1964	June 14, 1964	13.05	210				
1965	June 3, 1965	9.56	58				

a Revised.

OSAGE RIVER BASIN

6-9182. North Fork Panther Creek tributary near Appleton City, Mo.

Location.--Lat 38°11'38", long 94°04'53", in NE¼SW¼ sec.2, T.39 N., R.29 W., on left bank just upstream from culvert under State Highway 52, a quarter of a mile south of Hudson, 3 miles west of Appleton City, and 18 miles southeast of Butler.

Drainage area.--0.08 sq mi. Slope.--222.00 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by estimation of flow at 2.4 cfs and by indirect measurements at 57.8 and 81.7 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 18, 1954	a	b				
1956	Oct. 5, 1955	5.63	82				
1957	May 16, 1957	5.92	88				
1958	May 4, 1958	4.72	58				
1959	May 18, 1959	4.77	60				
1960	May 5, 1960	4.57	55				
1961	June 20, 1961	4.15	44				
1962		a	b				
1963		a	b				
1964	July 11, 1964	3.62	35				
1965	Sept. 4, 1965	5.51	77				

a Stage did not reach gage during year.
b Less than 30 cfs

OSAGE RIVER BASIN

6-9183. West Fork Clear Creek tributary near Nevada, Mo.

Location.--Lat 37°51'43", long 94°13'51", in SW¼SW¼ sec.27, T.36 N., R.30 W., on left bank just upstream from culvert under U. S. Highway 54, 0.2 mile east of county road "C", and 7½ miles northeast of Nevada.

Drainage area.--0.51 sq mi. Slope.--36.2 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 112, 392, and 694 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 30, 1955	8.67	392				
1956	May 30, 1956	6.16	165				
1957	June 4, 1957	7.65	300				
1958	July 16, 1958	8.67	392				
1959	Feb. 9, 1959	7.25	255				
1960	May 5, 1960	8.72	395				
1961	May 5, 1961	8.62	390				
1962	Oct. 30, 1961	6.08	160				
1963	May 26, 1963	11.68	694				
1964	Apr. 5, 1964	6.00	155				
1965	Apr. 3, 1965	6.08	160				

OSAGE RIVER BASIN

6-9184. Pickerel Creek tributary near Republic, Mo.

Location.--Lat 37°07'10", long 93°31'30", in NW¼SE¼ sec.23, T.28 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 166, 2 miles west of Republic.

Drainage area.--0.57 sq mi. Slope.--68.8 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Nov. 22, 1961 to Mar. 7, 1963.

Stage-discharge relation.--Defined by indirect measurements at 192 and 242 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	9.75	242				
1958	July 7, 1958	8.82	192				
1959	-	(a)	25				
1960	Aug. 4, 1060	7.99	145				
1961	May 8, 1961	8.58	178				
1962	-	(a)	(b)				
1963	May 13, 1963	9.0	200				
1964	June 13, 1964	7.82	135				
1965	June 13, 1965	6.74	75				

a Stage did not reach gage during year.
b Less than 25 cfs.

OSAGE RIVER BASIN

6-9187. Oak Grove Branch near Brighton, Mo.

Location.--Lat 37°24'11", long 93°21'21", in SE¼SW¼ sec.21, T.31 N., R.22 W., at culvert under Greene County Highway BB, 0.6 mile west of junction with U. S. Highway 13, and 4 miles south of Brighton.

Drainage area.--1.30 sq mi. Slope.--94.2 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs and by indirect measurement at 883 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	7.60	845				
1958	Sept. 2, 1958	5.33	492				
1959	Feb. 9, 1959	3.91	320				
1960	Oct. 4, 1959	2.87	196				
1961	Mar. 6, 1961	3.77	302				
1962	Mar. 20, 1962	1.08	17				
1963	May 26, 1963	1.48	47				
1964	Apr. 5, 1964	2.30	140				
1965	Apr. 4, 1965	4.00	332				

OSAGE RIVER BASIN

6-9187.5. Franca Branch near Brighton, Mo.

Location.--Lat 37°30", long 93°21', in NE¼NW¼SE¼ (revised) sec.16, T.32 N., R.22 W., on right bank just upstream from culvert under State Highway 13, 2.7 miles south of Slagle, and 8.7 miles southeast of Bolivar.

Drainage area.--0.59 sq mi. Slope.--109 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 45, 184, 298, and 883 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 12, 1955	14.35	298				
1956	May 30, 1956	14.20	245				
1957	June 27, 1957	12.46	110				
1958	July 16, 1958	12.79	135				
1959	-	(a)	(b)				
1960	Oct. 4, 1959	13.61	195				
1961	May 5, 1961	15.67	380				
1962	Apr. 22, 1962	12.26	96				
1963	May 26, 1963	13.50	184				
1964	July 1, 1964	19.68	884				
1965	Apr. 4, 1965	12.74	130				

a Stage below bottom of gage.
b Discharge less than 50 cfs.

OSAGE RIVER BASIN

6-9190. Sac River near Stockton, Mo.

Location.--Lat 37°42'03", long 93°45'20", in SW¼NW¼ sec.11, T.34 N., R.26 W., on right bank 20 ft upstream from bridge on State Highway 32, three-quarters of a mile upstream from Bear Creek, and 2 miles east of Stockton.

Drainage area.--1,160 sq mi. Slope.--4.23 ft per mi.

Gage.--Nonrecording prior to May 4, 1960; recording gage thereafter. Datum of gage is 764.12 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Historical data.--Maximum stage known prior to 1943, 29.3 ft in July 1909.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1896	Dec. 19, 1895	27.25	a72,000
1909	July 1909	29.3	a92,000
1922	May 14, 1922	18.00	9,440
1923	May 24, 1923	15.80	7,930
1924	May 29, 1924	21.60	21,400
	July 20, 1924	20.90	14,800
	Aug. 17, 1924	21.05	15,000
1925	Sept. 22, 1925	22.30	23,900
1926	Nov. 8, 1925	15.40	8,600
1927	Apr. 1, 1927	24.95	34,800
	Apr. 10, 1927	24.60	33,200
	Apr. 16, 1927	22.00	22,800
	Apr. 20, 1927	18.85	13,300
	June 21, 1927	18.95	13,700
	July 21, 1927	24.45	32,300
	Aug. 9, 1927	21.50	21,000
	Aug. 18, 1927	23.10	27,000
1928	June 10, 1928	20.90	19,000
	June 29, 1928	20.98	19,300
1929	Apr. 9, 1929	20.70	18,400
	May 6, 1929	20.70	18,400
	May 13, 1929	20.50	17,800
	May 19, 1929	20.85	18,700
1930	Feb. 5, 1930	15.55	8,800
1931	May 20, 1931	19.80	15,700
	Aug. 7, 1931	22.40	24,300
1932	June 28, 1932	24.00	30,700
1933	Dec. 25, 1932	23.48	30,400
	May 14, 1933	20.30	20,000
	May 26, 1933	17.80	13,200
1934	Sept. 12, 1934	20.50	20,600
1935	Oct. 18, 1934	19.90	19,100
	Mar. 12, 1935	22.59	36,200
	June 8, 1935	17.45	12,300
	June 14, 1935	20.61	22,000
	June 21, 1935	17.45	12,300
1936	Sept. 28, 1936	17.06	11,800
1937	Nov. 2, 1936	20.46	19,300
	Jan. 15, 1937	19.30	15,200
	Jan. 31, 1937	18.28	12,700
	Apr. 30, 1937	19.50	15,800
	June 9, 1937	21.40	23,300
	June 14, 1937	23.15	34,300
1938	May 8, 1938	16.50	9,700
1939	May 8, 1939	17.3	10,900
1940	May 1, 1940	13.6	6,830
1941	Apr. 15, 1941	19.10	14,400
	Apr. 19, 1941	26.5	57,000
1942	Oct. 5, 1941	26.4	56,300
	Oct. 31, 1941	22.50	21,600
	June 18, 1942	19.80	12,800
1943	Dec. 28, 1942	22.20	20,300
	May 11, 1943	23.03	23,600
	May 19, 1943	31.8	120,000
1944	Aug. 27, 1944	22.0	27,000
1945	Mar. 3, 1945	18.40	12,500
	Apr. 14, 1945	25.6	56,400
	June 7, 1945	20.30	14,000
	Sept. 23, 1945	19.70	12,600
	Sept. 26, 1945	23.70	26,900
1946	Feb. 14, 1946	16.28	8,790
1947	Apr. 11, 1947	21.00	16,000
	Apr. 25, 1947	25.25	52,800
	July 1, 1947	20.00	13,200
1948	June 22, 1948	24.6	47,400
	June 26, 1948	20.04	19,300
1949	Feb. 16, 1949	19.2	14,400
1950	Oct. 23, 1949	21.9	26,300
	Jan. 5, 1950	20.37	18,400
	Jan. 14, 1950	21.57	24,300
1951	Feb. 21, 1951	21.40	20,200
	July 1, 1951	22.00	23,300
	July 4, 1951	25.35	50,100
	Sept. 10, 1951	20.16	15,600
1952	Nov. 12, 1951	18.80	11,900
1953	Apr. 24, 1953	11.85	4,860
1954	May 2, 1954	9.80	3,610
1955	Oct. 27, 1954	19.81	14,400
	Feb. 20, 1955	19.0	12,300
1956	July 14, 1956	10.50	4,040
1957	May 24, 1957	21.78	23,000
1958	Mar. 24, 1958	20.35	17,700
	July 8, 1958	20.8	19,100
	July 17, 1958	25.3	45,000
1959	Feb. 10, 1959	16.30	8,660

OSAGE RIVER BASIN

Peak stages and discharges of Sac River near Stockton, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 5, 1959	20.8	16,800	1963	May 26, 1963	18.68	11,200
	May 6, 1960	19.35	12,000				
				1964	June 14, 1964	18.72	11,400
1961	May 1, 1961	20.70	18,400				
	May 6, 1961	23.38	38,400	1965	Apr. 4, 1965	21.96	28,800
	May 9, 1961	25.30	55,500		Apr. 7, 1965	20.30	17,300
1962	Mar. 20, 1962	17.75	9,350				

a Annual peak only.

OSAGE RIVER BASIN

6-9192. Sac River tributary near Caplinger Mills, Mo.

Location.--Lat 37°48'22", long 93°51'00", in NE¼NE¼ sec.13, T.35 N., R.27 W., on left bank just upstream from culvert under State Highway 39, 6.2 miles south of junction of U. S. 54 and State 39, 2½ miles west of Caplinger Mills, and 10½ miles southeast of Eldorado Springs.

Drainage area.--0.14 sq mi. Slope.--149 ft per mi.

Gage.--Crest-stage gage; supplemental roving recorder installed Sept. 12, 1962.

Stage-discharge relation.--Defined at 45, 204, and 329 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 14, 1955	9.52	204				
1956	May 30, 1956	10.63	329				
1957	May 25, 1957	8.00	127				
1958	July 16, 1958	9.00	175				
1959	Mar. 5, 1959	5.23	21				
1960	May 5, 1960	5.60	32				
1961	May 5, 1961	8.74	160				
1962	June 29, 1962	6.52	64				
1963	May 26, 1963	5.36	25				
1964	Apr. 5, 1964	5.98	45				
1965	Apr. 5, 1965	7.23	92				

OSAGE RIVER BASIN

6-9195. Cedar Creek near Pleasant View, Mo.

Location.--Lat 37°50'03", long 93°52'31", in NE¼ sec.2, T.35 N., R.27 W., on downstream side of right pier of bridge on State Highway 39, 1½ miles north of Pleasant View, 1-3/4 miles downstream from Alder Creek, and 5-3/4 miles upstream from mouth.

Drainage area.--420 sq mi, approximately. Slope.--4.78 ft per mi.

Gage.--Nonrecording prior to Dec. 18, 1952; recording gage thereafter. Datum of gage is 739.5 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Historical data.--Maximum stage known, 27.7 ft July 30, 1909.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 20, 1909	a27.7	-	1954	May 2, 1954	8.63	1,570
1923	June 10, 1923	20.86	a7,310	1955	Oct. 27, 1954	20.23	6,700
					Feb. 20, 1955	19.17	5,860
1924	Dec. 13, 1923	16.75	4,460		Mar. 15, 1955	20.36	6,900
	Feb. 17, 1924	16.61	4,370		Mar. 21, 1955	16.93	4,570
	May 24, 1924	19.32	5,790		June 27, 1955	19.20	5,860
	May 29, 1924	22.92	11,400				
	June 10, 1924	16.60	4,370	1956	May 31, 1956	19.50	6,070
	June 21, 1924	20.11	6,430				
	July 12, 1924	24.00	16,000	1957	Apr. 4, 1957	14.79	3,620
	July 21, 1924	14.77	3,620		May 18, 1957	20.25	6,700
	Aug. 16, 1924	15.70	3,980		May 23, 1957	20.37	6,900
					May 26, 1957	22.40	9,900
1925	Mar. 19, 1925	18.75	5,490		June 2, 1957	15.94	4,100
	Apr. 4, 1925	16.10	4,140		July 1, 1957	18.07	5,180
	Sept. 23, 1925	21.78	8,440				
				1958	Mar. 24, 1958	20.47	7,000
1926	Nov. 8, 1925	19.12	5,660		July 17, 1958	27.35	33,900
	Aug. 21, 1926	15.00	3,700		July 25, 1958	17.98	5,120
	Sept. 6, 1926	17.40	4,750				
				1959	Feb. 10, 1959	17.31	4,770
1943	May 1943	24.7	a19,500		Mar. 6, 1959	19.28	5,930
1949	Jan. 24, 1949	20.2	6,530	1960	Oct. 14, 1959	15.07	3,740
	Feb. 17, 1949	15.5	3,900		May 7, 1960	20.82	7,300
	June 10, 1949	15.7	3,980				
	July 12, 1949	14.9	3,660	1961	May 1, 1961	22.60	12,200
					May 6, 1961	26.15	27,700
1950	July 17, 1950	15.1	3,740		Sept. 14, 1961	16.35	4,470
	July 19, 1950	22.38	9,900				
	Aug. 28, 1950	15.7	4,020	1962	Nov. 3, 1961	16.48	4,520
					Mar. 21, 1962	22.10	10,600
1951	Feb. 21, 1951	22.7	10,800		June 10, 1962	15.87	4,200
	June 23, 1951	17.0	4,620				
	July 1, 1951	22.2	9,400	1963	May 27, 1963	20.50	7,300
	July 4, 1951	25.56	24,300				
	July 11, 1951	19.75	6,320	1964	Apr. 6, 1964	19.40	6,320
	Aug. 28, 1951	19.45	6,000		June 14, 1964	16.10	4,300
	Sept. 10, 1951	24.29	17,500				
	Sept. 13, 1951	19.0	5,720	1965	Apr. 4, 1965	21.47	8,900
					May 9, 1965	16.40	4,220
1952	Nov. 12, 1951	21.50	8,160		June 14, 1965	22.63	11,100
	Feb. 2, 1952	14.70	3,580		Sept. 22, 1965	16.10	4,070
1953	Apr. 24, 1953	10.67	2,190				

a Annual peak only.

OSAGE RIVER BASIN

6-9205. Osage River at Osceola, Mo.

Location.--Lat 38°03'44", long 93°41'37", in NE¼NE¼ sec.17, T.38 N., R.25 W., half a mile downstream from Gallinipper Creek, 1 mile downstream from hydroelectric plant of Missouri Public Service Co., and 1 mile northeast of Osceola.

Drainage area.--8,220 sq mi, approximately. Slope.--1.66 ft per mi.

Gage.--Nonrecording gage Mar. 1, 1917, to Sept. 30, 1928; recording gage since Nov. 28, 1930. At site 1½ miles upstream at datum 3.67 ft higher Mar. 1, 1917, to Sept. 30, 1928. Datum of gage is 679.23 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Gage heights adjusted to present site and datum. Low and medium flow regulated by power plant 1 mile upstream since 1930. Peak flows not materially affected by regulation. Base for partial-duration series, 32,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	45	a150,000	1937	Nov. 4, 1936	20.61	35,700
					June 12, 1937	24.04	44,500
1896	Dec. 1895	35.3	a90,000		June 17, 1937	25.90	49,500
1918	Apr. 29, 1918	17.0	16,100	1938	May 30, 1938	24.97	47,300
1919	May 21, 1919	18.9	31,100	1939	May 9, 1939	14.55	20,200
1920	Oct. 30, 1919	21.70	37,500	1940	May 2, 1940	12.36	15,300
	Mar. 28, 1920	23.4	41,800				
				1941	Apr. 21, 1941	30.22	62,600
1921	Aug. 16, 1921	19.1	31,500				
				1942	Oct. 7, 1941	30.00	61,600
1922	Mar. 20, 1922	23.80	42,300		Nov. 2, 1941	31.78	71,100
	Apr. 2, 1922	23.60	41,900		June 22, 1942	23.52	40,600
	Apr. 10, 1922	30.8	65,000				
	Apr. 18, 1922	29.7	61,200	1943	Dec. 30, 1942	24.96	44,600
					May 13, 1943	28.60	55,200
1923	June 11, 1923	20.7	35,200		May 21, 1943	41.48	146,000
	June 17, 1923	22.2	38,700		June 9, 1943	21.85	36,200
1924	May 31, 1924	21.40	36,800	1944	Mar. 23, 1944	21.36	35,400
	July 14, 1924	24.40	43,800		Apr. 13, 1944	22.47	38,000
	July 21, 1924	20.80	35,400		May 1, 1944	31.56	69,500
					Aug. 29, 1944	22.68	38,600
1925	Sept. 24, 1925	19.31	32,000				
				1945	Mar. 21, 1945	21.18	35,200
1926	Nov. 9, 1925	18.9	31,100		Mar. 26, 1945	21.71	36,400
					Apr. 17, 1945	31.11	66,800
1927	Oct. 7, 1926	22.00	38,200		Apr. 23, 1945	29.39	58,700
	Oct. 11, 1926	24.50	44,800				
	Mar. 22, 1927	23.40	41,800	1946	Aug. 14, 1946	20.30	33,100
	Apr. 2, 1927	27.30	53,200				
	Apr. 11, 1927	32.4	70,900	1947	Nov. 1, 1946	25.73	46,500
	Apr. 17, 1927	32.10	69,800		Apr. 13, 1947	25.42	45,700
	June 22, 1927	26.10	49,500		Apr. 27, 1947	27.95	53,000
	July 23, 1927	23.80	42,900				
	Aug. 9, 1927	30.25	62,900	1948	June 24, 1948	29.03	56,900
	Aug. 20, 1927	30.50	64,000		Aug. 2, 1948	23.80	41,700
1928	Oct. 8, 1927	28.2	56,100	1949	Jan. 24, 1949	20.04	32,600
	June 11, 1928	25.35	47,500		Feb. 18, 1949	22.55	38,700
	June 19, 1928	19.70	32,900				
	June 30, 1928	22.20	38,700	1950	July 19, 1950	24.20	43,500
1929	May 21, 1929	b32.4	a68,000	1951	Feb. 22, 1951	23.85	42,500
					June 24, 1951	20.38	34,300
1931	May 21, 1931	17.35	27,700		July 6, 1951	35.87	98,300
					July 20, 1951	35.07	92,300
1932	June 30, 1932	16.40	25,300		Sept. 14, 1951	32.10	72,400
1933	Dec. 26, 1932	20.66	36,000	1952	Nov. 14, 1951	21.39	35,900
	May 16, 1933	21.17	37,200				
				1953	Apr. 25, 1953	12.43	16,100
1934	Sept. 13, 1934	11.30	13,800				
				1954	May 2, 1954	15.04	21,500
1935	Mar. 14, 1935	21.32	37,500				
	June 9, 1935	29.35	59,700	1955	Feb. 22, 1955	19.20	30,800
1936	Sept. 29, 1936	16.86	26,200	1956	May 31, 1956	19.12	30,500

OSAGE RIVER BASIN

Peak stages and discharges of Osage River at Osceola, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 25, 1957	26.26	48,100	1961	Sept. 22, 1961	24.78	44,200
1958	Mar. 25, 1958	21.17	35,200	1962	Mar. 21, 1962	23.50	41,000
	July 20, 1958	33.50	81,200	1963	May 27, 1963	18.25	28,100
1959	Feb. 11, 1959	15.92	22,900	1964	June 15, 1964	21.32	35,400
1960	May 6, 1960	22.82	39,200	1965	Apr. 6, 1965	25.56	46,800
1961	May 10, 1961	36.92	113,000		June 16, 1965	23.68	41,400

a Annual peak only.
b Furnished by U. S. Weather Bureau; affected by backwater due to dam construction.

OSAGE RIVER BASIN

6-9208. Big Muddy Creek at Lowry City, Mo.

Location.--Lat 38°09'29", long 93°43'22", in NE¼SE¼ sec.12, T.39 N., R.26 W., on right bank just upstream from culvert under State Highway 13, 1 mile north of Lowry City.

Drainage area.--0.31 sq mi. Slope.--48.7 ft per mi.

Gage.--Crest-stage gage. At site 0.1 mile upstream and at different datum prior to Jan. 7, 1965.

Stage-discharge relation.--Defined by current-meter measurements below 4.8 cfs and by indirect measurements at 34.0, 36.9, 59.2, 62.9, and 160 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 29, 1955	7.47	42				
1956	July 26, 1956	8.71	96				
1957	June 30, 1957	9.65	160				
1958	Sept. 2, 1958	10.05	180				
1959	July 4, 1959	8.98	110				
1960	Oct. 10, 1959	10.08	180				
1961	May 5, 1961	9.95	175				
1962	Feb. 18, 1962	8.99	110				
1963	Oct. 13, 1962	9.99	180				
1964	Aug. 14, 1964	8.39	80				
1965	Sept. 4, 1965	8.30	(a)				

a Discharge not determined.

OSAGE RIVER BASIN

6-9210. Pomme de Terre River near Bolivar, Mo.

Location.--Lat 37°36', long 93°19', in N½ sec.11, T.33 N., R.22 W., on downstream side of left main pier of bridge on State Highway 64 in Burns, 4-3/4 miles upstream from Hominy Creek and 5½ miles east of Bolivar.

Drainage area.--225 sq mi. Slope.--9.0 ft per mi.

Gage.--Nonrecording prior to June 23, 1952, recording thereafter. Datum of gage is 913.97 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 5,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 20, 1951	10.1	5,920	1958	Mar. 23, 1958	13.30	9,740
	June 30, 1951	13.7	9,560		July 8, 1958	12.70	8,860
	July 4, 1951	11.0	6,780		July 11, 1958	10.62	6,660
	Aug. 28, 1951	12.06	7,880		July 16, 1958	17.30	17,600
	Sept. 24, 1951	13.00	8,790				
				1959	Feb. 10, 1959	10.58	6,440
1952	Feb. 1, 1952	9.00	4,880				
				1960	Oct. 4, 1959	11.45	7,320
1953	Apr. 24, 1953	6.98	3,250				
				1961	Apr. 30, 1961	17.60	18,300
1954	May 2, 1954	6.55	2,920		May 5, 1961	17.15	17,300
					May 8, 1961	14.00	10,700
1955	Oct. 26, 1954	11.10	6,880				
	Feb. 20, 1955	11.80	7,580	1962	May 30, 1962	8.40	4,230
1956	May 31, 1956	9.80	5,640	1963	May 26, 1963	11.90	7,880
					June 15, 1963	11.52	7,430
1957	Apr. 3, 1957	11.77	7,580				
	May 17, 1957	10.87	6,680	1964	Apr. 5, 1964	8.90	4,650
	May 21, 1957	11.0	6,780				
	May 23, 1957	15.88	12,900	1965	Apr. 3, 1965	10.79	6,960
	May 25, 1957	10.99	7,120		Apr. 5, 1965	13.83	11,000
	June 9, 1957	10.35	6,470		July 11, 1965	14.40	12,000
					Sept. 22, 1965	10.20	6,270
1958	Dec. 17, 1957	11.60	7,790				

OSAGE RIVER BASIN

6-9211. Olinger Creek near Buffalo, Mo.

Location.--Lat 37°40'47", long 93°06'10", in NW¼SW¼SW¼ sec.11, T.34 N., R.20 W., 20 ft upstream from concrete culvert under U. S. Highway 65, 0.2 mile north of Dallas County Road Z, and 2½ miles north of Buffalo.

Drainage area.--1.96 sq mi. Slope.--47.8 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Mar. 8, 1963, and removed May 18, 1965.

Stage-discharge relation.--Defined by indirect measurements at 550, 772, and 3,250 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 30, 1957	9.11	555				
1958	July 16, 1958	9.33	590				
1959	June 11, 1959	10.65	770				
1960	Oct. 4, 1959	8.48	460				
1961	May 5, 1961	16.4	3,250				
1962	July 6, 1962	9.36	600				
1963	Oct. 13, 1962	10.06	700				
1964	Apr. 5, 1964	8.19	380				
1965	Sept. 22, 1965	8.70	480				

OSAGE RIVER BASIN

6-9212. Lindley Creek near Polk, Mo.

Location.--Lat 37°45'02", long 93°15'58", in NE¼SE¼ sec.29, T.35 N., R.21 W., 2½ miles northeast of Polk, and 11 miles upstream from Ingalls Creek.

Drainage area.--112 sq mi. Slope.--11.6 ft per mi.

Gage.--Nonrecording prior to Sept. 25, 1957, recording thereafter. Datum of gage is 884.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by slope-conveyance study.

Bankfull stage.--17 ft.

Historical data.--Flood of September 1914 reached a stage of about 25.2 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 17, 1957	14.8	3,730	1960	Nov. 4, 1959	13.83	3,980
	May 22, 1957	14.2	3,270		Dec. 18, 1959	15.97	4,780
	May 25, 1957	15.5	4,320		May 6, 1960	17.07	6,200
	June 30, 1957	13.4	2,700				
				1961	Mar. 6, 1961	14.01	3,120
1958	Mar. 9, 1958	14.73	3,650		Apr. 30, 1961	16.67	5,570
	Mar. 23, 1958	15.92	4,680		May 5, 1961	23.60	28,000
	May 30, 1958	13.57	2,840		May 8, 1961	19.30	12,200
	July 7, 1958	12.40	2,090				
	July 12, 1958	16.30	5,090	1962	Mar. 20, 1962	16.83	6,260
	July 16, 1958	19.16	12,000		Mar. 25, 1962	12.40	2,090
	July 17, 1958	18.7	10,100				
	July 31, 1958	13.66	2,900	1963	Oct. 13, 1962	17.85	8,240
	Aug. 12, 1958	13.72	2,900		May 4, 1963	15.25	4,070
	Sept. 2, 1958	17.8	7,580		May 26, 1963	17.10	6,780
					June 15, 1963	13.38	2,700
1959	Feb. 10, 1959	16.05	4,780		June 19, 1963	12.70	2,260
	June 1, 1959	13.89	3,040				
	June 12, 1959	15.29	4,140	1964	Apr. 5, 1964	16.70	6,090
	July 5, 1959	13.72	2,900				
	July 17, 1959	14.77	3,730	1965	Apr. 3, 1965	14.26	3,340
					Apr. 6, 1965	15.97	5,000
1960	Oct. 2, 1959	17.65	7,160		June 24, 1965	14.28	3,340
	Oct. 4, 1959	17.41	6,760		Sept. 22, 1965	16.97	6,600
	Oct. 13, 1959	15.50	4,320				

OSAGE RIVER BASIN

6-9213. North Fork Ingalls Creek near Louisburg, Mo.

Location.--Lat 37°46'46", long 93°08'42", in NE¼NE¼SW¼ sec.16, T.35 N., R.20 W., on left bank just upstream from culvert under State Highway 65, 1.5 miles north of junction C and 65 in Louisburg.

Drainage area.--0.32 sq mi. Slope.--87.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 62 and 166 cfs by indirect measurements and below 5 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 16, 1958	5.84	125				
1959	June 11, 1959	5.99	135				
1960	May 6, 1960	6.13	145				
1961	May 7, 1961	6.44	166				
1962	Mar. 20, 1962	4.07	30				
1963	May 26, 1963	4.16	34				
1964	Apr. 5, 1964	4.60	54				
1965	Sept. 22, 1965	4.16	34				

OSAGE RIVER BASIN

6-9214. Ferguson Branch at Nemo, Mo.

Location.--Lat 37°52'50", long 93°15'30", in NE¼SE¼ sec.8, T.36 N., R.21 W., on County Road D, 0.5 mile northeast of Nemo.

Drainage area.--0.18 sq mi. Slope.--154 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 40, 55.6 and 304 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 30, 1957	10.00	304				
1958	Sept. 1, 1958	6.07	25				
1959	May 27, 1959	6.32	31				
1960	Oct. 3, 1959	6.99	56				
1961	May 5, 1961	6.49	38				
1962	June 25, 1962	5.9	20				
1963	May 26, 1963	6.10	25				
1964	Apr. 5, 1964	6.14	26				
1965	June 23, 1965	6.01	22				

OSAGE RIVER BASIN

6-9215. Pomme de Terre River at Hermitage, Mo.

Location.--Lat 37°56'45", long 93°18'35", in SE¼NE¼ sec.23, T.37 N., R.22 W., at bridge on U. S. Highway 54, a quarter of a mile east of Hermitage, and 1½ miles downstream from Mill (Crane) Creek.

Drainage area.--655 sq mi. Slope.--4.8 ft per mi.

Gage.--Nonrecording July 23, 1921, to July 28, 1937; recording gage thereafter. At site 1.6 miles upstream and at different datum prior to Oct. 1, 1925. Datum of gage is 727.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 41,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Flow regulated since June 28, 1960 by Pomme de Terre Reservoir (maximum capacity, 650,000 acre-ft). Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	18.95	16,600	1942	Oct. 5, 1941	30.70	44,300
					Oct. 31, 1941	23.20	19,800
1923	June 4, 1923	12.38	7,600		June 18, 1942	29.60	39,900
					June 21, 1942	21.10	15,600
1924	May 29, 1924	22.56	24,600				
	June 10, 1924	20.00	18,800	1943	Dec. 27, 1942	24.58	23,800
					May 11, 1943	24.20	23,000
1925	Sept. 22, 1925	15.80	11,400		May 19, 1943	29.48	39,900
1926	Nov. 8, 1925	15.84	9,000	1944	May 1, 1944	19.36	13,000
					Aug. 27, 1944	23.52	21,000
1927	Oct. 5, 1926	19.30	13,100				
	Mar. 20, 1927	20.40	14,600	1945	Apr. 3, 1945	19.30	12,800
	Apr. 1, 1927	23.50	19,000		Apr. 14, 1945	26.92	30,700
	Apr. 16, 1927	19.70	13,600		Sept. 23, 1945	20.29	14,400
	June 1, 1927	23.60	19,100		Sept. 25, 1945	25.27	26,600
	Aug. 8, 1927	36.45	70,000				
				1946	Aug. 14, 1946	27.84	33,700
1928	June 10, 1928	22.50	19,800				
	June 29, 1928	19.30	13,100	1947	Nov. 1, 1946	24.20	22,700
	Aug. 2, 1928	21.16	15,700		Apr. 11, 1947	22.69	19,100
					Apr. 25, 1947	28.44	35,800
1929	Apr. 9, 1929	19.72	13,600				
	May 7, 1929	23.95	23,700	1948	June 22, 1948	29.06	38,400
	May 13, 1929	20.90	15,300		June 26, 1948	18.90	12,300
	May 19, 1929	20.24	14,300		July 20, 1948	20.11	14,100
1930	Feb. 4, 1930	15.10	8,300	1949	Feb. 15, 1949	19.87	13,800
					July 7, 1949	21.23	16,000
1931	May 20, 1931	21.46	16,100				
	Aug. 6, 1931	19.40	13,200	1950	Jan. 5, 1950	20.38	14,500
					Jan. 14, 1950	22.62	18,900
1932	June 28, 1932	22.20	19,100		May 31, 1950	19.41	13,000
1933	Dec. 25, 1932	22.20	19,100	1951	Feb. 21, 1951	19.98	13,900
	May 14, 1933	19.95	14,000		July 1, 1951	26.40	29,000
					July 11, 1951	20.3	14,400
1934	Apr. 16, 1934	12.14	5,530		Sept. 10, 1951	23.73	21,500
1935	Mar. 12, 1935	23.76	23,200	1952	Feb. 2, 1952	18.82	12,100
	May 29, 1935	20.82	16,000				
	June 15, 1935	29.38	42,200	1953	Apr. 24, 1953	15.55	8,330
1936	Sept. 28, 1936	17.11	9,740	1954	May 3, 1954	11.01	4,450
1937	Nov. 3, 1936	23.05	21,000	1955	Feb. 20, 1955	20.03	13,900
	Jan. 15, 1937	20.50	16,500		Mar. 15, 1955	22.05	17,600
	Jan. 31, 1937	19.70	15,100		Mar. 21, 1955	20.05	13,900
	June 10, 1937	25.97	29,900				
	June 16, 1937	19.00	13,900	1956	May 31, 1956	22.95	19,800
1938	May 24, 1938	15.50	9,120	1957	May 17, 1957	21.66	17,000
					May 24, 1957	19.27	12,800
1939	Apr. 6, 1939	21.28	17,100				
	May 8, 1939	19.80	14,000	1958	Mar. 24, 1958	23.40	18,900
					July 18, 1958	27.34	28,000
1940	May 1, 1940	15.70	8,060		Sept. 3, 1958	19.95	13,500
1941	Apr. 16, 1941	21.72	16,700	1959	Feb. 10, 1959	18.03	10,800
	Apr. 19, 1941	29.44	39,100				

OSAGE RIVER BASIN

Peak stages and discharges of Pomme de Terre River at Hermitage, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 5, 1959	21.6	15,900	1963	May 26, 1963	10.30	a3,740
	May 6, 1960	20.26	13,900				
				1964	Apr. 5, 1964	12.43	a5,290
1961	May 5, 1961	18.67	a11,600				
				1965	June 23, 1965	13.76	a6,420
1962	Mar. 23, 1962	13.58	a6,250				

a Annual peak only.

OSAGE RIVER BASIN

6-9216. South Grand River at Urich, Mo.

Location.--Lat 38°27'08", long 94°00'13", in SE¼NW¼ sec.10, T.42 N., R.28 W., on left bank 10 ft downstream from bridge on County Highway K, half a mile south of Urich, 1 mile upstream from White Oak Creek, and 1.7 miles downstream from Knob Creek.

Drainage area.--670 sq mi.

Gage.--Recording. Datum of gage, 715.9 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,900 cfs.

Remarks.--Base for partial-duration series, 5,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 13, 1961	22.95	6,400	1963	May 26, 1963	23.80	7,940
	Apr. 10, 1961	24.62	11,900				
	Apr. 12, 1961	23.20	6,690	1964	Apr. 5, 1964	22.40	5,690
	May 7, 1961	25.95	22,200		Apr. 21, 1964	22.60	5,910
	May 23, 1961	23.35	7,050		Apr. 23, 1964	22.50	5,800
	Aug. 2, 1961	22.50	5,800		May 28, 1964	23.60	7,460
	Sept. 4, 1961	22.45	5,690		June 15, 1964	23.70	7,690
	Sept. 15, 1961	26.84	29,200				
				1965	Jan. 23, 1965	23.45	7,050
1962	Oct. 13, 1961	23.08	6,540		Apr. 6, 1965	23.20	6,690
	Nov. 3, 1961	24.94	14,500		June 6, 1965	24.20	9,300
	Nov. 17, 1961	24.50	11,200		June 15, 1965	24.95	15,300
	Mar. 21, 1962	25.08	15,700		Sept. 5, 1965	25.77	20,600
					Sept. 22, 1965	24.90	14,100

OSAGE RIVER BASIN

6-9217. West Branch Crawford Creek near Lees Summit, Mo.

Location.--Lat 38°52'48", long 94°12'52", in SW¼SE¼ sec.15, T.47 N., R.30 W., on left bank just upstream from culvert under U. S. Highway 50, 0.2 mile east of county road 20 E, 1.2 miles east of Cockrell, and about 8.5 miles southeast of Lees Summit.

Drainage area.--0.80 sq mi. Slope.--59.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 221, 345, and 839 cfs.

Remarks.--Tailwater gage used as reference gage to Mar. 16, 1961 and for 1965 water year. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 26, 1955	12.46	221				
1956	Apr. 28, 1956	13.47	345				
1957	Sept. 20, 1957	(a)	(b)				
1958	July 30, 1958	12.41	220				
1959	Aug. 31, 1959	12.29	200				
1960	Apr. 6, 1960	15.57	839				
1961	Sept. 13, 1961	17.46	700				
1962	Nov. 2, 1961	13.88	240				
1963		(a)	(c)				
1964	Apr. 4, 1964	12.19	110				
1965	July 19, 1965	15.73	900				

a Stage below bottom of gage.
b Less than 50 cfs.
c Less than 100 cfs.

OSAGE RIVER BASIN

6-9217.2 Big Creek at Blairstown, Mo.

Location.--Lat 38°33'17", long 93°57'54", in NE¼SW¼ sec.36, T.44 N., R.28 W., on downstream side of right bridge pier on County Highway N, 0.3 mile west of Blairstown, 0.8 mile downstream from Bear Creek and 1½ miles upstream from Brushy Creek.

Drainage area.--414 sq mi.

Gage.--Recording. Datum of gage is 734.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter below 14,000 cfs.

Remarks.--Base for partial-duration series, 4,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 13, 1961	21.92	6,300	1962	Mar. 21, 1962	23.03	9,050
	Mar. 27, 1961	21.35	5,040				
	Apr. 9, 1961	22.40	6,500	1963	Oct. 13, 1962	23.50	13,400
	May 6, 1961	23.74	14,600				
	Aug. 2, 1961	23.00	10,700	1964	June 14, 1964	21.76	5,240
	Sept. 4, 1961	21.86	5,450				
	Sept. 14, 1961	25.40	24,400	1965	June 5, 1965	22.62	8,500
					July 20, 1965	22.90	10,200
1962	Nov. 3, 1961	22.46	7,750		Sept. 5, 1965	22.50	8,000
	Nov. 16, 1961	22.15	6,300		Sept. 21, 1965	22.48	8,000

OSAGE RIVER BASIN

6-9217.4. Brushy Creek near Blairstown, Mo.

Location.--Lat 38°31'42", long 94°00'37", in NE¼SE¼ sec.9, T.43 N., R.28 W., just upstream from culvert under county highway, 3 miles upstream from mouth, and 3½ miles southwest of Blairstown.

Drainage area.--1.15 sq mi. Slope.--70.8 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 300 and 1,300 cfs by indirect measurements. Defined below 175 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 5, 1961	9.90	1,270				
1962	Nov. 2, 1961	5.80	415				
1963	May 26, 1963	5.30	345				
1964	Apr. 21, 1964	5.47	360				
1965	June 9, 1965	7.63	720				

OSAGE RIVER BASIN

6-9218. Granddaddy Creek near Urich, Mo.

Location.--Lat 38°21'49", long 94°00'47", in NW¼NW¼SW¼ sec.10, T.41 N., R.28 W., on left bank just upstream from culvert under County Route K, 0.3 mile north of junction of County Route K and State Highway 18, and 6½ miles south of Urich.

Drainage area.--0.92 sq mi. Slope.--36.2 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 59.5, 129, 327, and 1,150 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Aug. 16, 1958	8.43	305				
1959	May 18, 1959	10.23	1,150				
1960	May 5, 1960	8.28	290				
1961	Sept. 13, 1961	9.64	710				
1962	Oct. 13, 1961	7.99	260				
1963	May 24, 1963	9.69	750				
1964	Apr. 23, 1964	7.06	170				
1965	Sept. 21, 1965	9.67	740				

OSAGE RIVER BASIN

6-9220. South Grand River near Brownington, Mo.

Location.--Lat 38°15'45", long 93°42'50", in NW¼ sec.17, T.40 N., R.25 W., at county highway bridge, 150 ft downstream from St. Louis-San Francisco Railway Co. bridge, 200 ft downstream from Deepwater Creek, and 1 mile north of Brownington.

Drainage area.--1,660 sq mi, approximately. Slope.--2.1 ft per mi.

Gage.--Nonrecording. Datum of gage is 676.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 47,000 cfs and extended to 63,900 cfs by logarithmic plotting.

Bankfull stage.--16 ft.

Remarks.--Channel improvement of 57½ miles of main channel and some tributaries completed in 1921; all work some distance above gage. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Mar. 1, 1915	30	a25,000	1943	Dec. 29, 1942	23.15	12,100
					May 12, 1943	23.35	12,300
1922	Mar. 15, 1922	25.70	18,700		May 20, 1943	37.88	52,700
	Mar. 27, 1922	20.30	13,400		June 5, 1943	28.00	19,000
	Apr. 9, 1922	28.0	21,100				
				1944	Mar. 18, 1944	24.92	14,100
1923	June 13, 1923	24.65	17,500		Apr. 13, 1944	26.50	16,400
					Apr. 25, 1944	35.8	43,600
1924	June 29, 1924	18.20	11,500				
				1945	Apr. 18, 1945	26.40	16,200
1925	Apr. 6, 1925	20.25	13,300		May 27, 1945	24.20	13,200
	June 3, 1925	17.15	10,600		May 31, 1945	24.70	13,800
					June 12, 1945	21.35	10,500
1926	Nov. 8, 1925	15.70	9,240		July 3, 1945	21.50	10,600
	Apr. 9, 1926	19.00	12,200				
				1946	Jan. 8, 1946	24.4	13,500
1927	Mar. 22, 1927	27.25	16,500		Aug. 15, 1946	23.30	12,200
	Apr. 3, 1927	25.75	14,300				
	Apr. 17, 1927	-	14,900	1947	Mar. 15, 1947	24.75	14,000
	May 10, 1927	22.49	10,900		Apr. 8, 1947	26.40	16,200
	June 5, 1927	20.33	9,480		Apr. 12, 1947	26.02	15,600
					Apr. 27, 1947	23.20	12,100
1928	Oct. 5, 1927	28.52	18,600		June 10, 1947	24.34	13,400
	Feb. 9, 1928	22.57	11,000		June 27, 1947	27.15	17,600
1929	Nov. 19, 1928	39.9	63,900	1948	Mar. 22, 1948	20.15	9,420
	Apr. 9, 1929	20.10	9,340		June 27, 1948	26.15	15,900
	May 14, 1929	29.03	21,000		July 24, 1948	27.40	17,900
	May 20, 1929	25.73	15,200		July 29, 1948	30.8	25,900
	June 5, 1929	20.56	9,740				
	June 25, 1929	22.62	11,500	1949	Jan. 18, 1949	20.7	9,830
					Feb. 15, 1949	22.35	11,400
1930	Feb. 11, 1930	15.32	6,880		June 11, 1949	20.1	9,340
1931	May 21, 1931	7.85	2,820	1950	Oct. 24, 1949	22.05	11,000
					Aug. 30, 1950	27.20	17,600
1932	Nov. 26, 1931	19.80	9,580				
				1951	July 1, 1951	32.60	31,600
1933	May 13, 1933	11.94	4,840		July 15, 1951	35.5	42,400
					Sept. 7, 1951	25.45	14,800
1934	Sept. 30, 1934	7.07	1,990		Sept. 10, 1951	25.90	15,500
1935	June 4, 1935	31.29	29,400	1952	Nov. 15, 1951	20.08	9,340
	June 29, 1935	24.95	14,200		Mar. 13, 1952	20.78	9,920
1936	Sept. 28, 1936	15.16	6,820	1953	May 3, 1953	19.16	8,620
1937	Mar. 26, 1937	20.38	9,900	1954	May 5, 1954	14.24	5,440
	May 24, 1937	23.83	12,800				
	June 11, 1937	21.05	10,400	1955	Jan. 7, 1955	20.25	9,420
1938	May 26, 1938	31.89	31,100	1956	Oct. 7, 1955	22.45	11,400
1939	Apr. 17, 1939	17.8	8,040	1957	July 4, 1957	20.1	9,340
1940	June 11, 1940	11.2	4,140	1958	Mar. 11, 1958	24.50	13,600
					Apr. 6, 1958	23.25	12,100
1941	Apr. 20, 1941	16.0	7,210		Aug. 4, 1958	28.25	19,400
1942	Oct. 7, 1941	21.80	11,000	1959	May 21, 1959	23.70	12,600
	Nov. 3, 1941	25.0	14,200				
	June 21, 1942	23.97	13,000	1960	Apr. 19, 1960	30.45	24,700

Peak stages and discharges of South Grand River near Brownington, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	May 3, 1960	22.7	11,600	1962	Mar. 23, 1962	27.70	18,500
	May 8, 1960	24.0	13,000				
				1963	May 27, 1963	22.50	11,400
1961	Apr. 12, 1961	23.95	13,000				
	May 9, 1961	35.00	40,400	1964	June 16, 1964	23.9	12,900
	Sept. 17, 1961	34.70	39,200				
				1965	Sept. 7, 1965	29.40	22,000
1962	Nov. 5, 1961	25.60	15,000		Sept. 24, 1965	24.40	13,500
	Nov. 19, 1961	21.60	10,600				

a Annual peak only.

OSAGE RIVER BASIN

6-9225. Osage River at Warsaw, Mo.

Location.--Lat 38°14'40", long 92°23'10", in NE¼SW¼ sec.17, T.40 N., R.22 W., at Warsaw.

Drainage area.--11,500 sq mi, approximately. Slope.--1.46 ft per mi.

Gage.--Nonrecording. At various sites and datums in vicinity prior to Aug. 6, 1925. Datum of gage is 631.80 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements. Affected at times by storage in Lake of the Ozarks since 1931.

Bankfull stage.--31 ft.

Historical data.--Floods in 1872, 1874, and on Feb. 1, 1916, reached stages of 33.1, 26.2, and 35.5 ft respectively, from reports of U. S. Weather Bureau.

Remarks.--Gage heights adjusted to present site and datum. Peaks for period prior to Oct. 1, 1925, and after Apr. 30, 1931, computed from plotted U. S. Weather Bureau gage readings. Base for partial-duration series, 40,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	44.46	a185,000
1855	1855	39.5	a112,000
1872	1872	33.1	-
1874	1874	26.2	-
1896	December 1895	38.4	a108,000
1905	April 1905	37.4	a104,000
1916	Feb. 1, 1916	35.5	-
1918	Apr. 30, 1918	16.6	32,900
1919	May 20, 1919	23.3	50,800
1920	Oct. 29, 1919	28.7	68,600
	Mar. 27, 1920	28.9	69,300
	Sept. 15, 1920	20.3	42,300
	Sept. 28, 1920	19.7	40,700
1921	Sept. 15, 1921	21.2	a44,800
1922	Mar. 15, 1922	26.7	61,800
	Mar. 20, 1922	25.7	58,500
	Apr. 1, 1922	25.5	57,800
	Apr. 4, 1922	26.8	62,100
	Apr. 12, 1922	34.9	90,000
1923	June 12, 1923	22.2	47,600
	June 17, 1923	23.4	51,100
1924	Dec. 15, 1923	19.7	40,700
	May 31, 1924	22.7	49,000
	June 11, 1924	21.8	46,400
	June 21, 1924	21.0	44,200
	July 15, 1924	25.5	57,800
	July 22, 1924	21.1	44,500
1925	Apr. 6, 1925	17.8	35,900
1926	Nov. 9, 1925	20.1	41,800
1927	Oct. 5, 1926	24.0	53,000
	Oct. 11, 1926	24.7	55,200
	Mar. 22, 1927	28.6	68,200
	Apr. 2, 1927	28.7	68,600
	Apr. 17, 1927	34.45	88,300
	May 10, 1927	21.2	44,800
	June 3, 1927	26.7	61,800
	June 22, 1927	26.3	60,500
	July 24, 1927	20.4	42,600
	Aug. 10, 1927	31.8	79,200
	Aug. 21, 1927	25.9	59,200
1928	Oct. 3, 1927	27.0	62,800
	Oct. 9, 1927	28.2	66,900
	June 11, 1928	23.7	52,000
	July 1, 1928	22.2	47,600
1929	Nov. 24, 1928	28.1	66,500
	Apr. 9, 1929	26.2	60,200
	Apr. 22, 1929	19.7	40,700
	Apr. 25, 1929	19.6	40,500
	May 8, 1929	23.0	49,900
	May 19, 1929	34.8	89,700
1930	Feb. 9, 1930	16.4	32,400
1935	June 3, 1935	34.1	a94,000
1941	Apr. 21, 1941	33.8	a80,000
1942	Nov. 2, 1941	34.5	a88,600
1943	May 22, 1943	44.54	a220,000
1946	Aug. 14, 1946	35.2	a76,000
1947	Apr. 27, 1947	34.40	a78,300
1951	July 7, 1951	40.1	ab120,000

a Annual peak only.
b Estimated.
Note: No rating definition below stage of about 34 ft since construction of Bagnell Dam in 1931, due to backwater conditions at gage.

OSAGE RIVER BASIN

6-9226. Little Turkey Creek tributary near Warsaw, Mo.

Location.--Lat 38°10'30", long 93°17'30", in NW¼SW¼ sec.1, T.39 N., R.22 W., on right bank, just upstream from culvert on State Highway 35, 1½ miles east of Junction 35 and State Highway 65, and about 5 miles southeast of Warsaw.

Drainage area.--0.18 sq mi. Slope.--178 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 73 and 112 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Sept. 21, 1959	10.50	112				
1960	Apr. 24, 1960	10.42	110				
1961	May 5, 1961	11.10	155				
1962	Mar. 20, 1962	9.87	74				
1963	Sept. 7, 1963	10.08	86				
1964	Apr. 27, 1964	11.00	150				
1965	June 23, 1965	10.96	140				

OSAGE RIVER BASIN

6-9227. Chub Creek near Lincoln, Mo.

Location.--Lat 38°26'12", long 93°18'07", in NW¼ sec.12, T.42 N., R.22 W., on left downstream wingwall of culvert under State Highway 65, 3.4 miles north of Lincoln.

Drainage area.--2.86 sq mi. Slope.--40.3 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since Apr. 28, 1964.

Stage-discharge relation.--Defined by indirect measurements at 324, 657, and 850 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 19, 1958	18.96	657				
1959	Nov. 16, 1958	19.68	790				
1960	May 5, 1960	18.78	620				
1961	May 5, 1961	19.52	880				
1962	Mar. 20, 1962	18.35	550				
1963	Sept. 7, 1963	19.48	750				
1964	June 14, 1964	19.50	750				
1965	Sept. 4, 1965	20.86	850				

OSAGE RIVER BASIN

6-9230. Niangua Branch at Marshfield, Mo.

Location.--Lat 37°20'50", long 92°54'45", in SE¼NE¼ sec.4, T.30 N., R.18 W., at concrete culvert under County Highway W, at north edge of Marshfield.

Drainage area.--0.82 sq mi. Slope.--116 ft per mi.

Gage.--Recording prior to Sept. 9, 1959; crest-stage gage thereafter. Datum of gage is 1,357.83 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 34 cfs and by indirect measurements at 176, 320, and 442 cfs.

Bankfull stage.--6 ft.

Remarks.--Base for partial-duration series, 100 cfs. Only annual peaks are shown subsequent to 1957.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 30, 1951	6.18	320	1957	June 1, 1957	3.34	104
	Aug. 27, 1951	6.31	332		June 4, 1957	4.25	164
1952	Oct. 22, 1951	4.30	159		July 1, 1957	3.51	111
1953	June 1, 1953	2.13	20.1	1958	July 14, 1958	6.95	396
1954	May 2, 1954	3.06	87	1960	May 8, 1960	4.33	178
1955	Oct. 11, 1954	3.81	139	1961	Apr. 30, 1961	6.33	330
1956	June 25, 1956	4.32	174	1962		(a)	(b)
1957	May 21, 1957	7.32	438	1963	May 26, 1963	4.02	154
	May 22, 1957	4.38	181	1964	July 2, 1964	5.38	256
	May 22, 1957	4.77	210	1965	July 12, 1965	6.88	386

a Stage did not reach gage during year.
b Less than 100 cfs.

OSAGE RIVER BASIN

6-9240. Niangua River near Decaturville, Mo.
(Published as "near Roach" prior to 1931)

Location.--Lat 37°56'20", long 92°50'30", in NW¼NE¼ sec.19, T.37 N., R.17 W., 0.3 mile downstream from hydroelectric plant of Sho-Me Power Cooperative, Inc., and 8 miles northwest of Decaturville.

Drainage area.--627 sq mi; about 698 sq mi prior to Oct. 1, 1930. Slope.--4.7 ft per mi.

Gage.--Nonrecording Nov. 18, 1922, to Sept. 30, 1930; recording gage thereafter. At site 18 miles downstream and at datum about 51.15 ft lower prior to Sept. 30, 1930. Datum of gage is about 665.9 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current meter measurements.

Bankfull stage.--9 ft.

Historical data.--Flood of September 1914 reached a stage of 28 ft at present site and 23.8 at former site near Roach.

Remarks.--Records for site "near Decaturville" and "near Roach" considered equivalent for flood-frequency study. Low flows since 1931 regulated by hydroelectric plant upstream; peak discharges not materially affected. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 12, 1923	3.75	1,810
1924	May 30, 1924	13.30	15,200
	Aug. 12, 1924	11.30	11,100
1925	Dec. 21, 1924	11.90	12,800
1926	Nov. 9, 1925	8.52	7,180
1927	Mar. 21, 1927	15.3	22,100
	Apr. 2, 1927	15.1	21,500
	May 10, 1927	12.1	13,200
	June 1, 1927	16.5	25,700
	June 22, 1927	11.2	13,400
	Aug. 9, 1927	17.00	27,200
1928	Apr. 7, 1928	11.80	12,400
	June 10, 1928	15.80	23,600
1929	May 7, 1929	13.12	15,900
	May 19, 1929	10.6	9,520
1930	Jan. 15, 1930	8.80	6,560
1931	Aug. 7, 1931	12.60	9,210
1932	June 28, 1932	17.00	19,000
1933	Dec. 25, 1932	15.62	17,000
	Apr. 17, 1933	13.70	11,800
	May 14, 1933	16.30	17,200
1934	Apr. 17, 1934	8.73	4,410
1935	Mar. 13, 1935	17.12	19,300
	May 29, 1935	12.70	9,730
	June 4, 1935	13.10	10,500
	June 15, 1935	14.40	13,500
	June 21, 1935	15.90	18,000
1936	Sept. 28, 1936	11.94	8,280
1937	Jan. 16, 1937	13.45	11,100
	June 9, 1937	13.40	11,100
1938	May 24, 1938	11.26	7,320
1939	Apr. 6, 1939	12.40	9,170
	Apr. 17, 1939	12.43	9,170
1940	May 2, 1940	10.31	6,020
1941	Apr. 20, 1941	20.4	29,000
1942	Oct. 6, 1941	18.20	26,900
	Nov. 1, 1941	13.39	11,100
	June 18, 1942	21.06	31,200
1943	Dec. 28, 1942	20.27	28,700
	May 12, 1943	14.68	13,300
	May 19, 1943	21.84	33,400
1944	Apr. 12, 1944	13.90	11,600
1945	Mar. 4, 1945	13.15	10,300
	Mar. 21, 1945	13.02	9,920
	Apr. 3, 1945	14.97	14,000
	Apr. 14, 1945	19.46	26,200
	Sept. 26, 1945	17.17	19,600
1946	Aug. 15, 1946	14.75	13,500
1947	Apr. 12, 1947	13.47	10,800
	Apr. 26, 1947	20.37	29,000
1948	June 23, 1948	16.33	17,200
	June 29, 1948	13.07	10,100
1949	June 9, 1949	13.2	10,300
1950	Oct. 23, 1949	13.12	10,100
	Jan. 5, 1950	17.55	20,700
	Jan. 14, 1950	14.4	12,700
	May 31, 1950	16.29	17,200
1951	July 2, 1951	16.06	16,700
1952	Feb. 3, 1952	10.23	6,220
1953	Apr. 25, 1953	6.77	3,020
1954	May 4, 1954	5.32	1,720
1955	Mar. 22, 1955	12.67	9,380
1956	June 1, 1956	4.94	1,450
1957	May 18, 1957	13.15	10,300
	May 24, 1957	15.95	16,400
1958	Mar. 24, 1958	17.0	19,000
	July 13, 1958	15.0	14,000
	July 18, 1958	17.0	19,000
1959	Feb. 11, 1959	11.38	7,330
1960	May 6, 1960	10.70	6,440
1961	May 2, 1961	17.18	19,600
	May 7, 1961	19.85	27,200
	May 9, 1961	17.10	19,300
1962	Mar. 21, 1962	12.82	9,560
1963	May 28, 1963	11.87	8,060
1964	Apr. 6, 1964	9.59	5,250
1965	Sept. 5, 1965	14.73	13,300

OSAGE RIVER BASIN

6-9252. Starks Creek at Preston, Mo.

Location.--Lat 37°56'30", long 93°11'30", on line between NW¼ and SW¼ sec.24, T.37 N., R.21 W., at bridge on U. S. Highway 54, 0.6 mile east of Preston.

Drainage area.--4.18 sq mi. Slope.--31.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurement below 140 cfs and by indirect measurements at 807 and 1,460 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 17, 1957	9.56	1,400				
1958	July 31, 1958	6.70	498				
1959	Feb. 9, 1959	7.01	562				
1960	May 6, 1960	8.22	870				
1961	May 5, 1961	9.42	1,320				
1962	Sept. 9, 1962	7.74	741				
1963	July 28, 1963	6.25	411				
1964	Apr. 5, 1964	7.68	740				
1965	June 23, 1965	10.57	1,900				

OSAGE RIVER BASIN

6-9252.7. Dry Auglaize Creek tributary near Lebanon, Mo.

Location.--Lat 37°42'00", long 92°37'30", in NE¼SW¼ sec.6, T.34 N., R.15 W., on right bank just upstream from culvert under U. S. Highway 66 at state secondary road MM, and 2½ miles northeast of Lebanon.

Drainage area.--0.21 sq mi. Slope.--115 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Devined by current-meter measurement at 5.46 cfs and by indirect measurements at 44.7 and 167 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	7.42	26				
1956	June 24, 1956	8.23	57				
1957	May 22, 1957	10.42	167				
1958	July 16, 1958	8.13	53				
1959	July 16, 1959	8.32	60				
1960	July 25, 1960	8.07	52				
1961	May 5, 1961	9.36	110				
1962	Mar. 20, 1962	9.1	95				
1963	Oct. 13, 1962	7.55	31				
1964	Apr. 5, 1964	7.64	34				
1965	July 10, 1965	7.89	43				

OSAGE RIVER BASIN

6-9253. Prairie Branch near Decaturville, Mo.

Location.--Lat 37°52'30", long 92°42'30", in SE¼NE¼ sec.8, T.36 N., R.16 W., on right downstream wingwall of bridge on Stage Highway 5, 2.4 miles south of Decaturville.

Drainage area.--1.48 sq mi. Slope.--84.1 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 2 and 42 cfs and by indirect measurements at 466 and 1,490 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	9.32	170				
1956	July 3, 1956	10.82	470				
1957	May 17, 1957	12.63	1,490				
1958	July 16, 1958	13.06	2,000				
1959	June 11, 1959	11.30	680				
1960	Oct. 4, 1959	10.36	350				
1961	May 8, 1961	12.57	1,450				
1962	Mar. 20, 1962	9.34	150				
1963	Oct. 13, 1962	12.54	1,430				
1964	Apr. 23, 1964	9.66	280				
1965	Sept. 5, 1965	13.23	2,200				

OSAGE RIVER BASIN

6-9254.5. Little Gravois Creek near Versailles, Mo.

Location.--Lat 38°23'58", long 92°49'30", in NE¼SW¼ sec.17, T.42 N., R.17 W., on right downstream abutment of bridge on State Highway 5, 2½ miles south of Versailles.

Drainage area.--4.74 sq mi. Slope.--64.0 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 274, 1,080, and 4,960 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb. 19, 1955	11.00	250				
1956	Oct. 5, 1955	12.73	760				
1957	May 17, 1957	11.14	274				
1958	July 8, 1958	16.45	4,960				
1959	Sept. 16, 1959	15.40	3,300				
1960	May 6, 1960	15.89	3,800				
1961	May 8, 1961	13.79	1,350				
1962	Mar. 20, 1962	11.1	270				
1963	Mar. 4, 1963	11.96	450				
1964	June 14, 1964	12.86	1,080				
1965	Sept. 4, 1965	14.73	2,800				

OSAGE RIVER BASIN

6-9260. Osage River near Bagnell, Mo.

Location.--Lat 38°12'26", long 92°35'23", in N½SE¼ sec.21, T.40 N., R.15 W., 1½ miles upstream from Bagnell, and 3 miles downstream from hydroelectric plant of Union Electric Co. of Missouri.

Drainage area.--14,000 sq mi, approximately. Slope.--1.20 ft per mi.

Gage.--Nonrecording Oct. 1, 1880, to Oct. 14, 1930; recording gage thereafter. At various sites and datums prior to May 5, 1925. Datum of gage is 548.57 ft above mean sea level, datum of 1929.

Bankfull stage.--24 ft.

Remarks.--Flow regulated by Lake of the Ozarks (usable capacity, 1,246,000 acre-ft since 1931. Annual peaks since 1931 are the computed maximum daily inflows into the Lake of the Ozarks. Records prior to May 5, 1925, furnished by Union Electric Co. of Missouri and computed from rating defined by measurements made after May 1925. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	-	a164,000	1923	June 18, 1923	-	a54,000
				1924	July 17, 1924	-	a64,300
1881	Feb. 10, 1881	-	a31,500	1925	Apr. 7, 1925	-	a40,900
1882	Feb. 23, 1882	-	a119,000				
1883	Feb. 17, 1883	-	a82,100	1926	Nov. 10, 1926	-	52,400
1884	May 4, 1884	-	a66,500	1927	Apr. 17, 1927	-	106,000
1885	Sept. 15, 1885	-	a86,500	1928	Oct. 11, 1927	-	70,600
				1929	May 21, 1929	-	106,000
1886	May 9, 1886	-	a44,100	1930	Feb. 10, 1930	-	39,000
1887	Apr. 23, 1887	-	a30,000				
1888	Feb. 1, 1888	-	a45,800	1931	May 20, 1931	-	b55,500
1889	May 31, 1889	-	a72,200	1932	Nov. 27, 1931	-	b42,600
1890	Jan. 15, 1890	-	a73,700	1933	May 13, 1933	-	b85,200
				1934	Sept. 14, 1934	-	b19,300
1891	June 8, 1891	-	a76,500	1935	June 3, 1935	-	b117,000
1892	June 4, 1892	-	a94,300				
1893	May 1, 1893	-	a91,000	1936	Sept. 28, 1936	-	b82,400
1894	May 8, 1894	-	a69,800	1937	June 10, 1937	-	b90,300
1895	July 9, 1895	-	a54,900	1938	May 24, 1938	-	b85,300
				1939	May 9, 1939	-	b65,800
1896	Dec. 22, 1895	-	a126,000	1940	June 24, 1940	-	b37,300
1897	Jan. 5, 1897	-	a102,000				
1898	Mar. 24, 1898	-	a66,500	1941	Apr. 19, 1941	-	b145,000
1899	Apr. 25, 1899	-	a54,500	1942	Oct. 5, 1941	-	b152,000
1900	Mar. 8, 1900	-	a48,200	1943	May 19, 1943	-	b219,000
				1944	May 1, 1944	-	b116,000
1901	Mar. 12, 1901	-	a41,900	1945	Apr. 16, 1945	-	b128,000
1902	May 27, 1902	-	a52,600				
1903	Mar. 10, 1903	-	a79,200	1946	Aug. 14, 1946	-	b214,000
1904	Apr. 28, 1904	-	a122,000	1947	Apr. 25, 1947	-	b140,000
1905	Aug. 1, 1905	-	a78,000	1948	June 22, 1948	-	b139,000
				1949	Feb. 17, 1949	-	b71,400
1906	Aug. 26, 1906	-	a52,000	1950	June 10, 1950	-	b79,400
1907	May 17, 1907	-	a66,200				
1908	Apr. 13, 1908	-	a87,800	1951	July 6, 1951	-	b134,000
1909	May 13, 1909	-	a78,000	1952	Feb. 4, 1952	-	b64,500
1910	June 11, 1910	-	a103,000	1953	Apr. 25, 1953	-	b31,700
				1954	May 3, 1954	-	b35,900
1911	Apr. 7, 1911	-	a49,600	1955	Feb. 20, 1955	-	b56,100
1912	May 1, 1912	-	a108,000				
1913	Mar. 27, 1913	-	a89,600	1956	Oct. 6, 1955	-	b41,000
1914	Sept. 17, 1914	-	a55,000	1957	May 25, 1957	-	b84,500
1915	Sept. 24, 1915	-	a89,600	1958	July 31, 1958	-	b91,000
				1959	Feb. 10, 1959	-	b57,000
1916	Feb. 1, 1916	-	a118,000	1960	May 6, 1960	-	b116,700
1917	June 24, 1917	-	a27,400				
1918	Apr. 30, 1918	-	a42,300	1961	May 8, 1961	-	b154,500
1919	May 19, 1919	-	a60,600	1962	Mar. 21, 1962	-	b102,000
1920	Oct. 30, 1919	-	a101,000	1963	May 27, 1963	-	b56,000
				1964	June 14, 1964	-	b88,800
1921	Mar. 31, 1921	-	a57,600	1965	Sept. 5, 1965	-	b90,000
1922	Apr. 17, 1922	-	a120,000				

a Maximum daily discharge.
b Estimated maximum daily reservoir inflow.

OSAGE RIVER BASIN

6-9261.5. Jack Buster Creek at Eugene, Mo.

Location.--Lat 38°21'10", long 92°24'00", in NW¼NE¼ sec.31, T.42 N., R.13 W., on right bank just upstream from culvert under State Highway 17, at east edge of the town of Eugene.

Drainage area.--0.17 sq mi. Slope.--137 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 72 and 290 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 5, 1961	9.10	290				
1962	Mar. 20, 1962	5.13	40				
1963	May 4, 1963	6.18	92				
1964	June 13, 1964	6.01	82				
1965	Sept. 13, 1965	9.02	285				

OSAGE RIVER BASIN

6-9262. Van Cleve Branch near Meta, Mo.

Location.--Lat 38°13'35", long 92°09'40", in the SE¼NE¼ sec.8, T.40 N., R.11 W., 20 ft upstream from concrete culvert on State Highway 133, 6.5 miles south of Meta.

Drainage area.--0.75 sq mi. Slope.--95.4 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 14.7 cfs and by indirect measurements at 345, 474, 577, and 1,180 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	a6.35	1,200				
1958	June 10, 1958	b4.48	490				
1959	Aug. 31, 1959	1.99	55				
1960	Oct. 10, 1959	2.42	92				
1961	May 5, 1961	c3.25	577				
1962	Mar. 20, 1962	1.93	50				
1963	May 25, 1963	1.94	51				
1964	Apr. 5, 1964	1.68	30				
1965	Sept. 13, 1965	d4.66	1,600				

a Outside gage height, 7.45 ft.
b Outside gage height, 5.55 ft.
c Outside gage height, 6.31 ft.
b Outside gage height, 7.71 ft.

OSAGE RIVER BASIN

6-9265. Osage River near St. Thomas, Mo.

Location.--Lat 38°20'25", long 92°13'25", in SE¼SW¼ sec.35, T.42 N., R.12 W., on left bank 0.5 mile downstream from Sugar Creek, 2½ miles south of St. Thomas, and at mile 43.1

Drainage area.--14,500 sq mi, approximately. Slope.--1.14 ft per mi.

Gage.--Recording. Datum of gage is 528.06 ft above mean sea level, datum of 1929.

Bankfull stage.--23 ft.

Remarks.--Flow regulated by Lake of the Ozarks. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	39.4	-				
1932	Nov. 25, 1931	16.90	45,300				
1933	May 26, 1933	21.30	59,900				
1934	Mar. 3, 1934	8.30	13,500				
1935	June 4, 1935	33.00	113,000				
1936	Nov. 12, 1935	13.88	31,500				
1937	June 11, 1937	27.45	88,200				
1938	May 27, 1938	25.96	81,400				
1939	April 18, 1939	12.59	25,400				
1940	June 25, 1940	14.94	33,800				
1941	April 22, 1941	32.40	116,000				
1942	Oct. 7, 1941	34.40	120,000				
1943	May 20, 1943	43.8	216,000				
1944	May 4, 1944	29.09	91,500				
1945	April 18, 1945	31.10	105,000				
1946	Aug. 15, 1946	31.5	107,000				
1947	Nov. 3, 1946	29.9	98,500				
1948	June 27,28, 1948	30.67	103,000				
1949	Feb. 19, 1949	22.66	64,100				
1950	June 10, 1950	23.05	65,400				
1951	July 13, 1951	35.2	130,000				
1952	Nov. 16, 1951	20.70	57,300				
1953	April 24, 1953	11.99	24,900				
1954	May 17, 1954	9.22	15,800				
1955	Feb. 23, 1955	18.61	48,900				
1956	Oct. 6, 1955	14.55	34,000				
1957	May 27, 1957	23.82	70,100				
1958	Aug. 2, 1958	27.95	87,900				
1959	Feb. 10, 1959	13.70	30,800				
1960	May 8, 1960	25.20	75,400				
1961	May 13, 1961	37.10	149,000				
1962	Mar. 23, 1962	24.50	74,800				
1963	May 29, 1963	19.40	52,400				
1964	June 16, 1964	22.85	67,100				
1965	Sept. 6, 1965	23.40	69,800				

OSAGE RIVER BASIN

6-9268. Long Branch near Vienna, Mo.

Location.--Lat 38°11'00", long 92°05'05", in SW¼NW¼ sec.30, T.40 N., R.10 W., on left bank just upstream from culvert under State road 42, 7.5 miles west of Vienna.

Drainage area.--0.32 sq mi. Slope.--112 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 7.67 cfs and by indirect measurements at 97.4 and 365 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 22, 1957	9.98	365				
1958	June 15, 1958	6.71	97				
1959	-	(a)	(b)				
1960	July 22, 1960	7.38	130				
1961	May 5, 1961	6.66	90				
1962	Apr. 30, 1962	7.43	135				
1963	May 16, 1963	8.61	240				
1964	Apr. 4, 1964	6.4	71				
1965	Sept. 13, 1965	10.44	400				

a Stage did not reach gage during year.
b Less than 25 cfs.

OSAGE RIVER BASIN

6-9270. Maries River at Westphalia, Mo.

Location.--Lat 38°25'55", long 91°59'20", in NE¼ sec.35, T.43 N., R.10 W., on right bank 200 ft upstream from bridge on U. S. Highway 63, three-quarters of a mile southeast of Westphalia, and 1½ miles downstream from Little Maries Creek.

Drainage area.--257 sq mi. Slope.--8.91 ft per mi.

Gage.--Nonrecording at site 200 ft downstream at present datum prior to June 8, 1951, recording gage at present site thereafter. Datum of gage is 542.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--9 ft.

Historical data.--Flood of June 8, 1937, reached a stage of 22.8 ft, from information furnished by local residents.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 22, 1948	15.15	14,000	1957	May 17, 1957	18.21	20,000
	June 27, 1948	12.2	8,730		May 23, 1957	17.68	19,000
					June 28, 1957	10.03	6,100
1949	June 3, 1949	15.31	14,200		June 30, 1957	14.10	11,900
	June 14, 1949	13.58	11,200				
	Sept. 13, 1949	10.23	6,320	1958	Mar. 9, 1958	11.60	7,930
					June 11, 1958	12.60	9,340
1950	Oct. 20, 1949	10.5	6,650		June 12, 1958	12.76	9,660
	Jan. 4, 1950	16.0	15,600		June 15, 1958	10.16	6,320
	Jan. 13, 1950	10.9	7,090				
	May 19, 1950	10.8	6,980	1959	Feb. 10, 1959	13.12	10,300
	May 27, 1950	14.0	11,800		May 17, 1959	11.74	8,060
1951	Feb. 20, 1951	12.9	9,830	1960	Apr. 30, 1960	10.27	6,730
	Mar. 11, 1951	11.04	7,200		May 6, 1960	11.73	8,380
	May 22, 1951	9.87	6,000				
	June 9, 1951	10.58	6,760	1961	May 6, 1961	13.73	11,300
	June 30, 1951	13.22	10,300		May 8, 1961	14.61	12,900
	July 13, 1951	13.14	10,200		June 9, 1961	10.05	6,420
	Aug. 27, 1951	10.98	7,320		July 23, 1961	11.05	7,500
	Sept. 10, 1951	9.94	6,100				
				1962	Jan. 26, 1962	a11.45	7,170
1952	Oct. 6, 1951	11.63	7,930		Mar. 21, 1962	15.40	14,400
	Feb. 2, 1952	9.86	6,000		May 1, 1962	11.03	7,500
1953	Apr. 24, 1953	10.00	6,100	1963	Mar. 5, 1963	11.31	7,860
					May 26, 1963	10.88	7,390
1954	June 9, 1954	9.58	5,700				
				1964	Apr. 5, 1964	11.75	8,520
1955	Feb. 20, 1955	11.13	7,320		May 28, 1964	13.20	10,500
1956	June 25, 1956	9.53	5,600	1965	Apr. 4, 1965	11.58	8,250
					June 3, 1965	10.66	7,170
1957	Feb. 26, 1957	12.6	9,340		Sept. 5, 1965	10.49	6,950
	Mar. 25, 1957	10.68	6,870		Sept. 14, 1965	10.91	7,390
	Apr. 4, 1957	10.03	6,100		Sept. 22, 1965	12.40	9,360

a Backwater from ice.

MISSOURI RIVER MAIN STEM

6-9270.2. Missouri River near Bonnots Mill, Mo.
(Published as "at Isbell" prior to 1932)

Location.--Lat 38°35'44", long 91°56'31", in SE¼NE¼ sec.5, T.44 N., R.9 W., half a mile downstream from Osage River, and 1½ miles east of Bonnots Mill.

Drainage area.--523,400 sq mi, approximately.

Gage.--Nonrecording prior to Nov. 11, 1931; recording gage thereafter. At site 2 miles downstream at datum 2.49 ft lower prior to Nov. 11, 1931. Datum of gage is 511.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--21 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 8, 1929	21.1	399,000				
1930	June 19, 1930	13.9	166,000				
1931	May 20, 1931	10.5	92,600				
1932	Nov. 29, 1931	19.44	265,000				
1933	May 27, 1933	15.5	142,000				
1934	Mar. 10, 1934	10.1	80,700				
1935	June 6, 1935	27.05	417,000				
1936	Feb. 27, 1936	13.00	-				
	Mar. 15, 1936	-	128,000				

AUXVASSE CREEK BASIN

6-9271. Doane Branch near Kingdom City, Mo.

Location.--Lat 38°58'20", long 91°49'40", in NE¼ sec.17, T.48 N., R.8 W., on left bank just upstream from culvert on U. S. 40, 0.9 mile east of Auxvasse Creek, and about 6 miles east of Kingdom City.

Drainage area.--0.54 sq mi. Slope.--70.2 ft per mi.

Gage.--Crest-stage gage installed Oct. 8, 1954. Supplemental recording gage July 21, 1959, to July 10, 1962. Crest-stage gage removed Aug. 13, 1963 for new culvert construction and replaced Apr. 28, 1965.

Stage-discharge relation.--Defined by indirect measurement at 54, 72, 136, and 623 cfs prior to new culvert construction.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	5.11	54				
1956	July 16, 1956	5.69	73				
1957	June 30, 1957	14.20	623				
1958	May 31, 1958	7.54	155				
1959	Feb. 9, 1959	6.71	125				
1960	Oct. 10, 1959	7.14	140				
1961	May 5, 1961	6.23	93				
1962	Mar. 20, 1962	5.18	55				
1963	-	(a)	(b)				
1965	Sept. 16, 1965	11.01	(c)				

a Stage below bottom of gage.
b Discharge less than 50 cfs.
c Discharge not determined.

AUXVASSE CREEK BASIN

6-9277. Big Hollow near Fulton, Mo.

Location.--Lat 38°48'45", long 91°56'45", in NW¼NW¼ sec.33, T.47 N., R.9 W., at culvert on County Highway C, 2 miles south of Fulton.

Drainage area.--4.05 sq mi. Slope.--34.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 530, 611, and 930 cfs by indirect measurement. Defined below 27 cfs by current-meter measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 29, 1957	a4.28	616				
1958	Aug. 1, 1958	b5.80	936				
1959	Oct. 9, 1958	5.81	936				
1960	Oct. 10, 1959	4.45	649				
1961	May 5, 1961	4.62	686				
1962	Feb. 8, 1962	3.90	526				
1963	May 17, 1963	1.95	104				
1964	May 28, 1964	3.90	526				
1965	Sept. 4, 1965	6.20	1,020				

a Outside gage height, 4.6 ft.
b Outside gage height, 5.9 ft.

GASCONADE RIVER BASIN

6-9276. Wheeler Branch near Mountain Grove, Mo.

Location.--Lat 37°06'52", long 92°16'37", in SW¼NE¼ sec.17, T.28 N., R.12 W., on left bank just upstream from bridge on county road D, three-quarters of a mile southwest of Mountain Grove.

Drainage area.--1.34 sq mi. Slope.--48.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 262, 549, and 880 cfs by indirect measurement. Defined below 50 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	3.87	262				
1956	May 14, 1956	4.95	549				
1957	May 25, 1957	3.99	299				
1958	June 16, 1958	6.32	940				
1959	Jan. 21, 1959	3.47	165				
1960	July 25, 1960	4.15	330				
1961	May 7, 1961	6.26	930				
1962	June 9, 1962	3.69	220				
1963	June 16, 1963	4.00	295				
1964	Apr. 4, 1964	3.89	270				
1965	Aug. 28, 1965	4.08	320				

GASCONADE RIVER BASIN

6-9278. Osage Fork at Drynob, Mo.

Location.--Lat 37°38'00", long 92°27'12", in NW¼NE¼ sec.27, T.34 N., R.14 W., on downstream end of right bridge pier on State Highway 32, 0.1 mile downstream from Walker Hollow, 0.6 mile southwest of Drynob, 1.6 miles upstream from Core Creek, and 12 miles southeast of Lebanon.

Drainage area.--404 sq mi.

Gage.--Recording. Datum of gage is 927.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Historical data.--Maximum stage known about 31 ft in 1903 from information by local resident.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1963	May 27, 1963	14.34	8,970				
1964	Apr. 6, 1964	9.34	3,360				
1965	Apr. 4, 1965	12.35	6,450				
	Apr. 6, 1965	15.68	11,200				
	May 26, 1965	11.35	5,240				
	Sept. 6, 1965	12.56	6,450				

GASCONADE RIVER BASIN

6-9280. Gasconade River near Hazlegreen, Mo

Location.--Lat 37°45'35", long 92°27'05", in SE¼SE¼ sec.15, T.35 N., R.14 W., at bridge on U. S. Highway 66, 1 mile downstream from Osage Fork, and 1½ miles west of Hazlegreen.

Drainage area.--1,250 sq mi, approximately. Slope.--3.97 ft per mi.

Gage.--Nonrecording prior to Aug. 21, 1958; recording gage thereafter. Datum of gage is 844.75 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 68,000 cfs.

Bankfull stage.--21 ft.

Historical data.--Maximum stage known, 30.6 ft in January 1916.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 1915	30.4	a86,000
1916	Jan. 1916	30.6	--
1929	Apr. 10, 1929	15.60	17,700
	May 7, 1929	16.21	19,000
	May 14, 1929	14.08	14,600
1930	Jan. 15, 1930	14.48	15,200
1931	Aug. 18, 1931	6.96	4,100
1932	June 28, 1932	13.12	12,700
1933	Dec. 25, 1932	14.12	14,600
	Apr. 17, 1933	17.70	22,300
	May 15, 1933	25.75	53,800
1934	Mar. 29, 1934	6.09	3,100
1935	Mar. 12, 1935	27.50	68,700
	June 4, 1935	17.08	20,600
	June 8, 1935	12.98	12,500
	June 17, 1935	18.32	23,200
	June 21, 1935	18.59	23,800
1936	Nov. 11, 1935	8.51	5,600
1937	Jan. 9, 1937	13.05	12,500
	Jan. 16, 1937	15.90	18,100
	Feb. 1, 1937	14.50	15,400
	May 3, 1937	17.10	20,600
1938	Jan. 26, 1938	17.00	18,000
	Feb. 19, 1938	19.2	23,300
	May 8, 1938	17.97	20,200
	May 24, 1938	17.99	20,200
1939	Nov. 8, 1938	16.15	16,400
	Feb. 21, 1939	15.75	15,600
	Apr. 18, 1939	17.22	18,500
	May 28, 1939	13.80	12,000
1940	Apr. 13, 1940	12.7	10,300
1941	Apr. 17, 1941	18.80	22,200
	Apr. 20, 1941	25.8	54,500
1942	Oct. 19, 1941	14.60	13,400
	Nov. 1, 1941	18.04	20,200
	Apr. 10, 1942	16.08	16,200
	June 14, 1942	12.83	10,500
	June 18, 1942	21.6	31,500
1943	Oct. 31, 1942	15.30	14,600
	Dec. 28, 1942	23.80	41,800
	May 12, 1943	24.00	42,900
	May 19, 1943	25.3	51,000
	June 23, 1943	13.20	11,100
1944	Mar. 1, 1944	12.4	9,860
1945	Feb. 22, 1945	20.60	27,800
	Mar. 3, 1945	18.40	21,200
	Mar. 7, 1945	20.30	26,800
	Mar. 20, 1945	17.30	18,700
	Mar. 26, 1945	12.50	10,000
	Mar. 31, 1945	15.60	15,200
	Apr. 3, 1945	20.00	25,800
	Apr. 14, 1945	29.6	76,400
	June 18, 1945	17.60	19,300
	Sept. 25, 1945	13.00	10,800
1946	Feb. 15, 1946	18.90	22,500
	May 26, 1946	15.75	15,600
	Aug. 14, 1946	19.0	22,800
1947	Nov. 11, 1946	17.60	19,300
	Apr. 12, 1947	12.49	10,000
	Apr. 26, 1947	26.9	58,000
1948	Mar. 3, 1948	12.65	10,200
	June 18, 1948	14.2	12,700
	June 21, 1948	14.8	13,700
	June 28, 1948	16.1	16,200
1949	Jan. 25, 1949	14.1	12,800
	Jan. 28, 1949	12.2	10,100
	Feb. 16, 1949	19.5	24,100
	July 8, 1949	12.2	10,100
1950	Oct. 12, 1949	19.0	22,700
	Oct. 22, 1949	24.75	44,600
	Dec. 22, 1949	13.0	11,200
	Jan. 4, 1950	18.2	20,700
	Jan. 14, 1950	17.5	19,100
	Feb. 14, 1950	13.6	12,100
	Apr. 5, 1950	12.6	10,700
	Apr. 30, 1950	13.0	11,200
	May 11, 1950	24.0	40,500
	May 20, 1950	12.5	10,500
	May 31, 1950	14.0	12,700
	June 11, 1950	14.1	12,800
1951	Feb. 20, 1951	16.25	16,400
	Mar. 12, 1951	15.0	14,300
	Apr. 8, 1951	12.3	10,200
	May 20, 1951	15.31	14,800
	July 1, 1951	23.00	36,000
	July 5, 1951	13.65	12,100
	July 13, 1951	13.0	11,200
	Aug. 28, 1951	14.4	13,300
1952	Nov. 13, 1951	15.00	14,300
	Nov. 17, 1951	16.50	17,000
	Feb. 3, 1952	15.00	14,300
	Mar. 12, 1952	12.48	10,500
	Apr. 5, 1952	12.30	10,200
	Apr. 13, 1952	14.75	14,000

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Hazlegreen, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 24, 1953	10.0	7,100	1958	July 13, 1958	15.65	15,800
					July 18, 1958	25.30	46,500
1954	May 3, 1954	6.78	3,460				
				1959	May 29, 1959	12.50	10,200
1955	Feb. 21, 1955	16.0	16,000				
	Mar. 22, 1955	15.75	15,600	1960	Nov. 6, 1959	12.60	10,300
					Dec. 19, 1959	15.06	14,800
1956	May 16, 1956	22.08	35,900				
				1961	May 2, 1961	17.65	20,100
1957	Feb. 27, 1957	12.45	11,300		May 6, 1961	15.70	16,000
	Apr. 5, 1957	18.85	24,800		May 9, 1961	23.60	39,400
	May 19, 1957	11.85	10,300				
	May 24, 1957	22.82	38,600	1962	Mar. 21, 1962	13.30	11,400
	May 26, 1957	18.50	23,800				
	June 3, 1957	19.85	27,800	1963	May 27, 1963	19.50	25,500
	June 6, 1957	11.80	10,300				
				1964	Apr. 6, 1964	15.30	15,300
1958	Dec. 18, 1957	25.77	49,000				
	Mar. 10, 1958	12.43	10,000	1965	Apr. 5, 1965	13.33	11,800
	Mar. 24, 1958	21.33	30,900		Apr. 7, 1965	20.42	28,200
	July 9, 1958	18.00	21,000		Sept. 7, 1965	15.18	15,200

a Annual peak only

GASCONADE RIVER BASIN

6-9282. Laquey Branch near Hazlegreen, Mo.

Location.--Lat 37°46'25", long 92°21'52", SW¼SE¼ sec.9, T.35 N., R.13 W., 30 ft upstream from concrete culvert under eastbound lane of U. S. Highway 66, 3 miles east of Hazlegreen.

Drainage area.--1.58 sq mi. Slope.--87.4 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 3.61 cfs and by indirect measurements at 519, 825, and 2,660 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 16, 1958	3.70	410				
1959	May 17, 1959	a4.09	519				
1960	Dec. 17, 1959	2.88	185				
1961	May 5, 1961	b5.09	825				
1962	Apr. 30, 1962	4.19	550				
1963	Oct. 13, 1962	c4.44	450				
1964	May 20, 1964	d4.53	465				
1965	Sept. 4, 1965	(e)	2,670				

a Outside gage height, 4.92 ft.
b Outside gage height, 6.44 ft.
c Outside gage height, 4.44 ft.
d Outside gage height, 4.5 ft.
e Outside gage height, 13.4 ft.

GASCONADE RIVER BASIN

6-9285. Gasconade River near Waynesville, Mo.

Location.--Lat 37°52'20", long 92°13'40", in SE¼SE¼ sec.3, T.36 N., R.12 W., at county highway bridge, 2½ miles downstream from Roubidoux Creek, and 4 miles north of Waynesville.

Drainage area.--1,680 sq mi, approximately. Slope.--3.18 ft per mi.

Gage.--Nonrecording prior to Oct. 3, 1958, recording gage thereafter. Datum of gage is 738.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Remarks.--Peaks for period prior to July 19, 1921, computed from plotted readings by Engineering Experiment Station, University of Missouri. Base for partial-duration series, 17,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 22, 1915	24.3	89,000	1938	Feb. 20, 1938	16.44	24,600
	Aug. 28, 1915	14.1	20,300		May 9, 1938	14.74	17,800
1916	Jan. 14, 1916	16.7	26,800		May 25, 1938	15.11	19,100
	Feb. 1, 1916	23.0	77,000	1939	Apr. 19, 1939	14.9	18,500
1917	May 2, 1917	8.35	8,600	1940	Mar. 12, 1940	11.8	10,600
1918	Apr. 28, 1918	13.1	18,200	1941	Apr. 20, 1941	20.4	57,700
	May 14, 1918	15.4	23,100				
				1942	Nov. 2, 1941	15.4	20,700
1919	May 17, 1919	12.35	16,700		June 19, 1942	17.8	33,200
1920	Oct. 28, 1919	15.75	24,000	1943	Dec. 29, 1942	20.7	59,400
	Nov. 3, 1919	14.8	20,500		May 12, 1943	19.25	44,700
	Sept. 15, 1920	14.25	19,300		May 20, 1943	21.2	64,700
1921	Mar. 29, 1921	15.0	20,900	1944	Mar. 1, 1944	10.5	8,470
	Apr. 28, 1921	16.1	23,100				
				1945	Feb. 23, 1945	16.35	25,300
1922	Mar. 31, 1922	14.14	19,200		Mar. 4, 1945	16.08	23,900
					Mar. 8, 1945	16.8	27,200
1923	Mar. 13, 1923	9.10	9,110		Mar. 21, 1945	15.0	18,800
					Apr. 4, 1945	17.0	28,100
1924	May 29, 1924	13.00	16,900		Apr. 14, 1945	23.5	81,600
					June 19, 1945	14.25	17,400
1925	Dec. 21, 1924	17.50	30,800				
				1946	Feb. 15, 1946	16.30	24,800
1926	Nov. 9, 1925	9.80	10,500		Aug. 15, 1946	17.57	31,600
1927	Apr. 2, 1927	17.50	30,800	1947	Nov. 12, 1946	14.40	18,000
	Apr. 16, 1927	16.85	24,500		Apr. 26, 1947	20.6	55,700
	June 1, 1927	16.00	22,900				
	Aug. 10, 1927	15.00	20,900	1948	June 19, 1948	15.4	21,200
	Aug. 16, 1927	14.70	20,200		June 22, 1948	15.2	21,200
	Aug. 18, 1927	15.25	21,300		June 29, 1948	14.2	17,400
1928	Apr. 7, 1928	17.00	27,800	1949	Feb. 17, 1949	15.6	21,900
	Apr. 24, 1928	13.85	18,500				
	June 10, 1928	18.20	36,300	1950	Oct. 13, 1949	16.3	23,700
					Oct. 23, 1949	19.15	40,600
1929	Apr. 10, 1929	13.80	18,100		Jan. 4, 1950	17.50	29,200
	May 7, 1929	15.35	21,400		June 15, 1950	14.95	19,200
					May 12, 1950	18.66	36,600
1930	Jan. 15, 1930	13.20	16,800		June 10, 1950	14.90	18,900
1931	May 20, 1931	7.25	5,380	1951	May 20, 1951	14.4	17,700
					July 2, 1951	17.95	32,000
1932	June 29, 1932	15.01	20,600				
				1952	Nov. 13, 1951	12.5	13,700
1933	Apr. 17, 1933	14.60	19,900				
	May 15, 1933	19.95	52,200	1953	Apr. 24, 1953	10.0	9,060
1934	Apr. 18, 1934	6.35	3,940	1954	May 4, 1954	6.0	3,200
1935	Mar. 13, 1935	21.62	69,000	1955	Mar. 21, 1955	13.8	16,300
	June 4, 1935	15.00	20,700				
	June 18, 1935	16.55	25,900	1956	May 17, 1956	16.45	26,600
	June 22, 1935	16.50	25,500		May 31, 1956	14.15	18,000
1936	Nov. 12, 1935	8.01	6,400	1957	Apr. 6, 1957	16.0	24,600
					May 23, 1957	19.3	44,500
1937	May 4, 1937	14.42	19,400		May 27, 1957	15.23	21,100

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Waynesville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 4, 1957	16.02	24,600	1961	May 3, 1961	14.90	19,500
					May 9, 1961	19.60	43,300
1958	Dec. 19, 1957	18.90	37,600				
	Mar. 25, 1958	18.0	31,900	1962	Mar. 21, 1962	14.72	18,900
	July 9, 1958	14.40	18,100				
	July 19, 1958	19.80	45,100	1963	May 28, 1963	16.43	24,400
1959	May 28, 1959	12.26	12,900	1964	Apr. 7, 1964	13.65	14,900
1960	Dec. 19, 1959	13.25	15,000	1965	Apr. 8, 1965	16.2	23,600
					Sept. 5, 1965	15.71	21,800

GASCONADE RIVER BASIN

6-9290. Coyle Branch at Houston, Mo.

Location.--Lat 37°19'25", long 91°57'12", in NW¼NW¼ sec.8, T.30 N., R.9 W., at double culvert under State Highway 63, at east edge of Houston.

Drainage area.--1.10 sq mi. Slope.--95.9 ft per mi.

Gage.--Recording June 16, 1949, to June 30, 1955; crest-stage gage since Mar. 10, 1959. Altitude of gage is 1,090 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs prior to June 30, 1955, and by indirect measurement at 640 cfs. Subsequent to Mar. 10, 1959, defined by current-meter measurements below 20 cfs and by indirect measurements at 372 and 475 cfs.

Bankfull stage.--9 ft.

Remarks.--Rock dike constructed along right bank just upstream from culvert after June 30, 1955. Base for partial-duration series, 85 cfs. Only annual peaks are shown subsequent to 1955.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 5, 1949	1.84	151	1955	Mar. 20, 1955	1.81	137
	Jan. 3, 1950	1.71	117				
	Apr. 2, 1950	2.46	279	1959	May 27, 1959	2.62	90
	May 10, 1950	1.95	166				
	June 10, 1950	2.40	265	1960	Aug. 18, 1960	4.01	280
1951	Apr. 6, 1951	3.77	646	1961	May 7, 1961	5.00	460
	June 29, 1951	2.61	315				
	June 30, 1951	5.02	1,030	1962	Sept. 3, 1962	2.53	85
1952	Mar. 10, 1952	1.56	87	1963	June 15, 1963	5.00	475
1953	Mar. 3, 1953	1.80	135	1964	Apr. 5, 1964	3.81	250
1954	July 24, 1954	1.22	36	1965	Apr. 2. 1965	4.22	320

GASCONADE RIVER BASIN

6-9300. Big Piney River near Big Piney, Mo.
(Published as Piney Creek prior to 1942)

Location.--Lat 37°40'00", long 92°03'05", in NE¼SE¼ sec.8, T.34 N., R.10 W., at Ross Highway bridge, 3 miles east of Big Piney, and 14-3/4 miles upstream from Spring Creek.

Drainage area.--560 sq mi, approximately. Slope.--5.65 ft per mi.

Gage.--Nonrecording prior to July 12, 1961; recording gage thereafter. Datum of gage is 800.99 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs.

Bankfull stage.--9 ft.

Remarks.--Base for partial-duration series, 6,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 17, 1922	10.00	7,300
	Apr. 28, 1922	10.26	7,630
1923	May 16, 1923	10.10	7,410
1924	Sept. 20, 1924	6.65	3,700
1925	Dec. 20, 1924	12.00	9,650
1926	Oct. 17, 1925	8.40	5,900
1927	Apr. 1, 1927	15.50	15,600
	Apr. 14, 1927	14.50	12,700
	May 25, 1927	10.10	7,420
	June 2, 1927	12.00	9,600
	Aug. 15, 1927	14.20	12,300
	Aug. 18, 1927	12.00	9,600
1928	Dec. 14, 1927	14.20	12,300
	Apr. 6, 1928	11.10	8,560
	Apr. 22, 1928	11.10	8,560
	June 9, 1928	17.00	20,200
1929	Mar. 16, 1929	10.05	7,300
	Apr. 10, 1929	10.50	7,880
	May 6, 1929	10.66	8,100
	May 13, 1929	10.30	7,640
1930	Nov. 1, 1929	12.20	9,840
	Jan. 14, 1930	12.10	9,720
1931	Nov. 21, 1930	7.93	5,100
1932	Jan. 17, 1932	7.70	4,770
1933	Dec. 25, 1932	10.50	7,880
	Apr. 16, 1933	14.60	13,300
	May 14, 1933	17.50	21,800
1934	Mar. 28, 1934	4.05	1,240
	Sept. 16, 1934	4.10	1,240
1935	Mar. 11, 1935	19.62	28,800
	June 3, 1935	13.30	11,200
	June 16, 1935	11.22	8,550
1936	Nov. 10, 1935	8.91	5,780
1937	Jan. 15, 1937	12.83	10,600
	Jan. 31, 1937	10.22	7,340
	May 3, 1937	12.24	9,800
1938	Feb. 18, 1938	14.73	13,000
	May 8, 1938	12.33	9,920
	May 24, 1938	14.65	12,900
1939	Nov. 8, 1938	11.15	8,550
	Feb. 20, 1939	11.53	8,920
	Apr. 17, 1939	12.40	10,000
1940	Apr. 12, 1940	10.10	7,220
1941	Apr. 17, 1941	13.74	11,300
	Apr. 19, 1941	12.64	9,280
1942	Apr. 9, 1942	11.00	6,690
1943	Dec. 27, 1942	20.7	32,700
	May 11, 1943	18.30	24,400
	May 19, 1943	15.80	16,500
	June 24, 1943	12.60	9,280
1944	Feb. 29, 1944	9.0	4,660
1945	Feb. 22, 1945	16.81	19,600
	Feb. 27, 1945	11.60	7,600
	Mar. 7, 1945	14.60	13,300
	Mar. 20, 1945	11.80	7,920
	Mar. 31, 1945	13.00	10,000
	Apr. 3, 1945	12.25	8,590
	Apr. 15, 1945	19.08	27,000
	June 18, 1945	16.00	17,100
1946	Feb. 14, 1946	17.75	21,800
	Mar. 7, 1946	11.20	6,990
	May 17, 1946	13.10	10,200
	May 25, 1946	19.53	27,500
	Aug. 14, 1946	15.40	15,200
1947	Nov. 10, 1946	19.00	25,700
	Apr. 26, 1947	16.80	18,800
1948	Jan. 2, 1948	15.0	14,200
	June 19, 1948	15.08	14,500
	June 28, 1948	14.2	12,400
1949	Jan. 19, 1949	12.65	9,280
	Jan. 25, 1949	15.0	14,200
	Jan. 28, 1949	12.1	8,420
	Feb. 15, 1949	15.6	15,700
	July 8, 1949	16.70	18,600
1950	Oct. 21, 1949	11.6	7,600
	Jan. 4, 1950	18.5	24,000
	Jan. 14, 1950	15.5	15,400
	Feb. 13, 1950	11.2	6,990
	Apr. 3, 1950	11.5	7,290
	May 11, 1950	18.6	24,300
	June 10, 1950	12.0	8,250
1951	Feb. 19, 1951	13.0	10,000
	July 1, 1951	17.00	19,400
	July 10, 1951	13.0	10,000
1952	Mar. 11, 1952	12.4	8,930
	Apr. 13, 1952	12.5	9,100
1953	Mar. 4, 1953	11.2	6,990
1954	May 29, 1954	6.42	2,680
1955	Feb. 20, 1955	11.6	7,600
	Mar. 21, 1955	15.58	15,700
1956	May 16, 1956	19.8	28,600
	May 31, 1956	14.7	14,100

GASCONADE RIVER BASIN

Peak stages and discharges of Big Piney River near Big Piney, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 4, 1957	13.6	11,600	1961	Mar. 7, 1961	10.70	6,880
	Apr. 27, 1957	12.6	9,670		May 8, 1961	18.10	22,800
	May 23, 1957	16.3	17,900				
	June 2, 1957	12.1	8,860	1962	Mar. 21, 1962	10.83	7,000
1958	Dec. 18, 1957	16.38	18,200	1963	Oct. 14, 1962	11.24	7,540
	Mar. 24, 1958	15.60	16,200		May 18, 1963	13.25	10,700
	July 18, 1958	17.00	19,700		May 27, 1963	14.43	13,400
	Sept. 17, 1958	10.70	6,880				
				1964	Apr. 6, 1964	16.30	17,900
1959	May 28, 1959	8.80	4,910				
				1965	Apr. 6, 1965	16.24	17,600
1960	Dec. 28, 1959	10.05	6,050		Sept. 5, 1965	13.92	12,200

GASCONADE RIVER BASIN

6-9307.5. Prewett Hollow near Dixon, Mo.

Location.--Lat 37°57'25", long 92°04'50", in SW¼SE¼ sec.1, T.37 N., R.11 W., on right bank just upstream from culvert on county road D, about half a mile east of junction of State Highway 28 and county road D, and about 2 miles southeast of Dixon.

Drainage area.--0.46 sq mi. Slope.--87.5 ft per mi.

Gage.--Crest-stage gage; supplemental stage-rainfall recorder installed Apr. 3, 1964.

Stage-discharge relation.--Defined at 148 and 421 cfs by indirect measurements. Defined below 25 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 4, 1959	10.32	110				
1961	May 5, 1961	14.33	421				
1962	Mar. 20, 1962	10.62	140				
1963	July 28, 1963	8.89	28				
1964	July 1, 1964	9.92	85				
1965	-	(a)	(b)				

a No peak registered.
b Less than 17 cfs.

GASCONADE RIVER BASIN

6-9310. Beaver Creek near Rolla, Mo.

Location.--Lat 37°52'45", long 91°47'43", in SE¼SW¼ sec.34, T.37 N., R.8 W., 30 ft downstream from bridge on U. S. Highway 63, 4½ miles upstream from mouth, and 5 miles south of Rolla.

Drainage area.--14.0 sq mi. Slope.--39.5 ft per mi.

Gage.--Recording Aug. 12, 1948, to Aug. 18, 1958; crest-stage gage subsequent to Jan. 12, 1960. Datum of gage is 805.31 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,100 cfs and extended by logarithmic plotting.

Bankfull stage.--6 ft.

Remarks.--Base for partial-duration series, 1,500 cfs. Only annual peaks shown subsequent to 1955.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	3.85	1,860	1955	Mar. 20, 1955	3.92	1,890
	Sept. 12, 1949	4.40	2,050				
				1956	May 30, 1956	5.3	3,620
1950	Oct. 11, 1949	5.45	3,080				
	Oct. 21, 1949	4.44	2,100	1957	May 21, 1957	4.2	2,220
	Jan. 3, 1950	5.40	3,560				
	Jan. 13, 1950	4.17	2,180	1958	Dec. 17, 1957	3.0	980
	May 10, 1950	3.50	1,500				
	May 19, 1950	3.98	2,020	1960	Dec. 17, 1959	4.46	2,500
	May 29, 1950	3.61	1,600				
	June 9, 1950	5.61	3,800	1961	May 6, 1961	5.13	3,400
1951	June 30, 1951	4.47	2,280	1962	Sept. 24, 1962	4.29	2,330
1952	Mar. 10, 1952	3.43	1,280	1963	May 25, 1963	3.24	1,200
1953	Apr. 23, 1953	4.06	1,870	1964	Apr. 5, 1964	4.64	2,750
1954	June 9, 1954	2.93	924	1965	Sept. 14, 1965	3.47	1,400

GASCONADE RIVER BASIN

6-9315. Little Beaver Creek near Rolla, Mo.

Location.--Lat 37°56'06", long 91°50'11", in NW¼NW¼ sec.17, T.37 N., R.8 W., on right bank 1,700 ft downstream from new U. S. Highway 66, and 3 miles west of Rolla.

Drainage area.--6.41 sq mi. Slope.--65.6 ft per mi.

Gage.--Recording. Altitude of gage is 790 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and by indirect measurement at 5,000 cfs, and extended by logarithmic plotting.

Bankfull stage.--2.5 ft.

Historical data.--Flood of June 8, 1945, reached a stage of about 7.5 ft from information furnished by local residents. Maximum stage known since 1881 or 1882, that of July 17, 1958.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 20, 1948	4.08	1,020	1957	May 17, 1957	5.70	1,820
	June 22, 1948	4.08	1,020		May 21, 1957	5.80	1,940
1949	June 2, 1949	4.41	1,230		May 21, 1957	7.57	5,040
	July 22, 1949	4.37	1,200		June 29, 1957	5.25	1,340
1950	Oct. 4, 1949	4.35	1,240	1958	June 10, 1958	7.20	4,240
	Oct. 11, 1949	6.05	3,130		July 16, 1958	5.78	1,920
	Oct. 20, 1949	4.27	1,160		July 17, 1958	8.57	7,420
	Jan. 3, 1950	4.77	1,570	1959	Feb. 9, 1959	3.93	524
	Jan. 13, 1950	4.55	1,400				
	Apr. 4, 1950	4.33	1,240	1960	May 6, 1960	4.81	1,060
	May 19, 1950	4.79	1,610				
	June 9, 1950	6.66	4,180	1961	May 5, 1961	5.02	1,210
1951	June 30, 1951	5.32	2,110	1962	June 9, 1962	3.94	529
	Aug. 9, 1951	5.15	1,950				
1952	Oct. 22, 1951	3.00	456	1963	May 25, 1963	6.03	2,240
				1964	Apr. 5, 1964	5.19	1,340
1953	Apr. 23, 1953	5.3	2,110				
				1965	June 3, 1965	5.19	1,340
1954	June 9, 1954	4.30	740		Sept. 4, 1965	4.94	1,160
					Sept. 14, 1965	5.37	1,480
1955	July 7, 1955	4.60	950				
1956	May 30, 1956	5.17	1,320				

CASCONADE RIVER BASIN

6-9320. Little Piney Creek at Newburg, Mo.

Location.--Lat 37°54'40", long 91°54'10", in SE¼ sec.22, T.37 N., R.9 W., at bridge on County Highways P and T at Newburg, 2 miles upstream from Mill Creek.

Drainage area.--200 sq mi, approximately. Slope.--14.0 ft per mi.

Gage.--Nonrecording. At datum 3.00 ft higher prior to Oct. 1, 1951. Datum of gage is 693.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and by indirect measurements at 26,000 and 32,500 cfs.

Bankfull stage.--10 ft.

Remarks.--Gage heights are adjusted to present datum. Base for partial-duration series, 4,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	16.7	a30,000	1949	Feb. 15, 1949	9.00	7,030
1929	May 6, 1929	10.22	8,860	1950	Oct. 6, 1949	9.20	7,390
					Oct. 11, 1949	11.60	13,100
1930	Feb. 25, 1930	9.26	6,700		Oct. 21, 1949	11.00	11,300
					Jan. 3, 1950	12.00	14,400
1931	May 19, 1931	6.14	1,110		Jan. 13, 1950	8.60	6,350
					May 10, 1950	8.00	5,330
1932	Dec. 31, 1931	6.38	1,390		May 19, 1950	8.00	5,330
					June 10, 1950	13.60	20,300
1933	May 13, 1933	10.58	7,840				
				1951	June 30, 1951	12.00	14,400
1934	Sept. 13, 1934	9.98	6,700		July 10, 1951	10.00	8,950
					July 13, 1951	8.00	5,330
1935	Mar. 11, 1935	11.54	10,100				
	June 16, 1935	9.98	6,520	1952	Mar. 11, 1952	6.30	2,680
	June 21, 1935	12.40	13,100				
	June 26, 1935	16.26	28,000	1953	Apr. 23, 1953	5.50	1,730
1936	June 7, 1936	9.12	4,660	1954	June 9, 1954	6.0	2,260
1937	July 19, 1937	14.35	20,500	1955	Mar. 20, 1955	7.3	4,420
1938	May 23, 1938	10.04	6,050	1956	May 31, 1956	9.80	7,000
1939	Apr. 16, 1939	13.00	15,200	1957	May 21, 1957	10.00	6,900
					May 23, 1957	11.91	11,100
1940	Apr. 17, 1940	7.05	2,540				
				1958	Dec. 17, 1957	8.88	5,280
1941	Apr. 19, 1941	12.50	15,000		Mar. 23, 1958	9.3	5,790
					June 10, 1958	9.6	6,230
1942	June 25, 1942	8.81	4,820		July 16, 1958	11.0	9,000
					July 17, 1958	12.8	13,500
1943	Oct. 20, 1942	9.50	6,070				
	Dec. 27, 1942	11.30	10,800	1959	May 17, 1959	8.9	5,280
	May 18, 1943	9.40	5,870				
				1960	May 6, 1960	8.10	4,380
1944	Feb. 28, 1944	5.94	1,320				
				1961	May 6, 1961	9.84	6,550
1945	Apr. 2, 1945	11.50	11,500		May 8, 1961	9.0	5,400
	Apr. 14, 1945	13.20	19,200				
	June 8, 1945	15.00	26,000	1962	Mar. 20, 1962	7.70	3,970
1946	Aug. 14, 1946	16.20	32,500	1963	May 26, 1963	7.80	2,420
1947	Apr. 24, 1947	11.23	11,800	1964	Apr. 5, 1964	9.31	5,780
1948	Oct. 31, 1947	5.82	1,660	1965	Sept. 5, 1965	7.95	4,160

a Annual peak only.

GASCONADE RIVER BASIN

6-9335. Gasconade River at Jerome, Mo.
(Published as "at Arlington" prior to 1923)

Location.--Lat 37°55'35", long 91°58'40", in SE¼ sec.13, T.37 N., R.10 W., at Jerome, 0.5 mile downstream from Little Piney Creek.

Drainage area.--2,840 sq mi, approximately. Slope.--3.01 ft per mi.

Gage.--Nonrecording Apr. 11, 1903, to July 21, 1906, and Jan. 3, 1923, to Jan. 17, 1939; recording gage thereafter. At site 4,000 ft downstream from present gage at different datum prior to July 26, 1904. At site 2,600 ft upstream from and at datum about 0.85 ft higher than present datum, July 26, 1904, to July 21, 1906. At site 400 ft downstream from and at datum 0.14 ft lower than present datum, Jan. 3, 1923, to Sept. 29, 1928. Datum of gage is 657.64 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Historical data.--Maximum stage known, about 29.0 ft Jan. 6, 1897 (discharge, 120,000 cfs). A stage of 28.6 ft was reached Aug. 20, 22, 1915 (discharge, 114,000 cfs).

Remarks.--Base for partial-duration series, 16,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	Jan. 6, 1897	a29.0	b120,000	1935	Mar. 13, 1935	25.80	76,800
					June 4, 1935	15.70	28,400
1904	Jan. 23, 1904	11.5	16,400		June 21, 1935	20.60	46,900
	Mar. 26, 1904	16.5	29,900		June 26, 1935	23.50	62,600
	Apr. 26, 1904	18.0	33,900				
	June 26, 1904	14.5	24,500	1936	Nov. 11, 1935	7.30	8,480
1905	Mar. 9, 1905	13.5	24,200	1937	Jan. 16, 1937	13.96	23,900
	July 23, 1905	20.3	45,000		Feb. 2, 1937	11.16	17,000
	July 30, 1905	19.1	41,100		May 3, 1937	15.10	27,000
	Sept. 19, 1905	16.5	32,900				
				1938	Feb. 19, 1938	18.70	37,900
1915	Aug. 22, 1915	a28.6	b114,000		May 10, 1938	12.65	19,900
					May 24, 1938	16.2	29,300
1923	Mar. 17, 1923	10.30	15,500				
				1939	Apr. 16, 1939	13.67	22,600
1924	May 29, 1924	15.80	30,400		Apr. 18, 1939	16.19	29,300
	Aug. 12, 1924	11.85	19,400				
				1940	Mar. 13, 1940	10.44	14,500
1925	Dec. 20, 1924	18.20	38,600				
	Sept. 29, 1925	12.75	22,000	1941	Apr. 21, 1941	22.64	54,600
1926	Nov. 8, 1925	9.80	13,900	1942	Nov. 2, 1941	13.35	20,700
					Apr. 11, 1942	13.03	20,000
1927	Mar. 22, 1927	12.55	21,300		June 13, 1942	12.84	19,500
	Apr. 2, 1927	21.06	45,500		June 20, 1942	17.4	31,600
	Apr. 15, 1927	19.0	39,300				
	Apr. 21, 1927	15.26	28,700	1943	Dec. 28, 1942	25.63	74,000
	May 26, 1927	15.45	29,000		May 12, 1943	20.57	43,700
	June 3, 1927	19.85	41,600		May 21, 1943	24.7	67,800
	June 22, 1927	11.75	19,200		June 23, 1943	13.9	22,200
	Aug. 11, 1927	13.6	24,000		June 25, 1943	11.76	17,200
	Aug. 16, 1927	17.9	36,100				
	Aug. 19, 1927	16.2	31,300	1944	Mar. 1, 1944	9.57	12,500
1928	Nov. 16, 1927	11.4	18,100	1945	Feb. 23, 1945	15.91	27,400
	Dec. 15, 1927	13.89	24,800		Mar. 7, 1945	17.20	31,300
	Apr. 7, 1928	20.0	42,200		Mar. 21, 1945	14.35	23,500
	Apr. 23, 1928	15.7	29,900		Apr. 3, 1945	17.77	33,300
	May 24, 1928	11.59	18,600		Apr. 15, 1945	27.7	101,000
	June 10, 1928	23.25	61,100		June 8, 1945	20.01	41,300
	June 20, 1928	12.65	21,300		June 19, 1945	14.67	24,200
1929	Mar. 16, 1929	11.00	17,000	1946	Feb. 15, 1946	18.06	34,300
	Apr. 11, 1929	14.20	25,700		May 26, 1946	17.75	33,300
	May 7, 1929	16.60	32,700		Aug. 14, 1946	26.55	87,500
	May 24, 1929	13.45	23,500				
				1947	Nov. 11, 1946	16.9	30,400
1930	Jan. 15, 1930	15.52	29,300		Apr. 27, 1947	23.53	60,000
1931	May 20, 1931	6.80	7,500	1948	June 20, 1948	16.50	29,200
					June 29, 1948	12.95	20,000
1932	Jan. 24, 1932	8.50	11,100				
				1949	Jan. 26, 1949	13.0	20,000
1933	Apr. 17, 1933	16.80	31,700		Jan. 29, 1949	13.4	21,000
	May 16, 1933	23.40	62,600		Feb. 16, 1949	17.3	31,700
					June 3, 1949	13.6	21,500
1934	Sept. 13, 1934	7.28	8,530		June 9, 1949	13.6	21,500

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River at Jerome, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 9, 1949	13.9	22,200	1955	Feb. 21, 1955	11.35	16,300
					Mar. 22, 1955	15.01	25,000
1950	Oct. 6, 1949	13.4	21,000				
	Oct. 12, 1949	17.3	31,700	1956	May 16, 1956	16.35	28,900
	Oct. 24, 1949	18.88	37,100		June 1, 1956	16.94	30,400
	Jan. 5, 1950	21.03	45,600				
	Jan. 15, 1950	16.73	29,800	1957	Feb. 27, 1957	12.22	18,100
	May 13, 1950	21.6	48,700		Apr. 5, 1957	15.40	26,100
	May 21, 1950	12.24	18,100		May 24, 1957	23.12	57,400
	June 10, 1950	19.14	37,900		June 5, 1957	14.76	24,500
1951	Feb. 21, 1951	14.25	23,000	1958	Dec. 20, 1957	17.55	32,600
	Mar. 13, 1951	11.78	17,200		Mar. 25, 1958	19.65	39,700
	May 21, 1951	12.39	18,600		July 19, 1958	21.26	47,100
	June 29, 1951	11.55	16,800				
	July 2, 1951	20.08	41,700	1959	May 29, 1959	11.03	15,400
	July 6, 1951	12.08	17,900				
	July 11, 1951	14.90	24,700	1960	Dec. 20, 1959	10.65	14,600
	July 14, 1951	13.70	21,700				
				1961	May 3, 1961	13.15	20,600
1952	Nov. 14, 1951	13.08	20,300		May 10, 1961	23.90	62,800
	Nov. 17, 1951	12.42	18,600				
	Feb. 4, 1952	11.80	17,200	1962	Mar. 22, 1962	14.65	24,500
	Mar. 12, 1952	12.45	18,600				
	Apr. 14, 1952	13.00	20,000	1963	May 27, 1963	15.60	27,500
1953	Apr. 24, 1953	9.50	12,300	1964	Apr. 7, 1964	14.78	25,100
1954	May 5, 1954	4.87	4,320	1965	Apr. 9, 1965	14.96	25,700
					Sept. 6, 1965	15.82	28,100

a Present datum.
b Annual peak only.

GASCONADE RIVER BASIN

6-9337. Penzer Hollow near Rolla, Mo.

Location.--Lat 38°00'30", long 91°49'55", in NE¼NW¼ sec.20, T.38 N., R.8 W., on right bank just upstream from culvert under Phelps County road E, 5 miles north of Rolla.

Drainage area.--0.27 sq mi. Slope.--190 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 15.1 cfs and by indirect measurements at 45.4, 139, and 276 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 30, 1956	15.02	45				
1957	May 21, 1957	18.52	276				
1958	July 17, 1958	17.10	161				
1959	-	(a)	(b)				
1960	May 6, 1960	15.75	80				
1961	May 6, 1961	16.18	102				
1962	Mar. 20, 1962	15.66	75				
1963	May 25, 1963	16.95	150				
1964	Apr. 5, 1964	15.80	82				
1965	June 4, 1965	16.80	140				

a Stage did not reach gage during year.
b Less than 30 cfs.

GASCONADE RIVER BASIN

6-9340. Gasconade River near Rich Fountain, Mo.

Location.--Lat 38°23'20", long 91°49'15", in SE¼ sec.16, T.42 N., R.8 W., at bridge on State Highway 89, 800 ft upstream from Swan Creek, and 4 miles east of Rich Fountain.

Drainage area.--3,180 sq mi, approximately. Slope.--2.68 ft per mi.

Gage.--Nonrecording prior to Mar. 10, 1934; recording gage thereafter. Datum of gage is 553.70 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 18,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 2, 1922	16.70	27,300	1940	Mar. 13, 1940	11.70	14,000
	Apr. 19, 1922	13.70	20,700				
	Apr. 29, 1922	14.40	22,300	1941	Apr. 22, 1941	22.80	51,000
1923	Mar. 17, 1923	11.20	15,200	1942	Oct. 5, 1941	14.40	19,900
					Nov. 3, 1941	14.60	20,300
1924	May 30, 1924	17.20	27,700		Apr. 12, 1942	14.50	20,100
					June 14, 1942	14.45	19,900
1925	Dec. 21, 1924	18.00	29,600		June 21, 1942	19.10	32,700
	Sept. 30, 1925	13.22	18,900				
				1943	Dec. 29, 1942	25.60	74,500
1926	Nov. 9, 1925	10.48	13,500		May 13, 1943	20.60	38,500
					May 22, 1943	25.30	71,700
1927	Mar. 23, 1927	14.10	20,900		June 8, 1943	14.70	20,600
	Apr. 3, 1927	21.63	41,000		June 23, 1943	14.80	20,800
	Apr. 9, 1927	13.14	18,700				
	Apr. 17, 1927	20.38	37,400	1944	Mar. 2, 1944	10.69	12,600
	Apr. 21, 1927	15.48	24,000				
	May 26, 1927	16.13	25,300	1945	Feb. 24, 1945	16.04	23,800
	June 3, 1927	20.78	38,600		Mar. 6, 1945	17.31	27,300
	Aug. 12, 1927	15.40	23,800		Mar. 9, 1945	18.34	30,200
	Aug. 17, 1927	17.75	29,800		Mar. 22, 1945	15.76	23,300
	Aug. 20, 1927	16.70	26,800		Apr. 3, 1945	19.88	35,600
					Apr. 16, 1945	29.13	96,400
1928	Dec. 16, 1927	14.55	21,700		June 9, 1945	20.58	38,500
	Apr. 8, 1928	19.95	36,000				
	Apr. 25, 1928	15.90	24,800	1946	Feb. 16, 1946	18.21	29,900
	May 25, 1928	12.86	18,200		May 27, 1946	17.18	27,000
	June 11, 1928	22.83	51,000		Aug. 16, 1946	25.18	67,400
	June 20, 1928	14.30	21,100				
				1947	Nov. 12, 1946	16.93	26,200
1929	Apr. 12, 1929	15.65	24,000		Apr. 28, 1947	24.10	59,700
	May 9, 1929	17.15	27,900				
	May 15, 1929	14.70	21,900	1948	June 23, 1948	16.64	25,400
	May 18, 1929	13.40	19,200		June 30, 1948	14.23	19,500
1930	Jan. 16, 1930	16.30	25,700	1949	Jan. 27, 1949	14.95	21,300
					Jan. 30, 1949	14.6	20,400
1931	May 20, 1931	9.60	11,900		Feb. 18, 1949	17.4	27,600
					June 4, 1949	15.6	22,800
1932	Jan. 25, 1932	9.55	11,900		June 10, 1949	14.16	19,500
					July 10, 1949	14.5	20,200
1933	Apr. 18, 1933	17.21	27,900				
	May 17, 1933	23.05	60,600	1950	Oct. 7, 1949	13.5	18,000
	May 24, 1933	13.80	20,000		Oct. 13, 1949	18.6	31,100
					Oct. 25, 1949	19.5	35,000
1934	Sept. 12, 1934	12.67	17,700		Jan. 7, 1950	20.9	40,400
					Jan. 16, 1950	17.7	29,100
1935	Mar. 14, 1935	26.85	86,000		May 14, 1950	22.09	46,400
	June 5, 1935	16.85	26,900		May 20, 1950	14.8	21,400
	June 22, 1935	21.74	43,800		June 11, 1950	19.3	34,300
	June 27, 1935	21.38	42,200				
				1951	Feb. 22, 1951	15.30	22,600
1936	Nov. 12, 1935	7.92	7,890		May 22, 1951	15.0	21,900
					July 3, 1951	20.50	38,700
1937	Jan. 17, 1937	14.86	22,400		July 7, 1951	13.48	18,600
	May 4, 1937	16.61	26,400		July 12, 1951	16.85	26,600
	June 9, 1937	18.17	30,600				
				1952	Nov. 14, 1951	14.28	20,300
1938	Feb. 20, 1938	19.00	32,400		Mar. 13, 1952	13.80	19,500
	May 11, 1938	13.73	18,300		Apr. 15, 1952	13.80	19,500
	May 25, 1938	16.76	25,900				
	June 11, 1938	16.13	24,100	1953	Apr. 24, 1953	10.59	13,800
1939	Apr. 19, 1939	17.38	27,300	1954	May 22, 1954	5.94	5,660

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Rich Fountain, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 23, 1955	15.73	24,800	1959	May 30, 1959	11.83	16,100
1956	May 18, 1956	15.50	24,300	1960	Dec. 21, 1959	11.70	15,900
	June 2, 1956	16.75	27,700				
				1961	May 4, 1961	14.01	20,800
1957	Feb. 28, 1957	13.5	18,600		May 11, 1961	24.2	60,400
	Apr. 7, 1957	16.48	25,800				
	May 18, 1957	16.47	25,800	1962	Mar. 23, 1962	15.86	25,300
	May 25, 1957	23.7	56,900				
	June 6, 1957	15.58	23,400	1963	May 30, 1963	17.5	27,800
1958	Dec. 21, 1957	17.30	28,000	1964	Apr. 8, 1964	15.2	23,600
	Mar. 26, 1958	20.60	38,500				
	July 20, 1958	21.70	43,900	1965	-	-	27,000

MISSOURI RIVER MAIN STEM

6-9345. Missouri River at Hermann, Mo.

Location.--Lat 38°42'36", long 91°26'21", SW¼ sec.25, T.46 N., R.5 W., at bridge on State Highway 19 at Hermann, and at mile 97.9.

Drainage area.--528,200 sq mi.

Gage.--Nonrecording Aug. 1, 1928, to Mar. 27, 1932, and June 13, 1945, to Apr. 2, 1946. Recording gage Mar. 28, 1932, to June 12, 1945, and since Apr. 3, 1946. Datum of gage is 481.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--21 ft.

Remarks.--Drainage basin above station contains many reservoirs with total usable capacity in excess of 28,875,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	35.5	a892,000	1947	June 29, 1947	31.20	487,000
1903	June 7, 1903	29.5	a676,000	1948	June 25, 1948	25.2	333,000
1929	June 8, 1929	24.6	407,000	1949	June 5, 1949	22.8	239,000
1930	Feb. 7, 1930	b16.8	-	1950	July 22, 1950	23.10	-
	June 19, 1930	15.0	164,000		Aug. 17, 1950	-	265,000
1931	May 20, 1931	13.5	123,000	1951	July 19, 1951	33.33	618,000
1932	Nov. 29, 1931	20.9	269,000	1952	Apr. 28, 1952	27.10	368,000
1933	May 14, 1933	19.4	183,000	1953	May 9, 1953	18.70	177,000
1934	Mar. 10, 1934	11.28	85,000	1954	June 5, 1954	16.82	145,000
1935	June 7, 1935	29.15	473,000	1955	Feb. 21, 1955	19.35	186,000
1936	Feb. 27, 1936	15.85	145,000	1956	Oct. 7, 1955	17.45	144,000
1937	June 10, 1937	19.85	194,000	1957	May 26, 1957	21.50	196,000
1938	May 25, 1938	21.80	231,000	1958	July 23, 1958	29.15	339,000
1939	Apr. 18, 1939	22.75	247,000	1959	June 3, 1959	21.30	190,000
1940	June 12, 1940	14.03	111,000	1960	Apr. 7, 1960	28.44	330,000
1941	Apr. 20, 1941	23.66	256,000	1961	May 10, 1961	30.6	405,000
1942	June 28, 1942	29.62	435,000	1962	Mar. 23, 1962	25.30	278,000
1943	May 21, 1943	31.20	550,000	1963	Mar. 6, 1963	17.10	139,000
1944	Apr. 28, 1944	30.90	577,000	1964	June 26, 1964	21.10	202,000
1945	Apr. 20, 1945	27.74	398,000	1965	Sept. 25, 1965	27.40	306,000
1946	Aug. 15, 1946	20.3	209,000				

a Computed by Corps of Engineers.
b Backwater from ice.

LOUTRE RIVER BASIN

6-9350. Rumbo Branch at Danville, Mo.

Location.--Lat 38°55'00", long 91°32'03", in SW¼NE¼ sec.24, T.48 N., R.6 W., 30 ft upstream from center line of State Highway 29, 20 ft left of center line of culvert, and half a mile north of Danville.

Drainage area.--1.40 sq mi. Slope.--44.9 ft per mi.

Gage.--Recording prior to Sept. 9, 1959; crest-stage gage thereafter. Datum of gage is 747.27 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 35 cfs, by indirect measurement at 220 cfs, and by a calculated estimate at 350 cfs.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 8, 1954	3.33	101	1958	July 19, 1958	4.09	183
					July 19, 1958	4.44	222
1955	Apr. 4, 1955	4.43	222		Sept. 2, 1958	5.98	398
	Apr. 12, 1955	4.09	183				
	July 6, 1955	6.34	434	1959	Feb. 9, 1959	4.34	209
					May 18, 1959	3.92	161
1956	May 18, 1956	4.16	188				
	May 29, 1956	3.95	166	1960	Mar. 27, 1960	4.46	223
	May 31, 1956	4.02	172				
	July 2, 1956	4.47	222	1961	May 5, 1961	4.44	220
	July 16, 1956	5.62	350				
				1962	Mar. 20, 1962	4.26	201
1957	June 29, 1957	5.72	362				
				1963	May 17, 1963	4.02	174
1958	Apr. 5, 1958	4.17	188				
	June 10, 1958	4.04	178	1964	Apr. 5, 1964	3.62	130
	June 12, 1958	3.94	166				
	June 15, 1958	4.86	266	1965	Apr. 5, 1965	3.68	137
	July 4, 1958	4.45	222				

LOUTRE RIVER BASIN

6-9355. Loutre River at Mineola, Mo.

Location.--Lat 38°53'20", long 91°34'30", in SE¼NW¼ sec.34, T.48 N., R.6 W., at downstream side of left pier of bridge in Mineola, 0.2 mile upstream from Sallee Branch, and 1½ miles downstream from new U. S. Highway 40.

Drainage area.--202 sq mi. Slope.--10.4 ft per mi.

Gage.--Nonrecording prior to Aug. 29, 1951; recording gage thereafter. Datum of gage is 539.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs.

Bankfull stage.--17 ft.

Historical data.--Flood of June 20, 1928, reached a stage of about 28.9 ft and flood in October 1941, reached a stage of 27.8 ft, from information by local residents.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 21, 1948	17.6	8,160	1956	July 16, 1956	17.85	8,420
	Mar. 23, 1948	16.6	6,950		July 19, 1956	16.85	7,190
	July 4, 1948	15.1	5,190				
	July 26, 1948	17.2	7,670	1957	Mar. 25, 1957	15.81	5,990
					Apr. 28, 1957	15.40	5,510
1949	Jan. 23, 1949	17.33	7,820		June 30, 1957	20.88	12,900
	Mar. 26, 1949	15.43	5,800				
	June 2, 1949	17.89	8,550	1958	June 15, 1958	17.27	7,790
	Sept. 13, 1949	19.98	11,500		July 20, 1958	18.98	10,000
					July 31, 1958	18.60	9,470
1950	Oct. 21, 1949	18.50	9,330		Sept. 2, 1958	19.55	10,900
	Dec. 21, 1949	15.5	5,800		Sept. 17, 1958	17.45	7,910
	Jan. 3, 1950	14.8	5,100				
	Jan. 13, 1950	17.1	7,580	1959	Feb. 10, 1959	19.60	10,900
	Mar. 11, 1950	15.0	5,280		Mar. 9, 1959	16.28	6,590
	June 3, 1950	17.7	8,300		May 17, 1959	14.88	5,000
1951	Feb. 20, 1951	18.0	8,680	1960	Oct. 4, 1959	15.25	5,290
	Mar. 17, 1951	19.6	10,900		Oct. 11, 1959	18.99	10,000
	Sept. 22, 1951	14.7	5,010		Mar. 28, 1960	17.70	8,290
1952	Mar. 18, 1952	14.78	5,100	1961	May 6, 1961	18.35	9,200
	Apr. 12, 1952	14.66	5,010		May 8, 1961	17.60	8,160
1953	May 5, 1953	14.45	4,770	1962	Mar. 21, 1962	19.90	11,400
1954	June 8, 1954	8.65	1,750	1963	May 16, 1963	8.95	1,850
1955	Apr. 5, 1955	14.04	4,220	1964	May 28, 1964	13.90	4,420
1956	Oct. 5, 1955	16.40	6,710	1965	Apr. 6, 1965	15.27	5,580
	Oct. 6, 1955	16.04	6,230		Sept. 16, 1965	15.32	5,580
	July 3, 1956	15.74	5,870		Sept. 22, 1965	18.45	9,200
	July 4, 1956	16.28	6,590				

LITTLE BERGER CREEK BASIN

6-9357. Little Berger Creek tributary near Hermann, Mo.

Location.--Lat 38°40'10", long 91°22'25", in NW¼NE¼ sec.9, T.45 N., R.4 W., on right bank just upstream from culvert under State Highway 100, 4 miles southeast of Hermann.

Drainage area.--0.25 sq mi. Slope.--178 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 194, 302, and 576 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Apr. 11, 1955	16.95	194				
1956	Feb. 24, 1956	14.70	a85				
1957	June 29, 1957	22.31	576				
1958	Aug. 9, 1958	18.15	300				
1959	June 15, 1959	18.82	340				
1960	-	(b)	(c)				
1961	May 7, 1961	14.68	a85				
1962	June 7, 1962	13.84	a47				
1963	Aug. 19, 1963	13.14	a23				
1964	-	(b)	(c)				
1965	Apr. 15, 1965	14.33	67				

a Revised.
b Stage did not reach gage during year.
c Less than 50 cfs.

BONHOMME CREEK BASIN

6-9358. Shotwell Creek near Ellisville, Mo.

Location.--Lat 38°37'05", long 90°35'00", in NW¼NW¼ sec.28, T.45 N., R.4 E., on left bank just upstream from culvert on State Highway 340, 1.8 miles north of Jct. 340 and 100, and 1 mile north of Jct. 340 and County Route HH.

Drainage area.--0.81 sq mi. Slope.--79.5 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 10, 1962.

Stage-discharge relation.--Defined at 346, 620, and 718 cfs by indirect measurements. Defined below 42 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	June 29, 1960	18.94	620				
1961	May 7, 1961	20.69	718				
1962	Apr. 30, 1962	19.11	640				
1963	July 5, 1963	18.41	550				
1964	July 11, 1964	19.80	670				
1965	Nov. 27, 1964	14.95	185				

COLDWATER CREEK BASIN

6-9365. Coldwater Creek near St. Louis, Mo.

Location.--Lat 38°48'50", long 90°13'50", in sec.16, T.47 N., R.7 E., on right wingwall on downstream side of U. S. Highway 67 bridge, 1.7 miles upstream from Missouri River, 1.8 miles southeast of Lewis Bridge, 3.5 miles south of West Alton, and 6 miles north of St. Louis city limits.

Drainage area.--43.6 sq mi. Slope.--7.70 ft per mi.

Gage.--Recording gage installed Sept. 22, 1959, removed July 20, 1961; reinstalled July 13, 1962.

Stage-discharge relation.--Defined by current-meter measurements.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	May 24, 1960	12.43	3,550				
	June 29, 1960	17.13	6,170				
	July 1, 1960	12.03	3,350				
1961	June 30, 1961	12.93	3,850				
1962	Record incomplete						
1963	May 16, 1963	9.88	2,380				
1964	July 11, 1964	11.57	3,200				
1965	July 7, 1965	10.81	2,800				

MISSISSIPPI RIVER MAIN STEM

7-0100. Mississippi River at St. Louis, Mo.

Location.--Lat 38°37'44", long 90°10'47", on downstream side of center pier of Eads Bridge at St. Louis, 15 miles downstream from Missouri River, 19.2 miles upstream from Meramec River, and at mile 180.0 above Ohio River.

Drainage area.--701,000 sq mi, approximately.

Gage.--Nonrecording Corps of Engineers gages prior to May 5, 1934; recording thereafter. Prior to 1934, at site 0.4 mile downstream at present datum. Datum of gage is 379.94 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage.--30 ft.

Historical data.--Flood in April 1785 may have reached a stage of 42.0 ft.

Remarks.--Records prior to January 1928 furnished by Corps of Engineers; January 1928 to March 1933 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1933 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 27, 1844	41.32	a1,300,000	1911	Feb. 23, 1911	19.90	283,000
				1912	Apr. 5, 6, 1912	b30.80	640,800
1861	May 15, 1861	25.47	466,000	1913	Apr. 16,17, 1913	27.20	487,000
1862	Apr. 26, 1862	31.45	712,200	1914	June 21, 1914	20.40	293,800
1863	Mar. 4, 9, 1863	18.02	252,000	1915	June 24, 1915	31.60	678,200
1864	May 14, 1864	20.33	309,500				
1865	July 28, 1865	26.81	512,800	1916	Jan. 31, Feb. 1	31.40	676,100
				1917	June 14, 1917	32.90	743,400
1866	Apr. 25, 1866	26.77	512,800	1918	June 12, 1918	20.80	324,100
1867	May 1, 1867	28.21	568,400	1919	May 11, 1919	26.90	514,700
1868	May 14,15, 1868	24.19	420,800	1920	Apr. 24, May 22	28.0	554,000
1869	July 24, 1869	29.31	615,200				
1870	Apr. 16, 1870	26.21	491,200	1921	May 14, 1921	23.0	397,000
				1922	Apr. 20, 1922	33.95	785,900
1871	Mar. 17, 1871	21.82	347,800	1923	June 17, 1923	20.7	341,200
1872	June12,14, 1872	23.00	383,000	1924	July 2, 3, 1924	26.3	494,900
1873	Apr. 11, 1873	25.45	462,400	1925	June 25, 1925	19.9	325,800
1874	June19,20, 1874	18.40	261,200				
1875	Aug. 3, 1875	29.80	637,200	1926	Sept. 29, 1926	24.5	438,000
				1927	Apr. 26, 1927	36.1	889,300
1876	May 10,12, 1876	b32.00	741,000	1928	June 22, 1928	27.6	552,000
1877	June 14, 1877	26.60	505,600	1929	Apr. 25, 1929	b34.6	739,000
1878	June 15, 1878	25.75	476,800	1930	June 21, 1930	19.6	310,000
1879	July 3, 1879	21.15	332,200				
1880	July 12, 1880	25.50	466,000	1931	June 15, 1931	13.3	200,000
				1932	Dec. 1, 1931	22.11	356,000
1881	May 5, 6, 1881	b33.65	822,000	1933	May 17, 1933	27.0	434,000
1882	July 5, 1882	32.39	739,200	1934	Apr. 24, 1934	9.0	136,000
1883	June25,26, 1883	b34.80	862,800	1935	June 7, 1935	b33.52	649,000
1884	Apr.9, 10, 1884	28.10	543,600				
1885	June 17, 1885	27.10	503,500	1936	Mar. 1, 1936	21.18	336,000
				1937	May 5, 1937	23.76	374,000
1886	May 13, 1886	27.00	499,500	1938	May 27, 1938	26.57	434,000
1887	Apr. 3, 1887	20.65	307,600	1939	Apr. 20, 1939	30.13	529,000
1888	June 4, 1888	29.38	598,600	1940	June 14, 1940	13.37	188,000
1889	June 1, 1889	24.62	416,200				
1890	July 1, 1890	20.60	307,600	1941	Apr. 22, 1941	26.15	451,000
				1942	June 30, 1942	34.48	666,000
1891	July 4, 1891	23.7	388,300	1943	May 24, 1943	38.94	840,000
1892	May 19, 1892	36.0	926,500	1944	Apr. 30, 1944	39.14	844,000
1893	May 3, 1893	31.60	700,000	1945	Apr. 21-23, 1945	c35.30	610,000
1894	May 11, 1894	23.4	379,600				
1895	July 8, 1895	17.0	229,000	1946	Jan. 13, 1946	28.00	502,000
				1947	July 1, 2, 1947	40.26	783,000
1896	May26, 28 1896	27.70	507,000	1948	Mar. 27, 1948	34.63	633,000
1897	May 2, 1897	30.9	645,400	1949	Mar. 11, 1949	24.41	425,000
1898	May 23, 1898	27.20	487,000	1950	May 14, 1950	27.02	466,000
1899	Apr. 27, 1899	25.68	432,400				
1900	Mar. 16, 1900	23.53	366,500	1951	July 21, 1951	b40.28	782,000
				1952	Apr.29, 30, 1952	b33,83	684,000
1901	Apr. 18, 1901	22.58	343,400	1953	Apr. 4, 1953	22.57	369,000
1902	July 26, 1902	26.89	475,300	1954	June 6, 1954	18.65	292,000
1903	June10,11, 1903	b38.00	1,019,000	1955	Feb. 23, 1955	18.62	312,000
1904	Apr. 29, 1904	33.60	777,600				
1905	Sept. 21, 1905	30.20	613,200	1956	Oct. 8, 1955	14.68	230,000
				1957	May 27, 1957	22.91	342,000
1906	Apr. 15, 1906	26.20	449,400	1958	July 24, 1958	29.40	504,000
1907	July25,26, 1907	28.00	a519,000	1959	June 4, 1959	23.35	366,000
1908	June 20, 1908	34.95	850,000	1960	Apr. 10, 1960	33.78	670,000
1909	July15,16, 1909	35.25	a860,600				
1910	Jan. 13, 1910	25.2	416,400	1961	May 11, 1961	33.20	588,000

MISSISSIPPI RIVER MAIN STEM

Peak stages and discharges of Mississippi River at St. Louis, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Mar. 25, 1962	30.18	591,000				
1963	Mar. 7, 1963	18.35	309,000				
1964	Apr. 24, 1964	18.96	309,000				
1965	Sept. 28, 1965	30.44	552,000				

a Computed by Corps of Engineers.
b Occurred at different time than peak discharge.
c Occurred June 13, 1945

MERAMEC RIVER BASIN

7-0112. Love Creek near Salem, Mo.

Location.--Lat 37°38'10", long 91°33'35", in W½NE¼ sec.23, T.34 N., R.6 W., on left bank just upstream from culvert under State Highways 32 and 72 and half a mile west of Salem.

Drainage area.--0.89 sq mi. Slope.—106 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 13, 1959, and removed April 14, 1964.

Stage-discharge relation.--Defined at 51, 144, and 262 cfs by indirect measurement. Defined below 20 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 27, 1955	4.05	65				
1956	Apr. 28, 1956	5.15	144				
1957	May 18, 1957	4.49	94				
1958	Dec. 16, 1957	4.17	73				
1959		(a)	(b)				
1960	Dec. 27, 1959	6.25	262				
1961	May 8, 1961	4.72	108				
1962	June 7, 1962	5.02	130				
1963	May 25, 1963	4.91	128				
1964	Apr. 5, 1964	4.40	85				
1965	Apr. 5, 1965	4.45	90				

a Stage below bottom of gage.
b Less than 40 cfs.

MERAMEC RIVER BASIN

7-0113. Ragan Branch near Rolla, Mo.
(Published as "Lenox Branch" prior to 1964)

Location.--Lat 37°49'05", long 91°41'45", in NE¼NE¼ sec.28, T.36 N., R.7 W., on left downstream wingwall of bridge on State Highway 72, 3 miles northwest of Lake Spring and 9 miles southeast of Rolla.

Drainage area.--6.58 sq mi. (Revised). Slope.--45.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined below 790 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown. Formerly published as "Lenox Branch".

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 19, 1949	3.94	1,600				
1950	June 9, 1950	5.31	4,200				
1951	Aug. 9, 1951	2.88	580				
1952	Nov. 15, 1951	1.90	170				
1953	No record						
1954	May 2, 1954	1.64	120				
1955	July 7, 1955	3.94	1,600				
1956	May 30, 1956	4.23	2,000				
1957	No record						
1958	July 17, 1958	6.90	10,000				
1959		(a)	(b)				
1960	Dec. 17, 1959	3.06	710				
1961	May 6, 1961	3.61	1,200				
1962	Mar. 20, 1962	2.10	230				
1963	Mar. 30, 1963	2.69	470				
1964	Apr. 5, 1964	3.01	660				
1965	Apr. 6, 1965	2.05	210				

a Stage below bottom of gage.
b Discharge not determined.

MERAMEC RIVER BASIN

7-0115. Green Acre Branch near Rolla, Mo.

Location.--Lat 37°54'50", long 91°43'35", in NW¼SW¼ sec.20, T.37 N., R.7 W., on left bank 35 ft upstream from double concrete-box culvert under State Highway 72, 0.4 mile upstream from mouth, and 3 miles southeast of Rolla.

Drainage area.--0.622 sq mi. Slope.--87 ft per mi.

Gage.--Recording gage and concrete control. Datum of gage is 958.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 290 cfs, and by slope-area measurements at 426 and 1,900 cfs.

Bankfull stage.--3 ft.

Remarks.--Base for partial-duration series, 50 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 23, 1949	2.02	53	1958	June 10, 1958	3.54	293
	Feb. 3, 1949	1.98	50		July 16, 1958	2.80	140
	Feb. 14, 1949	2.48	99		July 17, 1958	4.22	513
	July 16, 1949	3.23	210		July 30, 1958	2.83	144
	Sept.12, 1949	2.28	76		July 31, 1958	2.69	125
	Sept.18, 1949	2.24	72		Aug. 1, 1958	2.61	114
1950	Oct. 5, 1949	2.27	76				
	Oct. 11, 1949	3.06	183	1959	Apr. 18, 1959	2.68	123
	Oct. 20, 1949	2.44	94		Apr. 19, 1959	3.05	182
	Oct. 21, 1949	2.62	116		May 21, 1959	2.64	118
	Jan. 2, 1950	2.12	61				
	Jan. 3, 1950	3.22	215	1960	Dec. 17, 1959	2.70	126
	Jan. 13, 1950	2.96	165		May 6, 1960	2.98	169
	Feb. 12, 1950	2.06	56				
	Apr. 3, 1950	2.67	122	1961	May 5, 1961	3.89	396
	May 19, 1950	2.86	149		May 6, 1961	3.33	240
	May 29, 1950	3.98	426		June 8, 1961	3.84	380
	June 9, 1950	6.85	1,900				
	Aug. 13, 1950	2.12	61	1962	June 7, 1962	3.47	275
	Aug. 28, 1950	2.07	57		Sept.24, 1962	2.56	108
1951	Nov. 7, 1950	2.04	55	1963	May 25, 1963	2.32	81
	May 22, 1950	2.64	118				
	June 12, 1951	2.40	90	1964	Apr. 5, 1964	3.19	209
	June 30, 1951	3.65	323		June 13, 1964	3.78	361
	July 9, 1951	2.95	164				
	July 12, 1951	2.92	158	1965	June 3, 1965	2.93	120
	Aug. 9, 1951	3.94	413		June 10, 1965	3.94	379
					Sept. 4, 1965	3.03	140
1952	Mar. 10, 1952	1.94	46.9		Sept.14, 1965	4.11	438
1953	Apr. 23, 1953	4.39	577				
	June 26, 1953	2.18	67				
1954	May 22, 1954	2.97	167				
	May 28, 1954	2.49	100				
	May 31, 1954	2.30	78				
	June 2, 1954	3.36	247				
	June 9, 1954	4.96	821				
	July 24, 1954	2.83	144				
	Aug. 7, 1954	2.22	70				
1955	Oct. 11, 1954	3.06	183				
	Mar. 15, 1955	2.81	142				
	Mar. 20, 1955	2.59	112				
	May 12, 1955	3.70	337				
	May 28, 1955	2.51	102				
	June 5, 1955	2.24	72				
	Sept.22, 1955	2.93	160				
1956	May 26, 1956	3.19	209				
	May 30, 1956	4.03	444				
	June 24, 1956	3.02	176				
	July 5, 1956	3.72	343				
1957	May 17, 1957	3.18	207				
	May 21, 1957	3.44	267				
	May 22, 1957	3.18	207				
	May 25, 1957	3.59	306				
	May 29, 1957	2.87	150				
	May 31, 1957	2.85	148				
	June 24, 1957	2.95	164				
	July 27, 1957	2.98	169				
	Aug. 16, 1957	2.6	113				

MERAMEC RIVER BASIN

7-0120. Behmke Branch near Rolla, Mo.

Location.--Lat 37°56'05", long 91°42'35", in NE¼NE¼ sec.17, T.37 N., R.7 W., on right bank 300 ft upstream from county highway bridge, a quarter of a mile upstream from mouth, and 3½ miles southeast of Rolla.

Drainage area.--1.05 sq mi. Slope.--77 ft per mi.

Gage.--Recording prior to Oct. 1, 1958; crest-stage gage thereafter. Datum of gage is 928.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 250 cfs and by slope-area measurements at 389 and 1,190 cfs.

Bankfull stage.--3 ft.

Remarks.--Base for partial-duration series, 90 cfs. Only annual peaks are shown subsequent to 1958.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	1.95	182	1963	Mar. 30, 1963	2.42	464
	July 16, 1949	1.80	119				
				1964	June 13, 1964	2.32	396
1950	Oct. 5, 1949	1.75	104				
	Oct. 11, 1949	2.18	304	1965	Sept.14, 1965	2.19	310
	Oct. 21, 1949	1.93	173				
	Jan. 3, 1950	2.22	229				
	Jan. 13, 1950	2.08	248				
	Apr. 3, 1950	1.83	131				
	May 19, 1950	2.10	258				
	May 29, 1950	2.31	389				
	June 9, 1950	3.36	1,190				
	Aug. 14, 1950	2.08	248				
1951	May 22, 1951	1.72	94				
	June 30, 1951	2.16	293				
	July 9, 1951	2.02	216				
	July 12, 1951	2.04	227				
	Aug. 9, 1951	2.28	369				
1952	Mar. 10, 1952	1.70	88				
1953	Apr. 23, 1953	2.11	264				
1954	June 2, 1954	2.12	270				
	June 9, 1954	2.94	847				
1955	Oct. 11, 1954	2.11	264				
	Feb. 19, 1955	1.72	94				
	Mar. 15, 1955	2.03	222				
	Mar. 20, 1955	1.99	201				
	May 12, 1955	2.31	389				
	May 28, 1955	1.92	168				
	June 5, 1955	1.87	147				
	June 11, 1955	1.94	178				
	July 7, 1955	1.92	168				
	Sept.22, 1955	2.10	258				
1956	May 26, 1956	2.13	275				
	May 30, 1956	2.28	369				
	June 24, 1956	2.24	342				
	July 3, 1956	2.22	329				
1957	May 17, 1957	2.20	316				
	May 21, 1957	2.24	342				
	May 22, 1957	2.15	287				
	May 25, 1957	2.16	293				
	May 29, 1957	2.08	248				
	May 31, 1957	2.03	222				
	June 29, 1957	2.01	211				
1958	June 10, 1958	2.29	375				
	July 16, 1958	2.00	206				
	July 17, 1958	2.94	847				
	July 30, 1958	1.92	168				
	July 31, 1958	1.92	168				
1959	May 17, 1959	-	200				
	May 21, 1959	2.31	389				
	May 22, 1959	1.92	168				
1960	Dec. 17, 1959	2.10	258				
1961	May 6, 1961	2.58	576				
1962	June 7, 1962	2.38	436				

MERAMEC RIVER BASIN

7-0120.5. Dry Fork near St. James, Mo.

Location.--Lat 37°57'55", long 91°34'55", in SW¼SW¼ sec.34, T.38 N., R.6 W., on upstream side of bridge on State Highway 68, 2 miles southeast of St. James and 5.5 miles upstream from Meramec River.

Drainage area.--370 sq mi. Slope.--5.60 ft per mi.

Gage.--Nonrecording. Prior to Dec. 9, 1948, at site 300 ft upstream at same datum. Datum of gage is 787.24 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--15 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water years	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	11.55	3,890				
1945	June 8, 1945	19.37	18,800				
1946	Aug. 15, 1946	21.7	28,000				
1947	Apr. 25, 1947	17.14	12,200				
1948	July 7, 1948	16.1	10,600				
1949	Feb. 15, 1949	13.0	6,300				
1950	Jan. 3, 1950	17.0	12,300				

MERAMEC RIVER BASIN

7-0130. Meramec River near Steelville, Mo.

Location.--Lat 37°59'55", long 91°21'40", in NE¼ sec.21, T.38 N., R.4 W., on downstream side of first pier from left end of St. Louis-San Francisco Railway bridge, 400 ft upstream from highway bridge, 0.8 mile upstream from Whittenburg Creek, and 1½ miles north of Steelville.

Drainage area.--781 sq mi. Slope.--6.29 ft per mi.

Gage.--Nonrecording prior to May 23, 1934; recording thereafter. Prior to Dec. 21, 1922, at site 1 mile upstream at datum 5.8 ft higher. Datum of present gage is 681.68 ft above mean sea level, datum of 1929. Peak gage heights for period prior to Dec. 21, 1922, computed from plotted U. S. Weather Bureau readings and transferred to present site by comparative gage readings.

Stage-discharge relation.--Defined by current-meter measurements below 46,000 cfs; shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 9,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	26.5	a60,000	1937	May 3, 1937	14.15	14,900
1917	Apr. 8, 1917	6.65	5,180	1938	Feb. 18, 1938	13.84	14,100
					May 24, 1938	14.14	14,700
1918	Apr. 25, 1918	18.7	33,400				
	Apr. 28, 1918	10.7	9,480	1939	Mar. 11, 1939	10.94	9,500
	May 12, 1918	16.3	24,600		Apr. 17, 1939	17.67	25,100
1919	June 4, 1919	10.9	9,790	1940	May 2, 1940	10.53	8,900
1920	Oct. 27, 1919	24.1	55,000	1941	Apr. 20, 1941	16.92	22,600
	Nov. 1, 1919	11.5	10,700				
	Mar. 26, 1920	15.9	23,200	1942	June 14, 1942	14.28	15,800
	May 13, 1920	12.1	12,000		June 21, 1942	13.04	13,000
	May 20, 1920	11.0	9,790		June 26, 1942	11.19	9,970
	Sept. 11, 1920	12.5	12,900				
				1943	Dec. 28, 1942	22.00	36,100
1921	Mar. 28, 1921	16.7	26,000		May 12, 1943	14.64	14,500
	Apr. 23, 1921	11.8	11,300		May 20, 1943	17.56	21,500
	Apr. 26, 1921	15.6	22,200				
				1944	May 10, 1944	10.02	7,190
1922	Nov. 19, 1921	14.4	18,300				
	Mar. 15, 1922	12.5	12,900	1945	Mar. 3, 1945	13.23	11,900
	Mar. 31, 1922	15.4	21,600		Mar. 7, 1945	15.47	16,500
	Apr. 17, 1922	17.5	29,000		Mar. 31, 1945	14.70	14,800
	Apr. 28, 1922	12.4	12,700		Apr. 3, 1945	13.47	12,500
					Apr. 15, 1945	21.96	36,200
1923	June 16, 1923	12.26	11,800		May 30, 1945	12.08	10,000
					June 9, 1945	24.30	47,000
1924	May 29, 1924	12.43	11,900				
	Aug. 12, 1924	12.40	11,900	1946	Feb. 14, 1946	17.10	20,300
					Aug. 15, 1946	16.77	19,500
1925	Dec. 19, 1924	10.00	9,120				
				1947	Nov. 11, 1946	14.38	14,200
1926	Nov. 8, 1925	8.50	7,270		Apr. 25, 1947	20.35	30,100
1927	Apr. 1, 1927	19.40	36,000	1948	July 7, 1948	12.47	10,700
	Apr. 8, 1927	12.20	12,100				
	Apr. 15, 1927	13.25	14,800	1949	Jan. 19, 1949	13.01	11,600
	May 25, 1927	18.95	34,400		Feb. 16, 1949	16.68	19,300
	June 2, 1927	18.80	33,600				
	June 4, 1927	13.01	14,200	1950	Oct. 7, 1949	13.74	12,900
					Oct. 12, 1949	13.21	11,900
1928	Dec. 14, 1927	10.96	9,900		Oct. 22, 1949	15.17	15,800
	Apr. 6, 1928	15.97	23,600		Jan. 4, 1950	18.74	24,900
	June 10, 1928	17.90	30,300		Jan. 14, 1950	14.48	14,600
					May 11, 1950	15.90	17,700
1929	May 7, 1929	14.25	17,600				
				1951	Feb. 19, 1951	13.59	12,700
1930	Jan. 15, 1930	14.34	18,000		July 1, 1951	15.57	17,000
	Feb. 26, 1930	13.60	15,900		July 11, 1951	13.46	12,500
					July 14, 1951	20.43	30,100
1931	June 10, 1931	3.53	1,930				
				1952	Apr. 13, 1952	11.59	9,210
1932	Jan. 23, 1932	4.00	2,460				
				1953	May 4, 1953	8.39	5,160
1933	Apr. 16, 1933	15.60	18,000				
	May 14, 1933	17.50	23,800	1954	June 10, 1954	9.40	6,210
1934	Sept. 14, 1934	14.34	15,100	1955	Mar. 21, 1955	12.60	10,800
1935	Mar. 12, 1935	19.53	31,500	1956	May 31, 1956	9.76	6,640
	June 21, 1935	20.31	34,600				
	June 26, 1935	23.39	47,800	1957	Apr. 5, 1957	13.12	12,100
					Apr. 28, 1957	12.76	11,600
1936	Nov. 11, 1935	9.96	8,160		May 18, 1957	12.70	11,400

MERAMEC RIVER BASIN

Peak stages and discharges of Meramec River near Steelville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 24, 1957	17.36	21,400				
	May 26, 1957	12.62	11,300				
1958	Dec. 18, 1957	14.60	14,800				
	Mar. 25, 1958	15.88	17,700				
	July 17, 1958	13.37	12,600				
1959	May 22, 1959	6.03	3,250				
1960	Dec. 28, 1959	12.03	11,700				
1961	May 9, 1961	14.64	16,200				
1962	Mar. 21, 1962	13.76	14,600				
1963	May 27, 1963	11.82	11,200				
1964	Apr. 6, 1964	13.41	13,800				
1965	Apr. 7, 1965	11.69	11,000				

a Annual peak only.

MERAMEC RIVER BASIN

7-0145. Meramec River near Sullivan, Mo.

Location.--Lat 38°09'30", long 91°06'30", in SE¼NE¼ sec.35, T.40 N., R.2 W., on right bank at upstream side of Sappington Bridge, 3 3/4 miles downstream from Brazil Creek and 4 miles southeast of Sullivan.

Drainage area.--1,475 sq mi. Slope.--4.98 ft per mi.

Gage.--Nonrecording prior to Oct. 20, 1952; recording thereafter. Datum of gage is 581.82 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 71,000 cfs; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	33.5	a90,000
1922	Nov. 19, 1921	16.05	16,500
	Mar. 16, 1922	14.20	12,600
	Mar. 31, 1922	16.60	18,000
	Apr. 17, 1922	16.80	18,400
	Apr. 29, 1922	13.90	12,000
1923	Mar. 13, 1923	14.00	12,200
	Mar. 16, 1923	14.15	12,600
	May 17, 1923	13.80	11,800
	June 17, 1923	13.90	12,000
1924	Apr. 9, 1924	17.25	19,400
	May 30, 1924	17.10	19,200
1925	Dec. 20, 1924	16.00	16,500
1926	Nov. 8, 1925	14.60	13,400
1927	Mar. 20, 1927	13.70	11,600
	Apr. 2, 1927	22.80	35,000
	Apr. 9, 1927	15.30	14,900
	Apr. 16, 1927	18.80	23,700
	May 26, 1927	21.90	32,400
	June 2, 1927	22.89	35,300
	June 5, 1927	14.60	13,400
1928	Nov. 8, 1927	15.20	14,700
	Dec. 1, 1927	14.70	13,600
	Dec. 14, 1927	17.30	19,700
	Apr. 6, 1928	19.80	26,400
	Apr. 23, 1928	13.20	10,600
	June 11, 1928	20.30	27,800
	June 14, 1928	14.30	12,800
	June 21, 1928	13.80	11,800
	June 29, 1928	13.60	11,400
1929	Apr. 10, 1929	16.50	17,700
	May 3, 1929	13.80	11,800
	May 7, 1929	18.20	22,000
	May 15, 1929	15.20	14,700
1930	Jan. 14, 1930	18.20	22,000
	Feb. 27, 1930	16.70	18,200
	Mar. 8, 1930	15.20	14,700
1931	Apr. 27, 1931	5.56	2,300
1932	Nov. 20, 1931	7.75	3,800
1933	Apr. 16, 1933	19.60	25,900
	May 14, 1933	22.00	32,700
1944	May 4, 1944	17.0	19,000
1945	Mar. 3, 1945	15.80	16,000
	Mar. 7, 1945	18.35	22,600
	Mar. 31, 1945	21.30	30,700
	Apr. 3, 1945	17.40	20,000
	Apr. 15, 1945	26.15	45,000
	Apr. 30, 1945	14.28	12,800
	June 9, 1945	32.00	77,300
1946	Feb. 14, 1946	19.08	23,900
	Aug. 16, 1946	16.40	17,500
1947	Nov. 10, 1946	16.00	16,500
	Apr. 26, 1947	24.80	40,500
1948	Jan. 2, 1948	14.60	13,200
	July 8, 1948	13.00	10,100
1949	Jan. 19, 1949	15.60	15,300
	Jan. 25, 1949	15.30	14,700
	Jan. 28, 1949	13.80	11,600
	Feb. 15, 1949	20.30	27,000
	Mar. 19, 1949	13.30	10,600
1950	Oct. 7, 1949	15.05	14,000
	Oct. 13, 1949	14.40	12,800
	Oct. 23, 1949	16.54	17,400
	Dec. 22, 1949	13.63	11,200
	Jan. 4, 1950	25.50	42,800
	Jan. 14, 1950	17.05	18,600
	May 11, 1950	18.64	22,600
1951	Feb. 19, 1951	17.22	19,100
	Mar. 12, 1951	13.94	11,800
	July 2, 1951	16.73	17,900
	July 14, 1951	21.30	29,800
1952	Apr. 5, 1952	13.90	11,800
	Apr. 13, 1952	15.00	14,000
1953	Mar. 4, 1953	12.05	8,590
1954	June 10, 1954	11.70	8,190
1955	Feb. 21, 1955	13.14	11,200
	Mar. 21, 1955	15.58	16,100
1956	May 16, 1956	11.00	8,060
1957	Feb. 27, 1957	14.70	14,300
	Mar. 25, 1957	13.58	12,100
	Apr. 4, 1957	18.85	23,600
	Apr. 22, 1957	17.22	19,800
	Apr. 27, 1957	17.42	20,300
	May 18, 1957	17.22	19,800
	May 23, 1957	21.73	31,200
	June 30, 1957	22.61	33,700
1958	Dec. 18, 1957	16.95	19,400
	Mar. 10, 1958	12.40	10,000
	Mar. 25, 1958	18.86	23,900
	July 18, 1958	16.57	18,500
1959	Mar. 12, 1959	8.06	4,490
1960	Dec. 19, 1959	13.19	10,200
	Dec. 29, 1959	13.94	12,100
1961	Mar. 6, 1961	14.96	15,000
	May 9, 1961	22.43	33,200
1962	Mar. 21, 1962	17.91	21,500
1963	May 28, 1963	14.91	14,700
1964	Mar. 10, 1964	14.99	15,000
	Apr. 6, 1964	16.17	17,600
1965	Apr. 7, 1965	15.22	15,300

a Annual peak only.

MERAMEC RIVER BASIN

7-0150. Bourbeuse River near St. James, Mo.

Location.--Lat 38°02'00", long 91°38'45", in NW¼ sec.12, T.38 N., R.7 W., on left bank 735 ft upstream from bridge on State Highway 68 and 3 miles northwest of St. James.

Drainage area.--21.3 sq mi. Slope.--34 ft per mi.

Gage.--Recording. Datum of gage is 899.46 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,200 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 20, 1948	8.80	a4,100	1965	Sept. 4, 1965	8.7	3,860
					Sept.14, 1965	7.63	2,160
1949	Feb. 14, 1949	8.35	3,260				
	Aug. 19, 1949	7.76	2,300				
	Sept.12, 1949	9.28	4,890				
	Sept.12, 1949	9.01	4,370				
1950	Oct. 4, 1949	10.07	6,240				
	Oct. 5, 1949	8.68	3,860				
	Oct. 11, 1949	10.73	7,580				
	Oct. 11, 1949	11.08	8,250				
	Oct. 20, 1949	8.95	4,280				
	Oct. 21, 1949	8.25	3,100				
	Jan. 3, 1950	9.25	4,800				
	Jan. 13, 1950	8.80	4,030				
	Apr. 3, 1950	7.65	2,160				
	Apr. 4, 1950	7.68	2,230				
	May 10, 1950	7.61	2,080				
	May 19, 1950	9.16	4,620				
	May 29, 1950	8.40	3,350				
1951	Mar. 10, 1951	7.27	1,640				
	Apr. 21, 1951	7.92	2,540				
	June 30, 1951	8.37	3,260				
	July 11, 1951	7.43	1,880				
	Aug. 9, 1951	8.04	2,780				
1952	Dec. 14, 1951	7.53	2,020				
1953	Apr. 23, 1953	9.12	4,540				
1954	May 22, 1954	7.43	1,880				
	June 9, 1954	9.82	5,790				
1955	Mar. 20, 1955	7.86	2,460				
1956	July 3, 1956	6.74	1,130				
1957	Mar. 24, 1957	8.15	2,940				
	May 17, 1957	9.38	5,070				
	May 18, 1957	9.23	4,800				
	May 21, 1957	10.09	6,330				
	May 22, 1957	8.50	3,520				
	May 25, 1957	8.40	3,350				
1958	Dec. 16, 1957	8.12	2,860				
	July 17, 1958	7.85	2,460				
	July 31, 1958	8.39	3,350				
	Aug. 1, 1958	7.67	2,160				
1959	May 17, 1959	7.72	2,230				
	May 21, 1959	9.09	4,540				
1960	Dec. 17, 1959	8.20	3,020				
	May 6, 1960	8.0	2,700				
1961	Mar. 7, 1961	7.21	1,580				
	May 6, 1961	8.95	4,280				
	May 8, 1961	7.80	2,380				
1962	Mar. 20, 1962	7.42	1,820				
1963	May 25, 1963	6.52	938				
1964	Apr. 5, 1964	8.59	3,690				
	June 13, 1964	10.05	6,240				

a Annual peak only.

MERAMEC RIVER BASIN

7-0155. Lanes Fork near Rolla, Mo.

Location.--Lat 37°59'33", long 91°43'36", in NE¼NE¼ sec.30, T.38 N., R.7 W., on left bank 100 ft upstream from farm road bridge, 300 ft west of Highway V, 1 mile north of U.S. Highway 66, and 4½ miles northeast of Rolla.

Drainage area.--0.22 sq mi. Slope.--41.1 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined below 125 cfs by current-meter measurements.

Remarks.--Base for partial-duration series, 30 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Mar. 10, 1952	3.66	25.6				
1953	Apr. 23, 1953	4.94	136				
1954	June 7, 1954	3.96	37.1				
	June 9, 1954	4.94	136				
1955	Mar. 20, 1955	4.05	41.1				
	June 11, 1955	3.88	33.8				
	June 25, 1955	3.79	30.3				
	July 23, 1955	4.00	38.8				
1956	May 26, 1956	3.56	22.4				
1957	Mar. 24, 1957	4.06	44.1				
	May 17, 1957	4.65	95				
	May 18, 1957	4.35	63				
	May 21, 1957	4.63	93				
	May 21, 1957	4.91	131				
	May 22, 1957	4.51	79				
	May 25, 1957	4.20	51				
1958	Dec. 16, 1957	4.27	56				
	July 17, 1958	4.48	76				
	July 31, 1958	4.32	60				
	Aug. 1, 1958	4.01	41.8				
1959	Feb. 9, 1959	4.07	44.6				
	May 17, 1959	3.88	35.9				
1960	Dec. 17, 1959	4.26	56				
	Dec. 27, 1959	3.80	35.5				
	May 6, 1960	4.60	89				
1961	Mar. 6, 1961	3.89	36.4				
	May 6, 1961	4.57	86				
	May 8, 1961	3.92	37.7				
	May 8, 1961	3.89	36.4				
	June 14, 1961	4.01	41.8				
	July 20, 1961	4.30	58				
1962	Mar. 20, 1962	3.75	30.5				
1963	May 25, 1963	3.91	37.2				
1964	Apr. 5, 1964	4.31	59				
	June 13, 1964	4.77	110				
1965	June 2, 1965	4.04	43.2				
	Sept. 4, 1965	4.78	111				
	Sept.14, 1965	4.32	60				

MERAMEC RIVER BASIN

7-0157. Lanes Fork near Vichy, Mo.

Location.--Lat 36°06'15", long 91°42'45", in SW¼NW¼ sec.17, T.39 N., R.7 W., at bridge on State Highway 68, 1⅛ miles downstream from Bailey Creek, 2½ miles east of Vichy, and 9 miles upstream from mouth.

Drainage area.--24.1 sq mi. Slope.—27 ft per mi.

Gage.--Nonrecording prior to Jan. 12, 1950; recording Jan. 12, 1950, to Sept. 11, 1959; crest-stage gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 1,500 cfs. Only annual peaks are shown prior to 1951 and subsequent to 1958.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	8.3	3,700				
1945	June 7, 1945	12.0	9,400				
1948	July 12, 1948	8.5	4,490				
1949	Feb. 16, 1949	6.6	2,660				
1950	Oct. 4, 1949	10.5	7,120				
1951	Mar. 10, 1951	5.32	1,630				
	May 22, 1951	6.02	2,170				
	June 30, 1951	6.57	2,660				
	July 11, 1951	5.30	1,630				
	July 13, 1951	5.97	2,170				
	Aug. 9, 1951	7.97	3,960				
	Aug. 27, 1951	6.67	2,750				
	Aug. 28, 1951	5.49	1,780				
1952	Oct. 22, 1951	5.57	1,820				
1953	Apr. 23, 1953	4.82	1,290				
1954	May 22, 1954	6.55	2,660				
1955	Mar. 20, 1955	5.79	2,010				
	June 11, 1955	5.95	2,170				
	July 24, 1955	5.13	1,520				
1956	July 3, 1956	5.67	1,890				
1957	Mar. 24, 1957	6.75	2,840				
	Apr. 3, 1957	5.30	1,630				
	May 17, 1957	11.70	8,920				
	May 21, 1957	8.65	4,600				
	May 23, 1957	10.10	6,530				
	June 28, 1957	6.86	2,920				
1958	Mar. 8, 1958	5.05	1,460				
	July 31, 1958	7.70	3,660				
	Aug. 1, 1958	7.78	3,760				
1959	May 17, 1959	7.00	3,010				
1960	May 6, 1960	7.99	3,960				
1961	May 6, 1961	8.24	4,160				
1962	Mar. 20, 1962	7.51	3,470				
1963	May 25, 1963	5.10	1,490				
1964	Apr. 5, 1964	7.73	3,690				
1965	Sept. 4, 1965	9.33	5,450				

MERAMEC RIVER BASIN

7-0158. Langenberg Branch near Rosebud, Mo.

Location.--Lat 38°23'00", long 91°25'45", in SE¼NE¼ sec.13, T.42 N., R.5 W., on right bank just upstream from culvert under State Highway 28 about 1.7 miles west of Rosebud, 1.1 miles west on State Highway 28 from junction U.S. 50 and State Highway 28, approximately 0.6 mile west of Rosebud.

Drainage area.--0.64 sq mi. Slope.--100 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Apr. 15, 1964.

Stage-discharge relation.--Defined at 48 and 143 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 14, 1960	8.57	88				
1961	May 8, 1961	9.50	180				
1962	Mar. 20, 1962	9.18	145				
1963	Mar. 30, 1963	7.99	43				
1964	June 5, 1964	8.65	95				
1965	Sept. 4, 1965	8.25	61				

MERAMEC RIVER BASIN

7-0160. Bourbeuse River near Spring Bluff, Mo.

Location.--Lat 38°18'40", long 91°16'45", in NE¼ sec.8, T.41 N., R.3 W., on downstream side of highway bridge, 1 mile downstream from Boone Creek, 3.5 miles northwest of Spring Bluff, and 9.5 miles northwest of Sullivan.

Drainage area.--608 sq mi. Slope.--3.92 ft per mi.

Gage.--Nonrecording. Datum of gage is 626.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 31,000 cfs.

Bankfull stage.--27.5 ft.

Remarks.--Station operated to obtain flows above 1,000 cfs only. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	35.7	a60,000	1963	May 27, 1963	17.96	7,850
1944	Apr. 11, 1944	21.3	10,200	1964	Apr. 6, 1964	24.22	14,900
	Apr. 23, 1944	21.4	10,400		May 29, 1964	21.77	11,700
	May 10, 1944	23.63	13,700				
1945	Mar. 3, 1945	23.6	13,700	1965	Apr. 6, 1965	18.06	7,940
	Mar. 7, 1945	22.1	11,300				
	Mar. 31, 1945	25.1	16,400				
	Apr. 3, 1945	24.9	16,000				
	Apr. 15, 1945	22.5	11,900				
	June 9, 1945	31.0	31,500				
1946	Feb. 14, 1946	22.87	12,500				
1947	Apr. 26, 1947	31.40	33,300				
1948	Jan. 2, 1948	21.91	11,100				
	July 20, 1948	22.16	11,500				
	July 26, 1948	24.35	15,100				
1949	Feb. 16, 1949	21.91	11,100				
1950	Oct. 7, 1949	24.8	15,800				
	Oct. 12, 1949	30.34	28,600				
	Oct. 21, 1949	23.05	12,900				
	Jan. 4, 1950	28.0	22,000				
	Jan. 14, 1950	23.3	13,200				
	Apr. 5, 1950	22.55	12,100				
	May 11, 1950	22.3	11,600				
	May 20, 1950	25.65	17,300				
	May 27, 1950	21.28	10,200				
1951	Mar. 12, 1951	22.57	12,100				
	July 14, 1951	29.49	25,800				
	Aug. 28, 1951	22.98	12,700				
1952	Apr. 5, 1952	20.48	9,200				
1953	Mar. 4, 1953	18.79	7,300				
1954	June 10, 1954	18.47	7,000				
1955	Feb. 21, 1955	20.10	9,100				
1956	May 31, 1956	20.75	9,800				
1957	Feb. 27, 1957	25.53	17,100				
	Mar. 26, 1957	24.07	14,600				
	May 18, 1957	27.99	22,000				
	May 23, 1957	30.26	28,600				
	June 15, 1957	31.79	35,100				
	June 28, 1957	24.62	15,500				
	June 30, 1957	34.71	50,700				
1958	Mar. 9, 1958	21.21	10,200				
	Mar. 25, 1958	21.91	11,100				
1959	Feb. 11, 1959	21.23	11,300				
1960	Dec. 28, 1959	18.37	8,560				
1961	May 9, 1961	28.76	23,800				
1962	Mar. 21, 1962	27.97	22,000				

a Annual peak only.

MERAMEC RIVER BASIN

7-0165. Bourbeuse River at Union, Mo.

Location.--Lat 38°26'45", long 90°59'30", in SW¼ sec.26, T.43 N., R.1 W., on right bank on downstream side of bridge pier on U. S. Highway 50, 800 ft upstream from Flat Creek, half a mile east of Union, and 7 miles upstream from Birch Creek. Records include flow of Flat Creek.

Drainage area.--808 sq mi, including that of Flat Creek. Slope.--2.76 ft per mi.

Gage.--Nonrecording prior to June 12, 1944, at various sites nearby; recording thereafter. Prior to Oct. 1, 1948, at datum 3.00 ft higher. Datum of present gage is 488.58 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur frequently due largely to gravel removal from control. Discharges of the 1897 and 1915 floods 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.

Bankfull stage.--15 ft.

Remarks.--Peaks for period prior to June 7, 1921, computed from plotted U. S. Weather Bureau readings. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897		27.15	a44,500	1939	Apr. 19, 1939	16.58	12,200
1915	Aug. 22, 1915	28.5	a50,000	1940	Feb. 29, 1940	9.45	3,700
1916	February 1916	21.0	a21,100	1941	Apr. 21, 1941	20.09	18,700
1917	Apr. 30, 1917	14.0	8,840	1942	June 23, 1942	17.60	13,700
					June 28, 1942	21.0	21,100
1918	Apr. 30, 1918	18.7	15,700				
				1943	Dec. 29, 1942	22.0	24,100
1919	Mar. 18, 1919	14.2	9,090		May 13, 1943	17.04	12,800
					May 20, 1943	19.60	17,600
1920	Oct. 30, 1919	22.3	25,100				
	Nov. 2, 1919	16.5	12,100	1944	May 11, 1944	16.0	11,400
	May 22, 1920	18.7	15,700				
				1945	Apr. 2, 1945	17.80	14,700
1921	Mar. 29, 1921	17.3	13,200		Apr. 4, 1945	17.10	13,600
	Apr. 28, 1921	18.1	14,600		Apr. 16, 1945	16.20	12,100
					June 10, 1945	23.10	28,500
1922	Apr. 2, 1922	17.70	14,600				
	Apr. 19, 1922	16.94	13,100	1946	Feb. 16, 1946	15.46	11,100
1923	Mar. 17, 1923	14.10	8,930	1947	Apr. 27, 1947	22.1	25,100
1924	Dec. 15, 1923	16.64	12,600	1948	July 28, 1948	14.89	10,500
	May 31, 1924	17.16	13,700				
				1949	Feb. 17, 1949	14.82	10,400
1925	Dec. 21, 1924	15.40	10,700				
				1950	Oct. 8, 1949	15.85	12,500
1926	Nov. 10, 1925	16.14	11,800		Oct. 14, 1949	20.05	20,200
					Oct. 23, 1949	15.82	12,500
1927	Mar. 22, 1927	17.65	13,300		Jan. 6, 1950	19.39	18,900
	Apr. 3, 1927	22.10	22,500		Jan. 15, 1950	15.62	12,200
					Apr. 6, 1950	15.35	12,000
1928	Dec. 3, 1927	17.27	12,900		May 22, 1950	16.08	12,900
	Apr. 7, 1928	20.00	17,100				
				1951	July 15, 1951	19.79	19,800
1929	Mar. 18, 1929	16.78	12,200				
	May 21, 1929	16.90	12,400	1952	Apr. 6, 1952	13.20	8,970
1930	Jan. 16, 1930	17.00	12,500	1953	Mar. 5, 1953	11.85	7,330
1931	May 21, 1931	12.20	6,650	1954	June 11, 1954	10.76	6,250
1932	Jan. 3, 1932	13.80	8,540	1955	Feb. 22, 1955	12.14	7,670
1933	May 16, 1933	20.55	18,300	1956	June 2, 1956	12.98	8,730
1934	Sept. 16, 1934	17.10	12,600	1957	Mar. 1, 1957	17.16	15,100
					Mar. 27, 1957	15.97	13,000
1935	Mar. 13, 1935	17.90	13,800		May 20, 1957	17.72	16,000
	June 23, 1935	19.00	15,400		May 24, 1957	20.46	22,100
	June 29, 1935	16.60	12,000		June 15, 1957	21.28	24,100
					July 1, 1957	24.44	33,100
1936	Apr. 7, 1936	11.90	6,290				
				1958	Mar. 26, 1958	14.96	11,000
1937	May 5, 1937	17.78	13,600				
	June 12, 1937	18.42	14,500	1959	Feb. 12, 1959	13.96	9,140
1938	Feb. 20, 1938	17.00	12,800	1960	Dec. 29, 1959	12.19	7,670
	June 13, 1938	23.23	28,200				
				1961	May 9, 1961	20.19	20,200

MERAMEC RIVER BASIN

Peak stages and discharges of Bourbeuse River at Union, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Mar. 23, 1962	17.82	15,900				
1963	May 28, 1963	11.28	7,100				
1964	Apr. 8, 1964	16.59	14,000				
1965	Apr. 8, 1965	11.72	7,520				

a Annual peak only.

MERAMEC RIVER BASIN

7-0170. Meramec River at Robertsville, Mo.

Location.--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 1 3/4 miles upstream from Calvey Creek.

Drainage area.--2,673 sq mi. Slope.--3.83 ft per mi.

Gage.--Recording gage to Sept. 30, 1951 (discontinued). Datum of gage is 448.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 97,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	36.1	a125,000				
1940	May 3, 1940	12.49	11,100				
1941	Apr. 22, 1941	25.20	39,400				
1942	June 1, 1942	19.68	24,500				
	June 16, 1942	19.21	23,400				
	June 28, 1942	24.20	34,600				
1943	Dec. 30, 1942	30.12	65,600				
	May 13, 1943	22.70	32,100				
	May 20, 1943	26.50	45,600				
	June 9, 1943	19.20	23,400				
1944	May 11, 1944	17.10	19,200				
1945	Mar. 5, 1945	20.08	25,400				
	Mar. 9, 1945	21.78	29,700				
	Apr. 2, 1945	26.12	43,800				
	Apr. 4, 1945	22.62	31,900				
	Apr. 16, 1945	29.22	60,200				
	June 10, 1945	34.0	102,000				
1946	Feb. 16, 1946	23.22	33,600				
1947	Nov. 12, 1946	18.36	21,700				
	Apr. 27, 1947	28.95	59,100				
1948	Jan. 3, 1948	16.30	17,700				
1949	Feb. 17, 1949	22.80	32,400				
1950	Oct. 14, 1949	20.50	26,400				
	Oct. 24, 1949	20.36	26,200				
	Jan. 6, 1950	29.17	60,400				
	Jan. 16, 1950	21.80	29,700				
	Apr. 4, 1950	17.48	20,000				
	May 13, 1950	22.68	32,400				
1951	Feb. 21, 1951	21.00	27,600				
	Mar. 14, 1951	18.22	21,300				
	July 3, 1951	18.23	21,300				
	July 16, 1951	26.38	45,200				

a Annual peak only.

MERAMEC RIVER BASIN

7-0175. Dry Branch near Bonne Terre, Mo.

Location.--Lat 37°55'46", long 90°27'40", at west-central edge of Survey 3062, T.37 N., R.5 E., on downstream side of highway bridge T-397 on County Highway K, 0.5 mile above Terre Bleue Creek, and 4.5 miles east of Bonne Terre.

Drainage area.--3.35 sq mi. Slope.--48.5 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 1,490 cfs by indirect measurement and below 254 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 300 cfs. Only annual peaks are shown subsequent to 1959 water year.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 7, 1956	3.24	a 506				
	May 15, 1956	2.67	a 291				
	June 24, 1956	3.63	a 670				
1957	Feb. 26, 1957	2.75	312				
	Mar. 24, 1957	3.22	498				
	Apr. 3, 1957	3.18	482				
	May 17, 1957	2.95	390				
	May 19, 1957	2.94	386				
	May 22, 1957	3.22	498				
	May 25, 1957	3.15	470				
	June 8, 1957	3.16	474				
	June 28, 1957	3.42	570				
	June 30, 1957	5.55	1,520				
	July 29, 1957	3.21	494				
	Aug. 3, 1957	3.73	710				
1958	Apr. 3, 1958	2.88	369				
	Apr. 28, 1958	2.95	394				
	July 17, 1958	2.99	409				
1959	Mar. 14, 1959	2.91	380				
	Apr. 18, 1959	3.42	570				
	May 22, 1959	3.07	439				
	May 25, 1959	3.13	462				
	July 23, 1959	2.84	354				
	Sept.28, 1959	2.95	402				
1960	Jan. 14, 1960	2.83	350				
1961	June 14, 1961	3.82	730				
1962	Sept.14, 1962	4.25	910				
1963	June 10, 1963	3.30	530				
1964	Mar. 9, 1964	2.96	398				
1965	Apr. 6, 1965	4.42	975				

MERAMEC RIVER BASIN

7-0177. Fountain Farm Branch near Potosi, Mo.
(Published as "Keyes Branch" prior to 1958)

Location.--Lat 37°58'20", long 90°43'40", in SE¼NW¼ sec.32, T.38 N., R.3 E., on left bank just upstream from culvert under County Road E about 4 miles northeast of Potosi.

Drainage area.--2.16 sq mi. Slope.--71.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 778 and 1,890 cfs by indirect measurements. Defined below 70 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 30, 1957	18.36	1,890				
1958	Dec. 18, 1957	11.91	230				
1959	May 27, 1959	12.50	350				
1960	Dec. 12, 1959	11.78	210				
1961	Mar. 5, 1961	12.15	270				
1962		(a)	(b)				
1963	May 16, 1963	12.17	270				
1964	Apr. 5, 1964	12.32	310				
1965	June 3, 1965	12.97	460				

a Stage below zero of gage.
b Discharge less than 100 cfs.

MERAMEC RIVER BASIN

7-0180. Big River near DeSoto, Mo.

Location.--Lat 38°07'20", long 90°40'30", in SW¼NW¼ sec.11, T.39 N., R.3 E., near right bank on downstream side of pier of Mammoth Bridge, 300 ft upstream from Mammoth Creek, 1½ miles downstream from Mineral Fork, and 6½ miles west of DeSoto. Records include flow of Mammoth Creek.

Drainage area.--718 sq mi, including that of Mammoth Creek. Slope.--4.63 ft per mi.

Gage.--Recording. Datum of gage is 538.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Discharge of the flood in August 1915 determined from extension of rating curve above 37,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	29.4	a70,500				
1949	Feb. 15, 1949	19.9	a21,300				
1950	Oct. 6, 1949	15.37	11,000				
	Jan. 4, 1950	23.91	36,600				
	Jan. 13, 1950	16.77	13,400				
	Feb. 13, 1950	14.40	10,000				
	May 10, 1950	16.32	12,800				
	Aug. 13, 1950	15.61	11,700				
	Aug. 15, 1950	16.16	12,600				
	Sept. 2, 1950	16.17	12,600				
1951	Feb. 18, 1951	17.76	15,100				
	Feb. 21, 1951	15.73	11,100				
	July 13, 1951	23.78	36,200				
1952	Apr. 4, 1952	15.40	10,600				
	Apr. 13, 1952	15.17	10,300				
1953	Mar. 4, 1953	15.71	11,100				
1954	June 9, 1954	15.20	10,700				
1955	Mar. 21, 1955	17.03	13,300				
1956	May 16, 1956	12.20	7,200				
1957	Feb. 27, 1957	16.74	12,800				
	Mar. 25, 1957	18.15	16,900				
	Apr. 3, 1957	21.46	27,400				
	Apr. 22, 1957	14.92	10,200				
	Apr. 28, 1957	16.82	13,500				
	May 17, 1957	16.60	13,100				
	May 20, 1957	15.87	11,700				
	May 23, 1957	19.04	19,200				
	June 30, 1957	27.15	55,800				
	July 29, 1957	18.79	18,600				
1958	Dec. 18, 1957	17.56	15,400				
	Mar. 24, 1958	17.48	15,100				
	July 19, 1958	15.18	10,600				
1959	Nov. 18, 1959	12.55	7,660				
1960	Dec. 18, 1959	16.40	12,700				
1961	Mar. 6, 1961	18.00	16,400				
	May 9, 1961	19.94	21,900				
1962	Mar. 21, 1962	17.84	15,800				
1963	May 18, 1963	15.55	11,200				
1964	Mar. 9, 1964	18.25	16,900				
1965	Apr. 6, 1965	15.65	11,500				

a Annual peak only.

MERAMEC RIVER BASIN

7-0185. Big River at Byrnesville, Mo.

Location.--Lat 38°21'45", long 90°39'05", in SE¼ sec.12, T.42 N., R.3 E., at county highway bridge at Byrnesville, 4 miles upstream from Head Creek.

Drainage area.--917 sq mi. Slope.--3.36 ft per mi.

Gage.--Nonrecording prior to Mar. 9, 1940; recording thereafter. Datum of gage is 433.69 ft above mean sea level, datum of 1929. Since Aug. 22, 1945, auxiliary wire-weight gage 4 miles downstream.

Stage-discharge relation.--Defined by current-meter measurements. Occasional backwater from Meramec River; slope used as a factor since 1945. Discharge for flood of Aug. 21, 1915, from slope-area measurement.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 21, 1915	30.2	a80,000	1945	Mar. 4, 1945	18.57	13,500
					Mar. 7, 1945	20.84	19,300
1923	Mar. 13, 1923	17.30	11,000		Apr. 1, 1945	23.4	28,300
	May 17, 1923	17.40	11,100		Apr. 16, 1945	22.17	23,600
					June 10, 1945	22.12	17,500
1924	Apr. 10, 1924	17.10	10,800				
				1946	Feb. 15, 1946	21.57	21,800
1925	Dec. 20, 1924	12.58	6,200		May 2, 1946	19.02	14,200
					May 18, 1946	17.91	11,300
1926	Nov. 9, 1925	18.97	13,100				
				1947	Apr. 26, 1947	23.5	28,000
1927	Apr. 2, 1927	22.63	21,900		July 2, 1947	19.56	15,800
	Apr. 16, 1927	19.82	14,800				
	May 26, 1927	18.47	12,400	1948	Jan. 3, 1948	18.6	13,100
	June 3, 1927	17.98	11,800		May 18, 1948	18.83	13,700
1928	Dec. 2, 1927	17.41	11,100	1949	Jan. 20, 1949	18.82	13,300
	Dec. 15, 1927	17.60	11,400		Jan. 26, 1949	20.31	18,600
	Apr. 7, 1928	17.38	11,100		Feb. 16, 1949	20.39	18,700
	June 11, 1928	18.84	12,800				
	June 22, 1928	18.65	12,600	1950	Jan. 5, 1950	25.23	36,900
	June 30, 1928	17.66	11,500		Jan. 14, 1950	18.54	13,400
					Apr. 4, 1950	18.09	12,500
1929	May 7, 1929	18.62	12,700		May 12, 1950	18.34	12,600
	May 15, 1929	20.00	15,200				
				1951	Feb. 20, 1951	18.82	14,100
1930	Jan. 15, 1930	21.00	17,400		July 14, 1951	23.48	30,500
1931	Apr. 21, 1931	10.10	3,940	1952	Apr. 14, 1952	17.37	10,500
1932	Aug. 13, 1932	13.35	7,000	1953	Mar. 5, 1953	16.97	10,200
1933	Apr. 17, 1933	21.57	18,900	1954	June 10, 1954	16.93	10,000
	May 15, 1933	21.70	19,200				
				1955	Mar. 22, 1955	18.20	12,700
1934	May 16, 1934	13.70	7,080				
				1956	May 17, 1956	13.59	6,640
1935	Mar. 12, 1935	24.65	28,800				
	June 12, 1935	18.62	12,700	1957	Feb. 28, 1957	18.00	12,300
	June 22, 1935	20.35	15,800		Mar. 26, 1957	19.76	17,600
					Apr. 5, 1957	22.85	30,100
1936	Nov. 11, 1935	15.97	9,600		Apr. 29, 1957	18.95	14,000
					May 24, 1957	20.29	20,000
1937	Jan. 16, 1937	20.06	17,300		June 15, 1957	20.50	13,100
	Mar. 4, 1937	19.00	14,400		July 1, 1957	26.41	42,100
					July 30, 1957	19.29	16,800
1938	Feb. 19, 1938	22.53	24,600				
	Mar. 17, 1938	19.05	14,400	1958	Dec. 19, 1957	18.55	13,300
	Mar. 31, 1938	19.70	16,200		Mar. 26, 1958	19.18	15,500
	May 24, 1938	20.70	19,000		July 19, 1958	19.06	12,900
	June 11, 1938	20.15	17,600				
				1959	May 18, 1959	14.77	7,100
1939	Apr. 18, 1939	22.30	24,000				
				1960	Dec. 19, 1960	18.00	12,200
1940	May 2, 1940	14.81	7,540				
				1961	Mar. 7, 1961	19.84	17,300
1941	Apr. 19, 1941	16.15	9,150		May 9, 1961	23.33	25,800
1942	June 26, 1942	18.42	13,000	1962	Mar. 22, 1962	19.43	15,100
1943	Dec. 28, 1942	22.27	24,000	1963	May 19, 1963	16.86	10,600
	May 12, 1943	22.57	25,000				
	May 19, 1943	18.43	13,000	1964	Mar. 11, 1964	20.02	16,600
1944	Apr. 24, 1944	18.30	12,800	1965	Apr.7,8, 1965	17.34	10,600

a Annual peak only.

MERAMEC RIVER BASIN

7-0190. Meramec River near Eureka, Mo.

Location.--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.

Drainage area.--3,788 sq mi. Slope.--3.44 ft per mi.

Gage.--Nonrecording prior to Sept. 22, 1937; recording thereafter. Prior to July 22, 1906, at site 200 ft upstream at different datum; Oct. 6, 1921, to Jan. 16, 1933, at site 200 ft upstream at datum 1.04 ft higher. Datum of present gage is 406.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 116,000 cfs and by slope-area measurement at 175,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 32,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 28, 1904	36.2	68,100
	Apr. 27, 1904	28.7	48,600
1905	Sept.20, 1905	29.7	51,200
1915	Aug. 22, 1915	39.2	a175,000
1916	Feb. 1, 1916	36.0	a113,000
1922	Apr. 19, 1922	24.45	38,600
1923	Mar. 17, 1923	16.95	24,800
1924	May 30, 1924	20.50	31,000
1925	Dec. 22, 1924	14.60	20,100
1926	Nov. 10, 1925	17.18	24,800
1927	Apr. 3, 1927	29.47	64,000
	Apr. 11, 1927	21.54	34,400
	Apr. 17, 1927	25.21	44,200
	May 27, 1927	21.12	33,400
	June 4, 1927	22.80	37,400
1928	Apr.8,9, 1928	23.80	39,800
	June 11, 1928	20.78	32,700
	June 21, 1928	21.07	33,400
1929	May 15, 1929	21.10	33,400
1930	Jan. 16, 1930	24.41	42,200
1931	May 22, 1931	6.10	6,420
1932	Jan. 3, 1932	8.35	9,540
	Aug. 14, 1932	8.35	9,540
1933	Apr. 18, 1933	21.82	35,700
	May 17, 1933	30.72	63,400
1934	Sept.18, 1934	17.91	27,100
1935	Mar. 14, 1935	30.89	62,200
	June 24, 1935	26.32	48,400
	June 29, 1935	23.04	39,400
1936	Nov. 12, 1935	13.22	17,400
1937	May 6, 1937	21.56	35,700
1938	Feb. 20, 1938	25.10	45,000
	May 25, 1938	23.11	39,700
	June 12, 1938	25.47	46,100
1939	Apr. 19, 1939	26.95	61,600
1940	June 29, 1940	11.41	14,800
1941	Apr. 22, 1941	22.07	38,000
1942	June 28, 1942	21.90	37,400
1943	Dec. 30, 1942	31.78	69,600
	May 13, 1943	24.29	42,800
	May 21, 1943	27.70	52,400
1944	Apr. 25, 1944	17.26	26,100
1945	Mar. 8, 1945	22.38	37,400
	Apr. 2, 1945	28.98	57,100
	Apr. 17, 1945	32.13	72,500
	June 11, 1945	36.94	120,000
1946	Feb. 16, 1946	23.52	40,300
1947	Apr. 27, 1947	31.15	66,400
1948	Jan. 3, 1948	17.00	25,000
1949	Jan. 27, 1949	20.30	32,200
	Feb. 17, 1949	21.80	35,900
1950	Jan. 6, 1950	33.01	79,700
	Jan. 16, 1950	20.53	32,500
	May 13, 1950	21.28	34,600
1951	Feb. 21, 1951	21.33	34,600
	July 15, 1951	27.08	50,700
1952	Apr. 14, 1952	16.99	25,500
1953	Mar. 6, 1953	15.00	21,800
1954	June 10, 1954	11.54	15,600
1955	Mar. 23, 1955	17.84	28,100
1956	June 2, 1956	11.50	15,600
1957	Mar. 27, 1957	20.58	34,600
	Apr. 6, 1957	24.19	44,400
	Apr. 30, 1957	21.88	38,000
	May 25, 1957	29.45	59,600
	June 15, 1957	31.19	66,000
	July 2, 1957	35.77	99,500
1958	Mar. 26, 1958	20.26	35,800
	July 19, 1958	19.13	32,800
1959	May 18, 1959	11.40	16,100
1960	Dec. 20, 1959	13.87	21,800
1961	May 10, 1961	31.58	71,200
1962	Mar. 23, 1962	19.51	33,900
1963	May 29, 1963	13.67	21,900
1964	Mar. 12, 1964	18.22	29,900
1965	Apr. 8, 1965	14.73	22,600

a Annual peak only.

PLATTIN CREEK BASIN

7-0191. Murphy Branch near Crystal City, Mo.

Location.--Lat 38°11'12", long 90°23'46", in NW portion of Missouri Survey No. 1995, T.40 N., R.6 E., on left bank just upstream from culvert under U.S. Highway 61, 0.8 mile north of Plattin Creek crossing and 1.0 south of junction of U.S. 61 and 67, and 2.5 miles southwest of Crystal City.

Drainage area.--0.44 sq mi. Slope.--108 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed September 15, 1960, and removed April 15, 1964.

Stage-discharge relation.--Defined at 85, 320, 427, and 947 cfs by indirect measurements. Defined below 3 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	6.39	130				
1956	May 6, 1956	9.69	320				
1957	June 8, 1957	11.87	947				
1958	July 31, 1958	(a)	(b)				
1959	Jan. 20, 1959	6.42	125				
1960	May 18, 1960	5.44	80				
1961	May 8, 1961	7.46	165				
1962	June 6, 1962	8.60	230				
1963	Mar. 31, 1963	6.15	114				
1964	Apr. 5, 1964	5.60	90				
1965	Sept. 5, 1965	9.30	294				

a Stage below bottom of gage.
b Less than 60 cfs.

MISSISSIPPI RIVER MAIN STEM

7-0205. Mississippi River at Chester, Ill.

Location.--Lat 37°54'00", long 89°49'50", in SW¼ sec.24, T.7 S., R.7 W., third principal meridian, on left bank 0.4 mile downstream from highway bridge at Chester, 8.3 miles downstream from Kaskaskia River, and at mile 109.5 above Ohio River.

Drainage area.--712,600 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 341.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage.--27 ft.

Remarks.--Records prior to July 1942 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1942 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 30, 1844	39.8	a1,350,000				
1926	Sept.30, 1926	23.8	501,000				
1927	Apr. 27, 1927	34.4	1,060,000				
1928	June 23, 1928	28.0	626,000				
1929	Apr. 29, 1929	b33.3	878,000				
1930	June 21,22, 1930	19.7	342,000				
1931	June 16, 1931	14.4	221,000				
1932	Dec. 1, 1931	23.3	451,000				
1933	May 18, 1933	28.9	500,000				
1934	Apr. 25, 1934	10.2	137,000				
1935	June 10, 1935	b33.4	665,000				
1936	Mar. 1, 1936	20.8	326,000				
1937	May 6,7, 1937	24.6	422,000				
1938	May 28, 1938	27.1	540,000				
1939	Apr. 21, 1939	30.6	618,000				
1940	Apr. 21, 1940	c13.6	d193,000				
1941	Apr. 24, 1941	b26.9	d455,000				
1942	July 1, 1942	34.0	603,000				
1943	May 24, 1943	38.08	e873,000				
1944	May 2, 1944	37.4	842,000				
1945	Apr. 2, 1945	f34.4	716,000				
1946	Jan.13,14, 1946	27.5	502,000				
1947	July 3, 1947	b38.17	886,000				
1948	Mar. 28, 1948	32.8	668,000				
1949	Apr.3,4, 1949	24.7	426,000				
1950	May 15, 1950	27.6	476,000				
1951	July 22, 1951	b39.3	795,000				
1952	Apr. 30, 1952	b34.4	685,000				
1953	Apr. 5, 1953	22.2	378,000				
1954	June 7, 1954	18.8	289,000				
1955	Feb. 23, 1955	19.5	332,000				
1956	Oct. 9, 1955	14.9	221,000				
1957	May 28, 1957	25.6	426,000				
1958	July 25, 1958	29.3	510,000				
1959	June 4, 1959	23.1	361,000				
1960	Apr. 11, 1960	33.7	680,000				
1961	May 12, 1961	34.3	691,000				
1962	Mar. 26, 1962	30.6	625,000				
1963	Mar. 8, 1963	19.12	308,000				
1964	Apr. 24, 1964	b20.06	304,000				
1965	Sept.29, 1965	29.79	544,000				

a Computed by Corps of Engineers, date approximate.
b Occurred at different time than peak discharge.
c Occurred June 15, 1940.
d Computed on basis of records for stations at St. Louis, Mo., and Thebes, Ill.
e Does not include flow bypassing gage through levee breaks upstream.
f Occurred June 14, 1945.

APPLE CREEK BASIN

7-0207. Hoehs Branch near Uniontown, Mo.

Location.--Lat 37°37'50", long 89°43'50", in SW¼SE¼ sec.20, T.34 N., R.12 E., on right downstream abutment of bridge on U.S. Highway 61, 1.2 miles north of Uniontown.

Drainage area.--1.66 sq mi. Slope.--59.4 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 352 and 1,400 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	10.37	352				
1956	May 14, 1956	12.73	1,400				
1957	May 22, 1957	11.81	900				
1958	Jan. 21, 1958	12.75	1,400				
1959	Aug. 17, 1959	12.34	1,180				
1960	Aug. 20, 1960	10.82	450				
1961	June 15, 1961	12.11	1,000				
1962	Jan. 22, 1962	10.57	420				
1963		(a)	(b)				
1964	Aug. 27, 1964	12.55	1,300				
1965	July 2, 1965	12.45	1,200				

a Stage below bottom of gage (gage height 8.25).
b Less than 50 cfs.

HEADWATER DIVERSION CHANNEL BASIN

(CASTOR AND WHITEWATER RIVERS)

7-0210. Castor River at Zalma, Mo.

Location.--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.

Drainage area.--423 sq mi. Slope.--8.92 ft per mi.

Gage.--Nonrecording prior to June 9, 1953; recording thereafter. Prior to Oct. 1, 1925, at site 500 ft upstream at datum 49.82 ft lower; Oct. 1, 1925, to Nov. 12, 1930, at site 500 ft upstream at datum 0.18 ft higher. Datum of present gage is 350.38 ft above mean sea level, datum of 1929. Since Dec. 18, 1949, auxiliary staff gage 6 miles downstream. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs. Slope used as a factor since 1949.

Bankfull stage.--19 ft.

Remarks.--Peaks for period prior to Sept. 12, 1921, computed from plotted Little River Drainage District gage readings. Work on Headwater Diversion Channel completed about March 1919. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1920	May 17, 1920	26.1	17,400
1921	Apr. 27, 1921	22.4	7,660
1922	Nov. 20, 1921	24.0	10,600
	Apr. 1, 1922	23.6	9,720
1923	Feb. 2, 1923	24.0	10,600
1924	May 30, 1924	24.6	3,160
1925	June 14, 1925	23.3	2,670
1926	Feb. 26, 1926	20.3	5,920
1927	Apr. 1, 1927	24.0	10,600
	Apr. 16, 1927	24.6	12,100
	June 2, 1927	23.6	9,720
1928	Dec. 14, 1927	26.5	19,400
	June 14, 1928	23.6	9,720
	June 21, 1928	24.9	13,000
1929	June 14, 1929	22.0	7,250
1930	Jan. 14, 1930	23.7	9,940
1931	Mar. 8, 1931	16.10	3,800
1932	Jan. 17, 1932	20.22	5,920
1933	Dec. 25, 1932	22.82	8,180
	Jan. 23, 1933	23.63	9,720
	Apr. 16, 1933	24.30	11,400
	May 12, 1933	23.45	9,300
	May 14, 1933	25.86	16,600
1934	Mar. 27, 1934	12.78	2,560
1935	Mar. 11, 1935	28.20	40,000
1936	Nov. 16, 1935	9.64	1,610
1937	Jan. 14, 1937	27.67	40,400
1938	Feb. 19, 1938	23.72	14,900
1939	Mar. 6, 1939	23.35	10,950
	Apr. 17, 1939	24.17	14,600
1940	Apr. 20, 1940	22.10	7,730
1941	Jan. 2, 1941	12.3	2,480
1942	Apr. 9, 1942	23.20	10,200
1943	Dec. 28, 1942	22.45	8,150
	May 11, 1943	26.60	31,600
1944	Apr. 24, 1944	23.60	11,700
1945	Feb. 27, 1945	25.85	22,600
	Mar. 7, 1945	25.00	17,350
	Mar. 20, 1945	22.80	8,150
	Mar. 26, 1945	22.95	8,550
	Mar. 31, 1945	24.30	13,550
	Apr. 15, 1945	25.20	18,550
	June 9, 1945	26.04	24,100
	June 18, 1945	23.40	9,600
1946	Feb. 14, 1946	24.30	13,550
	May 2, 1946	23.98	12,050
	May 17, 1946	24.5	14,600
1947	Apr. 26, 1947	18.8	4,990
1948	Jan. 1, 1948	27.8	38,400
1949	Jan. 19, 1949	22.6	8,530
	Jan. 24, 1949	28.1	40,100
	Mar. 27, 1949	24.0	13,100
1950	Jan. 4, 1950	26.4	27,400
	Feb. 13, 1950	26.6	28,800
	Apr. 4, 1950	24.8	17,100
1951	Feb. 21, 1951	23.20	9,950
1952	Nov. 25, 1951	23.50	11,000
	Mar. 12, 1952	23.50	11,000
1953	Mar. 4, 1953	18.3	4,900
1954	May 3, 1954	20.44	6,290
1955	Mar. 21, 1955	25.10	18,800
1956	Feb. 19, 1956	19.79	5,490
1957	Apr. 4, 1957	26.53	28,100
	May 20, 1957	23.30	10,300
	May 23, 1957	26.27	26,700
	July 1, 1957	26.07	25,300
1958	Nov. 19, 1957	23.17	9,950
	Dec. 20, 1957	23.78	12,200
	Mar. 25, 1958	24.90	17,600
1959	Nov. 18, 1959	24.35	15,000
1960	May 20, 1960	19.26	5,110
1961	May 8, 1961	25.47	21,000
1962	Jan. 23, 1962	23.11	9,660
	Mar. 22, 1962	23.00	9,400
1963	Mar. 17, 1963	20.11	5,560
1964	Mar. 9, 1964	26.95	35,000
1965	Sept.23, 1965	21.52	7,050

HEADWATER DIVERSION CHANNEL BASIN

7-0212. Sunnybrook Creek at Lutesville, Mo.

Location.--Lat 37°17'05", long 89°58'55", in NW¼SE¼ sec.7, T.30 N., R.10 E., on left bank just upstream from bridge on State Highway 51, one half mile south of city limits of Lutesville.

Drainage area.--0.52 sq mi. Slope.--196 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 221 and 440 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 6, 1955	2.59	260				
1956	Feb. 2, 1956	2.29	195				
1957	June 30, 1957	3.07	440				
1958	Dec. 19, 1957	2.92	400				
1959		(a)	(b)				
1960	Oct. 13, 1959	2.20	180				
1961	May 7, 1961	2.69	300				
1962	Feb. 26, 1962	2.54	250				
1963	Mar. 4, 1963	2.31	200				
1964	Mar. 9, 1964	2.32	200				
1965	July 2, 1965	2.96	400				

a Stage below bottom of gage.
b Less than 140 cfs.

MISSISSIPPI RIVER MAIN STEM

7-0220. Mississippi River at Thebes, Ill.
(Published as "at Cape Girardeau, Mo." prior to 1941)

Location.--Lat 37°13'00", long 89°27'50", in NW¼ sec.17, T.15 S., R.3 W., on downstream side of railroad bridge at Thebes, 5.0 miles downstream from headwater diversion channel and at mile 43.7 above Ohio River.

Drainage area.--717,200 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 21, 1934, and Apr. 5, 1941, to Sept. 30, 1943; recording Dec. 22, 1934, to Apr. 4, 1941, and since Oct. 1, 1943. Prior to Apr. 5, 1941, at site 8.2 miles upstream at datum 304.65 ft higher than present gage; Apr. 5, 1941, to Sept. 30, 1944, at present site and at datum 300.00 ft higher than present datum. Gage heights given herein beginning with 1941 converted to present datum which is at mean sea level, datum of 1929. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage; previously, various auxiliary gages used.

Stage-discharge relation.--Affected by backwater from Ohio River. Fall between auxiliary and reference gage used as a factor in computing discharge. Frequent current-meter measurements necessary to define relationship.

Bankfull stage.--333 ft.

Remarks.--Natural flow of stream affected by many reservoirs and navigation dams in Upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	July 4, 1844	a42.53	a1,375,000				
1933	May18,19, 1933	b34.4	525,000				
1934	Apr. 27, 1934	14.4	140,000				
1935	June 10, 1935	b36.26	623,000				
1936	Mar. 2, 1936	25.19	318,000				
1937	May 7, 1937	30.36	420,000				
1938	May 28, 1938	31.0	c552,000				
1939	Apr. 21, 1939	35.8	c637,000				
1940	Apr. 21, 1940	19.64	199,000				
1941	Apr. 24, 1941	329.11	469,000				
1942	June 30, 1942	b335.65	615,000				
1943	May 27, 1943	340.26	893,000				
1944	May 6, 1944	339.05	812,000				
1945	Apr. 2, 1945	b337.90	702,000				
1946	Jan. 14, 1946	333.68	506,000				
1947	July 6, 1947	b340.08	837,000				
1948	Mar. 28, 1948	b336.97	676,000				
1949	Apr. 4, 1949	b331.35	447,000				
1950	May 15, 1950	b332.29	491,000				
1951	July 24, 1951	b339.91	805,000				
1952	May 2, 1952	337.36	685,000				
1953	Apr. 6, 1953	326.66	382,000				
1954	June 7, 1954	322.25	292,000				
1955	Feb. 25, 1955	324.39	329,000				
1956	Oct. 9, 1955	318.48	220,000				
1957	May 23, 1957	b331.62	463,000				
1958	July 25, 1958	b333.87	534,000				
1959	June 5, 1959	326.11	364,000				
1960	Apr. 11, 1960	337.19	685,000				
1961	May 13, 1961	338.74	739,000				
1962	Mar. 27, 1962	336.28	628,000				
1963	Mar. 9, 1963	327.16	314,000				
1964	Apr. 9, 1964	324.62	313,000				
1965	Sept.29, 1965	b334.36	542,000				

a Computed by Corps of Engineers.
b Occurred at different time than peak discharge.
c Computed on basis of records at Chester, Ill.

ST. FRANCIS RIVER BASIN

7-0330. Wolf Creek near Farmington, Mo.

Location.--Lat 37°45'45", long 90°23'15", in SE¼ sec.5, T.35 N., R.6 E., on downstream side of bridge on U.S. Highways 61 and 67, 1½ miles below mouth of Sand Creek, and 1½ miles southeast of Farmington.

Drainage area.--40.3 sq mi. Slope.--19.9 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 9,870 cfs by indirect measurement and below 3,400 cfs by current-meter measurements.

Bankfull stage.--13 ft.

Remarks.--Only annual peaks are shown. Operated as a non-recording gaging station from Feb. 9 to Sept. 30, 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	15.44	3,500				
1956	May 12, 1956	11.84	1,200				
1957	June 30, 1957	18.02	9,870				
1958	Dec. 17, 1957	14.67	2,700				
1959	Apr. 19, 1959	14.57	2,500				
1960	Dec. 17, 1959	14.72	2,600				
1961	Mar. 5, 1961	15.62	3,700				
1962	Jan. 22, 1962	15.29	3,400				
1963	May 18, 1963	14.99	3,000				
1964	May 11, 1964	13.72	2,100				
1965	Sept.22, 1965	15.35	3,500				

ST. FRANCIS RIVER BASIN

7-0355. Barnes Creek near Fredericktown, Mo.

Location.--Lat 37°34'20", long 90°23'00", in SW¼SE¼ sec.4, T.33 N., R.6 E., on right downstream abutment of bridge on State Highway 72, 1.1 miles upstream from Little St. Francis River and 5.3 miles west of Fredericktown.

Drainage area.--4.03 sq mi. Slope.--114 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 4,840 cfs by indirect measurement. Defined below 754 cfs by current-meter measurement.

Remarks.--Base for partial-duration series 200 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Nov. 15, 1955	7.19	900				
	Feb. 1, 1956	5.36	202				
	Feb. 17, 1956	5.78	309				
	May 15, 1956	5.78	309				
1957	Feb. 26, 1956	5.37	204				
	Mar. 24, 1956	6.38	520				
	Apr. 3, 1956	7.19	930				
	May 18, 1956	7.95	1,600				
	May 21, 1956	9.62	5,550				
	May 25, 1956	6.25	428				
	June 1, 1956	8.37	2,370				
	June 30, 1956	9.53	5,380				
1958	Nov. 18, 1957	5.50	235				
	Dec. 17, 1957	6.36	500				
	Feb. 27, 1958	5.43	218				
	Mar. 23, 1958	5.63	268				
	June 10, 1958	8.08	1,950				
	June 25, 1958	5.59	337				
	July 18, 1958	8.70	3,050				
	Aug. 1, 1958	6.30	580				
	Sept.10, 1958	6.09	505				
1959	Nov. 16, 1958	6.82	810				
	Jan. 21, 1959	5.05	210				
	Apr. 19, 1959	5.28	255				
1960	June 13, 1960	5.85	418				
1961	May 8, 1961	6.07	488				
1962	Jan. 21, 1962	7.35	1,140				
1963	Mar. 30, 1963	5.44	295				
1964	Mar. 9, 1964	6.37	608				
1965	Sept.22, 1965	9.20	4,250				

ST. FRANCIS RIVER BASIN

7-0375. St. Francis River near Patterson, Mo.

Location.--Lat 37°11'40", long 90°30'10", in NE¼ sec.16, T.29 N., R.5 E., at bridge on State Highway 34, 1 mile upstream from Clark Creek and 3 miles east of Patterson.

Drainage area.--956 sq mi. Slope.--7.24 ft per mi.

Gage.--Nonrecording prior to Apr. 12, 1939, and Sept. 6, 1956, to Sept. 26, 1958. Recording Apr. 13, 1939, to Sept. 5, 1956, and since Sept. 27, 1958. Prior to Oct. 1, 1938, at datum 2.00 ft higher. Datum of present gage is 370.45 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs; shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Occasional backwater from Wappapello Reservoir since Apr. 1, 1941. Base for partial-duration series, 21,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	33.8	a100,000
1921	-	22.0	a36,600
1922	Nov. 19, 1921	22.0	36,600
	Mar. 31, 1922	18.95	26,700
1923	Feb. 1, 1923	21.20	34,000
	Mar. 16, 1923	21.38	34,600
	May 16, 1923	19.40	28,000
1924	May 29, 1924	15.50	16,600
1925	Apr. 18, 1925	10.85	6,880
1926	Nov. 8, 1925	22.50	38,200
	Feb. 25, 1926	17.90	23,300
1927	Apr. 1, 1927	26.70	50,000
	Apr. 14, 1927	27.00	51,000
	May 25, 1927	21.60	33,000
	June 1, 1927	20.60	30,200
1928	Dec. 14, 1927	27.20	51,700
	Apr. 6, 1928	21.98	34,300
	June 9, 1928	22.25	34,900
	June 13, 1928	22.80	36,900
	June 21, 1928	25.60	46,100
1929	Jan. 25, 1929	20.80	30,500
	Apr. 9, 1929	19.30	26,000
	May 6, 1929	20.80	30,500
	May 13, 1929	21.60	33,000
1930	Jan. 13, 1930	21.70	33,200
1931	Mar. 7, 1931	15.52	15,300
1932	Dec. 30, 1931	15.86	16,300
1933	Dec. 24, 1932	19.75	27,500
	Jan. 22, 1933	17.80	21,500
	Apr. 16, 1933	25.07	44,400
	May 14, 1933	28.80	57,400
1934	Apr. 7, 1934	13.2	10,200
1935	Mar. 11, 1935	30.70	79,200
	May 5, 1935	20.70	30,200
	May 20, 1935	21.40	32,400
	June 21, 1935	21.50	32,700
1936	Nov. 10, 1935	12.75	9,600
1937	Nov. 3, 1936	19.45	26,300
	Dec. 31, 1936	19.50	26,600
	Jan. 8, 1937	20.00	28,100
	Jan. 15, 1937	26.50	55,200
1938	Feb. 18, 1938	22.65	37,300
	Mar. 29, 1938	18.70	24,100
	Mar. 31, 1938	20.00	28,100
1939	Jan. 30, 1939	19.01	25,000
	Feb. 28, 1939	17.97	22,000
	Mar. 5, 1939	21.90	34,600
	Apr. 6, 1939	20.80	30,700
	Apr. 17, 1939	21.48	33,200
1940	Apr. 19, 1940	17.92	21,700
1941	Jan. 2, 1941	14.40	12,600
1942	Nov. 1, 1941	20.40	25,800
1943	Dec. 28, 1942	22.87	33,300
	May 11, 1943	29.70	68,100
1944	Apr. 23, 1944	19.05	20,600
1945	Feb. 26, 1945	24.60	(b)
	Mar. 6, 1945	21.79	(b)
	Mar. 20, 1945	20.10	(b)
	Mar. 26, 1945	21.17	(b)
	Mar. 31, 1945	27.26	(b)
	Apr. 14, 1945	31.00	(b)
	June 9, 1945	29.20	a64,900
1946	Oct. 22, 1945	22.30	31,100
	Feb. 14, 1946	25.00	42,300
	May 1, 1946	23.80	37,000
	May 16, 1946	23.40	35,300
	May 25, 1946	22.80	32,900
1947	Apr. 25, 1947	23.30	34,900
1948	Jan. 1, 1948	24.86	41,800
1949	Jan. 25, 1949	28.20	59,000
	Feb. 15, 1949	20.20	24,100
1950	Oct. 22, 1949	21.76	29,300
	Jan. 4, 1950	26.37	53,400
	Jan. 14, 1950	18.28	21,300
	Feb. 13, 1950	24.00	41,700
	Apr. 3, 1950	19.25	23,800
	May 10, 1950	23.80	40,900
1951	Feb. 7, 1951	19.40	24,400
	Feb. 21, 1951	19.46	24,800
1952	Nov. 23, 1951	19.29	24,100
	Mar. 11, 1952	19.20	23,800
1953	Mar. 4, 1953	17.87	20,300
1954	May 2, 1954	20.1	26,700
	June 8, 1954	19.85	25,700
1955	Mar. 21, 1955	21.3	30,900
1956	May 16, 1956	16.56	17,200
1957	Apr. 4, 1957	27.05	57,500
	May 23, 1957	23.00	36,500
	June 30, 1957	28.50	66,500
1958	Dec. 18, 1957	20.00	25,000
	Mar. 24, 1958	22.14	36,500
	July 19, 1958	18.80	23,700

ST. FRANCIS RIVER BASIN

Peak stages and discharges of St. Francis River near Patterson, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	18.55	23,100				
	Jan. 21, 1959	18.15	21,800				
1960	Dec. 18, 1959	18.15	21,800				
1961	Mar. 6, 1961	19.60	26,600				
	May 7, 1961	22.10	36,500				
1962	Jan. 22, 1962	22.8	39,600				
	Mar. 21, 1962	22.2	37,400				
1963	May 18, 1963	16.35	16,600				
1964	Mar. 10, 1964	25.30	47,800				
	Apr. 6, 1964	18.90	21,500				
1965	Sept.22, 1965	23.40	38,300				

a Annual peak only.
b Peak discharge indeterminate, affected by backwater from Wappapello Reservoir.

ST. FRANCIS RIVER BASIN

7-0377. Clark Creek near Piedmont, Mo.

Location.-- Lat 37°11'10", long 90°37'45", in SE¼NE¼ sec.17, T.29 N., R.4 E., at bridge on State Highway 34, 3.5 miles northeast of Piedmont, Mo.

Drainage area.--4.39 sq mi. Slope.--63.9 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 727 and 1,350 cfs by indirect measurements, and below 360 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 250 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 3, 1957	4.78	762				
	May 18, 1957	4.76	739				
	May 21, 1957	4.04	448				
	May 22, 1957	6.10	1,400				
	May 25, 1957	4.64	694				
	June 9, 1957	3.81	371				
	June 30, 1957	4.36	566				
	July 28, 1957	5.10	902				
1958	Mar. 23, 1958	3.52	288				
	May 2, 1958	4.95	831				
	June 11, 1958	4.43	607				
1959	Nov. 16, 1958	5.82	1,250				
1960	May 19, 1960	4.38	586				
1961	May 7, 1961	5.22	950				
1962	Feb. 26, 1962	4.27	527				
1963	May 26, 1963	3.35	235				
1964	Mar. 8, 1964	5.45	727				
1965	Sept.22, 1965	6.25	1,350				

ST. FRANCIS RIVER BASIN

7-0380. Clark Creek at Patterson, Mo.

Location.--Lat 37°11'25", long 90°32'20", in NE¼ sec.18, T.29 N., R.5 E., at bridge on State Highway 34, 1 3/4 miles above Rings Creek and 3 miles above mouth, 0.6 mile east of Patterson.

Drainage area.--37.5 sq mi. Slope.—29.4 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 11,200 cfs by indirect measurement. Define below 910 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown. Operated as a conrecording station Feb. 18 to Sept. 30, 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	12.53	11,200				
1956	May 15, 1956	8.36	2,600				
1957	May 21, 1957	11.49	8,000				
1958	May 2, 1958	8.94	3,300				
1959	Nov. 11, 1958	10.70	6,500				
1960	May 19, 1960	9.10	3,500				
1961	May 7, 1961	10.92	7,000				
1962	Jan. 22, 1962	9.84	5,000				
1963		(a)	(b)				
1964	Mar. 9, 1964	11.34	8,000				
1965	Sept.22, 1965	11.79	9,000				

a Stage below bottom of gage (gage height 8.3).
b. Less than 260 cfs.

ST. FRANCIS RIVER BASIN

7-0395. St. Francis River at Wappapello, Mo.

Location.--Lat 36°55'41", long 90°15'55", in NW¼SE¼ sec.2, T.26 N., R.7 E., on right bank at downstream side of highway bridge, 0.5 mile southeast of Wappapello and 1.25 miles downstream from Wappapello Dam.

Drainage area.--1,311 sq mi. Slope.—5.88 ft per mi.

Gage.--Nonrecording prior to Oct. 14, 1940; recording thereafter. Datum of gage is 325.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--22 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by Wappapello Reservoir (capacity at spillway crest, 625,000 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Jan. 5, 1941	10.76	3,320				
1942	Nov. 2, 1941	19.65	7,640				
1943	Dec. 30, 1942	21.81	9,270				
1944	Mar. 3, 1944	11.21	3,320				
1945	Apr. 16, 1945	25.60	22,300				
1946	Feb.15-17,May18	a22.60	10,600				
1947	Apr. 26, 1947	b21.98	10,000				
1948	Jan. 3, 1948	21.35	10,000				
1949	Feb. 4, 1949	22.46	10,900				
1950	Jan. 18, 1950	22.42	10,500				
1951	Feb. 23, 1951	21.75	9,990				
1952	Nov. 26, 1951	21.49	9,410				
1953	Mar. 6, 1953	17.22	6,060				
1954	June 11, 1954	18.67	7,190				
1955	Mar. 22, 1955	21.04	9,850				
1956	Feb. 19, 1956	17.00	6,130				
1957	Apr. 11, 1957	22.15	10,300				
1958	Mar. 27, 1958	c21.37	10,200				
1959	Nov. 19, 1958	20.11	8,300				
1960	Dec. 19, 1959	18.50	7,410				
1961	May 8, 1961	21.92	10,350				
1962	Mar. 22, 1962	20.54	9,030				
1963	May 29, 1963	16.06	6,270				
1964	Mar. 10, 1964	d22.11	10,400				
1965	Sept.23, 1965	e18.80	7,950				

a Occurred Feb. 16, 1946.
b Occurred on following day.
c Occurred Mar. 30, 1958
d Occurred Mar. 16, 1964
e Occurred Sept. 26, 1965

ST. FRANCIS RIVER BASIN

7-0401.1. Delaware Creek Tributary near Bloomfield, Mo.

Location.--Lat 36°51'32", long 89°56'10", in NW¼NE¼ sec.35, T.26 N., R.10 E., on right downstream wingwall of double box culvert under State Highway 25, 1.8 miles southwest of Bloomfield.

Drainage area.--0.38 sq mi. Slope.--85.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 455, 628, and 651 cfs by indirect measurements. Defined below 77 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 27, 1955	12.04	380				
1956	Aug. 31, 1956	12.31	455				
1957	June 29, 1957	12.87	628				
1958	Mar. 24, 1958	10.76	80				
1959		(a)	(b)				
1960	June 27, 1960	12.21	430				
1961	June 14, 1961	12.57	540				
1962	Feb. 26, 1962	12.84	620				
1963	Sept.13, 1963	c 13.55	c650				
1964	Mar. 9, 1964	c 12.87	c470				
1965	Sept.11, 1965	13.58	650				

a Stage below bottom of gage.
b Less than 300 cfs.
c Revised.

ST. FRANCIS RIVER BASIN

7-0410. Little River ditch 81 near Kennett, Mo.

Location.--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.

Drainage area.--111 sq mi. Slope.--1.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 21, 1927	15.11	a2,760				
1928	June 30, 1928	13.06	2,710				
1929	Feb. 27, 1929	10.88	2,000				
1930	Jan.10,14, 1930	11.38	1,770				
1931	Mar. 8, 1931	4.48	303				
1932	Jan. 18, 1932	9.80	1,370				
1933	Jan. 1, 1933	10.34	1,380				
1934	Mar. 27, 1934	10.28	1,490				
1935	Mar. 15, 1935	12.11	2,610				
1936	Apr. 7, 1936	5.27	386				
1937	Jan. 26, 1937	12.53	2,310				
1938	Feb. 18, 1938	11.46	1,960				
1939	Apr. 18, 1939	10.36	1,600				
1940	Apr. 20, 1940	7.10	837				
1941	Jan. 25, 1941	4.57	330				
1942	Apr. 9, 1942	10.1	1,850				
1943	May 12, 1943	9.3	1,380				
1944	Apr. 13, 1944	10.36	1,950				
1945	June 18, 1945	12.18	2,620				
1946	Jan. 9, 1946	10.15	1,890				
1947	Apr. 12, 1947	6.3	805				
1948	Mar. 27, 1948	8.5	1,400				
1949	Jan. 28, 1949	11.26	2,300				
1950	Feb. 16, 1950	11.90	2,440				
1951	Feb. 21, 1951	11.21	2,200				
1952	Jan. 5, 1952	11.44	2,230				
1953	Mar. 18, 1953	8.38	1,310				
1954	Jan. 21, 1954	b 5.45	548				
1955	Mar. 21, 1955	9.2	1,550				
1956	Feb. 18, 1956	10.84	2,060				
1957	July 2, 1957	11.50	2,300				
1958	Nov. 19, 1957	11.86	2,440				
1959	Feb. 14, 1959	9.00	1,490				
1960	May 21, 1960	8.37	1,310				
1961	May 7, 1961	12.3	2,580				
1962	Feb. 28, 1962	12.46	2,470				
1963	Mar. 5, 1963	8.76	1,430				
1964	Mar. 10, 1964	12.45	2,610				
1965	Feb. 10, 1965	11.00	2,130				

a Includes some flow from levee break on St. Francis River.
b Observed.

ST. FRANCIS RIVER BASIN

7-0420. Little River ditch 1 near Kennett, Mo.

Location.--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.

Drainage area.--235 sq mi. Slope.--1.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; large shifts occur frequently.

Bankfull stage.--13 ft.

Remarks.--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. A spillway 6.3 miles upstream diverted water at high stages from ditches 66, 66-A, and 251 to ditch 1. This spillway was washed out and closed April 1951. Crests have been adjusted where necessary for spillway diversion with data supplied by the Little River Drainage District. Ditch 1 near Kennett has no connection with ditch 1 near Morehouse. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 25, 1927	16.56	a7,520				
1928	June 24, 1928	10.34	2,990				
1929	Feb. 27, 1929	11.63	4,010				
1930	Jan. 15, 1930	13.24	5,040				
1931	Mar. 9, 1931	5.05	545				
1932	Jan. 18, 1932	10.95	3,510				
1933	May 16, 1933	11.16	3,040				
1934	Mar. 27, 1934	12.37	2,810				
1935	Mar. 17, 1935	16.22	4,800				
1936	Apr. 7, 1936	8.32	1,180				
1937	Jan. 25, 1937	16.80	7,260				
1938	Feb. 19, 1938	12.65	3,940				
1939	Apr. 18, 1939	12.22	b3,700				
1940	Apr. 21, 1940	7.08	2,310				
1941	Jan. 25, 1941	3.7	582				
1942	Apr. 10, 1942	10.8	4,080				
1943	May 12, 1943	11.6	3,550				
1944	Apr. 14, 1944	12.8	5,010				
1945	June 15, 1945	16.41	b6,730				
1946	Jan. 10, 1946	12.26	b4,460				
1947	Apr. 12, 1947	7.4	2,250				
1948	Mar. 27, 1948	11.10	4,130				
1949	Feb.16-18, 1949	15.68	b5,740				
1950	Jan. 14, 1950	16.57	b7,360				
1951	Jan. 16, 1951	14.60	b5,840				
1952	Jan. 5, 1952	14.50	5,900				
1953	Mar. 19, 1953	9.70	3,020				
1954	Jan. 21, 1954	7.12	1,860				
1955	Mar. 21, 1955	11.1	3,840				
1956	Feb. 18, 1956	11.97	4,330				
1957	May 25, 1957	14.77	5,200				
1958	Mar. 25, 1958	16.65	6,250				
1959	Feb. 15, 1959	11.80	3,720				
1960	May 21, 1960	11.2	3,630				
1961	May 7, 1961	14.2	5,690				
1962	Feb. 28, 1962	13.00	4,880				
1963	Mar. 5, 1963	9.30	2,830				
1964	Mar. 11, 1964	14.39	6,200				
1965	Feb. 12, 1965	12.06	4,820				

a Includes some inflow from levee breaks on St. Francis River.
b Adjusted for inflow from ditches 66, 66-A, and 251.

ST. FRANCIS RIVER BASIN

7-0425. Little River ditch 251 near Lilbourn, Mo.

Location.--Lat 36°33'20", long 89°40'10", on line between secs.8 and 17, T.22 N., R.13 E., at bridge on U. S. Highway 62, 3.7 miles southwest of Lilbourn and 4 miles northwest of Marston.

Drainage area.--235 sq mi. Slope.--2.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 263.46 ft above mean sea level, datum of 1929 (levels by State Highway Department).

Stage-discharge relation--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--14 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	15.6	3,200				
1946	May 27, 1946	13.35	2,500				
1947	Apr. 11, 1947	9.10	1,300				
1948	Mar. 27, 1948	12.0	2,100				
1949	Jan. 28, 1949	14.88	3,120				
1950	Feb. 15, 1950	15.16	3,210				
1951	Feb. 21, 1951	13.55	2,700				
1952	Jan. 4, 1952	13.37	2,780				
1953	Mar. 17, 1953	10.6	1,950				
1954	Jan. 20, 1954	7.20	994				
1955	Mar. 21, 1955	11.6	2,240				
1956	Feb. 18, 1956	12.06	2,390				
1957	May 23, 1957	14.15	2,970				
1958	Nov.18,19, 1957	14.72	3,150				
1959	Jan. 21, 1959	10.80	1,890				
1960	May 20, 1960	10.00	1,660				
1961	May 9, 1961	13.90	2,930				
1962	Feb. 24, 1962	12.62	2,540				
1963	Mar. 5, 1963	11.50	2,100				
1964	Mar. 10, 1964	15.00	3,530				
1965	Feb. 12, 1965	13.30	2,660				

ST. FRANCIS RIVER BASIN

7-0430. Castor River at Aquilla, Mo.

Location.--Lat 36°57'10", long 89°54'25", in NE¼SE¼ sec.25, T.27 N., R.10 E., at bridge on State Highway 25, half a mile north of Aquilla and 4 miles north of Bloomfield.

Drainage area.--175 sq mi. Slope.--0.80 ft per mi.

Gage.--Nonrecording. Datum of gage is 317.11 ft above mean sea level (levels by State Highway Department).

Stage-discharge relation.--Defined by current-meter measurements; large shifts in relation occur frequently.

Bankfull stage.--13 ft.

Remarks.--Entire flow from headwaters of Castor River is diverted 22 miles above station to Headwater diversion channel. See Castor River at Zalma for records of flow above diversion. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1, 1945	14.2	3,600				
1946	May 3, 1946	11.02	2,000				
1947	Apr. 11, 1947	9.65	1,560				
1948	Jan. 1, 1948	10.95	2,220				
1949	Jan. 25, 1949	12.75	3,000				
1950	Jan. 4, 1950	13.45	3,430				
1951	Jan. 15, 1951	11.56	1,760				
1952	Mar. 11, 1952	12.20	1,960				
1953	Mar. 22, 1953	10.69	1,500				
1954	May 3, 1954	8.0	810				
1955	Mar. 22, 1955	11.46	1,730				
1956	Feb. 18, 1956	10.97	1,580				
1957	May 23, 1957	14.00	4,100				
1958	Mar. 24, 1958	13.25	2,980				
1959	Jan. 21, 1959	10.40	1,300				
1960	Mar. 21, 1960	9.40	1,010				
1961	May 7, 1961	14.43	4,700				
1962	Feb. 27, 1962	13.22	2,980				
1963	Mar. 17, 1963	10.93	1,470				
1964	Mar. 9, 1964	15.7	5,900				
1965	Apr. 4, 1965	11.92	2,160				

ST. FRANCIS RIVER BASIN

7-0435. Little River ditch 1 near Morehouse, Mo.

Location.--Lat 36°50'05", long 89°43'50", in NW¼SE¼ sec.2, T.25 N., R.12 E., at bridge on U. S. Highway 60, 1½ miles downstream from Little River ditch 39 and 2 miles west of Morehouse.

Drainage area.--450 sq mi. Slope.--2.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 280.76 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; large shift in relation occurred during summer of 1947 due to channel enlargement.

Bankfull stage.--13 ft.

Remarks.--This ditch has no connection with ditch 1 near Kennett. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	19.85	5,830				
1946	May 3, 1946	17.2	4,600				
1947	Apr. 12, 1947	13.92	3,230				
1948	Jan. 2, 1948	13.6	4,760				
1949	Jan. 25, 1949	15.35	6,270				
1950	Jan.13,16, 1950	16.30	6,920				
1951	Jan. 15, 1951	14.60	5,570				
1952	Mar. 11, 1952	16.50	7,020				
1953	Mar. 23, 1953	13.15	4,540				
1954	May 3, 1954	7.60	1,300				
1955	Mar. 21, 1955	15.6	6,170				
1956	Feb. 18, 1956	14.27	5,340				
1957	May 26, 1957	16.35	6,250				
1958	Mar. 25, 1958	18.26	7,660				
1959	Jan. 21, 1959	11.60	3,320				
1960	Mar. 21, 1960	9.30	2,130				
1961	May 10, 1961	19.35	8,250				
1962	Feb. 28, 1962	18.55	7,180				
1963	Mar. 17, 1963	14.80	4,480				
1964	Mar. 11, 1964	19.81	6,940				
1965	Feb. 12, 1965	15.80	5,120				

ST. FRANCIS RIVER BASIN

7-0440. Little River ditch 251 near Kennett, Mo.
(Includes records for ditches 66 and 66-A published separately in annual water-supply papers)

cation.--Lat 36°14'10", long 89°58'40", in NW¼ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

ainage area.--883 sq mi, including that of Little River ditches 66 and 66-A. Slope.—1.0 ft per mi.

ge.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

age-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

nkfull stage.--15 ft.

marks.--Ditch 251 completed after November 1926. At high stages a spillway 6.3 miles upstream diverted water from ditches 66, 66-A, and 251 into ditch 1. This spillway was washed out and closed April 1951. Crests have been corrected where necessary for spillway diversion with data supplied by the Little River Drainage District. Only annual peaks are shown.

Peak stages and discharges

ater ear	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
927	Apr. 25, 1927	17.67	12,500				
928	June 24, 1928	14.95	9,040				
929	Feb. 28, 1929	15.37	9,500				
930	Jan.14,15, 1930	16.41	11,000				
931	Mar. 9, 1931	10.12	4,110				
932	Jan. 18, 1932	14.50	8,250				
933	May 16, 1933	15.18	8,190				
934	Mar. 28, 1934	13.66	6,260				
935	Mar. 16, 1935	16.40	8,960				
936	Apr. 8, 1936	11.28	4,190				
937	Jan. 25, 1937	18.20	12,700				
938	Feb. 20, 1938	15.76	9,280				
939	Mar. 7, 1939	15.59	a9,130				
940	Apr. 21, 1940	13.35	6,980				
941	Jan. 26, 1941	7.75	2,240				
942	Apr. 10, 1942	15.3	8,480				
943	May 14, 1943	14.9	6,830				
944	Apr. 13, 1944	15.6	8,470				
945	June 13, 1945	17.71	a11,000				
946	Jan. 11, 1946	17.0	a10,200				
947	Apr. 12, 1947	13.7	6,110				
948	Mar. 28, 1946	15.36	a7,900				
949	Jan. 28, 1949	18.75	a12,700				
950	Jan. 16, 1950	18.17	a11,700				
951	Feb. 22, 1951	18.80	a12,100				
952	Jan. 6, 1952	19.60	11,000				
953	Mar. 24, 1953	13.07	4,990				
954	June 11, 1954	9.10	2,500				
955	Mar. 23, 1955	17.1	8,350				
956	Feb. 19, 1956	17.00	8,290				
957	May 26, 1957	b21.70	11,700				
958	Nov. 20, 1957	21.18	13,100				
959	Jan. 22, 1959	15.82	6,820				
960	May 21, 1960	12.85	4,400				
961	May 9, 1961	20.40	13,000				
962	Mar. 1, 1962	20.10	12,200				
963	Mar. 6, 1963	15.90	6,900				
964	Mar. 11, 1964	21.80	13,400				
965	Feb. 13, 1965	15.44	11,400				

a Corrected for diversion into ditch 1.
b Occurred May 24, 1957.

ST. FRANCIS RIVER BASIN

7-0460. Little River ditch 259 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'35", in NW¼ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--89.0 sq mi. Slope.--1.0 ft per mile.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements, large shifts in relation occur frequently.

Bankfull stage.--10 ft.

Remarks.--Ditch completed after November 1926. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 29, 1927	15.57	a4,140				
1928	June 24, 1928	8.15	966				
1929	Feb. 26, 1929	9.43	1,330				
1930	Jan. 14, 1930	11.04	1,820				
1931	Apr. 27, 1931	4.50	212				
1932	Jan. 17, 1932	9.82	1,350				
1933	Apr. 23, 1933	10.72	1,360				
1934	Mar. 29, 1934	11.38	1,160				
1935	Mar. 15, 1935	11.30	1,150				
1936	July 3, 1936	7.72	454				
1937	Jan. 23, 1937	12.23	3,420				
1938	Feb. 19, 1938	11.10	1,940				
1939	Feb. 3, 1939	10.63	1,780				
1940	Apr. 20, 1940	7.84	1,110				
1941	Jan. 24, 1941	4.3	355				
1942	Apr. 10, 1942	10.69	1,720				
1943	Mar. 20, 1943	9.3	962				
1944	Apr. 12, 1944	11.27	1,540				
1945	June 12-15,1945	11.6	1,890				
1946	Jan. 11, 1946	10.98	1,730				
1947	Apr. 11, 1947	8.95	1,200				
1948	Mar. 23, 1948	9.45	1,360				
1949	Mar. 27, 1949	10.78	1,470				
1950	Feb. 15,16 1950	11.73	2,370				
1951	Feb. 22,23, 1951	11.37	2,110				
1952	Mar. 11, 1952	11.95	2,670				
1953	Mar. 18, 1953	6.37	1,080				
1954	May 29, 1954	7.0	1,120				
1955	May 29, 1955	9.1	2,000				
1956	Feb. 18, 1956	10.95	3,080				
1957	July 4, 1957	11.81	2,920				
1958	Nov. 20, 1957	11.40	2,720				
1959	Jan. 21, 1959	10.20	2,440				
1960	May 21, 1960	8.00	1,650				
1961	May 7, 1961	10.8	2,680				
1962	Jan. 15, 1962	11.90	3,280				
1963	Mar. 5, 1963	8.00	1,650				
1964	Mar. 15, 1964	10.70	2,920				
1965	Feb. 12, 1965	10.38	2,230				

WHITE RIVER BASIN

7=0500. White River at Beaver, Ark.

Location.--Lat 36°28'20", long 93°45'55", in NE¼ sec.20, T.21 N., R.26 W., on upstream side of Missouri & North Arkansas Railway bridge, a quarter of a mile east of Beaver, 2 3/4 miles upstream from Leatherwood Creek, and at mile 595.5.

Drainage area.--1,238 sq mi. Slope.--4.48 ft per mi.

Gage.--Nonrecording. Datum of gage is 883.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 90,000 cfs.

Bankfull stage.--30 ft.

Remarks.--Peaks for period 1921-23 computed from plotted Empire District Electric Co. gage readings at site 1,500 ft upstream revised to read same as present gage. Base for partial-duration series, 22,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1898	-	40	a94,000
1910	May 17, 1910	17.35	a21,500
1922	Apr. 6, 1922	10.50	9,400
1923	Feb. 2, 1923	21.08	28,200
1924	May 1, 1924	18.35	23,500
1925	Dec. 20, 1924	18.12	22,900
1926	Oct. 11, 1925	12.3	b12,300
1927	Jan. 25, 1927	21.70	29,400
	Apr. 16, 1927	37.0	80,200
	Apr. 20, 1927	25.10	36,300
1928	Oct. 2, 1927	25.65	39,700
	Oct. 4, 1927	26.85	43,000
	Dec. 15, 1927	30.60	48,900
	Apr. 7, 1928	22.10	30,800
	Apr. 22, 1928	26.50	42,200
	June 14, 1928	23.73	34,800
	June 22, 1928	18.78	23,500
1929	Jan. 26, 1929	23.85	33,900
	Apr. 10, 1929	19.01	23,900
	May 10, 1929	20.99	28,300
	July 9, 1929	22.00	30,600
1930	May 12, 1930	19.15	24,500
1931	Feb. 10, 1931	19.69	25,100
1932	Jan. 18, 1932	16.15	19,100
1933	Dec. 25, 1932	20.46	27,200
	May 15, 1933	27.70	42,200
	Sept. 5, 1933	18.89	23,700
1934	Oct. 23, 1933	14.83	16,500
1935	Mar. 13, 1935	22.74	32,300
	June 4, 1935	23.73	34,800
	June 9, 1935	21.70	29,900
	June 19, 1935	27.55	41,100
1936	Dec. 8, 1935	12.32	12,000
1937	Jan. 16, 1937	18.58	23,400
1938	Feb. 19, 1938	26.80	40,300
	May 24, 1938	19.82	25,700
1939	Apr. 18, 1939	16.70	19,700
1940	Apr. 13, 1940	16.00	18,400
1941	Jan. 3, 1941	19.44	24,800
	Apr. 20, 1941	26.3	39,500
1942	Nov. 1, 1941	20.5	27,200
	Apr. 10, 1942	20.35	27,000
1943	Dec. 29, 1942	31.95	59,500
	May 12, 1943	42.33	105,000
1944	June 16, 1944	22.3	31,300
1945	Feb. 23, 1945	23.00	33,000
	Feb. 28, 1945	21.40	29,200
	Mar. 4, 1945	19.96	26,100
	Mar. 20, 1945	28.25	47,100
	Apr. 1, 1945	22.65	32,000
	Apr. 16, 1945	40.9	98,200
	May 17, 1945	18.38	22,600
	June 12, 1945	29.75	52,000
1946	Feb. 15, 1946	22.55	32,000
	May 26, 1946	32.50	61,400
1947	Nov. 11, 1946	20.60	27,400
	Dec. 12, 1946	20.97	28,300
1948	Aug. 16, 1948	24.52	36,800
1949	Jan. 26, 1949	26.3	41,600
	Feb. 16, 1949	28.5	48,000
1950	Jan. 6, 1950	19.9	25,900
	Jan. 15, 1950	21.0	28,300
	Feb. 14, 1950	20.1	26,300
	May 12, 1950	31.95	59,500
	July 20, 1950	21.3	29,000
	Aug. 7, 1950	20.1	26,300
1951	Feb. 20, 1951	27.75	45,900
1952	Mar. 12, 1952	18.58	23,100
	Apr. 14, 1952	19.10	24,100
1953	Mar. 16, 1953	21.10	25,900
	May 14, 1953	21.65	27,100
1954	May 4, 1954	13.8	12,100
1955	Mar. 22, 1955	20.20	23,900
1956	May 17, 1956	23.7	31,800
1957	Apr. 5, 1957	33.50	61,600
	Apr. 28, 1957	19.3	22,000
	May 19, 1957	24.5	34,400
	May 25, 1957	33.0	59,700
1958	Aug. 3, 1958	16.72	17,700

a Annual peak only.
b Maximum crest discharge; maximum discharge, 19,300 cfs at 2400 Sept. 30, 1926, rising stage.

WHITE RIVER BASIN

7-0507. James River near Springfield, Mo.

Location.--Lat 37°12'12", long 93°09'00", in NE¼NW¼ sec.11, T.28 N., R.21 W., 2½ miles southeast of Springfield.

Drainage area.--246 sq mi. Slope.--6.50 ft per mi.

Gage.--Nonrecording prior to Dec. 19, 1955; recording thereafter. Datum of gage is 1,143.27 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and by flow over dam measurement at 24,800 cfs.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 15, 1956	15.20	12,400				
	June 25, 1956	13.35	6,150				
1957	Mar. 24, 1957	12.78	5,090				
	Apr. 3, 1957	14.85	10,800				
	May 21, 1957	14.28	8,880				
	May 23, 1957	15.57	14,100				
	May 25, 1957	14.91	11,200				
	June 2, 1957	12.19	4,400				
	Sept. 2, 1957	11.83	4,040				
1958	Dec. 17, 1957	18.20	24,800				
	Mar. 9, 1958	11.86	4,130				
	Mar. 23, 1958	13.95	7,860				
	July 7, 1958	15.80	14,800				
	July 17, 1958	15.40	13,200				
	July 31, 1958	12.83	5,090				
1959	June 1, 1959	8.22	1,590				
1960	Oct. 4, 1959	11.91	4,130				
	Dec. 18, 1959	13.38	6,150				
	May 6, 1960	14.66	10,400				
1961	May 1, 1961	12.65	4,820				
	May 5, 1961	13.10	5,570				
	May 9, 1961	12.43	4,590				
1962	Mar. 21, 1962	11.04	3,340				
1963	May 13, 1963	13.55	6,630				
	May 26, 1963	15.95	15,600				
1964	Apr. 5, 1964	12.00	4,220				
1965	Apr. 4, 1965	15.00	11,600				
	Apr. 6, 1965	17.05	19,800				
	Sept. 5, 1965	14.20	8,540				

WHITE RIVER BASIN

7-0508. Maple Grove Branch near Ozark, Mo.

Location.--Lat 37°04'20", long 93°13'05", in SW¼NE¼ sec.3, T.27 N., R.21 W., on left bank just upstream from culvert under old State Highway 65, 3.4 miles north of Ozark.

Drainage area.--0.64 sq mi. Slope.--59.5 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed May 19, 1965.

Stage-discharge relation.--Defined at 113 and 298 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Sept. 2, 1957	6.95	243				
1958	Dec. 16, 1957	6.63	218				
1959	May 31, 1959	7.65	298				
1960		(a)	(b)				
1961	June 7, 1961	7.58	293				
1962		(a)	(b)				
1963	May 13, 1963	5.20	103				
1964	July 1, 1964	6.58	213				
1965	Apr. 5, 1965	10.05	774				

a Stage below bottom of gage.
b Less than 50 cfs.

WHITE RIVER BASIN

7-0515. James River below Battlefield, Mo.
(Published as "near Battlefield" prior to June 1929)

Location.--Lat 37°05'30", long 93°21'25", in NE¼ sec.32, T.28 N., R.22 W., at Blue Spring Highway bridge, 1.6 miles southwest of Battlefield and 3 miles upstream from Wilson Creek.

Drainage area.--328 sq mi; 303 sq mi prior to May 13, 1929. Slope.--6.33 ft per mi.

Gage.--Nonrecording. Feb. 17, 1926, to May 13, 1929, at site 3 miles upstream at datum about 10 ft higher. May 13, 1929, to Jan. 7, 1932, at last used site and datum. Altitude of gage at last used site is 1,090 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 8,800 cfs.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept.30, 1926	6.30	1,920				
1927	Mar. 31, 1927	14.3	13,300				
	Apr. 9, 1927	10.70	7,020				
	Apr. 15, 1927	15.00	14,600				
	Apr. 19, 1927	10.50	6,700				
	June 21, 1927	9.40	5,010				
	Aug. 8, 1927	12.0	9,200				
	Aug. 17, 1927	10.7	7,020				
1928	Nov. 15, 1927	11.5	8,350				
	Dec. 14, 1927	11.6	8,520				
	Apr. 6, 1928	14.3	13,300				
	Apr. 22, 1928	11.3	8,010				
	June 9, 1928	15.80	16,200				
	June 13, 1928	9.00	4,450				
	June 28, 1928	16.10	16,800				
1929	Apr. 9, 1929	11.20	8,010				
	May 13, 1929	9.60	5,450				
	May 28, 1929	10.04	5,450				
1930	Jan. 14, 1930	9.82	4,630				
1931	Aug. 6, 1931	10.50	5,350				

WHITE RIVER BASIN

7-0520. Wilson Creek near Springfield, Mo.

Location.--Lat 37°11'35", long 93°20'20", in NW¼SE¼ sec.28, T.29 N., R.22 W., three-quarters of a mile downstream from Jordan Creek and 2 miles southwest of Springfield.

Drainage area.--19.4 sq mi. Slope.--23.3 ft per mi.

Gage.--Recording. Datum of gage is 1,196.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 900 cfs and extended to 2,440 cfs on basis of area-velocity studies.

Bankfull stage.--5 ft.

Remarks.--Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 27, 1932	7.62	a2,440				
1933	Dec. 23, 1932	4.12	520				
	Apr. 15, 1933	4.12	520				
	May 13, 1933	4.69	732				
	July 8, 1933	5.07	922				
	Sept. 2, 1933	3.98	488				
1934	June 15, 1934	3.82	424				
1935	Mar. 11, 1935	4.58	692				
	Mar. 15, 1935	4.50	654				
	May 29, 1935	4.46	654				
	June 2, 1935	4.27	580				
	June 7, 1935	5.13	882				
	June 14, 1935	5.40	1,000				
	June 16, 1935	5.57	1,080				
	July 2, 1935	4.12	512				
	Aug. 12, 1935	3.85	424				
	Aug. 27, 1935	4.65	692				
1936	Sept.28, 1936	3.77	398				
1937	Oct. 6, 1936	4.00	480				
	Oct. 25, 1936	4.30	580				
	Nov. 2, 1936	4.60	692				
	Jan. 8, 1937	3.90	452				
	Jan. 14, 1937	4.55	692				
	Jan. 30, 1937	4.10	512				
	Apr. 29, 1937	4.64	692				
	May 21, 1937	4.10	512				
	June 2, 1937	5.04	858				
	June 9, 1937	4.90	806				
	June 14, 1937	6.87	1,880				
	July 19, 1937	3.95	480				
	Sept. 5, 1937	4.20	544				
1938	Jan. 20, 1938	3.80	424				
	Feb. 18, 1938	3.90	452				
	May 6, 1938	4.10	512				
	May 23, 1938	3.95	480				
	June 16, 1938	5.35	980				

a Annual peak only.

WHITE RIVER BASIN

7-0525. James River at Galena, Mo.

Location.--Lat 36°48'20", long 93°27'50", in NW¼ sec.7, T.24 N., R.23 W., at bridge on State Highways 13 and 44 in Galena, half a mile upstream from Railey Creek and 42.3 miles above mouth.

Drainage area.--987 sq mi. Slope.--4.75 ft per mi.

Gage.--Nonrecording prior to July 22, 1939; recording thereafter. Prior to Dec. 11, 1927, at site 500 ft downstream at datum 1.48 ft higher; Dec. 11, 1927, to Sept. 30, 1953, at present site at datum 2.00 ft higher. Datum of present gage is 921.37 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 1, 1922	10.3	7,220
1923	Mar. 12, 1923	11.9	9,940
1924	July 12, 1924	15.5	15,600
	Aug. 11, 1924	15.2	15,000
1925	Dec. 19, 1924	16.7	18,000
1926	Sept.30, 1926	9.8	5,700
1927	Apr. 1, 1927	20.4	25,500
	Apr. 10, 1927	18.6	21,700
	Apr. 15, 1927	27.1	41,900
	Apr. 19, 1927	17.1	18,700
	May 9, 1927	14.4	13,000
	Aug. 9, 1927	18.1	20,600
	Aug. 16, 1927	17.9	20,400
1928	Nov. 15, 1927	15.2	14,800
	Apr. 7, 1928	19.78	24,200
	June 10, 1928	21.94	28,900
	June 21, 1928	16.68	17,700
	June 29, 1928	20.72	26,100
1929	Apr. 9, 1929	14.30	16,800
	May 13, 1929	12.74	13,600
1930	Jan. 14, 1930	10.68	9,760
1931	Aug. 6, 1931	14.55	17,500
1932	June 28, 1932	11.50	11,000
1933	Dec. 24, 1932	15.20	18,700
	Apr. 16, 1933	13.20	14,600
	May 14, 1933	22.08	34,200
1934	Apr. 6, 1934	4.77	2,130
1935	Mar. 11, 1935	27.05	50,200
	June 3, 1935	14.83	17,900
	June 7, 1935	14.81	17,900
	June 18, 1935	17.00	22,800
1936	Sept.23, 1936	10.85	10,300
1937	Jan. 9, 1937	14.54	13,200
	Jan. 15, 1937	16.80	17,900
	Jan. 31, 1937	14.90	14,000
	June 14, 1937	15.40	15,000
1938	Feb. 19, 1938	16.08	16,400
1939	Feb. 20, 1939	13.0	10,700
1940	Apr. 12, 1940	14.44	13,100
1941	Apr. 17, 1941	15.50	14,300
	Apr. 20, 1941	28.87	49,900
1942	Oct. 31, 1941	17.54	18,100
	Apr. 9, 1942	14.20	12,000
	June 18, 1942	15.10	13,600
1943	Dec. 28, 1942	23.26	33,500
	May 11, 1943	25.39	39,600
	May 20, 1943	29.82	52,700
1944	Apr. 11, 1944	15.48	14,400
1945	Feb. 22, 1945	14.70	16,800
	Mar. 3, 1945	17.80	24,100
	Mar. 7, 1945	17.29	22,800
	Apr. 3, 1945	19.55	28,900
	Apr. 15, 1945	23.87	41,000
1946	Feb. 14, 1946	15.07	17,600
1947	Apr. 25, 1947	23.65	40,100
1948	June 19, 1948	15.30	18,100
1949	Feb. 16, 1949	13.6	14,700
1950	Oct. 22, 1949	20.65	31,600
	Jan. 4, 1950	12.8	13,200
	Jan. 14, 1950	15.0	17,500
	May 11, 1950	18.4	25,600
1951	Feb. 19, 1951	14.59	16,700
	June 23, 1951	14.86	17,400
	July 1, 1951	18.90	26,900
	July 5, 1951	19.95	29,900
1952	Feb. 2, 1952	16.62	16,800
1953	Mar. 15, 1953	8.87	4,900
1954	May 3, 1954	8.87	4,900
1955	Feb. 20, 1955	16.40	16,400
1956	May 15, 1956	20.98	27,200
1957	Apr. 4, 1957	19.20	22,600
	May 24, 1957	20.36	25,600
	May 26, 1957	18.90	21,900
	June 3, 1957	15.00	13,800
1958	Dec. 18, 1957	21.46	28,600
	Mar. 24, 1958	17.37	19,500
	July 8, 1958	14.96	13,800
	July 18, 1958	16.80	17,200
1959	June 1, 1959	11.18	7,950
1960	May 7, 1960	15.80	15,200
1961	May 9, 1961	26.20	41,900
	May 23, 1961	14.80	13,500
1962	Mar. 22, 1962	9.08	5,180
1963	May 14, 1963	16.00	15,600
	May 27, 1963	16.40	16,400
	June 16, 1963	15.54	14,700
1964	Apr. 6, 1964	13.75	11,800
1965	Apr. 4, 1965	22.97	32,700
	Apr. 7, 1965	23.70	34,700

WHITE RIVER BASIN

7-0527. Brawley Hollow near Cassville, Mo.

Location.--Lat 36°38'50", long 93°54'15", in NE¼SE¼ sec.1, T.22 N., R.28 W., on left bank just upstream from culvert on State Highway 37, 1.9 miles southwest on State Highway 37, from junctions of State Highways 37, 44, and 86 and approximately 3.1 miles southwest of Cassville.

Drainage area.--2.61 sq mi. Slope.--57.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 88 and 525 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	June 23, 1960	12.32	110				
1961	May 7, 1961	16.43	525				
1962		(a)	(b)				
1963	June 16, 1963	11.01	30				
1964	June 13, 1964	16.97	600				
1965	Apr. 2, 1965	13.69	225				

a Below zero of gage.
b Less than 25 cfs.

WHITE RIVER BASIN

7-0530. White River near Reeds Spring, Mo.

Location.--Lat 36°37'20", long 93°25'20", in NE¼SE¼ sec.9, T.22 N., R.23 W., at bridge on State Highway 13, 5 3/4 miles downstream from James River, 12 miles south of Reeds Spring, and at mile 543.8.

Drainage area.--3,617 sq mi. Slope.--3.53 ft per mi.

Gage.--Nonrecording prior to Dec. 17, 1938, May 11 to Oct. 1, 1943, and Mar. 11, 1945, to Feb. 14, 1947; recording Dec. 18, 1938, to May 10, 1943 (destroyed by flood), Oct. 2, 1943, to Mar. 10, 1945 (destroyed by flood), and Feb. 15, 1947, to Sept. 30, 1952. Datum of gage is 739.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 175,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 30,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 15, 1927	46.8	a195,000				
1938	Feb. 18, 1938	31.0	95,100				
	Mar. 30, 1938	15.3	31,300				
	May 24, 1938	19.9	47,400				
1939	Feb. 21, 1939	15.03	30,300				
	Apr. 18, 1939	18.55	42,700				
	May 13, 1939	19.74	46,700				
1940	Apr. 13, 1940	15.57	32,300				
1941	Apr. 16, 1941	19.2	44,800				
	Apr. 20, 1941	34.8	107,000				
1942	Nov. 1, 1941	22.35	53,900				
	Apr. 10, 1942	19.1	42,200				
1943	Oct. 31, 1942	15.50	30,800				
	Dec. 28, 1942	32.15	94,300				
	May 11, 1943	44.9	183,000				
	May 20, 1943	30.05	84,200				
1944	Apr. 11, 1944	15.33	30,100				
1945	Feb. 23, 1945	20.09	46,500				
	Feb. 28, 1945	17.57	38,000				
	Mar. 4, 1945	23.52	58,200				
	Mar. 21, 1945	26.25	68,400				
	Apr. 2, 1945	25.60	66,000				
	Apr. 16, 1945	47.00	196,000				
	May 17, 1945	17.8	38,700				
	June 12, 1945	27.75	75,000				
1946	Feb. 15, 1946	20.95	49,600				
	May 27, 1946	26.94	71,200				
1947	Dec. 12, 1946	21.2	50,300				
	Apr. 26, 1947	20.9	49,300				
1948	Aug. 17, 1948	16.57	34,800				
1949	Jan. 27, 1949	21.5	51,300				
	Feb. 16, 1949	26.56	70,000				
1950	Jan. 5, 1950	17.62	38,000				
	Jan. 15, 1950	20.00	46,200				
	Feb. 14, 1950	18.04	39,400				
	May 12, 1950	38.65	135,000				
	July 20, 1950	15.56	31,700				
1951	Feb. 21, 1951	27.80	75,000				
	July 2, 1951	18.76	42,100				
	July 5, 1951	18.71	41,800				
1952	Mar. 12, 1952	15.90	32,600				
	Apr. 14, 1952	17.09	36,400				

a Annual peak only.

WHITE RIVER BASIN

7-0535. White River near Branson, Mo.
(Published as "at Forsyth" prior to 1953)

Location.--Lat 36°35'51", long 93°17'42", SE¼NE¼ sec.22, T.22 N., R.22 W., on left bank 0.9 mile downstream from Table Rock Dam, 5 miles southwest of Branson, 7.4 miles upstream from Missouri Pacific Railroad Co. bridge, and at mile 527.8.

Drainage area.--4,022 sq mi; 4,544 sq miles prior to Oct. 1, 1952. Slope.--3.36 ft per mi.

Gage.--Recording. Prior to Oct. 1, 1952, at site 24 miles downstream at datum 55.36 ft lower. Datum of present gage is 698.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--35 ft.

Remarks.--Flow completely regulated by Table Rock Reservoir since Sept. 9, 1956. Base for partial-duration series, 36,000 cfs "at Forsyth", 33,000 cfs "near Branson".

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1898	-	38.80	a160,000
1927	Apr. 16, 1927	45.36	a212,000
1930	May 12, 1930	14.50	31,100
1931	Feb. 11, 1931	14.50	31,100
1932	Jan. 17, 1932	15.70	35,500
1933	Dec. 25, 1932	19.18	47,400
	May 15, 1933	29.3	84,600
1934	Apr. 7, 1934	11.25	21,300
1935	Mar. 11, 1935	35.23	127,000
	Mar. 25, 1935	18.57	50,700
	June 4, 1935	23.10	68,700
	June 8, 1935	23.68	71,100
	June 19, 1935	26.31	81,600
1936	Sept.29, 1936	12.53	28,100
1937	Jan. 16, 1937	18.49	50,600
	Feb. 1, 1937	15.18	37,900
1938	Feb. 18, 1938	29.84	110,000
	Mar. 29, 1938	15.22	37,600
	May 24, 1938	17.93	49,800
1939	Apr. 19, 1939	16.19	42,000
	May 13, 1939	18.83	54,100
1940	Apr. 12, 1940	16.32	42,500
1941	Apr. 16, 1941	20.17	56,900
	Apr. 20, 1941	30.57	106,000
1942	Nov. 1, 1941	20.00	56,000
	Apr. 11, 1942	17.15	44,000
1943	Dec. 29, 1942	28.45	96,000
	May 12, 1943	42.0	193,000
	May 20, 1943	28.68	97,500
1944	Mar. 22, 1944	14.76	34,600
1945	Feb. 22, 1945	18.83	51,300
	Mar. 1, 1945	16.38	41,200
	Mar. 4, 1945	21.05	61,300
	Mar. 21, 1945	23.36	71,600
	Apr. 2, 1945	26.92	88,600
	Apr. 16, 1945	43.77	209,000
	May 18, 1945	16.00	39,500
	June 13, 1945	23.83	73,800
1946	Feb. 15, 1946	18.63	50,500
	May 27, 1946	22.90	69,800
1947	Nov. 6, 1946	17.80	47,500
	Nov. 10, 1946	16.50	42,400
	Dec. 12, 1946	20.46	59,200
	Apr. 26, 1947	18.40	50,100
1948	June 19, 1948	17.43	46,100
1949	Jan. 27, 1949	22.0	65,700
	Feb. 17, 1949	23.37	72,000
1950	Jan. 5, 1950	16.28	41,500
	Jan. 15, 1950	18.17	49,400
	Feb. 14, 1950	16.66	43,200
	May 12, 1950	38.75	161,000
1951	Feb. 20, 1951	25.64	82,400
	July 2, 1951	16.88	44,000
	July 4, 1951	17.10	44,800
1952	Mar. 12, 1952	14.22	36,100
	Apr. 14, 1952	15.07	40,100
1953	Mar. 16, 1953	21.22	32,600
1954	May 4, 1954	15.18	17,800
1955	Dec. 30, 1954	21.91	35,500
	Feb. 21, 1955	22.24	36,400
1956	May 16, 1956	36.9	89,100
1957	June 10-11,1957	18.53	25,900
1958	May 16, 1958	12.50	10,600
1959	Nov. 20, 1958	-	7,300
1960	May 15, 1960	-	18,000
1961	May 12, 1961	20.70	b 33,000
1962	Dec. 20, 1961	-	b 7,840
1963	July 18, 1963	-	b 4,010
1964	Aug. 4, 1964	-	b 5,370
1965	Aug. 25, 1965	-	b 5,150

a Annual peak only.
b Maximum daily discharge.

WHITE RIVER BASIN

7-0539.5. Ingenthron Hollow near Forsyth, Mo.

Location.--Lat 36°43'52", long 93°07'30", in SW¼NE¼ sec.17, T.24 N., R.20 W., on right bank, just upstream from culvert under County Road H, 2 miles north of Forsyth.

Drainage area.--0.65 sq mi. Slope.--186 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Aug. 7, 1962 and removed June 7, 1966.

Stage-discharge relation.--Defined at 98, 224, and 1,190 cfs by indirect measurements. Defined below 17 cfs by current-meter measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	14.61	224				
1958	Sept.16, 1958	14.44	210				
1959	June 1, 1959	12.92	108				
1960	May 6, 1960	21.3	1,190				
1961	May 7, 1961	14.61	224				
1962	Sept.15, 1962	12.36	80				
1963	June 15, 1963	13.88	175				
1964	June 13, 1964	14.58	220				
1965	July 6, 1965	14.43	210				

WHITE RIVER BASIN

7-0541. Cedar Hollow at Bradleyville, Mo.

Location.--Lat 36°46'45", long 92°55'25", in NE¼SW¼ sec.10, T.24 N., R.18 W., on right bank just upstream from culvert under State Highway 76, 0.8 mile southwest of Bradleyville.

Drainage area.--0.83 sq mi. Slope.--204 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 515, 643, and 1,230 cfs by indirect measurement. Defined below 35 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 29, 1956	8.92	643				
1957	May 22, 1957	7.88	515				
1958	Aug. 1, 1958	7.20	430				
1959	Nov. 16, 1958	4.20	80				
1960	May 6, 1960	11.76	1,160				
1961		(a)	(b)				
1962	Sept.15, 1962	6.85	370				
1963	May 13, 1963	7.8	510				
1964		(a)	(b)				
1965	May 10, 1965	7.95	520				

a Stage below bottom of gage.
b Discharge less than 70 cfs .

WHITE RIVER BASIN

7-0542. Yandell Branch near Kirbyville, Mo.

Location.--Lat 36°36'36", long 93°05'47", in NE¼SW¼ sec.27, T.23 N., R.20 W., on right bank just upstream from corrugated metal culvert on County Road K, 2.8 miles southeast of Kirbyville, 7½ miles southeast of Branson and 5 miles south of Forsyth.

Drainage area.--0.33 sq mi. Slope.--116 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed June 8, 1966.

Stage-discharge relation.--Defined at 48, 168, and 291 cfs by indirect measurements. Defined below 7 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	14.01	48				
1956	May 13, 1956	16.63	168				
1957	Feb. 5, 1957	13.26	20				
1958	Mar. 8, 1958	13.73	37				
1959	Sept. 4, 1959	13.70	32				
1960	May 6, 1960	18.90	291				
1961	May 7, 1961	(a)	(b)				
1962	Dec. 16, 1961	13.50	12				
1963	June 16, 1963	15.56	115				
1964	Aug. 22, 1964	13.23	4				
1965	Apr. 3, 1965	15.97	140				

a Table Rock Reservoir backed over gage.
b Discharge not determined.

WHITE RIVER BASIN

7-0543. Gray Branch at Lutie, Mo.

Location.--Lat 36°35'05", long 92°42'30", in NE¼SW¼ sec.15, T.22 N., R.16 W., on left bank just upstream from culvert under U.S. Highway 160, 0.1 mile west of junction of Highways 95 and 160, 1.0 mile east of junction of P and 160 and 1.7 miles west of Lutie.

Drainage area.--0.23 sq mi. Slope.--279 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 15, 1959, removed Aug. 6, 1962.

Stage-discharge relation.--Defined at 58, 96, 223, and 262 cfs by indirect measurements. Defined below 2 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 26, 1955	8.82	210				
1956	May 14, 1956	9.57	246				
1957	Apr. 3, 1957	7.59	150				
1958	Sept. 16, 1958	6.86	115				
1959	Nov. 16, 1958	5.18	52				
1960	May 6, 1960	7.42	140				
1961	May 7, 1961	9.13	225				
1962	Apr. 10, 1962	5.92	77				
1963	June 16, 1963	6.17	96				
1964	Aug. 27, 1964	6.03	90				
1965	Apr. 3, 1965	7.75	170				

WHITE RIVER BASIN

7-0575. North Fork River near Tecumseh, Mo.

Location.--Lat 36°37'22", long 92°14'53", in NE¼SE¼ sec.35, T.23 N., R.12 W., on right bank 3.2 miles downstream from Spring Creek and 3½ miles northeast of Tecumseh.

Drainage area.--561 sq mi. Slope.—8.29 ft per mi.

Gage.--Nonrecording prior to May 11, 1945, at datum 0.22 ft lower; recording since May 12, 1945, at present datum. Datum of present gage is 584.67 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 21, 1945	9.0	9,590	1960	Dec. 27, 1959	6.56	5,050
	Feb. 26, 1945	13.2	17,700				
	Mar. 6, 1945	6.6	5,400	1961	Mar. 6, 1961	6.63	5,050
	Mar. 19, 1945	8.0	7,610		May 7, 1961	13.72	18,100
	Mar. 30, 1945	10.7	12,800				
	Apr. 2, 1945	8.1	7,790	1962	Jan. 22, 1962	8.30	7,810
	Apr. 15, 1945	16.7	25,100				
	May 10, 1945	7.2	6,400	1963	May 26, 1963	8.27	7,810
	June 9, 1945	6.38	5,400		June 16, 1963	9.53	9,950
	June 11, 1945	8.75	9,590				
	June 17, 1945	10.60	12,900	1964	Mar. 10, 1964	7.01	5,650
					Apr. 6, 1964	10.63	12,000
1946	Feb. 14, 1946	12.22	15,100				
	Mar. 6, 1946	7.60	6,620	1965	Apr. 4, 1965	6.63	5,050
	May 16, 1946	11.23	13,100				
	May 25, 1946	9.81	10,500				
1947	Nov. 10, 1946	9.94	10,700				
	Dec. 12, 1946	7.79	6,790				
	Apr. 25, 1947	8.22	7,640				
1948	Jan. 1, 1948	7.25	5,970				
	June 18, 1948	7.46	6,450				
1949	Jan. 19, 1949	7.4	6,290				
	Jan. 24, 1949	14.9	20,600				
	Jan. 28, 1949	8.76	8,690				
	Feb. 15, 1949	11.9	14,500				
	June 11, 1949	8.44	7,980				
	July 7, 1949	8.83	8,690				
1950	Jan. 4, 1950	18.05	27,400				
	Jan. 13, 1950	9.30	9,590				
	Feb. 13, 1950	7.69	6,790				
	Apr. 4, 1950	6.91	5,500				
	May 10, 1950	12.80	16,300				
	June 10, 1950	6.64	5,050				
1951	Feb. 11, 1951	7.47	6,450				
	July 11, 1951	7.30	6,130				
1952	Nov. 24, 1951	7.94	7,130				
	Mar. 11, 1952	9.17	9,410				
	Apr. 12, 1952	9.74	10,300				
1953	Apr. 18, 1953	5.83	3,920				
1954	Mar. 24, 1954	5.67	3,780				
1955	Mar. 21, 1955	16.95	25,100				
1956	May 15, 1956	15.65	22,100				
1957	Apr. 4, 1957	13.10	16,900				
	Apr. 27, 1957	8.13	7,470				
	May 19, 1957	6.83	5,350				
	May 23, 1957	13.60	17,900				
	May 25, 1957	8.48	8,150				
1958	Dec. 18, 1957	6.60	5,050				
	Mar. 24, 1958	9.45	9,770				
	July 12, 1958	10.15	11,200				
	July 17, 1958	9.66	10,300				
1959	Nov. 16, 1958	8.50	8,150				

WHITE RIVER BASIN

7-0580. Bryant Creek near Tecumseh, Mo.

Location.--Lat 36°37'35", long 92°18'25", in E½ sec.32, T.23 N., R.12 W., three-quarters of a mile downstream from Pine Creek, 3 miles northwest of Tecumseh, and 5 miles upstream from mouth.

Drainage area.--570 sq mi. Slope.--8.83 ft per mi.

Gage.--Nonrecording prior to July 30, 1945; recording thereafter. Datum of gage is 573.15 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 21, 1945	15.50	16,200	1960	May 6, 1960	8.80	4,400
	Feb. 26, 1945	15.80	17,000				
	Mar. 6, 1945	10.85	6,230	1961	May 8, 1961	16.52	18,800
	Mar. 19, 1945	11.45	7,110				
	Mar. 31, 1945	11.00	6,500	1962	Jan. 22, 1962	8.64	4,200
	Apr. 2, 1945	11.40	7,110				
	Apr.14,15,1945	18.00	22,600	1963	Mar. 5, 1963	10.52	6,100
	May 10, 1945	10.75	6,100		May 26, 1963	14.08	12,800
	June 11, 1945	11.20	6,800				
	June 17, 1945	14.50	15,000	1964	Apr. 6, 1964	12.21	8,500
1946	Feb. 14, 1946	15.86	17,200	1965	Apr. 5, 1965	12.78	9,760
	May 16, 1946	14.21	13,900				
1947	Nov. 10, 1946	16.17	18,000				
	Dec. 12, 1946	10.76	6,230				
	Apr. 25, 1947	11.19	6,800				
1948	June 19, 1948	11.00	6,500				
1949	Jan. 25, 1949	14.3	14,200				
	Jan. 28, 1949	12.55	9,260				
	Feb. 15, 1949	14.75	16,000				
	July 8, 1949	11.2	6,800				
	July 10, 1949	10.88	6,360				
1950	Jan. 4, 1950	19.50	26,500				
	Jan. 13, 1950	12.87	9,960				
	Feb. 13, 1950	12.29	8,640				
	Apr. 4, 1950	10.80	6,230				
	May 12, 1950	14.99	15,000				
	Aug. 8, 1950	12.9	9,960				
	Aug. 28, 1950	10.96	6,500				
1951	Feb. 19, 1951	10.99	6,500				
	July 1, 1951	13.22	10,700				
	July 4, 1951	11.66	7,590				
	July 11, 1951	11.45	7,110				
1952	Mar. 11, 1952	12.45	8,840				
	Apr. 12, 1952	12.10	8,280				
1953	Mar. 18, 1953	7.89	3,490				
1954	Mar. 24, 1954	8.72	4,140				
1955	Mar. 21, 1955	16.71	19,200				
1956	May 15, 1956	19.64	26,800				
1957	Apr. 4, 1957	14.20	13,100				
	May 23, 1957	15.65	16,500				
	May 25, 1957	14.30	13,300				
	June 2, 1957	10.70	6,310				
	June 5, 1957	10.80	6,420				
1958	Mar. 24, 1958	12.95	10,200				
	May 30, 1958	13.75	12,100				
	July 12, 1958	12.78	9,760				
	July 17, 1958	12.26	8,700				
1959	July 5, 1959	13.06	10,400				

WHITE RIVER BASIN

7-0585. North Fork River at Tecumseh, Mo.
(Published as "North Fork of White River" prior to 1940)

Location.--Lat 36°36'16", long 92°17'19", in NW¼NE¼ sec.16, T.22 N., R.12 W., at bridge on U. S. Highway 160 at Tecumseh, half a mile downstream from Bryant Creek, 3 miles upstream from Lick Creek, and 9 miles upstream from Missouri-Arkansas border.

Drainage area.--1,157 sq mi. Slope.--8.04 ft per mi.

Gage.--Nonrecording prior to May 31, 1940; recording June 1, 1940, to Feb. 28, 1945. Prior to June 29, 1924, at site 200 ft downstream at different datum. Datum of present gage is 547.75 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 48,000 cfs and extended above by logarithmic plotting. Shifts in relation occur.

Bankfull stage.--24 ft.

Remarks.--Station discontinued because of backwater from Norfolk Dam. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	July 1905	31.6	a85,000	1943	Dec. 27, 1942	22.28	51,000
					Dec. 29, 1942	11.90	21,300
1915	August 1915	31.0	a80,000		May 11, 1943	22.86	52,900
					May 18, 1943	21.67	48,700
1922	Mar. 31, 1922	7.1	8,180		May 20, 1943	13.23	24,800
					June 23, 1943	8.50	13,200
1923	Feb. 1, 1923	18.6	34,400				
	Mar. 16, 1923	8.4	10,500	1944	Apr. 11, 1944	3.82	3,830
1924	June 11, 1924	20.0	38,300				
1925	Dec. 19, 1924	10.50	14,600				
1926	Oct. 17, 1925	5.70	5,980				
1927	Apr. 1, 1927	10.36	14,300				
	Apr. 14, 1927	20.80	41,300				
	Apr. 19, 1927	15.31	24,200				
	May 6, 1927	8.73	11,500				
	June 21, 1927	12.90	18,800				
	Aug. 15, 1927	11.39	16,000				
1928	Nov. 8, 1927	8.97	12,000				
	Dec. 14, 1927	16.20	26,600				
	Apr. 6, 1928	8.70	11,500				
	Apr. 21, 1928	10.30	14,100				
	June 9, 1928	11.48	16,200				
	June 13, 1928	24.00	53,000				
1929	Jan. 25, 1929	9.10	12,200				
1930	Jan. 14, 1930	8.50	11,200				
1931	Feb. 9, 1931	4.30	4,550				
1932	Jan.17,23, 1932	4.18	4,250				
1933	May 14, 1933	15.70	25,200				
1934	Mar. 28, 1934	2.44	1,850				
1935	Mar. 11, 1935	20.53	39,900				
	June 3, 1935	10.99	15,300				
	June 18, 1935	8.95	12,000				
1936	Sept.24, 1936	4.75	5,300				
1937	Jan. 15, 1937	10.33	14,100				
	May 2, 1937	9.06	12,200				
	June 10, 1937	10.60	14,600				
1938	Feb. 18, 1938	16.80	28,600				
	Mar. 29, 1938	8.86	11,600				
	May 23, 1938	14.00	21,400				
1939	Apr. 17, 1939	12.6	19,200				
1940	Apr. 11, 1940	8.9	13,800				
1941	Apr. 16, 1941	10.95	18,700				
1942	Oct. 18, 1941	9.25	15,000				
	Oct. 31, 1941	12.4	22,500				
	June 18, 1942	9.37	15,300				

a Annual peak only.

WHITE RIVER BASIN

7-0613. East Fork Black River at Lesterville, Mo.

Location.--Lat 37°27'00", long 90°49'40", in NE¼SE¼ sec. 16, T.32 N., R.2 E., at bridge on State Highway 21, at Lesterville, and three-quarters of a mile upstream from Black River.

Drainage area.--94.5 sq mi. Slope.--29.7 ft per mi.

Gage.--Recording. Datum of gage is 655.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Nov. 15, 1960	7.17	2,350				
	Mar. 5, 1961	9.50	6,490				
	May 7, 1961	9.80	7,200				
	June 15, 1961	8.10	3,760				
1962	Jan. 22, 1962	6.95	2,070				
	Mar. 21, 1962	7.55	2,920				
1963	May 26, 1963	6.75	1,810				
1964	Mar. 9, 1964	8.05	4,480				
1965	Mar. 7, 1965	5.33	858				

WHITE RIVER BASIN

7-0615. Black River near Annapolis, Mo.

Location.--Lat 37°20'10", long 90°47'15", in SW¼NW¼ sec.25, T.31 N., R.2 E., 0.4 mile downstream from Mayberry Branch, 7 miles southwest of Annapolis, 11 miles downstream from East Fork, and at mile 278.5.

Drainage area.--484 sq mi. Slope.--10.9 ft per mi.

Gage.--Recording. Datum of gage is 569.72 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Aug. 21, 1942, at site 415 ft upstream at same datum.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs.

Remarks.--Gage-height record prior to Oct. 1, 1939, furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	17.4	a 32,500
1940	Apr. 19, 1940	8.51	6,920
1941	Apr. 17, 1941	10.14	9,330
1942	Oct. 31, 1941	9.60	8,240
	Jan. 31, 1942	10.27	9,560
1943	Oct. 30, 1942	9.15	7,740
	Dec. 27, 1942	17.60	33,400
	May 11, 1943	18.9	37,900
	May 18, 1943	10.1	9,520
1944	Apr. 23, 1944	10.13	9,520
	May 3, 1944	11.58	13,400
1945	Mar. 31, 1945	16.6	31,300
	Apr. 14, 1945	17.7	35,600
	June 8, 1945	20.1	45,400
	June 10, 1945	20.1	45,400
1946	Jan. 9, 1946	9.40	8,680
	Feb. 13, 1946	16.67	31,700
	Mar. 6, 1946	9.90	9,900
	May 1, 1946	10.4	11,200
	May 16, 1946	12.6	17,700
	May 25, 1946	15.6	27,600
1947	Apr. 25, 1947	15.22	26,200
	June 27, 1947	12.30	16,700
1948	Jan. 1, 1948	13.72	21,200
1949	Jan. 19, 1949	11.6	14,600
	Jan. 24, 1949	17.15	33,600
	Jan. 28, 1949	9.03	7,820
	Feb. 15, 1949	12.66	18,000
1950	Oct. 21, 1949	9.55	9,160
	Jan. 4, 1950	17.63	35,200
	Jan. 12, 1950	9.66	9,400
	Feb. 13, 1950	9.61	9,160
	May 10, 1950	12.38	17,000
	June 10, 1950	8.57	7,080
1951	Feb. 7, 1951	8.95	7,820
	Feb. 19, 1951	11.22	13,400
	June 24, 1951	9.57	9,160
	June 30, 1951	11.82	15,200
	July 10, 1951	11.22	13,400
	July 13, 1951	12.99	19,000
1952	Nov. 12, 1951	9.13	8,020
	Mar. 11, 1952	10.84	12,300
	Apr. 4, 1952	9.13	8,020
	Apr. 13, 1952	9.34	8,460
1953	Mar. 4, 1953	9.20	8,240
1954	June 8, 1954	9.15	8,240
1955	Mar. 21, 1955	11.56	14,600
1956	May 15, 1956	12.76	18,300
1957	Mar. 25, 1957	8.60	7,010
	Apr. 4, 1957	19.30	42,100
	Apr. 22, 1957	11.94	15,500
	Apr. 27, 1957	12.70	18,000
	May 19, 1957	11.62	14,600
	May 23, 1957	15.75	28,300
	May 25, 1957	9.69	9,400
	June 30, 1957	11.45	14,000
	July 2, 1957	12.47	17,400
1958	Dec. 17, 1957	17.45	34,400
	Mar. 24, 1958	13.36	20,200
	July 17, 1958	8.87	7,600
1959	Nov. 17, 1958	10.86	12,600
	Apr. 20, 1959	8.55	7,010
1960	Dec. 18, 1959	10.50	11,500
1961	Mar. 6, 1961	14.50	23,800
	May 7, 1961	15.87	28,600
1962	Mar. 21, 1962	14.00	22,200
1963	May 26, 1963	10.60	12,300
1964	Mar. 9, 1964	14.46	23,800
	Apr. 6, 1964	12.24	16,600
1965	Apr. 6, 1965	9.49	9,600
	Sept. 22, 1965	10.34	11,600

a Annual peak only.

WHITE RIVER BASIN

7-0618. Brawley Hollow near Centerville, Mo.

Location.--Lat 37°21'00", long 90°58'15", in SE¼NW¼ sec.29, T.31 N., R.1 E., on left bank just upstream from 4.5 x 10 ft double box culvert under State Highway 21, about 6 miles south of Centerville.

Drainage area.--1.00 sq mi. Slope.--133 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 90 and 134 cfs by indirect measurements. Defined below 42 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	5.15	90				
1956	May 14, 1956	5.58	134				
1957	May 22, 1957	5.98	250				
1958	Mar. 24, 1958	4.92	42				
1959		(a)	(b)				
1960		(a)	(b)				
1961	May 7, 1961	5.62	160				
1962	Jan. 22, 1962	5.22	100				
1963	May 25, 1963	5.62	160				
1964	Mar. 9, 1964	5.31	90				
1965	Sept. 5, 1965	5.37	95				

a Stage below bottom of gage.
b Less than 40 cfs.

WHITE RIVER BASIN

7-0625. Black River at Leeper, Mo.

Location.--Lat 37°04'45", long 90°42'50", in SE¼SW¼ sec.22, T.28 N., R.3 E., at bridge on State Highway 34, half a mile northwest of Leeper, 2 miles downstream from McKenzie Creek, 6 miles downstream from Clearwater Dam, and at mile 251.0.

Drainage area.--957 sq mi. Slope.--8.51 ft per mi.

Gage.--Nonrecording prior to Oct. 21, 1937, and Jan. 22 to Apr. 6, 1942; recording Oct. 22, 1937, to Jan. 21, 1942, and since Apr. 7, 1942. Prior to Apr. 7, 1942, gages at site 1,900 ft downstream at datum 3.85 ft lower. Datum of present gage is 428.51 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs.

Bankfull stage.--11 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Base for partial-duration series, 9,000 cfs. Only annual peaks are shown subsequent to 1947.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	22.3	a125,000	1939	Mar. 6, 1939	8.54	12,500
1915	August 1915	18.8	a90,000		Apr. 17, 1939	12.60	33,400
				1940	Apr. 20, 1940	8.05	10,800
1922	Nov. 19, 1921	11.1	24,000				
	Mar. 31, 1922	10.0	20,700	1941	Apr. 18, 1941	7.10	8,000
	Apr. 18, 1922	7.74	10,400				
	Apr. 28, 1922	7.46	9,460	1942	Nov. 1, 1941	8.37	12,000
					Jan. 31, 1942	7.88	10,300
1923	Feb. 1, 1923	9.90	19,600				
	Mar. 12, 1923	8.22	12,030	1943	Dec. 28, 1942	14.32	47,200
	Mar. 16, 1923	10.50	21,900		May 11, 1943	16.36	54,400
	May 16, 1923	10.48	21,870		May 19, 1943	8.76	13,600
1924	June 12, 1924	6.72	7,250	1944	Apr. 23, 1944	9.04	14,400
					May 4, 1944	8.40	12,100
1925	Dec. 20, 1924	4.63	2,520				
				1945	Feb. 22, 1945	9.08	14,300
1926	Nov. 8, 1925	8.90	14,600		Feb. 26, 1945	12.16	28,200
					Mar. 7, 1945	10.85	21,500
1927	Apr. 1, 1927	13.75	42,400		Mar. 31, 1945	13.86	37,400
	Apr. 15, 1927	13.90	44,100		Apr. 14, 1945	15.10	45,100
	Apr. 20, 1927	9.00	14,900		June 8, 1945	17.08	59,700
	May 25, 1927	12.65	33,400		June 10, 1945	16.08	52,200
	June 1, 1927	13.45	40,000		June 17, 1945	8.16	11,200
1928	Dec. 14, 1927	13.10	36,900	1946	Jan. 9, 1946	8.45	11,900
	Apr. 6, 1928	8.64	13,500		Feb. 14, 1946	14.35	40,400
	Apr. 22, 1928	7.33	9,050		Mar. 7, 1946	8.10	11,900
	June 10, 1928	13.00	36,200		May 1, 1946	8.95	14,700
	June 13, 1928	13.20	37,700		May 17, 1946	11.10	23,300
	June 17, 1928	7.68	10,200		May 25, 1946	14.7	42,400
	June 21, 1928	11.90	29,000				
				1947	Apr. 11, 1947	7.8	10,200
1929	Jan. 25, 1929	9.50	18,100		Apr. 25, 1947	13.27	34,000
	Apr. 10, 1929	9.20	15,640		June 28, 1947	11.45	25,200
	May 7, 1929	10.30	21,000				
	May 13, 1929	13.10	36,900	1948	Jan. 2, 1948	8.65	12,600
	June 13, 1929	7.95	11,200				
				1949	Jan. 24, 1949	6.90	7,470
1930	Jan. 14, 1930	9.10	18,500				
				1950	Apr. 3, 1950	7.22	8,250
1931	Mar. 8, 1931	6.10	6,000				
				1951	Feb. 20, 1951	6.09	5,560
1932	Jan. 23, 1932	5.90	5,600				
				1952	Dec. 6, 1951	5.64	4,200
1933	Apr. 16, 1933	14.55	49,200				
	May 14, 1933	17.5	78,400	1953	Mar. 10, 1953	5.51	3,950
1934	Aug. 22, 1934	5.50	4,280	1954	Feb. 18, 1954	5.31	3,630
1935	Mar. 11, 1935	16.9	72,300	1955	Mar. 20, 1955	8.40	11,400
	June 21, 1935	9.65	17,900				
				1956	May 22,23, 1956	5.53	3,200
1936	Nov. 5, 1935	7.15	8,660				
				1957	May 23, 1957	8.10	10,400
1937	Oct. 9, 1936	8.00	10,800				
	Jan. 8, 1937	7.75	9,820	1958	Dec. 19, 1957	5.91	4,470
	Jan. 15, 1937	11.85	28,400				
				1959	Nov. 17, 1958	7.47	8,550
1938	Feb. 18, 1938	13.0	36,200				
	May 24, 1938	8.25	11,500	1960	Dec. 21, 1959	5.13	3,300

WHITE RIVER BASIN

Peak stages and discharges of Black River at Leeper, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 7, 1961	6.65	6,290				
1962	Mar. 25, 1962	5.70	4,110				
1963	Apr. 2, 1963	5.40	3,620				
1964	Mar. 9, 1964	7.57	8,840				
1965	Sept.22, 1965	6.15	5,060				

a Annual peak only.

WHITE RIVER BASIN

7-0630. Black River at Poplar Bluff, Mo.

Location.--Lat 36°45'35", long 90°23'15", in SW¼NW¼ sec.2, T.24 N., R.6 E, 1,500 ft upstream from bridge on U. S. Highway 60 in Poplar Bluff, 4 3/4 miles downstream from Indian Creek, and at mile 211.2.

Drainage area.--1,245 sq mi. Slope.--6.23 ft per mi.

Gage.--Nonrecording prior to June 8, 1955; recording thereafter. Prior to July 17, 1935, at site 300 ft downstream at datum 1.89 ft higher. July 17, 1935, to Sept. 30, 1940, at present site at datum 2.00 ft higher. Datum of present gage is 317.38 ft above mean sea level,datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 44,000 cfs; shifts in relation occur. Stage-discharge relation affected by right-bank levee constructed 1906-10 and left-bank levee constructed 1918-22.

Bankfull stage.--16 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Peaks prior to Oct. 1, 1936, and Oct. 1, 1937, to Sept. 30, 1939, computed from plotted U. S. Weather Bureau gage readings. Base for partial-duration series, 6,000 cfs. Only annual peaks are shown subsequent to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	-	a100,000	1939	Feb. 1, 1939	16.3	7,260
					Mar. 7, 1939	17.9	13,900
1915	August 1915	a21.1	-		Apr. 19, 1939	19.4	24,800
1923	Jan. 21, 1923	16.3	7,260	1940	Apr. 21, 1940	17.8	10,300
	Feb. 3, 1923	19.3	23,900				
	Mar. 17, 1923	18.5	17,700	1941	Apr. 19, 1941	13.6	4,880
	May 6, 1923	17.1	9,900				
	May 17, 1923	19.2	23,100	1942	Nov. 3, 1941	17.38	8,520
					Feb. 2, 1942	16.26	6,770
1924	May 31, 1924	14.8	5,000		Apr. 10, 1942	17.3	8,290
1925	June 14, 1925	15.9	6,420	1943	Dec. 29, 1942	19.56	21,500
					May 12, 1943	20.77	52,600
1926	Oct. 18, 1925	15.8	6,250		May 21, 1943	17.53	8,770
	Nov. 10, 1925	17.5	11,700				
				1944	Apr. 25, 1944	17.40	8,520
1927	Jan. 23, 1927	18.0	14,500		May 5, 1944	15.68	6,190
	Mar. 19, 1927	17.2	10,300				
	Apr. 2, 1927	19.8	28,100	1945	Feb. 24, 1945	16.00	6,260
	Apr. 16, 1927	20.3	32,500		Feb. 28, 1945	19.70	27,000
	May 10, 1927	16.7	8,420		Mar. 8, 1945	18.82	14,800
	May 27, 1927	19.3	23,900		Mar. 21, 1945	17.18	8,080
	June 3, 1927	20.0	29,800		Apr. 1, 1945	19.85	28,800
					Apr. 16, 1945	20.54	43,400
1928	Dec. 15, 1927	20.1	30,700		June 10, 1945	20.80	50,800
	Apr. 8, 1928	18.5	17,700		June 19, 1945	17.78	9,670
	Apr. 23, 1928	17.9	13,900				
	June 15, 1928	19.9	29,000	1946	Jan. 11, 1946	16.73	7,210
	June 23, 1928	19.8	28,100		Feb. 15, 1946	19.53	23,500
					May 3, 1946	17.77	9,670
1929	Jan. 27, 1929	18.5	17,700		May 18, 1946	18.21	11,200
	Apr. 11, 1929	18.0	14,500		May 26, 1946	20.02	32,600
	May 15, 1929	20.2	31,600				
	June 15, 1929	17.2	10,300	1947	Apr. 13, 1947	16.29	6,620
					Apr. 27, 1947	18.81	14,800
1930	Jan. 16, 1930	19.3	23,900		June 29, 1947	16.25	6,490
1931	Mar. 9, 1931	14.6	4,820	1948	Jan. 3, 1948	18.09	10,800
1932	Jan. 24, 1932	14.6	4,820	1949	Jan. 25, 1949	18.85	14,800
1933	Dec. 31, 1932	16.6	8,100	1950	Feb. 14,June 5	17.9	10,000
	Jan. 23, 1933	16.8	8,760				
	Apr. 17, 1933	19.5	25,600	1951	Feb. 21, 1951	16.81	6,060
	May 16, 1933	20.6	35,300				
				1952	Nov. 25, 1951	16.66	7,210
1934	Mar. 27, 1934	10.0	2,880				
				1953	Mar. 29, 1953	11.50	3,630
1935	Mar. 12, 1935	21.1	40,200				
	May 6, 1935	15.7	6,090	1954	May 9, 1954	9.49	2,840
	June 23, 1935	17.7	12,700				
				1955	Mar. 22, 1955	16.85	7,370
1936	Apr. 6, 1936	12.6	3,796				
				1956	Feb. 18, 1956	12.92	4,400
1937	Oct. 11, 1936	16.2	7,020				
	Jan. 10, 1937	17.2	10,300	1957	Apr. 5, 1957	18.59	14,300
	Jan. 16, 1937	19.66	27,300				
	May 4, 1937	16.51	7,800	1958	Mar. 25, 1958	17.81	10,200
1938	Feb. 20, 1938	19.42	24,800	1959	Nov. 18, 1958	16.35	7,220
	Mar. 31, 1938	17.81	13,300				
	May 26, 1938	15.9	6,420	1960	May 21, 1960	12.30	3,800

WHITE RIVER BASIN

Peak stages and discharges of Black River at Poplar Bluff, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 8, 1961	18.65	14,300				
1962	Feb. 27, 1962	15.80	6,550				
1963	Mar. 17, 1963	12.22	4,000				
1964	Mar. 10, 1964	19.72	17,200				
1965	Apr. 4, 1965	13.04	4,420				

a Annual peak only, estimated.

WHITE RIVER BASIN

7-0632. Pike Creek Tributary near Poplar Bluff, Mo.

Location.--Lat 36°47'02", long 90°25'41", in SW¼SW¼ sec.28, T.25 N., R.6 E., on right bank just upstream from 6 x 6 ft box culvert under U.S. Highway 67 and 2 miles northwest of Poplar Bluff.

Drainage area.--0.28 sq mi. Slope.--111 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 16, 1959, and removed Mar. 26, 1964.

Stage-discharge relation.--Defined at 77, 171, 211, and 366 cfs by indirect measurements. Defined below 15 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	14.73	77				
1956	Feb. 18, 1956	13.58	28				
1957	May 23, 1957	16.31	171				
1958	Nov. 7, 1957	17.30	211				
1959	May 11, 1959	14.24	57				
1960	Dec. 11, 1959	13.99	47				
1961	May 6, 1961	16.82	198				
1962	Feb. 25, 1962	16.16	160				
1963	June 15, 1963	15.56	122				
1964	Mar. 8, 1964	19.23	366				
1965	Nov. 28, 1964	14.66	77				

WHITE RIVER BASIN

7-0645. Big Creek near Yukon, Mo.

Location.--Lat 37°14'00", long 91°51'00", in SW¼NW¼ sec.5, T.29 N., R.8 W., on downstream side of right pier of bridge on State Highway 137, 3 miles south of Yukon.

Drainage area.--8.36 sq mi. Slope.--53.3 ft per mi.

Gage.--Recording. Datum of gage is 1,194.81 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,900 cfs, and extended above on basis of contracted-opening measurement at 4,860 cfs.

Historical data.--Flood of April 1945 reached a stage of about 10.5 ft and next highest flood (since 1932) reached a stage of about 10 ft in February 1935 from information by local resident.

Bankfull stage.--5 ft.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 4, 1950	3.36	1,120	1963	Mar. 4, 1963	3.30	1,030
	Jan. 13, 1950	3.84	1,980		May 16, 1963	3.34	1,090
	Apr. 2, 1950	3.14	820		May 25, 1963	3.40	1,180
	May 7, 1950	3.27	990				
	May 10, 1950	4.35	3,120	1964	Mar. 9, 1964	3.15	835
	May 11, 1950	3.32	1,060		Apr. 5, 1964	3.65	1,620
	June 10, 1950	2.90	565				
				1965	Sept. 5, 1965	4.07	2,460
1951	Feb. 18, 1951	2.90	620		Sept.21, 1965	3.16	908
	Feb. 20, 1951	2.87	600				
	Apr. 6, 1951	3.28	1,000				
	June 29, 1951	3.70	1,170				
	June 30, 1951	4.28	2,950				
	July 10, 1951	3.60	1,530				
1952	Oct. 22, 1951	3.00	690				
	Oct. 27, 1951	3.37	1,140				
	Mar. 10, 1952	3.07	699				
	Apr. 12, 1952	2.82	568				
1953	Mar. 3, 1953	2.70	475				
1954	Mar. 25, 1954	2.68	462				
1955	Feb. 20, 1955	2.99	672				
	Mar. 20, 1955	3.20	895				
1956	May 15, 1956	6.15	4,860				
1957	Apr. 3, 1957	3.32	1,080				
	Apr. 20, 1957	3.28	1,030				
	Apr. 26, 1957	3.15	883				
	May 18, 1957	3.60	1,430				
	May 22, 1957	3.40	1,120				
	May 25, 1957	3.40	1,120				
	May 31, 1957	3.12	802				
1958	Dec. 17, 1957	4.07	2,480				
	Mar. 22, 1958	2.70	540				
	July 17, 1958	3.38	1,150				
	July 31, 1958	3.13	811				
	Sept.10, 1958	3.05	728				
	Sept.16, 1958	3.24	1,090				
1959	Nov. 16, 1958	2.83	554				
	Nov. 17, 1958	3.18	871				
	Nov. 17, 1958	2.78	523				
1960	Nov. 4, 1959	2.88	587				
	Dec. 27, 1959	3.28	1,000				
	May 6, 1960	3.08	756				
1961	Dec. 10, 1960	2.75	517				
	Mar. 5, 1961	2.83	568				
	Mar. 6, 1961	3.21	936				
	May 7, 1961	4.95	4,780				
	May 8, 1961	2.90	600				
1962	Mar. 4, 1963	2.82	548				
	Sept.30, 1962	2.84	561				

WHITE RIVER BASIN

7-0647. Fudge Hollow near Licking, Mo.

Location.--Lat 37°31'50", long 91°44'15", in NW¼SW¼ sec.29, T.33 N., R.7 W., at bridge on State Highway 32, 7.5 miles east of junction of U.S. Highway 63 and State Highway 32 in Licking.

Drainage area.--1.72 sq mi. Slope.--68.1 ft per mi.

Gage.--Recording. Datum of gage is 1,157.59 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined at 76 and 607 cfs by indirect measurements. Defined below 10 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 21, 1957	4.20	140				
1958	July 25, 1958	4.72	200				
1959	Oct. 9, 1958	3.08	49				
1960	Dec. 17, 1959	3.17	54				
1961	Nov. 15, 1960	3.25	58				
1962	May 8, 1962	3.53	76				
1963	May 25, 1963	3.53	76				
1964	Apr. 5, 1964	3.23	57				
1965	Sept. 4, 1965	6.46	580				

7-0660. Jacks Fork at Eminence, Mo.

Location.--Lat 37°09'15", long 91°21'30", in W½ sec.26, T.29 N., R.4 W., at bridge on State Highway 19 at Eminence, 1½ miles downstream from Mahans Creek and 8.0 miles upstream from mouth.

Drainage area.--398 sq mi. Slope.--9.50 ft per mi.

Gage.--Nonrecording. Prior to July 27, 1934, at site 1,400 ft upstream at datum 2.11 ft higher. Datum of present gage is 617.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs; shifts in relation occur.

Bankfull stage.--28 ft.

Remarks.--Base for partial-duration series, 3,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 19, 1921	7.65	7,240
	Mar. 31, 1922	7.07	6,300
	Apr. 11, 1922	5.90	4,240
1923	Jan. 21, 1923	6.30	4,890
	Feb. 1, 1923	10.00	12,200
	Mar. 12, 1923	6.12	5,070
	Mar. 16, 1923	7.83	8,040
	May 16, 1923	7.10	6,780
	June 13, 1923	6.75	6,260
1924	June 21, 1924	4.69	2,970
1925	Apr. 28, 1925	6.10	5,070
1926	Oct. 17, 1925	5.65	4,270
1927	Apr. 1, 1927	6.63	5,920
	Apr. 14, 1927	8.46	9,350
	Apr. 19, 1927	8.69	9,730
	May 6, 1927	7.40	7,320
	May 25, 1927	6.69	6,090
	June 2, 1927	8.80	10,900
	Aug. 15, 1927	5.50	4,110
1928	Dec. 14, 1927	11.00	14,200
	Apr. 6, 1928	8.81	9,920
	June 9, 1928	8.98	10,300
	June 13, 1928	16.24	40,000
	June 21, 1928	6.50	4,700
1929	Jan. 25, 1929	8.60	8,360
	May 9, 1929	6.12	4,060
	May 14, 1929	7.30	5,980
	June 13, 1929	7.30	5,980
1930	Jan. 14, 1930	7.70	7,420
	Feb. 26, 1930	6.05	3,920
1931	Oct. 8, 1930	4.80	2,740
1932	Jan. 18, 1932	4.70	2,610
1933	Apr. 15, 1933	9.70	12,700
	May 14, 1933	11.50	17,000
1934	Sept.15, 1934	4.60	1,270
1935	Mar. 11, 1935	14.26	26,700
	June 3, 1935	9.98	11,800
1936	Nov. 10, 1935	5.67	2,620
1937	Jan. 8, 1937	7.22	5,220
	Jan. 15, 1937	8.34	7,590
	May 2, 1937	8.37	7,820
1938	Feb. 18, 1938	10.56	13,600
	Mar. 29, 1938	8.00	7,100
	May 23, 1938	11.03	14,800
1939	Jan. 30, 1939	7.38	6,060
	Apr. 6, 1939	6.75	4,960
	Apr. 17, 1939	11.1	15,100
1940	Apr. 12, 1940	6.5	4,450
1941	Jan. 2, 1941	4.6	1,860
1942	Oct. 18, 1941	6.53	4,450
	Oct. 31, 1941	8.6	8,050
	Apr. 9, 1942	7.59	5,970
	May 31, 1942	6.70	4,480
	June 18, 1942	6.60	4,330
1943	Dec. 27, 1942	14.50	27,500
	May 11, 1943	12.60	20,000
	May 20, 1943	8.09	6,960
1944	May 3, 1944	5.26	2,570
1945	Feb. 22, 1945	6.92	4,790
	Feb. 26, 1945	11.36	16,100
	Mar. 6, 1945	7.02	5,310
	Mar. 31, 1945	10.95	14,800
	Apr. 2, 1945	7.56	6,450
	Apr. 14, 1945	11.5	16,400
	June 10, 1945	7.47	6,250
	June 17, 1945	10.60	13,600
1946	Feb. 13, 1946	11.7	16,700
	Mar. 6, 1946	7.93	7,050
	May 16, 1946	7.03	5,310
	May 25, 1946	10.20	12,460
	Aug. 14, 1946	11.50	16,400
1947	Nov. 10, 1946	9.1	9,640
	Apr. 25, 1947	9.0	9,400
1948	Jan. 1, 1948	8.25	7,670
	June 19, 1948	8.85	8,960
1949	Jan. 19, 1949	9.1	9,640
	Jan. 24, 1949	13.85	24,600
	Jan. 28, 1949	7.5	6,250
	Feb. 15, 1949	10.85	14,200
	Mar. 27, 1949	6.5	4,490
	May 24, 1949	7.8	6,850
	June 13, 1949	9.55	10,900
	July 8, 1949	8.5	8,300
1950	Dec. 22, 1949	6.1	3,900
	Jan. 4, 1950	13.2	22,300
	Jan. 13, 1950	7.0	5,800
	Feb. 13, 1950	7.0	5,800
	Apr. 3, 1950	8.8	9,340
	May 10, 1950	14.5	27,500
	May 20, 1950	5.9	4,000
	June 10, 1950	5.9	4,000
1951	Feb. 19, 1951	8.5	8,650
	Feb. 21, 1951	7.15	6,160
	Mar. 12, 1951	6.6	5,120
	July 1, 1951	7.0	5,800
	July 10, 1951	9.0	9,860
1952	Nov. 13, 1951	6.28	4,630
	Nov. 24, 1951	6.46	4,950
	Mar. 11, 1952	8.59	8,870

WHITE RIVER BASIN

Peak stages and discharges of Jacks Fork at Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Apr. 5, 1952	6.36	4,790				
	Apr. 13, 1952	8.17	8,030				
1953	Mar. 4, 1953	6.00	4,150				
1954	May 28, 1954	5.5	3,400				
1955	Feb. 20, 1955	6.8	5,460				
	Mar. 21, 1955	12.60	20,500				
1956	May 15, 1956	13.85	24,800				
1957	Apr. 4, 1957	12.70	21,600				
	Apr. 22, 1957	6.95	5,900				
	Apr. 27, 1957	8.58	9,340				
	May 19, 1957	7.12	6,100				
	May 23, 1957	12.00	19,200				
1958	Mar. 24, 1958	10.00	13,000				
	May 5, 1958	5.92	4,000				
	July 17, 1958	9.60	11,900				
1959	Nov. 17, 1958	9.05	10,300				
	Apr. 20, 1959	6.01	4,150				
1960	Dec. 28, 1960	10.00	13,000				
1961	Mar. 6, 1961	7.50	6,900				
	May 7, 1961	12.00	19,200				
1962	Jan. 22, 1962	7.00	5,900				
	Mar. 21, 1962	8.30	8,620				
1963	Oct. 1, 1962	6.90	5,720				
	Mar. 5, 1963	8.00	7,900				
	May 17, 1963	13.45	24,200				
	May 26, 1963	9.50	11,600				
	June 16, 1963	7.60	7,300				
1964	Mar. 10, 1964	8.00	7,900				
	Apr. 6, 1964	9.70	12,200				
1965	Apr. 4, 1965	7.57	7,100				
	Apr. 6, 1965	6.20	4,740				

WHITE RIVER BASIN

7-0665. Current River near Eminence, Mo.

Location.--Lat 37°11'00", long 91°15'30", in SW¼NW¼ sec.15, T.29 N., R.3 W., 1 mile downstream from Jacks Fork, 8 miles northeast of Eminence, and at mile 123.0.

Drainage area.--1,272 sq mi. Slope.--7.58 ft per mi.

Gage.--Nonrecording prior to Dec. 8, 1934; recording thereafter. Prior to Oct. 20, 1921, at site 1,200 ft upstream at different datum. Datum of present gage is 568.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurement below 48,000 cfs.

Historical data.--Floodmark for flood in March 1904 was 36 ft above water surface at a point 1 mile upstream from present gage at the time gage in use prior to Oct. 20, 1921, read 1.65 ft.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 19, 1921	14.2	25,800	1944	Apr. 23, 1944	9.97	11,400
	Mar. 31, 1922	11.5	17,800				
	Apr. 17, 1922	11.0	16,400	1945	Feb. 22, 1945	13.20	19,800
					Feb. 26, 1945	14.59	23,700
1923	Feb. 1, 1923	13.4	23,700		Mar. 7, 1945	12.40	17,700
	Mar. 16, 1923	13.5	24,000		Mar. 31, 1945	16.25	28,800
	May 16, 1923	12.5	21,200		Apr. 2, 1945	12.35	17,700
					Apr. 14, 1945	21.23	47,600
1924	June 21, 1924	6.4	6,920		June 10, 1945	14.30	22,800
					June 17, 1945	13.46	20,600
1925	Apr. 28, 1925	7.0	8,000				
				1946	Feb. 14, 1946	18.96	39,800
1926	Oct. 17, 1925	8.3	10,700		Mar. 6, 1946	11.67	16,300
					May 16, 1946	10.89	14,300
1927	Apr. 1, 1927	14.1	25,100		May 25, 1946	20.20	44,300
	Apr. 15, 1927	16.0	39,000		Aug. 14, 1946	23.95	60,200
	Apr. 19, 1927	12.1	19,500				
	May 25, 1927	12.0	19,000	1947	Nov. 10, 1946	12.00	17,000
	June 2, 1927	20.0	43,800		Apr. 25, 1947	14.7	25,300
1928	Dec. 14, 1927	15.5	27,900	1948	June 19, 1948	10.52	13,400
	June 9, 1928	24.3	59,400				
	June 13, 1928	21.0	46,900	1949	Jan. 19, 1949	12.6	18,800
					Jan. 25, 1949	20.40	45,000
1929	Jan. 25, 1929	10.3	13,600		Feb. 15, 1949	15.77	28,900
	May 13, 1929	13.8	21,200		June 13, 1949	10.6	13,800
	June 13, 1929	9.8	12,500		July 8, 1949	11.10	15,000
1930	Jan. 14, 1930	10.2	13,600	1950	Jan. 4, 1950	22.35	53,000
					Jan. 14, 1950	12.95	20,700
1931	Mar. 8, 1931	6.6	6,250		Apr. 3, 1950	13.23	21,300
					May 10, 1950	20.6	47,300
1932	Jan. 23, 1932	5.7	4,850		May 12, 1950	12.80	20,100
					June 10, 1950	13.00	20,700
1933	Apr. 16, 1933	17.9	35,900				
	May 14, 1933	21.4	48,300	1951	Feb. 19, 1951	13.20	21,300
					July 1, 1951	13.47	22,200
1934	Sept.15, 1934	5.47	4,760		July 11, 1951	12.90	20,400
					July 13, 1951	14.50	25,300
1935	Mar. 11, 1935	24.35	59,600				
	June 3, 1935	12.62	19,500	1952	Nov. 24, 1951	9.70	12,500
	June 26, 1935	11.50	16,700		Mar. 11, 1952	12.37	19,000
					Apr. 13, 1952	12.92	20,400
1936	Nov. 10, 1935	7.27	7,860				
				1953	Mar. 4, 1953	7.29	7,790
1937	Jan. 15, 1937	13.05	20,500				
	May 3, 1937	13.35	21,600	1954	May 28, 1954	7.00	7,250
1938	Feb. 18, 1938	16.48	31,200	1955	Mar. 21, 1955	17.30	35,000
	Mar. 29, 1938	10.16	13,700				
	May 23, 1938	14.84	25,700	1956	May 15, 1956	23.27	58,400
	July 17, 1938	10.75	15,000				
				1957	Apr. 4, 1957	20.97	48,900
1939	Apr. 17, 1939	19.43	41,100		Apr. 22, 1957	13.47	22,200
					Apr. 27, 1957	13.05	20,700
1940	Apr. 17, 1940	8.64	9,790		May 11, 1957	9.62	12,300
					May 19, 1957	10.55	14,500
1941	Apr. 17, 1941	5.11	4,210		May 23, 1957	17.32	35,000
					May 26, 1957	12.70	19,900
1942	Nov. 1, 1941	9.70	11,100				
				1958	Dec. 17, 1957	13.30	21,600
1943	Dec. 27, 1942	26.97	75,100		Mar. 24, 1958	15.91	30,100
	May 11, 1943	21.49	48,800				
	May 19, 1943	14.56	23,400	1959	Nov. 17, 1958	11.14	15,700

WHITE RIVER BASIN

Peak stages and discharges of Current River near Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Dec. 28, 1959	16.57	32,500				
1961	Mar. 7, 1961	10.84	15,000				
	May 8, 1961	19.55	43,500				
1962	Mar. 21, 1962	12.10	18,200				
1963	May 17, 1963	14.13	24,000				
	May 26, 1963	14.20	24,300				
1964	Mar. 10, 1964	11.88	17,700				
	Apr. 6, 1964	15.62	29,000				
1965	Apr. 6, 1965	8.96	11,000				

WHITE RIVER BASIN

7-0668. Sycamore Creek near Winona, Mo.

Location.--Lat 37°02'45", long 91°19'30", in S½W¼ sec.31, T.28 N., R.3 W., on left bank just upstream from culvert under State Highway 19, about 3 miles north of Winona.

Drainage area.--0.88 sq mi. Slope.--66.4 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Apr. 14, 1964.

Stage-discharge relation.--Defined at 136, 308, and 740 cfs by indirect measurements. Defined below 36 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	6.21	308				
1956	May 14, 1956	6.27	310				
1957	May 11, 1957	6.61	360				
1958	Mar. 23, 1958	3.72	65				
1959		(a)	(b)				
1960	Oct. 4, 1959	5.14	170				
1961	May 7, 1961	4.80	134				
1962	Jan. 22, 1962	4.56	115				
1963	May 25, 1963	4.00	105				
1964	Mar. 10, 1964	4.26	120				
1965	Apr. 3, 1965	3.67	77				

a Stage below bottom of gage.
b Discharge less than 45 cfs.

WHITE RIVER BASIN

7-0670. Current River at Van Buren, Mo.

Location.--Lat 36°59'30", long 91°00'55", in NE¼NW¼ sec.25, T.27 N., R.1 W., at downstream side of bridge on U. S. Highway 60 in Van Buren, 0.4 mile downstream from Pike Creek, 4.7 miles upstream from Big Spring, and at mile 90.4.

Drainage area.--1,667 sq mi. Slope.--5.92 ft per mi.

Gage.--Nonrecording prior to Oct. 19, 1934; recording thereafter. Prior to Sept. 1, 1926, at site 100 ft downstream at different datum; Sept. 1, 1926, to Oct. 1, 1939, at present site at datum 3.00 ft higher. Datum of present gage is 442.78 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 62,000 cfs; shifts in relation occur.

Bankfull stage.--20 ft.

Historical data.--Flood of Mar. 26, 1904, reached a stage of 29.0 ft and that of Aug. 21, 1915, a stage of 25.9 ft as determined by State Highway Commission from several reliable high-water marks in vicinity of gage. Investigations by J. C. Lester, Project Engineer, State Highway Commission, led to the conclusion that the discharge of the flood in 1904 was less than that in 1915. At points upstream and downstream from the gage, the 1904 flood crest was the lower of the two floods.

Remarks.--Peak discharges prior to June 1, 1921, from records of Prof. T. J. Rodhouse, University of Missouri (based on stages measured from a reference point). Base for partial-duration series, 14,000 cfs. Only annual peaks are shown prior to 1922.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 26, 1904	29.0	-
1913	Mar. 26, 1913	-	11,500
1914	Apr. 29, 1914	-	36,000
1915	Aug. 21, 1915	25.9	125,000
1916	Jan. 31, 1916	-	85,000
1917	Apr. 8, 1917	-	11,800
1918	May 12, 1918	-	29,000
1919	June 4, 1919	-	16,000
1920	Mar. 26, 1920	-	22,900
1921	Apr. 28, 1921	-	22,200
1922	Nov. 20, 1921	13.2	22,100
	Apr. 1, 1922	12.0	17,600
	Apr. 18, 1922	11.5	15,600
1923	Feb. 2, 1923	13.2	21,800
	Mar. 17, 1923	13.0	21,000
	May 17, 1923	12.8	20,200
1924	May 31, 1924	9.7	9,500
1925	Apr. 29, 1925	8.2	5,800
1926	Oct. 17, 1925	9.67	9,500
1927	Apr. 1, 1927	14.48	27,400
	Apr. 15, 1927	16.10	34,500
	May 26, 1927	13.02	21,200
	June 2, 1927	16.22	35,000
1928	Dec. 14, 1927	15.34	31,000
	Apr. 7, 1928	12.56	19,400
	Apr. 22, 1928	12.25	18,300
	June 10, 1928	19.45	49,300
	June 13, 1928	18.59	45,700
	June 22, 1928	12.40	18,800
1929	Jan. 25, 1929	11.12	14,100
	Apr. 10, 1929	11.29	14,800
	May 7, 1929	12.20	18,100
	May 9, 1929	11.08	14,100
	May 13, 1929	13.48	23,100
	June 13, 1929	12.21	18,100
1930	Jan. 15, 1930	13.32	22,300
1931	Mar. 8, 1931	9.80	11,000
1932	Jan. 23, 1932	8.76	7,560
1933	Apr. 16, 1933	17.01	40,900
	May 14, 1933	19.7	56,000
1934	Sept.15, 1934	8.12	5,720
1935	Mar. 11, 1935	22.84	86,600
	June 3, 1935	12.53	19,200
	June 27, 1935	11.50	15,500
1936	Nov. 11, 1935	8.23	6,800
1937	Jan. 15, 1937	13.00	25,100
	May 3, 1937	12.86	24,500
1938	Feb. 19, 1938	15.66	37,700
	May 24, 1938	13.38	26,820
	July 18, 1938	11.36	17,900
1939	Apr. 18, 1939	17.09	45,400
1940	Apr. 19, 1940	9.57	12,000
1941	Apr. 18, 1941	6.47	4,700
1942	Nov. 1, 1941	10.38	14,800
1943	Dec. 28, 1942	21.66	77,000
	May 11, 1943	19.01	57,100
	May 19, 1943	13.57	25,100
1944	Apr. 23, 1944	13.11	22,800
1945	Feb. 22, 1945	12.72	21,200
	Feb. 26, 1945	14.82	31,100
	Mar. 7, 1945	12.69	21,100
	Mar. 31, 1945	16.30	39,500
	Apr. 15, 1945	19.5	60,600
	June 10, 1945	13.73	25,600
	June 18, 1945	13.56	25,100
1946	Feb. 14, 1946	17.14	44,400
	Mar. 7, 1946	11.66	17,300
	May 17, 1946	11.16	15,300
	May 26, 1946	18.26	52,300
	Aug. 15, 1946	20.74	69,400
1947	Nov. 11, 1946	14.42	29,000
	Apr. 26, 1947	14.53	29,500
1948	Jan. 2, 1948	12.52	19,900
1949	Jan. 19, 1949	12.6	20,700
	Jan. 25, 1949	19.26	59,200
	Jan. 28, 1949	11.7	17,300
	Feb. 16, 1949	14.9	31,600
1950	Jan. 5, 1950	19.90	61,500
	Jan. 14, 1950	12.75	21,600

Peak stages and discharges of Current River at Van Buren, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Feb. 13, 1950	10.79	15,600				
	Apr. 4, 1950	13.95	26,800				
	May 11, 1950	19.26	56,900				
	June 11, 1950	13.31	23,900				
1951	Feb. 19, 1951	12.95	22,700				
	July 1, 1951	11.92	18,600				
	July 11, 1951	13.42	24,300				
	July 14, 1951	13.17	23,500				
1952	Nov. 24, 1951	11.28	16,600				
	Mar. 12, 1952	12.44	20,400				
	Apr. 13, 1952	12.44	20,400				
1953	Mar. 4, 1953	8.34	8,240				
1954	May 2, 1954	9.28	10,600				
1955	Mar. 21, 1955	15.56	34,300				
1956	May 16, 1956	19.34	56,900				
1957	Apr. 4, 1957	19.12	51,000				
	Apr. 22, 1957	13.30	23,100				
	Apr. 28, 1957	13.15	22,700				
	May 11, 1957	11.86	18,000				
	May 20, 1957	10.70	14,200				
	May 24, 1957	16.45	36,600				
1958	Dec. 18, 1957	12.97	21,900				
	Mar. 24, 1958	16.40	36,600				
1959	Nov. 18, 1958	11.98	18,300				
1960	Dec. 28, 1959	14.30	27,100				
1961	Mar. 7, 1961	11.45	16,300				
	May 8, 1961	17.90	44,400				
	July 20, 1961	10.96	14,400				
1962	Mar. 21, 1962	12.27	19,300				
1963	May 18, 1963	12.25	19,000				
	May 27, 1963	13.80	25,100				
1964	Mar. 10, 1964	12.70	21,400				
	Apr. 6, 1964	13.90	25,600				
1965	Apr. 7, 1965	9.03	10,300				

WHITE RIVER BASIN

7-0680. Current River at Doniphan, Mo.

Location.--Lat 36°37'25", long 90°50'55", in NW¼NW¼ sec.27, T.23 N., R.2 E., half a mile upstream from U. S. Highway 160, 1 mile west of Doniphan, 2½ miles upstream from Briar Creek, and at mile 51.3.

Drainage area.--2,038 sq mi. Slope.--4.75 ft per mi.

Gage.--Nonrecording prior to July 2, 1936; recording thereafter. Prior to May 22, 1928 at site 2,700 ft downstream at datum 0.06 ft higher; May 22, 1928, to Sept. 30, 1929, at site 2,800 ft downstream at datum 0.07 ft lower; Oct. 1, 1929, to Sept. 30, 1932, at site 2,800 ft downstream at datum 1.07 ft lower; Oct. 1, 1932, to July 2, 1936, at site 2,800 ft downstream at datum 3.07 ft lower. Datum of present gage is 322.21 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Peaks for 1919-21 computed from plotted Corps of Engineer gage readings. Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	23.4	130,000	1938	Feb. 19, 1938	15.72	43,100
					Mar. 31, 1938	10.26	15,500
1915	August 1915	22.2	a105,000		May 25, 1938	11.74	20,100
1919	June 5, 1919	10.0	19,400	1939	Mar. 5, 1939	10.10	14,900
					Apr. 18, 1939	16.41	49,300
1920	Mar. 27, 1920	10.1	19,700				
				1940	Apr. 20, 1940	9.02	12,500
1921	Mar. 26, 1921	9.8	18,800				
	Apr. 27, 1921	14.3	35,400	1941	Jan. 3, 1941	5.00	5,110
1922	Nov. 21, 1921	11.10	21,000	1942	Nov. 2, 1941	9.89	15,400
	Apr. 1, 1922	11.50	22,000		Apr. 9, 1942	9.80	15,100
1923	Feb. 3, 1923	13.00	29,600	1943	Dec. 29, 1942	19.13	63,600
	Mar. 17, 1923	11.02	20,800		May 12, 1943	18.06	55,400
	May 17, 1923	11.22	21,300		May 20, 1943	12.65	24,100
1924	May 31, 1924	5.48	8,300	1944	Apr. 24, 1944	11.70	20,300
1925	June 13, 1925	4.50	6,540	1945	Feb. 27, 1945	15.11	35,200
					Mar. 8, 1945	11.92	21,000
1926	Oct. 18, 1925	6.50	10,300		Apr. 1, 1945	15.65	38,000
					Apr. 16, 1945	19.05	62,800
1927	Apr. 7, 1927	12.55	28,600		June 11, 1945	14.10	30,200
	Apr. 15, 1927	17.30	48,800		June 19, 1945	13.40	27,000
	Apr. 20, 1927	12.58	28,600				
	May 27, 1927	9.45	17,600	1946	Feb. 15, 1946	15.70	38,600
	June 2, 1927	15.98	43,000		Mar. 8, 1946	9.75	15,600
					May 18, 1946	9.3	14,300
1928	Dec. 15, 1927	14.80	37,600		May 26, 1946	16.71	44,900
	Apr. 7, 1928	9.35	17,600		Aug. 16, 1946	17.46	50,600
	Apr. 23, 1928	10.33	20,400				
	June 10, 1928	15.94	42,600	1947	Nov. 12, 1946	11.80	20,600
	June 14, 1928	15.98	43,000		Apr. 27, 1947	13.2	26,800
	June 23, 1928	10.42	20,700				
				1948	Jan. 2, 1948	11.50	20,600
1929	Jan. 26, 1929	9.55	18,200				
	Apr. 11, 1929	8.84	16,000	1949	Jan. 20, 1949	10.8	18,400
	May 8, 1929	9.60	18,200		Jan. 26, 1949	18.3	57,000
	May 14, 1929	12.40	27,800		Jan. 29, 1949	10.8	18,400
	June 14, 1929	8.60	15,500		Feb. 16, 1949	13.5	28,000
					Mar. 27, 1949	9.3	14,700
1930	Jan. 15, 1930	12.10	25,500				
				1950	Jan. 5, 1950	18.0	54,600
1931	Mar. 9, 1931	6.95	9,500		Jan. 15, 1950	10.82	18,400
					Feb. 15, 1950	9.2	14,500
1932	Jan. 24, 1932	6.41	8,300		Apr. 5, 1950	14.7	33,500
					May 11, 1950	18.2	56,200
1933	Jan. 22, 1933	11.20	14,500		June 12, 1950	11.3	20,000
	Apr. 17, 1933	17.65	35,200				
	May 15, 1933	19.93	49,000	1951	Feb. 20, 1951	12.11	23,700
					July 2, 1951	10.20	17,700
1934	Sept.16, 1934	6.63	6,210		July 11, 1951	12.26	24,400
					July 15, 1951	10.90	19,700
1935	Mar. 12, 1935	23.89	94,400				
	June 4, 1935	13.47	20,200	1952	Nov. 25, 1951	10.46	18,600
					Mar. 12, 1952	11.73	22,200
1936	Nov. 11, 1936	7.45	7,400		Apr. 14, 1952	11.22	20,600
1937	Jan. 14, 1937	16.28	48,400	1953	Mar. 5, 1953	6.23	8,530
	May 4, 1937	12.28	22,400				

WHITE RIVER BASIN

Peak stages and discharges of Current River at Doniphan, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 3, 1954	6.68	9,530				
1955	Mar. 22, 1955	13.88	30,900				
1956	May 16, 1956	17.17	49,000				
1957	Apr. 5, 1957	17.98	54,600				
	Apr. 23, 1957	12.20	24,000				
	Apr. 29, 1957	12.55	25,500				
	May 12, 1957	9.50	15,900				
	May 24, 1957	15.20	37,000				
1958	Dec. 19, 1957	10.80	19,400				
	Mar. 25, 1958	15.72	39,600				
	May 5, 1958	10.66	19,100				
1959	Nov. 17, 1958	13.38	28,700				
1960	Dec. 29, 1959	11.63	21,900				
1961	Mar. 8, 1961	9.40	15,600				
	May 9, 1961	17.00	47,600				
1962	Mar. 22, 1962	10.50	18,600				
1963	May 19, 1963	9.21	15,200				
	May 28, 1963	12.64	25,500				
1964	Mar. 10, 1964	13.71	30,100				
	Apr. 7, 1964	12.10	23,800				
1965	Apr. 8, 1965	6.93	10,700				

a Annual peak only.

WHITE RIVER BASIN

7-0682. North Prong Little Black River at Hunter, Mo.

Location.--Lat 36°53'25", long 90°50'30", in NE¼SE¼ sec.21, T.26 N., R.2 E., on right bank just upstream from culvert under State Highway 21, at junction of Highways 21 and E, at Hunter.

Drainage area.--1.23 sq mi. Slope.--61.7 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Mar. 26, 1964.

Stage-discharge relation.--Defined at 98, 250, 427, and 626 cfs by indirect measurements. Defined below 3 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	May 4, 1958	13.92	427				
1959	Nov. 16, 1958	15.33	626				
1960	Oct. 13, 1959	10.5	45				
1961	May 7, 1961	14.59	502				
1962	June 23, 1962	11.64	150				
1963	Mar. 15, 1963	12.09	200				
1964	Mar. 9, 1964	12.47	242				
1965	Mar. 29, 1965	11.70	155				

WHITE RIVER BASIN

7-0685. Little Black River near Fairdealing, Mo.

Location.--Lat 36°39'40", long 90°34'25", in NW¼NW¼ sec.7, T.23 N., R.5 E., at bridge on State Highway 14, 2½ miles downstream from Beaverdam Creek and 2½ miles east of Fairdealing.

Drainage area.--187 sq mi. Slope.—10.8 ft per mi.

Gage.--Nonrecording Feb. 27, 1936, to Sept. 30, 1942; crest-stage gage since Oct. 26, 1954. Prior to Oct. 1, 1939, at site 100 ft upstream at datum 1.5 ft higher. Datum of gage is 297.15 ft above mean sea level, datum of 1929. Gage heights given herein converted to present gage.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs and by contracted opening measurement at 29,600 cfs.

Bankfull stage.--13 ft.

Remarks.--Peaks for period prior to Oct. 1, 1939, computed from plotted Corps of Engineers gage readings. Base for partial-duration series, 4,000 cfs. Only annual peaks are shown subsequent to 1954.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Apr. 6, 1936	18.6	5,230				
	Sept. 2, 1936	19.5	6,750				
1937	Nov. 3, 1936	19.3	6,410				
	Dec. 31, 1936	18.9	5,730				
	Jan. 15, 1937	22.5	13,600				
1938	Feb. 18, 1938	21.4	10,400				
	Mar. 29, 1938	20.3	8,190				
1939	Jan. 30, 1939	19.5	6,750				
	Mar. 5, 1939	19.1	6,070				
	Apr. 17, 1939	19.9	7,470				
1940	Apr. 12, 1940	18.12	4,220				
1941	Jan. 25, 1941	9.7	825				
1942	Apr. 9, 1942	20.0	6,270				
1955	May 20, 1955	19.31	5,430				
1956	Feb. 18, 1956	17.96	4,130				
1957	May 23, 1957	22.16	40,000				
1958	Mar. 24, 1958	20.08	6,400				
1959	Nov. 17, 1958	19.28	5,100				
1960	May 6, 1960	16.40	2,600				
1961	May 7, 1961	21.28	18,000				
1962	Apr. 11, 1962	16.81	3,000				
1963	Mar. 16, 1963	18.43	4,400				
1964	Mar. 9, 1964	21.84	29,600				
1965	Apr. 3, 1965	15.12	2,300				

WHITE RIVER BASIN

7-0691. Adams Branch near West Plains, Mo.

Location.--Lat 36°41'35", long 91°48'06", in SE¼NW¼ sec.1, T.23 N., R.8 W., on left bank just upstream from culvert under U.S. Highway 63, 4 miles southeast of West Plains.

Drainage area.--2.27 sq mi. Slope.--44.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 153, 222, 249, 515, and 1,040 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	3.97	222				
1956	May 14, 1956	4.59	350				
1957	Apr. 3, 1957	4.23	270				
1958	July 12, 1958	6.23	1,040				
1959	Nov. 16, 1958	4.80	480				
1960	Dec. 27, 1959	4.37	350				
1961	June 8, 1961	5.02	520				
1962	Jan. 21, 1962	4.36	350				
1963	June 14, 1963	6.16	515				
1964	June 12, 1964	4.89	315				
1965	Sept.22, 1965	4.1	200				

WHITE RIVER BASIN

7-0700. Kings Creek near Willow Springs, Mo.

Location.--Lat 36°58'15", long 91°55'40", in NW¼SW¼ sec.34, T.27 N., R.9 W., at bridge on U.S. Highway 60, 0.5 mile upstream from Eleven Point River and 2½ miles southeast of Willow Springs.

Drainage area.--4.91 sq mi. Slope.--45.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 568 and 666 cfs by indirect measurements. Defined below 50 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 200 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 4, 1956	8.90	568				
1957	Apr. 3, 1957	7.70	316				
	Apr. 20, 1957	7.57	290				
	Apr. 26, 1957	7.57	290				
	May 21, 1957	8.27	424				
	May 22, 1957	7.52	281				
1958	July 17, 1958	8.15	403				
1959	Nov. 17, 1958	6.98	204				
1960	Dec. 27, 1959	6.47	135				
1961	May 7, 1961	5.91	76				
1962	Mar. 20, 1962	5.60	52				
1963	May 16, 1963	8.22	413				
1964	Apr. 5, 1964	7.34	666				
1965	Apr. 3, 1965	4.85	90				

WHITE RIVER BASIN

7-0702. Burnham Branch near Willow Springs, Mo.

Location.--Lat 36°56'00", long 91°56'00", in NW¼NE¼ sec.16, T.26 N., R.9 W., on right bank 10 ft upstream from culvert under U.S. Highway 63, 4½ miles southeast of Willow Springs.

Drainage area.--1.27 sq mi. Slope.—58.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 206, 259, and 620 cfs by indirect measurements.

Remarks.--Only annual peaks are shown. Gage installed upstream from culvert on Nov. 2, 1959 and used as reference gage subsequent to that date. Prior to Aug. 1959 gage on downstream wingwall used as reference gage.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 1955	9.58	206				
1956	May 1956	11.96	288				
1957	May 1957	12.15	295				
1958	July 17, 1958	12.63	312				
1959	Nov. 17, 1958	9.26	194				
1960	Dec. 27, 1959	11.73	155				
1961		(a)	(b)				
1962	May 25, 1962	9.94	(b)				
1963	June 16, 1963	16.16	620				
1964	May 11, 1964	12.50	220				
1965		(a)	(b)				

a Stage below bottom of gage.
b Discharge less than 60 cfs.

WHITE RIVER BASIN

7-0705. Eleven Point River near Thomasville, Mo.

Location.--Lat 36°47'05", long 91°29'30", in NE¼NE¼ sec.3, T.24 N., R.5 W., on left bank attached to bluff at end of Grandpappy Ridge, 500 ft upstream from Posy Spring, 1½ miles downstream from Barren Fork, and 2½ miles east of Thomasville.

Drainage area.--361 sq mi. Slope.--13.7 ft per mi.

Gage.--Recording. Altitude of gage is 610 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs, and by slope-area measurements at 6,850 and 16,900 cfs.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 18, 1951	9.93	3,790				
	Feb. 20, 1951	8.33	2,740				
	July 10, 1951	10.60	4,280				
1952	Oct. 23, 1951	7.68	2,370				
	Nov. 24, 1951	11.75	5,170				
	Mar. 10, 1952	9.63	3,580				
	Apr. 13, 1952	7.30	2,130				
1953	Apr. 18, 1953	6.30	1,660				
1954	Mar. 24, 1954	8.36	2,800				
	Apr. 15, 1954	11.85	5,170				
	May 2, 1954	12.15	5,480				
1955	Feb. 20, 1955	7.10	2,010				
	Mar. 21, 1955	13.8	6,850				
1956	May 15, 1956	11.10	4,640				
1957	Apr. 3, 1957	17.95	16,900				
	Apr. 22, 1957	8.96	3,110				
	Apr. 25, 1957	7.70	2,260				
	Apr. 27, 1957	7.78	2,320				
	May 22, 1957	8.25	2,580				
	May 23, 1957	11.26	4,800				
	May 25, 1957	7.68	2,260				
1958	Mar. 24, 1958	10.42	4,140				
	May 5, 1958	12.32	5,560				
	July 12, 1958	7.26	2,130				
	July 17, 1958	7.85	2,430				
1959	Nov. 15, 1958	6.88	1,900				
	Nov. 16, 1958	16.40	11,400				
1960	Oct. 5, 1959	7.65	2,310				
	Oct. 13, 1959	8.18	2,670				
	Dec. 28, 1959	11.60	5,020				
	May 6, 1960	7.20	2,070				
1961	May 7, 1961	15.45	9,050				
1962	Jan. 22, 1962	9.70	3,650				
1963	May 17, 1963	7.94	2,490				
	June 16, 1963	11.80	5,170				
1964	Mar. 9, 1964	12.55	5,800				
	Apr. 6, 1964	7.68	2,260				
	Apr. 24, 1964	8.49	2,780				
1965	Sept. 22, 1965	4.05	570				

WHITE RIVER BASIN

7-0715. Eleven Point River near Bardley, Mo.

Location.--Lat 36°38'55", long 91°12'03", in NE¼SE¼ sec.17, T.23 N., R.2 W., at bridge on U. S. Highway 160, 7 miles southwest of Bardley and 7½ miles upstream from Fredericks Fork.

Drainage area.--793 sq mi. Slope.—10.1 ft per mi.

Gage.--Nonrecording prior to Oct. 20, 1939; recording thereafter. Datum of gage is 410.84 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	19.7	a44,000
1922	Mar. 31, 1922	10.0	7,560
1923	Feb. 2, 1923	10.1	7,600
	Mar. 12, 1923	7.2	4,400
	Mar. 16, 1923	10.6	9,450
	May 15, 1923	8.8	6,120
	June 11, 1923	8.1	5,350
1924	Aug. 10, 1924	3.9	1,680
1925	June 13, 1925	7.2	4,400
1926	Nov. 8, 1925	5.1	2,490
1927	Apr. 14, 1927	18.7	40,000
	Apr. 19, 1927	11.6	11,400
	May 5, 1927	10.0	8,640
	June 1, 1927	10.2	8,960
	June 21, 1927	8.2	6,040
1928	Dec. 14, 1927	15.0	18,700
	Apr. 6, 1928	11.6	11,400
	Apr. 21, 1928	9.3	7,560
	June 13, 1928	15.6	27,200
	June 21, 1928	7.8	5,560
1929	Jan. 25, 1929	9.5	8,000
	Feb. 26, 1929	6.9	4,480
	Apr. 9, 1929	7.3	4,960
1930	Jan. 13, 1930	8.0	5,800
1931	Aug. 6, 1931	5.2	2,640
1932	Jan.23,24, 1932	3.6	1,280
1933	Apr. 16, 1933	10.9	10,100
	May 14, 1933	9.5	8,000
1934	Sept.15, 1934	3.5	1,190
1935	Mar. 12, 1935	13.7	20,200
	June 3, 1935	9.5	7,840
	June 17, 1935	7.8	5,560
1936	Dec. 8, 1935	3.1	900
1937	Jan. 14, 1937	13.9	20,900
1938	Feb. 19, 1938	10.0	9,100
	Mar. 29, 1938	9.3	7,640
	May 24, 1938	8.1	5,880
1939	Mar. 5, 1939	8.4	6,670
	Apr. 17, 1939	13.9	20,900
1940	Apr. 12, 1940	8.3	6,530
1941	Apr. 4, 1941	3.4	976
1942	Oct. 31, 1941	10.1	9,830
	Apr. 8, 1942	7.7	5,750
	May 31, 1942	15.7	28,300
1943	Nov. 18, 1942	6.86	4,620
	Nov. 22, 1942	6.56	4,230
	Dec. 28, 1942	14.10	22,200
	May 11, 1943	15.18	25,800
1944	Apr. 23, 1944	8.36	6,840
	May 3, 1944	8.12	6,360
1945	Feb. 27, 1945	-	b15,000
	Mar. 3, 1945	-	b4,000
	Mar. 7, 1945	-	b7,200
	Mar. 20, 1945	-	b6,900
	Mar. 31, 1945	15.5	27,200
	Apr. 15, 1945	13.6	20,360
	June 11, 1945	10.01	9,600
	June 18, 1945	8.32	6,680
1946	Jan. 9, 1946	7.30	5,280
	Feb. 14, 1946	10.88	11,400
	Mar. 6, 1946	8.21	6,570
	May 17, 1946	7.07	5,010
	May 25, 1946	9.30	8,330
	Aug. 14, 1946	7.42	5,420
1947	Dec. 12, 1946	5.50	3,100
1948	Jan. 1, 1948	7.75	5,980
	June 19, 1948	9.54	8,680
1949	Jan. 18, 1949	6.9	4,750
	Jan. 24, 1949	16.7	33,200
	Jan. 28, 1949	8.3	6,700
	Feb. 14, 1949	7.1	5,010
	Feb. 16, 1949	8.6	7,180
1950	Jan. 4, 1950	12.80	16,200
	Feb. 13, 1950	8.67	7,340
	May 11, 1950	9.55	8,860
	May 30, 1950	7.22	5,140
	June 3, 1950	8.20	6,570
1951	Feb. 21, 1951	8.50	7,020
	July 11, 1951	8.00	6,270
1952	Nov. 24, 1951	9.66	9,040
	Mar. 11, 1952	9.16	8,160
	Apr. 13, 1952	6.41	4,120
1953	Apr. 18, 1953	4.90	2,530
1954	Apr. 16, 1954	8.66	7,340
	May 2, 1954	10.60	10,800
1955	Mar. 21, 1955	11.23	12,000
1956	May 16, 1956	7.37	5,420
1957	Apr. 4, 1957	15.76	28,600
	Apr. 22, 1957	6.64	4,360
	Apr. 28, 1957	8.25	6,570
	May 11, 1957	7.80	5,980
	May 23, 1957	10.38	10,400
	May 25, 1957	8.60	7,180
1958	Mar. 24, 1958	10.15	9,980
	May 3, 1958	6.64	4,360
	May 5, 1958	10.35	10,400

WHITE RIVER BASIN

Peak stages and discharges of Eleven Point River near Bardley, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	16.10	30,100				
1960	Dec. 28, 1959	7.41	5,420				
1961	May 7, 1961	12.80	16,200				
1962	Jan. 22, 1962	6.63	4,400				
	Feb. 26, 1962	8.30	6,720				
1963	June 17, 1963	7.94	6,120				
	July 5, 1963	6.57	4,400				
1964	Mar. 9, 1964	12.81	16,200				
	June 17, 1964	11.25	12,000				
1965	Apr. 16, 1965	3.85	1,750				

a Annual peak only.
b Estimated on basis of records for station near Ravendon Springs, Ark.

WHITE RIVER BASIN

7-0718. Williams Spring Branch near Alton, Mo.

Location.--Lat 36°40'35", long 91°20 10", in SE¼SW¼ sec.6, T.23 N., R.3 W., on right bank just upstream from bridge on U.S. Highway 160 and 4 miles east of Alton.

Drainage area.--4.24 sq mi. Slope.--63.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 168, 224, and 1,350 cfs by indirect measurements. Defined at 184 cfs by current-meter measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 20, 1955	12.61	224				
1956	June 15, 1956	12.17	185				
1957	May 22, 1957	14.04	600				
1958	Nov. 7, 1957	12.60	224				
1959	Nov. 16, 1958	15.43	1,350				
1960	May 6, 1960	12.32	195				
1961	May 7, 1961	15.31	1,200				
1962		(a)	(b)				
1963	Mar. 4, 1963	12.55	215				
1964	June 18, 1964	13.55	460				
1965		(a)	(b)				

a Stage below bottom of gage.
b Discharge less than 125 cfs.

ARKANSAS RIVER BASIN

7-1855. Stahl Creek near Miller, Mo.

Location.--Lat 37°11'40", long 93°50'40", in SE¼ sec.26, T.29 N., R.27 W., on downstream side of left abutment of bridge on State Highway 39, 1½ miles south of Miller and 6.4 miles upstream from mouth.

Drainage area.--3.86 sq mi. Slope.--41.3 ft per mi.

Gage.--Recording. Datum of gage is 1,184 ft above mean sea level, datum of 1929 (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 730 cfs.

Bankfull stage.--4 ft.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 3, 1950	3.78	195				
	Feb. 20, 1951	3.94	224				
	June 22, 1951	3.85	206				
	July 4, 1951	6.18	904				
1952	Nov. 15, 1951	4.00	232				
	Feb. 1, 1952	4.66	363				
1953	Mar. 14, 1953	3.38	133				
1954	Sept.29, 1954	4.08	250				
1955	Oct. 11, 1954	4.41	308				
	Oct. 21, 1954	4.18	269				
	Oct. 25, 1954	5.15	497				
	Feb. 19, 1955	4.56	176				
	Mar. 20, 1955	3.71	184				
	June 5, 1955	4.27	278				
1956	May 31, 1956	3.54	157				
	June 7, 1956	5.87	745				
1957	May 22, 1957	5.36	560				
	May 30, 1957	4.60	344				
	June 13, 1957	4.91	424				
	July 1, 1957	6.24	929				
1958	July 7, 1958	6.40	1,010				
	July 17, 1958	4.80	396				
1959	Feb. 9, 1959	4.43	308				
1960	Oct. 4, 1959	6.75	1,150				
1961	July 7, 1961	7.25	1,430				
1962	June 10, 1962	5.08	482				
1963	May 13, 1963	6.40	1,000				
1964	June 11, 1964	7.27	1,440				
1965	Apr. 3, 1965	5.43	593				

ARKANSAS RIVER BASIN

7-1856. South Fork Stahl Creek near Miller, Mo.

Location.--Lat 37°11'15", long 93°50'25", in NE¼NE¼ sec.35, T.29 N., R.27 W., on left bank just upstream from culvert on Highway 39, about 600 feet south of junction with Highway 66, about one-half mile above mouth, 2 miles south of Miller, and 6 miles north of Mt. Vernon.

Drainage area.--0.94 sq mi. Slope.--66.7 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 140, 180, 380, and 816 cfs by indirect measurements. Defined below 4 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown. Gage on upstream wingwall used as reference gage prior to Oct. 1, 1963.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 4, 1951	2.34	90				
1952	Feb. 1, 1952	1.82	54				
1953		(a)	(b)				
1954	Sept.29, 1954	1.82	54				
1955	Feb. 19, 1955	3.18	180				
1956	June 7, 1956	4.38	380				
1957	July 1, 1957	3.77	260				
1958	July 16, 1958	3.05	160				
1959	Apr. 18, 1959	3.59	240				
1960	Oct. 4, 1959	3.92	295				
1961	July 7, 1961	4.40	385				
1962		(a)	(b)				
1963	June 15, 1963	3.29	200				
1964	June 11, 1964	7.08	818				
1965	Apr. 3, 1965	2.78	135				

a Stage below bottom of gage.
b Discharge less than 30 cfs.

ARKANSAS RIVER BASIN

7-1857. Spring River at Larussell, Mo.

Location.--Lat 37°09'15", long 94°03'20", in SW¼SW¼ sec.12, T.28 N., R.29 W., on right bank on upstream side of Bower Mills Bridge, three-quarters of a mile north of Larussell, and 2½ miles upstream from Cave Spring Branch.

Drainage area.--306 sq mi. Slope.—9.84 ft per mi.

Gage.--Nonrecording prior to Oct. 18, 1961; recording thereafter. Altitude of gage is 1,030 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Mar. 24, 1958	9.00	2,220				
1959	Sept.28, 1959	8.50	1,890				
1960	Oct. 4, 1959	12.40	6,160				
	Oct. 13, 1959	11.60	4,930				
1961	May 5, 1961	10.85	3,890				
	May 8, 1961	15.30	16,300				
	May 23, 1961	10.20	3,330				
1962	June 10, 1962	10.25	3,430				
1963	June 17, 1963	9.97	3,130				
	July 1, 1963	9.90	3,030				
1964	Apr. 5, 1964	9.36	2,580				
1965	Apr. 5, 1965	13.09	7,420				

ARKANSAS RIVER BASIN

7-1859. O'Possum Creek at Jasper, Mo.

Location.--Lat 37°19'20", long 94°18'09", in NE¼NE¼ sec.26, T.30 N., R.31 W., on left downstream wingwall of bridge on U.S. Highway 71 just south of Jasper and 1.2 miles south of intersection of County Roads H and K with U.S. 71 in Jasper.

Drainage area.--9.67 sq mi. Slope.--16.0 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 63, 330, and 1,860 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 27, 1955	14.12	1,670				
1956	June 6, 1956	11.44	330				
1957	June 9, 1957	13.24	1,110				
1958	July 25, 1958	12.72	840				
1959	Mar. 4, 1959	13.19	1,080				
1960	Oct. 2, 1959	13.99	1,560				
1961	May 8, 1961	14.40	1,860				
1962	Sept.22, 1962	12.01	540				
1963	June 4, 1963	13.46	1,240				
1964	June 14, 1964	13.20	1,100				
1965	Apr. 4, 1965	12.48	730				

ARKANSAS RIVER BASIN

7-1860. Spring River near Waco

Location.--Lat 37°14'45", long 94°33'55", on line between SE¼ sec.7 and NE¼ sec.18, T.29 N., R.33 W., at county highway bridge three-quarters of a mile downstream from Blackberry Creek, 1½ miles east of Waco, and 47.6 miles above mouth.

Drainage area.--1,164 sq mi. Slope.—6.08 ft per mi.

Gage.--Nonrecording prior to Feb. 23, 1935; recording thereafter. Datum of gage is 833.23 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 87,000 cfs.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 13,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1923	-	22	a21,000
1924	May 29, 1924	20.12	18,200
	June 11, 1924	19.63	17,500
1925	Sept.22, 1925	10.37	6,550
1926	Sept. 5, 1926	16.40	13,400
1927	Oct. 4, 1926	16.20	13,100
	Apr. 1, 1927	23.58	28,100
	Apr. 10, 1927	21.78	22,100
	Apr. 15, 1927	20.13	18,400
	Apr. 19, 1927	20.05	18,200
	July 23, 1927	18.10	15,500
	Aug. 9, 1927	20.14	18,400
	Aug. 17, 1927	28.6	57,400
1928	Oct. 2, 1927	17.26	14,500
	June 10, 1928	20.80	19,800
	June 18, 1928	16.30	13,300
	June 22, 1928	20.54	19,200
1929	Apr. 9, 1929	20.57	19,400
	Apr. 20, 1929	21.15	20,600
	May 13, 1929	22.65	25,000
	May 19, 1929	19.78	17,900
1930	June 16, 1930	12.96	9,350
1931	May 19, 1931	11.92	8,140
1932	June 28, 1932	20.88	19,800
1933	Dec. 25, 1932	17.84	15,100
	May 14, 1933	16.64	13,600
1934	Apr. 15, 1934	7.70	3,950
1935	Mar. 12, 1935	20.23	18,700
	June 7, 1935	18.00	15,300
1936	Sept.28, 1936	15.70	12,500
1937	Nov. 3, 1936	17.57	14,800
	Jan. 14, 1937	16.59	13,500
	June 10, 1937	19.42	17,200
1938	May 31, 1938	18.50	16,000
	June 16, 1938	17.23	14,300
1939	May 22, 1939	15.34	11,900
1940	July 23, 1940	11.46	7,700
1941	Apr. 16, 1941	17.50	15,400
	Apr. 20, 1941	24.66	38,800
1942	Oct. 5, 1941	24.4	37,300
	Oct. 31, 1941	23.66	33,500
1943	Dec. 27, 1942	18.08	16,400
	May 11, 1943	22.75	29,900
	May 19, 1943	30.94	103,000
	June 4, 1943	15.97	13,200
1944	Apr. 11, 1944	16.30	13,700
	June 20, 1944	16.60	14,200
1945	Mar. 20, 1945	16.18	13,600
	Apr. 14, 1945	23.61	33,400
	Apr. 16, 1945	24.65	38,300
	Apr. 22, 1945	17.38	15,600
	May 27, 1945	17.33	15,400
	June 6, 1945	18.00	16,500
	June 17, 1945	16.36	13,900
	Sept.26, 1945	21.98	26,800
1946	June 1, 1946	19.1	18,400
1947	Apr. 11, 1947	16.16	13,700
	Apr. 25, 1947	24.6	38,300
1948	June 22, 1948	24.63	38,300
	June 26, 1948	17.62	15,900
	July 26, 1948	18.79	17,800
1949	Jan. 24, 1949	15.50	13,000
1950	Aug. 28, 1950	24.50	37,800
1951	Feb. 21, 1951	19.52	19,200
	July 1, 1951	15.95	13,700
	July 4, 1951	16.20	13,900
	Sept.10, 1951	16.43	14,200
	Sept.13, 1951	17.74	16,000
1952	Nov. 12, 1951	16.28	14,000
	Feb. 2, 1952	20.08	20,700
1953	Apr. 24, 1953	7.63	3,710
1954	Sept.30, 1954	8.14	4,160
1955	June 28, 1955	17.70	16,000
1956	May 31, 1956	7.91	3,680
1957	May 23, 1957	19.12	16,400
	May 25, 1957	20.34	19,100
	June 2, 1957	19.20	16,600
	June 9, 1957	24.20	34,500
	June 14, 1957	18.52	15,400
1958	July 12, 1958	17.20	13,800
1959	Mar. 5, 1959	15.93	12,200
1960	Oct. 3, 1959	21.35	22,400
	May 6, 1960	17.07	13,700
1961	May 1, 1961	17.70	15,300
	May 9, 1961	25.90	47,900
	May 23, 1961	16.25	13,400
1962	Mar. 21, 1962	11.38	7,480
1963	June 15, 1963	9.73	5,530
1964	June 13, 1964	19.54	17,300
1965	Apr. 4, 1965	19.54	18,400

a Annual peak only.

ARKANSAS RIVER BASIN

7-1865. Turkey Creek at Joplin, Mo.

Location.--Lat 37°06'46", long 94°31'34", in NW¼NW¼ sec.24, T.28 N., R.33 W., 80 ft downstream from bridge on Lone Elm Road, a quarter of a mile downstream from Joplin Creek, and about 1 mile northwest of Joplin.

Drainage area.--33 sq mi, approximately. Slope.--17.3 ft per mi.

Gage.--Recording. Datum of gage is 903.98 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs.

Bankfull stage.--6 ft.

Historical data.--Highest stage known in over 36 years (1932), 10.0 ft, date unknown, from information by road district employee.

Remarks.--Base for partial-duration series, 510 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Dec. 24, 1932	7.38	1,090				
	Apr. 20, 1933	7.57	1,150				
	May 13, 1933	6.58	876				
	May 15, 1933	5.70	658				
	May 24, 1933	5.51	610				
	Aug. 3, 1933	6.50	850				
1934	Sept. 29, 1934	5.01	500				
1935	Mar. 11, 1935	7.30	1,090				
1936	May 1, 1936	5.44	610				
	July 1, 1936	6.65	890				
	Sept. 27, 1936	7.15	890				
1937	Oct. 6, 1936	9.86	1,980				
	Oct. 8, 1936	6.43	838				
	Jan. 14, 1937	5.81	696				
	Jan. 30, 1937	5.53	630				
1938	Mar. 30, 1938	6.48	864				
1939	May 12, 1939	5.04	530				
	May 22, 1939	5.12	550				

ARKANSAS RIVER BASIN

7-1869.50. North Fork Carver Creek at Diamond, Mo.

Location.--Lat 36°59'45", long 94°19'50", in SW¼SW¼ sec.4, T.26 N., R.31 W., on right bank just upstream from culvert under County Road V, 0.8 mile west of Diamond and 9 miles northeast of Neosho.

Drainage area.--0.33 sq mi. Slope.--100 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Sept. 13, 1960, and removed June 6, 1966.

Stage-discharge relation.--Defined at 92, 110, and 191 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 27, 1955	8.36	110				
1956	May 30, 1956	7.83	92				
1957	May 21, 1957	8.36	110				
1958	July 25, 1958	8.10	100				
1959		(a)	(b)				
1960	Oct. 2, 1959	9.49	191				
1961	May 8, 1961	7.63	78				
1962	Sept.22, 1962	10.09	250				
1963	Mar. 4, 1963	6.17	14				
1964	Apr. 5, 1964	6.58	28				
1965	Apr. 3, 1965	8.35	110				

a Stage below bottom of gage.
b Discharge less than 30 cfs.

ARKANSAS RIVER BASIN

7-1870. Shoal Creek above Joplin, Mo.
(Published as "near Joplin" prior to 1942)

Location.--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, 6 miles downstream from Baynham Branch, and 15.0 miles above mouth.

Drainage area.--410 sq mi; 439 sq mi prior to Oct. 1, 1941. Slope.--8.34 ft per mi.

Gage.--Nonrecording prior to Apr. 25, 1934; recording thereafter. At site 5.0 miles downstream prior to Oct. 1, 1941. At datum 44.21 ft lower prior to Apr. 25, 1934. At datum 45.21 ft lower Apr. 25, 1934, to Sept. 30, 1941. Datum of present gage is 902.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 41,000 cfs at former site. Defined by current-meter measurements at present site. Shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Records for sites "near" and "above" Joplin considered equivalent for flood-frequency study. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1924	July 13, 1924	13.08	a14,200
1925	Apr. 9, 1925	4.83	2,580
1926	Sept. 6, 1926	8.33	6,230
1927	Apr. 15, 1927	12.33	12,700
	Apr. 19, 1927	12.42	12,900
	Aug. 8, 1927	10.50	9,550
	Aug. 18, 1927	8.70	6,780
1928	June 2, 1928	8.70	6,430
	June 10, 1928	13.83	15,100
	June 19, 1928	13.83	15,100
	June 21, 1928	12.75	13,200
	June 28, 1928	9.00	6,850
	Aug. 5, 1928	11.50	11,000
1929	Apr. 9, 1929	9.42	7,450
	Apr. 21, 1929	11.50	11,000
	May 9, 1929	9.08	7,000
	May 13, 1929	12.92	13,400
	May 18, 1929	9.17	7,150
	June 3, 1929	8.42	6,020
1930	Sept.10, 1930	13.92	15,200
	Sept.16, 1930	10.92	9,930
1931	July 26, 1931	6.33	3,760
1932	June 2, 1932	9.00	6,850
	June 27, 1932	15.00	17,200
1933	Dec. 25, 1932	12.33	9,930
	May 14, 1933	13.0	11,900
1934	Oct. 23, 1933	3.16	1,260
1935	Mar. 12, 1935	18.25	20,100
	June 8, 1935	16.24	15,100
1936	Sept.27, 1936	8.88	5,220
1937	June 10, 1937	8.92	5,330
1938	June 8, 1938	10.10	6,610
1939	May 13, 1939	8.35	4,420
1940	Aug. 18, 1940	4.78	1,630
1941	Apr. 19, 1941	28.0	54,000
1942	Oct. 5, 1941	11.86	11,500
1943	May 10, 1943	12.16	16,600
	May 18, 1943	16.8	62,100
1944	June 20, 1944	10.0	7,260
1945	Apr. 13, 1945	13.3	24,800
	Apr. 15, 1945	12.8	21,000
	May 10, 1945	11.57	14,000
	May 17, 1945	10.35	8,650
	Sept.24, 1945	12.84	20,400
1946	May 31, 1946	10.56	9,840
1947	Apr. 10, 1947	10.80	10,300
	Apr. 25, 1947	12.73	20,400
1948	June 23, 1948	9.36	6,070
	July 26, 1948	9.90	7,440
1949	June 14,15,1949	8.07	3,620
1950	Jan. 14, 1950	9.57	6,570
	Aug. 5, 1950	10.75	10,500
	Aug. 27, 1950	13.6	27,300
1951	June 30, 1951	10.87	10,900
1952	Aug. 22, 1952	7.68	3,110
1953	Mar. 15, 1953	6.10	1,300
1954	Sept.30, 1954	8.36	4,150
1955	Mar. 21, 1955	9.96	7,740
1956	May 16, 1956	10.00	7,740
1957	May 22, 1957	11.85	15,000
	May 25, 1957	12.03	16,100
	June 10, 1957	12.04	16,100
1958	July 26, 1958	10.34	8,100
1959	Sept.29, 1959	9.10	4,710
1960	Oct. 2, 1959	13.5	26,500
1961	May 8, 1961	13.23	20,500
1962	Sept.22, 1962	9.93	6,030
1963	June 17, 1963	5.95	1,230
1964	June 14, 1964	11.88	10,800
1965	Apr. 4, 1965	10.20	5,860

a Annual peak only.

ARKANSAS RIVER BASIN

7-1885. Lost Creek at Seneca, Mo.

Location.--Lat 36°50', long 94°36', in SW¼SW¼ sec.36, T.25 N., R.34 W., on left bank on downstream side of Seneca Street Bridge in Seneca, half a mile upstream from Little Lost Creek and 9½ miles upstream from mouth.

Drainage area.--42 sq mi. Slope.--23.6 ft per mi.

Gage.--Recording to Sept. 30, 1959; crest-stage gage since Oct. 1, 1960. Datum of gage is 839.96 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and extended above by logarithmic plotting.

Remarks.--Base for partial-duration series, 175 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 16, 1943	11.7	-	1964	June 12, 1964	9.69	8,690
1945	September 1945	11.7	-	1965	Apr. 2, 1965	5.61	2,000
1949	Feb. 15, 1949	2.79	361				
	Apr. 27, 1949	2.39	252				
	Sept.13, 1949	2.08	178				
	Sept.18, 1949	2.38	252				
1950	Jan. 13, 1950	2.37	249				
	May 11, 1950	2.15	207				
	July 10, 1950	2.33	241				
	Aug. 27, 1950	6.78	3,280				
	Sept.15, 1950	2.89	377				
1951	Oct. 3, 1950	2.67	301				
	Feb. 20, 1951	3.22	488				
	June 30, 1951	8.05	4,600				
	July 10, 1951	2.48	267				
1952	May 23, 1952	3.18	472				
1953	Apr. 24, 1953	1.77	107				
1954	Sept.30, 1954	2.04	274				
1955	Oct. 26, 1954	2.33	296				
	Mar. 20, 1955	1.80	187				
	June 27, 1955	1.96	218				
	July 6, 1955	2.29	287				
	July 17, 1955	1.90	206				
1956	May 31, 1956	1.49	132				
1957	Mar. 31, 1957	2.95	596				
	Apr. 3, 1957	1.98	281				
	Apr. 16, 1957	2.79	539				
	Apr. 20, 1957	3.59	890				
	May 16, 1957	1.72	213				
	May 21, 1957	7.54	4,690				
	May 25, 1957	8.21	5,760				
	May 29, 1957	2.82	539				
	June 2, 1957	2.65	486				
	June 9, 1957	7.20	4,270				
	July 1, 1957	1.72	208				
1958	Mar. 23, 1958	2.25	361				
	Mar. 30, 1958	1.70	210				
	June 21, 1958	1.77	230				
	July 7, 1958	2.48	337				
	July 25, 1958	4.46	1,420				
	July 28, 1958	1.71	231				
1959	Mar. 5, 1959	2.36	372				
	Apr. 18, 1959	1.50	186				
	May 17, 1959	1.56	197				
	Sept.30, 1959	3.01	555				
1960	Oct. 2, 1959	12.98	20,000				
1961	May 7, 1961	4.67	1,370				
1962	Nov. 5, 1961	2.24	348				
1963	Mar. 8, 1963	1.17	128				

ARKANSAS RIVER BASIN

7-1890. Elk River near Tiff City, Mo.

Location.--Lat 36°38', long 94°35', in NE¼ sec.22, T.22 N., R.34 W., on downstream side of right pier of bridge on State Highway 43, three-quarters of a mile downstream from Blackfoot Branch, 2 3/4 miles upstream from Buffalo Creek, 3 miles southeast of Tiff City, and at mile 15.8.

Drainage area.--872 sq mi. Slope.--7.09 ft per mi.

Gage.--Recording. Datum of gage is 750.61 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs and extended on basis of slope-area measurement at 137,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 12, 1940	11.62	9,480
1941	Apr. 16, 1941	21.46	48,000
	Apr. 19, 1941	28.4	137,000
1942	Oct. 5, 1941	11.60	9,480
	Oct. 31, 1941	19.69	36,400
	Apr. 9, 1942	12.66	11,700
1943	Oct. 31, 1942	16.70	23,000
	Nov. 6, 1942	12.99	12,400
	Dec. 28, 1942	14.35	15,600
	Apr. 12, 1943	12.26	11,000
	May 10, 1943	23.55	62,400
	May 18, 1943	23.60	62,900
1944	Apr. 11, 1944	15.36	18,500
	June 21, 1944	14.46	16,600
1945	Feb. 22, 1945	14.90	18,000
	Mar. 3, 1945	17.54	26,200
	Mar. 7, 1945	13.57	14,900
	Mar. 19, 1945	16.16	21,700
	Mar. 25, 1945	13.46	14,700
	Apr. 15, 1945	23.5	63,200
	May 10, 1945	12.46	12,200
	May 17, 1945	15.83	20,500
	May 27, 1945	11.20	10,400
	June 18, 1945	10.61	9,320
	Sept.25, 1945	12.84	13,300
1946	Feb. 14, 1946	13.79	15,200
	May 25, 1946	11.22	10,400
1947	Dec. 10, 1946	15.94	20,800
	Apr. 11, 1947	14.29	16,500
	Apr. 25, 1947	16.10	21,400
1948	Aug. 15, 1948	10.50	8,410
1949	May 20, 1949	11.29	9,860
1950	Jan. 14, 1950	15.13	18,500
	May 11, 1950	21.72	45,900
	July 20, 1950	17.52	24,000
	Aug. 6, 1950	19.60	33,000
	Aug. 27, 1950	11.83	10,500
1951	Feb. 19, 1951	17.00	22,000
1952	Aug. 22, 1952	11.85	10,300
1953	Mar. 15, 1953	10.06	7,270
1954	May 3, 1954	11.06	9,030
1955	Feb. 20, 1955	14.69	16,100
	Mar. 21, 1955	11.47	9,750
1956	May 15, 1956	23.14	49,900
1957	Apr. 4, 1957	18.37	23,900
	May 19, 1957	12.13	10,900
	May 21, 1957	24.72	70,800
	May 25, 1957	21.12	38,000
	June 3, 1957	12.85	12,200
	June 10, 1957	12.51	11,600
	June 13, 1957	11.66	10,200
1958	Mar. 24, 1958	12.75	12,200
	May 3, 1958	13.53	13,500
	May 9, 1958	11.20	9,340
	July 12, 1958	11.40	9,680
	July 26, 1958	18.53	26,000
1959	May 18, 1959	10.60	8,320
1960	May 21, 1960	12.07	10,900
1961	May 5, 1961	17.57	23,200
	May 7, 1961	21.48	40,500
	May 20, 1961	12.02	10,800
1962	June 3, 1962	7.27	3,480
1963	Oct. 8, 1962	11.07	9,170
	Oct. 13, 1962	10.97	9,000
1964	June 14, 1964	22.58	48,600
1965	Apr. 3, 1965	18.63	29,000
	Apr. 6, 1965	14.89	17,000
	Apr. 15, 1965	12.89	12,900

PART II

Peak Discharges at Miscellaneous Sites

Site Location (in downstream order)	Drainage area (sq. mi.)	Peak Discharge Date	Peak Discharge Cfs
Rock Creek basin			
Rock Creek at Rockport, Atchison County	40.1	July 18, 1965	8,260
Boney Branch at Rockport, Atchison County	0.76	July 18, 1965	5,080
Nodaway River basin			
Lincoln Creek 2 miles south of Fillmore, Andrew County	20.7	July 19, 1965	6,170
Platte River basin			
Malden Creek 3 miles northwest of Gower, Buchanan County	9.24	July 20, 1965	12,100
Mitchell Branch 1.5 miles north of Edgerton, Platte County	1.56	July 19, 1965	3,490
Grove Creek Tributary 1.5 miles southeast of Edgerton, Platte County	1.03	July 19, 1965	2,770
Alger Creek 0.5 miles southeast of Camden Point, Platte County	2.36	July 19, 1965	3,000
Linn Branch Tributary at Grayson, Clinton County	0.79	July 19, 1965	2,410
Camp Branch at Arley, Clay County	9.78	July 19, 1965	5,430
Second Creek at Linkville, Platte County	9.99	July 19, 1965	10,000
First Creek 2 miles east of Linkville, Platte County	5.23	July 19, 1965	4,430
Little Platte River tributary 2 miles northwest of Smithville, Platte County	0.44	July 19, 1965	1,270
Platte River at Interstate Highway 29 at Platte City, Platte County	2,400	July 20, 1965	114,000
Fishing River basin			
Fishing River 2.2 miles northeast of Roosterville, Clay County	24.7	July 19, 1965	13,500

Fishing River 1.5 miles south of Kearney, Clay County	39.4	June 22, 1947	30,000
Clear Creek 2.9 miles northwest of Holt, Clinton County	7.37	June 22, 1947	15,000
Clear Creek 3 miles west of Holt, Clay County	19.4	June 22, 1947	22,000
Clear Creek 2 miles north of Kearney, Clay County	29.4	July 19, 1965	17,900
Fishing River 0.5 mile north of Miltondale, Clay County	238	July 20, 1965	80,200
Grand River basin			
Shoal Creek 2 miles east of Turney, Clinton County	23.3	July 19, 1965	9,640
Osage River basin			
Crane Creek 3 miles southeast of Hermitage, Hickory County	16.4	May 30, 1956	16,800
Jordan Branch 2 miles east of Wheatland, Hickory County	2.46	May 30, 1956	4,990
Gasconade River basin			
Bow Creek 1.5 miles northwest of Odin, Wright County	4.94	Oct. 21, 1949	5,400
White River basin			
Dry Fork Tributary 1 mile west of Fordland, Webster County	0.41	June 13, 1963	475
Railey Creek Tributary at Reeds Spring, Stone County	0.64	June 12, 1965	873
Plattin Creek basin			
Plattin Creek 3 miles south of Crystal City, Jefferson County	83.4	June 17, 1964	30,100
Isle du Bois Creek basin			
Isle du Bois Creek 8 miles southeast of Crystal City, Jefferson-Ste. Genevieve County line	16.4	June 17, 1964	28,400
Establishment Creek basin			
Kinsey Creek at Kinsey, Ste. Genevieve County	3.18	June 17, 1964	11,600

APPENDIX II

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
5-4950.00	Fox River at Wayland, Mo.	400	4.5	1923-65	3,200	6,600	9,800	12,300	18,800	23,500
5-4951.00	Big Branch tributary near Wayland, Mo.	0.70	80.8	1955-65	50	115	215	305	----	----
5-4960.00	Wyaconda River above Canton, Mo.	393	4.5	1922-65	2,800	5,700	8,900	11,700	15,900	18,300
5-4970.00	North Fabius River at Monticello, Mo.	452	4.8	1923-65	4,400	8,200	11,300	13,800	17,000	19,200
5-4975.00	Middle Fabius River near Baring, Mo.	185	6.8	1931-61, 1963-65	2,400	4,900	6,900	8,400	9,800	10,900
5-4977.00	Bridge Creek Branch near Baring, Mo.	2.54	43.2	1955-65	185	425	615	770	----	----
5-4980.00	Middle Fabius River near Monticello, Mo.	393	4.1	1946-65	3,500	6,100	8,200	10,300	13,000	15,700
5-4985.00	North Fabius River at Taylor, Mo.	930	4.0	1929, 1931-42	5,100	10,700	15,000	18,700	23,300	27,000
5-5000.00	South Fabius River near Taylor, Mo.	620	3.4	1935-65	3,400	7,400	10,800	13,400	17,000	19,400
5-5005.00	North River at Bethel, Mo.	58	5.0	1937-65	900	2,300	3,800	5,200	7,000	8,400
5-5010.00	North River at Palmyra, Mo.	373	5.0	1935-65	5,200	10,300	15,200	19,400	25,000	29,000
5-5012.00	Nichols Branch near Palmyra, Mo.	2.58	52.5	1949, 1955-65	160	500	860	1,220	----	----
5-5020.00	Bear Creek at Hannibal, Mo.	31.0	15.4	1939-42, 1948-65	1,200	2,900	4,300	5,400	6,900	----
5-5025.00	Salt River near Shelbina, Mo.	481	3.9	1931-65	3,000	6,800	10,200	12,800	17,000	20,600
5-5027.00	Easdale Branch near Shelbyville, Mo.	0.71	76.1	1958-65	180	390	610	800	----	----
5-5030.00	Douglas Creek near Emden, Mo.	2.64	32.3	1956-65	400	620	830	1,000	----	----
5-5035.00	Salt River near Hunnewell, Mo.	626	3.0	1931-40	4,200	7,400	10,200	12,600	15,800	18,200
5-5050.00	South Fork Salt River at Sante Fe, Mo.	298	3.6	1940-65	4,200	8,100	10,200	12,000	14,200	15,800
5-5060.00	Youngs Creek near Mexico, Mo.	67.4	7.5	1937-65	1,350	2,700	3,800	4,650	5,800	6,650
5-5065.00	Middle Fork Salt River at Paris, Mo.	356	2.9	1940-65	3,000	5,100	7,000	8,900	12,800	17,000
5-5070.00	Elk Fork Salt River near Paris, Mo.	262	3.5	1928, 1931-54, 1958	4,000	8,100	11,500	14,300	17,900	20,700
5-5080.00	Salt River near New London, Mo.	2,480	2.5	1923-65	16,000	28,000	39,000	48,000	60,000	69,000
5-5134.00	Knox Branch near Elsberry, Mo.	1.17	91.5	1955-61	310	430	530	615	----	----
5-5134.50	Lost Creek tributary near Elsberry, Mo.	0.33	253	1955-61	110	225	335	425	----	----
5-5134.70	North Fork Lost Creek near Elsberry, Mo.	2.23	70.5	1955-61	240	640	1,020	1,360	----	----
5-5135.00	Lost Creek at Elsberry, Mo.	12.2	64.6	1954-61	1,000	2,400	3,700	4,900	----	----
5-5136.00	Camp Creek near Elsberry, Mo.	1.50	126	1955-65	150	430	660	860	----	----
5-5136.50	Hurricane Creek near Elsberry, Mo.	3.06	86.3	1955-65	350	860	1,280	1,600	----	----
5-5137.00	Mams Slough Creek near Wellsville, Mo.	5.08	14.3	1955-57, 1961-65	200	500	770	990	----	----

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	15	50
5-5142.00	Reid Branch near Bowling Green, Mo.	0.54	93.3	1955-65	70	215	350	465	----	----
5-5145.00	Cuivre River near Troy, Mo.	903	4.6	1923-65	12,500	25,000	35,000	43,400	53,500	61,500
6-8130.00	Tarkio River at Fairfax, Mo.	508	4.93	1923-65	3,700	8,400	11,800	14,000	16,700	18,500
6-8155.50	Staples Branch near Burlington Junction, Mo.	0.49	61.1	1959-65	130	258	375	473	----	----
6-8160.00	Mill Creek at Oregon, Mo.	4.90	42.3	1950-65	320	740	1,090	1,360	----	----
6-8175.00	Nodaway River near Burlington Junction, Mo.	1,240	4.21	1923-65	6,700	17,500	21,800	25,000	29,300	32,700
6-8189.00	Platte River at Ravenwood, Mo.	486	4.45	1922-23, 1929-32 1959-65	4,700	7,900	9,800	11,300	13,300	-----
6-8195.00	One Hundred and Two River near Maryville, Mo.	500	5.72	1926, 1933-65	3,800	7,600	10,500	12,900	15,800	17,700
6-8200.00	White Cloud Creek near Maryville, Mo.	6.06	19.5	1949-65	350	1,050	1,970	2,850	4,100	----
6-8203.00	Big Slough near Wilcox, Mo.	1.30	35.5	1950-65	250	440	610	760	950	----
6-8205.00	Platte River near Agency, Mo.	1,760	3.76	1925-30, 1933-65	6,900	15,200	23,000	30,500	40,000	47,000
6-8210.00	Jenkins Branch at Gower, Mo.	2.72	34.0	1950-65	300	820	1,530	2,240	3,250	----
6-8211.3	First Creek near Nashua, Mo.	0.55	59.5	1959-65	65	140	255	375	----	----
6-8935.00	Blue River near Kansas City, Mo.	188	12.4	1940-65	5,200	9,500	15,600	23,600	36,300	47,000
6-8940.00	Little Blue River near Lake City, Mo.	184	6.26	1949-65	1,900	3,900	5,500	6,900	9,000	
6-8945.00	East Fork Fishing River at Excelsior Springs, Mo.	20.6	21.9	1951-65	700	2,700	5,100	7,300	10,400	----
6-8950.00	Crooked River near Richmond, Mo.	159	5.17	1949-65	1,700	4,000	7,200	11,500	----	----
6-8960.00	Wakenda Creek at Carrollton, Mo.	248	5.27	1949-65	2,850	5,150	6,600	7,300	8,000	----
6-8961.80	Demoss Branch near Stanberry, Mo.	0.38	106	1955-65	105	200	295	380	----	----
6-8965.00	Thompson Branch near Albany, Mo.	5.58	30.9	1956-65	500	1,020	1,540	2,020	----	----
6-8967.00	O'Neill Branch at Osborn, Mo.	0.80	50.9	1955-65	130	350	620	880	----	----
6-8970.00	East Fork Big Creek near Bethany, Mo.	95	7.24	1909, 1935-65	1,300	2,950	4,450	5,650	7,250	8,450
6-8972.00	Simpson Branch near Bethany, Mo.	4.72	27.6	1955-65	875	2,000	3,300	4,560	----	----
6-8975.00	Grand River near Gallatin, Mo.	2,250	4.11	1909, 1922-65	12,500	27,500	39,300	49,000	61,500	70,000
6-8985.00	Weldon River near Mercer, Mo.	246	7.54	1939-65	4,200	10,300	16,200	21,400	28,000	33,300
6-8990.00	Weldon River at Mill Grove, Mo.	494	5.05	1909, 1930-65	4,400	10,400	16,200	21,400	28,200	33,400
6-8995.00	Thompson River at Trenton, Mo.	1,670	3.67	1909, 1922-23, 1929-65	10,500	24,000	34,800	43,500	54,700	64,000
6-8996.00	West Fork Leaky Branch near Chillicothe, Mo.	0.21	63.8	1955-65	50	133	225	308	----	----
6-9000.00	Medicine Creek near Galt, Mo.	225	5.00	1909, 1922-28, 1930-65	2,400	6,500	10,400	13,800	18,200	21,600
6-9013.00	Moffet Branch near Reger, Mo.	0.13	150	1955-65	132	217	293	358	----	----

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9015.00	Locust Creek near Linneus, Mo.	550	4.22	1909, 1929-65	4,700	9,500	13,500	17,000	22,000	26,500
6-9020.00	Grand River near Sumner, Mo.	6,880	3.15	1909, 1924-65	28,000	57,000	80,000	99,000	123,000	140,000
6-9025.00	Hamilton Branch near New Boston,Mo.	2.51	27.0	1956-65	300	590	770	890	----	----
6-9028.00	Onion Branch at St. Catherine, Mo.	1.04	49.3	1955-65	80	290	580	865	----	----
6-9030.00	Yellow Creek near Rothville, Mo.	405	4.27	1909, 1929-32, 1947, 1949-51, 1961-65	2,800	5,700	8,100	10,100	12,500	
6-9045.00	Chariton River at Novinger, Mo.	1,370	2.63	1917, 1922-52, 1955-65	5,000	10,200	15,600	19,400	24,800	28,800
6-9047.00	Strop Branch near Novinger, Mo.	0.96	94.7	1955-65	140	400	750	1,100	----	----
6-9055.00	Chariton River near Prairie Hill,Mo.	1,870	2.25	1929-65	8,000	13,600	18,000	21,500	26,000	31,400
6-9057.00	Puzzle Creek near Salisbury, Mo.	0.80	55.6	1955-65	90	165	280	410	----	----
6-9066.00	Burge Branch near Arrow Rock, Mo.	0.33	76.0	1960-65	25	52	87	120	----	----
6-9067.00	Flat Creek near Sedalia, Mo.	148	8.1	1959-65	3,500	8,300	13,500	18,300	----	----
6-9070.00	Lamine River at Clifton City, Mo.	598	3.6	1905, 1907, 1923-65	7,000	16,400	27,400	37,400	51,200	62,000
6-9072.00	Shaver Creek tributary near Clifton City, Mo.	1.65	46.4	1955-65	330	720	1,110	1,450	----	----
6-9075.00	South Fork Blackwater River near Elm, Mo.	16.4	22.2	1955-65	1,000	2,150	3,700	5,200	----	-----
6-9077.00	Blackwater River at Valley City, Mo.	547	5.05	1959-65	7,500	21,500	37,000	51,500	----	----
6-9080.00	Blackwater River at Blue Lick, Mo.	1,120	2.50	1905, 1923-33, 1939-65	4,400	11,000	18,500	25,600	35,000	42,000
6-9083.00	Trent Branch near Waverly, Mo.	0.97	69.2	1955-65	260	440	720	1,030		
6-9085.00	Shiloh Branch near Marshall,Mo.	2.87	40.1	1952-65	285	610	880	1,100	----	----
6-9094.00	Cottonwood Creek tributary at Estill, Mo.	0.30	87.0	1958-65	44	74	120	174	----	----
6-9095.00	Moniteau Creek near Fayette, Mo.	81	8.47	1944, 1949-65	2,000	3,150	4,100	4,900	5,900	----
6-9097.00	Petite Saline Creek tributary near Bellair, Mo.	0.49	78.4	1955-65	85	170	360	610	----	----
6-9100.00	Petite Saline Creek near Boonville, Mo.	182	6.35	1921, 1949-65	2,400	4,300	5,900	7,200	8,800	----
6-9102.00	Cow Branch near Columbia, Mo.	1.01	57.3	1955-65	220	365	520	670	----	----
6-9102.50	Traxler Branch near Columbia, Mo.	0.55	119	1958-65	150	290	450	600	----	----
6-9103.00	Peden Branch near Jefferson City,Mo.	0.18	220	1957-65	50	98	152	200	----	----
6-9104.00	Baldwin Branch near Jefferson City, Mo.	0.60	144	1957-65	230	540	850	1,140	----	----
6-9105.00	Moreau River near Jefferson City,Mo.	531	4.64	1948-65	9,500	16,200	22,500	28,000	37,300	----
6-9107.00	Hazel Branch tributary near Wardsville, Mo.	0.13	141	1957-65	52	102	164	222	----	----
6-9182.00	North Fork Panther Creek tributary near Appleton City, Mo.	0.08	222	1955-65	33	49	76	105	----	----

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station name	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9183.00	West Fork Clear Creek tributary near Nevada, Mo.	0.51	36.2	1955-65	155	290	460	620	----	----
6-9184.00	Pickerel Creek tributary near Republic, Mo.	0.57	68.8	1957-65	70	142	208	266	----	----
6-9187.00	Oak Grove Branch near Brighton, Mo.	1.30	94.2	1957-65	90	280	490	690	----	----
6-9187.50	Franca Branch near Brighton, Mo.	0.59	109	1955-65	90	190	350	490	----	----
6-9190.00	Sac River near Stockton, Mo.	1,160	4.23	1896, 1909, 1922-65	8,000	22,000	39,000	55,500	78,000	95,000
6-9192.00	Sac River tributary near Caplinger Mills, Mo.	0.14	149	1955-65	28	102	196	284	----	----
6-9195.00	Cedar Creek near Pleasant View,Mo.	420	4.78	1909, 1924-26, 1943, 1949-65	5,200	11,200	17,800	23,800	31,700	37,700
6-9205.00	Osage River at Osceola, Mo.	8,220	1.66	1844, 1896, 1918-29, 1931-65	24,000	45,000	63,000	78,000	101,000	123,000
6-9208.00	Big Muddy Creek at Lowry City, Mo.	0.31	48.7	1955-65	68	136	202	260	----	----
6-9210.00	Pomme de Terre River near Bolivar,Mo.	225	9.0	1951-65	3,900	9,500	15,500	21,000	28,500	----
6-9211.00	Olinger Creek near Buffalo, Mo.	1.96	47.8	1957-65	430	580	900	1,300	----	----
6-9212.00	Lindley Creek near Polk, Mo.	112	11.6	1914, 1958-65	4,900	11,200	18,000	24,500	----	----
6-9213.00	North Fork Ingalls Creek near Louisburg, Mo.	0.32	87.3	1958-65	43	85	127	163	----	----
6-9214.00	Ferguson Branch at Nemo, Mo.	0.18	154	1957-65	33	40	56	100	----	----
6-9215.00	Pomme de Terre River at Hermitage, Mo.	655	4.8	1922-65	8,500	19,000	30,500	41,200	55,500	66,500
6-9217.00	West Branch Crawford Creek near Lees Summit, Mo.	0.80	59.6	1955-65	190	370	600	850	----	----
6-9218.00	Granddaddy Creek near Urich, Mo.	0.92	36.2	1958-65	240	500	850	1,150	----	----
6-9220.00	South Grand River near Brownington,Mo.	1,660	2.1	1915, 1922-65	7,000	14,500	24,500	36,000	52,500	66,500
6-9226.00	Little Turkey Creek tributary near Warsaw, Mo.	0.18	178	1959-65	80	115	170	227	----	----
6-9227.00	Chub Creek near Lincoln, Mo.	2.86	40.3	1958-65	610	720	860	990	----	----
6-9230.00	Niangua Branch at Marshfield, Mo.	0.82	116	1951-65	130	230	375	520	720	----
6-9240.00	Niangua River near Decaturville, Mo.	627	4.7	1923-65	6,200	12,800	19,500	25,500	33,400	39,400
6-9252.00	Starks Creek at Preston, Mo.	4.18	31.0	1957-65	480	850	1,400	2,020	----	----
6-9252.70	Dry Auglaize Creek tributary near Lebanon, Mo.	0.21	115	1955-65	30	55	99	148	----	----
6-9253.00	Prairie Branch near Decaturville, Mo.	1.48	84.1	1955-65	360	940	1,740	2,540	----	----
6-9254.50	Little Gravois Creek near Versailles,Mo.	4.74	64.0	1955-65	750	1,750	3,250	4,900	----	----
6-9262.00	Van Cleve Branch near Meta, Mo.	0.75	95.4	1957-65	60	380	800	1,200	----	----
6-9268.00	Long Branch near Vienna, Mo.	0.32	112	1957-65	70	150	260	370	----	----
6-9270.00	Maries River at Westphalia, Mo.	257	8.91	1937, 1948-65	6,600	10,200	14,000	17,500	22,000	----

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station Name	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9271.00	Doane Branch near Kingdom City, Mo.	0.54	70.2	1955-63, 1965	50	100	150	250	----	----
6-9272.00	Big Hollow near Fulton, Mo.	4.05	34.0	1957-65	340	650	960	1,230	----	----
6-9276.00	Wheeler Branch near Mountain Grove,Mo.	1.34	48.8	1955-65	185	330	560	820	----	----
6-9280.00	Gasconade River near Hazelgreen, Mo.	1,250	3.97	1916, 1929-65	8,800	23,500	39,000	53,000	71,500	85,500
6-9282.00	Laquey Branch near Haxlegreen, Mo.	1.58	87.4	1958-65	300	480	870	1,330	----	----
6-9285.00	Gasconade River near Waynesville,Mo.	1,680	3.18	1915-65	9,800	25,500	40,500	54,000	71,500	85,000
6-9290.00	Coyle Branch at Houston, Mo.	1.10	95.9	1950-55, 1959-65	70	210	420	640	----	----
6-9300.00	Big Piney River near Big Piney, Mo.	560	5.65	1922-65	6,300	13,000	19,800	25,800	33,700	39,700
6-9310.00	Beaver Creek near Rolla, Mo.	14.0	39.5	1949-58, 1960-65	1,250	2,100	3,000	3,800	4,900	----
6-9315.00	Little Beaver Creek near Rolla, Mo.	6.41	65.6	1948-65	700	1,500	2,600	4,300	6,900	----
6-9320.00	Little Piney Creek at Newburg, Mo.	200	14.0	1915, 1929-65	2,200	7,000	13,600	20,000	29,000	36,000
6-9335.00	Gasconade River at Jerome, Mo.	2,840	3.01	1897, 1904-05 1924-65	14,500	32,000	52,000	72,000	98,000	118,000
6-9337.00	Penzer Hollow near Rolla, Mo.	0.27	190	1956-65	40	110	175	230	----	----
6-9350.00	Rumbo Branch near Danville, Mo.	1.40	44.9	1953-65	120	225	355	480	655	----
6-9355.00	Loutre River at Mineola, Mo.	202	10.4	1928, 1948-65	5,800	10,500	14,400	18,000	23,000	28,000
6-9357.00	Little Berger Creek tributary near Hermann, Mo.	0.25	178	1955-65	45	135	270	400	----	----
7-0112.00	Love Creek near Salem, Mo.	0.89	106	1955-65	60	107	165	222	-----	-----
7-0115.00	Green Acre Branch near Rolla, Mo.	0.62	82	1948-65	150	425	650	830	1,060	-----
7-0120.00	Behmke Branch near Rolla, Mo.	1.05	77	1949-65	195	420	635	860	1,180	-----
7-0120.50	Dry Fork near St. James, Mo.	370	5.60	1944-50	3,400	8,400	12,600	16,300	-----	-----
7-0130.00	Meramec River near Steelville, Mo.	781	6.29	1915, 1917-65	7,200	16,600	25,300	32,600	44,000	52,300
7-0145.00	Meramec River near Sullivan, Mo.	1,475	4.98	1915, 1922-33, 1944-65	11,000	22,500	33,000	42,500	57,000	73,000
7-0150.00	Bourbeuse River near St. James, Mo.	21.3	34	1948-65	2,400	4,350	5,900	7,200	-----	-----
7-0155.00	Lanes Fork near Rolla, Mo.	0.22	41.1	1952-65	46	93	127	147	-----	-----
7-0157.00	Lanes Fork near Vichy, Mo.	24.1	27	1944-45, 1948-65	2,100	3,800	5,300	6,700	8,800	-----
7-0158.00	Langenberg Branch near Rosebud, Mo.	0.64	100	1960-65	48	98	160	220	-----	-----
7-0160.00	Bourbeuse River near Spring Bluff, Mo.	608	3.92	1915, 1944-65	8,500	15,700	23,500	30,600	40,500	47,500
7-0165	Bourbeuse River at Union, Mo.	808	2.76	1897, 1915-65	8,000	13,400	20,000	26,000	34,500	41,000
7-0170.00	Meramec River at Robertsville, Mo.	2,673	3.83	1915, 1940-51	13,500	34,000	54,000	70,000	90,000	-----
7-0175.00	Dry Branch near Bonne Terre, Mo.	3.35	48.5	1956-65	360	670	980	1,260	-----	-----
7-0177.00	Fountain Farm Branch near Potosi, Mo.	2.16	71.8	1957-65	200	280	460	740	-----	-----
7-0180.00	Big River near DeSoto, Mo.	718	4.63	1915, 1949-65	8,500	16,500	24,000	31,000	40,000	49,000

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
7-0185.00	Big River at Byrnesville, Mo.	917	3.36	1915, 1923-65	7,800	15,500	23,000	29,000	37,500	44,000
7-0190.00	Meramec River near Eureka, Mo.	3,788	3.44	1904-05, 1915-16, 1922-65	18,000	35,000	55,000	73,000	98,000	116,000
7-0191.00	Murphy Branch near Crystal City, Mo.	0.44	108	1955-65	80	160	310	460	-----	-----
7-0207.00	Hoehs Branch near Uniontown, Mo.	1.66	59.4	1955-65	580	940	1,270	1,540	-----	-----
7-0210.00	Castor River at Zalma, Mo.	423	8.92	1920-65	4,000	12,500	21,500	30,000	41,500	50,000
7-0212.00	Sunnybrook Creek at Lutesville, Mo.	0.52	196	1955-65	150	260	385	495	-----	-----
7-0330.00	Wolf Creek near Farmington, Mo.	40.3	19.9	1955-65	1,400	3,500	5,600	7,600	10,100	-----
7-0355.00	Barnes Creek near Fredericktown,Mo.	4.03	114	1956-65	600	1,550	2,900	4,250	-----	-----
7-0375.00	St. Francis River near Patterson, Mo.	956	7.24	1915, 1921-65	17,000	36,000	51,000	63,000	79,000	91,000
7-0377.00	Clark Creek near Piedmont, Mo.	4.39	63.9	1957-65	520	920	1,360	1,760	-----	-----
7-0380.00	Clark Creek at Patterson, Mo.	37.5	29.4	1955-65	3,100	5,600	7,700	9,500	-----	-----
7-0401.10	Delaware Creek tributary near Bloomfield, Mo.	0.38	85.5	1955-65	375	510	630	730	-----	-----
7-0410.00	Little River ditch 81 near Kennett,Mo.	111	1.0	1927-65	980	2,020	2,450	2,620	2,750	2,820
7-0420.00	Little River ditch 1 near Kennett, Mo.	235	1.0	1927-65	2,500	4,550	5,700	6,550	7,500	8,200
7-0425.00	Little River ditch 251 near Lilbourn, Mo.	235	2.0	1945-65	1,450	2,370	2,820	3,130	3,440	3,660
7-0430.00	Castor River at Aquilla, Mo.	175	0.80	1945-65	1,450	2,300	3,050	3,750	4,850	6,000
7-0435.00	Little River ditch 1 near Morehouse, Mo.	450	2.0	1946-65	3,500	5,600	6,700	7,400	8,100	8,700
7-0440.00	Little River ditch 251 near Kennett, Mo.	883	1.0	1927-65	5,500	9,800	11,800	12,700	13,400	13,800
7-0460.00	Little River ditch 259 near Kennett, Mo.	89.0	1.0	1927-65	950	1,930	2,600	3,130	3,780	4,260
7-0507.00	James River near Springfield, Mo.	246	6.50	1956-65	4,200	11,000	17,000	22,200	28,800	-----
7-0508.00	Maple Grove Branch near Ozark, Mo.	0.64	59.5	1957-65	90	230	410	580	-----	-----
7-0515.00	James River below Battlefield, Mo.	328	6.33	1926-31	4,000	10,000	14,800	18,800	-----	-----
7-0525.00	James River at Galena, Mo.	987	4.75	1922-65	8,800	21,300	32,000	41,000	52,500	61,500
7-0527.00	Brawley Hollow near Cassville, Mo.	2.61	57.6	1960-65	190	328	475	610	-----	-----
7-0539.50	Ingenthron Hollow near Forsyth, Mo.	0.65	186	1957-65	110	210	380	560	-----	-----
7-0541.00	Cedar Hollow at Bradleyville, Mo.	0.83	204	1956-65	190	430	680	900	-----	-----
7-0542.00	Yandell Branch near Kirbyville, Mo.	0.33	116	1955-65	28	75	140	200	-----	-----
7-0543.00	Gray Branch at Lutie, Mo.	0.23	279	1955-65	75	145	210	268	-----	-----
7-0575.00	North Fork River near Tecumseh, Mo.	561	8.29	1945-65	2,800	11,000	17,500	23,000	29,800	35,000
7-0580.00	Bryant Creek near Tecumseh, Mo.	570	8.83	1945-65	5,700	12,000	17,800	22,800	29,300	34,300
7-0585.00	North Fork River at Tecumseh, Mo.	1,157	8.04	1945-65	8,000	22,500	37,500	50,500	67,500	81,000
7-0615.00	Black River near Annapolis, Mo.	484	10.9	1940-65	7,000	22,000	32,500	41,000	50,500	58,000

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
7-0618.00	Brawley Hollow near Centerville,Mo.	1.00	133	1955-65	55	110	165	218	-----	-----
7-0632.00	Pike Creek tributary near Poplar Bluff, Mo.	0.28	111	1955-65	50	130	225	305	-----	-----
7-0645.00	Big Creek near Yukon, Mo.	8.36	53.3	1935, 1945, 1950-65	350	1,470	2,700	3,800	5,300	-----
7-0647.00	Fudge Hollow near Licking, Mo.	1.72	68.1	1957-65	45	85	170	275	-----	-----
7-0660.00	Jacks Fork at Eminence, Mo.	398	9.50	1922-65	2,750	12,000	19,500	25,600	33,500	39,000
7-0665.00	Current River near Eminence, Mo.	1,272	7.58	1922-65	9,000	27,000	41,500	53,500	68,000	79,000
7-0668.00	Sycamore Creek near Winona, Mo.	0.88	66.4	1955-65	65	140	225	305	-----	-----
7-0670.00	Current River at Van Buren, Mo.	1,667	5.92	1904, 1913-65	12,000	28,500	48,000	65,000	89,000	108,000
7-0680.00	Current River at Doniphan, Mo.	2,038	4.75	1904, 1915, 1919-65	9,000	32,000	53,000	70,000	92,000	109,000
7-0682.00	North Prong Little Black River at Hunter, Mo.	1.23	61.7	1958-65	175	310	450	575	-----	-----
7-0685.00	Little Black River near Fairdealing, Mo.	187	10.8	1936-42, 1955-65	2,500	8,000	15,500	22,600	32,500	-----
7-0691.00	Adams Branch near West Plains, Mo.	2.27	44.3	1955-65	240	380	560	720	-----	-----
7-0700.00	Kings Creek near Willow Springs, Mo.	4.91	45.0	1956-65	165	300	430	535	-----	-----
7-0702.00	Burnham Branch near Willow Springs, Mo.	1.27	58.6	1955-65	120	220	340	450	-----	-----
7-0705.00	Eleven Point River near Thomasville, Mo.	361	13.7	1951-65	1,400	5,700	10,200	14,200	19,700	-----
7-0715.00	Eleven Point River near Bardley,Mo.	793	10.1	1915, 1922-65	3,000	10,500	18,500	26,500	37,000	45,500
7-0718.00	Williams Spring Branch near Alton, Mo.	4.24	63.3	1955-65	120	330	610	880	-----	-----
7-1855.00	Stahl Creek near Miller, Mo.	3.86	41.3	1951-65	290	750	1,160	1,500	1,920	-----
7-1856.00	South Fork Stahl Creek near Miller,Mo.	0.94	66.7	1951-65	60	200	360	510	730	-----
7-1857.00	Spring River at Larussell, Mo.	306	9.84	1958-65	2,600	5,200	8,800	12,400	-----	-----
7-1859.00	O'Possum Creek at Jasper, Mo.	9.67	16.0	1955-65	600	1,150	1,600	1,960	-----	-----
7-1860.00	Spring River near Waco, Mo.	1,164	6.08	1924-65	8,200	20,000	32,000	42,700	59,000	77,000
7-1865.00	Turkey Creek at Joplin, Mo.	33	17.3	1933-39	700	1,370	2,000	2,600	-----	-----
7-1869.50	North Fork Carver Creek at Diamond, Mo.	0.33	100	1955-65	44	103	163	217	-----	-----
7-1870.00	Shoal Creek above Joplin, Mo.	410	8.34	1924-65	3,500	10,000	17,500	25,000	35,000	43,000
7-1885.00	Lost Creek at Seneca, Mo.	42	23.6	1943, 1945, 1949-65	200	2,200	4,800	7,300	12,000	-----
7-1890.00	Elk River near Tiff City, Mo.	872	7.09	1940-65	5,000	18,000	36,000	55,000	82,000	104,000

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Osage River at Warsaw	6-9225
Osage River near Bagnell	6-9260
Osage River near St. Thomas	6-9265
Peden Branch near Jefferson City	6-9103
Penzer Hollow near Rolla	6-9337
Petite Saline Creek near Boonville	6-9100
Petite Saline Creek tributary near Bellair	6-9097
Pickerel Creek tributary near Republic	6-9184
Pike Creek tributary near Poplar Bluff	7-0632
Platte River at Platte City	(App. I, Pt. II)
Platte River at Ravenwood	6-8189
Platte River near Agency	6-8205
Plattin Creek near Crystal City	(App. I, Pt. II)
Pomme de Terre River at Hermitage	6-9215

Traxler Branch near Columbia	6-9102.5
Trent Branch near Waverly	6-9083
Turkey Creek at Joplin	7-1865
Van Cleve Branch near Meta	6-9262
Wakenda Creek at Carrollton	6-8960
Weldon River at Mill Grove	6-8990
Weldon River near Mercer	6-8985
West Branch Crawford Creek near Lees Summit	6-9217
West Fork Clear Creek tributary near Nevada	6-9183
West Fork Leakey Branch near Chillicothe	6-8996
West Tarkio Creek near Westboro	6-8125
West Yellow Creek near Brookfield	6-9022
Wheeler Branch near Mountain Grove	6-9276
White Cloud Creek near Maryville	6-8200
White River at Beaver, Ark.	7-0500
White River near Branson	7-0535
White River near Reeds Spring	7-0530
Williams Spring Branch near Alton	7-0718
Wilson Creek near Springfield	7-0520
Wolf Creek near Farmington	7-0330
Wyconda River above Canton	5-4960
Yandell Branch near Kirbyville	7-0542
Yellow Creek near Rothville	6-9030
Youngs Creek near Mexico	5-5060