Magnitude and Frequency of Floods in the United States

Part 6–B. Missouri River Basin below Sioux City, Iowa

By H. F. MATTHAI

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1680

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1968

UNITED STATES DEPARTMENT OF THE INTERIOR

STEWART L. UDALL, *Secretary*

GEOLOGICAL SURVEY

William T. Pecora, *Director*

Library of Congess catalog-card No. GS 64-192

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Washington, D.C. 20402

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MAGNITUDE AND FREQUENCY OF FLOODS IN THE UNITED STATES

PART 6–B. MISSOURI RIVER BASIN BELOW SIOUX CITY, IOWA

By H. F. MATTHAI

Abstract

A means is presented for estimating the magnitude of a flood of any selected frequency between 1.1 and 50 years for both gaged and ungaged sites where the floodflow is not materially affected by regulation or diversion. The ranges in size of drainage basins for which estimates can be made are established by the available base data and are quite different from one part of the study area to another. Within these limits of definition, the frequency of a flood of known magnitude can be estimated.

Curves showing the relation between the mean annual flood and a flood of any other frequency between 1.1 and 50 years were defined for eight homogenous flood-frequency regions.

The curves of relation between the mean annual flood and contributing drainage area in 21 hydrologic areas were defined. In four of these areas, mean basin elevation was also a factor. Additional curves are applicable to all or parts of seven large rivers.

The regional and areal curves were defined by records for 101 gaging stations and curves for the large rivers were defined by records for 57 gaging stations.

Flood records at all streamflow stations having 5 or more years of record through the 1962 water year are compiled in this report. Also, tables showing the maximum known flood at gaging stations and at miscellaneous sites are included.

INTRODUCTION

PURPOSE AND SCOPE

This report is one of a series describing the magnitude and frequency of floods throughout the conterminous United States. A method is presented by which the magnitude of a flood of any selected frequency between 1.1 and 50 years can be estimated

for both gaged and ungaged sites, and all known significant peak flood data have been tabulated.

Data in this report are for the Missouri River basin downstream from Sioux City, Iowa (fig. 1). The area covered is designated Part 6–B in the series of reports published by the U.S. Geological Survey entitled, "Surface Water Supply of the United States."

ACKNOWLEDGMENTS

This report was prepared under the general direction of Francis J. Flynn, chief, Basic Records Section, U.S. Geological Survey. Technical guidance and coordination were provided by A. Rice Green, staff engineer, Washington, D.C. The author was assisted by George L. Haynes, Jr. The data were collected by the Geological Survey with the assistance of many Federal and State agencies, municipalities, corporations, and private individuals.

APPLICATION OF THE METHOD

The method used in this report is known as the index-flood method, which requires two basic curves. One is a composite curve showing the relation between the ratio of peak discharges to an index flood and the recurrence interval in years (fig. 2). The index flood in this report is the mean annual flood. The other is a curve, or curves, showing the relation between the mean annual flood and basin characteristics. The only basin characteristic used for most of the study area is the size of the drainage basin; mean basin altitude is used as an additional characteristic for streams in the Rocky Mountains.

MAGNITUDE OF A FLOOD OF SELECTED FREQUENCY

Streams in General

The flood magnitude for any selected frequency at any point on a stream can be estimated by following the procedure outlined herein. This procedure does not apply to the Missouri River, North Platte River downstream from Semonoe Reservoir, Laramie River upstream from Laramie, Wyo., South Platte River, Platte River, Republican River downstream from Culbertson, Nebr., Big Blue River downstream from Crete, Nebr., and the Kansas River.

1. From plate 1, determine in which of the 8 flood-frequency regions, A–H, and in which of the 21 hydrologic areas, 1–21, the site is located.

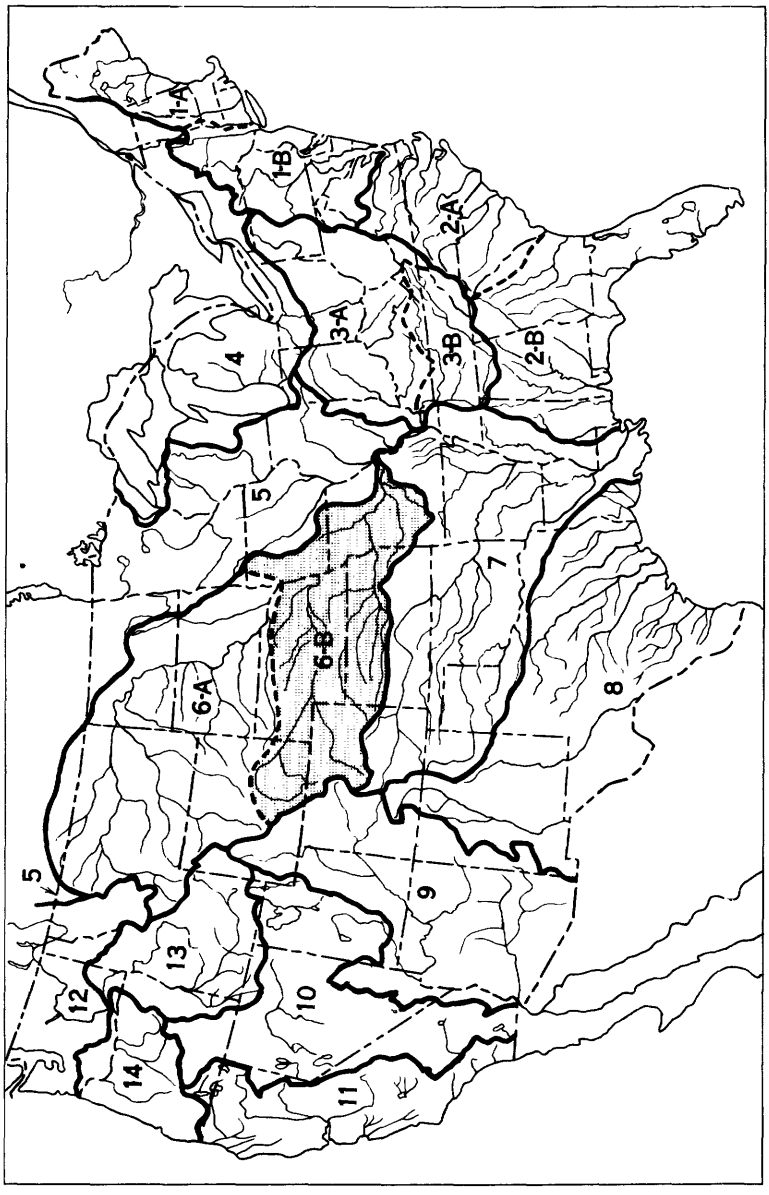

FIGURE 1.—Map of conterminous United States. The area covered by this report is shaded.

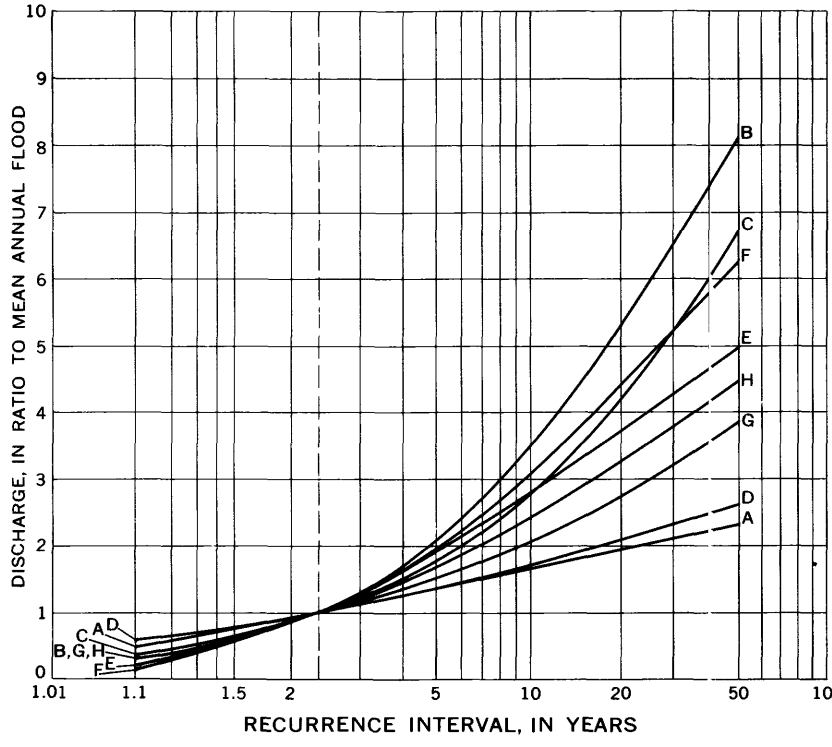

FIGURE 2.—Composite frequency curves for regions A–H.

2. Determine the contributing drainage area above the site.
3. Determine the discharge of the mean annual flood from the curve in figures 3–8 corresponding to the hydrologic area.
4. Determine the ratio to the mean annual flood for the flood of the selected recurrence interval from the curve in figure 2 corresponding to the flood-frequency region.
5. Multiply the discharge of the mean annual flood, from step 3, by the ratio determined in step 4 to obtain the discharge of the flood for the selected frequency.
6. A flood-frequency curve, up to a recurrence interval of 50 years, can be constructed for the site by repeating steps 4 and 5 for several recurrence intervals and drawing a smooth curve through the plotted points.
7. If the site is below a major flood-control reservoir, the computed discharge must be adjusted for the regulation by the reservoir. Operational schedules must be known, and flood routing or other techniques should be used to obtain the flood discharge for existing conditions.

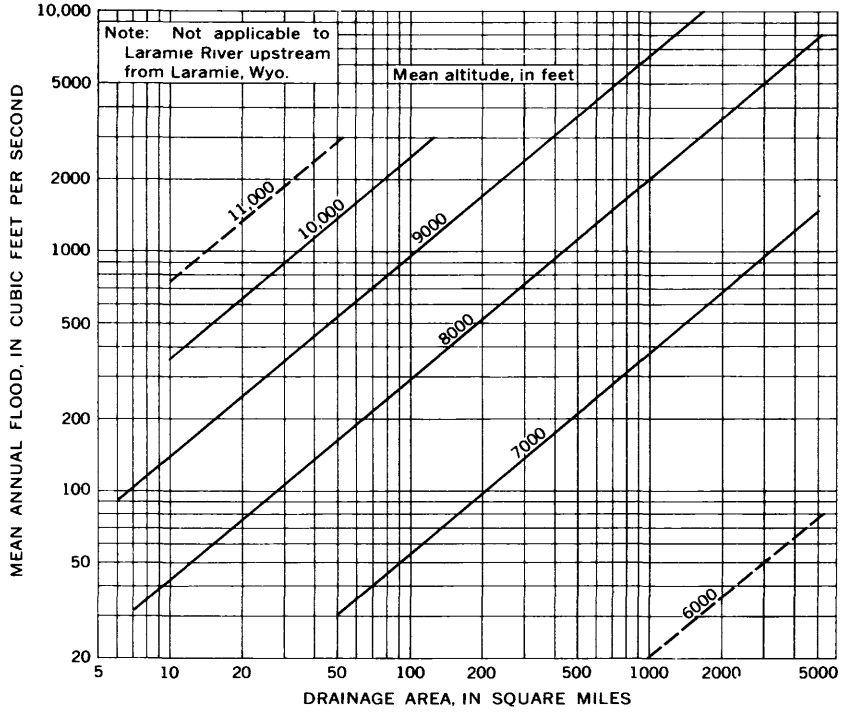

FIGURE 3.—Variation of mean annual flood with drainage area and mean altitude in hydrologic area 1. Dashed line not well defined.

Streams in Region A

Elevation is a significant factor in addition to drainage area for streams in region A, the Rocky Mountains. The curves in figures 3–6 are for the mean altitude of the drainage basin, which should be determined by placing a rectangular grid overlay on a contour map and recording the altitudes at the grid intersections. The grid spacing should be such that a minimum of 50 intersections lie within the basin. The arithmetic average of these altitudes is a sufficiently accurate estimate of the mean altitude of the drainage basin.

Main-Stem Streams

All or parts of eight large rivers in the lower Missouri River basin traverse several flood-frequency regions and have varying hydrologic characteristics uncommon to any particular region. These streams are the exceptions noted on page 2. The upper Laramie River is affected by many transbasin diversions; there-

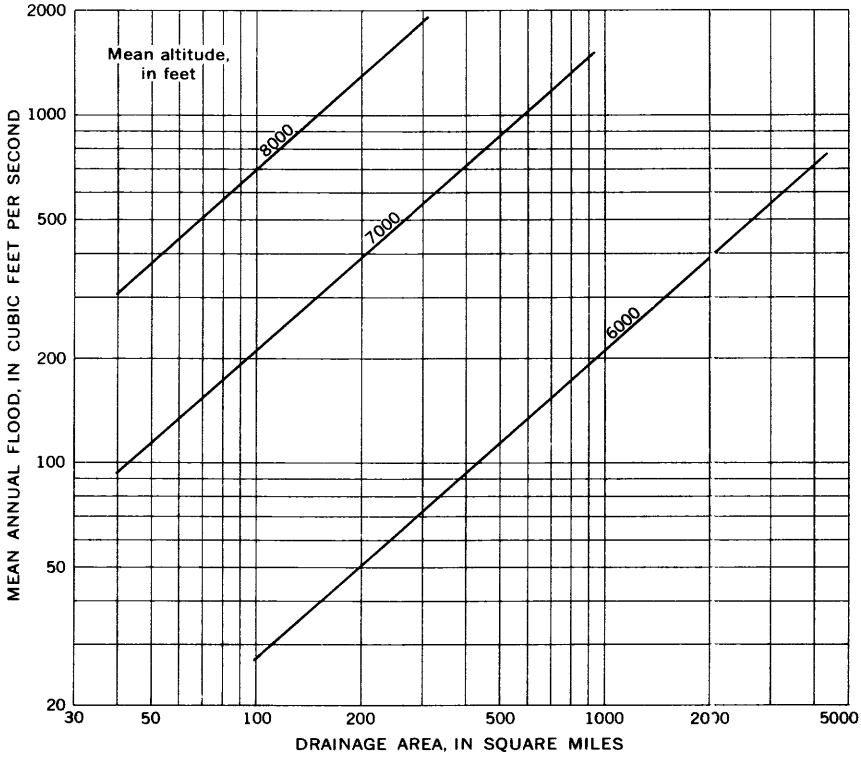

FIGURE 4.—Variation of mean annual flood with drainage area and mean altitude in hydrologic area 2.

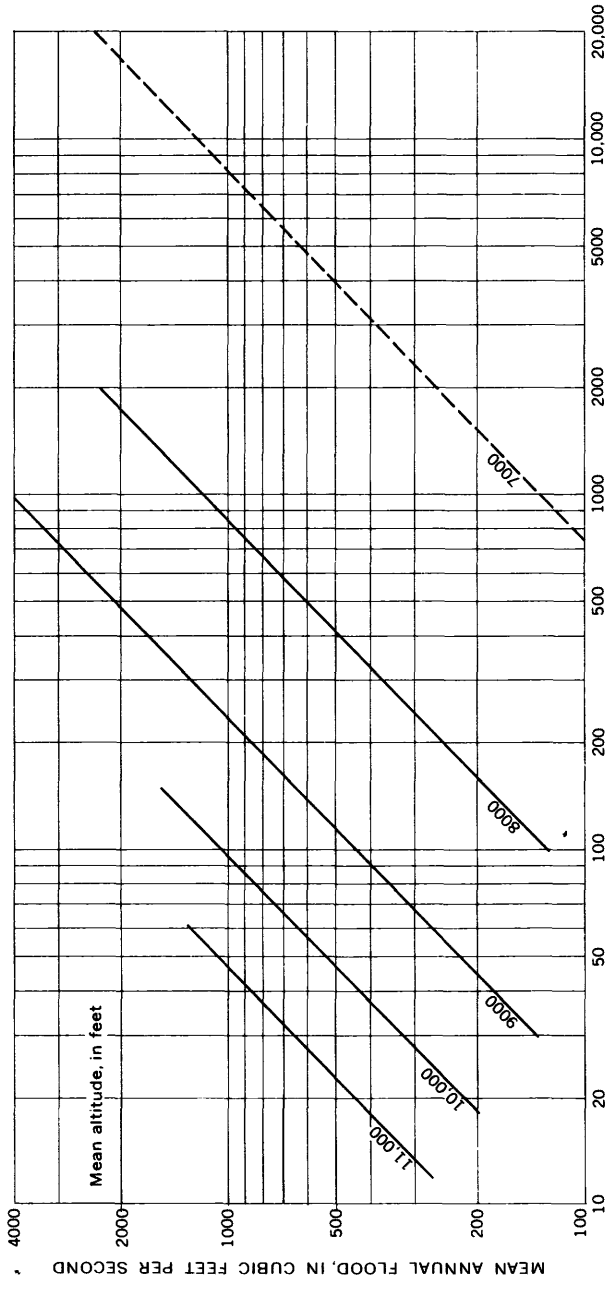

FIGURE 5.—Variation of mean annual flood with drainage area and mean altitude in hydrologic area 3. Dashed line, not well defined.

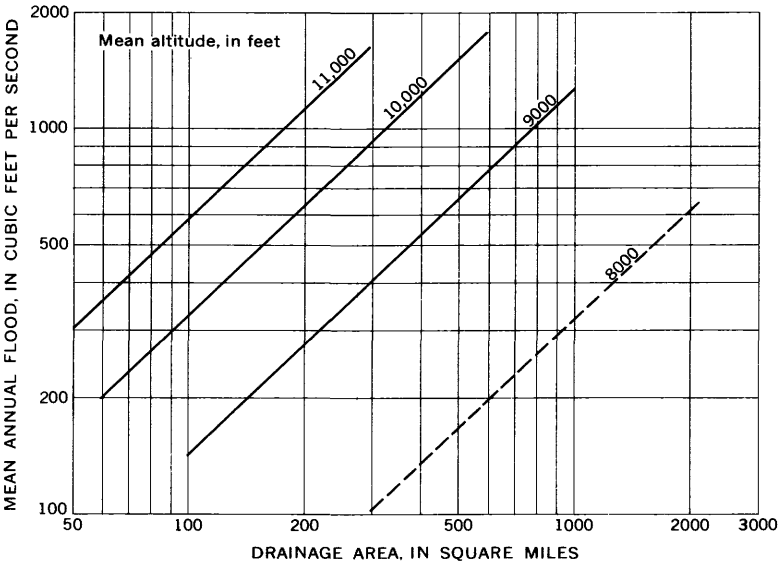

FIGURE 6.—Variation of mean annual flood with drainage area and mean altitude in hydrologic area 4. Dashed line, not well defined.

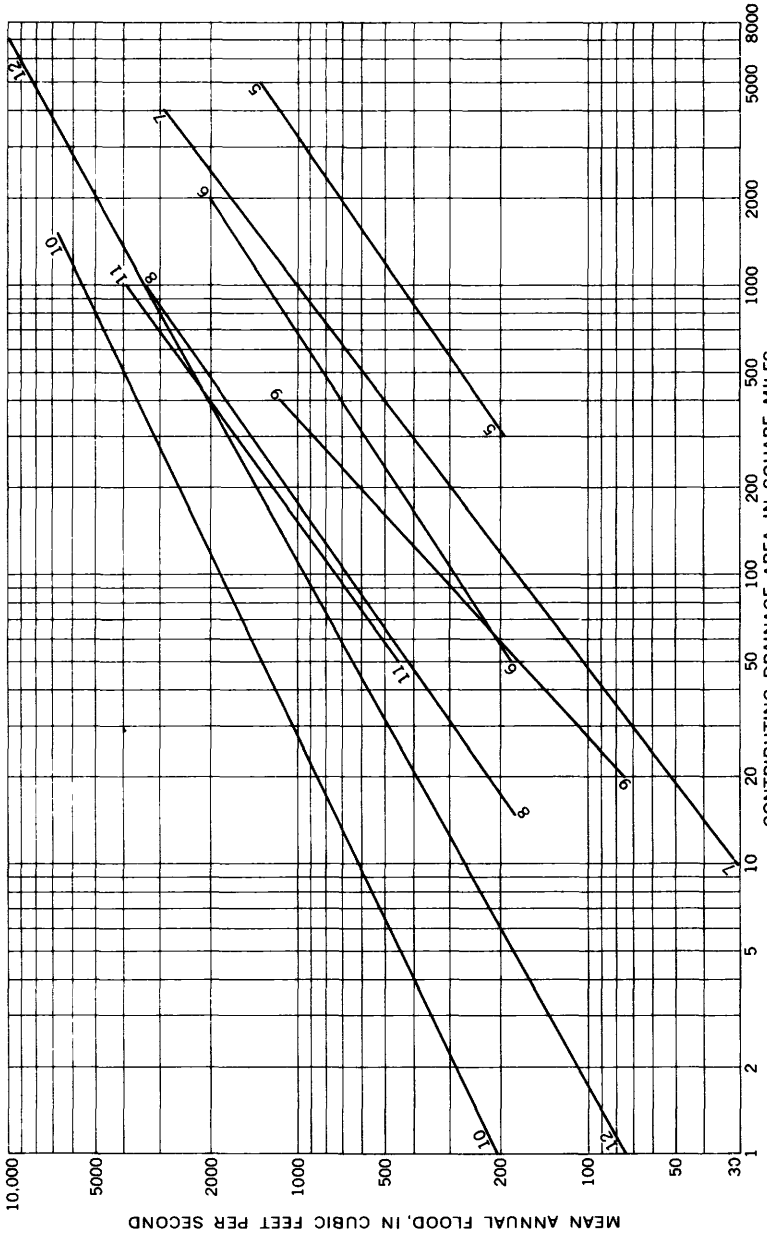

FIGURE 7.—Variation of mean annual flood with contributing drainage area in hydrologic areas 5–12.

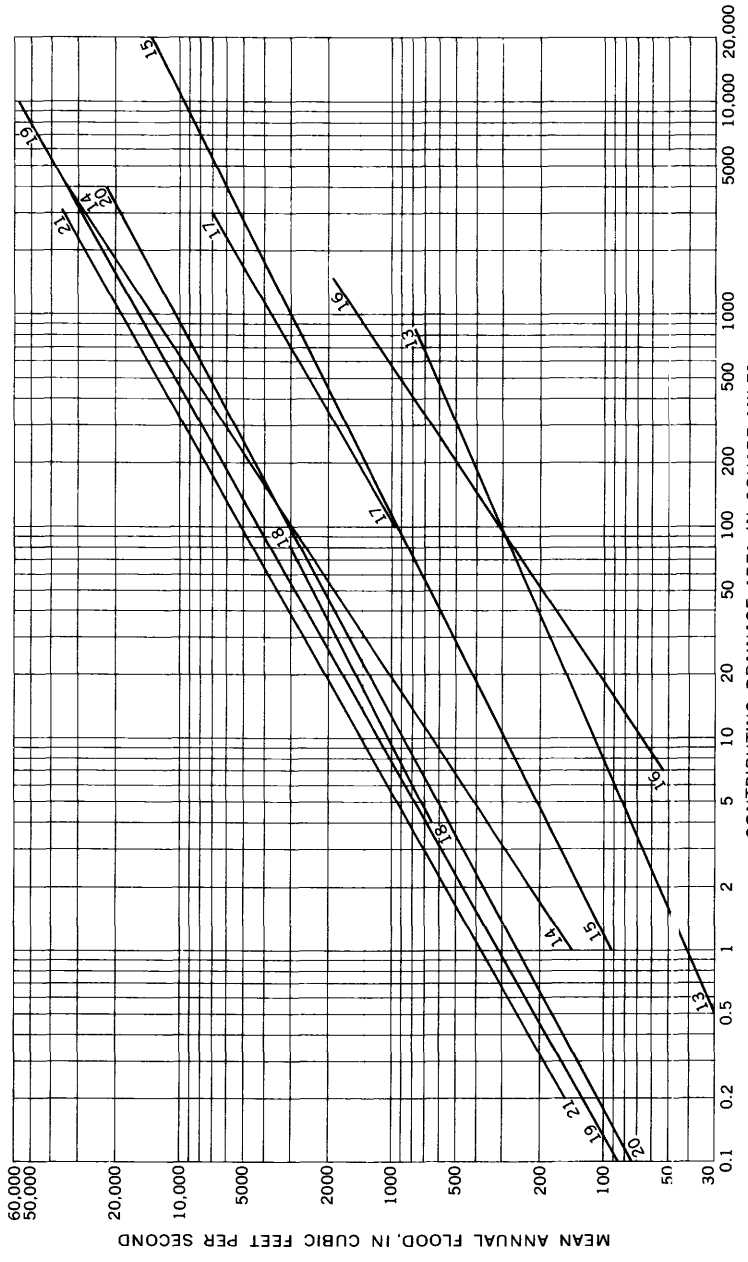

FIGURE 8.—Variation of mean annual flood with contributing drainage area in hydrologic areas 13–21.

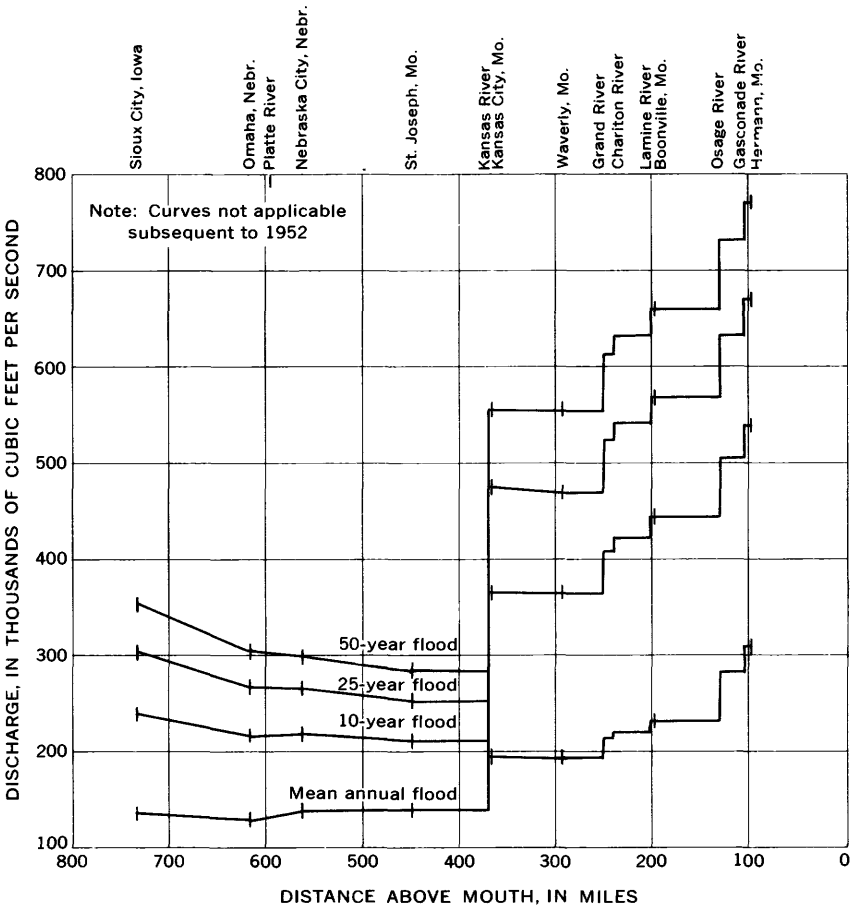

FIGURE 9.—Relation of selected flood frequencies to distance above mouth, Missouri River.

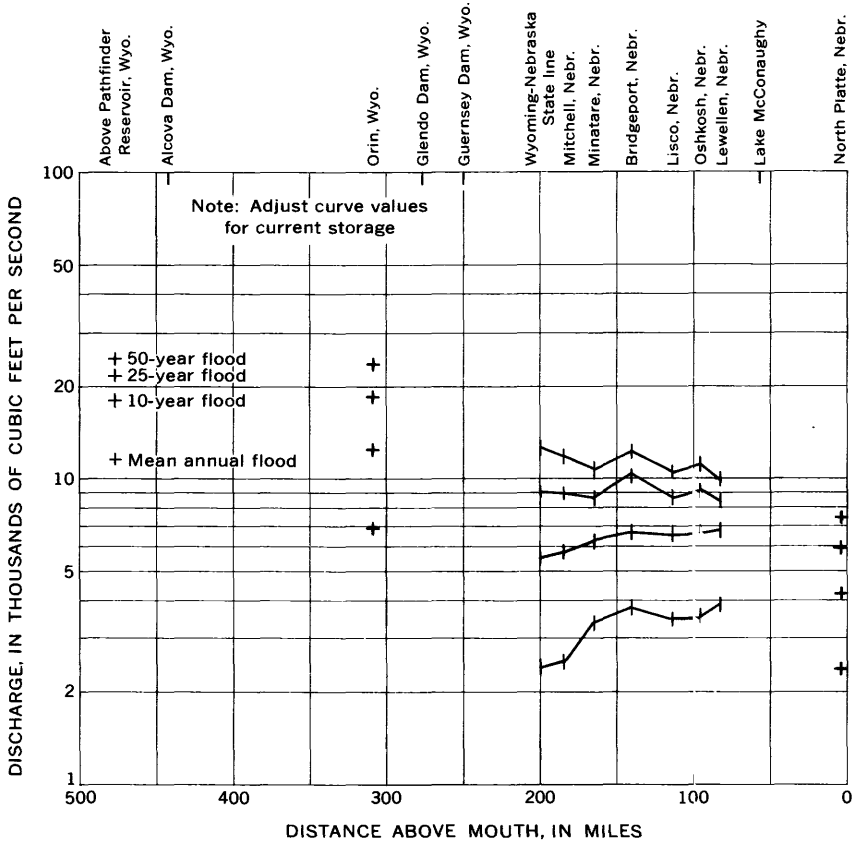

FIGURE 10.—Relation of selected flood frequencies to distance above mouth, North Platte River.

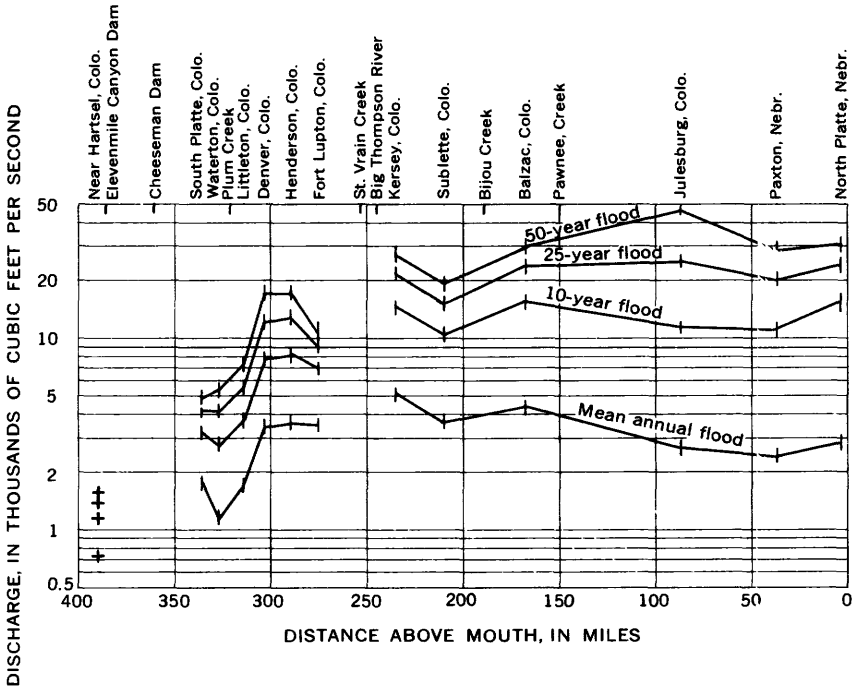

FIGURE 11.—Relation of selected flood frequencies to distance above mouth, South Platte River.

fore the frequency relations were not determined, but discharges for the other seven streams for selected recurrence intervals can be obtained directly from the curves in figures 9–14.

Storage affecting the Missouri River downstream from Sioux City, Iowa, became significant after storage began in December 1952 in Fort Randall Reservoir. Additional storage started in Garrison Reservoir in 1953, in Lewis and Clark Lake in 1955, and in Oahe Reservoir in 1958; therefore, the curves plotted in figure 9 are for the period 1929–52 when flow from a large part of the area upstream from Sioux City was not controlled.

The North Platte River is regulated by Seminoe, Pathfinder, Alcova, Glendo, and Guernsey Reservoirs and by Lake McConaughy. Flood-frequency relations upstream from Seminoe Reservoir can be computed from curves for hydrologic area 1 and region A. Data plotted in figure 10 for station above Pathfinder Reservoir are for the period 1914–38, prior to completion of Seminoe Reservoir; therefore, these data plus adjustments for storage provide frequency information for the reach of the North Platte River between Seminoe and Pathfinder Reservoirs.

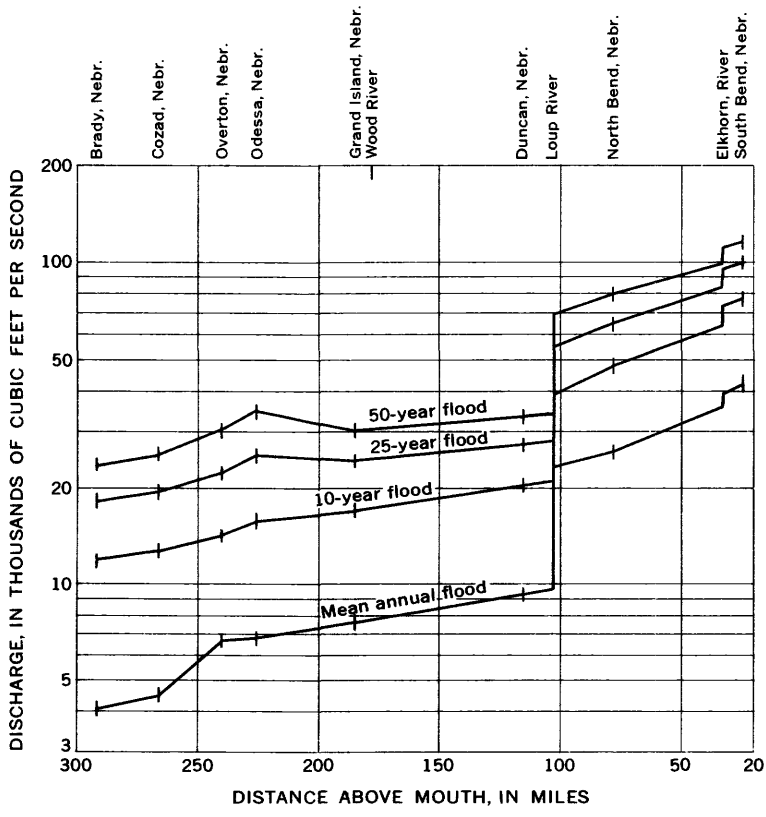

FIGURE 12.—Relation of selected flood frequencies to distance above mouth, Platte River.

Floodflows from large parts of the drainage basin above Orin, Wyo., in the reach between the Wyoming-Nebraska State line and Lewellen, Nebr., and just above North Platte, Nebr., are not controlled; therefore, data are plotted for conditions existing since 1939, except for the gaging station at North Platte, for which data are plotted for conditions since 1941.

Streams Without Definition of Mean Annual Flood

Two areas have no definition of the mean annual flood. There are no gaging-station records in the Great Divide basin in southern Wyoming; therefore, flood-frequency relations are not defined for this basin.

The other area is roughly east of the Nebraska-Wyoming State line and between the North and South Platte Rivers. There is

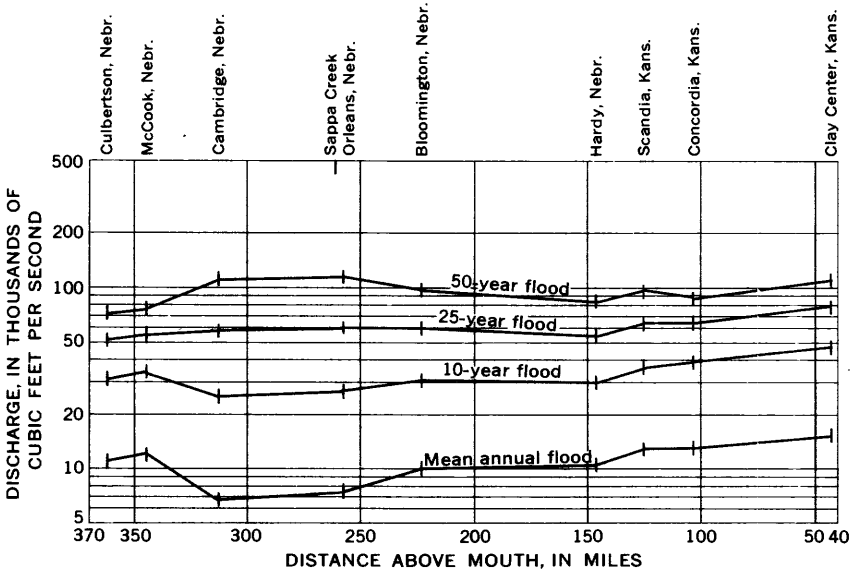

FIGURE 13.—Relation of selected flood frequencies to distance above mouth, Republican River.

no correlation between records for stations on the two major streams in this area, Pumpkin and Lodgepole Creeks, or with records for stations in nearby areas; therefore, curves based solely on data for each of these stations are presented in figure 15 as crude guides for estimating flood-frequency relations in this area.

Use of the Method

Assume that a bridge on a highway crossing the Sac River in Missouri is to be designed for the 50-year flood.

1. The site is in region H, area 19 (pl. 1).
2. The contributing drainage area, measured on the best maps available, is 1,400 square miles.
3. The discharge of the mean annual flood (fig. 8) is 19,000 cfs (cubic feet per second).
4. The ratio of the 50–year flood to the mean annual flood in region H is 4.5 (fig. 2).
5. The discharge of the 50–year flood is 19,000x4.5, or 85,500 cfs.

The frequency of a flood can be estimated from a known discharge if the magnitude-frequency relations are within the limits

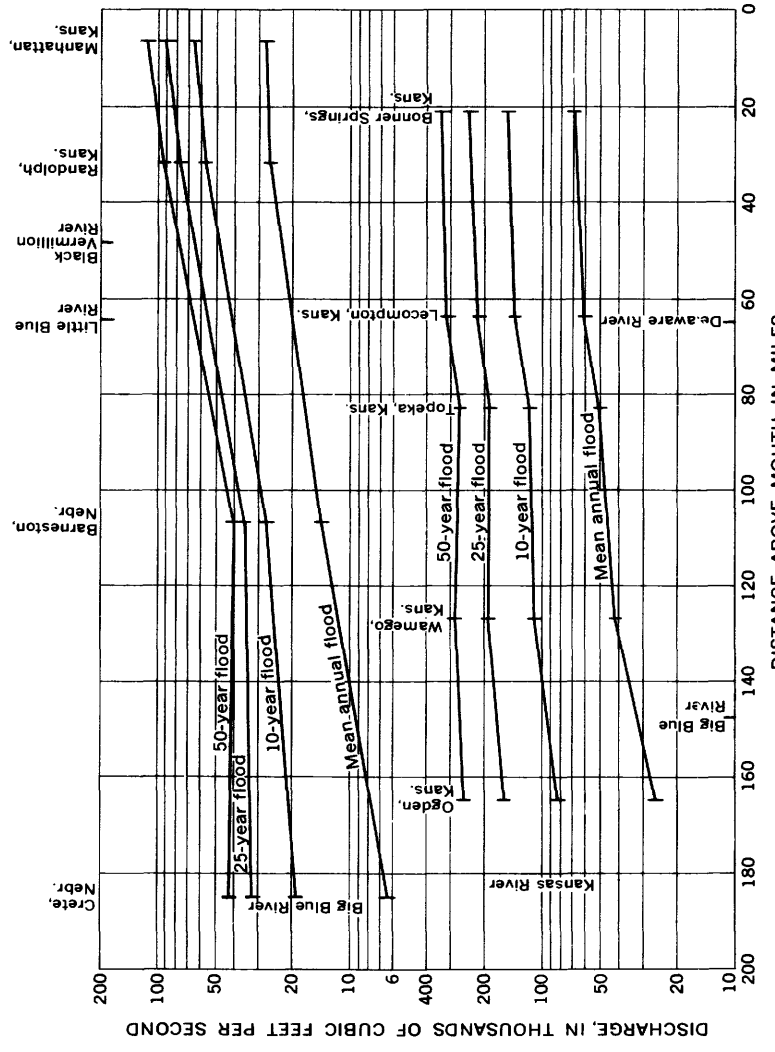

FIGURE 14.—Relation of selected flood frequencies to distance above mouth, Big Blue and Kansas Rivers.

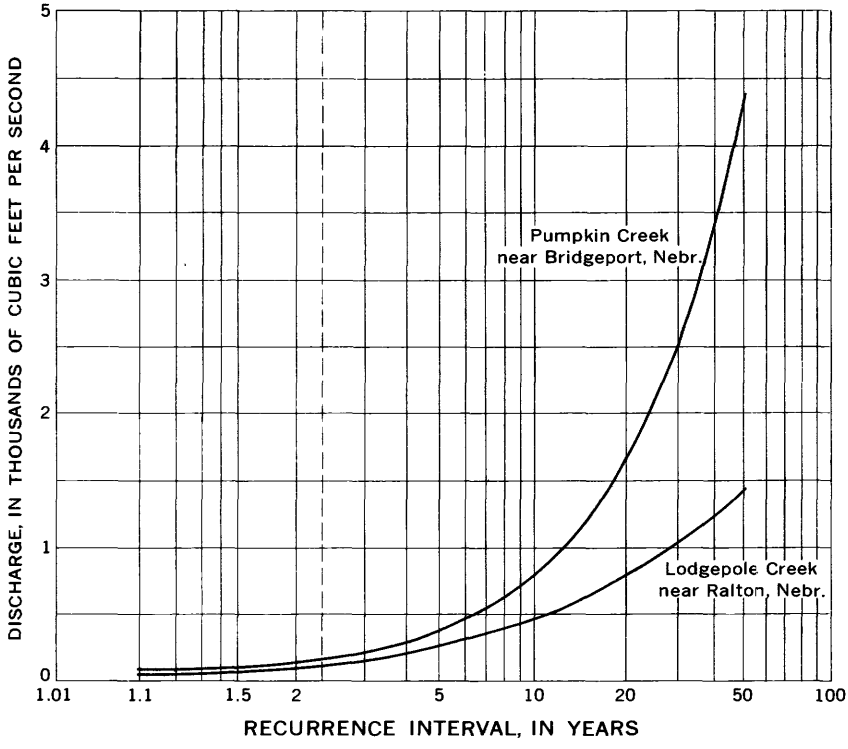

FIGURE 15.—Station frequency curves for Pumpkin Creek near Bridgeport, Nebr., and Lodgepole Creek near Ralton, Nebr.

of the curves defined by the base data. For example, at the site on the Sac River:

1. A peak discharge of 54,300 cfs has been measured.
2. The site is in region H, area 19 (pl. 1).
3. The discharge of the mean annual flood is 19,000 cfs (fig. 8).
4. The ratio of the measured discharge to the mean annual flood is 54,300/19,000, or 2.86.
5. The frequency of the flood is 14 years (fig. 2).

FLOOD-FREQUENCY ANALYSIS

The methods for the determination of flood frequencies described in this report are similar to those used in most of the other reports in the series of water-supply papers covering the remainder of the conterminous United States. Briefly, data from individual gaging stations are combined if the flood-frequency characteristics are similar. The combination of flood-frequency

relations determined from records of virtually natural flow for all gaging stations in a homogeneous region is considered applicable to all points on all streams, whether gaged or ungaged, within that region.

FLOOD FREQUENCY AT A GAGING STATION

The frequency of floods can be analyzed by using one of two series, either the annual flood series or the partial-duration series.

An annual flood is defined as the highest momentary peak discharge in a water year. Therefore, in the annual flood series, only one flood in each year is used, although the second highest flood in a given year may outrank many annual floods in other years. In the partial-duration series, all momentary peak discharges above a selected base discharge are used, without regard to the number of peaks within any given time period. There are advantages and disadvantages inherent in each series.

There is an important distinction in meaning between recurrence intervals determined from the annual flood series and those based on the partial-duration series. From the annual flood series, the recurrence interval is the average interval of time within which a flood equal to or greater than a given magnitude will occur once as an annual maximum, whereas the recurrence interval from a partial-duration series is the average interval between floods of a given magnitude regardless of their relation to the water year or any other period of time. This distinction remains, even though for large floods the recurrence intervals from either series are practically the same.

The composite curves presented herein are based on the annual flood series. Conversion to the partial-duration series can be made by use of the following table by Langbein (1949):

Recurrence intervals, in years

Annual flood series	*Partial-duration series*	*Annual flood series*	*Partial-duration series*
1.16	0.5	10.5	10
1.58	1.0	20.5	20
2.00	1.45	50.5	50
2.54	2.0	100.5	100
5.52	5.0		

The results using either series are virtually the same for recurrence intervals greater than 10 years. Because most designs are for intervals greater than 10 years, the choice of series is of

little practical importance. However, when designing a low fill on a secondary road across a valley so that the higher floods will overflow the road, the designer must know how often, on the average, the stream will exceed a selected discharge, and he should use a frequency curve based on the partial-duration series. The easiest way is to convert the curve based on the annual flood series by use of the relation expressed in the preceding table. Results will be entirely adequate.

A flood with a recurrence interval of 25 years is commonly called a 25–year flood. These terms are often misunderstood and interpreted to imply a regularity of occurrence which is certainly not true. Two 25–year floods may occur in consecutive years or at intervals much longer than 25 years.

Some users may wish to base estimates of future floods on the inverse of the recurrence interval which, for the annual flood series, is the probability of occurrence in any one year. A 25–year flood has a 4-percent chance of occurring in any given year. Others may wish to consider the probability of occurrence of a selected flood during some future period of years, possibly a period equal to the expected life of a structure. The relations between selected recurrence intervals and probability of occurrence during four time periods are tabulated below.

Recurrence interval of flood (years)	*Probability of a flood of indicated recurrence interval being exceeded one or more times during indicated time periods (years)*			
	10	*25*	*50*	*100*
10	0.65	0.928	0.9948	0.99997
25	.34	.64	.87	.983
50	.18	.40	.64	.87
100	.10	.22	.40	.63

BASE PERIODS

Many of the gaging-station records used in the analysis represent relatively short time samples but they were used to obtain better areal coverage and to expand the range in size of drainage basins. Three base periods, 1946–62, 1929–62, and 1915–62, were used. Frequency curves were drawn for each station for the short base period. Ratios of discharges at eight selected recurrence intervals to the mean annual flood were computed, and the regional curve was plotted from the medians of these ratios. Each regional curve was adjusted, in turn, to the longer base period. Regional curves for regions A, B, E, G, and H were adjusted to the 1915–62 base period, and those for regions C and D were adjusted to the 1929–62 base period.

At the few sites where usable information was available, the shapes of frequency curves were modified to include historical flood data. Some maximum stages in early years cannot be converted to discharge because channels have been changed considerably.

Theoretically, the peak discharges at the sites used are not materially affected by regulation or diversion; however, many streams had some diversions for irrigation long before records began. There is no practical way to evaluate the effect of the diversions or of the change in the diversions upon peak discharges. A logical assumption is that the diversions or other regulation, such as by stock ponds, may reduce the lower annual peaks but have only a negligible effect on the higher peaks. The relative effects would tend to reduce the mean annual flood and steepen the frequency curve in comparison with a frequency curve for natural-flow conditions.

Some gaging stations, particularly those on the Smoky Hill River in Kansas, are downstream from flood-control reservoirs. Records at these locations could be used because the U.S. Army Corps of Engineers furnished peak discharges for uncontrolled conditions.

FLOOD-FREQUENCY REGIONS

Part 6–B was divided into eight flood-frequency regions, A through H (pl. 1), using the methods described by Dalrymple (1960). A statistical test of the station records indicates that each of the regions is reasonably homogeneous with respect to flood-frequency characteristics. The composite frequency curves of figure 2 show the relation of flood peaks in each region to the mean annual flood.

Several of the larger rivers traverse two or more of the eight flood-frequency regions and reflect the combined effects of the characteristics of the regions. These streams—Missouri River, North Platte River downstream from Seminoe Reservoir, South Platte River, Platte River, Republican River downstream from Culbertson, Nebr., Big Blue River downstream from Crete, Nebr., and the Kansas River—were studied individually. Discharges for selected recurrence intervals for these rivers can be obtained from the curves presented in figures 9–14.

HYDROLOGIC AREAS

Hydrologic areas were defined by grouping those stations having some consistent relation between the mean annual flood and

contributing drainage area. Twenty-eight areas with similar hydrologic characteristics were defined. However, though the topography, geology, soils, vegetation, stream slopes, precipitation, stream lengths, and other variables are quite different between areas, the net results of the complex interrelations of these factors are several curves that are almost identical. Such curves were combined for the convenience of the reader, and the final curves for 21 hydrologic areas are shown in figures 3–8. As Cruff and Rantz (1965) found, the relations were more consistent in the humid eastern parts than in the drier western parts. The relation for area 16 was based in part upon records outside Part 6–B in Iowa and Minnesota, and that for area 18 upon records in Part 6–A in Nebraska.

The curves defining the relations between mean annual floods and drainage areas have been drawn to the limits of the observed data, and extension of any curve beyond the limits shown may give unrealistic results. Definition of these curves for areas of less than 100 square miles, in general, leaves much to be desired because most of the records are short, less than 12 years. There may be no records on small streams in some sections of a hydrologic area; therefore, the curve is based on small-stream records nearby. Because records for medium and large streams in both sections have consistent relations between the mean annual flood and drainage area, these relations are assumed to hold for the smaller streams. Also, there are large parts of eastern Colorado and Wyoming and western Kansas and Nebraska where there are no records or only a few on the larger streams.

Except in region A, where mean basin altitude is a factor, the size of the drainage basin was the only independent variable used to determine the mean annual flood. The effects of other variables are recognized indirectly by partition of the study area into the several hydrologic areas.

CONCLUSIONS

Any flood-frequency report must be considered an interim report in the sense that only data available up to some cutoff date are used and that currently accepted methods of analysis are used even though they have deficiencies.

With this understanding in mind, the user of this report should realize that use of the curves given herein to compute the magnitude of a flood of any selected frequency between 1.1 and 50 years or the frequency of a given peak discharge will result in estimates rather than in exact, unique answers.

As more gaging stations are installed in different areas to sample changes in basin characteristics and as the period of record at existing gaging stations becomes longer, the additional information will make future studies desirable, more comprehensive, and more reliable. The index-flood method is one of the better methods, and historical data can be used; but there are deficiencies in the method. Also, the development of a better method of analysis will make future studies more reliable.

Records for 501 gaging stations were used to define the flood-frequency regions and the hydrologic areas, and 57 were used to define the frequency relations on the larger rivers. Only drainage area was used as the independent variable to determine the mean annual flood, except in region A where mean basin altitude is a factor. At 62 percent of the stations used in this report, the station mean annual flood is within 35 percent of the applicable hydrologic area curve.

RECORDS OF FLOODS

Data pertinent to maximum known floods in Part 6–B are listed in tables 1–3. Table 1 contains data for gaging stations used in this analysis, table 2 has data for gaging stations not used in the analysis, and table 3 has data for miscellaneous sites and gaging stations with less than 5 years of record through 1962. Data are included for the outstanding floods of May and June 1965 in east-central Wyoming and of June 1965 in the South Platte River basin.

The station data are listed in downstream order. Each gaging station is identified by name and number; the number is that permanently assigned except that the prefix, 6–B, denoting the "Part" has been omitted because all stations listed are in Part 6–B. Miscellaneous sites are not numbered. The period of known floods is the period, in water years, during which the listed peak is known to be the maximum; however, all annual floods or all floods above a selected base discharge during the period may not be known. Runoff in cubic feet per second per square mile is tabulated only if it exceeds either the 20 percent Myers rating or 500 cfs per sq mi.

Following the tables of maximum known floods is a compilation of flood peaks for 635 gaging stations in Part 6–B. A brief description of the gaging station is given, followed by a tabulation of either annual floods or all floods above a selected base discharge. At times a high stage will occur at a gaging station be-

cause of backwater, such as from ice, but the discharge may be relatively low. In these instances the high stage and date of occurrence are listed, but no discharge is given. Peaks are listed for all streamflow stations for which five or more annual peaks are available through the 1962 water year. Annual peaks are tabulated even though they are below the selected base discharge.

Underlines in the tabular data have the following significance:

1. A horizontal line across the water-year column indicates a break in the record.
2. A line across the gage-height column indicates a change in gage datum; therefore, gage heights above and below the line are not comparable.
3. Lines across the date and discharge columns indicate a change in site which affected the stage-discharge relation.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
	Perry Creek basin											
5999.5	Perry Creek near Hinton, Iowa.	F18	30.7	-	1953-62	970	1,800	June 7, 1953	17.93	4,980	-	8
6000	Perry Creek at 38th St., Sioux City, Iowa.	F18	65.1	-	1944,1946-62	2,760	2,700	July 7, 1944	25.5	9,600	-	13
	Floyd River basin											
6001	Floyd River at Alton, Iowa....	F17	265	-	1956-62	1,620	1,700	Mar. 28, 1962	18.35	12,200	-	a1.1
6003	West Branch Floyd River near Struble, Iowa.	F17	181	-	1956-62	1,120	1,300	Mar. 28, 1962	15.08	5,260	-	16
6005	Floyd River at James, Iowa....	F17	882	-	1935-62	3,000	3,400	June 8, 1953	25.3	71,500	81	a3.3
	Omaha Creek basin											
6006	South Omaha Creek tributary near Walthill, Nebr.	F19	2.64	-	1950-62	340	530	June 16, 1957	14.57	1,410	534	8
6007	South Omaha Creek near Walthill, Nebr.	F19	15.1	-	1950-62	1,080	1,400	June 21, 1954	18.71	10,100	669	a1.1
6008	South Omaha Creek tributary No. 2 near Walthill, Nebr.	F19	1.51	-	1950-62	280	390	June 20, 1954	12.90	2,150	1,420	34
6009	South Omaha Creek at Walthill, Nebr.	F19	51.0	-	1950-62	1,580	2,900	June 13, 1957	24.92	14,200	-	25
6010	Omaha Creek at Homer, Nebr....	F19	170	-	1940,1946-62	3,080	5,700	June 4, 1940	32.5	-	-	-
								July 2, 1958	23.62	14,400	-	7
	Monona-Harrison ditch basin											
6020	West Fork ditch at Holly Springs, Iowa.	F17	399	-	1939-62	3,000	2,200	Mar. 28, 1962	22.46	12,400	-	36
	Little Sioux River basin											
6030	Little Sioux River near Lakefield, Minn.	G16	17.1	-	1949-62	92	95	June 7, 1953	10.20	2,550	-	a6.9
6035	Jackson County ditch 11 near Lakefield, Minn.	G16	7.69	-	1949-61	58	56	June 7, 1953	10.91	1,150	-	a5.3
6066	Little Sioux River at Correctionville, Iowa.	G17	2,500	-	1891,1919-25, 1929-32, 1937-62	6,940	6,300	June 23, 1891	29.34	-	-	-
								June 21, 1954	23.36	20,900	-	32
6067	Little Sioux River near Kennebec, Iowa.	G17	2,738	-	1940-62	7,560	6,700	Mar. 28, 1962	b22.40	-	-	21
								Mar. 31, 1962	-	19,000	-	-
6070	Odebolt Creek near Arthur, Iowa	G20	39.3	-	1951,1958-62	1,610	1,800	Aug. 30, 1962	13.78	5,200	-	23

6072	Maple River at Mapleton, Iowa.	G20	669	-	1942-62	5,130	8,400	June 12, 1950 June 20, 1954	22.1 20.4	- 15,600	- -	- 8
					Tekamah Creek basin							
6077	South Branch Tekamah Creek near Craig, Nebr.	G19	2.54	-	1950-62	550	520	July 15, 1950	21.3	2,580	1,020	a1.3
6078	South Branch Tekamah Creek tributary near Tekamah, Nebr.	G19	4.08	-	1950-62	660	680	July 15, 1950	19.3	1,800	-	18
6079	South Branch Tekamah Creek near Tekamah, Nebr.	G19	9.73	-	1950-62	930	1,100	Apr. 21, 1954	20.17	3,130	-	22
6080	Tekamah Creek at Tekamah, Nebr.	G19	23.0	-	1950-62	2,030	1,800	July 15, 1950 Aug. 13, 1958	14.26 15.10	4,400 -	- -	15 -
					Soldier River basin							
6085	Soldier River at Pisgah, Iowa.	G20	407	-	1940-62	8,920	6,400	June 12, 1950	28.17	22,500	-	37
					New York Creek basin							
6086	New York Creek near Spiker, Nebr.	F19	1.75	-	1952-62	400	420	June 20, 1960	16.60	1,700	970	16
6087	New York Creek tributary near Spiker, Nebr.	F19	1.55	-	1951-62	350	390	June 21, 1957	17.80	1,580	1,020	17
6088	New York Creek north of Spiker, Nebr.	F19	6.50	-	1951-62	1,160	890	June 20, 1960	24.07	3,620	557	17
6089	New York Creek east of Spiker, Nebr.	F19	13.9	-	1950-62	1,040	1,400	June 20, 1960	25.03	9,250	665	a1.1
6090	New York Creek at Herman, Nebr.	F19	25.4	-	1944,1946-62	1,540	1,900	June 11, 1944 July 15, 1950	20.8 -	- 5,500	- -	- 9
					Boyer River basin							
6095	Boyer River at Logan, Iowa....	G20	871	-	1918-25, 1938-62	12,500	9,700	June 16, 1957	22.67	23,600	-	15
					Indian Creek basin							
6105	Indian Creek at Council Bluffs, Iowa.	F19	7.99	-	1955-62	890	1,000	July 29, 1958	14.16	2,200	-	6
					Platte River basin							
6110	Colorado Creek near Spicer, Colo.	A1	25.8	9,170	1951-55	380	360	May 4, 1952	4.24	408	-	3
6130	North Platte River near Walden, Colo.	A1	469	8,960	1904-5, 1924-47	1,440	3,400	Apr. 19, 1938	5.74	1,940	-	1
6150	South Fork Michigan River near Gould, Colo.	A3	14.9	10,620	1951-58	290	200	June 29, 1957	4.77	450	-	40
6160	North Fork Michigan River near Gould, Colo.	A3	20.2	9,900	1951-62	200	130	May 25, 1961 Apr. 17, 1962	3.15 c3.96	290 -	- -	38 -

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Platte River basin--Continued							
6200	North Platte River near Northgate, Colo.	A1	1,431	8,940	1904,1915-62	3,280	8,600	June 11, 1923	d6.24	6,720	-	2
6204	Douglas Creek above Keystone, Wyo.	A1	22.1	9,740	1955-62	700	540	June 7, 1957	-	865	-	8
								May 29, 1958	4.78	-	-	-
6210	Douglas Creek near Foxpark, Wyo.	A1	120	9,190	1947-62	1,090	1,300	June 7, 1957	4.66	1,630	-	4
6239	Encampment River near Encampment, Wyo.	A1	105	9,420	1957-62	1,840	1,400	June 13, 1957	6.56	2,290	-	9
6250	Encampment River at mouth, near Encampment, Wyo.	A1	265	8,900	1940-62	2,520	2,000	June 1, 1943	-	4,510	-	40
								June 4, 1952	8.33	-	-	-
6270	North Platte River at Saratoga, Wyo.	A1	2,840	8,480	1903-6,1909, 1911-62	8,400	8,600	June 8, 1909	11.06	18,000	-	28
6289	Pass Creek near Elk Mountain, Wyo.	A1	91.5	8,560	1957-62	580	500	June 13, 1957	5.21	854	-	11
6300	North Platte River above Seminoe Reservoir, near Sinclair, Wyo.	A1	4,060	7,770	1940-62	8,350	4,400	June 15, 1957	9.72	14,500	-	a1.4
6315	Medicine Bow River above Rock Creek, near Medicine Bow, Wyo.	A1	401	7,730	1952-62	810	580	June 15, 1957	7.10	1,340	-	46
6325	Rock Creek at Arlington, Wyo..	A1	64.5	9,680	1911-18, 1940-62	1,110	1,200	June 19, 1953	4.96	1,720	-	6
6335	Rock Creek below Rock River, Wyo.	A1	218	8,010	1941-42, 1952-62	540	550	June 13, 1942	6.42	1,130	-	25
6350	Medicine Bow River above Seminoe Reservoir, near Hanna, Wyo.	A1	1,942	7,130	1940-62	1,770	760	Mar. 29, 1943	5.23	6,590	-	a3.7
6379	Slate Creek near Atlantic City, Wyo.	A1	5.92	8,640	1957-62	52	60	May 5, 1957	1.61	102	-	11
6380	Sweetwater River near Atlantic City, Wyo.	A1	411	8,120	1947-51	790	1,100	Apr. 16, 1950	c8.09	-	-	9
								Apr. 23, 1950	7.79	1,810	-	-
6390	Sweetwater River near Alcova, Wyo.	A1	2,327	7,100	1914-16,1924, 1939-62	750	870	Apr. 13, 1924	d8.36	4,290	-	a2.1
6425	Bates Creek near Freeland, Wyo.	A1	118	7,500	1940-41, 1946-51	220	150	May 4, 1941	3.95	600	-	a1.7
6430	Bates Creek near Alcova, Wyo..	A2	393	6,970	1923,1936-54, 1957-61	470	690	Sept.27, 1923	-	e4,000	-	a2.5
6440	Poison Spider Creek near Goose Egg, Wyo.	A2	301	6,090	1951-56	86	88	May 28, 1953	3.87	172	-	20
6445	Casper Creek at Casper, Wyo...	B5	570	-	1947-56	75	300	June 25, 1948	3.51	531	-	4
6460	Deer Creek in canyon, near Glenrock, Wyo.	A2	139	7,510	1946-51	760	520	Apr. 7, 1950	8.76	855	-	9
6466	Deer Creek below Millar diversion, at Glenrock, Wyo.	A6	212	-	1916-24, 1928-33, 1935-65	920	470	May 14, 1965	9.45	12,800	-	a11.6

6475	Boxelder Creek at Boxelder, Wyo.	A2	63.2	7,960	1946-51, 1962-65	410	440	May 14, 1965	8.58	4,530	-	a4.4
6480	Boxelder Creek near Careyhurst, Wyo.	A6	202	-	1928-33, 1935-65	660	460	May 14, 1965	11.85	8,250	-	a7.6
6490	La Prele Creek near Douglas, Wyo.	A2	135	7,200	1920-65	600	350	May 14, 1965	12.00	7,300	-	a8.9
6505	Wagonhound Creek near La Bonte, Wyo.	B6	112	-	1929-32, 1937-38, 1940-65	300	310	May 14, 1965	11.83	3,500	-	a1.4
6515	La Bonte Creek near La Bonte, Wyo.	B6	287	-	1917-21, 1923-24, 1929-33, 1935-65	910	570	May 14, 1965	10.60	8,770	-	a1.9
6530	Horseshoe Creek near Esterbrook, Wyo.	A2	45.5	7,550	1947-51	150	200	June 21, 1947	4.47	195	-	2
6535	Horseshoe Creek near Glendo, Wyo.	B6	211	-	1928-33, 1935-65	380	470	June 14, 1965	8.82	12,100	-	a3.1
6545	Cottonwood Creek near Fletcher Park, Wyo.	B6	51.1	-	1947-51	140	180	June 22, 1947	5.01	236	-	3
6550	Cottonwood Creek at Wendover, Wyo.	B6	196	-	1927, 1929-33, 1935-42, 1946-55	310	440	Aug. 15, 1927	f10.6	5,800	-	a1.6
6605	Laramie River at Two Rivers, Wyo.	A1	1,036	8,130	1911-12, 1915-18, 1920-27, 1933-62	980	2,400	June 13, 1923	7.48	3,930	-	9
6610	Little Laramie River near Filmore, Wyo.	A1	156	9,110	1911-12, 1914-26, 1933-62	1,200	1,500	June 1, 1914	5.9	2,400	-	9
6615	Little Laramie River at Two Rivers, Wyo.	A1	318	8,180	1911-18, 1920-27, 1933, 1935-62	730	940	June 4, 1914	6.44	1,880	-	22
6620	Laramie River near Lookout, Wyo.	B6	1,571	-	1912, 1915-17, 1932-62	1,260	1,700	June 17, 1957	6.41	3,340	-	5
6645	Sybille Creek above Bluegrass Creek, near Wheatland, Wyo.	B6	225	-	1941-62	550	490	May 26, 1956	5.90	1,870	-	11
6675	North Laramie River near Wheatland, Wyo.	B6	370	-	1915-20, 1922, 1940-62	1,080	680	July 27, 1951	d11.6	9,260	-	a1.7
6700	Laramie River near Uva, Wyo..	B5	3,818	-	1953-62	1,130	1,100	May 29, 1957	6.35	2,760	-	6
6705	Laramie River near Fort Laramie, Wyo.	B5	3,915	-	1915-30, 1933-62	1,130	1,100	June 6, 1917	d4.20	4,280	-	12
6710	Rawhide Creek near Lingle, Wyo.	B5	522	-	1929-62	270	230	Sept. 7, 1946	11.76	3,970	-	a2.1
6775	Horse Creek near Lyman, Nebr.	B5	1,560	-	1931-62	840	610	July 29, 1957	7.28	2,040	-	9
6780	Sheep Creek near Morrill, Nebr.	D5	332	-	1933, 1935-45, 1947-62	212	210	June 27, 1955	6.52	413	-	16
6790	Dry Spottedtail Creek at Mitchell, Nebr.	D11	50.8	-	1949-62	500	460	June 24, 1951	8.55	2,010	-	a1.6
6840	Red Willow Creek near Bayard, Nebr.	D11	162	-	1932-62	940	1,000	May 10, 1942 July 3, 1956	7.8 -	- 2,320	- -	- 30
6850	Pumpkin Creek near Bridgeport, Nebr.	B-	1,080	-	1932-62	170	-	Sept. 3, 1951	8.87	2,970	-	a2.1

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Platte River basin--Continued							
6870	Blue Creek near Lewellen, Nebr.	D11	80	-	1931-62	284	630	May 20, 1938	-	720	-	3
								Dec. 21, 1945	c6.93	-	-	-
6920	Birdwood Creek near Hershey, Nebr.	D11	80	-	1932-62	510	630	Dec. 15, 1940	c5.12	-	-	-
								Apr. 1, 1949	-	1,770	-	al.1
6995	Tarryall Creek near Lake George, Colo.	A4	434	9,840	1925-55	460	1,600	Apr. 21, 1948	6.08	1,030	-	1
7005	Goose Creek above Cheesman Lake, Colo.	A4	86.6	9,940	1925-62	210	210	May 30, 1942	4.57	-	-	-
								June 9, 1957	-	487	-	47
7060	North Fork South Platte River below Geneva Creek, at Grant, Colo.	A4	127	10,980	1909-13, 1943-62	570	750	June 7, 1912	-	990	-	5
								Feb. 11, 1952	c4.72	-	-	-
7070	North Fork South Platte River at South Platte, Colo.	A4	479	9,070	1909-10, 1913-62	900	840	June 13, 1949	6.30	2,050	-	al.1
7095	Plum Creek near Louviers, Colo.	B9	302	-	1942-65	930	890	June 16, 1965	21	154,000	510	a21
7105	Bear Creek at Morrison, Colo..	B9	164	-	1888-91, 1896-1901, 1920-62	520	510	July 24, 1896	-	8,600	-	a2.1
7110	Turkey Creek near Morrison, Colo.	B9	50.1	-	1942-53	220	180	Aug. 24, 1946	5.79	1,200	-	31
7115	Bear Creek at mouth, at Sheridan, Colo.	B9	260	-	1927-62	790	770	July 7, 1933	-	3,000	-	12
								Sept. 2, 1938	d7.21	-	-	-
7120	Cherry Creek near Franktown, Colo.	B10	169	-	1940-62	1,640	2,400	Aug. 5, 1945	d4.91	g9,170	-	11
7125	Cherry Creek near Melvin, Colo.	B10	336	-	1940-65	3,430	3,300	June 16, 1965	13	39,900	119	al.5
7165	Clear Creek near Lawson, Colo.	A4	145	11,080	1946-62	1,200	950	June 4, 1956	7.41	h6,130	-	-
7195	Clear Creek near Golden, Colo.	A4	399	9,970	1899-1962	1,680	1,700	Sept. 9, 1933	11.57	15,890	-	al.5
7220	North St. Vrain Creek at Longmont Dam, near Lyons, Colo.	A3	106	9,490	1926-53	760	690	June 22, 1941	6.09	1,630	-	50
7225	South St. Vrain Creek near Ward, Colo.	A3	14.4	11,140	1926-27, 1929-31, 1955-62	290	340	June 27, 1957	-	462	-	5
								June 29, 1957	4.11	-	-	-
7240	St. Vrain Creek at Lyons, Colo.	B8	212	-	1888-91, 1895-1962	1,240	1,100	June 22, 1941	8.06	10,500	-	al.2
7245	Lefthand Creek near Boulder, Colo.	B8	49.0	-	1929-31, 1947-53, 1956-57	420	410	June 4, 1949	d5.49	1,140	-	7
7255	Middle Boulder Creek at Nederland, Colo.	A3	36.2	10,470	1914,1945-62	560	570	June 2, 1914	j5.37	811	-	6
7270	Boulder Creek near Orodell, Colo.	A3	102	9,140	1888,1907-14, 1916-62	710	390	June 6, 1921	4.31	2,500	-	a2.7

7275	Fourmile Creek at Orodell, Colo.	B9	24.1	-	1947-53	67	90	June 6, 1949	3.66	256	-	7
7290	South Boulder Creek near Rollinsville, Colo.	A3	43.1	10,200	1911-17, 1945-49	570	540	June 12, 1949	-	k718	-	5
7295	South Boulder Creek near Eldorado Springs, Colo.	A3	109	9,040	1888-92, 1895-1901, 1905-54	630	350	Sept. 2, 1938	d9.24	7,390	-	a9.0
7310	St. Vrain Creek at mouth, near Platteville, Colo.	B8	976	-	1905-6,1927-62	1,980	3,300	Sept. 3, 1938	d8.93	11,300	-	10
7320	Glacier Creek near Estes Park, Colo.	A3	24.4	10,530	1942-57	290	350	June 29, 1957	3.48	352	-	2
7325	Fall River at Estes Park, Colo.	A3	39.8	10,260	1945-53	360	510	June 20, 1951	2.91	-	-	-
								June 14, 1953	-	476	-	2
7330	Big Thompson River at Estes Park, Colo.	A3	137	9,900	1947-49, 1951-62	1,270	1,800	June 18, 1949	d3.16	1,660	-	2
7345	Fish Creek near Estes Park, Colo.	B8	16.0	-	1947-55	62	190	May 25, 1951	7.32	1,480	-	44
7360	North Fork Big Thompson River at Drake, Colo.	A3	82.8	9,150	1947-55	250	290	June 4, 1949	5.00	820	-	a1.2
7395	Buckhorn Creek near Masonville, Colo.	B8	131	-	1923,1938, 1947-55	2,760	810	Aug. 3, 1951	13.40	14,000	-	a2.1
7410	Cottonwood Creek near Pinewood, Colo.	B8	15.1	-	1948-53	380	180	Aug. 3, 1951	5.91	2,260	-	a1.5
7420	Little Thompson River near Berthoud, Colo.	B8	101	-	1929-30, 1947-53, 1955-61	740	680	June 6, 1949	9.3	-	-	-
								May 9, 1957	-	4,000	-	24
7486	South Fork Cache la Poudre River near Rustic, Colo.	A3	90.3	10,010	1957-62	510	1,200	June 29, 1957	4.70	1,120	-	2
7515	North Fork Cache la Poudre River near Livermore, Colo.	B7	568	-	1904,1929-31, 1947-62	710	650	May 20, 1904	-	20,000	-	a3.8
7520	Cache la Poudre River at mouth of canyon, near Fort Collins, Colo.	A3	1,055	8,420	1883-1962	3,400	2,500	May 20, 1904	-	(m)	-	-
7535	Lonetree Creek near Nunn, Colo.	B7	199	-	1951-57,1965	230	290	June 14, 1965	-	6,040	-	a2.5
7545	Middle Crow Creek near Hecla, Wyo.	B7	25.8	-	1902-3,1933-62	65	63	Sept. 8, 1933	4.90	495	-	45
7550	South Crow Creek near Hecla, Wyo.	B7	13.9	-	1933-62	25	39	July 21, 1945	3.78	110	-	7
7576	Kiowa Creek at K-79 Reservoir, near Eastonville, Colo.	B10	3.20	-	1956-62	430	370	July 30, 1957	-	n5,250	1,640	a1.8
7582	Kiowa Creek at Kiowa, Colo....	B10	111	-	1956-65	1,390	2,000	June 17, 1965	18.5	19,700	-	a1.3
7590	Bijou Creek near Wiggins, Colo.	B10	1,314	-	1951-65	6,480	6,300	June 18, 1965	-	466,000	355	a9.0
7625	Lodgepole Creek at Bushnell, Nebr.	B5	1,361	-	1932-45, 1947-62	360	550	Sept.15, 1950	9.98	16,500	-	a3.7
7635	Lodgepole Creek at Ralton, Nebr.	B-	3,307	-	1951-62	150	-	Sept. 2, 1951	5.70	1,150	-	43
7671	South Fork Plum Creek tributary near Farnam, Nebr.	E13	9.81	-	1951-62	350	110	June 16, 1962	15.81	2,320	-	a4.2
7672	North Fork Plum Creek tributary near Farnam, Nebr.	E13	1.83	-	1952-62	52	53	June 16, 1962	12.50	435	-	a1.6

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station $Q_{2.33}$ (cfs)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Platte River basin--Continued							
7673	Plum Creek tributary at Farnam, Nebr.	E13	19.8	-	1947-48, 1951-62	210	150	June 22, 1947	18.8	4,300	-	a5.7
7674	North Plum Creek near Farnam, Nebr.	E13	38.3	-	1947,1951-62	190	200	June 11, 1962	17.34	1,600	-	a1.6
7674.1	Plum Creek near Farnam, Nebr..	E13	79.8	-	1947,1951-62	240	270	June 22, 1947	22.6	3,800	-	a2.8
7675	Plum Creek near Smithfield, Nebr.	E13	229	-	1947-62	330	430	June 23, 1957	18.63	2,800	-	a1.3
7681	East Branch Buffalo Creek tributary near Buffalo, Nebr.	E13	5.24	-	1951-62	48	83	July 19, 1958	13.31	208	-	8
7682	East Branch Buffalo Creek near Buffalo, Nebr.	E13	28.3	-	1951-62	190	170	July 19, 1958	18.26	1,570	-	a1.8
7683	East Branch Buffalo Creek tributary No. 2 near Buffalo, Nebr.	E13	2.10	-	1951-62	58	56	June 12, 1958	12.52	172	-	12
7684	West Branch Buffalo Creek near Buffalo, Nebr.	E13	16.3	-	1951-62	77	140	July 19, 1958	15.81	475	-	15
7685	Buffalo Creek near Darr, Nebr.	E13	63	-	1947-48, 1950-62	270	250	June 22, 1947	18.4	9,000	-	a6.7
7690	Buffalo Creek near Overton, Nebr.	E13	175	-	1949-58	170	380	July 12, 1958	10.47	383	-	2
7691	Elm Creek tributary near Overton, Nebr.	E13	.54	-	1951-62	48	31	July 10, 1958	13.59	142	-	38
7692	Elm Creek near Sumner, Nebr...	E13	14.9	-	1951-62	62	130	July 10, 1958	14.41	271	-	5
7693	Elm Creek tributary No. 2 near Overton, Nebr.	E13	5.19	-	1951-62	150	83	June 14, 1961	13.13	307	-	19
7695	Elm Creek near Overton, Nebr..	E13	31	-	1947-58	340	180	June 22, 1947	19.65	8,000	-	a8.9
7706	Wood River tributary near Lodi, Nebr.	E13	2.02	-	1952-62	7.2	55	Aug. 3, 1962	12.30	32	-	2
7707	Wood River near Lodi, Nebr....	E13	12.9	-	1952-62	40	120	June 16, 1955	11.63	142	-	3
7708	Wood River near Oconto, Nebr..	E13	26.4	-	1950,1952-62	410	170	June 17, 1954	14.47	790	-	40
7709	Wood River at Oconto, Nebr....	E13	44.8	-	1950,1952-62	380	210	July 19, 1958	18.58	2,390	-	a2.3
7709.1	Wood River near Lomax, Nebr...	E13	77.9	-	1952-62	450	270	Sept.20, 1960	20.83	1,750	-	a1.3
7710	Wood River near Riverdale, Nebr.	E13	379	-	1947-62	570	540	June 22, 1947	19.75	20,000	-	a7.4
7715	Wood River near Gibbon, Nebr..	E13	572	-	1949-62	830	650	Mar. 28, 1960	16.14	2,100	-	14
7720	Wood River near Alda, Nebr....	E13	628	-	1954-62	450	680	Mar. 29, 1960	10.95	1,370	-	5
7730	Dry Creek at Cairo, Nebr.....	E13	22.2	-	1949-53	480	160	May 27, 1953	7.64	586	-	19
7750	Middle Loup River near Seneca, Nebr.	D11	60	-	1948-53	430	510	Jan. 7, 1949	c2.61	-	-	-
								Aug. 8, 1950	-	457	-	2
7755	Middle Loup River at Dunning, Nebr.	D11	80	-	1946-62	720	630	Mar. 31, 1949	c7.02	-	-	-
								Sept.13, 1958	-	830	-	4

7765	Dismal River at Dunning, Nebr.	D11	50	-	1932,1946-62	570	450	Jan. 19, 1947	c5.21	-	-	-
								May 26, 1952	-	996	-	24
7770	Middle Loup River near Milburn, Nebr.	D11	135	-	1952-56,1958, 1961-62	1,640	910	May 26, 1952	d4.43	2,440	-	50
7775	Middle Loup River at Walworth, Nebr.	D11	430	-	1942-43,1945, 1947,1951-60	2,030	2,100	Oct. 5, 1946	-	2,990	-	5
								Feb. 12, 1954	c6.03	-	-	-
7776	Lillian Creek tributary near Broken Bow, Nebr.	E12	2.02	-	1952-62	3.9	110	July 4, 1960	11.28	8	-	1
7777	Lillian Creek near Broken Bow, Nebr.	E12	4.77	-	1947,1953-62	92	180	June 22, 1947	12.2	930	-	a1.1
7778	Lillian Creek tributary No. 2 near Walworth, Nebr.	E12	2.04	-	1951-62	31	110	Aug. 12, 1951	12.4	585	-	a1.1
7780	Middle Loup River at Sargent, Nebr.	D11	475	-	1937-38, 1953-62	2,150	2,300	Mar. 26, 1960	-	3,400	-	6
								Mar. 24, 1962	c5.52	-	-	-
7790	Middle Loup River at Arcadia, Nebr.	D11	820	-	1938-62	3,440	3,400	June 22, 1947	-	(p)	-	-
								Mar. 27, 1960	6.41	-	-	-
7800	Middle Loup River at Rockville, Nebr.	E12	1,090	-	1956-62	3,850	3,500	June 16, 1957	-	10,400	-	11
								Mar. 25, 1960	c6.20	-	-	-
7820	South Loup River near Cumro, Nebr.	E12	700	-	1946-53	1,490	2,800	June 22, 1947	10.94	7,200	-	8
7825	South Loup River at Ravenna, Nebr.	E12	890	-	1941-42,1944, 1946,1949-58	3,830	3,200	June 22, 1947	12.6	(p)	-	-
7826	South Branch Mud Creek tributary near Broken Bow, Nebr.	E12	.43	-	1951-62	44	48	July 18, 1958	-	184	-	22
								June 6, 1962	12.53	-	-	-
7827	South Branch Mud Creek at Broken Bow, Nebr.	E12	45.9	-	1945,1951-62	39	620	June 17, 1956	16.41	1,790	-	10
7828	North Branch Mud Creek at Broken Bow, Nebr.	E12	10.8	-	1951-62	270	280	June 17, 1956	16.16	1,550	-	a1.1
7829	Mud Creek tributary near Broken Bow, Nebr.	E12	5.98	-	1945,1951-62	85	200	May 27, 1945	-	1,500	-	a1.5
								July 21, 1951	14.80	-	-	-
7830	Mud Creek near Broken Bow, Nebr.	E12	81.1	-	1949-56	190	850	July 23, 1950	7.75	410	-	1
7835	Mud Creek near Sweetwater, Nebr.	E12	655	-	1948-62	990	2,700	June 22, 1947	q23.20	(p)	-	-
7840	South Loup River at St. Michael, Nebr.	E12	1,650	-	1946-62	2,960	4,400	June 22, 1947	(p)	(p)	-	-
7843	Oak Creek near Loup City, Nebr.	E12	41.9	-	1953-60	420	580	July 5, 1956	13.88	655	-	3
7845	Oak Creek near Dannebrog, Nebr.	E12	122	-	1950-57	810	1,000	June 17, 1954	17.23	1,880	-	5
7847	Turkey Creek near Farwell, Nebr.	E12	27.2	-	1950,1953-62	860	470	July 9, 1950	17.50	1,600	-	15
7850	Middle Loup River at St. Paul, Nebr.	E12	3,200	-	1895-99,1903, 1929-62	9,150	6,400	June 23, 1947	r12.69	72,000	-	a2.2
7855	North Loup River at Brewster, Nebr.	D11	140	-	1946-51	970	940	Feb. 25, 1950	c4.20	-	-	-
								June 14, 1951	-	1,600	-	10
7860	North Loup River at Taylor, Nebr.	D11	180	-	1937-60	1,640	1,100	June 14, 1951	-	s2,770	-	42
								Feb. 25, 1957	c9.5	-	-	-
7865	North Loup River at Burwell, Nebr.	D11	400	-	1953-60	1,880	2,000	Feb. 25, 1957	c5.99	-	-	-
								Mar. 26, 1960	-	2,600	-	4
7875	Calamus River near Burwell, Nebr.	D11	110	-	1941-62	640	790	Mar. 19, 1950	c5.19	-	-	-
								May 16, 1951	-	1,060	-	4

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station $Q_{2.33}$ (cfs)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Platte River basin--Continued							
7885	North Loup River at Ord, Nebr.	E12	770	-	1937-38, 1953-62	2,580	2,900	May 29, 1956	-	4,430	-	4
								Mar. 23, 1960	c4.94	-	-	-
7890	North Loup River at Scotia, Nebr.	E12	910	-	1937-62	6,160	3,200	June 22, 1947	8.18	(p)	-	-
7891	Davis Creek tributary near North Loup, Nebr.	E12	2.29	-	1951-62	290	120	June 16, 1962	17.84	1,780	777	a3.0
7892	Davis Creek tributary No. 2 near North Loup, Nebr.	E12	6.79	-	1951-62	150	210	July 14, 1957	16.82	722	-	16
7893	Davis Creek near North Loup, Nebr.	E12	21.1	-	1951-62	670	400	July 14, 1957	-	1,820	-	37
								June 16, 1962	16.77	-	-	-
7894	Davis Creek southwest of North Loup, Nebr.	E12	41.6	-	1951-62	630	580	June 16, 1957	-	2,220	-	22
								June 16, 1962	20.31	-	-	-
7895	Davis Creek near Cotesfield, Nebr.	E12	94	-	1950-58	640	910	July 9, 1958	12.73	1,720	-	5
7905	North Loup River near St. Paul, Nebr.	E12	1,270	-	1896,1897, 1899,1903, 1929-62	7,130	3,800	June 6, 1896	j14.9	90,000	71	a4.7
7906	East Branch Spring Creek tributary near Wolbach, Nebr.	E12	1.52	-	1952-62	91	95	July 4, 1956	13.09	370	-	23
7907	West Branch Spring Creek at Brayton, Nebr.	E12	19.5	-	1945,1952-62	790	390	July 16, 1945	18.4	3,700	-	a1.9
7908	West Branch Spring Creek near Wolbach, Nebr.	E12	36.9	-	1951-62	850	550	May 10, 1953	17.20	4,040	-	a1.5
7909	Mary's Creek at Wolbach, Nebr.	E12	7.63	-	1952-62	85	230	Apr. 5, 1958	13.78	440	-	5
7911	Spring Creek near Cushing, Nebr.	E12	165	-	1948-62	1,230	1,200	May 10, 1953	19.44	5,350	-	34
7915	Cedar River near Spaulding, Nebr.	D11	50	-	1945-53, 1958-62	820	450	June 23, 1947	d7.50	4,000	-	a3.4
7920	Cedar River near Fullerton, Nebr.	E12	480	-	1941-62	3,040	2,200	July 19, 1950	-	10,100	-	38
								Mar. 28, 1960	c11.75	-	-	-
7935	Beaver Creek at Loretto, Nebr.	D11	100	-	1946-53	1,390	740	June 2, 1950	11.74	4,570	-	a2.3
7940	Beaver Creek at Genoa, Nebr...	E12	410	-	1941-62	1,500	2,000	July 19, 1950	d18.70	21,200	-	a2.1
7945	Loup River at Columbus, Nebr..	E12	6,530	-	1895-1904, 1906-11, 1913,1934-62	16,500	9,500	June 23, 1947	12.0	85,000	-	a1.8
7950	Shell Creek at Newman Grove, Nebr.	E12	122	-	1950-62	1,860	1,100	July 18, 1950	20.20	12,000	-	a2.2
7955	Shell Creek near Columbus, Nebr.	E12	270	-	1947-62	1,310	1,600	June 3, 1950	21.38	5,970	-	20
7975	Elkhorn River at Ewing, Nebr..	E12	740	-	1947-62	1,410	2,800	June 23, 1947	11.32	-	-	-
								June 10, 1962	-	7,500	-	9
7980	South Fork Elkhorn River at Ewing, Nebr.	E12	190	-	1949-53, 1961-62	580	1,300	June 1947	7.22	-	-	-
								Apr. 5, 1949	-	1,760	-	3

7985	Elkhorn River at Neligh, Nebr.	E12	1,200	-	1932-58, 1961-62	1,550	3,700	June 23, 1947	12.53	12,000	-	14
7990	Elkhorn River near Norfolk, Nebr.	F12	1,790	-	1897-1903, 1946-62	3,890	4,600	Mar. 11, 1949 Mar. 30, 1960	c,d13.63 -	- 13,500	- -	- 9
7995	Logan Creek near Uehling, Nebr.	F12	1,030	-	1941-62	5,000	3,400	June 11, 1944	17.65	13,700	-	16
8000	Maple Creek near Nickerson, Nebr.	F12	450	-	1952-62	1,920	2,200	June 21, 1960	14.67	10,800	-	25
8005	Elkhorn River at Waterloo, Nebr.	F12	5,900	-	1929-34, 1936-47	11,500	9,000	June 12, 1944	d16.6	100,000	-	a1.8
8012	Olive Branch above Sprague, Nebr.	G19	43	-	1956-60	1,450	2,600	Mar. 27, 1960	18.28	1,950	-	2
8013	Salt Creek subwatershed No. 3 near Sprague, Nebr.	G19	4.20	-	1955-59	120	700	July 2, 1956	6.24	244	-	1
8014	Salt Creek subwatershed No. 1 near Roca, Nebr.	G19	1.46	-	1955-61	200	380	July 2, 1956	3.12	610	-	5
8015	Salt Creek subwatershed No. 12 at Roca, Nebr.	G19	1.12	-	1954-61	310	330	July 10, 1958	7.95	528	-	5
8025	Salt Creek subwatershed No. 34 near Roca, Nebr.	G19	5.72	-	1954-61	830	830	Aug. 18, 1956	9.89	2,600	-	28
8030	Salt Creek at Roca, Nebr.....	G19	174	-	1950-62	4,760	5,700	May 8, 1950	26.0	67,000	385	a3.0
8034	Antelope Creek at Lincoln, Nebr.	F19	12.5	-	1958-62	1,590	1,300	July 10, 1958	t11.99	2,800	-	6
8035	Salt Creek at Lincoln, Nebr...	F19	710	-	1950-62	10,900	13,000	June 2, 1951	26.15	28,200	-	6
8035.7	Wahoo Creek tributary near Weston, Nebr.	F19	.31	-	1950-62	170	160	June 1, 1951	13.90	550	1,770	12
8036	North Fork Wahoo Creek near Prague, Nebr.	F19	15.2	-	1951-62	2,350	1,500	Aug. 2, 1959	31.12	12,800	842	a1.4
8037	Dunlap Creek near Weston, Nebr.	F19	8.90	-	1950-62	980	1,100	May 31, 1951	18.20	4,130	-	14
8039	North Fork Wahoo Creek at Weston, Nebr.	F19	43.7	-	1951-62	1,890	2,600	May 31, 1951	22.36	9,600	-	14
8040	Wahoo Creek at Ithaca, Nebr...	F19	272	-	1950-62	4,310	7,300	Aug. 2, 1959	u23.22	45,300	167	48
8041	Silver Creek near Cedar Bluffs, Nebr.	F19	10.9	-	1950-62	660	1,200	Aug. 2, 1959	15.02	4,040	-	12
8042	Silver Creek near Colon, Nebr.	F19	29.9	-	1950-62	1,390	2,100	Aug. 2, 1959	19.22	12,000	401	38
8043	Silver Creek tributary near Colon, Nebr.	F19	14.3	-	1951-62	140	1,400	Aug. 2, 1959	17.32	5,000	-	13
8044	Silver Creek tributary at Colon, Nebr.	F19	22.4	-	1951-62	290	1,800	Aug. 2, 1959	19.29	4,640	-	8
8045	Silver Creek at Ithaca, Nebr..	F19	72	-	1950-62	940	3,500	Aug. 2, 1959	16.92	21,600	300	47
8050	Salt Creek near Ashland, Nebr.	F19	1,640	-	1908,1947-62	14,600	20,000	July 7, 1908 June 2, 1951	21.9 14.72	(p) 46,200	- -	- 6
					Waubonsie Creek basin							
8060	Waubonsie Creek near Bartlett, Iowa.	F19	30.4	-	1946-62	2,380	2,100	May 8, 1950	37.8	14,500	477	a1.1
					Weeping Water Creek basin							
8064	Weeping Water Creek at Elmwood, Nebr.	F19	21.4	-	1950-62	2,260	1,800	May 9, 1950	24.6	7,600	-	18

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
Weeping Water Creek basin--Continued												
8064.2	Stove Creek near Elmwood, Nebr.	F19	4.94	-	1950-62	1,480	760	May 9, 1950	18.2	3,730	755	25
8064.4	Stove Creek at Elmwood, Nebr..	F19	10.0	-	1950-62	2,230	1,100	May 9, 1950	23.0	9,500	950	al.4
8064.6	Weeping Water Creek at Weeping Water, Nebr.	F19	75.5	-	1947,1950-62	4,770	3,600	May 9, 1950	18.5	30,300	401	al.3
8064.7	Weeping Water Creek tributary near Weeping Water, Nebr.	F19	1.07	-	1950-62	420	320	May 15, 1954	18.02	1,160	1,080	13
8065	Weeping Water Creek at Union, Nebr.	F19	238	-	1950-62	5,310	6,800	May 9, 1950	d29.8	60,300	253	al.4
Nishnabotna River basin												
8077.6	Middle Silver Creek near Oakland, Iowa.	G20	25.7	-	1953-62	820	1,400	Aug. 5, 1958	12.28	1,450	-	2
8077.8	Middle Silver Creek at Treynor, Iowa.	G20	42.7	-	1953-62	1,490	1,900	Sept. 5, 1958	16.01	2,600	-	4
8080	Mule Creek near Malvern, Iowa.	F19	10.6	-	1954-62	1,040	1,200	Aug. 21, 1954	15.84	2,070	-	4
8082	Spring Valley Creek near Tabor, Iowa.	F19	7.65	-	1956-62	1,650	980	July 30, 1958	15.48	4,150	542	18
8085	West Nishnabotna River at Randolph, Iowa.	G20	1,326	-	1947,1949-62	16,800	12,000	Mar. 5, 1949	c24.8	-	-	-
								May 9, 1950	-	29,600	-	15
8090	Davids Creek near Hamlin, Iowa.	G20	26.0	-	1952-62	760	1,500	July 2, 1958	19.35	22,700	873	a3.9
8095	East Nishnabotna River at Red Oak, Iowa.	G20	894	-	1917-25, 1936-62	8,900	9,900	June 13, 1947	23.23	36,200	-	42
8100	Nishnabotna River above Hamburg, Iowa.	G20	2,806	-	1917,1922-23 1929-62	14,700	18,000	June 24, 1947	26.03	55,500	-	27
Little Nemaha River basin												
8101	Hooper Creek tributary near Palmyra, Nebr.	F19	7.81	-	1950-62	620	990	June 1, 1951	16.55	3,090	-	10
8102	Hooper Creek near Palmyra, Nebr.	F19	57.5	-	1950-62	3,080	3,100	May 9, 1950	23.0	47,600	828	a2.4
8103	Owl Creek near Syracuse, Nebr.	F19	25.4	-	1950-62	1,770	1,900	May 9, 1950	30.6	16,000	630	al.3
8104	Little Nemaha River tributary near Syracuse, Nebr.	F19	.76	-	1950-62	330	270	May 9, 1950	16.6	1,280	1,680	48
8105	Little Nemaha River near Syracuse, Nebr.	F19	218	-	1950-62	8,630	6,500	May 9, 1950	36.7	225,000	1,030	a5.5
8115	Little Nemaha River at Auburn, Nebr.	F19	801	-	1950-62	18,600	14,000	May 9, 1950	27.65	164,000	205	al.9
Tarkio River basin												
8117.6	Tarkio River near Elliot, Iowa.	G20	10.7	-	1952-62	510	900	June 22, 1952	11.88	1,200	-	4

8118.4	Tarkio River at Stanton, Iowa.	G20	49.3	-	1956,1958-62	2,040	2,100	Sept.18, 1960	16.61	4,650	-	11
8130	Tarkio River at Fairfax, Mo...	G20	508	-	1922-62	8,000	7,300	July 7, 1929	22.33	-	-	-
								June 20, 1942	-	16,300	-	12
					Nemaha River basin							
8137	Tennessee Creek tributary near Seneca, Kans.	G19	.90	-	1957-62	390	290	May 30, 1959	18.64	1,220	1,360	a1.1
8140	Turkey Creek near Seneca, Kans.	G19	276	-	1949-62	5,980	7,400	June 28, 1949	25.17	-	-	-
								Sept. 4, 1958	-	18,000	-	15
8145	North Fork Nemaha River at Humboldt, Nebr.	G19	531	-	1953-62	21,800	11,000	July 10, 1958	31.70	51,000	96	a1.2
8150	Nemaha River at Falls City, Nebr.	G19	1,340	-	1941,1944-62	22,500	18,000	June 2, 1949	28.8	-	-	-
								June 17, 1954	-	51,400	-	22
8155	Muddy Creek at Verdon, Nebr...	G19	188	-	1953-62	11,200	6,000	July 10, 1958	31.50	31,900	170	a1.4
					Mill Creek basin							
8160	Mill Creek at Oregon, Mo.....	G20	4.90	-	1951-62	650	590	Sept. 3, 1961	7.10	2,730	557	a1.2
					Nodaway River basin							
8170	Nodaway River at Clarinda, Iowa.	G20	762	-	1903,1918-25	9,300	9,000	August 1903	v25.4	(p)	-	-
					1936-62			June 13, 1947	25.3	31,100	-	36
8175	Nodaway River near Burlington Junction, Mo.	G20	1,240	-	1922-62	14,600	12,000	June 14, 1947	-	32,000	-	18
								Mar. 5, 1949	c19.69	-	-	-
					Platte River basin (Iowa-Missouri)							
8195	One Hundred and Two River near Maryville, Mo.	G20	500	-	1926,1933-62	6,940	7,200	Sept.16, 1926	w21.2	14,500	-	9
8200	White Cloud Creek near Maryville, Mo.	G20	6.06	-	1949-62	740	670	June 1, 1949	13.41	4,100	677	a1.6
8203	Big Slough near Wilcox, Mo....	G20	1.30	-	1950-62	380	290	June 21, 1952	5.40	705	542	14
8205	Platte River near Agency, Mo..	G20	1,760	-	1924-30, 1933-62	14,400	14,000	June 23, 1947	30.46	50,000	-	39
8210	Jenkins Branch at Gower, Mo...	G20	2.72	-	1951-62	620	440	May 30, 1956	9.03	1,730	636	50
					Kansas River basin							
8215	Arikaree River at Haigler, Nebr.	C12	1,330	-	1932-62	3,350	3,900	May 31, 1935	d11.2	50,000	-	a1.9
8220	North Fork Republican River near Wray, Colo.	C7	90	-	1937-46, 1952-57	180	160	Aug. 11, 1956	5.43	283	-	5
8230	North Fork Republican River at Colorado-Nebraska State line	C7	130	-	1931-32	370	220	Apr. 28, 1947	5.92	2,110	-	a1.4
8235	Buffalo Creek near Haigler, Nebr.	C7	21	-	1941-62	30	54	Aug. 11, 1950	-	(p)	-	-
								Mar. 7, 1960	c5.78	-	-	-
8240	Rock Creek at Parks, Nebr.....	C7	14	-	1941-62	42	40	July 1, 1962	4.57	110	-	10
8245	Republican River at Benkelman, Nebr.	C12	1,700	-	1904-6,1935, 1947-62	3,170	4,500	May 31, 1935	v13.1	(p)	-	-
								Sept. 7, 1951	-	6,040	-	3

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Kansas River basin--Continued							
8250	South Fork Republican River near Idalia, Colo.	C12	1,300	-	1935,1951-62	4,400	3,900	May 31, 1935	(p)	x103,000	79	a3.9
8255	Landsman Creek near Hale, Colo.	C12	268	-	1935,1951-62	1,920	1,600	May 31, 1935	v10	(p)	-	-
								July 24, 1957	8.84	4,570	-	10
8275	South Fork Republican River near Benkelman, Nebr.	C12	2,550	-	1903-6,1931-32 1935,1938-62	4,650	5,600	May 31, 1935	y10.1	150,000	59	a3.9
8285	Republican River at Stratton, Nebr.	C12	4,800	-	1935,1951-62	5,590	8,000	May 31, 1935	(p)	z200,000	42	a3.7
8295	Republican River at Trenton, Nebr.	B12	5,000	-	1935,1946-62	9,000	8,200	May 31, 1935	(p)	z200,000	40	a3.0
8310	Frenchman Creek below Champion, Nebr.	B7	421	-	1935-56	500	520	June 7, 1940	13.7	2,850	-	21
8315	Frenchman Creek near Imperial, Nebr.	B7	760	-	1940-62	350	820	June 7, 1940	d12.4	(p)	-	-
								Mar. 22, 1960	8.43	2,340	-	8
8335	Frenchman Creek near Hamlet, Nebr.	B7	960	-	1929-56	800	980	June 17, 1956	12.20	7,000	-	36
8345	Stinking Water Creek near Wauneta, Nebr.	B7	340	-	1941-50	440	440	June 6, 1949	6.59	626	-	3
8350	Stinking Water Creek near Palisade, Nebr.	B7	430	-	1950-62	790	540	June 17, 1956	11.30	3,303	-	22
8355	Frenchman Creek at Culbertson, Nebr.	B7	1,560	-	1914,1931-62	1,310	1,400	May 31, 1935	14.8	15,000	-	a1.3
8360	Blackwood Creek near Culbertson, Nebr.	B7	290	-	1946-62	790	400	June 17, 1955	14.64	1,650	-	13
8365	Driftwood Creek near McCook, Nebr.	B12	360	-	1946-62	2,020	1,900	Aug. 7, 1950	25.43	4,740	-	6
8375	Red Willow Creek near McCook, Nebr.	B10	300	-	1935,1941-47, 1958-62	1,850	3,100	June 1, 1935	33.45	45,000	-	a1.8
8380	Red Willow Creek near Red Willow, Nebr.	B10	400	-	1940-62	2,290	3,600	June 22, 1947	18.36	30,000	-	50
8390	Medicine Creek at Maywood, Nebr.	B7	82	-	1951-58	430	150	May 20, 1951	9.90	2,120	-	a1.7
8392	Elkhorn Canyon near Maywood, Nebr.	B10	6.74	-	1952-62	730	510	July 1, 1962	17.47	1,250	-	6
8394	Elkhorn Canyon southwest of Maywood, Nebr.	B10	13.2	-	1952-62	1,220	700	July 5, 1956	27.2	8,660	656	a1.5
8395	Brushy Creek near Maywood, Nebr.	B10	72	-	1947,1951-62	2,520	1,600	June 21, 1947	aa30.4	(p)	-	-
								July 5, 1956	19.41	5,250	-	9
8396	Frazier Creek near Maywood, Nebr.	B10	11.3	-	1952-62	1,080	660	July 5, 1956	27.30	11,200	991	a2.1
8397	Frazier Creek tributary near Maywood, Nebr.	B10	.72	-	1952-62	140	180	July 5, 1956	11.53	483	671	7

8398.5	Fox Creek north of Curtis, Nebr.	B10	13.8	-	1952-62	370	720	May 19, 1959	13.9	2,080	-	8
8399	Fox Creek above Cut Canyon, near Curtis, Nebr.	B10	31.8	-	1951-62	740	1,100	May 20, 1951	23.0	2,810	-	6
8399.5	Cut Canyon near Curtis, Nebr..	B10	25.6	-	1951-62	530	960	July 14, 1952	19.6	1,560	-	4
8400	Fox Creek at Curtis, Nebr.....	B10	77	-	1947,1951-58, 1960-62	970	1,600	June 21, 1947	27.3	(p)	-	-
								May 31, 1951	15.35	3,340	-	5
8405	Dry Creek near Curtis, Nebr...	B10	20	-	1947,1951-58	1,640	860	June 21, 1947	v27.7	25,900	1,295	a3.7
8410	Medicine Creek above Harry Strunk Lake, Nebr.	B10	540	-	1947,1950-62	4,500	4,100	June 22, 1947	24.4	(p)	-	-
								May 13, 1957	19.45	11,200	-	7
8415	Mitchell Creek above Harry Strunk Lake, Nebr.	B10	53	-	1948,1950-62	1,240	1,400	June 21, 1948	28	(p)	-	-
								May 20, 1951	17.35	5,230	-	11
8430	Medicine Creek at Cambridge, Nebr.	B10	680	-	1937-43, 1945-57	7,800	4,600	June 22, 1947	d21.5	120,000	177	a3.2
8440	Muddy Creek at Arapahoe, Nebr.	B10	243	-	1947,1951-62	3,300	2,800	June 22, 1947	31	(p)	-	-
								June 16, 1957	24.62	7,280	-	7
8450	Sappa Creek near Oberlin, Kans.	B7	1,040	-	1927,1929-32, 1941,1944-62	1,770	1,000	July 16, 1944	d15.3	10,600	-	a1.3
8451	Long Branch Draw near Norcatur, Kans.	B12	31.7	-	1957-62	890	500	June 15, 1957	26.40	2,680	-	20
8452	Sappa Creek near Beaver City, Nebr.	B7	1,500	-	1937-62	1,660	1,400	Mar. 23, 1960	20.03	5,690	-	13
8459	Little Beaver Creek tributary near McDonald, Kans.	B12	12	-	1957-62	260	290	July 20, 1957	12.91	1,100	-	11
8460	Beaver Creek at Ludell, Kans..	B7	1,190	-	1929-32, 1946-53, 1961-62	750	1,200	Sept. 8, 1930	j15.0	3,300	-	7
8465	Beaver Creek at Cedar Bluffs, Kans.	B7	1,440	-	1944,1946-62	960	1,300	June 11, 1960	18.71	7,940	-	26
8470	Beaver Creek near Beaver City, Nebr.	B7	1,790	-	1905,1937-62	1,180	1,600	July 19, 1944	d13.8	3,800	-	6
8475	Sappa Creek near Stamford, Nebr.	B7	3,840	-	1944,1946-62	2,320	2,800	June 22, 1947	20.10	7,430	-	7
8476	Prairie Dog Creek tributary at Colby, Kans.	B12	6	-	1957-62	220	200	July 13, 1957	17.86	682	-	10
8480	Prairie Dog Creek at Norton, Kans.	B12	684	-	1944-62	3,850	2,700	May 28, 1953	d25.6	37,500	-	a1.7
8482	Prairie Dog Creek tributary near Norton, Kans.	B12	1.02	-	1957-62	320	76	June 15, 1957	14.15	620	608	49
8485	Prairie Dog Creek near Woodruff, Kans.	B12	980	-	1929-32, 1945-62	2,810	3,300	June 23, 1947	d21.04	15,000	-	15
8500	Turkey Creek at Naponee, Nebr.	E12	138	-	1948-53	530	1,100	Sept.20, 1950	9.50	1,920	-	4
8502	Cottonwood Creek near Bloomington, Nebr.	E12	15.6	-	1948-56	280	340	June 4, 1955	6.65	1,100	-	14
8510	Center Creek at Franklin, Nebr.	E12	57.4	-	1948-56	330	690	Sept.20, 1950	6.8	3,150	-	37
8511	West Branch Thompson Creek at Hildreth, Nebr.	E12	27.4	-	1953-62	310	460	Aug. 15, 1958	13.93	1,290	-	10
8512	West Branch Thompson Creek near Hildreth, Nebr.	E12	56.6	-	1953-62	320	690	June 15, 1957	18.35	1,670	-	7

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contribution drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Kansas River basin--Continued							
8513	West Branch Thompson Creek tributary near Hildreth, Nebr.	El2	13.9	-	1953-62	350	320	June 15, 1957	18.20	907	-	10
8514	West Branch Thompson Creek near Upland, Nebr.	El2	90.8	-	1953-62	600	900	June 15, 1957	14.89	2,040	-	6
8515	Thompson Creek at Riverton, Nebr.	El2	223	-	1949-56	1,270	1,500	July 9, 1950	13.22	12,200	-	al.6
8520	Elm Creek at Amboy, Nebr.....	El2	39.2	-	1948-53	1,050	570	Sept.20, 1950	d8.45	3,860	-	al.4
8538	White Rock Creek near Burr Oak, Kans.	El2	224	-	1950,1958-62	1,640	1,500	July 9, 1950	ab32.6	(p)	-	-
								June 6, 1961	18.96	4,940	-	14
8540	White Rock Creek at Lovewell, Kans.	El2	342	-	1938,1946-62	2,850	1,900	July 10, 1950	d21.62	23,300	-	a2.5
8561	West Salt Creek near Talmo, Kans.	El4	42	-	1941,1957-62	1,760	1,700	June 1941	ac24.45	(p)	-	-
								Sept. 5, 1958	23.25	8,890	-	al.1
8568	Moll Creek near Green, Kans...	El4	4	-	1957-62	380	350	June 16, 1960	16.00	1,200	-	16
8585	North Fork Smoky Hill River near McAllaster, Kans.	Bl2	670	-	1930,1947-53, 1960-62	3,840	2,700	1930	ad14.4	(p)	-	-
								June 8, 1962	10.40	21,700	-	48
8595	Ladder Creek below Chalf Creek, near Scott City, Kans.	Bl2	1,460	-	1933,1938, 1950-62	2,040	4,100	Aug. 6, 1933	ae16.1	42,000	-	al.2
8600	Smoky Hill River at Elkader, Kans.	Bl2	3,560	-	1938,1940-62	4,160	6,800	May 30, 1938	13.2	71,000	-	al.3
8603	South Branch Hackberry Creek near Orion, Kans.	Bl2	49	-	1957-62	460	640	Aug. 25, 1960	18.86	2,300	-	10
8605	Hackberry Creek near Gove, Kans.	Bl2	426	-	1895,1903, 1934,1947-62	1,680	2,100	1895	19.3	20,000	-	al.2
8610	Smoky Hill River near Arnold, Kans.	El2	5,220	-	1938,1948-62	10,800	8,500	May 30, 1938	af20	87,000	-	a2.0
8633	Big Creek near Ogallah, Kans..	El2	297	-	1950,1956-62	1,820	1,700	June 16, 1957	ag19.02	18,500	-	a2.2
8634	Big Creek tributary near Ogallah, Kans.	El2	4.5	-	1957-62	550	170	July 4, 1958	14.94	3,000	667	a3.5
8635	Big Creek near Hays, Kans.....	El2	542	-	1946-62	3,120	2,400	June 17, 1957	ah22.07	22,400	-	al.9
8640	Smoky Hill River near Russell, Kans.	El2	6,965	-	1933,1938, 1940-62	9,260	9,900	May 30, 1938	29.0	70,000	-	al.4
8645	Smoky Hill River at Ellsworth, Kans.	El5	7,530	-	1895-1905, 1912,1919-25, 1927-62	9,800	9,300	June 1, 1938	27.2	61,000	-	al.5
8647	Spring Creek near Kanopolis, Kans.	El5	9	-	1957-62	370	280	May 5, 1961	14.14	750	-	9
8655	Smoky Hill River near Langley, Kans.	El5	7,857	-	1938,1941-62	8,320	8,400	June 1938	28.9	45,000	-	al.1
8660	Smoky Hill River at Lindsborg, Kans.	El5	8,110	-	1895,1903, 1905-23, 1927,1930-62	6,860	8,500	May 1903	33.9	32,000	-	21

8665	Smoky Hill River near Mentor, Kans.	E15	8,230	-	1903,1923-32, 1935,1938, 1948-62	5,930	8,600	May 29, 1903	ai26.5	32,000	-	20	
8669	Saline River near Wakeeney, Kans.	E12	696	-	1950,1956-62	9,240	2,800	July 1, 1950	aj27	(p)	-	-	
								June 17, 1957	19.40	13,000	-	39	
8670	Saline River near Russell, Kans.	E12	1,502	-	1946-53, 1960-62	7,800	4,200	June 28, 1951	19.12	17,000	-	26	
8675	Paradise Creek near Paradise, Kans.	E12	212	-	1946-53	1,940	1,400	July 11, 1951	23.10	14,800	-	a2.1	
8678	Cedar Creek tributary near Bunker Hill, Kans.	E12	.99	-	1957-62	100	75	Aug. 4, 1962	11.60	433	-	a1.2	
8680	Saline River near Wilson, Kans.	E12	1,900	-	1928-62	6,240	4,800	July-Aug. 1928	26.8	25,700	-	a1.1	
8683	Coon Creek tributary near Luray, Kans.	E15	8	-	1957-62	360	260	June 26, 1957	19.57	1,300	-	50	
8685	Wolf Creek near Sylvan Grove, Kans.	E15	261	-	1946-53	2,140	1,500	July 11, 1951	30.96	29,300	-	a3.9	
8689	Elkhorn Creek tributary near Lincoln, Kans.	E15	3	-	1957-62	77	160	July 4, 1958	13.34	330	-	5	
8695	Saline River at Tescott, Kans.	E15	2,820	-	1919-62	4,000	5,000	July 13, 1951	ak30.06	61,400	-	a2.5	
8703	Gypsum Creek near Gypsum, Kans.	E15	120	-	1903,1929, 1951,1955-62	1,280	1,000	May 29, 1903	ab22.2	(p)	-	-	
								Apr. 13, 1955	19.00	6,900	-	a1.4	
8710	North Fork Solomon River at Glade, Kans.	B12	849	-	1953-62	4,800	3,100	June 16, 1957	16.55	23,300	-	41	
8715	Bow Creek near Stockton, Kans.	B12	337	-	1951-62	2,210	1,900	July 12, 1951	13.6	12,900	-	32	
8718	North Fork Solomon River at Kirwin, Kans.	B12	1,360	-	1915,1919-25, 1929-31, 1942-62	4,000	4,000	June 1915	27	54,000	-	a1.6	
8721	Middle Cedar Creek at Kensington, Kans.	B12	57	-	1957-62	840	690	June 16, 1957	29.11	4,000	-	24	
8725	North Fork Solomon River near Downs, Kans.	E15	2,390	-	1915,1946-62	6,850	4,600	June 15, 1915	31.4	(p)	-	-	
								July 12, 1951	30.41	35,700	-	a1.6	
8726	Oak Creek at Bellaire, Kans...	E14	5	-	1957-62	380	400	June 16, 1957	19.70	1,500	-	20	
8730	South Fork Solomon River above Webster Reservoir, Kans.	E12	1,040	-	1908,1935, 1945-62	14,600	3,500	July 12, 1951	d14.9	v55,200	-	a3.2	
8733	Ash Creek tributary near Stockton, Kans.	E15	1.0	-	1957-62	90	90	July 10, 1957	13.42	280	-	12	
8735	South Fork Solomon River at Alton, Kans.	E15	1,720	-	1919-25, 1928-31, 1942-57	4,150	3,900	July 12, 1951	27.1	91,900	53	a4.7	
8740	South Fork Solomon River at Osborne, Kans.	E15	2,024	-	1946-62	3,270	4,200	July 13, 1951	27.65	81,200	-	a3.9	
8745	East Limestone Creek near Ionia, Kans.	E14	27.3	-	1934-38, 1957-62	820	1,200	May 28, 1935	am22.55	3,920	-	14	
8760	Solomon River at Beloit, Kans.	E15	5,530	-	1895-97,1903, 1905,1908, 1915-62	8,180	7,100	July 13, 1951	an39.9	125,000	-	a3.5	
8762	Middle Pipe Creek near Miltonvale, Kans.	E14	9	-	1957-62	620	600	Sept. 4, 1958	19.67	1,050	-	4	
8769	Solomon River at Niles, Kans.	E15	6,770	-	1897-1903, 1918-62	7,900	7,800	July 14, 1951	31.76	178,000	26	a4.6	

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Kansas River basin--Continued							
8772	East Turkey Creek near Elmo, Kan.	E14	24	-	1957-62	1,160	1,200	May 3, 1958	19.93	1,980	-	4
8774	East Turkey Creek tributary near Elmo, Kans.	E14	2.4	-	1957-62	450	250	May 22, 1961	16.76	1,600	667	a1.3
8776	Smoky Hill River at Enterprise, Kans.	E15	19,200	-	1903,1908, 1928-29, 1935-62	12,700	13,000	July 14, 1951	w29.0	233,000	-	a3.6
8780	Chapman Creek near Chapman, Kans.	E14	300	-	1951,1954-62	3,200	6,100	July 1951	25.5	46,700	156	a1.5
8785	Lyon Creek near Woodbine, Kans.	E14	230	-	1951,1954-62	5,930	5,100	July 1951	30	93,000	404	a3.6
8792	Clark Creek near Junction City, Kans.	E14	200	-	1951,1958-62	7,470	4,700	July 10, 1951	19.5	(p)	-	-
								May 22, 1961	17.74	22,800	-	46
8797	Wild Cat Creek at Riley, Kans.	E14	13	-	1957-62	560	760	Mar. 27, 1960	19.85	2,050	-	9
8800	Lincoln Creek near Seward, Nebr.	E12	446	-	1954-62	1,800	2,100	June 17, 1957	20.53	10,100	-	44
8805	Big Blue River at Seward, Nebr.	E12	1,099	-	1954-62	3,050	3,500	June 18, 1957	22.34	15,300	-	32
8807.1	School Creek tributary near Harvard, Nebr.	E12	13.1	-	1952-62	130	310	May 21, 1961	13.16	999	-	14
8807.2	School Creek near Harvard, Nebr.	E12	55.1	-	1953-62	520	680	May 21, 1961	17.64	2,690	-	24
8807.3	School Creek tributary No. 2 near Harvard, Nebr.	E12	14.0	-	1953-62	260	320	June 6, 1961	18.80	1,120	-	17
8807.4	School Creek near Saronville, Nebr.	E12	89.4	-	1952-62	810	890	Mar. 27, 1960	-	3,720	-	28
								May 22, 1961	19.86	-	-	-
8808	West Fork Big Blue River near Dorchester, Nebr.	E12	1,206	-	1950,1958-62	4,310	3,800	July 10, 1950	24.8	49,400	-	a2.6
8810	Big Blue River near Crete, Nebr.	E12	2,716	-	1945-62	6,250	5,800	July 10, 1950	28.74	27,600	-	43
8830	Little Blue River near Deweese, Nebr.	E12	997	-	1951-62	4,000	3,400	June 26, 1951	-	18,500	-	a1.1
								June 17, 1957	15.00	-	-	-
8836	South Fork Big Sandy Creek near Edgar, Nebr.	E12	15.2	-	1953-62	170	330	Mar. 27, 1960	13.57	600	-	4
8837	South Fork Big Sandy Creek near Davenport, Nebr.	E12	32.0	-	1950,1952-62	420	500	Mar. 27, 1960	17.78	1,870	-	20
8838	South Fork Big Sandy Creek near Carleton, Nebr.	E12	49.4	-	1952-62	690	640	Mar. 27, 1960	17.02	3,690	-	a1.2
8839	South Fork Big Sandy Creek near Hebron, Nebr.	E12	81.9	-	1952-62	1,160	850	Mar. 27, 1960	21.90	3,220	-	21
8840	Little Blue River near Fairbury, Nebr.	E12	2,350	-	1908-15, 1929-62	7,740	5,400	June 27, 1951	d16.36	36,800	-	a1.4

8841	Mill Creek tributary near Haddam, Kans.	E14	1.64	-	1957-62	180	190	Sept.11, 1961	16.60	690	-	19
8843	Mill Creek tributary near Washington, Kans.	E14	3	-	1957-62	240	290	July 4, 1959	16.88	1,070	-	19
8845	Little Blue River at Waterville, Kans.	E14	3,330	-	1903,1922-25, 1929-62	12,700	13,000	May 31, 1903	f28.0	73,000	-	a1.1
8849	Robidoux Creek at Beattic, Kans.	H14	40	-	1957-62	2,820	1,600	Mar. 27, 1960	22.46	6,200	-	32
8855	Black Vermillion River near Frankfort, Kans.	H14	412	-	1948,1951, 1954-62	14,400	7,500	Aug. 3, 1948	30.2	(p)	-	-
								May 30, 1959	29.40	38,300	-	a1.1
8865	Fancy Creek at Winkler, Kans..	E14	176	-	1954-62	3,930	4,200	August 1944	ao22.3	(p)	-	-
								Sept. 5, 1958	21.80	19,600	-	41
8872	Cedar Creek near Manhattan, Kans.	H14	14.5	-	1957-62	1,780	820	May 28, 1962	19.80	3,500	-	43
8876	Kansas River tributary near Wamego, Kans.	H14	2.3	-	1951,1957-62	235	240	July 3, 1958	c18.55	1,290	561	9
8880	Vermillion Creek near Wamego, Kans.	H14	243	-	1915,1936-46, 1951,1954-62	6,130	5,300	June 1915	ap30.9	38,500	158	a1.6
8885	Mill Creek near Paxico, Kans..	H14	316	-	1951,1954-62	11,100	6,300	July 12, 1951	v34.7	77,200	244	a2.7
8886	Dry Creek near Maple Hill, Kans.	H14	15	-	1957-62	1,680	840	Aug. 21, 1958	18.42	(p)	-	-
								May 5, 1959	16.85	3,000	-	25
8889	Blacksmith Creek tributary near Valencia, Kans.	H14	1.0	-	1957-62	330	140	July 10, 1957	12.20	590	590	41
8895	Soldier Creek near Topeka, Kans.	H14	268	-	1929-62	5,250	5,600	June 22, 1951	j28.15	11,400	-	7
								July 12, 1951	aq29.06	-	-	-
8900	Little Delaware River near Horton, Kans.	H14	19	-	1951,1955-61	690	970	July 1951	18	(p)	-	-
								July 31, 1958	14.63	893	-	2
8903	Spring Creek near Wetmore, Kans.	H14	20	-	1957-62	1,450	1,000	July 31, 1958	21.38	8,710	-	a1.9
8905	Delaware River at Valley Falls, Kans.	H14	922	-	1865,1903-4, 1908,1915, 1922-62	16,600	13,000	June 21, 1951	x32.08	94,600	103	a1.6
8908	Slough Creek near Oskaloosa, Kans.	H14	29	-	1957-62	2,550	1,300	Oct. 12, 1961	22.31	11,900	410	a2.0
8915	Wakarusa River near Lawrence, Kans.	H14	458	-	1921,1929-62	8,310	8,000	July 12, 1951	a,r31.59	24,200	-	16
8920	Stranger Creek near Tonganoxie, Kans.	H14	406	-	1929-62	6,040	7,400	July 12, 1951	-	33,100	-	49
								Aug. 1, 1958	w28.54	-	-	-
	Blue River basin											
8935	Blue River near Kansas City, Mo.	G19	188	-	1939-62	8,450	6,000	Sept.13, 1961	v44.46	41,000	218	a1.8
	Little Blue River basin											
8940	Little Blue River near Lake City, Mo.	G19	184	-	1948-62	3,400	5,900	Sept.14, 1961	27.94	9,460	-	5

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Fishing River basin							
8945	East Fork Fishing River at Excelsior Springs, Mo.	H19	20.0	-	1947,1951-62	3,300	1,700	June 22, 1947	19.0	(p)	-	-
								July 6, 1951	15.3	23,100	1,160	a3.0
					Crooked River basin							
8950	Crooked River near Richmond, Mo.	H19	159	-	1948-62	4,000	5,400	July 6, 1951	28.8	27,000	170	a1.1
					Wakenda Creek basin							
8960	Wakenda Creek at Carrollton, Mo.	H19	248	-	1948-62	5,150	7,000	Mar. 20, 1948	-	7,000	-	2
								July 17, 1951	as23.4	-	-	-
								July 2, 1960	-	7,000	-	2
					Grand River basin							
8961.8	DeMoss Branch near Stanberry, Mo.	H19	0.38	-	1955-62	180	180	July 19, 1958	18.81	399	1,050	8
8965	Thompson Branch near Albany, Mo.	H19	5.58	-	1956-62	650	820	Sept.23, 1959	11.6	1,700	-	7
8967	O'Neill Branch at Osborn, Mo..	H19	.80	-	1955-62	250	270	July 30, 1958	24.20	1,320	1,650	a1.1
8970	East Fork Big Creek near Bethany, Mo.	H19	95	-	1909,1934-62	2,770	4,100	July 6, 1909	v23.8	(p)	-	-
								June 6, 1947	17.65	8,120	-	7
8972	Simpson Branch near Bethany, Mo.	H19	4.72	-	1955-62	1,870	750	Aug. 1, 1956	14.42	4,500	953	a1.3
8975	Grand River near Gallatin, Mo.	H19	2,250	-	1909,1922-62	28,000	25,000	July 8, 1909	v40	(p)	-	-
								June 24, 1947	34.55	69,100	-	13
8980	Thompson River at Davis City, Iowa.	H19	701	-	1885,1897,1903, 1909,1914-15, 1918-26,1941-62	7,900	13,000	Aug. 8, 1885	22.8	30,000	-	9
8985	Weldon River near Mercer, Mo..	H19	246	-	1939-62	11,700	7,000	Aug. 6, 1959	28.4	50,000	203	a1.6
8990	Weldon River at Mill Grove, Mo.	H19	494	-	1909,1930-62	11,900	10,000	Aug. 7, 1959	v26.02	46,000	93	50
8995	Thompson River at Trenton, Mo.	H19	1,670	-	1909,1922-23, 1928-62	24,800	21,000	June 6, 1947	25.7	95,000	57	50
8996	West Fork Leakey Branch near Chillicothe, Mo.	H19	.21	-	1955-62	185	130	Aug. 1, 1956	10.80	331	1,580	11
8997	Shoal Creek near Braymer, Mo..	H19	391	-	1958-62	5,500	9,000	Sept.15, 1961	25.94	8,100	-	2
9000	Medicine Creek near Galt, Mo..	H19	225	-	1909,1922-62	7,400	6,600	June 6, 1947	j18.9	24,200	-	27
9013	Moffet Branch near Roger, Mo..	H20	.13	-	1955-62	275	84	Oct. 5, 1955	7.58	370	2,850	47
9015	Locust Creek near Linneus, Mo.	H20	550	-	1909,1930-62	10,200	7,600	June 6, 1947	26.93	38,000	-	a1.1
9020	Grand River near Sumner, Mo...	H19	6,880	-	1909,1922-62	57,500	46,000	June 7, 1947	39.5	180,000	26	33

9025	Hamilton Branch near New Boston, Mo.	H20	2.51	-	1956-62	575	410	June 30, 1960	8.10	800	-	6
9028	Onion Branch at St. Catherine, Mo.	H20	1.04	-	1955-62	220	250	July 15, 1958	17.11	982	144	33
9030	Yellow Creek near Rothville, Mo.	H20	405	-	1909,1929-32, 1947-59, 1961-62	7,200	6,400	July 1909 June 1947	- v23.1	15,000 (p)	- -	9 -
					Chariton River basin							
9035	Honey Creek near Russell, Iowa	H20	13.2	-	1952-62	1,000	1,000	May 21, 1959	11.26	4,100	-	38
9039	Chariton River near Rathbun, Iowa.	H20	551	-	1957-62	13,200	7,600	Mar. 31, 1960	25.3	21,800	-	14
9040	Chariton River near Centerville, Iowa.	H20	708	-	1938-59	5,700	8,700	June 20, 1946	24.20	21,700	-	10
9045	Chariton River at Novinger, Mo.	H20	1,370	-	1917,1922-52, 1955-62	9,650	12,000	June 1917 June 7, 1947	v28.6 28.50	(p) 22,900	- -	- 6
9047	Strop Branch near Novinger, Mo.	H20	.96	-	1955-62	380	250	July 1, 1956	14.46	1,730	1,800	al.5
9055	Chariton River near Prairie Hill, Mo.	H20	1,870	-	1929-62	13,100	15,000	June 8, 1947	d25.3	25,600	-	5
9057	Puzzle Creek near Salisbury, Mo.	H20	.80	-	1955-62	157	220	July 19, 1958	8.50	556	695	11
					Lamine River basin							
9070	Lamine River at Clifton City, Mo.	G19	598	-	1905,1907, 1922-62	16,500	12,000	Sept.18, 1905	v35.3	90,000	151	al.9
9072	Sharer Creek tributary near Clifton, Mo.	G19	1.65	-	1955-62	640	410	July 19, 1958	11.85	1,600	970	50
9075	East Branch South Fork Blackwater River near Elm, Mo.	G19	16.4	-	1951,1954-62	1,950	1,500	July 1951 Apr. 15, 1960	14.8 12.0	(p) 5,600	- -	- 44
9080	Blackwater River at Blue Lick, Mo.	G19	1,120	-	1905,1923-33, 1938-62	12,200	16,000	Nov. 18, 1928	41.25	54,000	-	34
9083	Trent Branch near Waverly, Mo.	G19	.97	-	1955-62	520	300	Aug. 1, 1961	19.87	1,190	1,230	50
9085	Shiloh Branch near Marshall, Mo.	G19	2.87	-	1953-62	620	560	Sept.13, 1961	7.58	934	-	6
					Bonne Femme Creek basin							
9094	Cottonwood Creek tributary at Estill, Mo.	G19	0.30	-	1958-62	48	160	July 3, 1958	15.92	265	883	6
					Moniteau Creek basin							
9095	Moniteau Creek near Fayette, Mo.	G19	31	-	1944,1949-62	2,310	3,700	April 1944 Sept.13, 1961	v22.9 19.6	(p) 4,330	- -	- 3
					Petite Saline Creek basin							
9097	Petite Saline Creek tributary near Bellair, Mo.	G19	0.49	-	1955-62	150	210	May 5, 1961	17.25	573	1,170	19

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
					Petite Saline Creek basin--Continued							
9100	Petite Saline Creek near Booneville, Mo.	G19	182	-	1921,1949-62	3,510	5,900	Oct. 21, 1949	v23.50	6,120	-	3
					Perche Creek basin							
9102	Cow Branch near Columbia, Mo..	G19	1.01	-	1955-62	300	310	July 18, 1958	13.13	625	619	9
					Little Bonne Femme Creek basin							
9102.5	Traxler Branch near Columbia, Mo.	G19	0.55	-	1958-62	210	220	July 18, 1958	14.97	668	1,210	26
					Peden Branch basin							
9103	Peden Branch near Jefferson City, Mo.	G19	0.18	-	1957-62	93	120	Aug. 16, 1957	13.26	144	800	3
					Baldwin Branch basin							
9104	Baldwin Branch near Jefferson City, Mo.	G19	0.60	-	1958-62	550	230	Aug. 16, 1958	16.10	1,580	2,630	a1.8
					Moreau River basin							
9105	Moreau River near Jefferson City, Mo.	G19	531	-	1905,1948-62	11,000	11,000	1905	38.20	(p)	-	-
								June 23, 1948	27.0	23,000	-	10
9107	Hazel Branch tributary near Wardsville, Mo.	G19	.13	-	1957-62	100	97	May 5, 1961	11.88	192	1,480	9
					Osage River basin							
9110	Marais des Cygnes River at Melvern, Kans.	H19	363	-	1940-62	8,110	8,700	July 11, 1951	30.8	68,500	189	a1.8
9115	Salt Creek near Lyndon, Kans..	H19	111	-	1940-62	4,100	4,400	July 11, 1951	17.0	36,400	328	a1.8
9120	Switzler Creek at Burlingame, Kans.	H19	26.3	-	1955-61	1,710	2,000	July 20, 1958	18.65	4,800	-	10
9123	Dragoon Creek tributary near Lyndon, Kans.	H19	3.6	-	1957-62	700	640	July 10, 1957	14.71	2,000	556	17
9125	Hundred and Ten Mile Creek near Quenemo, Kans.	H19	321	-	1940-62	7,500	8,100	July 11, 1951	d28.47	a t38,600	120	a1.1
9135	Marais des Cygnes River near Ottawa, Kans.	H19	1,250	-	1903-5,1919-62	13,000	17,000	July 11, 1951	au42.50	142,000	114	a1.9

9136	Rock Creek near Ottawa, Kans..	H19	10	-	1957-62	510	1,100	Sept.13, 1961	20.19	(p)	-	-
9137	Middle Creek near Princeton, Kans.	H19	50	-	1951,1957-62	2,280	2,800	Sept.13, 1961	29.73	10,000	-	25
9140	Pottawatomic Creek near Garnett, Kans.	H19	334	-	1928,1940-62	10,700	8,300	Sept.13, 1961	av35.38	57,000	171	a1.5
9150	Big Bull Creek near Hillsdale, Kans.	H19	147	-	1951,1958-62	7,600	5,200	July 11, 1951	u21.2	45,200	307	a1.9
9160	Marvais des Cygnes River at Trading Post, Kans.	H19	2,880	-	1929-58	21,600	28,000	July 14, 1951	38.12	148,000	51	a1.2
9165	Big Sugar Creek at Farlinville, Kans.	H19	198	-	1898,1928, 1929-32, 1949-62	7,600	6,200	1898	31	(p)	-	-
								Sept.13, 1961	30.28	37,600	190	a1.3
9170	Little Osage River at Fulton, Kans.	H19	295	-	1949-62	10,200	7,700	May 6, 1961	29.38	20,700	-	12
9174	Marmaton River tributary near Fort Scott, Kans.	H19	3	-	1957-62	935	580	May 5, 1961	15.85	1,600	533	13
9175	Marmaton River near Fort Scott, Kans.	H19	393	-	1915,1922-24 1929-62	14,500	9,100	Sept. 7, 1915	aw44.2	(p)	-	-
								May 6, 1961	42.67	38,100	-	40
9182	North Fork Panther Creek tributary near Appleton City, Mo.	H19	.03	-	1955-62	55	45	May 16, 1957	5.92	88	2,930	6
9183	West Fork Clear Creek tributary near Nevada, Mo.	H19	.51	-	1955-62	353	210	May 5, 1960	8.72	395	775	6
9184	Pickerel Creek tributary near Republic, Mo.	H19	.57	-	1957-62	148	220	May 22, 1957	9.75	242	-	3
9187	Oak Grove Branch near Brighton, Mo.	H19	1.30	-	1957-62	320	360	May 22, 1957	7.60	845	650	9
9190	Sac River near Stockton, Mo...	H19	1,160	-	1896,1909, 1922-62	23,000	17,000	May 19, 1943	31.8	120,000	103	21.6
9195	Cedar Creek near Pleasant View, Mo.	H19	420	-	1909,1924-26, 1943,1949-62	10,000	9,400	July 20, 1909	27.7	33,900	-	25
								July 17, 1958	27.35	(p)	-	-
9205	Osage River at Osceola, Mo....	H19	8,220	-	1844,1896, 1918-29, 1931-62	46,000	51,000	June 1844	v45	150,000	-	15
9208	Big Muddy Creek at Lowry City, Mo.	H19	.31	-	1955-62	137	160	Oct. 10, 1959	10.08	180	581	3
9210	Pomme de Terre River near Bolivar, Mo.	H19	225	-	1951-62	10,000	6,600	Apr. 30, 1961	17.60	18,300	-	13
9211	Olinger Creek near Buffalo, Mo.	H19	1.96	-	1957-62	1,020	450	May 5, 1961	16.4	3,250	1,660	a1.6
9212	Lindley Creek near Polk, Mo...	H19	112	-	1914,1957-62	7,800	4,500	September 1914	25.2	(p)	-	-
								May 5, 1961	23.60	28,000	250	a1.4
9214	Ferguson Branch at Nemo, Mo...	H19	.18	-	1957-62	72	120	May 30, 1957	10.00	304	1,690	11
9215	Pomme de Terre River at Hermitage, Mo.	H19	655	-	1922-62	19,700	12,000	Aug. 8, 1927	36.45	70,000	107	a1.3
9217	West Branch Crawford Creek near Lees Summit, Mo.	H19	.80	-	1955-62	292	270	Apr. 6, 1960	15.57	839	1,050	17
9218	Granddaddy Creek near Urich, Mo.	H19	.92	-	1958-62	290	290	May 18, 1959	10.23	1,150	1,250	34
9220	South Grand River near Browningtion, Mo.	H19	1,660	-	1915,1922-62	15,500	20,000	Nov. 19, 1928	39.9	63,900	-	19

See footnotes at end of table.

Table 1.--Maximum and mean annual floods at gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Mean basin elevation (feet)	Period of known flood (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood				
								Date	Gage height (feet)	Discharge		Recurrence interval (years)
										Cfs	Cfs per sq mi	
	Osage River basin--Continued											
9227	Chub Creek near Lincoln, Mo...	H19	2.86	-	1958-62	530	560	Nov. 16, 1958	19.68	900	-	5
9230	Niangua Branch at Marshfield, Mo.	H19	.82	-	1951-62	225	270	May 21, 1957	7.32	438	534	5
9240	Niangua River near Decaturville, Mo.	H19	627	-	1914,1923-62	13,500	12,000	September 1914	28	(p)	-	-
								May 19, 1943	21.84	33,400	-	13
9252	Starks Creek at Preston, Mo...	H19	4.18	-	1957-62	1,120	700	May 17, 1957	9.56	1,400	-	7
9252.7	Dry Auglaize Creek tributary near Lebanon, Mo.	H19	.21	-	1955-62	78	130	May 22, 1957	10.42	167	795	3
9253	Prairie Branch near Decaturville, Mo.	H19	1.48	-	1955-62	760	390	July 16, 1958	13.06	2,000	1,350	a1.1
9254.5	Little Gravois Creek near Versailles, Mo.	H21	4.74	-	1955-62	1,000	900	July 8, 1958	16.45	4,960	1,050	a1.2
9262	Van Cleve Branch near Meta, Mo.	H21	.75	-	1957-62	340	320	May 22, 1957	6.35	1,200	1,600	29
9268	Long Branch near Vienna, Mo...	H21	.32	-	1957-62	140	190	Apr. 22, 1957	9.98	365	1,140	6
9270	Maries River at Westphalia, Mo.	H21	257	-	1937,1948-62	12,000	8,700	June 8, 1937	22.8	(p)	-	-
								May 17, 1957	18.21	20,000	-	9
	Auxvasse Creek basin											
9271	Doane Branch near Kingdom City, Mo.	G19	0.54	-	1955-62	76	220	June 30, 1957	14.20	623	1,150	21
9272	Big Hollow near Fulton, Mo....	G19	4.05	-	1957-62	550	680	Oct. 9, 1958	5.81	936	-	4
	Gasconade River basin											
9276	Wheeler Branch near Mountain Grove, Mo.	H21	1.34	-	1955-62	440	440	June 16, 1958	6.32	940	701	8
9280	Gasconade River near Hazlegreen, Mo.	H21	1,250	-	1915-16, 1929-62	26,900	21,000	January 1916	v30.6	90,000	72	43
9282	Laquey Branch near Hazlegreen, Mo.	H21	1.58	-	1958-62	740	480	May 5, 1961	5.09	825	522	5
9285	Gasconade River near Waynesville, Mo.	H21	1,680	-	1915-62	25,200	25,000	Aug. 22, 1915	24.3	89,000	53	25
9290	Coyle Branch at Houston, Mo...	H21	1.10	-	1950-55,1959-62	340	390	June 30, 1951	5.02	1,030	936	12
9300	Big Piney River near Big Piney, Mo.	H21	560	-	1922-62	12,600	13,000	Dec. 27, 1942	20.7	32,700	-	10
9310	Beaver Creek near Rolla, Mo...	H21	14.0	-	1949-62	2,280	1,700	June 9, 1950	5.61	3,800	-	8
9315	Little Beaver Creek near Rolla, Mo.	H21	6.41	-	1948-62	1,530	1,100	July 17, 1958	ax8.57	7,420	1,160	a1.5
9320	Little Piney Creek at Newburg, Mo.	H21	200	-	1915,1929-62	7,910	7,500	Aug. 20, 1915	16.7	-	-	-
								Aug. 14, 1946	-	32,500	162	45

9335	Gasconade River at Jerome, Mo.	H21	2,840	-	1897,1904-5, 1915,1923-62	34,500	34,000	Jan. 6, 1897	v29.0	120,000	42	24
9337	Penzer Hollow near Rolla, Mo..	H21	.27	-	1956-62	112	180	May 21, 1957	18.52	276	1,020	4
9340	Gasconade River near Rich Fountain, Mo.	H21	3,180	-	1922-62	32,000	36,000	Apr. 16, 1945	29.13	96,400	-	12
					Loutre River basin							
9350	Rumbo Branch at Danville, Mo..	G19	1.40	-	1954-62	220	370	July 6, 1955	6.34	434	-	3
9355	Loutre River at Mineola, Mo...	G19	202	-	1928,1948-62	8,450	6,300	June 20, 1928	28.9	(p)	-	-
								June 30, 1957	20.88	12,900	-	10
					Little Berger Creek basin							
9357	Little Berger Creek tributary near Hermann, Mo.	H21	0.25	-	1955-62	160	170	June 29, 1957	22.31	576	2,300	22

a Ratio of maximum discharge to that of 50-year flood.
b Backwater from Maple River.
c Backwater from ice or debris.
d Site and datum then in use.
e Daily discharge.
f Site and datum of 1929.
g Highest flood known occurred Aug. 3, 1933, when Castlewood Dam failed.
h Caused by failure of Georgetown Dam.
i Maximum discharge known, 8,700 cfs Aug. 1, 1888, at site 5½ miles upstream.
j Datum then in use.
k Adjusted for inflow from Moffat water tunnel.
m Not determined; maximum determined, 21,000 cfs June 9, 1891, caused by failure of Chambers Lake Dam.
n Maximum 5-minute inflow.
p Not determined.
q Maximum stage known since at least 1929.
r Site then in use.
s May have been greater during ice breakup Mar. 10, 1955.
t Backwater from Salt Creek.
u Maximum stage known since about 1910.
v Maximum known.
w Site used 1937-40.
x Present site and datum.
y Maximum flood known since at least 1865.
z Maximum flood known since at least 1826.
aa Maximum stage known since at least 1906.
ab Maximum stage known since at least 1869.
ac Maximum stage known since at least 1883.
ad At site and datum used 1947-53. Maximum stage known, about 16 ft at 1947-53 site, date unknown.
ae Augmented by failure of dam at Lake McBride.
af Site and datum of 1956.
ag Maximum stage known since at least 1914.
ah Maximum stage known since at least 1908.
ai Site and datum of 1923-32.
aj Maximum stage known since at least 1879.
ak Maximum stage known since at least 1903.
am Datum used since 1957.
an Maximum stage known since at least 1877, present site and datum.
ao Maximum stage known since at least 1915.
ap Maximum stage known since at least 1873.
aq Backwater from Kansas River, datum then in use.
ar Maximum stage known since at least 1880.
as Backwater from Missouri River.
at Maximum known since at least 1919.
au Maximum stage known since at least 1864.
av Maximum stage known since at least 1858 or 1844.
aw Maximum stage known since at least 1904.
ax Maximum stage known since at least 1881 or 1882.

Table 2.--Maximum and mean annual floods at gaging stations not used to define regional flood-frequency relations

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood			
							Date	Gage height (feet)	Discharge	
									Cfs	Recurrence interval (years)
	Missouri River main stem									
4860	Missouri River at Sioux City, Iowa	-	314,600	1929-31,1939-62	136,000	-	Apr. 14, 1952	24.28	441,000	-
	Little Sioux River basin									
6051	Little Sioux River at Spencer, Iowa	G16	1,030	1936-42	-	1,500	1936 Sept.16, 1938	15.4 14.97	(a) 5,000	- 32
	Missouri River main stem									
6100	Missouri River at Omaha, Nebr....	-	322,800	1929-62	130,000	-	Apr. 18, 1952	30.20	396,000	-
	Platte River basin									
6115	Grizzly Creek near Walden, Colo..	A1	252	1904-5, 1923, 1927-47	-	-	June 10, 1923 Apr. 16, 1938	- b6.29	1,340 -	- -
6120	Little Grizzly Creek near Hebron, Colo.	A1	96	1905, 1932-45	-	-	June 11, 1905	5.92	592	-
6125	Roaring Fork near Walden, Colo...	A1	84	1904-5, 1924-47	-	-	June 5, 1905	c4.00	-	-
6140	North Fork North Platte River near Walden, Colo.	A1	168	1924-28,1937-45	-	-	Apr. 19, 1926	c2.63	694	-
6175	Illinois Creek near Rand, Colo...	A1	71	1932-40	-	-	May 23, 1932	2.58	745	-
6180	Willow Creek near Rand, Colo.....	A1	71	1932-40	-	-	June 7, 1933	3.40	200	-
6225	French Creek near French, Wyo....	A1	60	1911-24	-	-	June 11, 1921	3.0	1,680	-
6240	Encampment River above Encampment, Wyo.	A1	205	1940-44	-	-	June 1, 1943	7.05	3,920	-
6245	Encampment River at Encampment, Wyo.	A1	219	1900,1911-24, 1929-32	-	-	May 29, 1900	d3.20	4,680	-
6275	Jack Creek at Matheson Ranch, near Saratoga, Wyo.	A1	40.9	1914-17,1919-24	-	-	May 23, 1920	4.90	334	-
6310	Medicine Bow River near Medicine Bow, Wyo.	A1	178	1911-12,1915-17, 1919-24	-	-	June 23, 1917	5.4	2,810	-
6330	Rock Creek near Rock River, Wyo.	A1	184	1911-12,1928-32	-	-	June 4, 1912	d4.2	1,350	-
6360	North Platte River above Pathfinder Reservoir, Wyo.	-	6,650	1914-39-1951-59	11,500	-	June 26, 1917	6.2	18,800	12
6365	Sage Creek above Pathfinder Reservoir, Wyo.	A1	182	1915-25	-	-	Apr. 7, 1924	c6.73	1,180	-
6379.1	Rock Creek at Atlantic City, Wyo.	A1	21.3	1957-62	-	-	May 24, 1958	2.63	146	-
6410	North Platte River below Pathfinder Reservoir, Wyo.	-	10,010	1917, 1950-60	-	-	June 26, 1917	-	e18,900	-

6420	North Platte River at Alcova, Wyo.	-	10,080	1904-5,1935-62	-	-	June 10, 1905	d11.5	13,400	-
6435	North Platte River near Goose Egg, Wyo.	-	10,740	1917,1947, 1950-60	-	-	June 25, 1917	-	19,200	-
6450	North Platte River below Casper, Wyo.	-	11,730	1929-59	5,700	-	May 30, 1929	d8.00	13,800	f1.2
6455	North Platte River at Parkerton, Wyo.	-	12;100	1919-24	-	-	June 15, 1921	-	e16,500	-
6495	La Prele Creek near Orpha, Wyo...	B6	177	1924, 1929-62	-	420	Sept. 6, 1946	7.30	1,340	9
6500	North Platte River near Douglas, Wyo.	-	13,190	1929-39,1946-59	-	-	July 13, 1937	d8.44	16,700	-
6520	North Platte River at Orin, Wyo..	-	13,700	1895,1899,1958-65	7,000	-	May 14, 1965	10.00	23,800	50
6528	North Platte River below Glendo Reservoir, Wyo.	-	14,300	1946-62	-	-	Sept. 7, 1946	d6.12	9,780	-
6560	North Platte River below Guernsey Reservoir, Wyo.	-	15,020	1903-6, 1908, 1912, 1941-62	-	-	June 2, 1908	d11.5	30,000	-
6570	North Platte River at recorder station, below Whalen, Wyo.	-	15,210	1909, 1938-62	-	-	June 26, 1955	9.85	22,000	-
6585	Laramie River near Jelm, Wyo.....	A1	294	1905-62	-	-	June 9, 1923	4.15	4,200	-
6590	Laramie River at Woods Landing, Wyo.	A1	375	1891,1896-1900, 1911	-	-	June 25, 1899	4.65	4,500	-
6595	Laramie River and Pioneer Canal near Woods, Wyo.	A1	434	1912-24, 1927, 1932-62	-	-	June 10, 1923	-	5,060	-
6600	Laramie River at Laramie, Wyo....	A1	920	1933-62	-	-	June 15, 1957	6.83	3,250	-
6690	Laramie River at Uva, Wyo.....	B6	3,179	1895-99	-	-	June 26, 1899	6.0	3,610	-
6695	Chugwater Creek at Chugwater, Wyo.	B5	380	1911-12,1915-21, 1938-40,1955	-	230	June 25, 1955	-	13,400	f7.1
6720	North Platte River at Torrington, Wyo.	-	19,700	1917-23,1931-39	-	-	June 17, 1921	c10.40	24,000	-
6745	North Platte River at Wyoming-Nebraska State line	-	20,120	1929-62	2,400	-	June 2, 1929	7.04	17,900	-
6795	North Platte River at Mitchell, Nebr.	-	22,240	1901-11,1916-18, 1920-62	2,500	-	June 3, 1909	c6.45	27,500	-
6800	Tub Springs near Scottsbluff, Nebr.	D11	-	1949-62	-	-	June 21, 1952	-	1,610	-
6805	North Platte River at Scottsbluff, Nebr.	-	28,500	1897-1900, 1913, 1917-18	-	-	May 30, 1897	c3.50	27,900	-
6810	Winter Creek near Scottsbluff, Nebr.	D11	-	1932-62	-	-	Jan. 7, 1949 June 10, 1957	b9.34 -	- 1,090	- -
6820	North Platte River near Minatare, Nebr.	-	28,700	1908-9,1916-19, 1922-62	3,400	-	July 2, 1917	-	g19,500	-
6845	North Platte River at Bridgeport, Nebr.	-	29,400	1897-1900,1902-6, 1915-62	3,800	-	June 26, 1899	d5.39	24,900	-
6860	North Platte River at Lisco, Nebr.	-	30,800	1916-17,1932-62	3,500	-	June 27, 1917	-	20,100	-
6865	North Platte River at Oshkosh, Nebr.	-	31,400	1916,1928-35, 1940-60	3,500	-	June 4, 1929	-	19,500	-
6875	North Platte River at Lewellen, Nebr.	-	34,000	1941-42,1944-47, 1949-62	3,900	-	June 29, 1947	-	9,140	33
6880	North Platte River at Belmar, Nebr.	-	34,500	1918-25	-	-	June 20, 1921	-	23,000	-

See footnotes at end of table.

Table 2.--Maximum and mean annual floods at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood			
							Date	Gage height (feet)	Discharge	
									Cfs	Recurrence interval (years)
				Platte River basin--Continued						
6905	North Platte River near Keystone, Nebr.	-	35,000	1917,1942-62	-	-	June 30, 1917	-	20,300	-
6910	North Platte River near Sutherland, Nebr.	-	35,500	1917,1933,1935, 1937-62	-	-	June 29, 1917	-	20,300	-
6930	North Platte River at North Platte, Nebr.	-	36,400	1895-1962	2,400	-	June 11, 1909	-	29,600	-
6950	South Platte River above Elevenmile Canyon Reservoir near Hartsel, Colo.	-	880	1939-62	740	-	June 19, 1949 July 22, 1957	- 4.76	1,290 -	- -
6960	South Platte River near Lake George, Colo.	-	963	1930-62	-	-	Aug. 15, 1930 June 20, 1949	- 5.85	990 -	- -
6962	South Platte River at Lake George, Colo.	-	1,070	1913-15,1917, 1920-21,1923	-	-	July 17, 1923	-	h7,000	-
6985	Tarryall Creek near Jefferson, Colo.	A4	223	1912-17	-	-	July 9, 1917	4.1	1,320	-
7000	South Platte River above Cheesman Lake, Colo.	-	1,680	1925-43	-	-	Aug. 6, 1936	5.30	3,030	-
7015	South Platte River below Cheesman Lake, Colo.	-	1,752	1926-62	-	-	Apr. 23, 1942	d8.46	3,020	-
7055	Geneva Creek at Grant, Colo.....	A4	74	1909-17	-	-	June 1, 1914	4.3	1,700	-
7075	South Platte River at South Platte, Colo.	-	2,579	1904-62	1,730	-	June 8, 1921	8.95	6,320	-
7080	South Platte River at Waterton, Colo.	-	2,621	1926-62	1,140	-	Apr. 23, 1942	5.68	5,700	-
7085	Deer Creek near Littleton, Colo.	B9	21.8	1942-46	-	82	May 9, 1944	2.90	162	5
7100	South Platte River at Littleton, Colo.	-	3,069	1942-65	1,700	-	June 16, 1965	15.45	110,000	-
7140	South Platte River at Denver, Colo.	-	3,804	1895-1901,1903-6, 1909-65	3,400	-	June 17, 1965	15.0	40,300	-
7170	Fall River near Idaho Springs, Colo.	A4	23.6	1930-38	-	-	June 29, 1938	2.08	325	-
7205	South Platte River at Henderson, Colo.	-	4,713	1926-65	3,600	-	June 17, 1965	12.93	29,600	-
7210	South Platte River at Fort Lupton, Colo.	-	5,010	1929-65	3,500	-	June 17, 1965	9.40	36,900	-
7215	North St. Vrain Creek near Allens Park, Colo.	A3	33	1926-30	-	-	June 9, 1929	-	1,000	-
7230	Middle St. Vrain Creek near Allens Park, Colo.	A3	28	1926-30	-	-	June 6, 1926	2.65	387	-

7280	Boulder Creek near Boulder, Colo.	B9	129	1889-92,1895-1901, 1904-8	-	410	June 10, 1897	5.00	1,600	12
7355	Big Thompson River near Estes Park, Colo.	A3	158	1930-47	-	-	June 20, 1933 June 16, 1935	- 5.54	2,800 -	- -
7365	Big Thompson River below powerhouse, near Drake, Colo..	B8	277	1918-47	-	1,350	July 31, 1919	d9.5	8,000	24
7380	Big Thompson River at mouth of canyon, near Drake, Colo.	B8	302	1888,1895-99, 1902,1903,1906, 1927-33,1938-47	1,500	1,450	July 19, 1945	7.55	7,600	19
7530	Lonetree Creek near Granite Canyon, Wyo.	B7	23	1933-38	-	58	Sept. 8, 1933	4.86	230	12
7540	South Platte River near Kersey, Colo.	-	9,598	1902-3,1905-12, 1914-65	5,100	-	June 7, 1921	-	e31,000	-
7555	North Fork Crow Creek near Hecla, Wyo.	B7	27	1933-44	-	65	Sept. 8, 1933	8.65	(a)	-
7570	South Platte River at Sublette, Colo.	-	12,170	1926-28,1930-41, 1944-55	3,600	-	June 16, 1949	9.31	17,100	-
7585	South Platte River near Weldona, Colo.	-	13,245	1952-65	-	-	June 19, 1965	10.33	18,800	-
7595	South Platte River at Ft. Morgan, Colo.	-	14,810	1944-65	-	-	June 18, 1965	18.2	(1)	-
7600	South Platte River at Balzac, Colo.	-	16,852	1918-34,1936-65	4,400	-	June 18, 1965	14.82	123,000	-
7605	South Platte River near Crook, Colo.	-	19,238	1954-58	-	-	May 18, 1957	8.02	9,890	-
7610	Lodgepole Creek near Federal, Wyo.	B5	25	1934-38	-	-	May 31, 1935	2.93	89	-
7615	South Fork Lodgepole Creek near Federal, Wyo.	B5	16	1933-38	-	-	Sept. 8, 1933	4.95	410	-
7640	South Platte River at Julesburg, Colo.	-	23,138	1902-65	2,700	-	June 20, 1965	10.44	37,600	-
7650	South Platte River at Paxton, Nebr.	-	23,700	1940-65	2,400	-	June 21, 1965	10.69	34,600	-
7655	South Platte River at North Platte, Nebr.	-	24,300	1897,1914-15, 1917,1921-36, 1938-65	2,800	-	June 3, 1935	14.02	37,100	-
7660	Platte River at Brady, Nebr.....	-	-	1938-65	4,100	-	June 23, 1965	-	16,800	-
7665	Platte River near Cozad, Nebr...	-	-	1938,1940-65	4,500	-	May 10, 1942	-	16,600	-
7670	Platte River near Lexington, Nebr.	-	-	1902,1904-6, 1916-18,1920-24	-	-	June 14, 1921	-	35,600	-
7680	Platte River near Overton, Nebr.	-	-	1915-17,1919-23, 1926-35,1937-65	6,700	-	June 5, 1935	6.25	37,600	-
7700	Platte River near Odessa, Nebr.	-	-	1937,1939-62	6,800	-	June 24, 1947	5.52	22,700	-
7705	Platte River near Grand Island, Nebr.	-	-	1934-62	7,700	-	June 6, 1935	5.99	30,000	-
7740	Platte River near Duncan, Nebr..	-	-	1895-1909,1911, 1913-15,1928-62	9,400	-	June 23, 1905	6.50	44,100	-
7960	Platte River at North Bend, Nebr.	-	-	1950-65	37,000	-	Mar. 29, 1960	b8.04	112,000	-

See footnotes at end of table.

Table 2.--Maximum and mean annual floods at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Station $Q_{2.33}$ (cfs)	Areal $Q_{2.33}$ (cfs)	Maximum flood			
							Date	Gage height (feet)	Discharge	
									Cfs	Recurrence interval (years)
	Platte River basin--Continued									
8055	Platte River near South Bend, Nebr.	-	-	1930-65	42,000	-	Mar. 30, 1960	12.45	j124,000	-
	Missouri River main stem									
8070	Missouri River at Nebraska City, Nebr.	-	414,400	1930-62	140,000	-	Apr. 18, 1952 Apr. 19, 1952	27.66 -	- 414,000	- -
	Nishnabotna River basin									
8075	West Nishnabotna River at White Cloud, Iowa	G20	920	1919-24	-	10,000	July 30, 1922	19.4	10,600	3
	Tarkio River basin									
8120	Tarkio River at Blanchard, Iowa	G20	200	1935-39	-	4,400	Mar. 12, 1939	23.12	9,980	12
8125	West Tarkio Creek near Westboro, Mo.	G20	105	1934-40	-	3,100	July 29, 1937	22.10	8,720	21
	Missouri River main stem									
8135	Missouri River at Rulo, Nebr.....	-	418,905	1950-62	-	-	Apr. 22, 1952	25.60	358,000	-
	Nodaway River basin									
8165	West Nodaway River at Villisca, Iowa	G20	360	1919-24	-	6,000	June 9, 1924	12.4	6,200	2
	Missouri River main stem									
8180	Missouri River at St. Joseph, Mo.	-	424,300	1844-1881, 1922-62	141,000	-	Apr. 29, 1881 Apr. 22, 1952	27.2 -	- 397,000	- -
	Platte River basin (Iowa-Missouri)									
8190	Platte River at Conception Junction, Mo.	G20	492	1922-23,1929-32	-	7,100	July 6, 1929	21.70	12,200	6

Kansas River basin

8280	Republican River at Max, Nebr..	C12	4,450	1929-35,1937-45	-	-	May 31, 1935	13.8	190,000	-
8300	Republican River at Culbertson, Nebr.	-	5,000	1931-50	11,000	-	May 31, 1935	11.4	200,000	-
8370	Republican River at McCook, Nebr.	-	-	1931,1935,1955-62	12,100	-	May 31, 1935	-	k245,000	-
8435	Republican River at Cambridge, Nebr.	-	-	1935,1947,1949-62	6,600	-	May 31, 1935	17.6	280,000	-
8445	Republican River near Orleans, Nebr.	-	-	1948-62	7,400	-	June 22, 1948 Mar. 22, 1960	- b12.60	m40,600 -	- -
8505	Republican River near Bloomington, Nebr.	-	-	1929-57	10,000	-	June 1, 1935	20.4	260,000	-
8530	Republican River near Guide Rock, Nebr.	-	-	1935,1951-62	-	-	June 1, 1935	-	250,000	-
8535	Republican River near Hardy, Nebr.	-	-	1904-15,1932-62	10,400	-	June 2, 1935	n19.4	225,000	-
8545	Republican River at Scandia, Kans.	-	-	1919-25,1928-62	13,100	-	June 2, 1935	n17.8	215,000	-
8550	West Buffalo Creek near Jewell, Kans.	E12	15.2	1934-38	-	340	Sept. 1, 1935	12.09	3,520	p2.1
8560	Republican River at Concordia, Kans.	-	-	1915,1935,1946-62	13,000	-	June 2, 1935	n18	207,000	-
8566	Republican River at Clay Center, Kans.	-	-	1917-62	15,000	-	June 3, 1935	25.74	195,000	-
8570	Republican River at Milford, Kans.	-	-	1895-1905,1935, 1951-62	-	-	June 3, 1935	q25.18	171,000	-
8750	Elm Creek near Ionia, Kans.....	E14	22.7	1934-38	-	1,100	Sept. 1, 1935	18.05	4,490	26
8770	Smoky Hill River at Solomon, Kans.	E15	18,830	1918-21,1923-34	-	13,000	Aug. 10, 1928	28.0	18,400	3
8795	Kansas River at Ogden, Kans....	-	-	1903,1918-51	26,000	-	May 1903	28.5	236,000	-
8820	Big Blue River at Barneston, Nebr.	-	4,444	1919-25,1929-62	13,700	-	June 9, 1941	34.3	57,700	-
8860	Big Blue River at Randolph, Kans.	-	9,100	1918-60	26,000	-	June 10, 1941	r30.81	98,000	-
8870	Big Blue River near Manhattan, Kans.	-	9,560	1951,1955-62	26,700	-	July 12, 1951	s33.04	93,400	-
8875	Kansas River at Wamego, Kans...	-	-	1919-62	42,000	-	July 13, 1951	30.56	400,000	-
8890	Kansas River at Topeka, Kans...	-	-	1918-62	51,000	-	July 13, 1951	t35.8	469,000	-
8910	Kansas River at Lecompton, Kans.	-	-	1903,1937-62	61,000	-	July 13, 1951	t30.23	483,000	-
8925	Kansas River at Bonner Springs, Kans.	-	-	1903,1918-62	68,000	-	July 13, 1951	t44.2	510,000	-

Missouri River main stem

8930	Missouri River at Kansas City, Mo.	-	489,200	1898-1962	195,000	-	July 14, 1951	u36.2	573,000	-
8955	Missouri River at Waverly, Mo.	-	491,200	1929-62	193,000	-	July 14, 1951 July 16, 1951	28.20 -	- 549,000	- -

See footnotes at end of table.

Table 2.--Maximum and mean annual floods at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Station Q2.33 (cfs)	Areal Q2.33 (cfs)	Maximum flood			
							Date	Gage height (feet)	Discharge	
									Cfs	Recurrence interval (years)
				Grand River basin						
9005	Medicine Creek near Sturgis, Mo.	H19	368	1909,1929-33	-	8,700	July 1909	-	12,000	4
9010	Locust Creek near Milan, Mo.	H20	225	1909,1922-33	-	4,700	July 1909	-	8,000	5
				Missouri River main stem						
9090	Missouri River at Boonville, Mo.	-	505,700	1926-62	232,000	-	July 17, 1951	v32.82	550,000	-
				Osage River basin						
9130	Marais des Cygnes River near Quenemo, Kans.	H19	1,030	1923-37	-	16,000	Nov. 17, 1928	38.38	69,400	44
9225	Osage River at Warsaw, Mo.	H19	11,500	1844, 1926-30, 1943, 1961	-	60,000	May 21, 1943	t44.54	220,000	27
9260	Osage River near Bagnell, Mo.	H19	14,000	1881-1962	80,000	-	May 19, 1943	48.8	220,000	-
				Missouri River main stem						
9270.2	Missouri River near Bonnots Mill, Mo.	-	523,400	1929-36	-	-	June 6, 1935	27.05	417,000	-
9345	Missouri River at Hermann, Mo.	-	528,200	1903,1928-62	310,000	-	June 6, 1903 July 19, 1951	- w33.33	676,000 -	- -

a Not determined.
b Backwater from ice.
c Datum then in use.
d Site and datum then in use.
e Daily discharge.
f Flood of June 18, 1921, may have been greater.
g Caused by failure of dam at Lake George.
h Caused by failure of Copeland Lake dam.
i Discharge not determined but greater than flood of May 31, 1935, discharge, 84,300 cfs.
j Maximum discharge known since at least 1881.
k Maximum flood known since about 1826.
m Greatest flood known occurred June 1, 1935. Flood of June 23, 1947, reached a stage of 14.00 ft (discharge not determined).
n Maximum stage known since at least 1895.
p Ratio of maximum discharge to that of 50-year flood.
q Maximum stage known since at least 1869.
r Maximum stage known since at least 1897.
s Flood of May 31, 1903, reached a stage of 35.85 ft. Flood in June 1941 reached a stage of 34.1 ft.
t Maximum stage known since at least 1844.
u Maximum stage known, 38.0 ft June 16, 1844 (discharge, 625,000 cfs).
v Flood of June 21, 1844, reached a stage of 32.7 ft (discharge, 710,000 cfs).
w Maximum stage known, 35.5 ft June 1844 (discharge, 892,000 cfs).

Perry Creek basin									
5998	Perry Creek near Merrill, Iowa.....	F18	7.88	900	June 7, 1953	-	2,540	-	9
					Mar. 27, 1962	12.22	-	-	-
5998.5	Perry Creek tributary No. 2 near Merrill, Iowa	F18	1.63	410	June 7, 1953	-	634	-	4
5999	Perry Creek tributary near Merrill, Iowa.	F18	.24	-	June 7, 1953	3.38	168	700	-
Floyd River basin									
-	Little Floyd River at Sheldon, Iowa.....	F17	80.5	840	June 7, 1953	-	25,200	313	a4.8
-	Floyd River at Le Mars, Iowa.....	F17	480	2,400	June 8, 1953	-	60,000	125	a4.0
-	West Branch Floyd River near West Le Mars, Iowa	F17	225	1,600	June 8, 1953	-	30,500	136	a3.0
Little Sioux River basin									
-	Little Sioux River near Spencer, Iowa....	G16	542	970	June 9, 1953	-	9,400	-	a2.5
-	Ocheyedan River near Spencer, Iowa.....	G16	451	860	June 8, 1953	-	26,000	-	a7.8
6056	Little Sioux River at Gillett Grove, Iowa	G17	1,334	4,400	June 9, 1953	17.87	15,000	-	35
-	Little Sioux River at Sioux Rapids, Iowa.	G17	1,518	4,700	June 10, 1953	-	22,700	-	a1.2
-	Four Mile Creek at Quimby, Iowa.....	G17	8.28	-	Aug. 9, 1961	-	7,460	901	-
-	Stratton Creek near Washta, Iowa.....	G17	1.90	-	Aug. 9, 1961	-	11,000	5,790	-
Boyer River basin									
-	Boyer River tributary near Odebolt, Iowa.	G20	.39	150	May 1, 1951	-	152	-	2
Mosquito Creek basin									
-	Mosquito Creek at Council Bluffs, Iowa...	F19	211	6,400	Aug. 29, 1952	21.6	12,000	-	5
Platte River basin									
6342	Sheep Creek near Marshall, Wyo.....	A1	61.0	-	July 7, 1961	9.40	850	-	-
-	Muddy Creek near Glenrock, Wyo.....	A1	122	-	May 14, 1965	-	2,160	-	-
6376	Willow Creek near Atlantic City, Wyo.....	A1	3.08	-	June 6, 1957	3.57	118	-	-
6378	Rock Creek near South Pass City, Wyo.....	A1	9.87	-	June 6, 1957	3.59	286	-	-
-	Webb Draw near Casper, Wyo.....	A5	2.96	-	July 6, 1961	-	8,040	2,720	-
-	Wolf Creek near Casper, Wyo.....	A5	3	-	July 6, 1961	-	1,909	-	-
6518	Sand Creek near Orin, Wyo.....	B5	27.8	-	Aug. 7, 1955	-	20,700	745	-
-	Shawnee Creek near Orin, Wyo.....	B5	110	100	Aug. 7, 1955	-	7,530	-	a9.2
-	Indian Creek near Orin, Wyo.....	B5	16.2	-	June 16, 1965	-	786	-	-
-	Elkhorn Creek near Glendo, Wyo.....	B6	35.3	150	June 14, 1965	-	12,600	357	a10.3
-	North Elkhorn Creek near Glendo, Wyo.....	B6	20.1	100	June 7, 1960	-	9,940	495	a12.1
-	Whiskey Gulch at Glendo, Wyo.....	B6	9.53	-	June 14, 1965	-	16,100	1,690	-
6531	Horseshoe Creek near Binford, Wyo.....	A2	110	-	May 14, 1965	8.91	5,900	-	-
6533	Horseshoe Creek near Cassa, Wyo.....	B6	180	420	June 14, 1965	8.42	7,850	-	a2.3
-	Spring Creek near Glendo, Wyo.....	B6	17.5	-	June 14, 1965	-	9,360	535	-
-	Whalen Canyon near Guernsey, Wyo.....	B5	27.2	-	June 26, 1955	-	5,390	-	-
-	County Line Draw near Guernsey, Wyo.....	B5	6.58	-	June 9, 1965	-	5,050	767	-
-	Cottonwood Draw near Guernsey, Wyo.....	B5	103	95	June 26, 1955	-	21,600	210	a27.8
-	Molly Fork near Guernsey, Wyo.....	B5	7.00	-	June 26, 1955	-	14,000	2,000	-

See footnotes at end of table.

Table 3.--Peak discharges at miscellaneous sites and short-term gaging stations --Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
					Date	Gage height (feet)	Discharge		Recurrence interval (years)
							Cfs	Cfs per sq mi	
	Platte River basin--Continued								
-	Fish Creek near Wheatland, Wyo.....	B6	49	180	June 29, 1962	-	1,990	-	a1.3
-	Dry Creek near Chugwater, Wyo.....	B5	5.5	-	June 25, 1955	-	2,660	-	-
-	Sand Draw near Fort Laramie, Wyo.....	B5	1.9	-	June 26, 1955	-	1,300	684	-
6773	Kiowa Creek near Lyman, Nebr.....	B5	-	-	May 24, 1962	9.05	1,780	-	-
7025	North Fork South Platte River at Grant, Colo.	A4	49.0	-	June 1, 1914	4.7	965	-	-
-	East Plum Creek near Castle Rock, Colo...	B9	108	350	June 16, 1965	-	126,000	1,070	a43
-	West Plum Creek near Sedalia, Colo.....	B9	125	400	June 16, 1965	-	36,800	-	all
-	Harvard Gulch at Denver, Colo.....	B9	4.45	-	July 3, 1960	-	420	-	-
-	Russellville Gulch near Franktown, Colo..	B10	16.9	790	July 31, 1961	-	2,900	-	11
-	Piney Creek near Melvin, Colo.....	B10	21.9	900	June 16, 1965	-	14,100	643	a1.9
7135	Cherry Creek at Denver, Colo.....	B10	409	3,600	July 26, 1885	(b)	20,000	-	22
-	Sand Creek at Sable Ave., Aurora, Colo....	B10	113	1,900	June 16, 1965	-	13,400	-	35
-	Toll Gate Creek at E. 6th Ave., Aurora, Colo.	B10	35.8	1,100	June 16, 1965	-	16,000	447	a1.8
-	Sand Creek below Toll Gate Creek, at Denver, Colo.	B10	187	2,500	May 9, 1957	-	25,500	-	a1.2
7185	North Clear Creek near Blackhawk, Colo...	A4	52.2	-	Aug. 7, 1955	4.05	289	-	-
-	Russell Gulch near Blackhawk, Colo.....	A4	8.17	-	July 8, 1961	-	727	-	-
-	North St. Vrain Creek tributary at Lyons, Colo.	B8	.45	-	June 3, 1961	-	235	522	-
7229	Middle St. Vrain Creek near Raymond, Colo.	A3	16.8	-	June 29, 1957	5.26	408	-	-
7260	North Boulder Creek at Silver Lake, Colo.	A3	8.7	-	July 27, 1920	-	c294	-	-
-	Gunbarrel Hill Draw near Niwot, Colo.....	B8	.54	-	June 30, 1962	-	91	-	-
7450	Cache la Poudre River above Chambers Lake outlet, Colo.	A3	89.2	-	June 8, 1929	4.4	1,720	-	-
-	Crow Creek above North Fork, near Silver Crown, Wyo.	B7	39	87	June 2, 1929	-	3,600	-	a5.0
-	Crow Creek west of Cheyenne, Wyo.....	B7	113	190	June 5, 1929	-	8,200	-	a5.3
-	Coal Creek near Briggsdale, Colo.....	B7	73.1	140	June 15, 1965	-	5,340	-	a4.6
7577	Kiowa Creek subwatershed No. J-33 near Eastonville, Colo.	B10	1.12	220	June 17, 1965	-	2,600	2,320	a1.4
7577.5	Kiowa Creek subwatershed No. R-3 near Elbert, Colo.	B10	2.82	340	June 17, 1965	-	2,010	713	24
7578	Kiowa Creek subwatershed No. Q-51 near Elbert, Colo.	B10	.59	-	June 17, 1965	-	1,270	2,150	-
7580	Kiowa Creek at Elbert, Colo.....	B10	28.6	1,000	May 30, 1935	-	d43,500	1,520	a5.3
7581	West Kiowa Creek at Elbert, Colo.....	B10	35.9	1,100	June 17, 1965	7.40	20,000	557	a2.2
7583	Kiowa Creek at Bennett, Colo.....	B10	236	2,800	June 18, 1965	7.66	24,900	-	a1.1
-	East Bijou Creek at Deer Trail, Colo.....	B10	302	3,100	June 17, 1965	-	274,000	907	a10.8
-	Middle Bijou Creek near Deer Trail, Colo.	B10	190	2,500	June 17, 1965	-	145,000	763	a7.1

-	West Bijou Creek near Kiowa, Colo.....	B10	85.7	1,700	June 17, 1965	-	67,200	784	a4.8
-	West Bijou Creek at Byers, Colo.....	B10	277	3,000	June 17, 1965	-	75,500	273	a3.1
-	Beaver Creek near Brush, Colo.....	B10	946	5,400	June 18, 1965	-	24,300	26	15
-	North Pawnee Creek near New Raymer, Colo.	-	82.3	-	June 14, 1965	-	6,280	-	-
-	Pawnee Creek near Stoneham, Colo.....	-	387	-	June 15, 1965	-	26,700	-	-
-	Pawnee Creek near Sterling, Colo.....	-	629	-	June 15, 1965	-	35,200	-	-
-	Dead Horse Creek tributary at Loup City, Nebr.	E12	3.2	140	June 17, 1954	-	944	-	a1.3
-	Dead Horse Creek at Loup City, Nebr.....	E12	6.2	200	June 17, 1954	-	2,410	-	a2.4
7896	Davis Creek at mouth, near Cotesfield, Nebr.	E12	94.4	920	July 9, 1958	15.14	1,720	-	5
7910	Spring Creek at Cushing, Nebr.....	E12	164	1,200	May 10, 1953	19.44	5,350	-	34
7917.5	Cedar River at Primrose, Nebr.....	D11	130	890	June 20, 1960	4.53	4,190	-	a1.8
-	Elm Creek near Fremont, Nebr.....	F12	4.7	180	Aug. 2, 1959	-	2,840	604	a2.5
7988	Elkhorn River at Meadow Grove, Nebr.....	E12	1,500	4,200	Mar. 30, 1960	9.8	12,000	-	10
7991	North Fork Elkhorn River near Pierce, Nebr.	F12	520	2,300	Mar. 28, 1962	14.90	11,600	-	28
-	Union Creek tributary near Madison, Nebr.	E12	2.5	120	June 2, 1950	-	2,560	1,020	a4.3
-	Union Creek at Madison, Nebr.....	E12	167	1,300	June 1940	-	e16,300	-	a2.5
-	Middle Logan Creek near Laurel, Nebr.....	F12	37.5	550	May 18, 1944	-	5,000	-	a1.4
-	East Fork Maple Creek near Howells, Nebr.	F12	67.1	760	June 11, 1944	-	22,000	328	a4.6
8013.2	Olive Branch below Sprague, Nebr.....	G19	81	3,700	Mar. 27, 1960	17.12	5,700	-	5
8013.4	Hickman Branch above Hickman, Nebr.....	G19	18	1,600	July 10, 1958	13.94	(f)	-	25+
8013.6	Hickman Branch at Hickman, Nebr.....	G19	32	2,200	May 4, 1959	15.20	4,100	-	7
-	Middle Creek at Emerald, Nebr.....	F19	88	3,900	June 2, 1951	-	g6,700	-	4
8032	Antelope Creek at 48th St., Lincoln, Nebr.	F19	6.82	920	June 14, 1951	-	4,930	723	32
8033	Antelope Creek at 27th St., Lincoln, Nebr.	F19	10.4	1,200	July 10, 1958	12.8	2,550	-	6
8035.5	Dee Creek at Greenwood, Nebr.....	F19	14.3	1,200	June 20, 1960	8.11	1,080	-	2
-	North Fork Cottonwood Creek at Prague, Nebr.	F19	5.2	790	Aug. 2, 1959	-	g4,780	919	44
-	Silver Creek at Ithaca, Nebr.....	F19	72	3,500	Aug. 2, 1959	-	21,600	300	47
			Nishnabotna River basin						
8074.1	West Nishnabotna River at Hancock, Iowa..	G20	609	8,000	Mar. 29, 1960	13.64	9,320	-	3
-	Crabapple Creek near Hawthorne, Iowa.....	G20	10.2	880	Sept.18, 1960	-	1,530	-	6
-	East Nishnabotna River near Audubon, Iowa	G20	81.8	2,700	July 2, 1958	-	20,500	251	a1.9
-	Blue Grass Creek tributary near Audubon, Iowa	G20	.06	-	July 2, 1958	-	143	2,380	-
-	East Nishnabotna River at Atlantic, Iowa	G20	382	6,200	July 2, 1958	-	51,000	134	a2.1
8092.1	East Nishnabotna River near Atlantic, Iowa	G20	432	6,600	July 2, 1958	-	34,200	-	a1.3

See footnotes at end of table.

Table 3.--Peak discharges at miscellaneous sites and short-term gaging stations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
					Date	Gage height (feet)	Discharge		Recurrence interval (years)
							Cfs	Cfs per sq mi	
	Little Nemaha River basin								
-	Little Nemaha River tributary near Syracuse, Nebr..	F19	.9	240	June 24, 1955	-	723	803	10
	Tarkio River basin								
-	Little Tarkio Creek at Stanton, Iowa.....	G20	11.8	950	Sept.18, 1960	-	2,280	-	14
	Little Tarkio Creek basin								
8155.5	Staples Branch near Burlington Junction, Mo.	G20	.49	170	May 28, 1962	15.20	371	757	11
	Wolf River basin								
8156	Wolf River near Hiawatha, Kans.....	G19	41	2,100	July 6, 1961	17.90	3,160	-	5
	Platte River basin (Iowa-Missouri)								
8189	Platte River at Ravenwood, Mo.....	G20	486	7,100	Mar. 29, 1960	18.40	11,000	-	5
8191.9	East Fork One Hundred and Two River near Bedford, Iowa	G20	92.1	2,900	Jan. 12, 1960	15.95	5,400	-	8
-	Left Fork Jenkins Branch at Gower, Mo....	G20	.33	140	May 30, 1956	-	553	1,680	50
8211.3	First Creek near Nashua, Mo.....	G20	.55	180	Mar. 26, 1961	13.25	310	564	6
	Kansas River basin								
-	Black Wolf Creek near Wray, Colo.....	C12	25.0	440	July 17, 1962	-	17,800	712	a6.0
-	Indian Creek north of Max, Nebr.....	C7	72.6	140	July 31, 1962	-	13,300	-	a14.0
-	North Branch Indian Creek near Max, Nebr.	C7	4.76	-	July 31, 1962	-	12,900	2,710	-
-	Indian Creek near Max, Nebr.....	C7	81.8	150	July 31, 1962	-	27,000	330	a26.5
8373	Red Willow Creek above Hugh Butler Lake, Nebr.	B10	-	-	June 16, 1962	8.97	2,950	-	-
8382	Coon Creek at Indianola, Nebr.....	B10	64	1,500	May 21, 1961	9.22	710	-	1
8385	Dry Creek near Bartley, Nebr.....	B10	5.24	450	May 14, 1957	5.25	50	-	1
8385.5	Dry Creek at Bartley, Nebr.....	B10	44	600	Aug. 3, 1962	9.16	420	-	2
-	Medicine Creek near Curtis, Nebr.....	B10	290	3,100	June 21, 1947	-	83,000	286	a3.3
8398	Fox Creek tributary near Curtis, Nebr....	B10	6.97	520	May 19, 1959	12.83	2,980	-	23
8448	South Fork Sappa Creek tributary near Goodland, Kans.	B7	4	-	June 7, 1962	14.83	2,600	-	-
8449	South Fork Sappa Creek near Achilles, Kans.	B7	434	540	Mar. 20, 1960	9.03	4,120	-	42

-	Prairie Dog Creek at Dellvale, Kans.....	B12	663	2,700	May 28, 1953	-	65,500	99	a3.0
8558	Buffalo Creek near Jamestown, Kans.....	E12	330	1,800	Sept.12, 1961	h19.31	18,800	-	a2.1
8637	Big Creek tributary near Hays, Kans.....	E12	6	200	May 29, 1959	13.10	1,100	-	a1.1
8643	Smoky Hill River tributary at Dorrance, Kans.	E12	5	180	Aug. 17, 1960	14.29	700	-	23
8668	Saline River tributary at Collyer, Kans..	E12	2.5	120	Aug. 18, 1961	15.65	3,220	1,290	a5.4
8684	Wolf Creek near Lucas, Kans.....	E15	163	1,200	July 11, 1951	132	(j)	-	-
					May 22, 1961	28.00	4,820	-	25
-	Spillman Creek near Denmark, Kans.....	E15	129	1,100	July 1951	-	13,800	-	a2.5
-	Mulberry Creek near Hedville, Kans.....	E15	116	1,000	July 1951	-	9,770	-	a2.0
-	Spring Creek near Bavaria, Kans.....	E15	126	1,100	July 1951	-	8,530	-	a1.6
8704	Gypsum Creek near Kipp, Kans.....	E15	250	1,500	July 1951	-	64,500	258	a8.6
8720	Deer Creek at Kirwin, Kans.....	B12	309	1,800	July 1951	-	2,840	-	4
-	Cedar Creek near Cedar, Kans.....	B12	191	1,300	July 1951	-	5,860	-	15
8723	Middle Beaver Creek near Smith Center, Kans.	E14	71	2,300	June 7, 1961	14.67	1,180	-	1
-	Beaver Creek at Gaylord, Kans.....	E14	181	4,300	July 1951	-	2,680	-	2
8727	Oak Creek near Cawker City, Kans.....	E14	194	4,600	July 1951	-	5,070	-	3
-	Solomon River near Cawker City, Kans.....	E15	4,960	6,700	July 13, 1951	-	94,100	-	a2.8
-	Solomon River at Glen Elder, Kans.....	E15	5,040	6,700	July 13, 1951	-	110,000	-	a3.3
8755	East Limestone Creek at Ionia, Kans.....	E14	51.6	1,900	June 1, 1935	19.44	7,250	-	22
8758	Limestone Creek at Glen Elder, Kans.....	E14	205	4,700	July 1951	-	6,600	-	3
8767	Salt Creek near Ada, Kans.....	E15	384	1,800	May 23, 1961	h23.25	16,000	-	a1.8
-	Holland Creek near Abilene, Kans.....	E14	82.5	2,600	July 1951	-	1,720	-	2
8775	Turkey Creek near Abilene, Kans.....	E14	143	3,700	July 1951	k29.7	23,700	166	a1.3
-	Wildcat Creek near Manhattan, Kans.....	E14	87.9	2,700	1951	-	11,100	-	27
-	West Fork Big Blue River tributary at McCool Junction, Nebr.	E12	17.2	360	July 9, 1950	-	15,200	884	a8.5
-	West Fork Big Blue River tributary near York, Nebr.	E12	6.9	220	July 9, 1950	-	23,000	3,330	a20.9
8812	Turkey Creek near Wilbur, Nebr.....	E12	460	2,200	Mar. 28, 1960	14.92	7,300	-	15
-	Turkey Creek at DeWitt, Nebr.....	E12	692	2,700	May 9, 1950	-	21,400	-	a1.6
8831	Little Blue River near Angus, Nebr.....	E12	1,038	3,400	Mar. 27, 1960	15.97	11,800	-	16
8835	Little Blue River at Angus, Nebr.....	E12	1,078	3,500	June 26, 1951	13.40	18,500	-	a1.1
-	Little Blue River at Hebron, Nebr.....	E12	1,490	4,200	July 11, 1950	-	24,300	-	a1.2
8835.7	Little Blue River near Gilead, Nebr.....	E12	1,552	4,300	Mar. 28, 1960	17.30	25,600	-	a1.2
8842	Mill Creek at Washington, Kans.....	E14	344	6,600	June 8, 1941	k36	(j)	-	-
					Mar. 28, 1960	25.58	9,690	-	3
8850	Snipe Creek near Beattie, Kans.....	H14	18	950	August 1948	25	(j)	-	-
					July 15, 1958	11.25	975	-	2
8867	Fancy Creek at Randolph, Kans.....	E14	265	5,100	July 1951	-	33,400	126	a1.3
-	Vermillion Creek near Louisville, Kans...	H14	327	6,400	1951	-	14,700	-	9
8883	Rock Creek near Louisville, Kan.....	H14	128	3,500	May 29, 1962	33.23	14,100	-	35
-	Rock Creek at Louisville, Kans.....	H14	177	4,300	July 1951	-	13,100	-	16
-	Mill Creek near Alta Vista, Kans.....	H14	18.7	970	1951	-	19,800	1,060	a4.5
-	Mill Creek tributary near McFarland, Kans.	H14	.66	110	June 28, 1959	-	1,350	2,050	a2.7
8887	Cross Creek near Rossville, Kans.....	H14	148	3,800	July 1951	-	23,000	-	a1.3
8892	Soldier Creek near Delia, Kans.....	H14	157	3,900	June 21, 1951	g24	(j)	-	-
					Oct. 11, 1961	21.00	4,000	-	2
8896	South Branch Shunganunga Creek near Pauline, Kans.	H14	4	350	Oct. 7, 1958	15.39	1,220	-	23

See footnotes at end of table.

Table 3.--Peak discharges at miscellaneous sites and short-term gaging stations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
					Date	Gage height (feet)	Discharge		Recurrence interval (years)
							Cfs	Cfs per sq mi	
	Kansas River basin--Continued								
-	Shunganunga Creek at Topeka, Kans.....	H14	34	1,400	July 10, 1957	-	5,100	-	26
8906	Rock Creek near Meriden, Kans.....	H14	22.0	1,100	May 28, 1962	16.0	(j)	-	-
8907	Slough Creek tributary near Oskaloosa, Kans.	H14	1	140	July 20, 1962	21.5	948	948	a1.5
-	Delaware River at Thompsonville, Kans....	H14	1,120	14,000	Mar. 13, 1961	-	12,400	-	2
-	Turkey Creek at Kansas City, Kans.....	H14	21	1,000	July 31, 1958	-	10,000	476	a2.2
	Little Blue River basin								
-	Cedar Creek tributary near Lees Summit, Mo.	G19	1.31	360	June 3, 1949	-	1,220	931	34
	Fishing River basin								
-	Fishing River near Kearney, Mo.....	H19	39.4	2,500	June 22, 1947	-	30,000	761	a2.7
-	Clear Creek near Holt, Mo.....	H19	7.37	960	June 22, 1947	-	15,000	2,040	a3.5
-	Clear Creek tributary near Holt, Mo.....	H19	6.52	890	June 22, 1947	-	14,000	2,150	a3.5
-	Clear Creek west of Holt, Mo.....	H19	19.4	1,700	June 22, 1947	-	22,000	1,130	a2.9
-	Holt Creek at Holt, Mo.....	H19	11.7	1,200	June 22, 1947	-	13,000	1,110	a2.4
-	Holt Creek near Holt, Mo.....	H19	18.1	1,600	June 22, 1947	-	22,000	1,220	a3.1
-	New Hope Creek at Haynesville, Mo.....	H19	6.46	890	June 22, 1947	-	6,900	1,070	a1.7
-	New Hope Creek near Holt, Mo.....	H19	11.6	1,200	June 22, 1947	-	13,000	1,120	a2.4
-	Carroll Creek near Kearney, Mo.....	H19	9.52	1,100	June 22, 1947	-	8,400	882	a1.7
-	Carroll Creek east of Kearney, Mo.....	H19	13.7	1,400	June 22, 1947	-	11,000	803	a1.7
-	Fishing River near Excelsior Springs, Mo.	H19	190	6,000	June 22, 1947	-	26,000	-	44
-	East Fork Fishing River near Excelsior Springs, Mo.	H19	27.5	2,000	June 22, 1947	-	10,000	-	a1.1
-	Fishing River south of Excelsior Springs, Mo.	H19	223	6,600	June 22, 1947	-	32,000	143	a1.1
	Grand River basin								
-	Grand River near Pattonsburg, Mo.....	H19	1,680	21,000	Mar. 30, 1960	-	41,000	-	6
3977	Grand River tributary near Utica, Mo.....	H19	1.44	380	July 30, 1958	16.28	977	682	12
8981	Thompson River at Mount Moriah, Mo.....	H19	891	14,000	June 11, 1962	21.10	30,200	-	8
-	Panther River at Mount Moriah, Mo.....	H19	30.8	2,100	Sept.13, 1961	-	3,500	-	5
8984	Weldon River near Leon, Mo.....	H19	104	4,300	Aug. 6, 1959	25.27	g48,600	467	a2.5
9022	West Yellow Creek near Brookfield, Mo....	H19	135	4,900	July 1, 1960	-	3,900	-	2
					Sept.14, 1961	13.96	-	-	-

	Missouri River main stem								
9065	Missouri River at Glasgow, Mo.....	-	502,875	-	July 17, 1951	36.7	550,000	-	28
	Slough Creek basin								
9066	Burge Branch near Arrow Rock, Mo.....	G19	.33	160	Sept.13, 1961	4.38	134	-	2
	Lamine River basin								
9067	Flat Creek near Sedalia, Mo.....	G19	148	5,200	Sept.13, 1961	17.80	14,100	-	19
9077	Blackwater River at Valley City, Mo.....	G19	547	11,000	Apr. 16, 1960	-	66,500	122	al.5
					Sept.14, 1961	31.75	-		
	Bonne Femme Creek basin								
9093	Doe Creek tributary near Fayette, Mo....	G19	.11	90	July 15, 1958	5.89	50	-	1
					May 5, 1961	6.00	(j)	-	-
	Wears Creek basin								
-	Wears Creek at Jefferson City, Mo.....	G19	7.4	960	Oct. 5, 1955	-	3,130	-	31
	Osage River basin								
9119	Dragoon Creek near Burlingame, Kans.....	H19	114	4,500	June 26, 1946	m23.4	(j)	-	-
					May 22, 1961	19.05	6,760	-	4
9166	Marais des Cygnes River near Kansas-Missouri State line, Kans.	H19	3,230	30,000	July 14, 1951	41.2	148,000	46	al.1
9167	Middle Creek near Kincaid, Kans.....	H19	2.02	460	May 16, 1957	15.96	2,000	990	45
9170.3	Little Osage River at Stotesbury, Mo....	H19	427	9,500	Oct. 4, 1927	d30.7	30,000	-	18
9120.6	Little Osage River at Horton, Mo.....	H19	-	-	May 7, 1961	-	12,400	-	-
9171	Marmaton River tributary near Bronson, Kans.	H19	.88	290	May 5, 1961	16.01	473	538	5
9180.6	Marmaton River near Nevada, Mo.....	H19	-	-	May 7, 1961	-	50,600	-	-
9180.8	Osage River near Schell City, Mo.....	H19	5,530	41,000	Apr. 14, 1961	-	22,500	-	2
-	Pickerel Creek tributary near Republic, Mo.	H19	.57	220	May 22, 1957	-	242	-	3
9185	Little Sac River near Springfield, Mo...	H19	40	2,500	June 28, 1928	12.30	7,000	-	13
9187.5	Franca Branch near Brighton, Mo.....	H19	.59	230	May 12, 1955	14.35	298	505	3
					May 5, 1961	15.67	(j)	-	-

See footnotes at end of table.

Table 3.--Peak discharges at miscellaneous sites and short-term gaging stations--Continued

No.	Gaging Station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Areal $Q_{2.33}$ (cfs)	Maximum flood				
					Date	Gage height (feet)	Discharge		Recurrence interval (years)
							Cfs	Cfs per sq mi	
				Osage River basin--Continued					
9192	Sac River tributary near Caplinger Mills, Mo.	H19	.14	100	May 30, 1956	10.63	329	2,350	20
9200	Sac River near Collins, Mo.	H19	1,900	22,000	July 1909	37.9	(j)	-	-
					May 30, 1924	26.4	35,700	-	5
9213	North Fork Ingalls Creek near Louisburg, Mo.	H19	.32	160	May 7, 1961	6.44	166	519	2
-	Nemo Branch at Nemo, Mo.	H19	.52	210	May 30, 1956	-	1,950	3,750	a2.1
-	Crane Creek near Hermitage, Mo.	H19	16.4	1,300	May 30, 1956	-	16,800	1,020	a2.9
-	Jordan Branch near Wheatland, Mo.	H19	2.46	510	May 30, 1956	-	4,990	2,030	a2.2
9216	South Grand River at Urich, Mo.	H19	670	12,000	Sept.15, 1961	26.84	29,200	-	10
9217.2	Big Creek at Blairstown, Mo.	H19	414	9,300	Sept.14, 1961	25.40	24,400	-	12
9217.4	Brushy Creek near Blairstown, Mo.	H19	1.15	330	May 5, 1961	9.90	1,270	1,100	21
9226	Little Turkey Creek tributary near Warsaw, Mo.	H19	.18	120	Sept.23, 1959	10.50	112	622	2
					May 5, 1961	11.10	(j)	-	-
-	Prairie Branch near Decaturville, Mo.	H19	1.48	390	May 21, 1957	-	1,490	1,010	30
-	Eldred Branch at Macks Creek, Mo.	H19	1.80	430	July 19, 1948	-	3,100	1,720	a1.6
-	Holder Branch at Macks Creek, Mo.	H19	1.00	250	July 19, 1948	-	1,400	1,400	a1.2
-	Eldred Branch near Macks Creek, Mo.	H19	3.12	590	July 19, 1948	-	5,000	1,600	a1.9
9260.2	Little Gravois Creek near Bagnell, Mo.	H21	24.1	2,300	Aug. 2, 1944	-	31,000	1,290	a3.0
-	East Fork Little Gravois Creek tributary near Bagnell, Mo.	H21	.34	200	Aug. 2, 1944	-	280	824	4
-	Wrights Creek near Bagnell, Mo.	H21	5.65	1,000	Aug. 2, 1944	-	6,400	1,130	a1.4
-	East Fork Little Gravois Creek near Bagnell, Mo.	H21	17.2	1,900	Aug. 2,.1944	-	14,000	814	a1.6
9261	Saline Creek near Eldon, Mo.	H21	1.81	520	Oct. 11, 1954	13.61	(j)	-	-
					May 6, 1960	13.02	706	-	3
9261.5	Jack Buster Creek at Eugene, Mo.	H21	.17	140	May 5, 1961	9.10	290	1,710	7
-	Long Branch near Vienna, Mo.	H21	.32	200	Apr. 22, 1957	-	365	1,140	6
				Gasconade River basin					
-	Bow Creek at Odin, Mo.	H21	4.94	920	Oct. 21, 1949	-	5,400	1,090	a1.3
-	Spring Creek near Edgar Springs, Mo.	H21	65	4,000	Aug. 14, 1946	-	15,000	-	28
-	Bradford Branch near Edgar Springs, Mo.	H21	9.3	1,300	Aug. 14, 1946	-	3,200	-	10
9301	Spring Creek at Spring Creek, Mo.	H21	108	5,300	Aug. 14, 1946	-	25,000	-	a1.1
9307.5	Prewett Hollow near Dixon, Mo.	H21	.46	240	May 5, 1961	14.33	421	915	5
9316	Paulsell Branch near Rolla, Mo.	H21	2.33	600	Mar. 20, 1955	1.43	350	1	-
					July 17, 1958	4.02	(j)	-	-
-	Little Beaver Creek tributary near Rolla, Mo.	H21	2.26	590	May 21, 1957	-	1,320	584	8
-	Spring Creek tributary near Rolla, Mo.	H21	.68	300	May 21, 1957	-	276	-	2
-	Newburg Branch at Newburg, Mo.	H21	2.8	670	June 8, 1945	-	5,200	1,860	a1.7

Bonhomme Creek basin									
9358	Shotwell Creek near Ellisville, Mo.....	H21	.81	330	May 7, 1961	20.69	718	886	8
Missouri River main stem									
-	Missouri River at St. Charles, Mo.....	-	-	-	May 11, 1961	-	394,000	-	5
Coldwater Creek basin									
9365	Coldwater Creek near St. Louis, Mo.....	H21	43.6	3,200	June 29, 1960	17.13	6,170	-	6

a Ratio of maximum discharge to that of 50-year flood.
b Flood of May 19, 1864, reached a somewhat higher stage.
c Daily discharge.
d Maximum known.
e Maximum flood known since at least 1877.
f More than 4,800 cfs.
g Maximum flood known since at least 1909.
h Maximum stage known since at least 1898.
i Maximum stage known since at least 1895.
j Not determined.
k Maximum stage known since at least 1903.
m Maximum stage known since at least 1900.

4860. Missouri River at Sioux City, Iowa

Location.--Lat 42°29'10", long 96°24'45", in NW¼SE¼ sec.16, T.29 N., R.9 E., sixth principal meridian, on right bank on upstream side of bridge on U.S. Highway 77 at Sioux City, 2.0 miles downstream from Big Sioux River and at mile 732.3.

Drainage area.--314,600 sq mi, approximately.

Gage.--Nonrecording prior to Feb. 15, 1935; recording thereafter. Datum of gage is 1,076.96 ft above mean sea level, datum of 1929.

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

Remarks.--Flow partly regulated by upstream main-stem reservoirs. Only annual peaks are shown. Gage-height records collected near Sioux City September 1878 to December 1899 are contained in reports of Missouri River Commission and since July 1889 are contained in reports of U.S. Weather Bureau.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Apr. 1, 1929	-	190,000	1950	Apr. 25, 1950	18.44	252,000
	June 5, 1929	11.9	-				
1930	Mar. 6, 1930	9.4	108,000	1951	Apr. 8, 1951	13.04	152,000
				1952	Apr. 14, 1952	24.28	441,000
1931	June 16, 1931	9.79	54,700	1953	June 25, 1953	9.19	109,000
				1954	June 21, 1954	6.83	51,300
1939	Apr. 3, 1939	14.35	168,000	1955	Mar. 12, 1955	-	56,200
1940	June 16, 1940	8.90	55,700		July 10, 1955	6.19	-
1941	June 15, 1941	13.00	121,000	1956	Aug. 18, 1956	7.10	38,900
1942	June 8, 1942	13.77	127,000	1957	Oct. 3, 1956	-	36,200
1943	Apr. 10, 1943	18.72	212,000		June 25, 1957	6.43	-
1944	Apr. 12, 1944	15.45	180,300	1958	July 2, 1958	7.28	39,500
1945	Mar. 22, 1945	9.35	116,400	1959	May 31, 1959	6.50	33,600
				1960	Apr. 3, 1960	10.52	101,000
1946	June 21, 1946	8.6	87,900				
1947	Apr. 4, 1947	15.10	178,000	1961	Aug. 10, 1961	5.77	32,700
1948	Mar. 27, 1948	-	115,000	1962	Mar. 28, 1962	a8.60	-
	June 27, 1948	9.8	-		Apr. 2, 1962	-	71,600
1949	Apr. 10, 1949	15.72	178,000				

a Backwater from ice.

PERRY CREEK BASIN

5999.5. Perry Creek near Hinton, Iowa

Location.--Near west quarter corner of sec.11, T.90 N., R.47 W., at bridge on State Highway 7, 4 miles west of Hinton.

Drainage area.--30.7 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements between 200 and 5,000 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)
1953	June 7, 1953	17.93	4,980	1958	May 31, 1958	15.50	2,350
1954	June 19, 1954	14.44	1,660	1959	May 30, 1959	16.32	3,000
1955	May 26, 1955	8.93	350	1960	Aug. 28, 1960	9.96	520
1956	-	(a)	-	1961	Mar. 31, 1961	7.44	180
1957	July 8, 1957	10.76	655	1962	Mar. 27, 1962	17.05	3,800

a Maximum stage below bottom of gage.

6000. Perry Creek at 38th Street, Sioux City, Iowa

Location.--Lat 42°32'05", long 96°24'35", in SE¼SE¼ sec.8, T.89 N., R.47 W., on right upstream abutment of bridge on 38th Street in Sioux City, 3.6 miles upstream from mouth.

Drainage area.--65.1 sq mi.

Gage.--Nonrecording with supplementary high-water recorder operating above 5.0 ft gage height prior to May 20, 1954; recording thereafter. Datum of gage is 1,117.04 ft above mean sea level (city of Sioux City bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs and by slope-area measurements at 3,580 and 7,780 cfs.

Historical data.--Flood of July 7, 1944, reached a stage of about 25.5 ft, from floodmarks (discharge, 9,600 cfs, by contracted-opening measurement by Corps of Engineers).

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)
1939	May 27, 1939	11.33	3,950	1951	Aug. 14, 1951	5.96	844
					Aug. 17, 1951	6.75	1,110
1940	June 4, 1940	12.30	4,680		Aug. 20, 1951	6.43	984
					Aug. 27, 1951	7.54	1,340
1941	Sept.15, 1941	9.05	2,340		Sept. 9, 1951	10.21	2,310
1942	June 19, 1942	5.40	718	1952	Jan. 19, 1952	7.75	1,430
					Mar. 12, 1952	8.33	1,620
1943	July 20, 1943	6.35	775		Mar. 30, 1952	7.08	1,200
					June 8, 1952	8.32	1,610
1944	July 7, 1944	25.5	9,600		July 7, 1952	17.40	5,480
1945	June 26, 1945	8.10	2,020	1953	June 7, 1953	12.56	3,470
1946	Feb. 6, 1946	-	900	1954	May 26, 1954	5.55	1,080
	May 18, 1946	8.05	1,070		May 31, 1954	6.30	1,300
	May 23, 1946	-	1,020		June 2, 1954	4.97	881
	Sept. 8, 1946	-	1,020		June 19, 1954	13.75	4,010
1947	June 22, 1947	4.42	246	1955	May 26, 1955	6.98	1,580
					July 9, 1955	15.40	4,880
1948	Feb. 16, 1948	-	935				
	Feb. 17, 1948	-	881	1956	Aug. 4, 1956	4.88	865
	Feb. 27, 1948	-	1,470		Aug. 18, 1956	9.42	2,440
	June 22, 1948	-	1,840				
	July 29, 1948	-	1,540	1957	June 22, 1957	6.20	1,320
	Aug. 14, 1948	14.12	3,350		July 8, 1957	7.90	1,920
1949	Mar. 4, 1949	-	900	1958	May 31, 1958	8.89	1,540
	Mar. 24, 1949	-	827				
	July 27, 1949	-	2,570	1959	May 30, 1959	12.14	2,660
	Aug. 13, 1949	-	5,080				
	Sept. 3, 1949	-	6,580	1960	Mar. 29, 1960	10.70	2,140
	Sept.10, 1949	21.80	7,780		Apr. 1, 1960	13.05	3,020
					July 12, 1960	7.32	1,120
1950	Mar. 4, 1950	-	1,600		Aug. 5, 1960	6.22	836
	June 17, 1950	12.47	2,650		Aug. 28, 1960	12.16	2,700
	July 12, 1950	17.75	5,380				
	July 21, 1950	8.7	1,280	1961	Mar. 14, 1961	5.43	864
	Aug. 7, 1950	9.42	1,500		June 14, 1961	13.20	3,540
	Aug. 11, 1950	9.00	1,370		July 26, 1961	8.85	1,880
1951	Mar. 25, 1951	7.62	962	1962	Mar. 27, 1962	13.27	3,580
	Mar. 27, 1951	10.97	2,050		June 7, 1962	10.50	2,480
	June 19, 1951	17.38	5,480		June 10, 1962	6.46	1,050
	Aug. 12, 1951	7.53	1,340		July 27, 1962	8.40	1,750

6001. Floyd River at Alton, Iowa

Location.--Lat 42°58'40", long 96°00'00", in NE¼ sec.11, T.94 N., R.44 W., on left bank at downstream side of Chicago and North Western Railway Co. bridge at east edge of Alton, 22 miles upstream from confluence with West Floyd River and 42 miles upstream from mouth.

Drainage area.--265 sq mi.

Gage.--Recording. Datum of gage is 1,269.55 ft above mean sea level, datum of 1929.

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

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)
1956	July 11, 1956	9.45	287	1960	Apr. 2, 1960	16.03	2,740
					Aug. 28, 1960	12.12	830
1957	July 4, 1957	10.54	440	1961	Mar. 3, 1961	15.73	2,100
1958	June 3, 1958	9.82	336		Mar. 18, 1961	13.03	1,150
1959	June 1, 1959	12.77	1,130	1962	Mar. 28, 1962	18.35	12,200
	Aug. 2, 1959	12.72	1,110		June 5, 1962	12.41	930
1960	Mar. 28, 1960	17.27	4,150				

6003. West Branch Floyd River near Struble, Iowa

Location.--Lat 42°55'15", long 96°10'30", in NE¼ sec.32, T.94 N., R.45 W., on right bank at downstream side of highway bridge, 0.2 mile west of U.S. Highway 75, 2.2 miles northeast of Struble, and 14 miles upstream from confluence with Floyd River.

Drainage area.--181 sq mi.

Gage.--Recording. Datum of gage is 1,239.40 ft above mean sea level (State Highway Commission bench mark).

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

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)
1956	July 12, 1956	9.22	463	1960	May 21, 1960	10.83	740
1957	June 28, 1957	9.50	430	1961	Mar. 1, 1961	-	450
	July 4, 1957	11.32	840		June 13, 1961	8.03	402
	July 8, 1957	9.96	500		Aug. 22, 1961	8.55	501
1958	Apr. 6, 1958	7.34	218	1962	Mar. 28, 1962	15.03	5,260
					Apr. 3, 1962	10.64	1,110
1959	May 29, 1959	9.38	495		May 22, 1962	9.94	892
	May 31, 1959	10.27	646		June 5, 1962	8.00	480
					June 8, 1962	7.62	400
1960	Mar. 29, 1960	14.72	3,880		June 17, 1962	11.23	1,320
	Apr. 2, 1960	14.62	3,630				

6005. Floyd River at James, Iowa

Location.--Lat 42°34'30", long 96°18'45", in SE¼SE¼ sec.30, T.90 N., R.46 W., on right bank at downstream side of highway bridge at James, 10.7 miles upstream from mouth and 15.1 miles downstream from West Branch Floyd River.

Drainage area.--882 sq mi.

Gage.--Nonrecording prior to Sept. 11, 1938, June 9 to Nov. 15, 1953, and Oct. 1, 1955, to May 22, 1957; recording Sept. 11, 1938, to June 8, 1953, Nov. 16, 1953 to Sept. 30, 1955, and since May 23, 1957. Datum of gage is 1,102.59 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and by contracted-opening and flow-over-embankment measurement at 71,500 cfs.

Remarks.--Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 28, 1935	15.2	1,460	1951	Apr. 5, 1951	18.55	5,380
					May 3, 1951	17.37	3,520
1936	Mar. 10, 1936	-	4,050		May 20, 1951	17.10	2,520
					June 19, 1951	17.65	3,040
1937	May 27, 1937	17.2	3,570		June 29, 1951	17.76	3,160
					July 5, 1951	19.95	5,980
1938	Sept.15, 1938	16.5	2,060		Aug. 15, 1951	19.35	5,020
					Sept.12, 1951	19.98	6,180
1939	Mar. 12, 1939	-	1,300				
				1952	Feb. 14, 1952	18.15	4,300
1940	June 5, 1940	15.4	1,390		Mar. 13, 1952	17.49	3,290
					Mar. 20, 1952	18.58	5,240
1941	Mar. 11, 1941	16.2	1,720		Mar. 31, 1952	20.32	13,900
					July 7, 1952	19.12	4,700
1942	June 4, 1942	18.8	6,280				
				1953	June 8, 1953	25.30	71,500
1943	June 17, 1943	15.2	1,360				
				1954	Mar. 19, 1954	18.61	4,800
1944	Feb. 27, 1944	17.4	3,600		June 22, 1954	19.88	6,250
	May 13, 1944	18.8	7,440				
	June 13, 1944	18.1	5,150	1955	July 10, 1955	16.25	2,260
	July 7, 1944	17.7	4,350				
	July 12, 1944	17.2	3,320	1956	July 13, 1956	8.60	318
1945	Mar. 12, 1945	18.4	5,320	1957	July 5, 1957	13.83	1,330
1946	Mar. 1, 1946	15.3	1,400	1958	May 31, 1958	13.12	970
1947	June 25, 1947	17.8	3,240	1959	June 1, 1959	17.59	1,920
1948	Mar. 17, 1948	17.1	2,710	1960	Mar. 29, 1960	21.93	15,100
					Apr. 2, 1960	20.83	9,480
1949	Mar. 5, 1949	18.1	4,520		May 22, 1960	17.22	2,710
	Sept.12, 1949	18.1	2,720				
				1961	Mar. 2, 1961	18.00	2,870
1950	June 19, 1950	19.2	4,840				
				1962	Mar. 29, 1962	22.41	20,600
1951	Mar. 28, 1951	19.94	8,320				

OMAHA CREEK BASIN

6006. South Omaha Creek tributary near Walthill, Nebr.

Location.--Lat 42°06', long 96°30', in SW¼NW¼ sec.35, T.25 N., R.8 E., at county highway bridge 0.5 mile south of east-west road and 3½ miles south of Walthill.

Drainage area.--2.64 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow and low-flow estimates, and extended on basis of slope-area measurements at 127, 366, 450, 528, and 1,330 cfs.

Bankfull stage.--13.5 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of South Omaha Creek tributary near Walthill, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 7, 1950	14.3	1,030	1957	June 16, 1957	14.57	1,410
				1958	Feb. 27, 1958	11.85	160
1951	Aug. 14, 1951	13.6	440	1959	May 28, 1959	13.08	318
1952	July 6, 1952	13.59	440	1960	Aug. 28, 1960	14.31	450
1953	June 7, 1953	13.85	590				
1954	June 21, 1954	14.08	780	1961	June 1, 1961	13.86	528
1955	Aug. 9, 1955	11.73	150	1962	May 20, 1962	14.16	862
1956	June 25, 1956	13.22	340				

6007. South Omaha Creek near Walthill, Nebr.

Location.--Lat 42°07', long 96°29', in SW¼SE¼ sec.23, T.25 N., R.8 E., at county road bridge, 0.2 mile east of Chicago, Burlington, and Quincy Railroad, and 2 miles south of Walthill.

Drainage area.--15.1 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by low-flow estimates, a current-meter measurement at 109 cfs, and indirect measurements at 214, 785, 1,630, 3,360, and 4,300 cfs.

Bankfull stage.--16 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)
1950	Aug. 7, 1950	16.2	1,340	1957	July 13, 1957	17.70	5,800
				1958	Apr. 4, 1958	6.90	120
1951	Feb. 28, 1951	15.36	1,030	1959	May 28, 1959	16.53	1,480
1952	July 6, 1952	17.57	5,250	1960	Aug. 28, 1960	13.78	785
1953	June 7, 1953	17.34	4,300				
1954	June 21, 1954	18.71	10,100	1961	June 1, 1961	15.52	1,110
1955	July 20, 1955	11.30	590	1962	May 20, 1962	17.00	3,360
1956	July 11, 1956	12.98	705				

6008. South Omaha Creek tributary No. 2 near Walthill, Nebr.

Location.--Lat 42°08', long 96°29', in SW¼ sec.13, T.25 N., R.8 E., at culvert on U.S. Highway 77, 0.6 mile south of State Highway 94 and 0.8 mile southeast of Walthill.

Drainage area.--1.51 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow and indirect measurements at 188, 240, 282, and 1,220 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	Aug. 7, 1950	11.4	420	1957	June 16, 1957	12.11	940
				1958	July 2, 1958	9.5	80
1951	Feb. 28, 1951	11.19	350	1959	May 28, 1959	11.13	334
1952	July 6, 1952	11.36	400	1960	Aug. 28, 1960	11.62	188
1953	June 7, 1953	12.32	1,220				
1954	June 20, 1954	12.90	2,150	1961	June 14, 1961	11.53	320
1955	Mar. 1, 1955	11.33	390	1962	Mar. 23, 1962	a12.63	150
1956	July 11, 1956	12.42	1,370				

a Backwater from snow.

6009. South Omaha Creek at Walthill, Nebr.

Location.--Lat 42°09', long 96°29', in SE¼SE¼ sec.11, T.25 N., R.8 E., at bridge on State Highway 94 at east edge of Walthill.

Drainage area.--51.0 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 1,630 cfs and extended above on basis of indirect measurements at 1,760, 2,800, 4,120, and 14,000 cfs.

Bankfull stage.--20 ft.

Historical data.--The town of Walthill was flooded in 1920 and on June 4, 1940. The flood of June 4, 1940, exceeded the flood of June 20, 1954.

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)
1951	Aug. 14, 1951	16.5	1,070	1957	June 13, 1957	24.92	14,200
1952	May 22, 1952	21.14	2,800	1958	Feb. 27, 1958	13.84	650
1953	June 7, 1953	21.55	3,500	1959	May 28, 1959	18.72	1,800
1954	June 20, 1954	24.87	14,000	1960	Aug. 28, 1960	18.54	1,760
1955	July 20, 1955	14.61	760	1961	June 14, 1961	18.39	3,620
1956	June 25, 1956	18.74	1,810	1962	May 20, 1962	19.11	4,120

6010. Omaha Creek at Homer, Nebr.

Location.--Lat 42°20', long 96°29', in SE¼ sec.11, T.27 N., R.8 E., on right pier on downstream side of bridge on main street of Homer.

Drainage area.--170 sq mi, approximately.

Gage.--Recording. At bridge half a mile downstream at datum 8.03 ft lower, prior to Aug. 4, 1952. Datum of gage is 1,082.45 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs and by slope-area measurements at 7,600 and 14,500 cfs.

Bankfull stage.--28 ft, present datum.

Historical data.--Greatest flood known occurred June 4, 1940 (gage height, about 32.5 ft, present site and datum). The peak discharge for the June 4, 1940, flood was estimated as 51,000 cfs at site 2.5 miles upstream from present site. The town of Homer is reported to have been flooded in 1920, but to a lesser degree than in 1940.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 4, 1940	32.5	-	1949	July 14, 1949	-	640
					July 27, 1949	-	1,600
1946	June 29, 1946	9.40	1,090		Sept.10, 1949	-	970
1947	Mar. 12, 1947	a8.72	-	1950	Mar. 5, 1950	-	-
	Apr. 23, 1947	7.00	651		Mar. 22, 1950	-	1,100
	June 12, 1947	8.25	939		June 15, 1950	-	1,700
					June 18, 1950	-	-
1948	Feb. 17, 1948	-	-		June 23, 1950	-	850
	Feb. 27, 1948	a14.58	-		July 12, 1950	-	650
	Apr. 26, 1948	-	600		July 18, 1950	-	870
	Aug. 10, 1948	-	770		July 21, 1950	-	600
					Aug. 7, 1950	14.84	3,240
1949	Mar. 20, 1949	-	-		Aug. 17, 1950	-	848
	June 1, 1949	-	1,400				
	July 6, 1949	-	-	1951	Mar. 25, 1951	13.60	2,720

a Backwater from ice.

Peak stages and discharges of Omaha Creek at Homer, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 15, 1951	-	-	1957	July 1, 1957	5.57	1,680
	June 19, 1951	-	-		July 13, 1957	8.30	3,050
	June 26, 1951	-	-		July 15, 1957	6.50	2,150
	July 3, 1951	-	1,000		July 27, 1957	4.78	1,310
	Aug. 15, 1951	14.0	2,900		Aug. 29, 1957	4.66	1,270
	Aug. 20, 1951	-	1,000		Sept. 2, 1957	8.75	3,280
	Aug. 27, 1951	-	-		Sept.14, 1957	3.20	615
	Sept.12, 1951	12.39	2,260		Sept.19, 1957	3.95	952
1952	Oct. 4, 1951	10.40	1,400	1958	Nov. 1, 1957	4.33	1,120
	Mar. 12, 1952	13.61	2,720		Feb. 27, 1958	7.95	2,280
	May 23, 1952	20.22	5,950		Apr. 5, 1958	3.50	670
	June 27, 1952	12.15	1,680		July 2, 1958	23.62	14,400
	July 7, 1952	14.44	2,690				
				1959	May 21, 1959	3.80	885
1953	June 8, 1953	12.52	4,760		May 29, 1959	9.34	3,590
	June 25, 1953	3.88	766		May 31, 1959	10.36	4,150
					Aug. 2, 1959	8.20	3,000
1954	May 31, 1954	3.60	645				
	June 3, 1954	4.10	830	1960	Apr. 2, 1960	6.45	1,460
	June 19, 1954	4.58	1,020		Aug. 28, 1960	11.31	3,460
	June 21, 1954	21.41	10,200				
	June 26, 1954	5.18	1,260	1961	Feb. 22, 1961	a8.10	-
					May 12, 1961	4.50	1,060
1955	Mar. 2, 1955	a8.47	-		May 14, 1961	7.36	2,400
	Apr. 27, 1955	4.38	946		June 1, 1961	5.98	1,700
	May 26, 1955	3.83	732		June 14, 1961	6.22	1,870
	Aug. 9, 1955	5.41	1,350		July 26, 1961	4.70	1,160
1956	May 11, 1956	4.13	818	1962	Mar. 26, 1962	a18.08	-
	May 30, 1956	4.07	806		Mar. 28, 1962	-	1,850
	June 6, 1956	4.64	1,040		May 18, 1962	4.06	898
	June 26, 1956	16.38	7,580		May 21, 1962	12.20	4,800
	July 11, 1956	8.38	2,730		May 23, 1962	-	1,500
	Aug. 18, 1956	4.33	950		May 28, 1962	-	830
					June 8, 1962	5.40	1,430
1957	May 12, 1957	5.20	1,520		June 17, 1962	8.15	2,780
	June 14, 1957	20.35	10,100		June 29, 1962	-	1,200
	June 16, 1957	10.93	4,460		July 13, 1962	-	900
	June 22, 1957	10.48	4,210		Aug. 9, 1962	4.61	1,090

a Backwater from ice.

MONONA-HARRISON DITCH BASIN

6020. West Fork ditch at Holly Springs, Iowa

Location.--Lat 42°15'34", long 96°04'41", in SE¼SE¼ sec.16, T.86 N., R.45 W., on right bank 10 ft downstream from bridge on county road, three-quarters of a mile south of Holly Springs, 11.4 miles upstream from Wolf Creek, 15.7 miles north of Onawa, and 22 miles southeast of Sioux City.

Drainage area.--399 sq mi.

Gage.--Nonrecording at bridge three-quarters of a mile upstream prior to June 16, 1959; recording thereafter. Datum of gage is 1,052.82 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

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

Remarks.--West Fork ditch is a dredged channel which diverts flow of West Fork Little Sioux River at Holly Springs and carries it 5.5 miles south, thence southeast 6.5 miles to a point 1.5 miles west of Kennebec, where Wolf Creek enters from left. From this point ditch roughly parallels Little Sioux River and becomes known as Monona-Harrison ditch 3 miles southwest of Turin. 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)
1939	Aug. 3, 1939	15.0	1,320	1944	July 8, 1944	19.7	3,590
					Aug. 1, 1944	19.0	3,050
1940	June 4, 1940	19.8	3,360				
				1945	Mar. 12, 1945	21.4	5,250
1941	Sept.15, 1941	19.0	2,580		Aug. 6, 1945	22.4	6,600
1942	June 30, 1942	13.7	878	1946	Feb. 7, 1946	-	1,100
1943	July 19, 1943	18.0	2,480	1947	June 25, 1947	15.9	1,520

Peak stages and discharges of West Fork ditch at Holly Springs, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 29, 1948	17.2	2,000	1956	May 29, 1956	6.9	390
	Mar. 17, 1948	17.0	1,920				
				1957	June 14, 1957	14.24	2,300
1949	June 1, 1949	17.2	2,040		June 17, 1957	13.97	2,220
					June 22, 1957	14.2	2,300
1950	June 19, 1950	22.2	6,300		June 29, 1957	14.08	2,260
1951	Mar. 28, 1951	22.28	6,450	1958	Feb. 25, 1958	11.31	700
	May 2, 1951	17.8	2,580				
	June 19, 1951	16.2	2,140	1959	May 29, 1959	18.00	4,320
	Aug. 16, 1951	16.0	2,100		May 31, 1959	-	3,500
1952	Feb. 12, 1952	16.10	2,000	1960	Mar. 30, 1960	25.2	10,000
	Mar. 14, 1952	13.40	2,060		Apr. 2, 1960	17.27	3,280
	Mar. 31, 1952	16.35	3,440		May 26, 1960	16.09	2,890
	July 8, 1952	18.75	5,000		Aug. 29, 1960	14.67	2,480
1953	June 9, 1953	18.89	5,050	1961	Mar. 16, 1961	11.25	1,840
					June 14, 1961	12.07	2,140
1954	June 20, 1954	22.91	7,860				
				1962	Mar. 28, 1962	22.46	12,400
1955	July 10, 1955	11.30	1,640		July 20, 1962	-	2,200

LITTLE SIOUX RIVER BASIN

6030. Little Sioux River near Lakefield, Minn.

Location.--Lat 43°37'10", long 95°16'30", in SE¼ sec.21, T.102 N., R.37 W., at upstream side of highway bridge, a quarter of a mile upstream from Jackson County ditch 11, and 6.7 miles southwest of Lakefield.

Drainage area.--17.1 sq mi.

Gage.--Recording. Datum of gage is 1,405.28 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 170 cfs and at 2,550 cfs by contracted-opening measurement of combined flow of Little Sioux River and Jackson County ditch, which was divided in proportion to the drainage areas of the river and the ditch.

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)
1949	Mar. 7, 1949	a5.8	-	1956	Apr. 3, 1956	3.28	8.2
	Apr. 4, 1949	4.24	b103				
				1957	May 29, 1957	4.50	59
1950	Mar. 27, 1950	3.65	32		June 22, 1957	4.77	81
1951	Apr. 1, 1951	a6.05	-	1958	Nov. 30, 1957	a3.52	-
	Apr. 5, 1951	5.51	224		Apr. 23, 1958	3.29	5.6
	June 28, 1951	4.76	150				
	Sept. 9, 1951	4.00	78	1959	May 31, 1959	6.39	324
1952	Mar. 20, 1952	a4.85	c82	1960	Mar. 28, 1960	4.97	136
	Mar. 30, 1952	a6.30	-		Apr. 2, 1960	4.68	95
	June 17, 1952	4.17	94		Apr. 13, 1960	4.76	106
					May 21, 1960	4.38	60
1953	Mar. 15, 1953	3.62	41		June 10, 1960	4.28	51
	Mar. 24, 1953	3.60	40		July 11, 1960	4.48	71
	Apr. 16, 1953	3.59	39				
	May 30, 1953	3.88	66	1961	Mar. 24, 1961	4.58	79
	June 7, 1953	10.20	2,550				
	June 29, 1953	4.25	101	1962	Mar. 28, 1962	5.74	250
					Apr. 9, 1962	4.29	68
1954	Mar. 19, 1954	-	c40		Apr. 12, 1962	4.06	48
	June 21, 1954	4.42	51		May 22, 1962	4.16	56
					June 10, 1962	4.40	45
1955	Mar. 11, 1955	a4.13	c30		July 4, 1962	4.62	53

a Backwater from ice.
b Maximum discharge recorded.
c Maximum daily discharge.

6035. Jackson County ditch 11 near Lakefield, Minn.

Location.--Lat 43°37'10", long 95°16'10", in SW¼ sec.22, T.102 N., R.37 W., 600 ft upstream from mouth and 6.5 miles southwest of Lakefield.

Drainage area.--7.69 sq mi.

Gage.--Recording. Datum of gage is 1,404.47 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 120 cfs and at 1,150 cfs by contracted-opening measurement of combined flow of Jackson County ditch and Little Sioux River, which was divided in proportion to the drainage areas of the ditch and the river.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Nov. 21, 1948	a3.46	4.5	1954	Aug. 27, 1954	3.34	4.3
	Mar. 7, 1949	a6.37	-		Sept.17, 1954	4.31	4.1
	Mar. 24, 1949	5.57	70				
	Apr. 2, 1949	5.05	41	1955	Oct. 11, 1954	4.53	12
	Apr. 15, 1949	3.42	5.2		Mar. 12, 1955	4.32	7.1
					Mar. 13, 1955	a4.74	-
1950	Apr. 8, 1950	3.14	2.6		Apr. 20, 1955	4.23	4.6
					Apr. 25, 1955	4.46	12
1951	Apr. 1, 1951	a6.53	-				
	Apr. 5, 1951	5.64	127	1956	Mar. 25, 1956	a5.52	-
	May 1, 1951	4.13	16		Apr. 1, 1956	a4.32	7.1
	June 27, 1951	5.76	150				
	Aug. 5, 1951	3.40	5.5	1957	Mar. 30, 1957	4.31	6.2
	Sept. 9, 1951	3.98	b13		May 21, 1957	4.22	4.2
					May 29, 1957	6.12	198
1952	Mar. 20, 1952	5.32	b30		June 22, 1957	5.82	147
	Mar. 29, 1952	6.35	-		June 25, 1957	5.08	52
	Apr. 1, 1952	-	b21		July 4, 1957	4.36	8.2
	Apr. 10, 1952	3.98	13				
	Apr. 22, 1952	3.39	5.4	1958	Nov. 4, 1957	4.11	2.6
	June 15, 1952	4.97	c43		Feb. 4, 1958	a4.49	-
1953	Mar. 19, 1953	a4.58	14	1959	May 30, 1959	7.03	259
	May 1, 1953	3.89	12				
	May 30, 1953	3.96	6.2	1960	Dec. 29, 1959	4.43	5.4
	June 7, 1953	10.91	1,150		Mar. 29, 1960	5.40	63
	June 27, 1953	4.86	38		Apr. 2, 1960	5.15	45
	Aug. 5, 1953	3.71	9.4		Apr. 12, 1960	4.67	16
	Aug. 12, 1953	3.25	4.3		May 6, 1960	4.46	7.6
					May 20, 1960	4.88	27
1954	Mar. 17, 1954	a5.15	6.2		June 9, 1960	5.02	36
	Mar. 19, 1954	a4.45	11		July 11, 1960	5.03	37
	Mar. 25, 1954	3.62	8.4		Sept.25, 1960	4.65	15
	Mar. 28, 1954	3.50	7.1				
	May 2, 1954	3.39	4.3	1961	Mar. 24, 1961	5.06	d39
	June 21, 1954	5.11	26				

a Backwater from ice. b Daily mean discharge. c Maximum recorded. d Maximum to Mar. 31.

6051. Little Sioux River at Spencer, Iowa

Location.--Lat 43°08', long 95°08', in sec.18, T.96 N., R.36 W., at bridge on U.S. Highways 18 and 71, at Spencer, three-quarters of a mile downstream from Ocheyedan River.

Drainage area.--1,030 sq mi.

Gage.--Nonrecording. At datum 0.40 ft lower prior to Sept. 17, 1937. Datum of gage is 1,294.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs and by velocity-area study at 5,000 cfs.

Historical data.--Flood in spring of 1936 reached a stage of 15.4 ft, datum used in 1942, from floodmark.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Little Sioux River at Spencer, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	-	15.4	-	1940	June 24, 1940	7.38	503
1937	June 14, 1937	13.96	3,250				
1938	Sept.16, 1938	14.97	5,000	1941	Mar. 10, 1941	10.95	1,340
1939	Mar. 14, 1939	a9.98	-	1942	Aug. 31, 1942	12.3	2,170
	Aug. 11, 1939	9.86	1,080				

a Backwater from ice.

6066. Little Sioux River at Correctionville, Iowa

Location.--Lat 42°28'20", long 95°47'50", in NE¼NW¼ sec.1, T.88 N., R.43 W., on right bank 10 ft upstream from bridge on State Highway 31, 0.2 mile upstream from Bacon Creek, 0.5 mile west of Correctionville, and 0.8 mile downstream from Pierson Creek.

Drainage area.--2,500 sq mi.

Gage.--Nonrecording prior to Nov. 8, 1938; recording thereafter. At site 0.2 mile downstream at datum 1.25 ft lower prior to July 16, 1929. Datum of gage is 1,096.49 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of June 23, 1891, reached a stage of 29.34 ft, present datum, from levels to floodmark by Soil Conservation Service.

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)
1891	June 23, 1891	29.34	-	1942	June 19, 1942	15.3	3,800
1919	Mar. 18, 1919	14.9	5,500	1943	July 4, 1943	18.5	6,530
	June 12, 1919	19.6	10,700		July 20, 1943	18.4	6,600
	June 28, 1919	15.1	5,640				
	July 13, 1919	17.6	8,350	1944	May 19, 1944	19.4	8,500
					June 12, 1944	21.1	13,000
1920	Mar. 13, 1920	17.4	8,920		July 7, 1944	17.4	5,450
	June 1, 1920	14.2	5,100		July 15, 1944	16.6	4,560
	June 7, 1920	14.8	5,440				
				1945	Mar. 13, 1945	19.6	8,220
1921	May 27, 1921	11.7	3,960		May 29, 1945	16.6	4,630
					June 12, 1945	18.1	6,190
1922	Mar. 13, 1922	9.0	2,520		June 15, 1945	19.1	7,420
					Aug. 5, 1945	21.9	14,800
1923	Mar. 26, 1923	-	2,000				
				1946	Feb. 5, 1946	17.7	5,870
1924	June 29, 1924	13.9	4,950				
	Aug. 15, 1924	12.4	4,200	1947	May 1, 1947	20.3	10,400
					June 24, 1947	19.0	7,670
1925	June 4, 1925	9.3	2,190		July 1, 1947	15.5	4,440
					July 5, 1947	15.7	4,550
1929	Mar. 14, 1929	16.3	6,250				
	Mar. 18, 1929	15.7	6,170	1948	Feb. 27, 1948	18.7	7,770
1930	June 13, 1930	11.2	2,990	1949	Mar. 6, 1949	-	4,150
1931	July 17, 1931	10.3	2,540	1950	June 18, 1950	18.7	6,860
1932	Apr. 21, 1932	17.7	6,560	1951	Mar. 29, 1951	19.47	7,990
	May 26, 1932	14.5	4,330		Apr. 7, 1951	22.58	17,900
					May 6, 1951	17.74	5,700
1937	May 31, 1937	16.4	5,500		July 6, 1951	17.21	5,200
	June 19, 1937	17.0	5,950		Aug. 14, 1951	18.36	6,480
	Aug. 19, 1937	15.7	5,030		Aug. 17, 1951	18.51	6,600
					Aug. 20, 1951	15.84	4,060
1938	Sept. 8, 1938	15.4	4,380		Sept.12, 1951	16.89	4,920
	Sept.21, 1938	18.9	7,250				
				1952	Mar. 13, 1952	17.07	5,100
1939	Mar. 12, 1939	-	2,200		Mar. 20, 1952	17.06	5,100
					Apr. 1, 1952	19.30	7,680
1940	Aug. 26, 1940	16.2	4,730		Apr. 4, 1952	20.37	10,400
					July 7, 1952	17.66	5,700
1941	Sept.15, 1941	17.0	4,740				

Peak stages and discharges of Little Sioux River at Correctionville, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	June 12, 1953	22.09	17,500	1959	June 11, 1959	16.8	5,200
	June 25, 1953	16.95	5,260				
				1960	Mar. 29, 1960	22.57	16,000
1954	June 21, 1954	23.36	20,900		May 22, 1960	18.53	7,100
					May 26, 1960	20.38	10,400
1955	July 10, 1955	15.60	4,280		Aug. 28, 1960	16.00	4,540
1956	May 31, 1956	7.05	452	1961	Mar. 14, 1961	15.68	4,340
					Mar. 29, 1961	22.32	16,400
1957	June 22, 1957	16.76	5,700		June 14, 1961	16.11	4,640
					Aug. 9, 1961	19.04	7,800
1958	June 3, 1958	11.85	2,060				
				1962	Mar. 30, 1962	23.14	19,800
1959	May 28, 1959	18.56	7,240		July 14, 1962	15.55	4,500
	May 31, 1959	19.30	8,280				

6067. Little Sioux River near Kennebec, Iowa

Location.--Lat 42°04'55", long 96°00'50", in SE¼SW¼ sec.18, T.84 N., R.44 W., near left bank on downstream side of pier of bridge on Monona County Highway A, 1.1 miles south of Kennebec, 5.5 miles northeast of Onawa, and 6.2 miles upstream from Maple River.

Drainage area.--2,738 sq mi.

Gage.--Nonrecording prior to May 24, 1950; recording thereafter. At datum 0.87 ft higher prior to Oct. 13, 1959. Datum of gage is 1,027.02 ft above mean sea level (Monona County Highway Department bench mark).

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater from Maple River at times.

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)
1940	June 4, 1940	20.8	4,120	1951	July 3, 1951	21.30	7,000
	July 29, 1940	21.8	-		Aug. 15, 1951	22.30	6,500
					Aug. 17, 1951	22.15	7,800
1941	Sept.16, 1941	20.9	3,850		Aug. 21, 1951	17.81	5,090
					Sept.12, 1951	19.43	6,460
1942	June 2, 1942	20.5	4,010				
	June 6, 1942	21.6	4,880	1952	Feb. 13, 1952	17.73	4,500
					Mar. 13, 1952	18.15	5,710
1943	Feb. 27, 1943	20.7	4,170		Mar. 20, 1952	17.35	5,070
	July 8, 1943	23.6	6,310		Apr. 2, 1952	20.32	7,650
					Apr. 5, 1952	21.67	9,170
1944	May 20, 1944	25.0	10,800		July 7, 1952	19.77	7,150
	June 13, 1944	24.9	10,800				
	July 7, 1944	20.2	4,710	1953	June 14, 1953	23.97	11,500
	July 18, 1944	19.3	4,140		June 26, 1953	16.88	4,660
	Aug. 1, 1944	19.2	4,070				
				1954	June 22, 1954	26.18	13,500
1945	Mar. 18, 1945	24.8	8,400				
	May 31, 1945	23.1	6,820	1955	Mar. 11, 1955	14.15	3,430
	June 13, 1945	21.7	5,940				
	June 17, 1945	24.1	8,200	1956	June 6, 1956	6.99	464
	Aug. 7, 1945	25.0	8,590				
				1957	June 23, 1957	15.53	4,300
1946	Feb. 6, 1946	-	6,000				
				1958	Feb. 28, 1958	10.92	1,900
1947	May 2, 1947	22.9	8,390				
	May 6, 1947	18.8	4,860	1959	May 29, 1959	17.84	5,260
	June 25, 1947	22.4	7,940		May 31, 1959	19.90	7,040
					June 11, 1959	16.8	4,600
1948	Feb. 28, 1948	24.2	7,870	1960	Mar. 30, 1960	23.26	16,400
	Mar. 16, 1948	21.4	5,590		May 27, 1960	19.57	9,610
					Aug. 29, 1960	14.53	4,140
1949	Mar. 4, 1949	-	5,300				
				1961	Mar. 30, 1961	20.70	14,500
1950	June 12, 1950	19.1	4,470		June 15, 1961	15.23	5,180
	June 18, 1950	22.4	6,140		Aug. 10, 1961	17.07	5,810
1951	Mar. 28, 1951	24.86	8,400	1962	Mar. 31, 1962	-	19,000
	Apr. 11, 1951	24.33	12,000		July 14, 1962	18.13	8,260
	May 1, 1951	18.92	5,330		July 20, 1962	14.71	4,730
	June 8, 1951	17.22	4,640		Sept. 1, 1962	15.16	5,180
	June 19, 1951	17.12	4,570				

6070. Odebolt Creek near Arthur, Iowa

Location.--Lat 42°20'05", long 95°22'55", in SE¼NE¼ sec.21, T.87 N., R.39 W., near center of span on downstream side of county road bridge, 700 f' south of State Highway 175, 2 miles west of Arthur, 4.5 miles east of Ida Grove, and 5 miles upstream from mouth and Maple River.

Drainage area.--39.3 sq mi.

Gage.--Recording. Datum of gage is 1,258.57 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of July 3, 1951, reached a stage of 11.96 ft, from floodmark (discharge, 4,320 cfs, from contracted-opening measurement).

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)
1958	Feb. 27, 1958	7.04	378	1961	June 14, 1961	9.50	835
					June 27, 1961	8.73	630
1959	May 31, 1959	12.18	5,160				
				1962	Mar. 27, 1962	-	3,000
1960	Mar. 29, 1960	13.00	700		July 14, 1962	9.82	805
	Apr. 1, 1960	8.29	560		Aug. 30, 1962	13.78	5,200
1961	June 13, 1961	8.42	576				

6072. Maple River at Mapleton, Iowa

Location.--Lat 42°09'30", long 95°48'25", in SE¼SE¼ sec.23, T.85 N., R.43 W., on right pier on downstream side of bridge on State Highway 175, 80 ft downstream from Chicago and North Western Railway Co. bridge, 0.5 mile southwest of Mapleton, 12.5 miles northeast of Turin, and 16.0 miles upstream from mouth.

Drainage area.--669 sq mi.

Gage.--Nonrecording prior to Aug. 20, 1952, and June 21, 1954, to Sept. 20, 1956; recording Aug. 20, 1952, to June 20, 1954, and since Sept. 21, 1956. Supplemental recording gage operative above 9.5 ft June 8, 1949, to Aug. 19, 1952. At site 1.4 miles upstream at datum 4.05 ft higher June 21, 1954, to Sept. 6, 1955. Datum of all gages at present site is 1,085.86 ft above mean sea level, datum of 1929.

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

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)
1936	March 1936	-	2,900	1949	Mar. 4, 1949	-	7,000
1939	July 4, 1939	16.0	1,910	1950	June 12, 1950	22.1	13,000
1940	June 4, 1940	19.4	2,920	1951	Mar. 27, 1951	20.1	10,800
					May 1, 1951	14.27	4,790
1941	Sept.16, 1941	-	889		June 19, 1951	16.50	6,800
					June 23, 1951	14.60	5,040
1942	June 31, 1942	20.3	5,480		July 3, 1951	13.45	4,100
					Aug. 15, 1951	17.27	7,630
1943	June 16, 1943	18.8	3,940				
				1952	Mar. 13, 1952	11.95	4,360
1944	June 13, 1944	-	4,730		June 21, 1952	14.68	7,060
					June 27, 1952	19.05	13,400
1945	Aug. 7, 1945	21.0	7,570		July 7, 1952	14.25	6,700
1946	May 24, 1946	17.5	5,460	1953	June 25, 1953	17.66	11,500
1947	June 22, 1947	17.0	4,800	1954	May 27, 1954	14.00	6,460
					June 20, 1954	20.4	15,600
1948	Feb. 27, 1948	21.1	9,400				

Peak stages and discharges of Maple River at Mapleton, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 10, 1955	13.0	6,800	1960	Mar. 30, 1960	17.90	11,400
					June 15, 1960	12.80	5,670
1956	June 6, 1956	10.24	3,260				
				1961	June 13, 1961	9.36	4,280
1957	June 14, 1957	9.95	2,820				
				1962	Mar. 28, 1962	16.05	13,500
1958	Feb. 27, 1958	8.6	1,800		July 14, 1962	10.13	4,580
					Aug. 31, 1962	15.40	11,800
1959	May 28, 1959	13.18	5,520				
	May 31, 1959	19.70	14,000				

TEKAMAH CREEK BASIN

6077. South Branch Tekamah Creek near Craig, Nebr.

Location.--Lat 41°46', long 96°19', in NW¼ sec.29, T.21 N., R.10 E., at downstream end of culvert on east-west road, 5 miles west of Tekamah and 2½ miles southeast of Craig.

Drainage area.--2.54 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 35 cfs and by indirect measurements at 148, 659, 730, 834, 978, and 2,570 cfs. Channel improvements in April 1957 caused a radical change in rating.

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	July 15, 1950	21.3	2,580	1957	June 21, 1957	9.51	148
				1958	Aug. 13, 1958	11.14	725
1951	July 3, 1951	12.6	834	1959	May 28, 1959	11.09	713
1952	July 6, 1952	13.18	760	1960	June 20, 1960	11.42	730
1953	May 24, 1953	10.47	290				
1954	June 21, 1954	15.46	1,240	1961	June 14, 1961	11.26	163
1955	July 13, 1955	10.02	220	1962	May 26, 1962	15.51	978
1956	May 13, 1956	14.37	1,000				

6078. South Branch Tekamah Creek tributary near Tekamah, Nebr.

Location.--Lat 41°45', long 96°17', in NW¼NW¼ sec.34, T.21 N., R.10 E., on downstream side of bridge on east-west county road, 4 miles southwest of Tekamah.

Drainage area.--4.08 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 43 cfs and extended above on basis of slope-area measurements at 470, 552, 1,020, 1,290, and 2,750 cfs.

Bankfull stage.--17 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)
1950	July 15, 1950	19.3	1,800	1957	June 21, 1957	16.99	1,160
				1958	Aug. 13, 1958	15.20	890
1951	Aug. 20, 1951	15.05	870	1959	June 28, 1959	15.37	915
1952	July 6, 1952	12.58	552	1960	June 20, 1960	17.56	1,290
1953	Feb. 19, 1953	13.76	700				
1954	Apr. 21, 1954	16.15	1,020	1961	June 14, 1961	11.68	448
1955	July 13, 1955	11.17	390	1962	June 6, 1962	15.05	873
1956	May 13, 1956	11.75	470				

6079. South Branch Tekamah Creek near Tekamah, Nebr.

Location.--Lat 41°46', long 96°17', in SW¼NW¼ sec.27, T.21 N., R.10 E., on downstream side of bridge on north-south county road, 0.2 mile south of Chicago, St. Paul, Minneapolis, and Omaha Railway, and 3 miles west of Tekamah.

Drainage area.--9.73 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow, current-meter measurement at 162 cfs, and slope-area measurements at 944, 1,400, 1,720, 3,130, and 4,560 cfs.

Bankfull stage.--19 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)
1950	July 15, 1950	20.0	2,900	1957	June 21, 1957	17.68	1,290
				1958	Aug. 13, 1958	17.58	1,270
1951	July 3, 1951	18.45	1,400	1959	May 28, 1959	17.31	1,230
1952	July 6, 1952	16.92	1,170	1960	June 20, 1960	18.91	1,720
1953	Feb. 19, 1953	13.60	690				
1954	Apr. 21, 1954	20.17	3,130	1961	June 14, 1961	11.68	435
1955	July 13, 1955	12.44	530	1962	May 26, 1962	16.31	1,080
1956	May 13, 1956	15.40	944				

6080. Tekamah Creek at Tekamah, Nebr.

Location.--Lat 41°46'30", long 96°13'10", in SE¼ sec.19, T.21 N., R.11 E., on left bank 30 ft upstream from bridge and 1 block east of U.S. Highway 73, in Tekamah.

Drainage area.--23.0 sq mi.

Gage.--Recording. Also crest-stage gage since Feb. 18, 1951. Datum of gage is 1,032.26 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 1,710 cfs and by slope-area measurements at 1,520 and 4,400 cfs.

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)
1950	May 5, 1950	4.96	243	1954	Apr. 21, 1954	13.95	4,140
	May 8, 1950	7.51	672		May 2, 1954	6.89	566
	July 12, 1950	10.27	1,690		May 23, 1954	5.62	348
	July 15, 1950	14.26	4,400		May 27, 1954	10.07	1,560
	July 18, 1950	6.7	520		May 31, 1954	8.79	1,060
	Aug. 12, 1950	6.43	474		June 2, 1954	6.47	491
	Aug. 17, 1950	10.07	1,620		June 21, 1954	13.30	3,590
					Aug. 23, 1954	5.48	327
1951	Oct. 2, 1950	5.60	363				
	Feb. 28, 1951	9.10	1,190	1955	Apr. 27, 1955	6.94	564
	Mar. 26, 1951	7.40	671		July 8, 1955	4.86	231
	May 31, 1951	9.48	1,330		July 9, 1955	5.58	333
	June 19, 1951	5.80	387		July 13, 1955	6.53	494
	July 3, 1951	10.03	1,570				
	Aug. 13, 1951	7.19	617	1956	May 13, 1956	9.47	1,280
	Aug. 14, 1951	9.57	1,330				
	Aug. 20, 1951	14.29	4,340	1957	June 15, 1957	9.74	1,410
					June 17, 1957	5.77	371
1952	Oct. 21, 1951	8.02	776		June 22, 1957	12.75	3,160
	Mar. 12, 1952	5.83	350		July 1, 1957	8.24	890
	Mar. 29, 1952	4.70	200		July 15, 1957	12.64	3,080
	June 27, 1952	12.05	2,450		July 20, 1957	8.53	980
	July 6, 1952	5.59	270		July 21, 1957	5.01	260
	Aug. 20, 1952	5.24	221		Sept. 1, 1957	7.00	587
1953	May 24, 1953	7.74	662	1958	Oct. 15, 1957	6.56	505
	June 7, 1953	6.43	429		Feb. 23, 1958	6.76	539

Peak stages and discharges of Tekamah Creek at Tekamah, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Feb. 27, 1958	4.85	230	1960	May 20, 1960	8.37	898
	Apr. 5, 1958	9.12	1,070		June 16, 1960	10.50	1,850
	July 30, 1958	12.23	1,520		June 20, 1960	11.30	2,470
	Aug. 13, 1958	15.10	3,070		Aug. 7, 1960	5.07	269
1959	May 6, 1959	6.59	510	1961	June 14, 1961	-	300
	May 9, 1959	7.97	774		Sept.10, 1961	5.93	400
	May 28, 1959	12.79	2,210				
	May 31, 1959	12.59	2,140	1962	Mar. 24, 1962	7.01	633
	June 11, 1959	9.90	1,300		May 26, 1962	11.72	2,750
	June 28, 1959	11.73	1,850		May 28, 1962	6.77	573
	June 29, 1959	7.98	776		June 3, 1962	6.00	417
	July 12, 1959	5.34	304		June 6, 1962	10.00	1,750
	Aug. 13, 1959	5.10	267		June 7, 1962	4.98	254
					July 14, 1962	5.72	373
1960	Apr. 2, 1960	7.39	650		July 27, 1962	5.90	403
	May 6, 1960	5.40	330		Aug. 31, 1962	4.92	245

SOLDIER RIVER BASIN

6085. Soldier River at Pisgah, Iowa

Location.--Lat 41°49'50", long 95°55'50", in NW¼NE¼ sec.14, T.81 N., R.44 W., on left bank on downstream side of highway bridge at west edge of Pisgah, 2.8 miles downstream from Stowe Creek, and 13.1 miles upstream from mouth.

Drainage area.--407 sq mi.

Gage.--Nonrecording prior to Oct. 11, 1954; recording thereafter. Supplemental recording gage operating above 8.2 ft Mar. 2, 1946, to Sept. 24, 1953. Datum of gage is 1,036.53 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter and indirect measurements below 19,000 cfs and extended above by logarithmic plotting.

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)
1940	June 4, 1940	25.7	17,000	1949	June 21, 1949	15.9	6,470
	July 9, 1940	25.1	16,000		Aug. 12, 1949	15.9	6,540
	July 11, 1940	17.5	7,740				
	Aug. 3, 1940	17.6	7,820	1950	Feb. 28, 1950	-	9,000
					Mar. 4, 1950	14.7	5,690
1941	June 2, 1941	12.6	4,220		June 2, 1950	18.4	8,420
					June 12, 1950	28.2	22,500
1942	June 2, 1942	24.0	14,300		June 18, 1950	23.7	13,900
	June 28, 1942	26.1	17,800		Aug. 12, 1950	16.1	6,700
	July 19, 1942	14.0	5,200				
	July 24, 1942	15.5	6,250	1951	Mar. 26, 1951	24.85	17,000
					May 1, 1951	18.55	10,000
1943	July 21, 1943	16.0	6,620		June 2, 1951	16.35	7,860
	Aug. 22, 1943	20.0	9,760		June 17, 1951	27.46	20,400
					July 3, 1951	23.52	15,400
1944	May 12, 1944	16.0	6,620		Aug. 14, 1951	17.56	9,000
	June 12, 1944	25.0	15,700		Aug. 17, 1951	15.48	7,050
	Aug. 1, 1944	17.5	7,740		Aug. 20, 1951	13.65	5,380
					Sept. 9, 1951	14.60	6,240
1945	Mar. 9, 1945	16.0	6,620		Sept.12, 1951	14.05	5,720
	May 21, 1945	20.0	9,760				
	May 31, 1945	20.2	9,940	1952	Oct. 4, 1951	13.55	5,380
					Jan. 19, 1952	17.35	8,800
1946	Feb. 5, 1946	-	5,830		Mar. 12, 1952	13.45	5,210
	May 24, 1946	15.6	6,320		June 21, 1952	17.85	9,200
	June 28, 1946	20.1	9,850		June 27, 1952	25.18	17,500
	June 30, 1946	16.8	7,220		July 6, 1952	16.80	8,220
	Sept. 4, 1946	22.6	12,400				
	Sept. 7, 1946	15.2	6,040	1953	June 25, 1953	16.40	7,860
					Aug. 3, 1953	16.24	7,680
1947	June 22, 1947	14.1	5,270		Aug. 6, 1953	13.80	5,550
1948	Feb. 27, 1948	22.1	11,800	1954	Apr. 21, 1954	17.6	9,000
	Mar. 16, 1948	16.3	6,790		May 27, 1954	17.68	9,100
	July 29, 1948	15.0	5,860		June 19, 1954	23.35	15,200
					June 21, 1954	20.0	11,400
1949	Mar. 4, 1949	-	9,500				

Peak stages and discharges of Soldier River at Pisgah, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 8, 1955	11.79	3,890	1960	June 16, 1960	14.00	5,580
1956	July 11, 1956	10.68	2,880	1961	Mar. 15, 1961	11.47	3,480
1957	June 16, 1957	17.64	9,000	1962	Mar. 23, 1962	14.70	8,100
					May 28, 1962	12.96	5,800
1958	July 2, 1958	13.7	5,260		June 10, 1962	13.25	6,100
					Aug. 30, 1962	22.40	15,500
1959	May 28, 1959	14.60	6,010				
	May 31, 1959	16.87	8,060				

NEW YORK CREEK BASIN

6086. New York Creek near Spiker, Nebr.

Location.--Lat 41°38', long 96°20', in NW¼NW¼ sec.8, T.19 N., R.10 E., at downstream end of culvert on north-south county road, 2.5 miles northwest of Spiker.

Drainage area.--1.75 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow and indirect measurements at 77, 523, 1,380, and 1,700 cfs.

Remarks.--The peak of June 15, 1957, is affected by storage above the road fill. 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)
1952	June 21, 1952	13.74	348	1958	Aug. 5, 1958	14.29	405
1953	June 7, 1953	9.7	11	1959	June 28, 1959	14.92	523
1954	Apr. 21, 1954	10.0	17	1960	June 20, 1960	16.60	1,700
1955	June 5, 1955	10.20	25				
				1961	July 28, 1961	13.89	360
1956	May 29, 1956	10.0	17	1962	June 6, 1962	13.37	307
1957	June 15, 1957	16.42	1,380				

6087. New York Creek tributary near Spiker, Nebr.

Location.--Lat 42°38', long 96°18', in NW¼NW¼ sec.9, T.19 N., R.10 E., on downstream side of culvert on east-west county road, 300 ft east of north-south county road and 2.2 miles north of Spiker.

Drainage area.--1.55 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow, low-flow estimates, and indirect measurements at 122, 496, 1,370, 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)
1951	Aug. 20, 1951	14.44	240	1957	June 21, 1957	17.80	1,580
1952	June 21, 1952	17.19	1,220	1958	Aug. 5, 1958	15.03	365
1953	May 20, 1953	11.34	1	1959	June 28, 1959	13.40	496
1954	June 21, 1954	12.74	20	1960	June 20, 1960	17.52	1,370
1955	July 13, 1955	14.02	168				
				1961	June 1, 1961	12.9	354
1956	May 13, 1956	13.22	47	1962	June 6, 1962	12.30	272

6088. New York Creek north of Spiker, Nebr.

Location.--Lat 41°37', long 96°19', in NE¼NE¼ sec.17, T.19 N., R.10 E., on downstream side of abandoned concrete arch bridge, 100 ft west of present crossing of north-south county road and 1.1 miles north of Spiker.

Drainage area.--6.50 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by point of zero flow, low-flow estimates, and indirect measurements at 322, 1,380, 3,090, and 3,620 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)
1951	July 2, 1951	23.14	3,090	1957	June 21, 1957	23.40	3,160
1952	June 21, 1952	19.80	1,940	1958	July 30, 1958	17.04	1,250
1953	July 12, 1953	9.4	120	1959	June 28, 1959	17.64	1,380
1954	June 21, 1954	9.5	125	1960	June 20, 1960	24.07	3,620
1955	July 13, 1955	11.61	340				
				1961	June 1, 1961	17.02	1,250
1956	May 13, 1956	9.66	140	1962	June 6, 1962	15.41	930

6089. New York Creek east of Spiker, Nebr.

Location.--Lat 41°37', long 96°16', in SE¼SE¼ sec.15, T.19 N., R.10 E., on left upstream wingwall of bridge on north-south dirt road, 200 ft south of county road and 2.6 miles east of Spiker.

Drainage area.--13.9 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by a current-meter measurement and low-flow estimates below 146 cfs and extended above on basis of slope-area measurements at 483, 1,380, 4,820, 6,020, and 9,250 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)
1950	July 15, 1950	21.2	2,850	1957	June 21, 1957	23.78	4,820
				1958	July 30, 1958	14.61	1,020
1951	July 2, 1951	24.14	6,020	1959	June 28, 1959	15.73	1,280
1952	June 21, 1952	17.09	1,630	1960	June 20, 1960	25.03	9,250
1953	June 7, 1953	7.1	75				
1954	June 21, 1954	9.42	240	1961	July 28, 1961	11.28	420
1955	July 13, 1955	10.21	310	1962	June 6, 1962	12.18	530
1956	May 13, 1956	8.20	150				

6090. New York Creek at Herman, Nebr.

Location.--Lat 41°39'40", long 96°12'10", in NW¼ sec.32, T.20 N., R.11 E., on left bank 350 ft downstream from bridge on U.S. Highway 73 and half a mile southeast of Herman.

Drainage area.--25.4 sq mi.

Gage.--Recording gage and low-water concrete control. Datum of gage is 1,021.67 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,800 cfs and by slope-area measurement at 5,500 cfs.

Historical data.--Flood of June 11, 1944, reached a stage of 20.8 ft, from floodmarks.

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

Peak stages and discharges of New York Creek at Herman, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	June 11, 1944	20.8	4,700	1952	Aug. 1, 1952	9.46	1,080
1946	June 28, 1946	10.40	800	1953	Feb. 19, 1953	a5.79	-
					Mar. 10, 1953	4.33	18
1947	June 12, 1947	17.0	2,910				
				1954	June 21, 1954	6.92	395
1948	Feb. 27, 1948	14.19	1,750				
	Mar. 18, 1948	13.82	1,200	1955	July 13, 1955	7.96	646
	Sept. 2, 1948	16.41	2,520				
				1956	Sept. 4, 1956	8.80	640
1949	Mar. 4, 1949	a13.48	1,200				
	June 22, 1949	9.35	570	1957	June 15, 1957	17.16	4,230
	July 26, 1949	13.10	1,580		June 22, 1957	15.85	3,580
	Sept.11, 1949	13.35	1,660		July 2, 1957	7.82	620
					Sept. 1, 1957	-	530
1950	Feb. 28, 1950	11.90	-				
	May 5, 1950	8.50	815	1958	Apr. 4, 1958	10.55	1,220
	July 15, 1950	19.5	5,500		July 30, 1958	14.70	1,550
	July 18, 1950	10.15	1,750				
	Aug. 12, 1950	10.28	1,440	1959	May 28, 1959	10.82	829
	Aug. 15, 1950	11.61	2,000		May 31, 1959	-	750
					June 28, 1959	12.38	1,270
1951	Feb. 28, 1951	12.52	2,250		June 30, 1959	10.25	684
	Mar. 28, 1951	7.80	600				
	Apr. 28, 1951	8.90	920	1960	June 16, 1960	11.78	1,090
	May 1, 1951	10.10	1,400		June 20, 1960	19.93	4,420
	May 31, 1951	14.15	3,240				
	June 1, 1951	8.20	900	1961	May 30, 1961	10.65	1,260
	July 3, 1951	16.45	4,130		June 14, 1961	8.60	580
	Aug. 14, 1951	9.30	1,100				
	Aug. 20, 1951	14.58	3,430	1962	May 29, 1962	12.60	1,410
					June 3, 1962	13.35	1,640
1952	June 22, 1952	8.0	670		June 6, 1962	11.23	1,000
	June 27, 1952	11.43	1,830		June 8, 1962	10.42	802

a Backwater from ice.

BOYER RIVER BASIN

6095. Boyer River at Logan, Iowa

Location.--Lat 41°38'30", long 95°47'05", in SE¼NW¼ sec.19, T.79 N., R.42 W., on left bank 9 ft downstream from Illinois Central Railroad bridge at Logan, 10.5 miles upstream from Willow Creek, and 15.8 miles upstream from mouth.

Drainage area.--871 sq mi.

Gage.--Nonrecording prior to Oct. 19, 1960; recording thereafter. Supplemental recording gage operating above 4.8 ft at site 100 ft upstream Oct. 22, 1946, to Oct. 7, 1954, and at present site Oct. 8, 1954, to Oct. 18, 1960. At site 300 ft downstream prior to Apr. 17, 1925; Nov. 4, 1937, to Mar. 16, 1952; Oct. 1, 1957, to Oct. 18, 1960. At site 600 ft downstream Apr. 17 to July 1, 1925. At site 100 ft upstream on bridge on U.S. Highway 30 Mar. 17, 1952, to Sept. 30, 1957. Datum of all gages is 1,009.38 ft above mean sea level (Chicago and North Western Railway Co. bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs and extended above by logarithmic plotting.

Historical data.--Flood of May 1881 reached a stage of about 25 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)
1918	June 5, 1918	17.9	8,710	1921	Sept.10, 1921	13.5	6,890
1919	Apr. 23, 1919	17.8	8,620	1922	Feb. 22, 1922	-	6,900
	June 11, 1919	16.7	7,640		July 28, 1922	12.9	6,410
	June 21, 1919	16.0	7,040		Aug. 21, 1922	14.0	7,470
	July 13, 1919	16.5	7,470				
				1923	June 18, 1923	15.6	9,200
1920	Aug. 20, 1920	10.7	3,210				

Peak stages and discharges of Boyer River at Logan, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	June 8, 1924	16.8	10,500	1950	June 18, 1950	20.0	18,800
	June 24, 1924	19.0	13,200		Aug. 12, 1950	17.5	14,600
1925	June 3, 1925	18.7	12,800	1951	Mar. 28, 1951	20.03	23,000
					May 1, 1951	19.76	22,500
1938	Sept. 6, 1938	19.1	13,500		June 1, 1951	16.16	14,400
					June 18, 1951	18.53	19,200
1939	July 3, 1939	15.0	9,000		July 3, 1951	20.00	23,000
					Aug. 14, 1951	15.7	13,500
1940	June 4, 1940	19.1	13,500		Aug. 17, 1951	14.0	10,500
	July 9, 1940	19.2	13,600		Aug. 20, 1951	11.6	6,930
					Sept. 9, 1951	14.2	10,800
1941	June 11, 1941	10.4	4,400		Sept.12, 1951	11.0	6,200
1942	June 28, 1942	19.0	13,400	1952	Oct. 21, 1951	11.0	6,200
	July 19, 1942	19.0	13,400		Jan. 19, 1952	17.0	16,000
					June 21, 1952	19.50	19,000
1943	May 15, 1943	19.2	13,400		June 27, 1952	19.00	18,000
	June 3, 1943	17.0	11,200		July 7, 1952	14.20	9,900
	Aug. 22, 1943	13.5	6,980				
				1953	June 10, 1953	15.30	11,300
1944	June 4, 1944	13.0	6,700				
	June 8, 1944	17.8	11,800	1954	Apr. 21, 1954	15.18	12,300
	June 12, 1944	18.2	12,300		June 21, 1954	18.80	17,700
					Aug. 22, 1954	10.82	6,360
1945	Apr. 23, 1945	19.1	13,000				
	May 27, 1945	12.6	6,140	1955	Mar. 8, 1955	-	6,000
	June 1, 1945	16.6	10,300		July 10, 1955	12.52	8,450
	June 6, 1945	15.0	8,540				
	June 9, 1945	16.7	10,400	1956	May 13, 1956	11.7	7,440
	July 18, 1945	18.4	12,400				
				1957	June 14, 1957	13.58	9,940
1946	Feb. 5, 1946	16.1	9,750		June 16, 1957	22.67	23,600
	Sept. 4, 1946	17.2	11,000		June 22, 1957	13.45	9,660
					June 25, 1957	-	6,000
1947	June 1, 1947	12.7	6,670				
	June 12, 1947	16.8	11,000	1958	July 2, 1958	18.70	17,400
	June 22, 1947	18.2	12,600				
				1959	May 5, 1959	-	6,000
1948	Feb. 27, 1948	15.2	9,630		May 31, 1959	15.00	13,100
	Mar. 16, 1948	13.5	7,840				
	Mar. 18, 1948	15.0	9,400	1960	Mar. 29, 1960	14.62	10,200
	July 29, 1948	13.7	8,350				
				1961	May 31, 1961	11.08	6,360
1949	Mar. 4, 1949	19.2	17,400		June 14, 1961	11.77	7,600
	June 27, 1949	13.2	7,960		June 27, 1961	15.40	14,800
	July 20, 1949	12.4	6,980		Aug. 1, 1961	11.40	6,840
	Sept.11, 1949	14.6	9,840				
				1962	Mar. 28, 1962	13.70	12,400
1950	Feb. 28, 1950	-	16,000		May 26, 1962	12.82	7,720
	Mar. 4, 1950	12.0	6,500		May 29, 1963	12.64	7,440
	May 25, 1950	16.4	12,400		June 10, 1962	14.82	10,900
	June 2, 1950	16.5	12,600		Aug. 31, 1962	14.86	11,000
	June 12, 1950	17.3	13,900				

MISSOURI RIVER MAIN STEM

6100. Missouri River at Omaha, Nebr.

Location.--Lat 41°15'30", long 95°55'20", in SE¼NW¼ sec.23, T.15 N., R.13 E., on right bank on left side of concrete floodwall, beneath Ak-Sar-Ben Bridge in Omaha, and at mile 615.9.

Drainage area.--322,800 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 19, 1931; recording thereafter. At Illinois Central Railroad bridge 2 miles upstream at datum 2.97 ft higher Sept. 1, 1928, to Nov. 30, 1929. At present site and datum Dec. 1, 1929, to Oct. 18, 1931. At site 0.4 mile downstream at present datum Oct. 19, 1931, to Sept.30, 1936. Datum of gage is 958.24 ft above mean sea level, datum of 1929.

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

Remarks.--Flow partly regulated by upstream main-stem reservoirs. Only annual peaks are shown. Gage-height records April 1872 to December 1899 are contained in reports of Missouri River Commission and since January 1875 in reports of U.S. Weather Bureau.

Peak stages and discharges of Missouri River at Omaha, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 7, 1929	14.28	198,000	1946	June 24, 1946	13.20	84,700
1930	Mar. 15, 1930	11.9	84,400	1947	July 1, 1947	19.10	150,000
				1948	Mar. 28, 1948	14.0	112,000
1931	June 18, 1931	10.85	52,800	1949	Apr. 13, 1949	20.00	183,000
1932	June 19, 1932	15.12	137,000	1950	Apr. 27, 1950	21.24	198,000
1933	May 29, 1933	13.03	102,000				
1934	Mar. 5, 1934	15.00	125,000	1951	Apr. 11, 1951	18.20	152,000
1935	July 19, 1935	16.85	99,800	1952	Apr. 18, 1952	30.20	396,000
				1953	June 26, 1953	13.69	112,000
1936	Mar. 9, 1936	a16.90	-	1954	June 21, 1954	11.12	87,400
	Mar. 23, 1936	-	89,200	1955	Mar. 13, 1955	-	51,500
1937	June 24, 1937	18.15	111,000		July 11, 1955	7.36	-
1938	July 10, 1938	-	117,000				
	July 11, 1938	18.75	-	1956	Mar. 18, 1956	-	42,600
1939	Apr. 5, 1939	b19.30	141,000		July 13, 1956	7.47	-
1940	June 5, 1940	-	54,600	1957	June 16, 1957	9.25	59,000
	June 18, 1940	10.96	-	1958	July 2, 1958	8.55	45,400
				1959	June 1, 1959	9.77	57,000
1941	June 18, 1941	17.20	107,000	1960	Apr. 1, 1960	-	120,000
1942	June 11, 1942	18.30	121,000		Apr. 4, 1960	16.96	-
1943	Apr. 12, 1943	b22.45	200,000				
1944	Apr. 16, 1944	19.40	149,000	1961	June 15, 1961	7.66	41,700
1945	Mar. 22, 1945	b14.52	106,000	1962	Mar. 29, 1962	16.48	115,000

a Backwater from ice.
b Occurred on following day.

INDIAN CREEK BASIN

6105. Indian Creek at Council Bluffs, Iowa

Location.--Lat 41°17'40", long 95°49'55", in NW¼SE¼ sec.18, T.75 N., R.43 W., on downstream side of left pile bent of bridge on Mud Hollow Road at north edge of Council Bluffs, 8.8 miles upstream from mouth.

Drainage area.--7.99 sq mi.

Gage.--Nonrecording prior to Apr. 12, 1955; recording thereafter. At site a quarter of a mile downstream at different datum prior to Apr. 12, 1955. Datum of gage is 1,038.86 ft above mean sea level (city of Council Bluffs bench mark).

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

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	June 20, 1942	-	9,200	1959	May 9, 1959	9.75	845
					May 18, 1959	10.92	1,120
1955	July 8, 1955	9.16	543		July 17, 1959	11.27	1,230
					Aug. 2, 1959	11.50	1,290
1956	July 7, 1956	10.21	769		Aug. 22, 1959	9.37	753
	July 13, 1956	9.86	718				
				1960	May 24, 1960	10.18	943
1957	June 7, 1957	10.15	943		June 20, 1960	10.62	1,050
	June 15, 1957	13.79	2,050		Aug. 5, 1960	9.76	845
1958	July 29, 1958	14.16	2,200	1961	May 30, 1961	6.65	302
1959	May 2, 1959	14.08	2,160	1962	July 21, 1962	8.50	570

6110. Colorado Creek near Spicer, Colo.

Location.--Lat 40°26'23", long 106°30'04", in SW¼ sec.33, T.6 N., R.81 W., 800 ft upstream from mouth and 3 miles southwest of Spicer.

Drainage area.--25.8 sq mi, of which 1.04 sq mi is noncontributing.

Gage.--Recording. Datum of gage is 8,381 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 310 cfs.

Remarks.--Base for partial-duration series, 260 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 7, 1951	3.58	290	1952	June 5, 1952	4.12	384
	May 11, 1951	3.41	262				
	May 21, 1951	3.56	286	1953	June 14, 1953	3.78	298
	May 29, 1951	3.66	303				
	June 21, 1951	3.62	296	1954	May 22, 1954	2.63	136
1952	May 4, 1952	4.24	408	1955	Apr. 26, 1955	3.47	280

6115. Grizzly Creek near Walden, Colo.
(Published as "Big Grizzly Creek at Hebron," 1904; "Grizzly Creek at Hebron," 1905)

Location.--Lat 40°38'08", long 106°23'46", in sec.29, T.8 N., R.80 W., half a mile upstream from confluence with Little Grizzly Creek and 8½ miles southwest of Walden.

Drainage area.--258 sq mi.

Gage.--Nonrecording prior to Sept. 12, 1926; recording thereafter. At different datum 1904-5, and at datum 0.77 ft higher than present datum, 1923. Altitude of most recent gage is 8,060 ft (estimated from nearby line of levels).

Stage-discharge relation.--Defined by current-meter measurements below 580 cfs.

Remarks.--Diversions above station for irrigation of 18,400 acres and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1931-33 furnished by State engineer of Colorado. 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)
1904	June 4, 1904	5.95	380	1936	May 7, 1936	4.00	-
1905	May 22, 1905	6.0	370	1937	May 8, 1937	3.07	320
				1938	Apr. 14, 1938	a6.12	-
1923	June 10, 1923	4.8	1,340		Apr. 19, 1938	4.79	755
				1939	May 4, 1939	3.70	486
1927	May 23, 1927	3.85	554	1940	May 5, 1940	2.54	237
1928	May 10, 1928	4.70	762				
1929	May 17, 1929	4.40	731	1941	May 5, 1941	3.32	395
1930	Apr. 11, 1930	4.32	692	1942	June 14, 1942	3.95	508
				1943	June 3, 1943	3.96	542
1931	May 28, 1931	-	120	1944	May 21, 1944	3.64	410
1932	May 15, 1932	4.34	680	1945	May 10, 1945	4.80	716
1933	May 23, 1933	3.68	530				
				1946	Apr. 29, 1946	3.48	392
1935	June 13, 1935	2.92	330	1947	June 22, 1947	4.48	659
1936	Apr. 23, 1936	3.95	590				

a Backwater from ice.

6120. Little Grizzly Creek near Hebron, Colo.
(Published as "at Hebron," 1905)

Location.--Lat 40°37'43", long 106°24'10", in sec.32, T.8 N., R.80 W., 1 mile upstream from confluence with Grizzly Creek, 3 miles north of Hebron, and 9 miles southwest of Walden.

Drainage area.--98.6 sq mi.

Gage.--Nonrecording prior to May 22, 1937; recording thereafter. At different datum 1904-5. Altitude of most recent gage is 8,070 ft (from nearby level line).

Stage-discharge relation.--Defined by current-meter measurements below 550 cfs.

Remarks.--Diversions above station for irrigation of 11,500 acres substantially affect peak flows. Records for 1931-33 furnished by State engineer of Colorado. 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)
1905	June 11, 1905	5.92	592	1938	June 8, 1938	4.46	454
				1939	June 1, 1939	3.92	332
1932	May 14, 1932	4.85	585	1940	June 6, 1940	4.24	403
1933	June 17, 1933	4.55	513				
1934	May 13, 1934	3.20	190	1941	May 28, 1941	4.24	403
1935	June 15, 1935	4.78	496	1942	June 13, 1942	4.79	504
				1943	June 2, 1943	4.83	495
1936	June 1, 1936	4.96	525	1944	June 1, 1944	4.25	367
1937	May 30, 1937	4.45	442	1945	June 24, 1945	4.52	416

6125. Roaring Fork near Walden, Colo.
(Published as "Roaring Fork River near Hebron," 1904, and "Roaring Fork of North Platte River near Hebron," 1905)

Location.--Lat 40°41'00", long 106°27'36", in sec.11, T.8 N., R.81 W., 1 mile upstream from mouth and 10 miles southwest of Walden.

Drainage area.--79.1 sq mi.

Gage.--Nonrecording at different datum prior to Oct. 1, 1923; recording thereafter. Datum of gage is 8,037.44 ft above mean sea level, adjustment of 1912 (levels by State engineer of Colorado).

Stage-discharge relation.--Defined by current-meter measurements below 760 cfs.

Remarks.--Diversions above station for irrigation of 9,000 acres and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1931-33 furnished by State engineer of Colorado. 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)
1904	June 14, 1904	3.89	567	1935	June 15, 1935	3.72	461
1905	June 9, 1905	4.0	467				
				1936	June 1, 1936	3.30	544
1924	June 15, 1924	-	790	1937	June 4, 1937	2.71	443
1925	June 22, 1925	2.32	357	1938	Apr. 18, 1938	3.63	603
				1939	June 6, 1939	2.04	250
1926	Apr. 16, 1926	2.93	510	1940	June 6, 1940	2.95	440
1927	June 19, 1927	3.52	628				
1928	June 2, 1928	3.35	594	1941	July 20, 1941	2.83	413
1929	July 1, 1929	3.22	539	1942	June 13, 1942	2.93	435
1930	Apr. 12, 1930	-	465	1943	June 26, 1943	3.55	572
				1944	June 26, 1944	2.05	244
1931	June 8, 1931	2.04	250	1945	June 24, 1945	3.29	515
1932	June 28, 1932	3.58	600				
1933	June 11, 1933	3.36	530	1946	June 17, 1946	3.00	447
1934	May 30, 1934	2.33	313	1947	June 21, 1947	3.90	670

6130. North Platte River near Walden, Colo.
(Published as "near Hebron," 1904-5)

Location.--Lat 40°41'55", long 106°24'52", in sec.6, T.8 N., R.80 W., 2 miles downstream from Roaring Fork and 8 miles southwest of Walden.

Drainage area.--469 sq mi.

Gage.--Nonrecording at different datum prior to Sept. 29, 1923; recording thereafter. Altitude of gage is 8,000 ft.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs.

Remarks.--Diversions above station for irrigation of 43,000 acres substantially affect peak flows. Records for 1931-33 furnished by State engineer of Colorado. 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)
1904	May 25, 1904	7.00	1,280	1936	June 1, 1936	4.86	1,580
1905	June 10, 1905	7.55	1,500	1937	June 5, 1937	4.33	1,260
				1938	Apr. 19, 1938	5.74	1,940
1924	June 15, 1924	5.0	1,760	1939	May 4, 1939	3.62	866
1925	May 31, 1925	3.5	890	1940	June 7, 1940	3.96	1,040
1926	Apr. 9, 1926	5.2	1,870	1941	May 28, 1941	3.70	879
1927	May 18, 1927	4.9	1,640	1942	June 13, 1942	4.71	1,340
1928	June 1, 1928	5.33	1,930	1943	June 2, 1943	5.30	1,660
1929	June 28, 1929	4.72	a1,530	1944	June 1, 1944	3.58	836
1930	Apr. 12, 1930	-	b1,770	1945	Apr. 22, 1945	c4.82	-
					June 24, 1945	4.53	1,220
1931	June 8, 1931	2.94	600				
1932	May 15, 1932	4.74	b1,540	1946	June 18, 1946	4.21	1,060
1933	June 20, 1933	4.50	1,450	1947	June 22, 1947	5.66	1,840
1934	May 30, 1934	2.49	426				
1935	June 15, 1935	4.94	1,640				

a Maximum discharge during period May to September.
b Maximum daily discharge.
c Backwater from ice.

6140. North Fork North Platte River near Walden, Colo.

Location.--Lat 40°44', long 106°25', in NW¼ sec.29, T.9 N., R.80 W., a quarter of a mile upstream from mouth and 7 miles west of Walden.

Drainage area.--160 sq mi.

Gage.--Recording. At different datum 1924-28. Datum of gage is 7,972.23 ft above mean sea level, datum of 1929 (levels by Colorado Water Conservation Board).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs.

Bankfull stage.--2½ ft.

Remarks.--Diversions above station for irrigation of 18,800 acres substantially affect peak flows. Some water imported above station from Big Creek. 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)
1924	June 15, 1924	1.99	416	1939	June 1, 1939	1.83	236
1925	June 23, 1925	1.7	346	1940	May 22, 1940	2.31	331
1926	Apr. 19, 1926	2.63	694	1941	May 5, 1941	2.29	325
1927	June 30, 1927	2.17	520	1942	June 13, 1942	2.56	404
1928	June 3, 1928	1.80	502	1943	June 2, 1943	3.05	547
				1944	May 20, 1944	2.32	279
1937	June 5, 1937	2.85	403	1945	May 2, 1945	2.99	512
1938	Apr. 20, 1938	-	a500				

a Maximum daily discharge.

6150. South Fork Michigan River near Gould, Colo.

Location.--Lat 40°27'40", long 106°00'29", in sec.26, T.6 N., R.77 W., 2 miles upstream from Porcupine Creek.

Drainage area.--14.9 sq mi.

Gage.--Recording gage and Parshall flume. Datum of gage is 9,274 ft above mean sea level, unadjusted.

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

Remarks.--No diversion above station that will affect peak flows. Base for partial-duration series, 140 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 31, 1951	2.80	175	1956	June 2, 1956	3.72	221
	June 19, 1951	3.82	231				
	June 25, 1951	3.36	155	1957	June 6, 1957	3.29	172
	July 4, 1951	3.38	158		June 13, 1957	3.48	203
					June 21, 1957	3.10	144
1952	June 10, 1952	4.04	277		June 29, 1957	4.77	450
					July 13, 1957	3.58	220
1953	June 13, 1953	3.38	266		July 18, 1957	3.22	161
	June 19, 1953	3.42	173				
				1958	May 21, 1958	3.17	161
1954	May 21, 1954	2.59	86		May 28, 1958	3.64	224
					June 5, 1958	3.57	219
1955	June 23, 1955	3.41	172		June 7, 1958	3.58	220
1956	May 22, 1956	3.29	155				

6160. North Fork Michigan River near Gould, Colo.

Location.--Lat 40°33'10", long 106°00'36", in NE¼NE¼ sec.27, T.7 N., R.77 W., on right bank, 2 miles northeast of Gould, 3½ miles upstream from mouth, and 19 miles southeast of Walden.

Drainage area.--20.2 sq mi.

Gage.--Recording. Datum of gage is 8,848 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 170 cfs.

Remarks.--One diversion above station for irrigation will not substantially affect peak flows. Base for partial-duration series, 100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 15, 1951	2.74	138	1958	May 13, 1958	2.65	138
	June 1, 1951	2.60	116		May 19, 1958	2.91	175
	June 21, 1951	2.80	148		May 25, 1958	2.77	214
1952	Apr. 22, 1952	2.98	194	1959	May 2, 1959	2.09	104
	May 5, 1952	2.66	142		May 12, 1959	2.59	179
	June 4, 1952	3.11	218		May 29, 1959	2.24	103
					June 7, 1959	2.23	104
1953	May 29, 1953	2.76	158				
				1960	Apr. 23, 1960	2.18	112
1954	May 22, 1954	2.45	88		May 13, 1960	2.84	224
					May 23, 1960	2.39	140
1955	Apr. 26, 1955	2.69	119		June 7, 1960	3.01	236
	June 14, 1955	2.68	117				
				1961	May 11, 1961	2.48	160
1956	May 8, 1956	2.96	156		May 25, 1961	3.15	290
	May 22, 1956	2.91	149		May 29, 1961	3.13	286
1957	May 8, 1957	2.86	173	1962	Apr. 25, 1962	2.56	127
	June 5, 1957	3.10	226		May 11, 1962	2.40	282
	June 13, 1957	3.07	260				
	June 29, 1957	2.65	151				

6175. Illinois Creek near Rand, Colo.

Location.--Lat 40°27'46", long 106°10'36", in sec.29, T.6 N., R.78 W., 1 mile north of Rand and 2½ miles upstream from Willow Creek.

Drainage area.--70.8 sq mi.

Gage.--Recording. Datum of gage is 8,550.93 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 350 cfs.

Remarks.--Natural flow of stream affected by diversions above station for irrigation of 2,200 acres and return flow from irrigated areas. Diversions do not substantially affect peak flows. 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)
1932	May 23, 1932	2.58	745	1937	June 3, 1937	1.40	230
	June 8, 1932	1.42	232		June 26, 1937	1.50	226
	June 16, 1932	1.58	301		July 13, 1937	1.44	206
	June 23, 1932	1.53	277				
				1938	Apr. 30, 1938	2.08	368
1933	May 22, 1933	1.70	275		May 17, 1938	2.05	362
	June 7, 1933	2.09	445		May 30, 1938	2.42	447
	June 11, 1933	2.00	405		June 23, 1938	1.79	298
1934	May 12, 1934	1.27	123	1939	Apr. 23, 1939	1.44	238
					Apr. 29, 1939	1.46	244
1935	June 16, 1935	2.08	520		May 6, 1939	1.44	238
					May 20, 1939	1.59	277
1936	Apr. 21, 1936	1.66	328		June 1, 1939	1.54	259
	May 6, 1936	1.60	302		June 6, 1939	1.61	277
	May 21, 1936	1.62	311				
	June 16, 1936	1.42	224	1940	June 3, 1940	1.38	222

6180. Willow Creek near Rand, Colo.

Location.--Lat 40°28', long 106°13', in sec.23, T.6 N., R.79 W., 2½ miles upstream from mouth and 2½ miles northwest of Rand.

Drainage area.--55.9 sq mi.

Gage.--Recording. Altitude of gage is 8,600 ft (estimated on basis of known elevation 1 mile away).

Stage-discharge relation.--Defined by current-meter measurements below 140 cfs.

Remarks.--Diversions above station for irrigation of 4,000 acres substantially affect peak flows. Records for 1931-33 furnished by State engineer of Colorado. 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)
1932	May 20, 1932	3.18	175	1937	June 4, 1937	2.90	121
1933	June 7, 1933	3.40	a200	1938	June 8, 1938	3.75	166
1934	May 4, 1934	1.52	11	1939	June 1, 1939	3.10	116
1935	June 16, 1935	3.21	162	1940	June 6, 1940	2.97	104
1936	June 3, 1936	2.98	130				

a Maximum for period May to September; may have been higher during the year.

6200. North Platte River near Northgate, Colo.
(Published as "near Pinkhampton," 1904)

Location.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., on right bank 350 ft downstream from bridge on State Highway 125, 0.8 mile upstream from Camp Creek, 4.2 miles northwest of Northgate, and 4.4 miles south of Colorado-Wyoming State line.

Drainage area.--1,431 sq mi.

Gage.--Nonrecording prior to Apr. 8, 1918; recording thereafter. At site 0.8 mile downstream prior to Aug. 22, 1961. At different datum May 11 to Nov. 9, 1904, and at datum 3.36 ft lower Apr. 30, 1915, to Aug. 21, 1961. Datum of gage is 7,810.39 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 6,200 cfs.

Remarks.--Diversions above station for irrigation of about 130,000 acres. Diversions from tributaries above station also export water to Cache la Poudre River basin. Diversions substantially affect peak flows. 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)
1904	May 26, 1904	6.8	2,540	1942	Apr. 10, 1942	a7.55	-
					June 14, 1942	-	3,160
1915	June 20, 1915	3.10	1,260	1943	Apr. 2, 1943	a7.10	-
					June 3, 1943	-	3,250
1916	June 19, 1916	3.7	2,100	1944	June 4, 1944	2.91	1,400
1917	May 18, 1917	6.0	4,840	1945	Apr. 21, 1945	a8.80	-
1918	June 22, 1918	-	4,000		Apr. 23, 1945	-	3,140
1919	May 31, 1919	3.4	1,690				
1920	May 21, 1920	4.85	4,080	1946	Apr. 2, 1946	a4.32	-
					June 19, 1946	-	2,220
1921	June 17, 1921	6.2	6,640	1947	June 23, 1947	5.12	4,180
1922	June 15, 1922	3.6	1,940	1948	Apr. 17, 1948	a7.60	-
1923	June 11, 1923	6.24	6,720		Apr. 17, 1948	-	3,400
1924	June 16, 1924	4.87	4,130	1949	June 20, 1949	4.27	3,230
1925	June 7, 1925	3.90	2,570	1950	June 20, 1950	3.43	1,970
1926	May 28, 1926	5.52	5,760	1951	June 23, 1951	4.10	2,940
1927	May 19, 1927	4.13	2,760	1952	Apr. 17, 1952	a7.51	-
1928	June 3, 1928	5.2	5,050		June 6, 1952	-	4,290
1929	Apr. 20, 1929	-	4,200	1953	June 21, 1953	3.97	2,710
1930	Apr. 11, 1930	-	3,900	1954	May 23, 1954	2.55	953
				1955	Apr. 16, 1955	a5.83	3,000
1931	Apr. 14, 1931	-	2,600				
1932	Apr. 17, 1932	4.86	4,190	1956	Apr. 3, 1956	a4.66	-
1933	June 13, 1933	4.24	2,930		June 7, 1956	3.99	2,640
1934	May 31, 1934	2.23	603	1957	June 15, 1957	6.22	6,500
1935	June 17, 1935	4.16	3,470	1958	Apr. 17, 1958	a6.07	-
					May 29, 1958	-	2,650
1936	Apr. 16, 1936	4.88	4,640	1959	Apr. 7, 1959	a4.81	-
1937	June 5, 1937	3.63	2,410		June 22, 1959	-	1,780
1938	Apr. 16, 1938	a7.33	-	1960	Mar. 28, 1960	-	5,840
	Apr. 19, 1938	-	4,790		Mar. 28, 1960	a8.25	-
1939	June 2, 1939	3.13	1,720				
1940	Apr. 2, 1940	a3.85	-	1961	Apr. 5, 1961	a3.64	-
	June 7, 1940	-	1,720		May 17, 1961	-	1,740
				1962	Apr. 9, 1962	a8.84	-
1941	May 28, 1941	3.09	1,510		Apr. 16, 1962	-	5,100

a Backwater from ice.

6204. Douglas Creek above Keystone, Wyo.

Location.--Lat 41°11'10", long 106°16'20", in NE¼ sec.16, T.14 N., R.79 W., on right bank a quarter of a mile upstream from Horse Creek, 1¼ miles northwest of Keystone, 1½ miles upstream from Keystone Creek, and 8 miles west of Albany.

Drainage area.--22.1 sq mi.

Gage.--Recording. Altitude of gage is 9,280 ft (from topographic map).

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

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)
1955	May 20, 1955	3.25	265	1958	May 29, 1958	4.78	828
1956	May 24, 1956	4.25	615	1959	Jan. 7, 1959	4.49	655
1957	June 7, 1957	4.77	865	1960	May 13, 1960	3.91	440
	June 13, 1957	4.43	695				
	June 26, 1957	4.15	555	1961	May 29, 1961	4.27	440
1958	May 24, 1958	4.75	810	1962	May 11, 1962	4.30	465

6210. Douglas Creek near Foxpark, Wyo.

Location.--Lat 41°04'45", long 106°18'40", in S½ sec.19, T.13 N., R.79 W., 600 ft downstream from Beaver Creek and 8½ miles west of Foxpark.

Drainage area.--120 sq mi.

Gage.--Recording. Altitude of gage is 8,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Bankfull stage.--8 ft.

Remarks.--Only small diversions above station. 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)
1947	May 9, 1947	-	a870	1955	May 15, 1955	2.48	303
1948	May 21, 1948	4.19	1,220	1956	May 23, 1956	4.05	1,140
1949	May 28, 1949	4.23	1,260	1957	June 7, 1957	4.66	1,630
	June 4, 1949	4.30	1,300		June 13, 1957	4.17	1,240
	June 12, 1949	3.81	1,010	1958	May 25, 1958	4.26	1,310
1950	May 23, 1950	4.05	1,220	1959	June 7, 1959	3.46	811
1951	May 28, 1951	4.38	1,400	1960	May 13, 1960	3.33	736
1952	May 5, 1952	4.04	1,150	1961	May 29, 1961	3.45	805
1953	June 19, 1953	3.67	872	1962	May 11, 1962	4.16	1,280
1954	May 22, 1954	3.00	510				

a Estimated maximum daily; occurred during period of no gage-height record.

6225. French Creek near French, Wyo.

Location.--Lat 41°12'30", long 106°31'00", in SE¼ sec.5, T.14 N., R.81 W., 1¾ miles east of French, 2 miles upstream from mouth, and 14½ miles east of Encampment.

Drainage area.--60 sq mi.

Gage.--Nonrecording. At different datum Apr. 21, 1909, to Nov. 15, 1910. At site 1 mile upstream at different datum Apr. 30, 1911, to Apr. 9, 1918. At site 480 ft downstream at different datum Apr. 10, 1918, to June 1, 1920. Altitude of most recent gage is 7,500 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Remarks.--Adjudicated diversions above station for irrigation of 660 acres do not substantially affect peak flows. Records for 1909-10 furnished by State engineer of Wyoming. 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)
1911	June 8, 1911	3.70	1,000	1918	June 13, 1918	5.00	1,350
1912	June 29, 1912	3.8	930	1919	May 28, 1919	2.00	700
1913	May 31, 1913	-	600	1920	June 9, 1920	2.40	1,080
1914	June 2, 1914	-	1,370				
1915	June 11, 1915	3.1	551	1921	June 12, 1921	3.0	1,680
				1922	June 9, 1922	2.06	853
1916	June 10, 1916	2.8	433	1923	June 15, 1923	2.40	1,270
1917	June 24, 1917	4.1	1,240	1924	June 14, 1924	2.88	1,370

6239. Encampment River near Encampment, Wyo.

Location.--Lat 41°01'50", long 106°49'30", in NW¼ sec.10, T.12 N., R.84 W., 500 ft downstream from Hog Park Creek and 12½ miles south of Encampment.

Drainage area.--105 sq mi.

Gage.--Recording. Altitude of gage is 8,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs.

Remarks.--Base for partial-duration series, 1,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 7, 1957	6.53	2,270	1959	June 8, 1959	5.47	1,280
	June 13, 1957	6.56	2,290				
	June 21, 1957	5.65	1,500	1960	June 3, 1960	5.55	1,390
	June 30, 1957	6.22	1,990				
				1961	May 29, 1961	5.17	1,020
1958	May 28, 1958	-	(a)				
	June 7, 1958	-	(a)	1962	May 12, 1962	6.30	1,650

a Not determined; probably exceeded base discharge.

6240. Encampment River above Encampment, Wyo.

Location.--Lat 41°12'00", long 106°46'40", in NW¼ sec.7, T.14 N., R.83 W., 900 ft downstream from North Fork and 1 mile southeast of Encampment.

Drainage area.--205 sq mi.

Gage.--Recording. Altitude of gage is 7,170 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,100 cfs.

Bankfull stage.--5½ ft.

Remarks.--Diversions above station for irrigation of 4,000 acres do not substantially affect peak flows. Base for partial-duration series, 1,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 2, 1940	5.07	1,870	1943	June 1, 1943	7.05	3,920
1941	May 13, 1941	5.52	2,110	1944	May 30, 1944	5.39	2,060
1942	May 26, 1942	6.33	2,800		June 9, 1944	5.31	1,990

6245. Encampment River at Encampment, Wyo.
(Published as "Grand Encampment Creek at Peryam's ranch," 1900)

Location.--Lat 41°12'50", long 106°46'40", in sec.6, T.14 N., R.83 W., at Encampment, 1 mile downstream from North Fork.

Drainage area.--219 sq mi.

Gage.--Nonrecording. At site 1 mile downstream at different datum May 16 to Sept. 30, 1900. Near most recent site at different datum Apr. 19, 1909, to Aug. 31, 1910. At site 170 ft downstream May 2, 1911, to June 2, 1912. Datum of most recent gage is 7,141.53 ft above mean sea level, unadjusted.

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

Remarks.--Diversions above station for irrigation of 8,000 acres do not substantially affect peak flows. Records for 1909-10 furnished by State engineer of Wyoming. 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)
1900	May 29, 1900	3.20	4,680	1920	May 25, 1920	8.05	3,260
1911	June 8, 1911	6.60	a2,460	1921	May 29, 1921	8.5	4,660
1912	June 2, 1912	8.0	a4,310	1922	May 26, 1922	8.3	3,680
1913	May 16, 1913	-	2,320	1923	June 14, 1923	7.6	2,940
1914	June 4, 1914	-	3,700	1924	June 14, 1924	6.8	1,760
1915	June 1, 1915	7.6	2,460	1929	June 17, 1929	8.1	3,740
1916	May 31, 1916	7.4	2,180	1930	May 29, 1930	6.83	1,720
1917	June 23, 1917	8.9	4,490				
1918	June 14, 1918	7.6	2,600	1931	May 17, 1931	6.30	1,080
1919	May 24, 1919	7.2	2,090	1932	May 23, 1932	7.44	2,520

a Maximum daily.

6250. Encampment River at mouth, near Encampment, Wyo.

Location.--Lat 41°18'10", long 106°42'50", in NW¼ sec.3, T.15 N., R.83 W., half a mile upstream from mouth and 8 miles northeast of Encampment.

Drainage area.--265 sq mi.

Gage.--Recording. Prior to June 28, 1961, at site 660 ft upstream at datum 2.00 ft higher. Altitude of gage is 6,970 ft (from topographic map).

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

Remarks.--Water rights totaling 165 cfs (priorities 1879 to 1923) for irrigation of 11,940 acres adjudicated by Wyoming for diversion above station. Five small reservoirs (total adjudication, 415 acre-ft per year) above station for irrigation. Diversions and storage do not substantially affect peak flows. Base for partial-duration series, 1,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 3, 1940	5.32	1,460	1951	May 29, 1951	6.40	2,290
					June 18, 1951	5.70	1,710
1941	May 14, 1941	5.89	1,950				
				1952	May 15, 1952	5.85	1,880
1942	May 27, 1942	6.91	2,870		June 4, 1952	8.33	4,420
	June 12, 1942	6.35	2,380				
				1953	June 13, 1953	6.87	2,670
1943	June 1, 1943	8.25	4,510				
				1954	May 22, 1954	5.22	1,330
1944	May 31, 1944	5.87	1,940				
	June 12, 1944	5.86	1,930	1955	June 9, 1955	5.06	1,140
1945	May 30, 1945	5.62	1,730	1956	May 25, 1956	6.53	2,320
	June 6, 1945	6.30	2,360		June 5, 1956	6.89	2,670
	June 14, 1945	5.83	1,920				
	June 23, 1945	6.31	2,370	1957	June 8, 1957	7.72	3,560
					June 13, 1957	7.67	3,510
1946	June 7, 1946	5.63	1,710		June 21, 1957	5.93	1,840
					June 30, 1957	6.97	2,760
1947	May 10, 1947	5.75	1,790				
	May 28, 1947	5.63	1,720	1958	May 30, 1958	6.63	2,350
	June 9, 1947	5.87	1,950		June 4, 1958	6.17	1,980
	June 21, 1947	5.82	1,910		June 8, 1958	6.12	1,940
1948	May 22, 1948	6.56	2,620	1959	June 15, 1959	5.56	1,550
1949	May 30, 1949	6.23	2,130	1960	June 4, 1960	5.78	1,710
	June 18, 1949	6.77	2,570				
				1961	May 29, 1961	5.22	1,310
1950	May 25, 1950	6.03	1,970				
	June 2, 1950	6.28	2,180	1962	May 13, 1962	5.87	2,360
	June 7, 1950	6.53	2,410				
	June 17, 1950	6.67	2,530				

6270. North Platte River at Saratoga, Wyo.

Location.--Lat 41°27'20", long 106°48'15", in sec.11, T.17 N., R.84 W., 1,000 ft upstream from bridge on State Highway 130 in Saratoga and 1 mile downstream from Spring Creek.

Drainage area.--2,840 sq mi.

Gage.--Nonrecording prior to Nov. 2, 1930; recording thereafter. At site 250 ft downstream at different datum prior to Apr. 25, 1911. Datum of gage is 6,772.69 ft above mean sea level, datum of 1929.

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

Remarks.--Diversions above station for irrigation of 290,000 acres, part of which is above station and part below. Diversions above station also export water to Cache la Poudre River basin. Diversions substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of North Platte River at Saratoga, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	June 18, 1903	5.38	8,750	1934	May 13, 1934	5.49	1,680
1904	May 26 1904	5.60	9,000	1935	June 15, 1935	8.31	8,010
1905	June 10, 1905	6.30	11,400				
				1936	June 1, 1936	8.06	7,410
1906	June 15, 1906	5.70	9,310	1937	June 1, 1937	7.53	6,370
				1938	June 8, 1938	8.32	8,870
1909	June 8, 1909	11.06	18,000	1939	June 1, 1939	6.99	5,080
				1940	June 3, 1940	6.82	4,650
1911	June 17, 1911	8.20	7,950				
1912	June 9, 1912	9.48	12,800	1941	May 14, 1941	7.29	5,710
1913	May 30, 1913	-	7,550	1942	June 12, 1942	8.19	8,450
1914	June 3, 1914	9.68	12,500	1943	June 2, 1943	9.40	11,500
1915	June 2, 1915	6.85	5,020	1944	June 5, 1944	7.21	5,100
				1945	June 6, 1945	8.27	7,900
1916	May 10, 1916	7.3	6,060				
1917	June 20, 1917	10.4	13,800	1946	June 19, 1946	7.58	6,030
1918	June 14, 1918	9.5	11,400	1947	June 22, 1947	8.18	7,820
1919	May 29, 1919	7.4	6,150	1948	May 22, 1948	8.07	7,500
1920	June 9, 1920	9.4	11,900	1949	June 13, 1949	8.49	10,200
				1950	June 17, 1950	7.84	7,530
1921	June 12, 1921	9.95	15,700				
1922	May 29, 1922	7.7	7,720	1951	May 31, 1951	7.57	7,320
1923	June 11, 1923	9.24	12,800	1952	June 7, 1952	9.37	12,600
1924	June 15, 1924	8.00	8,740	1953	June 20, 1953	8.12	8,280
1925	June 8, 1925	7.49	7,020	1954	May 23, 1954	6.38	3,600
				1955	Apr. 17, 1955	6.24	3,300
1926	May 28, 1926	9.5	13,900				
1927	June 15, 1927	8.05	8,460	1956	June 5, 1956	7.97	8,150
1928	May 30, 1928	9.74	14,000	1957	June 14, 1957	9.75	13,600
1929	June 12, 1929	9.10	10,600	1958	May 30, 1958	8.73	9,940
1930	Apr. 10, 1930	7.20	5,220	1959	June 15, 1959	7.21	5,270
				1960	Mar. 28, 1960	7.46	6,070
1931	June 8, 1931	6.45	4,060				
1932	May 23, 1932	8.64	10,100	1961	June 2, 1961	6.93	4,540
1933	June 12, 1933	8.58	8,660	1962	May 13, 1962	8.51	9,470

6275. Jack Creek at Matheson Ranch, near Saratoga, Wyo.

Location.--Lat 41°24', long 107°00', in sec.31, T.17 N., R.85 W., 1 mile upstream from Willow Creek and 12 miles west of Saratoga.

Drainage area.--41.2 sq mi.

Gage.--Nonrecording. At site 200 ft upstream at different datum prior to Aug. 15, 1915. At site 1,000 ft upstream at different datum Aug. 15, 1915, to June 12, 1917. Altitude of most recent gage is 7,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 280 cfs.

Bankfull stage.--6½ ft.

Remarks.--Diversions above station for irrigation of 7,000 acres above and below station substantially affect peak flows. 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)
1914	June 4, 1914	3.7	220	1920	May 23, 1920	4.93	338
1915	June 2, 1915	2.6	130				
				1921	June 10, 1921	4.4	306
1916	May 21, 1916	3.9	196	1922	May 26, 1922	3.32	162
1917	June 11, 1917	4.3	260	1923	June 9, 1923	4.3	258
				1924	May 23, 1924	3.1	136
1919	May 22, 1919	2.41	97				

6289. Pass Creek near Elk Mountain, Wyo.

Location.--Lat 41°35'10", long 106°36'37", in SW¼SW¼ sec.27, T.19 N., R.82 W., 250 ft downstream from Lone Tree Creek, 1,000 ft upstream from Brush Creek, 12 miles southwest of Elk Mountain, and 14 miles northeast of Saratoga.

Drainage area.--91.5 sq mi.

Gage.--Recording. Altitude of gage is 7,230 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs.

Remarks.--Diversions above station for irrigation of about 3,900 acres. Base for partial-duration series, 300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 4, 1957	4.05	595	1960	Mar. 27, 1960	2.71	320
	May 11, 1957	3.49	472		Apr. 5, 1960	2.82	344
	May 18, 1957	2.95	357				
	June 8, 1957	3.64	505	1961	May 15, 1961	2.21	210
	June 13, 1957	5.21	854	1962	Apr. 26, 1962	2.82	321
1958	Apr. 18, 1958	4.16	619		May 12, 1962	2.74	304
	May 24, 1958	3.41	454		May 22, 1962	3.70	522
					June 16, 1962	2.78	313
1959	June 30, 1959	1.89	120				

6300. North Platte River above Seminoe Reservoir, near Sinclair, Wyo. (Published as "near Parco," 1939-43)

Location.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., 6.5 miles northeast of Sinclair, and 14 miles upstream from water line of Seminoe Reservoir at elevation 6,357 ft.

Drainage area.--8,124 sq mi, of which 4,064 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Recording. Datum of gage is 6,400.75 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Bankfull stage.--11½ ft.

Remarks.--Diversions for irrigation of 293,000 acres above station and trans-basin diversions above station. Diversions substantially affect peak flows. 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)
1940	June 3, 1940	4.99	4,960	1952	June 8, 1952	9.00	12,200
				1953	June 20, 1953	6.90	8,000
1941	May 14, 1941	5.59	5,930	1954	May 23, 1954	4.52	3,400
1942	June 13, 1942	7.04	8,320	1955	June 18, 1955	4.40	3,270
1943	June 3, 1943	8.45	11,300				
1944	June 5, 1944	5.52	5,640	1956	June 6, 1956	6.80	7,800
1945	June 7, 1945	7.00	8,240	1957	June 15, 1957	9.72	14,500
				1958	May 31, 1958	7.86	9,700
1946	June 19, 1946	5.97	6,180	1959	June 15, 1959	5.68	5,340
1947	June 22, 1947	7.03	8,300	1960	Mar. 29, 1960	5.96	5,900
1948	May 23, 1948	6.49	7,220				
1949	June 14, 1949	8.25	10,800	1961	June 2, 1961	5.34	4,690
1950	June 18, 1950	6.66	7,560	1962	May 14, 1962	7.92	10,190
1951	May 31, 1951	6.41	7,260				

6310. Medicine Bow River near Medicine Bow, Wyo.

Location.--Lat 41°43', long 106°19', in sec.7, T.20 N., R.79 W., 3 miles upstream from Wagonhound Creek and 14 miles southwest of Medicine Bow.

Drainage area.--190 sq mi.

Gage.--Nonrecording. At site 600 ft upstream at different datum prior to May 5, 1915. Altitude of gage is 7,000 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,300 cfs.

Remarks.--Adjudicated diversions for irrigation of 20,000 acres above station substantially affect peak flows. 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)
1911	June 9, 1911	7.75	1,200	1919	May 30, 1919	3.7	1,230
1912	June 9, 1912	8.0	1,260	1920	June 12, 1920	4.6	1,970
1915	June 12, 1915	3.4	880	1921	June 8, 1921	4.5	1,640
				1922	June 10, 1922	3.5	862
1916	June 11, 1916	3.1	688	1923	June 10, 1923	4.05	1,320
1917	June 23, 1917	5.4	2,810	1924	June 15, 1924	4.30	1,630

6315. Medicine Bow River above Rock Creek, near Medicine Bow, Wyo.

Location.--Lat 41°52'55", long 106°09'05", in NE¼ sec.15, T.22 N., R.78 W., 50 ft upstream from bridge on U.S. Highways 30 and 287, 1¾ miles downstream from Foote Creek, 2½ miles upstream from Rock Creek, and 2½ miles southeast of Medicine Bow.

Drainage area.--436 sq mi, of which 35 sq mi is probably noncontributing.

Gage.--Recording. Datum of gage is 6,564.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 950 cfs.

Remarks.--Diversions for irrigation of about 37,000 acres above station and five small reservoirs above station for irrigation (combined capacity, about 200 acre-ft), substantially affect peak flows. 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)
1952	June 7, 1952	6.10	910	1958	June 1, 1958	6.15	928
1953	June 16, 1953	5.92	878	1959	June 16, 1959	4.98	447
1954	May 23, 1954	4.39	296	1960	June 10, 1960	4.96	439
1955	July 24, 1955	4.77	423				
				1961	June 4, 1961	5.26	562
1956	May 27, 1956	5.21	564	1962	May 12, 1962	5.74	828
1957	June 15, 1957	7.10	1,340				

6325. Rock Creek at Arlington, Wyo.
(Published as "near Arlington," 1911-13, 1916-18)

Location.--Lat 41°35'12", long 106°13'16", in NW¼SE¼ sec.25, T.19 N., R.79 W., at county bridge half a mile downstream from Overland Creek, 0.8 mile southwest of Arlington, and 6.8 miles southwest of McFadden.

Drainage area.--64.5 sq mi.

Gage.--Nonrecording prior to July 12, 1912; recording thereafter. At site 1 mile downstream at different datum prior to Jan. 12, 1916. Altitude of gage is 7,780 ft.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs.

Remarks.--Adjudicated diversions above station for irrigation of 4,900 acres above and below station. King Canyon Canal diverts water from right bank 300 ft above station. Diversions substantially affect peak floods. 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)
1911	June 7, 1911	3.9	1,450	1947	June 21, 1947	4.08	1,080
1912	June 25, 1912	-	1,260	1948	June 2, 1948	3.88	980
1913	May 30, 1913	3.40	800	1949	June 16, 1949	4.42	1,440
1914	June 2, 1914	3.73	1,160	1950	June 16, 1950	4.26	1,280
1915	June 11, 1915	3.69	1,060	1951	May 28, 1951	3.90	1,020
1916	June 10, 1916	3.35	661	1952	June 8, 1952	4.64	1,480
1917	June 21, 1917	4.6	1,100	1953	June 19, 1953	4.96	1,720
1918	June 18, 1918	3.4	1,240	1954	May 21, 1954	3.48	804
1940	May 31, 1940	3.10	550	1955	June 14, 1955	3.22	660
1941	May 26, 1941	3.60	815	1956	June 2, 1956	3.85	946
1942	June 12, 1942	4.30	1,250	1957	June 29, 1957	4.64	1,380
1943	June 1, 1943	4.18	1,180	1958	May 29, 1958	4.45	1,280
1944	May 30, 1944	3.26	662	1959	June 6, 1959	4.02	1,040
1945	June 27, 1945	3.95	1,080	1960	June 3, 1960	3.37	645
1946	June 6, 1946	3.85	995	1961	May 29, 1961	3.56	748
				1962	May 12, 1962	3.21	739

6330. Rock Creek near Rock River, Wyo.

Location.--Lat 41°44', long 105°56', in sec.4, T.20 N., R.76 W., 1½ miles east of Rock River.

Drainage area.--187 sq mi.

Gage.--Nonrecording prior to July 28, 1912; recording thereafter. At site 2 miles upstream at different datum prior to Nov. 17, 1912. Altitude of most recent gage is 6,900 ft (estimated on basis of level line about a mile away).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Remarks.--Diversions above station for irrigation of 29,000 acres, part of which is above station, and two reservoirs (combined capacity, 5,000 acre-ft) substantially affect peak flows. 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)
1912	June 4, 1912	4.2	1,350	1930	Aug. 13, 1930	3.17	510
1928	May 29, 1928	4.53	1,180	1931	June 5, 1931	3.12	492
1929	June 11, 1929	4.38	1,030	1932	June 17, 1932	3.47	630

6335. Rock Creek below Rock River, Wyo.

Location.--Lat 41°46'35", long 105°55'48", in NE¼SW¼ sec.22, T.21 N., R.76 W., on left bank 0.6 mile upstream from Johnston ditch and 3.4 miles northeast of town of Rock River.

Drainage area.--218 sq mi.

Gage.--Recording. Altitude of gage is 6,740 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs.

Remarks.--Diversions above station for irrigation of about 32,000 acres above and below station, and several small reservoirs above station for irrigation (combined capacity, about 3,300 acre-ft) substantially affect peak flows. 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	May 27, 1941	3.96	275	1957	July 1, 1957	5.84	702
1942	June 13, 1942	6.42	1,130	1958	June 2, 1958	5.22	516
				1959	June 16, 1959	4.55	322
1952	June 9, 1952	6.23	830	1960	June 9, 1960	3.90	190
1953	June 15, 1953	6.02	757				
1954	May 23, 1954	3.42	142	1961	June 12, 1961	4.07	257
1955	July 24, 1955	4.74	390	1962	July 1, 1962	4.49	289
1956	May 28, 1956	5.76	678				

6350. Medicine Bow River above Seminoe Reservoir, near Hanna, Wyo.

Location.--Lat 42°00'35", long 106°30'45", in SW¼NW¼ sec.34, T.24 N., R.81 W., 15 ft downstream from county highway bridge, 2 miles upstream from Troublesome Creek, 9 miles upstream from water line of Seminoe Reservoir at elevation 6,357 ft, and 10 miles north of Hanna.

Drainage area.--2,338 sq mi, of which 396 sq mi is probably noncontributing.

Gage.--Recording. Datum of gage is 6,415.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,900 cfs.

Bankfull stage.--10 ft.

Remarks.--Water rights totaling 1,280 cfs (priorities 1866 to 1944), for irrigation of 92,000 acres, adjudicated by State of Wyoming for diversion above station. Many small reservoirs above station for irrigation (total adjudication, 6,000 acre-ft per year). Diversions substantially affect flows. 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)
1940	July 3, 1940	2.77	1,270	1952	June 12, 1952	3.11	1,680
				1953	June 17, 1953	2.79	1,240
1941	May 6, 1941	3.45	2,080	1954	Jan. 24, 1954	a2.93	-
1942	June 14, 1942	3.06	1,610		June 28, 1954	2.37	830
1943	Mar. 29, 1943	5.23	6,590	1955	Apr. 9, 1955	a3.53	-
1944	Apr. 13, 1944	a3.85	-		Aug. 14, 1955	2.83	1,290
	Apr. 14, 1944	3.50	2,370				
1945	June 7, 1945	3.21	1,900	1956	Mar. 23, 1956	a3.93	-
					Aug. 19, 1956	3.27	1,920
1946	June 21, 1946	2.87	1,360	1957	Mar. 16, 1957	a4.91	-
1947	June 24, 1947	3.48	2,340		June 16, 1957	3.48	1,890
1948	May 31, 1948	2.71	1,140	1958	June 2, 1958	2.99	1,300
1949	Mar. 4, 1949	a3.49	-	1959	Feb. 1, 1959	a2.56	-
	June 12, 1949	3.33	2,120		June 18, 1959	2.45	705
1950	Feb. 26, 1950	a3.12	-	1960	Mar. 22, 1960	a3.68	-
	June 19, 1950	2.57	1,080		Mar. 27, 1960	3.31	1,780
1951	Mar. 26 1951	a3.27	-	1961	July 22, 1961	2.46	784
	June 3, 1951	2.61	1,130	1962	Feb. 12, 1962	b6.10	5,420

a Backwater from ice.
b Ice jam; occurred at different time than peak discharge.

6360. North Platte River above Pathfinder Reservoir, Wyo.
(Published as "above Pathfinder" prior to 1921)

Location.--Lat 42°10'42", long 106°52'33", in SW¼ sec.34, T.26 N., R.84 W., 1,800 ft downstream from Kortes Dam, 1.2 miles upstream from Lost Creek, 4 miles upstream from high-water line of Pathfinder Reservoir, and 6 miles southwest of Leo.

Drainage area.--11,190 sq mi, of which 4,538 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Recording. At site 1¼ miles downstream at different datum prior to Apr. 11, 1951. Datum of gage is 5,929.51 ft above mean sea level (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs 1914-39, and below 9,000 cfs 1951-59.

Bankfull stage.--9 ft.

Remarks.--Diversions above station for irrigation of 326,000 acres. Flow regulated by Seminoe Reservoir (capacity, 1,020,000 acre-ft) since Dec. 18, 1938, and Kortes Reservoir (capacity, 4,740 acre-ft) since 1950. Transbasin diversions above station. Diversions and regulation substantially affect peak flows. 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)
1914	June 6, 1914	5.85	16,500	1932	May 24, 1932	5.32	13,500
1915	June 2, 1915	3.9	6,020	1933	June 13, 1933	5.10	12,200
				1934	May 14, 1934	2.35	1,980
1916	June 14, 1916	3.97	6,360	1935	June 17, 1935	4.77	10,100
1917	June 26, 1917	6.2	18,800				
1918	June 15, 1918	5.6	15,300	1936	June 2, 1936	4.49	9,000
1919	May 31, 1919	4.3	8,110	1937	June 2, 1937	4.47	8,600
1920	June 12, 1920	5.5	14,700	1938	June 9, 1938	4.76	10,000
				1939	Mar. 6, 1939	3.50	4,720
1921	June 17, 1921	5.86	17,500				
1922	May 31, 1922	4.5	9,100	1951	Aug. 27, 1951	7.60	2,760
1923	June 12, 1923	5.4	15,100	1952	June 12, 1952	13.25	8,920
1924	June 17, 1924	4.65	10,600	1953	Sept.24, 1953	7.43	2,660
1925	June 7, 1925	4.7	10,200	1954	Dec. 21, 1953	7.49	2,710
				1955	July 1, 1955	7.34	2,730
1926	May 30, 1926	-	17,000				
1927	June 17, 1927	-	10,500	1956	Aug. 15, 1956	7.40	2,780
1928	June 1, 1928	-	17,500	1957	July 24, 1957	9.83	4,990
1929	June 13, 1929	-	12,800	1958	Apr. 27, 1958	7.35	2,780
1930	Apr. 11, 1930	4.22	7,700	1959	May 22, 1959	7.41	2,850
					June 6, 1959	7.43	-
1931	June 4, 1931	4.00	6,740				

6365. Sage Creek above Pathfinder Reservoir, Wyo.

Location.--Lat 42°14'50", long 106°53'00", in sec.4, T.26 N., R.84 W., three-quarters of a mile upstream from Pathfinder Reservoir and 16 miles southwest of Alcova.

Drainage area.--182 sq mi.

Gage.--Nonrecording. At different datum prior to May 10, 1924. Altitude of gage is 5,870 ft (from topographic map).

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

Remarks.--Diversions above station for irrigation of 3,100 acres substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of Sage Creek above Pathfinder Reservoir, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 6, 1915	2.9	117	1921	July 15, 1921	3.00	145
				1922	May 19, 1922	4.5	494
1916	Mar. 9, 1916	3.45	248	1923	May 23, 1923	3.25	220
1917	Apr. 24, 1917	3.9	336	1924	Apr. 7, 1924	e.73	1,180
1918	Mar. 23, 1918	2.8	118	1925	Oct. 8, 1924	1.70	133
1919	Apr. 20, 1919	2.26	42				
1920	Apr. 9, 1920	6.5	1,080				

6379. Slate Creek near Atlantic City, Wyo.

Location.--Lat 42°30'57", long 108°44'52", in SE¼NW¼ sec.2, T.29 N., R.100 W., 600 ft upstream from Rock Creek and 1.6 miles northwest of Atlantic City.

Drainage area.--5.92 sq mi.

Gage.--Recording. Altitude of gage is 7,880 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 33 cfs.

Remarks.--Base for partial-duration series, 40 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 5, 1957	1.61	102	1960	May 13, 1960	e.57	7.6
1958	May 25, 1958	1.42	48	1961	Oct. 26, 1961	.77	10
1959	May 25, 1959	.73	8.8	1962	May 7, 1962	1.33	53

6379.1. Rock Creek at Atlantic City, Wyo.

Location.--Lat 42°30'47", long 108°44'46", in NW¼SE¼ sec.2, T.29 N., R.100 W., on left bank 500 feet downstream from Slate Creek and 1.4 miles northwest of Atlantic City.

Drainage area.--21.3 sq mi.

Gage.--Recording. At site 35 ft upstream at different datum prior to Oct. 4, 1957. Altitude of gage is 7,850 ft (from topographic map).

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

Remarks.--Flow regulated by Rock Creek Reservoir since October 1961 (capacity, 2,800 acre-ft). 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)
1957	June 16, 1957	2.54	a146	1962	Apr. 15, 1962	2.13	53
					May 3, 1962	2.12	51
1958	May 24, 1958	2.63	146		May 5, 1962	2.15	58
					May 13, 1962	2.15	58
1959	June 4, 1959	2.18	57		June 2, 1962	2.25	82
					June 7, 1962	2.41	136
1960	May 12, 1960	2.10	44		June 9, 1962	2.23	76
					June 20, 1962	2.26	85
1961	May 20, 1961	2.10	49				

6380. Sweetwater River near Atlantic City, Wyo.

Location.--Lat 42°23'50", long 108°34'55", in SE¼ sec.13, T.28 N., R.99 W., 3¼ miles downstream from Rock Creek and 10 miles southeast of Atlantic City.

Drainage area.--411 sq mi.

Gage.--Recording. Altitude of gage is 7,190 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs.

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)
1947	May 11, 1947	-	a560	1949	June 12, 1949	-	a590
	June 10, 1947	-	a534				
	June 18, 1947	-	a524	1950	Apr. 16, 1950	b8.09	-
	June 22, 1947	5.36	677		Apr. 23, 1950	7.79	1,810
					May 17, 1950	-	a1,400
1948	May 1, 1948	b5.34	-		May 24, 1950	-	a1,330
	May 29, 1948	4.46	436		June 2, 1950	-	a1,180
	June 4, 1948	4.38	415		June 18, 1950	-	a1,090
1949	May 7, 1949	-	a600	1951	Apr. 19, 1951	4.54	456
	May 20, 1949	7.10	1,440		May 30, 1951	6.00	915
	May 30, 1949	-	a578		June 18, 1951	4.85	546

a Daily discharge.
b Backwater from ice.

6390. Sweetwater River near Alcova, Wyo.

Location.--Lat 42°27'30", long 107°11'45", in NE¼ sec.25, T.29 N., R.87 W., at Dumbell Ranch, 12 miles upstream from high-water line of Pathfinder Reservoir and 25 miles southwest of Alcova.

Drainage area.--2,327 sq mi.

Gage.--Nonrecording at site 0.4 mile upstream at different datum Aug. 28, 1913, to Sept 30, 1924; recording at present site and datum since Oct. 1, 1938. Altitude of gage is 5,920 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,800 cfs.

Bankfull stage.--7½ ft.

Remarks.--Diversions for irrigation of 24,000 acres above station. Several small reservoirs above station (total capacity, 2,200 acre-ft) for irrigation. Diversions substantially affect peak flows. 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)
1914	Apr. 20, 1914	3.3	845	1946	June 20, 1946	4.95	582
1915	June 7, 1915	2.04	359	1947	June 26, 1947	5.84	869
				1948	Apr. 25, 1948	4.39	408
1916	May 2, 1916	3.46	964	1949	May 20, 1949	6.37	1,040
1917	May 20, 1917	-	1,400	1950	Apr. 27, 1950	8.01	1,750
1918	Apr. 16, 1918	-	527	1951	June 3, 1951	5.72	786
1919	Apr. 28, 1919	-	294	1952	May 10, 1952	6.21	988
1920	May 6, 1920	-	1,670	1953	June 19, 1953	4.45	438
				1954	Apr. 8, 1954	4.97	580
1921	June 21, 1921	-	1,330	1955	May 11, 1955	4.24	375
1922	May 26, 1922	-	1,100				
1923	May 25, 1923	-	923	1956	June 3, 1956	5.08	602
1924	Apr. 13, 1924	-	4,290	1957	June 13, 1957	6.37	1,010
				1958	May 30, 1958	4.82	538
1939	Mar. 28, 1939	3.79	309	1959	Apr. 9, 1959	3.03	152
1940	Apr. 21, 1940	2.84	120	1960	Mar. 30, 1960	4.84	546
1941	May 19, 1941	4.65	519	1961	June 6, 1961	3.44	214
1942	Apr. 18, 1942	5.63	826	1962	Apr. 26, 1962	6.01	978
1943	May 9, 1943	5.32	742				
1944	May 14, 1944	5.33	765				
1945	May 11, 1945	6.24	1,020				

6410. North Platte River below Pathfinder Reservoir, Wyo.

Location.--Lat 42°27'54", long 106°50'47", in SW¼ sec.24, T.29 N., R.84 W., 2,300 ft downstream from Pathfinder Dam and 9 miles southwest of Alcova.

Drainage area.--14,661 sq mi, of which 4,650 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording prior to 1932; recording thereafter. Altitude of gage is 5,670 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs.

Remarks.--Flow completely regulated by Seminoe and Pathfinder Reservoirs. Natural flow of stream also affected by transbasin diversions, power developments, diversions for irrigation, and return flow from irrigated areas. Records furnished by Bureau of Reclamation and reviewed by Geological Survey. 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)
1917	July 26, 1917	-	18,900	1955	July 18, 1955	7.08	5,570
1950	July 24, 1950	7.30	6,310	1956	July 25, 1956	7.18	5,720
				1957	July 13, 1957	7.25	6,000
1951	May 15, 1951	8.36	8,320	1958	Apr. 26, 1958	7.93	7,130
1952	June 14, 1952	8.49	8,610	1959	July 10, 1959	4.61	2,420
1953	July 7, 1953	6.89	5,700	1960	July 1, 1960	4.55	2,380
1954	July 14, 1954	7.15	6,060		July 3, 1960	-	2,380

6420. North Platte River at Alcova, Wyo.

Location.--Lat 42°33'04", long 106°42'48", in SW¼ sec.19, T.30 N., R.82 W., at Alcova, a quarter of a mile downstream from Alcova Dam.

Drainage area.--14,726 sq mi, of which 4,650 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording at site 1,000 ft upstream at datum 2.59 ft lower prior to Jan. 1, 1906; recording thereafter. Datum of gage is 5,329.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 8,200 cfs.

Remarks.--Flow completely regulated by Seminoe, Pathfinder and Alcova Reservoirs. Natural flow of stream also affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. Records for 1935-50 furnished by Bureau of Reclamation. 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)
1904	May 27, 1904	10.9	11,600	1948	July 9, 1948	6.14	5,500
1905	June 6, 1905	11.50	13,400	1949	July 10, 1949	6.27	5,920
				1950	July 24, 1950	6.50	6,070
1935	July 8, 1935	6.27	6,000				
				1951	July 10, 1951	6.05	5,440
1936	May 29, 1936	6.32	6,050	1952	June 14, 1952	7.22	8,080
1937	July 8, 1937	6.53	6,500	1953	July 10, 1953	-	5,260
1938	July 12, 1938	7.57	9,880	1954	July 12, 1954	6.11	5,730
1939	May 27, 1939	-	5,200	1955	July 17, 1955	6.30	5,840
1940	July 14, 1940	-	4,060				
				1956	July 21, 1956	6.14	5,400
1941	June 28, 1941	6.42	5,910	1957	July 18, 1957	6.10	5,770
1942	July 25, 1942	6.27	5,690	1958	Aug. 7, 1958	5.88	5,020
1943	July 15, 1943	6.23	5,710	1959	July 31, 1959	5.12	3,650
1944	July 25, 1944	6.19	5,640	1960	Aug. 22, 1960	4.50	2,530
1945	Sept. 2, 1945	6.20	5,650				
				1961	Aug. 15, 1961	3.14	1,660
1946	June 18, 1946	6.15	5,630	1962	May 25, 1962	3.88	2,660
1947	Aug. 4, 1947	6.17	5,550				

6425. Bates Creek near Freeland, Wyo.

Location.--Lat 42°32', long 106°19', in sec.29, T.30 N., R.79 W., 20 ft upstream from bridge on county highway, 2 miles downstream from Chalk Creek, and 8 miles southeast of Freeland.

Drainage area.--118 sq mi.

Gage.--Nonrecording prior to June 4, 1946; recording thereafter. Altitude of gage is 6,510 ft (estimated from U.S. Geological Survey levels, datum of 1929).

Stage-discharge relation.--Defined by current-meter measurements below 110 cfs.

Bankfull stage.--4½ ft.

Remarks.--Flow regulated by Bates Creek Reservoir (3,112 acre-ft per year adjudicated for irrigation). Diversions above station for irrigation of 329 acres. Regulation substantially affects peak flows. 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)
1940	May 2, 1940	2.41	188	1948	Apr. 29, 1948	2.33	208
				1949	May 17, 1949	1.75	129
1941	May 4, 1941	3.95	600	1950	Apr. 6, 1950	2.16	194
1946	May 5, 1946	2.03	147	1951	Apr. 3, 1951	1.59	119
1947	Mar. 22, 1947	3.28	381				

6430. Bates Creek near Alcova, Wyo.
(Published as "near Casper," 1916-24)

Location.--Lat 42°40'34", long 106°36'09", in SE¼SE¼ sec.1, T.31 N., R.82 W., 2.8 miles upstream from mouth and 10½ miles northeast of Alcova.

Drainage area.--377 sq mi.

Gage.--Nonrecording at site 1,200 ft upstream at different datums prior to Sept. 30, 1924; recording thereafter. At site 1,200 ft upstream at datum 3.91 ft higher June 1, 1935, to Sept. 30, 1954. Altitude of gage is 5,290 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 940 cfs.

Remarks.--Water rights totaling 127 cfs (priorites 1886 to 1939) for irrigation of 8,800 acres adjudicated by Wyoming for diversion above station. Natural flow of stream also affected by Bates Creek Reservoir (capacity, 3,112 acre-ft) and several smaller reservoirs (total capacity, 1,400 acre-ft) above station. Diversions substantially affect peak flows. 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)
1923	Sept.27, 1923	-	4,000	1948	Apr. 30, 1948	2.82	214
				1949	June 6, 1949	8.65	2,000
1936	Apr. 12, 1936	2.36	81	1950	July 24, 1950	4.70	605
1937	July 12, 1937	5.2	390				
1938	Sept. 1, 1938	6.37	570	1951	Sept. 6, 1951	3.01	252
1939	Apr. 23, 1939	2.05	56	1952	May 24, 1952	3.55	321
1940	Apr. 28, 1940	3.26	165	1953	May 29, 1953	9.21	2,270
				1954	July 20, 1954	3.79	348
1941	May 4, 1941	6.18	622				
1942	Apr. 6, 1942	4.70	376	1957	Aug. 27, 1957	4.35	256
1943	Mar. 30, 1943	6.33	630	1958	Apr. 18, 1958	4.90	440
1944	Apr. 4, 1944	5.80	533	1959	Apr. 13, 1959	2.92	71
1945	May 7, 1945	4.69	614	1960	Mar. 29, 1960	4.52	289
1946	May 5, 1946	3.47	356	1961	July 7, 1961	6.81	974
1947	Mar. 31, 1947	4.57	583				

6435. North Platte River near Goose Egg, Wyo.
(Published as "near Casper," 1917-19, 1924)

Location.--Lat 42°43'15", long 106°32'10", in SW¼ sec.22, T.32 N., R.81 W., 0.3 mile downstream from Cottonwood Creek, 2½ miles downstream from Poison Spring Creek, 4 miles southwest of Goose Egg, and 13 miles southwest of Casper.

Drainage area.--15,398 sq mi, of which 4,654 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording prior to May 1950; recording thereafter. At site 1¾ miles downstream at different datum Apr. 9, 1917, to Sept. 30, 1919. At site 4½ miles downstream at different datums May 1 to Sept. 30, 1924, and May 9 to Sept. 30, 1947. Altitude of present gage is 5,190 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, and diversions above station for irrigation of 350,000 acres. Diversions substantially affect peak flows. 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)
1917	June 24, 1917	9.71	19,200	1954	July 14, 1954	9.24	5,820
				1955	July 25, 1955	10.04	7,170
1947	Aug. 3, 1947	-	6,500				
				1956	July 29, 1956	9.06	5,540
1950	July 25, 1950	9.60	6,400	1957	July 19, 1957	9.44	6,410
				1958	Aug. 5, 1958	8.73	5,040
1951	July 10, 1951	9.12	5,630	1959	May 4, 1959	7.00	2,900
1952	June 13, 1952	10.83	8,660	1960	Aug. 23, 1960	6.61	2,550
1953	May 28, 1953	11.80	10,600				

6440. Poison Spider Creek near Goose Egg, Wyo.

Location.--Lat 42°46'44", long 106°31'46", in SW¼SW¼ sec.35, T.33 N., R.81 W., 0.3 mile upstream from mouth, 2½ miles northwest of Goose Egg, and 11 miles southwest of Casper.

Drainage area.--301 sq mi.

Gage.--Recording gage and concrete control. Altitude of gage is 5,185 ft (from topographic map).

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

Remarks.--Diversions for irrigation of 370 acres above station. Four small reservoirs (combined capacity, 350 acre-ft) above station. Return flow from Kendrick irrigation project enters above station. Diversions substantially affect peak flows. 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)
1951	Sept. 3, 1951	2.94	33	1955	Mar. 30, 1955	3.58	98
1952	May 23, 1952	3.35	84				
1953	May 28, 1953	3.87	172	1956	May 27, 1956	3.11	49
1954	June 7, 1954	2.68	13				

6445. Casper Creek at Casper, Wyo.

Location.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., 700 ft upstream from bridge on U.S. Highways 20 and 26, at west edge of Casper, and 0.4 mile upstream from mouth.

Drainage area.--668 sq mi, of which 98 sq mi is probably noncontributing.

Gage.--Recording. Altitude of gage is 5,110 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 80 cfs and by slope-area measurement at 531 cfs.

Remarks.--Diversions for irrigation of 3,500 acres above station. Twerty small reservoirs (total capacity, 15,000 acre-ft) above station. Return flow from water imported from the North Platte River for the Kendrick irrigation project enters above station. Diversions substantially affect peak flows. 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)
1947	June 18, 1947	1.86	18	1952	May 23, 1952	2.20	103
1948	June 25, 1948	3.51	531	1953	May 28, 1953	-	28
1949	June 7, 1949	2.73	428	1954	June 3, 1954	-	8.3
1950	May 12, 1950	1.08	39	1955	Apr. 11, 1955	-	85
1951	May 20, 1951	1.55	32	1956	Sept.11, 1956	-	24

6450. North Platte River below Casper, Wyo.
(Published as "at Casper," 1929-32)

Location.--Lat 42°51'45", long 106°13'00", in NW¼NW¼ sec.4, T.33 N., R.78 W., 0.3 mile upstream from Claude Creek, half a mile north of U.S. Highways 20 and 87, 5½ miles east of city hall in Casper, and 9½ miles downstream from Casper Creek.

Drainage area.--16,523 sq mi, of which 4,790 sq mi (including 3,950 sq mi in Great Divide basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording at sites 9 miles upstream at different datums prior to October 1932; recording thereafter. Altitude of gage is 5,070 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation, which substantially affect peak flows. 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	May 30, 1929	8.00	13,800	1945	Aug. 20, 1945	4.73	5,930
1930	Aug. 7, 1930	5.38	8,500	1946	June 18, 1946	4.77	5,940
1931	June 5, 1931	7.16	12,700	1947	Aug. 1, 1947	4.64	5,680
1932	June 11, 1932	4.58	6,460	1948	July 11, 1948	4.62	5,800
1933	Sept. 9, 1933	5.48	7,080	1949	July 11, 1949	6.36	9,740
1934	June 2, 1934	4.57	5,340	1950	July 26, 1950	4.77	6,120
1935	July 14, 1935	4.70	5,660	1951	July 11, 1951	4.59	5,740
1936	May 24, 1936	4.86	5,810	1952	June 14, 1952	5.61	7,940
1937	July 12, 1937	6.78	9,980	1953	May 29, 1953	5.21	7,040
1938	Sept. 2, 1938	5.68	7,620	1954	July 14, 1954	4.55	5,660
1939	June 1, 1939	4.61	5,480	1955	July 26, 1955	4.83	6,240
1940	July 1, 1940	4.58	5,420	1956	July 30, 1956	4.62	5,800
1941	Aug. 11, 1941	5.89	8,060	1957	July 19, 1957	4.87	6,260
1942	July 25, 1942	4.61	5,780	1958	Aug. 6, 1958	4.41	5,080
1943	July 16, 1943	4.65	5,820	1959	Oct. 1, 1958	3.18	3,180
1944	July 24, 1944	4.58	5,640				

6455. North Platte River at Parkerton, Wyo.

Location.--Lat 42°51'00", long 105°48'50", in NW¼ sec.9, T.33 N., R.76 W., at bridge half a mile west of Parkerton and 3¾ miles downstream from Cole Creek.

Drainage area.--13,000 sq mi.

Gage.--Nonrecording. At different datum prior to 1923. Altitude of gage is 5,000 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 7,900 cfs.

Remarks.--Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. There were adjudicated diversions above station in 1924 for irrigation of 175,000 acres. Diversions do not substantially affect peak flows. Only annual maximum daily stages and discharges are shown.

Maximum daily stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	June 8, 1919	2.98	6,100	1922	May 25, 1922	4.2	8,100
1920	June 16, 1920	4.9	10,700	1923	Sept.28, 1923	14.4	9,190
				1924	May 15, 1924	14.8	10,300
1921	June 15, 1921	6.66	16,500				

6460. Deer Creek in canyon, near Glenrock, Wyo.

Location.--Lat 42°43', long 106°02', in sec.26, T.32 N., R.77 W., 500 ft upstream from Tolland No. 1 ditch and 14 miles southwest of Glenrock.

Drainage area.--139 sq mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 280 cfs.

Bankfull stage.--10 ft.

Remarks.--Water rights totaling 46.7 cfs (priorities 1883 to 1930) for irrigation of 3,280 acres adjudicated by Wyoming for diversion above station. Diversions do not substantially affect peak flows. 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)
1946	May 23, 1946	6.88	434	1949	May 5, 1949	6.94	464
					May 8, 1949	7.09	494
1947	Mar. 30, 1947	7.88	646		May 18, 1949	6.99	474
	Apr. 14, 1947	8.49	780		May 21, 1949	6.93	444
	Apr. 20, 1947	7.85	639				
	May 3, 1947	7.46	553	1950	Apr. 7, 1950	8.76	855
	June 21, 1947	8.35	749		May 18, 1950	6.83	438
1948	Apr. 22, 1948	6.91	438	1951	Apr. 18, 1951	7.65	595
	Apr. 29, 1948	7.85	639		May 16, 1951	6.76	410
					July 31, 1951	7.64	593
1949	Apr. 24, 1949	7.12	498				

Note.--Peaks greater than 400 cfs may have occurred prior to beginning of record in 1946.

6466. Deer Creek below Millar diversion, at Glenrock, Wyo.
(Published as "Deer Creek at Glenrock" prior to 1961)

Location.--Lat 42°51'50", long 105°51'56", in NW¼NW¼ sec.4, T.33 N., R.75 W., 900 ft downstream from bridge on U.S. Highways 20 and 87 in Glenrock and 0.5 mile upstream from mouth.

Drainage area.--212 sq mi.

Gage.--Nonrecording at site 460 ft upstream at different datums prior to June 1, 1935; recording thereafter. Datum lowered 1.00 ft May 21, 1928. At site 860 ft upstream June 1, 1935, to Jan. 31, 1961. Altitude of present gage is 4,975 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,100 cfs.

Remarks.--Diversions above station for irrigation of 6,500 acres. One small reservoir above station (capacity, 60 acre-ft) for irrigation. Diversions do not affect peak flows appreciably. Records for 1924 furnished by Bureau of Reclamation. Peak discharges equivalent to those at former station, Deer Creek at Glenrock. Base for partial-duration series, 450 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Apr. 15, 1924	6.5	2,840	1946	May 9, 1946	3.85	790
					May 24, 1946	3.11	537
1928	June 13, 1928	3.04	267		May 31, 1946	3.22	571
1929	May 15, 1929	5.84	1,650	1947	Mar. 31, 1947	3.20	520
					Apr. 3, 1947	3.02	466
1930	Apr. 15, 1930	4.20	705		Apr. 15, 1947	3.67	684
					Apr. 21, 1947	3.68	688
1931	Apr. 18, 1931	4.05	646		May 5, 1947	3.25	538
					June 22, 1947	4.57	1,000
1932	July 9, 1932	5.35	1,160				
				1948	Apr. 30, 1948	3.45	608
1933	May 23, 1933	6.50	1,810				
				1949	May 9, 1949	3.18	514
1935	May 28, 1935	3.69	570		May 18, 1949	2.97	451
1936	Apr. 20, 1936	3.14	273	1950	Apr. 8, 1950	3.41	594
1937	Apr. 16, 1937	6.40	1,300	1951	May 22, 1951	2.83	399
	Apr. 22, 1937	4.52	637				
	May 10, 1937	3.92	462	1952	Apr. 21, 1952	3.85	523
	June 10, 1937	4.35	608		May 27, 1952	4.46	964
	July 12, 1937	4.55	659				
				1953	May 8, 1953	3.78	660
1938	Apr. 19, 1938	6.44	1,360		May 29, 1953	3.95	705
	Apr. 26, 1938	4.80	820				
	May 1, 1938	4.54	732	1954	Apr. 7, 1954	3.25	458
1939	Apr. 25, 1939	4.50	691	1955	Apr. 19, 1955	3.48	424
					Apr. 27, 1955	4.38	785
1940	Apr. 29, 1940	3.74	443				
				1956	Mar. 24, 1956	3.25	333
1941	May 5, 1941	7.74	2,400				
				1957	Mar. 26, 1957	3.67	459
1942	Apr. 12, 1942	4.01	810				
	Apr. 21, 1942	3.76	638	1958	Apr. 17, 1958	4.67	845
	May 16, 1942	7.06	2,150		May 8, 1958	4.13	602
1943	Mar. 31, 1943	4.17	950	1959	Apr. 26, 1959	3.38	363
1944	Apr. 28, 1944	3.87	810	1960	Mar. 29, 1960	5.02	1,020
	May 7, 1944	3.66	691				
	May 19, 1944	6.47	1,630	1961	Apr. 20, 1961	3.16	203
1945	May 7, 1945	5.42	1,370	1962	Apr. 19, 1962	7.06	1,110
1946	Apr. 1, 1946	2.86	453				

6475. Box Elder Creek at Boxelder, Wyo.

Location.--Lat 42°37', long 105°52', in SW¼SW¼ sec.32, T.31 N., R.75 W., just downstream from private bridge at Hiser Ranch (old Boxelder post office), an eighth of a mile downstream from Snowshoe Creek and 17 miles scuth of Glenrock.

Drainage area.--63.0 sq mi.

Gage.--Nonrecording prior to June 7, 1946; recording thereafter. Datum of gage is 6,704.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 330 cfs.

Bankfull stage.--4½ ft.

Remarks.--Water rights totaling 1.8 cfs (priorities 1888 to 1902) for irrigation of 122 acres adjudicated by Wyoming for diversion above station. Diversions do not substantially affect peak flows. Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	May 8, 1946	4.22	410	1949	May 9, 1949	4.52	442
	June 18, 1946	4.58	454		May 15, 1949	4.57	460
					May 18, 1949	4.52	458
1947	May 4, 1947	4.78	486		May 21, 1949	4.67	496
	June 21, 1947	4.70	470				
	June 29, 1947	4.04	341	1950	May 18, 1950	4.51	432
					May 23, 1950	3.98	330
1948	Apr. 29, 1948	3.93	321		June 7, 1950	3.54	251
	May 18, 1948	3.63	267				
				1951	May 21, 1951	4.54	432
1949	Apr. 29, 1949	4.00	330				
	May 5, 1949	4.56	444	1962	May 25, 1962	4.95	679

6480. Box Elder Creek near Careyhurst, Wyo.

Location.--Lat 42°50'08", long 105°40'24", in NE¼NE¼ sec.13, T.33 N., R.74 W., 0.9 mile south of Careyhurst and 2¼ miles upstream from mouth.

Drainage area.--202 sq mi.

Gage.--Nonrecording prior to Oct. 4, 1928; recording thereafter. Altitude of gage is 4,930 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Bankfull stage.--5 ft.

Remarks.--Water rights totaling 140 cfs (priorities 1876 to 1935), for irrigation of 10,200 acres adjudicated by Wyoming for diversion above station. Several small reservoirs above station (total adjudication, 276 acre-ft per year) for irrigation. Adjudicated diversions for municipal supply of Douglas, 3.9 cfs. Diversions substantially affect peak flows. 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)
1928	June 13, 1928	3.50	260	1940	May 4, 1940	3.59	277
1929	May 15, 1929	5.46	994				
1930	May 16, 1930	4.05	448	1941	May 3, 1941	6.58	1,310
				1942	May 16, 1942	6.70	1,450
1931	May 29, 1931	3.53	274	1943	Mar. 29, 1943	4.17	448
1932	May 15, 1932	4.74	654	1944	May 19, 1944	7.79	2,000
1933	May 23, 1933	9.04	2,360	1945	May 7, 1945	5.90	1,120
1935	May 17, 1935	4.70	675	1946	June 18, 1946	5.56	984
				1947	June 22, 1947	5.96	1,140
1936	Apr. 20, 1936	3.14	160	1948	Apr. 30, 1948	3.79	377
1937	June 10, 1937	5.00	760	1949	May 5, 1949	4.59	569
1938	Apr. 16, 1938	5.38	912	1950	May 18, 1950	3.84	379
1939	Apr. 25, 1939	4.75	676				

Peak stages and discharges of Box Elder Creek near Careyhurst, Wyo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 22, 1951	4.13	482	1957	June 1, 1957	3.79	392
1952	May 27, 1952	5.20	870	1958	Apr. 17, 1958	4.20	535
1953	May 29, 1953	4.11	504	1959	May 5, 1959	3.63	344
1954	Apr. 28, 1954	3.32	249	1960	May 28, 1960	3.80	398
1955	June 16, 1955	3.75	368				
				1961	May 20, 1961	3.07	188
1956	Mar. 29, 1956	2.27	44	1962	May 26, 1962	5.13	829

6490. La Prele Creek near Douglas, Wyo.

Location.--Lat 42°40', long 105°36', in sec.5, T.31 N., R.73 W., near high-water line of La Prele Reservoir and 13 miles southwest of Douglas.

Drainage area.--135 sq mi.

Gage.--Recording. Altitude of gage is 5,600 ft (from nearby line of levels).

Stage-discharge relation.--Defined by current-meter measurements below 760 cfs.

Bankfull stage.--9 ft.

Remarks.--Natural flow of stream affected by small reservoirs above station (total capacity, 147 acre-ft). Diversions above station for irrigation of 7,200 acres. Diversion and regulation substantially affect peak flows. 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)
1920	May 11, 1920	11.4	1,220	1942	May 15, 1942	10.06	840
				1943	Apr. 27, 1943	5.86	179
1921	May 25, 1921	8.5	570	1944	July 5, 1944	10.85	998
1922	May 20, 1922	9.3	715	1945	Aug. 2, 1945	10.25	886
1923	May 22, 1923	9.55	752				
1924	Apr. 14, 1924	9.1	685	1946	June 18, 1946	10.25	920
1925	May 16, 1925	9.12	688	1947	June 21, 1947	10.57	984
				1948	Apr. 30, 1948	7.12	343
1926	May 28, 1926	9.35	750	1949	May 9, 1949	8.81	596
1927	May 15, 1927	9.9	898	1950	May 16, 1950	7.72	392
1928	May 17, 1928	8.76	658				
1929	Apr. 29, 1929	9.05	716	1951	May 16, 1951	8.97	635
1930	May 15, 1930	7.76	478	1952	May 26, 1952	10.46	901
				1953	May 29, 1953	8.17	491
1931	May 7, 1931	5.72	184	1954	Apr. 15, 1954	5.66	106
1932	May 14, 1932	7.18	367	1955	Apr. 27, 1955	7.81	372
1933	May 23, 1933	10.4	998				
1934	Apr. 9, 1934	4.58	68	1956	May 27, 1956	5.78	124
1935	May 21, 1935	8.85	676	1957	May 18, 1957	9.32	626
				1958	May 15, 1958	6.96	236
1936	Apr. 25, 1936	6.56	290	1959	May 5, 1959	7.33	330
1937	June 7, 1937	8.80	665	1960	Mar. 26, 1960	6.43	202
1938	Apr. 15, 1938	9.90	888				
1939	Apr. 30, 1939	8.36	505	1961	June 6, 1961	6.62	223
1940	May 5, 1940	6.70	216	1962	May 22, 1962	9.81	1,020
1941	Apr. 28, 1941	10.55	918				

6495. La Prele Creek near Orpha, Wyo.
(Published as "near Fetterman" prior to May 26, 1928)

Location.--Lat 42°50'12", long 105°29'25", in NW¼ sec.15, T.33 N., R.72 W., 20 ft downstream from bridge on county highway, 1½ miles upstream from mouth and 1½ miles southeast of Orpha.

Drainage area.--177 sq mi.

Gage.--Nonrecording prior to June 3, 1935; recording thereafter. At site a quarter of a mile downstream at different datums prior to May 26, 1928. At datum 0.5 ft higher May 26, 1928, to Sept. 30, 1933. Altitude of present gage is 4,880 ft (from topographic map).

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

Bankfull stage.--7½ ft.

Remarks.--Flow regulated by La Prele Reservoir (capacity, 20,000 acre-ft) and several small reservoirs above station (total capacity, 140 acre-ft) for irrigation. Diversions for irrigation of 21,000 acres above station. Diversions substantially affect peak flows. Records for 1924 furnished by Bureau of Reclamation. 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)
1924	Apr. 24, 1924	-	369	1946	Sept. 6, 1946	7.30	1,340
				1947	June 23, 1947	5.28	485
1929	May 27, 1929	3.84	370	1948	Aug. 3, 1948	3.22	162
1930	June 24, 1930	1.28	46	1949	Sept. 6, 1949	2.30	83
				1950	July 24, 1950	5.14	450
1931	Oct. 6, 1930	2.87	206				
1932	May 31, 1932	.88	21	1951	Sept.30, 1951	1.49	26
1933	May 23, 1933	5.95	1,140	1952	Mar. 29, 1952	2.05	63
				1953	Oct. 13, 1952	-	19
1935	Sept.26, 1935	1.49	16		Jan. 14, 1953	al.80	-
				1954	Apr. 1, 1954	-	39
1936	Nov. 3, 1935	-	15		Apr. 1, 1954	al.87	-
1937	Sept.29, 1937	2.48	98	1955	June 1, 1955	2.89	134
1938	Sept.11, 1938	1.76	32				
1939	Oct. 7, 1938	2.16	64	1956	July 17, 1956	1.79	39
1940	July 11, 1940	1.82	38	1957	May 12, 1957	3.12	156
				1958	July 30, 1958	2.88	133
1941	Aug. 6, 1941	5.82	768	1959	July 13, 1959	1.78	46
1942	May 16, 1942	5.91	824	1960	July 4, 1960	2.24	77
1943	Apr. 10, 1943	2.61	101				
1944	May 27, 1944	3.40	194	1961	June 7, 1961	2.03	53
1945	May 24, 1945	3.84	308	1962	June 15, 1962	5.64	450

a Backwater from ice.

6500. North Platte River near Douglas, Wyo.
(Published as "at Douglas," 1891-94, 1929-39)

Location.--Lat 42°41'00", long 105°23'26", in NW¼SE¼ sec.5, T.31 N., R.71 W., 2 miles downstream from Bedtick Creek, 3¼ miles upstream from Wagonhound Creek, and 4 miles south of Douglas.

Drainage area.--18,328 sq mi, of which 5,139 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording prior to Apr. 28, 1932; recording thereafter. At sites 4 to 7 miles upstream at various datums prior to Oct. 1, 1939. Datum of present gage is 4,743.56 ft above mean sea level, datum of 1929.

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

Bankfull stage.--20 ft.

Remarks.--Natural flow of stream affected by transbasin diversiors, storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation of 385,000 acres above station. Diversions substartially affect peak flows. Records for 1891-94 furnished by State engineer of Wyoming and those for 1919-23 furnished by Bureau of Reclamation; reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges of North Platte River near Douglas, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	May 30, 1929	7.62	13,800	1947	Aug. 10, 1947	7.93	6,410
1930	June 13, 1930	5.70	7,670	1948	Aug. 3, 1948	8.60	8,100
				1949	July 12, 1949	9.13	9,420
1931	May 30, 1931	5.98	8,110	1950	June 18, 1950	8.25	7,250
1932	June 27, 1932	5.14	5,920				
1933	Aug. 28, 1933	6.12	8,580	1951	July 12, 1951	7.76	5,620
1934	July 25, 1934	5.29	6,330	1952	June 15, 1952	8.97	8,620
1935	July 13, 1935	4.92	5,800	1953	May 29, 1953	8.55	7,390
				1954	July 16, 1954	8.50	7,420
1936	June 29, 1936	5.00	5,500	1955	Aug. 7, 1955	9.11	9,070
1937	July 13, 1937	8.44	16,700				
1938	Sept. 2, 1938	5.61	7,020	1956	July 29, 1956	7.78	5,660
1939	June 1, 1939	5.06	5,710	1957	July 20, 1957	7.99	6,000
				1958	Apr. 19, 1958	7.60	5,320
1946	Sept. 7, 1946	8.62	8,970	1959	Oct. 2, 1958	6.31	3,230

6505. Wagonhound Creek near La Bonte, Wyo.

Location.--Lat 42°39'35", long 105°22'10", in SW¼NE¼ sec.16, T.31 N., R.71 W., 0.6 mile upstream from mouth, 3½ miles northeast of La Bonte, and 6 miles south of Douglas.

Drainage area.--112 sq mi.

Gage.--Nonrecording at several sites within half a mile of present site at various datums prior to Oct. 18, 1939; recording thereafter. Altitude of gage is 4,741 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs and by slope-area measurement at 2,000 cfs.

Bankfull stage.--10 ft.

Remarks.--Water rights totaling 56.3 cfs (priorities 1883 to 1933) above station for irrigation of 3,950 acres adjudicated by Wyoming for diversion. Diversions above station for supplemental irrigation supply to 8,860 acres along La Prele Creek. Diversions substantially affect peak flows. 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	May 5, 1929	5.52	186	1948	Aug. 3, 1948	6.06	393
1930	May 16, 1930	6.30	300	1949	June 8, 1949	6.56	469
				1950	Apr. 16, 1950	1.80	36
1931	Oct. 2, 1930	4.1	109				
1932	May 8, 1932	3.36	69	1951	May 17, 1951	2.87	104
				1952	May 23, 1952	4.28	215
1937	July 12, 1937	10.02	2,000	1953	May 8, 1953	3.34	137
1938	Apr. 16, 1938	6.34	476	1954	Apr. 9, 1954	.86	2.8
				1955	June 1, 1955	4.02	191
1940	May 29, 1940	5.53	442				
				1956	May 27, 1956	1.24	16
1941	Aug. 12, 1941	10.07	1,180	1957	May 19, 1957	4.84	263
1942	May 11, 1942	8.03	819	1958	July 21, 1958	1.73	40
1943	Apr. 11, 1943	3.50	210	1959	Apr. 7, 1959	3.03	129
1944	July 5, 1944	10.28	1,210	1960	Mar. 27, 1960	3.10	120
1945	May 6, 1945	5.73	226				
				1961	June 2, 1961	7.60	632
1946	June 19, 1946	5.73	293	1962	May 22, 1962	5.56	336
1947	June 22, 1947	8.83	813				

6515. La Bonte Creek near La Bonte, Wyo.

Location.--Lat 42°39'00", long 105°21'24", in SE¼SW¼ sec.15, T.31 N., R.71 W., 0.9 mile upstream from mouth and 3 miles northeast of La Bonte.

Drainage area.--287 sq mi.

Gage.--Nonrecording at site a quarter of a mile upstream at different datum prior to May 4, 1935; recording thereafter. Altitude of present gage is 4,742 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Bankfull stage.--8 ft.

Remarks.--Water rights totaling 119.29 cfs (priorities 1883 to 1946) for irrigation of 8,350 acres adjudicated by Wyoming for diversions above station. Diversions above station for supplemental supply to 9,300 acres along La Prele Creek. One small reservoir above station (adjudication, 101.25 acre-ft per year) for irrigation. Diversions substantially affect peak flows. Records for 1917-24 furnished by Bureau of Reclamation. 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)
1917	May 28, 1917	-	a1,750	1942	May 11, 1942	6.66	1,350
1918	May 9, 1918	-	a697	1943	Apr. 11, 1943	6.39	1,250
1919	June 20, 1919	-	a683	1944	May 19, 1944	5.82	978
1920	May 13, 1920	-	a2,500	1945	June 6, 1945	6.43	1,050
1921	May 8, 1921	-	a411	1946	June 19, 1946	5.95	878
				1947	June 21, 1947	7.71	1,490
1923	May 22, 1923	7.5	2,750	1948	Aug. 3, 1948	6.55	1,080
				1949	May 16, 1949	4.83	552
1924	Apr. 14, 1942	-	a748	1950	May 16, 1950	4.78	412
1929	Apr. 30, 1929	3.70	1,000	1951	May 16, 1951	6.89	1,270
1930	Apr. 28, 1930	3.44	944	1952	May 23, 1952	6.36	1,030
				1953	May 7, 1953	5.16	604
1931	Apr. 8, 1931	2.12	275	1954	July 17, 1954	4.36	313
1932	May 4, 1932	2.48	445	1955	June 1, 1955	7.44	1,530
1933	May 23, 1933	3.96	1,360				
				1956	May 25, 1956	5.26	548
1935	May 22, 1935	5.58	842	1957	May 19, 1957	6.33	1,080
				1958	Apr. 17, 1958	4.20	330
1936	Apr. 20, 1936	3.70	200	1959	May 8, 1959	4.65	490
1937	July 12, 1937	7.17	1,580	1960	June 10, 1960	4.23	342
1938	Apr. 19, 1938	5.75	990				
1939	Apr. 23, 1939	4.74	646	1961	May 17, 1961	5.23	641
1940	May 29, 1940	4.45	476	1962	Apr. 19, 1962	5.51	688
1941	May 2, 1941	6.50	1,230				

a Maximum daily discharge.

6520. North Platte River at Orin, Wyo.
(Published as "at Orin Junction," 1895, 1897-99 and as "at McKinley," 1917, 1918)

Location.--Lat 42°39'02", long 105°09'46", in SW¼SW¼ sec.17, T.31 N., R.69 W., 630 ft downstream from bridge on U.S. Highway 87, a quarter of a mile upstream from Shawnee Creek, and 1.5 miles east of Orin.

Drainage area.--18,837 sq mi, of which 5,142 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording prior to 1925; recording since 1958. At various sites within 2½ miles downstream at different datums, 1895 to 1924. Altitude of gage is 4,660 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Remarks.--Since 1909, natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of North Platte River at Orin, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	June 4, 1895	6.25	14,700	1959	May 5, 1959	4.62	4,300
				1960	July 10, 1960	3.98	2,640
1899	June 24, 1899	7.2	23,300	1961	July 8, 1961	4.66	4,490
1958	Apr. 19, 1958	5.14	5,510	1962	June 16, 1962	6.81	9,350

6528. North Platte River below Glendo Reservoir, Wyo.
(Published as "near Cassa," 1946-57)

Location.--Lat 42°27'25", long 105°56'50", in SW¼NW¼ sec. 30, T.29 N., R.67 W., opposite Sand Draw, 1.3 miles upstream from Horseshoe Creek, 3.1 miles downstream from Glendo Dam, and 5.2 miles southeast of Glendo.

Drainage area.--19,497 sq mi, of which 5,164 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing; 19,786 sq mi at site used 1946-57.

Gage.--Recording. At site 6.8 miles downstream at datum 31.12 ft lower prior to Jan. 1, 1958. Datum of gage is 4,488.94 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

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

Remarks.--Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, ground-water withdrawals, and diversions for irrigation, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. 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)
1946	Sept. 7, 1946	6.12	9,780	1955	Aug. 8, 1955	6.17	9,610
1947	Aug. 11, 1947	4.65	5,900				
1948	Aug. 3, 1948	5.27	7,340	1956	Aug. 1, 1956	4.80	5,980
1949	July 12, 1949	5.94	9,240	1957	July 18, 1957	4.90	6,240
1950	June 18, 1950	5.34	7,510	1958	July 29, 1958	9.55	5,610
				1959	June 19, 1959	10.94	9,200
1951	Aug. 1, 1951	4.59	5,480	1960	July 16, 1960	10.07	7,480
1952	June 3, 1952	6.00	9,100				
1953	May 30, 1953	5.20	6,940	1961	July 8, 1961	9.20	5,580
1954	July 14, 1954	5.02	6,510	1962	Aug. 8, 1962	10.06	7,400

6530. Horseshoe Creek near Esterbrook, Wyo.

Location.--Lat 42°21'30", long 105°26'35", in NE¼ sec.35, T.28 N., R.72 W., 30 ft downstream from Trail Creek and 5½ miles southwest of Esterbrook.

Drainage area.--45.5 sq mi.

Gage.--Recording. Altitude of gage is 6,350 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 80 cfs.

Bankfull stage.--9 ft.

Remarks.--Water rights totaling 5.51 cfs (priorities 1904 to 1941) for irrigation of 389 acres adjudicated by Wyoming for diversion above station do not substantially affect peak flows. Base for partial-duration series, 70 cfs.

Peak stages and discharges of Horseshoe Creek near Esterbrook, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 23, 1947	-	95	1949	May 15, 1949	4.31	183
	May 5, 1947	3.89	121		May 21, 1949	3.80	114
	May 12, 1947	3.77	109				
	June 3, 1947	3.52	97	1950	Apr. 24, 1950	3.26	71
	June 21, 1947	4.47	195		May 18, 1950	3.77	117
					May 28, 1950	3.46	87
1948	Apr. 30, 1948	3.34	74				
				1951	May 9, 1951	3.25	85
1949	Apr. 26, 1949	3.54	102		May 17, 1951	4.57	191
	Apr. 30, 1949	3.60	110				

6535. Horseshoe Creek near Glendo, Wyo.

Location.--Lat 42°27'09", long 104°58'11", in SE¼ sec.26, T.29 N., R.68 W., 0.6 mile upstream from mouth and 4½ miles southeast of Glendo.

Drainage area.--211 sq mi.

Gage.--Nonrecording at sites 2 miles upstream at different datums prior to June 9, 1935; recording thereafter. Altitude of gage is 4,500 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 760 cfs and by slope-area measurement at 11,900 cfs.

Bankfull stage.--7 ft.

Remarks.--Adjudicated diversions for irrigation of 7,600 acres above station substantially affect peak flows. 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)
1928	May 9, 1928	6.8	1,120	1946	May 13, 1946	1.97	143
1929	June 2, 1929	6.8	1,210	1947	June 22, 1947	4.42	616
1930	May 17, 1930	3.32	281	1948	Aug. 3, 1948	2.26	129
				1949	May 22, 1949	3.61	404
1931	May 5, 1931	2.67	142	1950	May 16, 1950	3.06	164
1932	May 7, 1932	2.99	204				
1933	May 23, 1933	5.50	1,050	1951	May 16, 1951	3.65	376
				1952	June 3, 1952	6.00	2,400
1935	May 30, 1935	8.80	11,900	1953	May 8, 1953	2.82	220
				1954	Aug. 7, 1954	1.59	27
1936	Apr. 26, 1936	1.90	71	1955	July 11, 1955	2.71	196
1937	June 12, 1937	3.17	350				
1938	July 13, 1938	3.88	752	1956	June 18, 1956	3.00	229
1939	Apr. 22, 1939	2.78	304	1957	May 19, 1957	4.54	788
1940	July 16, 1940	4.21	323	1958	May 17, 1958	1.97	66
				1959	May 9, 1959	2.44	140
1941	July 26, 1941	4.22	822	1960	June 7, 1960	3.45	370
1942	May 10, 1942	4.35	744				
1943	Apr. 11, 1943	3.05	398	1961	June 6, 1961	3.23	302
1944	May 11, 1944	3.26	438	1962	May 28, 1962	3.15	292
1945	May 7, 1945	3.16	428				

6545. Cottonwood Creek near Fletcher Park, Wyo.

Location.--Lat 42°18'45", long 105°14'13", at east boundary of sec.16, T.27 N., R.70 W., a quarter of a mile downstream from Held Creek and 8½ miles northeast of Fletcher Park.

Drainage area.--51.1 sq mi.

Gage.--Recording. Altitude of gage is 5,480 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 60 cfs.

Bankfull stage.--8 ft.

Remarks.--Water-rights totaling 7.8 cfs (priorities 1873 to 1919), for irrigation of 550 acres adjudicated by Wyoming for diversion above station. Two small reservoirs above station (total adjudication, 22 acre-ft per year) for irrigation. Diversions and regulation do not substantially affect peak flows. Base for partial-duration series, 70 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 20, 1947	3.33	70	1949	May 22, 1949	3.70	96
	May 12, 1947	3.45	80		June 7, 1949	3.57	92
	June 3, 1947	3.58	92				
	June 13, 1947	3.33	70	1950	May 16, 1950	3.43	82
	June 22, 1947	5.01	236				
				1951	May 16, 1951	4.15	149
1948	July 14, 1948	3.35	73		May 21, 1951	3.55	92
1949	May 16, 1949	3.96	120				

6550. Cottonwood Creek at Wendover, Wyo.
(Published as "near Wendover" prior to 1929)

Location.--Lat 42°19'32", long 104°52'33", in SE¼ sec.10, T.27 N., R.67 W., at Wendover, 1,000 ft upstream from mouth.

Drainage area.--196 sq mi.

Gage.--Nonrecording prior to May 24, 1935; recording thereafter. At site a quarter of a mile upstream at different datum May 1, 1929, to Sept. 30, 1933, and Apr. 1 to May 23, 1935. At site 250 ft upstream at different datums May 24, 1935, to Sept. 30, 1942. Datum lowered 2.00 ft July 25, 1936. At present site and datum since Apr. 6, 1946. Datum of present gage is 4,421.52 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 140 cfs and by slope-area measurements at 690, 1,390, 1,730, and 4,120 cfs.

Historical data.--Maximum discharge known, about 5,800 cfs Aug. 15, 1927 (gage height, 10.6 ft, from floodmark, site and datum of 1929), by slope-area measurement.

Remarks.--Diversions above station for irrigation of 3,000 acres. Two small reservoirs above station (total capacity, 20 acre-ft) for irrigation. Diversions and regulation substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of Cottonwood Creek at Wendover, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Aug. 15, 1927	10.6	5,800	1941	July 14, 1941	6.20	818
				1942	June 27, 1942	8.90	2,220
1929	June 1, 1929	5.02	840				
1930	Aug. 28, 1930	-	450	1946	July 1, 1946	4.72	254
				1947	June 22, 1947	3.83	102
1931	May 9, 1931	2.70	56	1948	June 14, 1948	6.22	691
1932	May 20, 1932	4.00	280	1949	July 12, 1949	4.57	122
1933	May 23, 1933	3.18	212	1950	June 18, 1950	4.09	32
1935	June 11, 1935	6.80	3,600	1951	June 22, 1951	5.20	320
				1952	June 4, 1952	5.82	326
1936	June 6, 1936	1.75	299	1953	Aug. 21, 1953	4.86	190
1937	Sept. 6. 1937	3.72	236	1954	Aug. 6, 1954	4.79	58
1938	Aug. 10, 1938	4.21	284	1955	June 1, 1955	8.85	1,730
1939	July 12, 1939	2.64	52				
1940	Sept.23, 1940	12.13	4,140				

6560. North Platte River below Guernsey Reservoir, Wyo.
(Published as "near Guernsey," 1900-1901, 1904; "at Guernsey," 1902-3, 1905-8, March to October 1912; "at Whalen," 1909; "North Platte River and Interstate Canal at Whalen," 1910-11, 1913-16; and "above Whalen," 1917-27)

Location.--Lat 42°16'50", long 104°45'15", in SE¼SE¼ sec.27, T.27 N., R.66 W., 1 mile northwest of Guernsey and 1.1 miles downstream from Guernsey Dam.

Drainage area.--20,186 sq mi, of which 5,165 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing. Area at site used May 1909 to December 1927, 20,267 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1928; recording thereafter. At several sites within three-quarters of a mile downstream at different datums June 14, 1900, to Nov. 16, 1908, and Mar. 30 to Oct. 31, 1912. At sites on river and diversion canals at Whalen 9 miles downstream at different datums May 1, 1909, to Dec. 31, 1927. Altitude of gage is 4,340 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by storage reservoirs and diversions for irrigation. Flow completely regulated by Guernsey Reservoir since 1927. Records furnished by Bureau of Reclamation. 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)
1903	June 21, 1903	5.3	11,800	1948	July 24, 1948	4.58	4,980
1904	May 22, 1904	6.6	14,200	1949	July 3, 1949	4.82	5,380
1905	June 12, 1905	6.4	13,900	1950	July 16, 1950	4.67	5,090
1906	June 1, 1906	6.0	11,700	1951	July 25, 1951	4.61	4,980
				1952	June 12, 1952	5.85	8,300
1908	June 2, 1908	11.5	30,000	1953	July 10, 1953	4.58	4,940
				1954	July 13, 1954	4.52	4,980
1912	July 21, 1912	6.1	8,200	1955	Aug. 16, 1955	4.45	4,680
1941	Aug. 9, 1941	4.81	5,420	1956	July 15, 1956	4.67	5,220
1942	May 17, 1942	4.80	5,560	1957	Aug. 16, 1957	4.80	5,470
1943	July 17, 1943	4.57	5,020	1958	July 14, 1958	4.64	5,220
1944	July 22, 1944	4.55	4,980	1959	July 27, 1959	4.78	5,450
1945	July 18, 1945	4.52	4,900	1960	July 27, 1960	4.73	5,400
1946	July 16, 1946	4.56	4,960	1961	July 7, 1961	4.78	5,570
1947	June 23, 1947	4.82	5,430	1962	Aug. 6, 1962	4.73	5,380

6570. North Platte River at recorder station, below Whalen, Wyo.
(Published as "below Whalen" prior to Apr. 16, 1938)

Location.--Lat 42°14'20", long 104°36'30", in SW¼ sec.12, T.26 N., R.65 W., a quarter of a mile downstream from Cottonwood Draw, 2½ miles downstream from Whalen Dam, and 4¾ miles northwest of Fort Laramie.

Drainage area.--20,375 sq mi, of which 5,168 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing. Area at site used prior to Apr. 16, 1938, 20,267 sq mi.

Gage.--Nonrecording prior to Nov. 17, 1955; recording thereafter. Altitude of present gage is 4,250 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 4,500 cfs.

Remarks.--Storage reservoirs and diversions for irrigation above station substantially affect peak flows. 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)
1938	June 20, 1938	3.42	2,530	1951	July 10, 1951	2.65	1,500
1939	June 25, 1939	4.09	2,680	1952	June 6, 1952	4.83	4,860
1940	June 3, 1940	3.60	2,100	1953	May 18, 1953	2.70	1,700
				1954	July 13, 1954	3.60	2,690
1941	May 3, 1941	4.27	3,060	1955	June 26, 1955	9.85	22,000
1942	May 19, 1942	5.45	4,920				
1943	July 17, 1943	3.62	2,400	1956	May 15, 1956	3.76	2,400
1944	May 21, 1944	4.47	3,500	1957	Aug. 17, 1957	4.10	2,960
1945	May 9, 1945	4.18	2,900	1958	July 4, 1958	3.15	1,590
				1959	July 22, 1959	3.58	2,170
1946	July 16, 1946	3.40	1,940	1960	July 28, 1960	3.32	1,840
1947	June 24, 1947	5.68	5,140				
1948	July 12, 1948	3.30	2,020	1961	July 28, 1961	4.23	3,020
1949	July 5, 1949	3.52	2,280	1962	May 11, 1962	3.50	2,110
1950	May 19, 1950	3.37	2,100				

6585. Laramie River near Jelm, Wyo.

Location.--Lat 41°00'10", long 106°00'50", in SE¼ sec.15, T.12 N., R.77 W., a quarter of a mile north of Colorado-Wyoming State line, half a mile upstream from Johnson Creek, and 4 miles south of Jelm.

Drainage area.--294 sq mi.

Gage.--Nonrecording prior to July 14, 1911; recording thereafter. At site three-quarters of a mile upstream at different datum prior to May 7, 1911. Datum of present gage is 7,683.36 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs.

Remarks.--Diversions for irrigation of 4,600 acres of hay meadows above station. Transbasin diversions from Laramie River and tributaries to Cache La Poudre River and tributaries. Diversions substantially affect peak flows. Records for 1913-14 furnished by the State engineer of Colorado. 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)
1905	June 5, 1905	6.4	2,060	1921	June 15, 1921	-	2,350
				1922	May 28, 1922	2.95	1,020
1911	June 9, 1911	3.3	1,300	1923	June 9, 1923	4.15	4,200
1912	June 5, 1912	3.72	2,690	1924	June 15, 1924	3.55	2,160
1913	May 31, 1913	3.00	976	1925	June 7, 1925	2.75	830
1914	June 2, 1914	3.9	3,270				
1915	June 1, 1915	3.1	1,280	1926	May 28, 1926	3.68	2,230
				1927	May 22, 1927	3.04	1,190
1916	May 10, 1916	3.3	1,500	1928	May 31, 1928	3.55	2,180
1917	June 23, 1917	3.92	3,390	1929	June 10, 1929	3.46	1,960
1918	June 13, 1918	3.42	1,840	1930	June 1, 1930	3.20	1,280
1919	May 26, 1919	2.65	780				
1920	June 8, 1920	4.05	3,840	1931	May 18, 1931	2.89	729

Peak stages and discharges of Laramie River near Jelm, Wyo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	May 23, 1932	3.69	1,610	1948	May 23, 1948	3.62	1,350
1933	June 5, 1933	3.71	1,590	1949	June 12, 1949	3.71	1,470
1934	May 7, 1934	2.23	416	1950	June 7, 1950	3.25	990
1935	June 14, 1935	3.81	1,790				
				1951	May 29, 1951	3.84	1,600
1936	June 1, 1936	3.19	1,130	1952	June 7, 1952	3.76	1,550
1937	June 11, 1937	3.53	1,470	1953	June 14, 1953	3.06	918
1938	May 30, 1938	3.75	1,590	1954	May 23, 1954	2.53	558
1939	June 1, 1939	3.02	948	1955	June 15, 1955	2.54	564
1940	May 28, 1940	2.95	888				
				1956	May 25, 1956	3.72	1,390
1941	May 14, 1941	3.11	1,030	1957	June 13, 1957	4.06	2,070
1942	June 13, 1942	3.89	1,680	1958	May 26, 1958	3.58	1,440
1943	June 2, 1943	3.71	1,540	1959	June 9, 1959	3.39	1,180
1944	May 31, 1944	3.07	876	1960	June 5, 1960	3.12	980
1945	June 5, 1945	3.29	1,060				
				1961	May 31, 1961	3.56	1,430
1946	June 7, 1946	3.29	1,060	1962	May 12, 1962	3.64	1,490
1947	June 22, 1947	3.80	1,530				

6590. Laramie River at Woods Landing, Wyo.
(Published as "at Woods" for 1900)

Location.--Lat 41°06'40", long 106°00'40", in sec.11, T.13 N., R.77 W., at Woods Landing, 60 ft downstream from Wood Creek.

Drainage area.--375 sq mi.

Gage.--Nonrecording. At different datums prior to 1911. Altitude of most recent gage is 7,460 ft (from river-profile map).

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, diversions for irrigation and return flow from irrigated areas. Diversions did not substantially affect peak flows. 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)
1891	June 9, 1891	13.9	1,500	1899	June 25, 1899	4.65	4,500
				1900	May 31, 1900	4.30	4,000
1896	May 30, 1896	3.25	2,170				
1897	May 25, 1897	4.05	3,420	1911	June 17, 1911	3.40	1,650
1898	May 26, 1898	2.75	1,570				

6595. Laramie River and Pioneer Canal near Woods, Wyo.

Location.--Lat 41°08'30", long 105°58'40", in E½ sec.36, T.14 N., R.77 W., 100 ft upstream from diversion dam for Pioneer Canal, 2.2 miles downstream from Fox Creek, 2.5 miles northeast of Woods, and 23 miles southwest of Laramie.

Drainage area.--434 sq mi.

Gage.--River: Nonrecording prior to Nov. 16, 1912; recording thereafter. At site 90 ft downstream between dam crest and canal headgates prior to Sept. 23, 1915. At datum 1.00 ft higher prior to Oct. 1, 1935. Datum of gage is 7,388.99 ft above mean sea level, datum of 1929.
Canal: Nonrecording prior to Apr. 11, 1923, June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938; recording Apr. 11, 1923, to Sept. 30, 1924, Apr. 19 to June 9, 1927, and subsequent to May 8, 1938. At different datum June 10 to Sept. 30, 1927. Altitude of present gage is 7,380 ft (from river-profile survey).

Stage-discharge relation.--River: Defined by current-meter measuremerts below 2,500 cfs.
Canal: Defined by current-meter measurements below 1,100 cfs.

Remarks.--The record contained herein is the combined flow of the river and the Pioneer Canal, which diverts from left bank of the river at diversion dam for irrigation downstream. Gage heights shown are river-stages. Diversions above station for irrigation of 11,000 acres, part of which is above station and part below. Three small reservoirs above station in Wyoming (total adjudication, 626 acre-ft per year) for irrigation, stock water, and domestic use. Diversions substantially affect peak flows. Records for January to December 1913 furnished by the State engineer of Wyoming. 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)
1912	June 3, 1912	3.3	2,480	1942	June 13, 1942	4.03	2,190
				1943	June 2, 1943	3.55	1,700
1916	June 13, 1916	1.9	1,070	1944	May 31, 1944	2.77	1,000
1917	June 22, 1917	4.15	3,850	1945	June 5, 1945	3.20	1,380
1918	June 12, 1918	3.02	2,120				
1919	May 29, 1919	1.50	86S	1946	June 7, 1946	3.00	1,150
1920	June 9, 1920	3.35	2,660	1947	June 22, 1947	3.88	2,040
				1948	May 23, 1948	3.45	1,750
1921	June 16, 1921	3.75	2,910	1949	June 7, 1949	3.35	1,550
1922	May 30, 1922	2.17	1,320	1950	May 25, 1950	3.33	1,410
1923	June 10, 1923	4.95	5,060				
1924	June 15, 1924	3.1	2,180	1951	May 29, 1951	3.99	2,130
				1952	June 7, 1952	2.93	1,890
1927	May 22, 1927	2.46	1,560	1953	June 14, 1953	-	927
				1954	May 23, 1954	-	605
1932	May 22, 1932	2.84	1,910	1955	June 15, 1955	-	541
1933	June 5, 1933	3.00	2,160				
1934	May 9, 1934	1.08	474	1956	May 27, 1956	-	1,750
1935	June 16, 1935	3.25	2,330	1957	June 13, 1957	-	4,020
				1958	May 25, 1958	-	1,920
1936	June 1, 1936	3.07	1,270	1959	June 9, 1959	-	1,260
1937	July 11, 1937	3.10	1,200	1960	June 9, 1960	-	1,030
1938	May 30, 1938	4.04	2,180				
1939	June 2, 1939	2.79	916	1961	May 31, 1961	-	1,710
1940	May 28, 1940	2.75	891	1962	May 12, 1962	-	1,920
1941	May 14, 1941	3.16	1,240				

6600. Laramie River at Laramie, Wyo.

Location.--Lat 41°19'40", long 105°36'30", in SW¼ sec.29, T.16 N., R.73 W., at county highway bridge 1.2 miles northwest of Laramie.

Drainage area.--1,071 sq mi, of which 151 sq mi is probably noncontributing.

Gage.--Nonrecording prior to Apr. 8, 1951; recording thereafter. At site on State Highways 130 and 230, 1.4 miles upstream at different datum prior to Apr. 10, 1936. Altitude of present gage is 7,125 ft (river-profile survey).

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of 53,000 acres above station, and return flow from irrigated areas. Diversions substantially affect peak flows. 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)
1933	June 7, 1933	4.46	1,350	1948	May 25, 1948	3.45	825
1934	May 11, 1934	2.14	182	1949	June 15, 1949	4.50	1,240
1935	June 18, 1935	5.00	1,660	1950	May 26, 1950	3.32	755
1936	June 1, 1936	3.20	640	1951	June 3, 1951	4.95	1,400
1937	May 31, 1937	3.33	730	1952	June 4, 1952	3.93	882
1938	June 1, 1938	4.37	1,330	1953	June 15, 1953	2.52	386
1939	June 3, 1939	2.78	548	1954	May 25, 1954	1.44	131
1940	June 4, 1940	2.64	486	1955	July 27, 1955	2.64	430
1941	June 27, 1941	2.70	512	1956	May 29, 1956	4.31	960
1942	June 15, 1942	5.06	1,810	1957	June 15, 1957	6.83	3,250
1943	June 3, 1943	4.79	1,580	1958	May 27, 1958	4.77	1,150
1944	June 12, 1944	2.64	516	1959	June 18, 1959	4.10	790
1945	June 8, 1945	3.51	885	1960	June 11, 1960	4.05	696
1946	June 20, 1946	3.46	860	1961	June 5, 1961	5.39	1,340
1947	June 24, 1947	4.70	1,460	1962	May 15, 1962	4.90	1,230

6605. Laramie River at Two Rivers, Wyo.

Location.--Lat 41°28'20", long 105°43'30", in SW¼ sec.5, T.17 N., R.74 W., at old Two Rivers Post Office, 0.6 mile upstream from Little Laramie River and 14 miles northwest of Laramie.

Drainage area.--1,224 sq mi, of which 188 sq mi is probably noncontributing.

Gage.--Nonrecording prior to Apr. 8, 1913; recording thereafter. At datum 0.74 ft lower prior to Apr. 21, 1915. Altitude of present gage is 7,058.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions above station for irrigation of 56,000 acres, and return flow from irrigated areas. Diversions substantially affect peak flows. 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)
1911	June 18, 1911	4.4	740	1922	June 1, 1922	3.5	685
1912	June 12, 1912	5.8	1,360	1923	June 13, 1923	7.48	3,930
				1924	June 17, 1924	5.4	1,610
1915	June 4, 1915	2.62	400	1925	June 8, 1925	3.0	500
1916	June 9, 1916	3.45	566	1926	May 31, 1926	6.2	1,900
1917	June 22, 1917	6.35	2,560	1927	May 24, 1927	3.78	780
1918	June 16, 1918	5.4	1,850				
				1933	June 9, 1933	4.78	1,240
1920	June 12, 1920	5.75	2,030	1934	May 12, 1934	1.55	88
				1935	June 19, 1935	5.27	1,550
1921	June 17, 1921	6.15	2,340				

Peak stages and discharges of Laramie River at Two Rivers, Wyo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	June 2, 1936	3.60	589	1950	May 28, 1950	3.52	536
1937	June 1, 1937	4.11	784				
1938	June 9, 1938	4.81	1,320	1951	June 5, 1951	5.07	1,080
1939	Apr. 18, 1939	4.11	796	1952	June 5, 1952	4.18	723
1940	June 5, 1940	2.94	404	1953	June 17, 1953	2.55	258
				1954	Feb. 13, 1954	-	70
1941	May 29, 1941	3.00	420	1955	June 19, 1955	2.50	240
1942	June 16, 1942	5.55	1,670				
1943	June 5, 1943	4.50	1,040	1956	May 28, 1956	4.08	728
1944	June 13, 1944	3.00	420	1957	June 16, 1957	7.24	2,990
1945	June 18, 1945	4.15	818	1958	May 29, 1958	4.48	862
				1959	June 19, 1959	3.78	604
1946	June 21, 1946	3.96	694	1960	June 12, 1960	3.79	617
1947	June 25, 1947	5.17	1,300				
1948	May 29, 1948	3.80	630	1961	June 6, 1961	5.15	1,220
1949	June 14, 1949	5.32	1,190	1962	May 15, 1962	4.59	926

6610. Little Laramie River near Filmore, Wyo.
(Published as "near Hatton," 1902-3, and as "at May's Ranch, Fillmore," 1913-14, by State engineer of Wyoming)

Location.--Lat 41°17'20", long 106°02'30", in sec.9, T.15 N., R.77 W., at May Ranch 1½ miles west of Filmore and 3½ miles downstream from North Fork.

Drainage area.--156 sq mi.

Gage.--Nonrecording prior to Sept. 16, 1938; recording thereafter. At datum 0.21 ft lower May 14, 1911, to Apr. 17, 1914. Altitude of gage is 7,600 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs.

Remarks.--Diversions above station for irrigation of 18,000 acres above and below station. Ten small reservoirs above station (total capacity, 160 acre-ft). Diversions substantially affect peak flows. 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)
1911	June 16, 1911	4.2	1,080	1940	May 29, 1940	2.71	636
1912	June 8, 1912	4.8	1,440				
				1941	May 27, 1941	3.09	864
1914	June 1, 1914	5.9	2,400	1942	June 12, 1942	3.84	1,470
1915	June 11, 1915	3.25	820	1943	June 1, 1943	4.06	1,660
				1944	June 12, 1944	2.77	652
1916	June 10, 1916	3.30	739	1945	June 28, 1945	3.38	976
1917	June 23, 1917	4.70	1,920				
1918	June 14, 1918	4.85	1,920	1946	June 7, 1946	3.37	1,050
1919	May 30, 1919	3.45	965	1947	June 21, 1947	4.01	1,380
1920	June 10, 1920	4.55	1,800	1948	June 3, 1948	3.66	1,140
				1949	June 12, 1949	4.50	1,710
1921	June 7, 1921	4.60	1,880	1950	June 15, 1950	3.77	1,120
1922	June 9, 1922	3.48	1,030				
1923	June 10, 1923	4.12	1,420	1951	June 18, 1951	3.82	1,310
1924	June 14, 1924	4.40	1,720	1952	June 5, 1952	3.76	1,250
1925	June 5, 1925	3.50	960	1953	June 19, 1953	4.17	1,510
				1954	May 22, 1954	3.08	732
1926	May 28, 1926	4.80	1,950	1955	June 16, 1955	2.41	355
1933	June 12, 1933	3.80	1,190	1956	May 27, 1956	3.54	1,010
1934	May 13, 1934	2.26	332	1957	June 8, 1957	3.93	1,360
1935	June 14, 1935	4.07	1,410	1958	May 28, 1958	3.65	1,120
				1959	June 16, 1959	3.66	1,120
1936	June 1, 1936	3.66	1,080	1960	June 9, 1960	3.19	804
1937	May 30, 1937	3.46	918				
1938	June 7, 1938	3.70	1,140	1961	June 3, 1961	3.09	798
1939	June 1, 1939	2.88	738	1962	May 13, 1962	3.08	768

6615. Little Laramie River at Two Rivers, Wyo.
(Published as "at Haley's Ranch, near Laramie" for 1903)

Location.--Lat 41°28'10", long 105°43'50", in SE¼SE¼ sec.6, T.17 N., R.74 W., at old Two Rivers Post Office, half a mile upstream from mouth and 14 miles northwest of Laramie.

Drainage area.--376 sq mi, of which 58 sq mi is probably noncontributing.

Gage.--Nonrecording prior to Apr. 14, 1913; recording thereafter. At different datum prior to May 1, 1911. At site 400 ft upstream at different datums Apr. 14, 1913, to Apr. 20, 1915. Datum lowered 1.0 ft July 1, 1913. Datum of present gage is 7,060.62 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs.

Remarks.--Water rights totaling 801 cfs (priorities 1871 to 1941) for irrigation of 56,000 acres adjudicated by the State of Wyoming for diversion above station. Fifteen small reservoirs above station (total capacity, 1,300 acre-ft) for irrigation, stock water, recreation, and domestic use. Diversions substantially affect peak flows. Records for 1913-14 furnished by the State engineer of Wyoming. 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)
1911	June 18, 1911	4.15	495	1940	May 29, 1940	3.83	267
1912	June 11, 1912	4.60	635				
1913	June 1, 1913	-	345	1941	June 10, 1941	4.02	327
1914	June 4, 1914	6.44	1,880	1942	June 14, 1942	5.48	998
1915	June 4, 1915	3.47	256	1943	June 3, 1943	5.74	1,180
				1944	June 14, 1944	3.70	231
1916	June 21, 1916	2.9	118	1945	June 16, 1945	5.15	812
1917	June 25, 1917	6.0	1,390				
1918	June 16, 1918	5.7	1,240	1946	June 21, 1946	4.73	515
				1947	June 23, 1947	6.23	1,400
1920	June 11, 1920	5.7	1,280	1948	May 30, 1948	4.74	520
				1949	June 14, 1949	6.22	1,390
1921	June 15, 1921	6.2	1,550	1950	June 21, 1950	5.05	595
1922	June 1, 1922	4.0	365				
1923	June 11, 1923	5.6	1,100	1951	June 2, 1951	5.98	1,120
1924	June 16, 1924	5.36	1,050	1952	June 7, 1952	5.53	808
1925	June 7, 1925	5.40	1,120	1953	June 21, 1953	5.45	760
				1954	Feb. 9, 1954	-	25
1926	May 29, 1926	6.32	1,790	1955	June 17, 1955	3.10	96
1927	June 16, 1927	4.26	481				
				1956	May 28, 1956	5.20	625
1933	June 13, 1933	4.60	615	1957	June 15, 1957	5.97	999
				1958	June 2, 1958	4.93	469
1935	June 17, 1935	4.80	710	1959	June 19, 1959	4.90	460
				1960	June 11, 1960	5.25	550
1936	June 3, 1936	4.47	556				
1937	June 1, 1937	4.96	725	1961	June 6, 1961	4.86	451
1938	June 9, 1938	4.82	731	1962	June 9, 1962	4.47	368
1939	June 2, 1939	4.18	362				

6620. Laramie River near Lookout, Wyo.

Location.--Lat 41°45'44", long 105°41'16", in NW¼NE¼ sec.27, T.21 N., R.74 W., 155 ft downstream from highway bridge, 1 mile upstream from Wheatland Reservoir No. 2, and 9 miles northeast of Lookout.

Drainage area.--2,174 sq mi, of which 603 sq mi is probably noncontributing.

Gage.--Nonrecording prior to Apr. 22, 1915; recording thereafter. Datum of gage is 6,962.68 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,300 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion for irrigation of 99,000 acres above station, and return flow from irrigated areas. Diversions substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of Laramie River near Lookout, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	June 13, 1912	4.70	1,710	1945	June 18, 1945	4.15	1,240
1915	June 7, 1915	2.82	501	1946	June 22, 1946	3.63	908
				1947	June 24, 1947	5.35	2,100
1916	June 17, 1916	3.1	681	1948	May 31, 1948	3.66	926
1917	June 26, 1917	-	3,100	1949	June 15, 1949	5.41	2,160
				1950	June 23, 1951	3.54	813
1932	May 26, 1932	4.08	1,360				
1933	June 15, 1933	4.58	1,690	1951	June 4, 1951	5.07	1,940
1934	Apr. 2, 1934	-	88	1952	June 12, 1952	4.22	1,210
1935	June 19, 1935	4.89	1,830	1953	June 17, 1953	3.24	740
				1954	Feb. 13, 1954	-	100
1936	June 4, 1936	3.67	1,000	1955	June 19, 1955	2.17	250
1937	June 2, 1937	4.09	1,210				
1938	June 10, 1938	4.75	1,680	1956	May 28, 1956	4.04	1,110
1939	June 3, 1939	3.16	651	1957	June 17, 1957	6.41	3,340
1940	June 4, 1940	2.73	504	1958	June 2, 1958	4.06	1,120
				1959	June 21, 1959	3.77	864
1941	May 30, 1941	2.93	545	1960	June 13, 1960	3.78	852
1942	June 15, 1942	5.05	2,020				
1943	June 5, 1943	4.42	1,460	1961	June 7, 1961	4.43	1,260
1944	June 15, 1944	2.90	545	1962	May 18, 1962	3.67	815

6645. Sybille Creek above Bluegrass Creek, near Wheatland, Wyo.

Location.--Lat 41°52'05", long 105°12'42", in sec.23, T.22 N., R.70 W., a quarter of a mile upstream from Bluegrass Creek and 18 miles southwest of Wheatland.

Drainage area.--225 sq mi.

Gage.--Recording. Altitude of gage is 5,246 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 340 cfs and by slope-area measurement at 1,870 cfs.

Remarks.--Diversions for irrigation of 3,600 acres above station. One small diversion between station and Bluegrass Creek. Seven small reservoirs above station (total capacity, 400 acre-ft) for irrigation. Diversions and regulation substantially affect peak flows. 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	July 4, 1941	2.52	200	1952	Apr. 8, 1952	3.54	560
1942	May 9, 1942	3.19	511	1953	July 29, 1953	4.34	960
1943	July 9, 1943	4.00	864	1954	May 22, 1954	2.20	114
1944	May 16, 1944	2.39	195	1955	June 26, 1955	3.14	416
1945	May 7, 1945	2.57	198				
				1956	May 26, 1956	5.90	1,870
1946	July 14, 1946	2.93	326	1957	July 21, 1957	4.92	1,250
1947	June 21, 1947	4.49	1,040	1958	July 16, 1958	5.5	1,600
1948	June 26, 1948	3.17	255	1959	May 25, 1959	2.28	82
1949	June 5, 1949	4.62	1,100	1960	Mar. 28, 1960	2.09	96
1950	June 5, 1950	1.58	31				
				1961	June 6, 1961	-	122
1951	July 29, 1951	3.65	592	1962	July 26, 1962	4.47	393

6675. North Laramie River near Wheatland, Wyo.
(Published as "at upper station, near Wheatland" in WSP 469)

Location.--Lat 42°09'58", long 105°12'23", in SE¼ sec.2, T.25 N., R.70 W., 1,800 ft upstream from headgate of North Laramie Land Co.'s canal, 1¼ miles downstream from Spring Creek, and 15 miles northwest of Wheatland.

Drainage area.--370 sq mi.

Gage.--Recording. At site 340 ft downstream at different datum Nov. 6, 1914, to Sept. 30, 1923. At site 800 ft downstream at datum 1.84 ft lower July 25, 1939 to Aug. 12, 1954. Altitude of present gage is 4,840 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 860 cfs and by slope-area measurements at 4,100 and 9,260 cfs.

Remarks.--Water rights totaling 124 cfs (priorities 1886 to 1944) for irrigation of 8,800 acres adjudicated by the State of Wyoming for diversion above station. Seven small reservoirs above station (total capacity, 290 acre-ft) for irrigation and stock water. Diversions substantially affect peak flows. 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)
1915	May 31, 1915	2.3	225	1947	Mar. 23, 1947	5.25	1,660
				1948	Apr. 19, 1948	3.36	374
1916	Apr. 27, 1916	2.1	176	1949	June 5, 1949	8.07	4,030
1917	May 30, 1917	4.2	1,420	1950	May 16, 1950	2.82	200
1918	May 9, 1918	3.05	592				
1919	Apr. 27, 1919	1.83	148	1951	July 27, 1951	11.60	9,260
1920	Apr. 7, 1920	6.2	3,020	1952	Apr. 7, 1952	7.89	4,420
				1953	July 29, 1953	4.98	1,570
1922	May 28, 1922	4.25	1,380	1954	Apr. 7, 1954	1.43	40
				1955	July 28, 1955	5.21	354
1940	Apr. 29, 1940	2.82	208				
				1956	Mar. 25, 1956	5.13	326
1941	May 3, 1941	4.01	635	1957	Aug. 4, 1957	6.70	1,170
1942	Apr. 4, 1942	4.43	1,020	1958	May 15, 1958	4.68	202
1943	Mar. 28, 1943	7.84	4,100	1959	May 5, 1959	4.60	158
1944	May 19, 1944	3.67	550	1960	Mar. 24, 1960	5.63	462
1945	Aug. 3, 1945	5.07	1,520				
				1961	June 6, 1961	4.92	261
1946	May 5, 1946	2.62	164	1962	Mar. 28, 1962	6.88	1,330

6690. Laramie River at Uva, Wyo.

Location.--Lat 42°07'40", long 104°54'35", in NE¼ sec.20, T.25 N., R.67 W., half a mile southeast of Uva and 1¼ miles downstream from North Laramie River.

Drainage area.--3,662 sq mi.

Gage.--Nonrecording. Altitude of gage is 4,450 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,500 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. 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)
1895	June 3, 1895	5.9	3,110	1898	May 28, 1898	3.80	1,220
1896	June 3, 1896	4.60	1,940	1899	June 26, 1899	6.0	3,600
1897	May 27, 1897	5.30	2,570				

6695. Chugwater Creek at Chugwater, Wyo.

Location.--Lat 41°45'10", long 104°48'55", in NE¼ sec.31, T.21 N., R.66 W., 270 ft upstream from old highway bridge, a quarter of a mile southeast of Chugwater, and half a mile upstream from headgate for Ramsey ditch.

Drainage area.--380 sq mi.

Gage.--Nonrecording. At site 300 ft downstream at different datum May 22, 1911, to Feb. 5, 1912. At different datum Feb. 6, 1912, to Sept. 30, 1921. Altitude of most recent gage is 5,270 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 240 cfs.

Bankfull stage.--5½ ft.

Remarks.--Adjudicated diversions of 75 cfs above station for irrigation of 5,000 acres substantially affect peak flows. 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)
1911	July 22, 1911	3.35	204	1920	May 7, 1920	3.7	227
1912	Aug. 2, 1912	4.00	282	1921	July 31, 1921	3.2	169
1915	Sept. 4, 1915	4.5	350	1938	Sept. 5, 1938	2.80	69
1916	Mar. 20, 1916	2.5	90	1939	June 1, 1939	4.00	171
1917	June 1, 1917	3.7	275	1940	Feb. 27, 1940	1.55	5.1
1918	July 23, 1918	3.6	240				
1919	Aug. 1, 1919	2.95	140	1955	June 25, 1955	-	a13,400

a At site 0.3 mile downstream; drainage area 430 sq mi.

6700. Laramie River near Uva, Wyo.

Location.--Lat 42°08'16", long 104°46'33", in NW¼SE¼ sec.16, T.25 N., R.66 W., at private bridge, 7½ miles east of Uva, and 9½ miles downstream from Chugwater Creek.

Drainage area.--4,440 sq mi, of which 623 sq mi are probably noncontributing.

Gage.--Recording. Altitude of gage is 4,375 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 600 cfs and by slope-area measurement at 2,270 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. 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)
1953	July 31, 1953	4.21	615	1958	July 17, 1958	3.22	225
1954	July 19, 1954	3.40	275	1959	June 22, 1959	3.47	290
1955	June 26, 1955	6.02	2,270	1960	Mar. 24, 1960	3.80	442
1956	May 28, 1956	3.55	322	1961	June 7, 1961	4.07	510
1957	May 29, 1957	6.35	2,760	1962	June 30, 1962	6.36	2,750

6705. Laramie River near Fort Laramie, Wyo.
(Published as "at Fort Laramie" prior to October 1931)

Location.--Lat 42°12'06", long 104°32'39", in NE¼ sec.28, T.26 N., R.64 W., half a mile east of Old Fort Laramie, 0.9 mile downstream from Deer Creek, 1.3 miles upstream from mouth, 1.4 miles southwest of Fort Laramie, and 5 miles downstream from Point of diversion to Gering-Fort Laramie Canal.

Drainage area.--4,600 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 1, 1932; recording thereafter. At site half a mile downstream at different datum Apr. 4, 1915, to Mar. 31, 1925. At site of Gering-Fort Laramie Canal siphon 4 miles upstream at different datum Apr. 1, 1925, to Aug. 20, 1935. Altitude of present gage is 4,220 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,200 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversion for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. Records prior to 1936 furnished by Bureau of Reclamation. Maximum daily discharges shown prior to 1936; only annual peaks thereafter.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	July 27, 1915	2.51	1,600	1940	June 4, 1940	5.63	1,610
1916	Oct. 18, 1915	.89	228	1941	July 11, 1941	3.98	476
1917	June 6, 1917	4.20	4,280	1942	June 27, 1942	5.41	1,350
1918	June 21, 1918	2.75	1,640	1943	Mar. 30, 1943	6.19	2,170
1919	July 5, 1919	1.60	820	1944	May 24, 1944	3.04	202
1920	June 19, 1920	2.80	1,550	1945	June 7, 1945	5.45	1,420
1921	June 18, 1921	3.50	1,940	1946	May 11, 1946	3.07	220
1922	May 19, 1922	2.0	727	1947	June 25, 1947	6.19	2,140
1923	May 24, 1923	2.60	1,300	1948	May 22, 1948	4.36	745
1924	Apr. 10, 1924	-	2,070	1949	June 19, 1949	6.85	2,190
1925	May 17, 1925	-	410	1950	May 27, 1950	3.90	520
1926	July 11, 1926	-	1,120	1951	July 30, 1951	4.92	992
1927	Aug. 15, 1927	-	1,180	1952	Apr. 10, 1952	6.14	1,680
1928	June 7, 1928	-	1,620	1953	Aug. 1, 1953	3.88	468
1929	June 2, 1929	-	2,500	1954	July 20, 1954	2.52	98
1930	Apr. 30, 1930	-	760	1955	June 27, 1955	7.45	2,940
1933	May 25, 1933	-	625	1956	May 28, 1956	3.20	240
1934	Oct. 24, 1933	-	86	1957	Aug. 17, 1957	6.02	1,460
1935	June 2, 1935	-	1,900	1958	May 17, 1958	4.08	516
1936	June 6, 1936	5.75	1,680	1959	June 23, 1959	3.33	262
1937	July 14, 1937	4.87	991	1960	Mar. 24, 1960	3.52	338
1938	May 30, 1938	4.01	507	1961	June 9, 1961	3.73	371
1939	May 5, 1939	2.67	95	1962	July 1, 1962	5.11	925

6710. Rawhide Creek near Lingle, Wyo.

Location.--Lat 42°07'30", long 104°19'20", in sec.20, T.25 N., R.62 W., 200 ft upstream from bridge on U.S. Highway 26, 1 mile east of Lingle, and 1 mile upstream from mouth.

Drainage area.--376 sq mi.

Gage.--Nonrecording at site 200 ft downstream at different datum prior to June 12, 1935; recording thereafter. At site 400 ft downstream at datum 0.24 ft lower June 12, 1935, to Oct. 5, 1938. Altitude of present gage is 4,160 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 770 cfs and by slope-area measurement at 3,860 cfs and by float measurement at 3,970 cfs.

Bankfull stage.--7½ ft.

Remarks.--Diversions above station for irrigation of 4,900 acres. Six small reservoirs above station (total capacity, 460 acre-ft) for irrigation. Diversions and wastewater from canals substantially affect peak flows. 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 2, 1929	5.5	340	1946	Sept. 7, 1946	11.76	3,970
1930	Aug. 14, 1930	4.4	225	1947	June 29, 1947	4.85	174
				1948	Mar. 16, 1948	4.48	138
1931	July 22, 1931	4.00	172	1949	May 22, 1949	4.91	176
1932	Aug. 2, 1932	4.60	315	1950	July 22, 1950	3.71	72
1933	May 24, 1933	4.26	281				
1934	June 4, 1934	5.0	538	1951	July 28, 1951	5.02	188
1935	June 1, 1935	10.15	1,940	1952	June 5, 1952	5.65	254
				1953	Aug. 10, 1953	4.60	140
1936	Apr. 13, 1936	4.90	261	1954	Aug. 8, 1954	6.89	419
1937	May 30, 1937	4.77	223	1955	June 26, 1955	7.46	734
1938	Sept. 3, 1938	5.10	200				
1939	June 2, 1939	4.57	122	1956	July 2, 1956	3.55	80
1940	July 15, 1940	4.27	90	1957	May 24, 1957	8.08	982
				1958	June 10, 1958	3.27	58
1941	July 12, 1941	11.54	3,860	1959	June 22, 1959	3.67	96
1942	June 4, 1942	5.77	294	1960	May 5, 1960	3.06	46
1943	June 13, 1943	5.32	223				
1944	June 12, 1944	5.59	249	1961	Nov. 28, 1960	4.39	212
1945	May 30, 1945	6.42	417	1962	June 18, 1962	9.40	1,250

6720. North Platte River at Torrington, Wyo.
(Published as "at Vaughn," 1924)

Location.--Lat 42°03', long 104°11', in sec.15, T.24 N., R.61 W., half a mile south of Torrington and 1 mile upstream from Cherry Creek.

Drainage area.--21,700 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 20, 1932; recording thereafter. At different datum prior to Oct. 29, 1924. At site 6 miles upstream Mar. 31 to Oct. 28, 1924. At datum 0.10 ft higher Apr. 22, 1929, to Oct. 5, 1931. Altitude of most recent gage is 4,100 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developemnts, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1918-23 furnished by Bureau of Reclamation. Only annual peaks are shown.

Peak stages and discharges of North Platte River at Torrington, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 27, 1917	9.35	22,400	1932	July 4, 1932	1.84	3,150
1918	June 24, 1918	8.00	9,820	1933	May 24, 1933	3.14	6,740
1919	June 20, 1919	6.00	4,720	1934	June 4, 1934	1.51	2,570
1920	May 13, 1920	8.30	11,200	1935	June 1, 1935	4.65	11,300
1921	June 17, 1921	10.40	24,000	1936	June 7, 1936	1.37	2,480
1922	May 19, 1922	7.40	10,370	1937	July 14, 1937	3.12	5,690
1923	Sept.30, 1923	16.3	14,000	1938	June 21, 1938	1.16	1,770
				1939	May 28, 1939	1.03	1,730
1931	May 29, 1931	1.80	3,000				

6745. North Platte River at Wyoming-Nebraska State line

Location.--Lat 41°59'40", long 104°03'00", in sec.3, T.23 N., R.60 W., 800 ft upstream from Wyoming-Nebraska State line and half a mile west of Henry, Nebr.

Drainage area.--26,003 sq mi, of which 5,878 sq mi (including 3,950 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

Gage.--Nonrecording prior to Nov. 6, 1929; recording thereafter. At site 200 ft upstream prior to Dec. 15, 1942. At datum 1.0 ft higher prior to Sept. 30, 1959. Datum of gage is 4,024.77 ft above mean sea level, datum of 1929, supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs.

Remarks.--Natural flow of stream affected by transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversion for irrigation, and return flow from irrigated areas. Diversions substantially affect peak flows. 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 2, 1929	6.04	17,900	1946	Sept. 8, 1946	2.05	1,470
1930	Aug. 15, 1930	2.90	a3,460	1947	June 25, 1947	4.72	6,530
				1948	July 25, 1948	2.61	2,350
1931	Oct. 6, 1930	2.31	2,300	1949	June 20, 1949	2.69	2,350
1932	July 5, 1932	2.72	2,740	1950	June 7, 1950	2.13	1,700
1933	May 24, 1933	4.03	6,980				
1934	June 4, 1934	2.53	2,490	1951	July 28, 1951	2.46	2,120
1935	June 1, 1935	5.35	11,800	1952	June 6, 1952	3.74	4,830
				1953	June 7, 1953	2.55	2,350
1936	June 7, 1936	2.52	2,520	1954	July 14, 1954	1.94	1,540
1937	July 14, 1937	4.06	5,490	1955	June 27, 1955	5.92	11,500
1938	May 19, 1938	2.90	2,430				
1939	June 1, 1939	2.34	1,720	1956	July 3, 1956	1.88	1,430
1940	June 5, 1940	2.95	2,480	1957	May 21, 1957	2.53	2,420
				1958	July 19, 1958	1.59	1,330
1941	July 12, 1941	3.67	3,750	1959	July 22, 1959	1.82	1,470
1942	May 20, 1942	4.32	6,120	1960	July 30, 1960	2.80	1,500
1943	Mar. 31, 1943	2.63	2,200				
1944	May 22, 1944	3.10	3,300	1961	July 30, 1961	3.12	1,660
1945	June 11, 1945	3.38	3,490	1962	May 25, 1962	5.10	2,210

a Maximum peak discharge; maximum discharge during the year, 5,750 cfs at 12:01 a.m. Oct. 1, 1929, stage falling.

6775. Horse Creek near Lyman, Nebr.

Location.--Lat 41°56'14", long 103°59'00", in NE¼ sec.25, T.23 N., R.58 W., on right bank 135 ft upstream from county highway bridge, three-quarters of a mile upstream from mouth, 1 mile downstream from Kiowa Creek, and 3½ miles northeast of Lyman.

Drainage area.--1,600 sq mi, approximately, of which about 40 sq mi is noncontributing.

Gage.--Nonrecording at site half a mile upstream at different datum prior to Nov. 23, 1938; recording thereafter. At datum 1.00 ft higher Nov. 23, 1938, to Apr. 12, 1946. Altitude of gage is 4,010 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. 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	Oct. 2, 1930	-	307	1947	June 21, 1947	4.57	790
1932	June 21, 1932	4.00	508	1948	June 17, 1948	4.52	754
1933	May 23, 1933	4.98	1,070	1949	June 13, 1949	4.51	670
1934	Oct. 1, 1933	3.22	373	1950	Sept.20, 1950	4.67	890
1935	June 13, 1935	4.9	1,150				
				1951	Sept. 3, 1951	4.31	762
1936	June 6, 1936	3.50	401	1952	June 27, 1952	5.24	1,130
1937	Sept.30, 1937	3.40	421	1953	June 7, 1953	5.10	1,160
1938	May 19, 1938	5.86	1,970	1954	May 23, 1954	3.66	629
1939	Oct. 2, 1938	2.38	225	1955	May 26, 1955	4.02	742
1940	July 15, 1940	1.72	121				
				1956	July 3, 1956	5.30	1,350
1941	June 9, 1941	5.59	1,320	1957	July 29, 1957	7.28	2,040
1942	May 13, 1942	4.12	712	1958	June 9, 1958	5.97	1,420
1943	May 22, 1943	4.00	818	1959	July 15, 1959	3.40	495
1944	June 12, 1944	2.59	283	1960	June 10, 1960	2.58	308
1945	May 28, 1945	6.05	1,850				
				1961	May 14, 1961	3.86	652
1946	May 4, 1946	3.43	396	1962	May 24, 1962	6.90	1,860

6780. Sheep Creek near Morrill, Nebr.

Location.--Lat 41°57'50", long 103°56'20", in NW¼SW¼ sec.16, T.23 N., R.57 W., on right bank 40 ft upstream from Chicago, Burlington & Quincy Railroad bridge, 50 ft downstream from bridge on U.S. Highway 26, 1 mile west of Morrill, and 1½ miles upstream from mouth.

Drainage area.--357 sq mi, of which about 25 sq mi is noncontributing.

Gage.--Nonrecording prior to Apr. 14, 1940; recording thereafter. Datum of gage is 3,995.04 ft above mean sea level, datum of 1929, supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by diversions and ground-water withdrawals for irrigation and return flow from irrigated areas. 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)
1932	Aug. 2, 1932	a6.75	-	1941	June 10, 1941	3.34	187
1933	Apr. 20, 1933	4.4	200	1942	June 4, 1942	-	171
1934	Oct. 2, 1933	3.23	123		Sept.25, 1942	3.45	-
1935	July 13, 1935	3.64	153	1943	May 29, 1943	3.67	221
				1944	Aug. 23, 1944	4.68	332
1936	Sept. 5, 1936	5.10	-	1945	July 20, 1945	4.25	262
1937	Oct. 6, 1936	2.54	72				
1938	July 19, 1938	5.20	364	1947	Mar. 19, 1947	3.65	232
1939	Oct. 4, 1938	2.62	98	1948	July 15, 1948	3.49	210
1940	July 15, 1940	2.86	156	1949	Sept. 6, 1949	3.37	185

a Caused by break in Interstate Canal.

Peak stages and discharges of Sheep Creek near Morrill, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 1, 1949	3.59	223	1957	Mar. 16, 1957	3.09	184
				1958	Oct. 19, 1957	2.57	-
1951	July 28, 1951	4.27	314		July 18, 1958	-	135
1952	June 27, 1952	3.58	248	1959	June 19, 1959	2.62	144
1953	June 7, 1953	3.07	197	1960	Oct. 5, 1959	2.41	115
1954	July 21, 1954	5.80	360				
1955	June 27, 1955	6.52	413	1961	July 31, 1961	4.37	272
				1962	Jan. 10, 1962	b3.21	-
1956	July 2, 1956	4.40	287		July 30, 1962	-	163

b Backwater from ice.

6790. Dry Spottedtail Creek at Mitchell, Nebr.

Location.--Lat 41°56'45", long 103°49'35", at southeast corner of sec.20, T.23 N., R.56 W., on right bank 5 ft upstream from bridge on county road, half a mile west of Mitchell, and three-quarters of a mile upstream from mouth.

Drainage area.--50.8 sq mi.

Gage.--Recording. At datum 1.00 ft higher prior to Oct. 1, 1958. Datum of gage is 3,943.75 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. 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	June 8, 1949	3.97	327	1956	July 2, 1956	6.68	1,500
1950	July 20, 1950	2.28	143	1957	Aug. 28, 1957	2.80	324
				1958	June 8, 1958	3.62	523
1951	June 24, 1951	7.55	2,010	1959	June 29, 1959	3.82	314
1952	June 22, 1952	3.44	707	1960	May 24, 1960	3.29	212
1953	June 7, 1953	3.22	389				
1954	May 5, 1954	1.82	-	1961	July 30, 1961	4.84	543
	July 21, 1954	-	122	1962	July 30, 1962	4.78	549
1955	June 27, 1955	6.67	1,670				

6795. North Platte River at Mitchell, Nebr.

Location.--Lat 41°55'55", long 103°48'10", in SW¼ sec.27, T.23 N., R.56 W., near center of main channel on downstream side of pier of bridge on State Highway 29, half a mile south of Mitchell.

Drainage area.--28,200 sq mi, approximately, of which about 5,960 sq mi is noncontributing.

Gage.--Nonrecording; at site near present site at different datums prior to October 1927; recording thereafter. At datum 3.00 ft higher October 1927 to Apr. 30, 1936; at datum 2.00 ft higher May 1, 1936, to June 30, 1942; at datum 1.00 ft higher July 1, 1942, to May 26, 1960. Datum of gage is 3,930.3 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs.

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. Only annual peaks are shown.

Peak stages and discharges of North Platte River at Mitchell, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1901	June 15, 1901	4.10	12,700	1934	Oct. 6, 1933	3.48	1,760
1902	June 6, 1902	3.27	6,880	1935	June 1, 1935	6.51	11,000
1903	June 22, 1903	3.93	11,000				
1904	May 23, 1904	5.00	13,300	1936	June 7, 1936	3.50	1,210
1905	June 14, 1905	5.29	17,600	1937	July 15, 1937	5.39	4,090
				1938	May 20, 1938	4.75	2,880
1906	June 2, 1906	5.40	16,500	1939	Oct. 11, 1938	2.97	1,060
1907	June 11, 1907	5.5	15,400	1940	June 6, 1940	3.38	1,190
1908	June 4, 1908	6.3	26,000				
1909	June 3, 1909	6.45	27,500	1941	June 10, 1941	5.43	4,400
1910	Oct. 7, 1909	4.00	6,540	1942	May 14, 1942	6.47	6,660
				1943	Mar. 31, 1943	4.28	2,220
1911	June 19, 1911	3.65	4,800	1944	May 22, 1944	4.32	2,190
1912	July 22, 1912	4.3	-	1945	June 11, 1945	5.03	3,390
1913	Oct. 26, 1912	4.1	-				
				1946	Oct. 1, 1945	3.80	1,970
1916	July 25, 1916	-	3,540	1947	June 25, 1947	6.79	7,410
1917	June 28, 1917	-	19,700	1948	June 18, 1948	3.66	2,240
1918	June 25, 1918	-	12,400	1949	June 8, 1949	4.34	3,060
				1950	Sept.22, 1950	3.44	1,760
1920	June 19, 1920	-	12,700				
				1951	June 24, 1951	4.38	2,340
1921	June 17, 1921	-	24,000	1952	June 6, 1952	5.27	4,090
1922	May 20, 1922	-	8,200	1953	June 7, 1953	4.58	2,760
1923	Sept.30, 1923	-	12,400	1954	May 23, 1954	2.92	1,230
1924	Apr. 17, 1924	-	15,600	1955	June 28, 1955	8.29	10,600
1925	May 17, 1925	-	9,000				
				1956	July 3, 1956	4.57	2,710
1926	June 19, 1926	-	9,800	1957	May 25, 1957	4.63	3,160
1927	Aug. 16, 1927	-	7,300	1958	June 8, 1958	3.34	1,460
1928	June 9, 1928	-	14,300	1959	Sept.30, 1959	3.05	1,190
1929	June 2, 1929	7.95	20,000	1960	Oct. 1, 1959	3.02	1,160
1930	Oct. 1, 1929	-	8,100				
				1961	May 14, 1961	4.23	1,640
1931	Oct. 6, 1930	4.22	2,750	1962	May 25, 1962	5.10	2,210
1932	Aug. 3, 1932	3.83	2,160				
1933	May 25, 1933	5.25	5,990				

6800. Tub Springs near Scottsbluff, Nebr.

Location.--Lat 41°55', long 103°43', at southeast corner of sec.32, T.23 N., R.55 W., 50 ft upstream from bridge, a quarter of a mile downstream from headgates of Enterprise Canal, 1½ miles upstream from mouth, and 3½ miles northwest of Scottsbluff.

Gage.--Recording. Datum of gage is 3,926.54 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 1,000 cfs and by slope-area measurement at 1,610 cfs.

Remarks.--Natural flow of stream affected by diversions for irrigation, spill from Enterprise Canal, and return flow from irrigated areas. 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	June 6, 1949	3.29	332	1956	July 2, 1956	4.17	564
1950	Sept.16, 1950	3.35	352	1957	May 23, 1957	3.50	420
				1958	June 11, 1958	5.19	810
1951	June 24, 1951	6.31	1,130	1959	June 23, 1959	2.19	210
1952	June 21, 1952	-	1,610	1960	Oct. 1, 1959	1.55	121
1953	June 14, 1953	5.02	775				
1954	June 25, 1954	4.10	540	1961	June 5, 1961	2.15	210
1955	June 27, 1955	6.80	1,180	1962	May 27, 1962	4.02	515

6805. North Platte River at Scottsbluff, Nebr.
(Published as "at Gering," 1897-1901)

Location.--Lat 41°51', long 103°39', on line between secs. 25 and 26, T.22 N., R.55 W., at wagon bridge between Scottsbluff and Gering, about three-quarters of a mile south of Scottsbluff.

Drainage area.--28,500 sq mi, approximately, of which about 5,980 sq mi is noncontributing.

Gage.--Nonrecording. At several datums. Altitude of gage is 3,870 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Records for 1917-18 furnished by State engineer of Nebraska. 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)
1897	May 30, 1897	3.50	27,900	1913	Oct. 27, 1912	3.00	10,600
1898	May 27, 1898	3.00	18,500				
1899	June 26, 1899	3.55	23,500	1917	June 29, 1917	-	20,700
1900	June 4, 1900	2.98	15,800	1918	June 25, 1918	-	10,200

6810. Winter Creek near Scottsbluff, Nebr.

Location.--Lat 41°52', long 103°37', near center of sec.30, T.22 N., R.54 W., on right bank half a mile downstream from bridge on U.S. Highway 26, 1 mile upstream from mouth and 1½ miles east of Scottsbluff.

Gage.--Nonrecording at site half a mile upstream at different datum prior to Nov. 19, 1938; recording thereafter. At datum 1.00 ft higher Nov. 19, 1938, to Sept. 30, 1958. Datum of gage is 3,860.8 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by diversions and ground water withdrawals for irrigation and return flow from irrigated areas. 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)
1932	Sept.21, 1932	2.30	135	1949	Jan. 7, 1949	a8.34	-
1933	Sept.14, 1933	2.68	176		July 30, 1949	-	362
1934	Oct. 5, 1933	2.08	97	1950	Sept.29, 1950	3.34	239
1935	July 9, 1935	4.4	400				
				1951	June 25, 1951	5.15	693
1936	June 8, 1936	4.6	436	1952	June 27, 1952	5.17	811
1937	Aug. 18, 1937	3.50	280	1953	June 14, 1953	6.86	880
1938	Sept. 2, 1938	3.20	241	1954	June 25, 1954	7.83	1,020
1939	June 16, 1939	4.71	409	1955	May 16, 1955	5.58	605
1940	June 5, 1940	6.02	590		June 27, 1955	-	605
1941	June 9, 1941	4.12	297	1956	July 2, 1956	4.43	416
1942	July 23, 1942	3.00	164	1957	June 10, 1957	7.95	1,090
1943	June 16, 1943	3.22	202	1958	June 11, 1958	6.0	696
1944	June 11, 1944	4.18	339	1959	June 19, 1959	7.77	831
1945	Aug. 7, 1945	4.66	395	1960	Aug. 24, 1960	4.00	253
1946	May 23, 1946	3.21	210	1961	July 31, 1961	3.96	241
1947	June 21, 1947	4.38	379	1962	June 19, 1962	4.61	332
1948	June 16, 1948	5.52	504				

a Backwater from ice.

6820. North Platte River near Minatare, Nebr.

Location.--Main channel gage: Lat 41°47', long 103°31', in NW¼SW¼ sec.18, T.21 N., R.53 W., on left bank 50 ft downstream from highway bridge and 1¼ miles southwest of Minatare. Nine Mile channel gage: On left bank 50 ft upstream from highway bridge and 750 ft north of main channel.

Drainage area.--28,700 sq mi, approximately.

Gage.--Main channel: Nonrecording prior to Apr. 12, 1932; recording thereafter. At different datum prior to October 1919. At datum 2.21 ft higher April 1922 to July 20, 1936. At site 400 ft upstream at datum 2.67 ft higher July 21, 1936, to Apr. 30, 1941, at datum 1.67 ft higher May 1, 1941, to July 19, 1955, and at datum 1.00 ft higher July 20, 1955, to Mar. 21, 1956. At present site at datum 1.00 ft higher Mar. 22 to May 22, 1956. Datum of gage is 3,811.0 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

Nine Mile channel: Nonrecording May 16, 1934, to May 19, 1940, and June 29 to Sept. 30, 1955; recording May 20, 1940, to June 28, 1955, and since Oct. 1, 1955. At datum 1.00 ft higher May 16, 1934, to May 19, 1940; 1.00 ft higher May 20, 1940, to June 28, 1955; 0.02 ft lower June 29 to Sept. 30, 1955; and 1.00 ft higher Oct. 1, 1955, to June 28, 1961. Datum of gage is 3,812.3 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. River flows in two channels; figures given herein represent combined 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)
1908	June 4, 1908	-	26,000	1939	June 16, 1939	-	1,740
1909	June 4, 1909	-	28,000	1940	June 6, 1940	-	2,150
1916	July 16, 1916	-	5,200	1941	June 11, 1941	-	4,540
1917	July 2, 1917	-	19,500	1942	May 14, 1942	-	6,950
1918	June 25, 1918	-	8,800	1943	Apr. 1, 1943	-	2,030
1919	Sept.14, 1919	-	4,000	1944	May 17, 1944	-	2,290
				1945	June 11, 1945	-	3,360
1921	June 18, 1921	-	24,000				
1922	May 20, 1922	-	10,200	1946	Oct. 1, 1945	-	2,180
1923	Sept.30, 1923	-	11,700	1947	June 26, 1947	-	6,740
1924	Apr. 17, 1924	-	16,200	1948	June 17, 1948	-	3,200
1925	May 18, 1925	-	7,600	1949	June 13, 1949	-	2,960
				1950	Sept.19, 1950	-	2,120
1926	June 19, 1926	3.64	8,000				
1927	June 23, 1927	3.29	7,000	1951	June 25, 1951	-	3,160
1928	June 6, 1928	4.74	14,700	1952	June 22, 1952	-	4,550
1929	June 3, 1929	5.04	17,000	1953	June 7, 1953	-	3,620
1930	Oct. 1, 1929	-	9,400	1954	May 22, 1954	-	1,700
				1955	June 28, 1955	-	9,440
1931	Oct. 7, 1930	2.66	3,650				
1932	Aug. 3, 1932	2.17	2,130	1956	July 3, 1956	-	3,370
1933	May 25, 1933	3.56	6,370	1957	May 20, 1957	-	3,840
1934	Oct. 6, 1933	2.09	1,970	1958	June 9, 1958	-	5,220
1935	June 2, 1935	4.55	9,100	1959	Sept.30, 1959	-	1,410
				1960	Oct. 1, 1959	-	1,450
1936	June 9, 1936	-	1,770				
1937	July 15, 1937	-	3,930	1961	May 15, 1961	-	1,300
1938	May 20, 1938	-	2,980	1962	June 30, 1962	-	3,400

6840. Red Willow Creek near Bayard, Nebr.

Location.--Lat 41°43', long 103°15', in NE¼NE¼ sec.13, T.20 N., R.52 W., on left bank 75 ft downstream from timber bridge, a quarter of a mile downstream from Wild Horse drain, three-quarters of a mile upstream from mouth, and 4½ miles southeast of Bayard.

Drainage area.--162 sq mi.

Gage.--Nonrecording prior to Nov. 18, 1938; recording thereafter. At datum 1.00 ft higher prior to Apr. 15, 1946. Datum of gage is 3,716.28 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Gage heights adjusted to present datum. Natural flow of stream affected by diversions and ground-water withdrawals for irrigation, return flow from irrigated areas, and occasional waste into creek from Tri-State Canal. 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)
1932	May 20, 1932	6.40	1,320	1948	June 17, 1948	4.87	728
1933	Aug. 25, 1933	6.40	1,510	1949	June 6, 1949	4.23	857
1934	Aug. 15, 1934	2.58	253	1950	Aug. 25, 1950	6.45	1,780
1935	June 11, 1935	6.56	1,570				
				1951	Sept. 3, 1951	5.83	1,620
1936	June 9, 1936	4.00	645	1952	May 25, 1952	2.34	253
1937	Aug. 18, 1937	3.20	430	1953	June 19, 1953	3.83	770
1938	May 19, 1938	6.66	1,590	1954	June 18, 1954	4.70	970
1939	May 31, 1939	3.93	688	1955	Sept.20, 1955	3.12	418
1940	June 5, 1940	1.99	248				
				1956	July 3, 1956	7.33	2,320
1941	June 9, 1941	5.08	972	1957	May 19, 1957	a6.83	-
1942	May 10, 1942	6.80	1,640		July 29, 1957	-	2,140
1943	July 12, 1943	2.88	479	1958	June 15, 1958	7.35	1,940
1944	July 4, 1944	3.43	600	1959	June 19, 1959	3.41	534
1945	Aug. 1, 1945	3.92	749	1960	June 11, 1960	2.23	265
1946	Sept.18, 1946	3.35	394	1961	July 31, 1961	4.44	895
1947	June 30, 1947	6.82	1,380	1962	July 12, 1962	4.82	1,010

a Backwater from ice.

6845. North Platte River at Bridgeport, Nebr.
(Published as "near Camp Clark," 1896-1900)

Location.--Main channel gage: Lat 41°40', long 103°06', in sec.28, T.20 N., R.50 W., on downstream side of pier near center of bridge on U.S. Highway 26, half a mile north of Bridgeport. Browns Creek channel gage: Lat 41°41', long 103°06', in sec.28, T.20 N., R.50 W., on left bank a quarter of a mile upstream from culvert on U.S. Highway 26 and three-quarters of a mile north of Bridgeport.

Drainage area.--29,400 sq mi, approximately.

Gage.--Main channel: Nonrecording prior to June 1917; recording thereafter. At site 4 miles upstream at different datum prior to October 1900. At present site and at datum 0.31 ft higher May 1902 to Oct. 6, 1927. Datum of gage is 3,656.14 ft above mean sea level, datum of 1929, supplementary adjustment of 1960. Browns Creek channel: Nonrecording June 1, 1934, to May 31, 1943; recording thereafter. At site a quarter of a mile downstream at different datum June 1, 1934, to Aug. 31, 1936. Near present site at present datum Sept. 1, 1936, to May 31, 1943. Datum of gage is 3,663.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1960.

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two independent channels; figures given herein represent combined discharge. Only annual peaks are shown.

Peak stages and discharges of North Platte River at Bridgeport, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	June 6, 1897	5.05	22,700	1935	June 2, 1935	8.12	12,400
1898	May 28, 1898	4.40	17,000				
1899	June 26, 1899	5.39	24,900	1936	June 9, 1936	-	2,180
1900	June 5, 1900	4.54	14,500	1937	July 16, 1937	-	3,540
				1938	Sept. 5, 1938	-	4,880
1902	June 7, 1902	6.46	6,600	1939	Nov. 3, 1938	-	1,780
1903	June 23, 1903	6.79	10,800		Dec. 29, 1938	a6.82	-
1904	June 9, 1904	7.23	14,200	1940	June 7, 1940	-	1,760
1905	June 15, 1905	7.36	18,200				
				1941	June 12, 1941	7.28	5,410
1906	May 29, 1906	7.78	20,400	1942	May 15, 1942	8.16	10,100
				1943	Apr. 2, 1943	6.31	2,470
1915	June 10, 1915	7.76	6,050	1944	June 12, 1944	-	2,510
				1955	June 12, 1945	-	4,260
1916	June 16, 1916	-	4,400				
1917	June 26, 1917	-	20,200	1946	Oct. 2, 1945	-	2,840
1918	June 27, 1918	-	9,800	1947	June 30, 1947	-	8,430
1919	Sept.13, 1919	-	4,600	1948	June 17, 1948	-	3,230
1920	May 15, 1920	-	11,600	1949	June 14, 1949	-	2,780
				1950	Sept.20, 1950	-	2,690
1921	June 19, 1921	-	24,000				
1922	May 22, 1922	-	7,600	1951	Sept. 4, 1951	-	4,680
1923	May 25, 1923	-	8,000	1952	June 1, 1952	-	4,250
1924	Apr. 18, 1924	-	14,000	1953	June 8, 1953	-	3,750
1925	May 19, 1925	-	10,000	1954	Oct. 21, 1953	-	1,600
				1955	June 29, 1955	-	8,330
1926	June 16, 1926	-	7,700				
1927	June 23, 1927	-	7,800	1956	July 3, 1956	-	6,910
1928	June 6, 1928	-	15,000	1957	May 20, 1957	-	4,200
1929	June 3, 1929	-	24,000	1958	July 18, 1958	-	4,860
1930	Oct. 1, 1929	-	9,300	1959	Sept.28, 1959	-	2,220
				1960	Oct. 1, 1959	-	2,270
1931	Oct. 7, 1930	6.55	4,600				
1932	Aug. 4, 1932	6.14	2,200	1961	July 31, 1961	-	1,790
1933	May 26, 1933	7.35	6,570	1962	July 14, 1962	-	3,210
1934	Oct 2, 1933	6.16	2,440				

a Backwater from ice.

6850. Pumpkin Creek near Bridgeport, Nebr.

Location.--Lat 41°38', long 103°02', in SW¼ sec.12, T.19 N., R.50 W., on left bank 250 ft downstream from bridge on U.S. Highway 26, half a mile upstream from mouth, and 4 miles southeast of Bridgeport.

Drainage area.--1,080 sq mi, approximately.

Gage.--Nonrecording prior to June 25, 1934; recording thereafter. On downstream side of bridge 240 ft upstream prior to June 25, 1934, and at upstream side of bridge 260 ft upstream, June 25, 1934, to May 18, 1936, both at datum 0.29 ft higher. Datum of gage is 3,635.99 ft above mean sea level, datum of 1929.

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

Remarks--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. 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)
1921	June 1, 1921	-	a1,000	1936	Mar. 6, 1936	1.71	68
				1937	Mar. 5, 1937	2.45	94
1932	June 16, 1932	4.0	225	1938	May 17, 1938	5.19	564
1933	Aug. 28, 1933	3.6	162	1939	Mar. 9, 1939	6.12	706
1934	May 2, 1934	6.95	939	1940	Sept.21, 1940	4.14	315
1935	June 16, 1935	6.3	684				

a Discharge measurement; peak may have been higher.

Peak stages and discharges of Pumpkin Creek near Bridgeport, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	July 3, 1941	4.62	409	1952	Mar. 30, 1952	-	134
1942	Feb. 18, 1942	b2.92	-	1953	July 16, 1953	2.57	117
	May 15, 1942	-	116	1954	Jan. 21, 1954	b3.18	-
1943	June 1, 1943	2.61	107		May 2, 1954	-	88
1944	Aug. 24, 1944	3.07	154	1955	Sept.21, 1955	4.18	342
1945	June 10, 1945	3.01	162	1956	July 2, 1956	2.53	111
1946	Mar. 10, 1946	b1.97	-	1957	Nov. 3, 1956	b3.56	-
	Sept. 1, 1946	-	77		June 1, 1947	-	188
1947	June 21, 1947	3.27	157	1958	July 21, 1958	4.33	326
1948	Nov. 8, 1947	-	80	1959	Jan. 4, 1959	b2.96	-
	Jan. 28, 1948	b2.57	-		Apr. 5, 1959	-	87
1949	Jan. 14, 1949	b5.05	-	1960	Jan. 2, 1960	b2.46	-
	Aug. 30, 1949	-	71		May 30, 1960	-	78
1950	May 5, 1950	-	88	1961	Nov. 29, 1960	b2.43	-
1951	Sept. 3, 1951	8.87	2,970		May 27, 1961	-	108
1952	Jan. 22, 1952	b2.87	-	1962	Aug. 2, 1962	4.63	510

b Backwater from ice.

6860. North Platte River at Lisco, Nebr.

Location.--Lat 41°30', long 102°38, in sec.33, T.18 N., R.46 W., near right bank on downstream side of pier of highway bridge, half a mile south of Lisco.

Drainage area.--30,800 sq mi, approximately.

Gage.--Nonrecording prior to May 4, 1932; recording thereafter. At different datum prior to Sept. 8, 1931. Datum of gage is 3,475.5 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs.

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developemnts, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1916	May 22, 1916	-	6,000	1951	Dec. 9, 1950	a3.72	-
1917	June 27, 1917	-	20,100		Sept. 4, 1951	-	5,120
				1952	Jan. 27, 1952	a3.19	-
1932	June 18, 1932	2.12	2,120		June 3, 1952	-	3,800
1933	May 26, 1933	3.13	8,150	1953	Jan. 20, 1953	a3.32	-
1934	May 3, 1934	2.34	3,580		July 30, 1953	-	3,620
1935	June 15, 1935	3.57	12,100	1954	Oct. 21, 1953	-	1,810
					Mar. 5, 1954	a3.38	-
1936	June 10, 1936	2.04	2,610	1955	July 1, 1955	3.44	5,900
1937	July 18, 1937	2.39	3,360				
1938	Apr. 26, 1938	2.76	5,730	1956	Nov. 30, 1955	a3.46	-
1939	Nov. 3, 1938	-	2,140		July 5, 1956	-	4,060
	Nov. 24, 1938	a3.25	-	1957	May 21, 1957	2.81	3,960
1940	June 8, 1940	2.06	2,080	1958	Jan. 4, 1958	a3.98	-
					July 22, 1958	-	3,230
1941	June 13, 1941	3.01	5,110	1959	Dec. 14, 1958	a3.93	-
1942	May 16, 1942	3.40	8,470		Sept.26, 1959	-	2,150
1943	Oct. 14, 1942	2.14	2,770	1960	Oct. 2, 1959	-	2,290
1944	July 11, 1944	2.49	3,110		Nov. 14, 1959	a3.15	-
1945	June 13, 1945	2.76	4,350				
				1961	Jan. 25, 1961	a3.48	-
1946	Oct. 2, 1945	2.27	2,940		May 14, 1961	-	1,640
1947	June 29, 1947	3.66	7,790	1962	Jan. 28, 1962	a2.79	-
1948	June 18, 1948	2.46	3,130		July 15, 1962	-	3,310
1949	June 15, 1949	2.36	3,230				
1950	Sept.19, 1950	2.26	2,820				

a Backwater from ice.

6865. North Platte River at Oshkosh, Nebr.

Location.--Lat 41°23'long 102°21', near line between secs. 3 and 10, T.16 N., R.44 W.,on right bank 40 ft downstream from bridge on State Highway 27 and 1 mile south of Oshkosh.

Drainage area.--31,400 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 23, 1933; recording thereafter. At different datum April 1916 to October 1917. Datum of gage is 3,369.6 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. River flows in two channels; figures given herein represent combined 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)
1916	May 25, 1916	-	5,700	1944	July 12, 1944	-	3,050
				1945	June 15, 1945	-	4,310
1928	June 7, 1928	-	14,500				
1929	June 4, 1929	-	19,500	1946	Oct. 3, 1945	2.27	3,030
1930	Oct. 2, 1929	-	9,900	1947	June 29, 1947	-	8,580
				1948	June 19, 1948	-	2,950
1931	Nov. 23, 1930	3.20	5,200	1949	June 15, 1949	-	3,080
1932	Apr. 23, 1932	2.22	2,400	1950	Sept.19, 1950	-	3,020
1933	May 27, 1933	3.25	6,370				
1934	May 4, 1934	2.50	3,190	1951	Sept. 5, 1951	-	5,040
1935	June 16, 1935	3.97	11,800	1952	June 4, 1952	-	3,680
				1953	June 10, 1953	-	3,300
1937	July 19, 1937	2.41	3,020	1954	Oct. 21, 1953	1.97	2,200
1938	May 30, 1938	3.13	6,420	1955	July 1, 1955	-	5,640
1940	Feb. 7, 1940	a2.98	-	1956	July 5, 1956	-	4,420
	Feb. 28, 1940	-	2,150	1957	May 22, 1957	-	3,740
				1958	July 22, 1958	-	3,340
1941	June 13, 1941	3.04	4,900	1959	Sept.29, 1959	-	2,190
1942	May 16, 1942	3.75	9,350	1960	Nov. 23, 1959	-	2,850
1943	Oct. 14, 1942	-	2,660				

a Backwater from ice.

6870. Blue Creek near Lewellen, Nebr.

Location.--Lat 41°20', long 102°10', in NE¼ sec.30, T.16 N., R.42 W., on right bank 130 ft downstream from county highway bridge, half a mile downstream from bridge on U.S. Highway 26, three-quarters of a mile upstream from mouth, and 1½ miles west of Lewellen.

Drainage area.--267 sq mi, of which about 80 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at site 110 ft upstream at datum 2.00 ft higher prior to July 16, 1934; recording thereafter. At site 70 ft upstream at datum 2.00 ft higher July 16, 1934, to May 21, 1947; at datum 1.00 ft higher May 22, 1947, to May 10, 1950; and at present datum May 11, 1950, to Apr. 9, 1958. Datum of gage is 3,310.04 ft above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs.

Remarks.--Natural flow of stream affected by ground-water withdrawals, diversions for irrigation and return flow from irrigated areas. Only annual peaks are shown.

Peak stages and discharges of Blue Creek near Lewellen, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Oct. 4, 1930	-	220	1950	Aug. 26, 1950	3.82	311
1932	Apr. 24, 1932	3.72	310				
1933	Mar. 7, 1933	4.06	-	1951	May 20, 1951	3.80	307
	Aug. 26, 1933	-	323	1952	May 16, 1952	3.28	195
1934	May 3, 1934	3.04	273	1953	Feb. 23, 1953	a5.07	-
1935	June 12, 1935	4.20	558		July 29, 1953	-	309
				1954	Dec. 23, 1953	a5.25	-
1936	May 10, 1936	2.88	182		May 16, 1954	-	172
1937	Aug. 25, 1937	3.94	510	1955	Feb. 23, 1955	a5.51	-
1938	May 20, 1938	4.46	723		May 27, 1955	-	206
1939	June 2, 1939	2.44	192				
1940	July 12, 1940	2.50	159	1956	Nov. 20, 1955	-	130
					Nov. 29, 1955	a6.67	-
1941	June 6, 1941	4.50	702	1957	Jan. 19, 1957	a6.24	-
1942	Jan. 3, 1942	a4.13	-		May 31, 1957	-	287
	May 1, 1942	-	286	1958	Jan. 2, 1958	a6.38	-
1943	Feb. 1, 1943	-	136		July 18, 1958	-	376
	Mar. 8, 1943	a3.66	-	1959	Jan. 6, 1959	a6.03	-
1944	July 12, 1944	4.23	546		Mar. 27, 1959	-	154
1945	Apr. 17, 1945	-	161	1960	Mar. 7, 1960	a6.30	-
	June 9, 1945	2.26	-		Mar. 19, 1960	-	210
1946	Feb. 1, 1946	1.94	134	1961	Jan. 29, 1961	a5.62	-
1947	June 29, 1947	3.79	342		May 21, 1961	-	179
1948	July 28, 1948	3.13	288	1962	July 11, 1962	5.75	558
1949	June 12, 1949	2.76	277				

a Backwater from ice.

6875. North Platte River at Lewellen, Nebr.

Location.--Lat 41°19', long 102°08', in sec.34, T.16 N., R.42 W., near left bank on downstream side of bridge over left channel and near left bank on downstream side of bridge over right channel, on U.S. Highway 26, half a mile upstream from high-water line of McConaughy Lake and 1 mile southeast of Lewellen.

Drainage area.--34,000 sq mi, approximately.

Gage.--Recording on two channels. Datum of gages on left and right channels are 3,284.6 and 3,283.7 ft, respectively, above mean sea level, datum of 1929, Western Wyoming supplementary adjustment of 1940.

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. River flows in two channels; figures given herein represent combined 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)
1941	June 14, 1941	-	4,940	1952	June 4, 1952	-	4,010
1942	May 16, 1942	-	8,380	1953	June 10, 1953	-	3,300
				1954	Oct. 21, 1953	-	2,230
1944	July 12, 1944	-	3,320	1955	July 2, 1955	-	5,180
1945	June 16, 1945	-	4,830				
				1956	July 6, 1956	-	4,810
1946	Oct. 3, 1945	-	3,080	1957	May 22, 1957	-	3,810
1947	June 29, 1947	-	9,140	1958	July 20, 1958	-	5,290
				1959	Jan. 27, 1959	-	2,280
1949	June 16, 1949	-	3,240	1960	Mar. 19, 1960	-	3,560
1950	Aug. 6, 1950	-	3,440				
				1961	May 22, 1961	-	2,170
1951	Sept. 6, 1951	-	5,610	1962	July 17, 1962	-	3,490

6880. North Platte River at Belmar, Nebr.

Location.--Lat 41°17', long 101°58', on west line of sec.7, T.15 N., R.40 W., at highway bridge half a mile south of Belmar.

Drainage area.--34,500 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 3,230 ft above mean sea level, from records of State engineer of Nebraska.

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

Remarks.--Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. 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)
1918	June 27, 1918	-	11,200	1922	May 23, 1922	-	12,200
1919	Sept.15, 1919	-	4,700	1923	June 14, 1923	-	9,300
1920	June 21, 1920	-	14,400	1924	Apr. 28, 1924	-	14,200
				1925	May 20, 1925	-	9,600
1921	June 20, 1921	-	23,000				

6905. North Platte River near Keystone, Nebr.

Location.--Lat 41°12'30", long 101°37'50", in SW¼ sec.1, T.14 N., R.38 W., on right bank a quarter of a mile downstream from diversion dam of Sutherland Reservoir supply canal and 2½ miles southwest of Keystone.

Drainage area.--35,000 sq mi, approximately.

Gage.--Nonrecording at bridge 2 miles downstream at different datum May to September 1917; recording since December 1940. At site three-quarters of a mile downstream at datum 0.6 ft lower December 1940 to July 17, 1944. At present site at datum 1.50 ft higher July 18, 1944, to Nov. 3, 1950, and at datum 0.5 ft higher Nov. 4, 1950, to Apr. 3, 1953. Datum of gage is 3,105.59 ft above mean sea level (Platte Valley Public Power and Irrigation District bench mark).

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. Flow completely regulated by Lake McConaughy since Feb. 9, 1941. Supply canal for Platte Valley Public Power and Irrigation District diverts a quarter of a mile above 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)
1917	June 30, 1917	-	20,300	1952	July 4, 1952	6.00	3,680
				1953	July 6, 1953	5.79	3,110
1942	Aug. 3, 1942	3.88	2,630	1954	July 29, 1954	5.68	2,840
1943	Aug. 4, 1943	3.72	2,160	1955	Aug. 9, 1955	5.26	2,420
1944	July 31, 1944	4.88	3,700				
1945	July 30, 1945	5.78	2,640	1956	July 17, 1956	5.72	2,870
				1957	Aug. 7, 1957	5.43	2,260
1946	July 22, 1946	5.43	2,630	1958	July 2, 1958	6.43	4,040
1947	Aug. 7, 1947	5.71	-	1959	July 21, 1959	5.30	2,660
	Aug. 18, 1947	-	3,140	1960	July 24, 1960	5.14	2,480
1948	July 28, 1948	5.14	3,100				
1949	July 26, 1949	5.09	3,040	1961	July 8, 1961	6.25	-
1950	Oct. 10, 1949	3.75	1,650		July 17, 1961	-	2,850
				1962	May 16, 1962	5.68	3,670
1951	Aug. 12, 1951	4.95	2,050				

6910. North Platte River near Sutherland, Nebr.

Location.--Lat 41°12', long 101°06', in sec.4, T.14 N., R.33 W., near left bank on downstream side of pier of highway bridge, 2½ miles upstream from Birdwood Creek and 3½ miles north of Sutherland.

Drainage area.--35,500 sq mi, approximately.

Gage.--Nonrecording near present site at different datums prior to Apr. 29, 1936; recording thereafter. Altitude of gage is 2,930 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1917	June 29, 1917	-	20,300	1946	July 24, 1946	-	2,020
				1947	Aug. 20, 1947	4.46	2,980
1933	May 29, 1933	-	10,000	1948	July 29, 1948	4.63	3,040
				1949	July 28, 1949	4.5	2,580
1935	June 18, 1935	-	12,000	1950	May 6, 1950	3.93	1,500
1936	May 9, 1936	4.02	1,140	1951	May 15, 1951	3.84	1,230
1937	Mar. 7, 1937	-	3,050	1952	June 10, 1952	4.85	3,080
1938	Apr. 29, 1938	4.95	3,770	1953	July 9, 1953	4.59	2,360
1939	Feb. 11, 1939	a4.86	-	1954	July 20, 1954	4.40	2,100
	Mar. 12, 1939	-	3,220	1955	July 17, 1955	4.21	-
1940	Feb. 11, 1940	a4.96	-		July 28, 1955	-	1,980
	Mar. 1, 1940	-	1,950				
				1956	July 19, 1956	4.14	1,840
1941	July 28, 1941	4.17	1,420	1957	June 22, 1957	4.27	1,960
1942	Sept. 2, 1942	4.38	2,300	1958	Aug. 17, 1958	5.11	4,060
1943	July 23, 1943	4.29	1,940	1959	July 21, 1959	4.33	2,110
1944	Aug. 24, 1944	4.43	2,470	1960	Aug. 9, 1960	4.30	2,130
1945	Dec. 27, 1944	a4.41	-				
	Aug. 2, 1945	-	2,000	1961	July 19, 1961	4.36	2,100
				1962	May 17, 1962	4.83	3,360
1946	July 18, 1946	4.19	-				

a Backwater from ice.

6920. Birdwood Creek near Hershey, Nebr.

Location.--Lat 41°13', long 101°04', in NE¼NW¼ sec.2, T.14 N., R.33 W., on left bank 60 ft downstream from bridge on county road, 1 mile upstream from mouth, and 5 miles northwest of Hershey.

Drainage area.--286 sq mi, of which about 80 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 17, 1934; recording thereafter. Altitude of gage is 2,920 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 680 cfs.

Remarks.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Only annual peaks are shown.

Peak stages and discharges of Birdwood Creek near Hershey, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 11, 1932	2.70	337	1951	June 21, 1951	-	724
1933	Apr. 21, 1933	2.80	350	1952	Jan. 27, 1952	a4.78	-
1934	Aug. 17, 1934	3.12	590		Aug. 1, 1952	-	493
1935	Apr. 24, 1935	3.53	830	1953	Jan. 19, 1953	a4.71	-
					Aug. 24, 1953	-	267
1936	Apr. 30, 1936	3.29	470	1954	Mar. 3, 1954	a4.11	-
1937	July 21, 1937	3.67	733		May 17, 1954	-	309
1938	July 17, 1938	3.71	668	1955	Mar. 27, 1955	a4.45	-
1939	June 13, 1939	3.18	403		May 26, 1955	-	458
1940	Oct. 9, 1939	3.07	314				
				1956	Jan. 18, 1956	a4.33	-
1941	Dec. 15, 1940	a5.12	-		June 5, 1956	-	325
	May 16, 1941	-	541	1957	Jan. 11, 1957	a3.14	-
1942	Sept. 2, 1942	3.90	769		May 9, 1957	-	372
1943	June 14, 1943	3.63	612	1958	Mar. 2, 1958	a3.44	-
1944	June 3, 1944	3.35	494		May 14, 1958	-	1,190
1945	Aug. 21, 1945	3.15	422	1959	Feb. 11, 1959	a4.08	325
				1960	Jan. 15, 1960	a3.42	-
1946	June 17, 1946	2.93	496		Mar. 10, 1960	-	390
1947	June 18, 1947	2.99	523				
1948	Aug. 2, 1948	2.83	487	1961	Jan. 27, 1961	a3.73	-
1949	Apr. 1, 1949	4.35	1,770		June 6, 1961	-	334
1950	Oct. 10, 1949	2.36	311	1962	Jan. 20, 1962	a3.51	-
					May 17, 1962	-	413
1951	Dec. 5, 1950	a3.78	-				

a Backwater from ice.

6930. North Platte River at North Platte, Nebr.

Location.--Lat 41°09', long 100°46', in sec.28, T.14 N., R.30 W., near right bank on downstream side of pier of bridge on U.S. Highway 83, half a mile north of city of North Platte and 4½ miles upstream from confluence with South Platte River.

Drainage area.--36,400 sq mi, approximately.

Gage.--Nonrecording at Union Pacific Railroad bridge 2 miles downstream at different datum prior to Apr. 10, 1910; recording or nonrecording thereafter. At or near present site at various datums Apr. 10, 1910, to Sept. 30, 1930. Datum of gage is 2,794.9 ft above mean sea level (city of North Platte bench mark).

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

Remarks.--Natural flow of stream affected by transmountain diversion, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1895	June 7, 1895	4.10	17,400	1914	May 3, 1914	4.2	8,150
				1915	May 27, 1915	4.8	10,900
1896	June 6, 1896	4.00	16,300				
1897	June 8, 1897	4.35	25,000	1916	May 22, 1916	-	5,000
1898	May 30, 1898	4.00	15,300	1917	June 29, 1917	-	20,900
1899	June 27, 1899	4.45	18,300	1918	June 30, 1918	-	10,000
1900	June 8, 1900	4.00	19,400	1919	June 9, 1919	-	4,300
				1920	June 25, 1920	-	15,000
1901	June 12, 1901	4.00	19,400				
1902	May 16, 1902	3.40	9,900	1921	June 20, 1921	-	24,100
1903	Mar. 16, 1903	3.80	16,000	1922	May 24, 1922	5.1	10,800
1904	June 14, 1904	4.00	16,600	1923	May 29, 1923	5.0	10,500
1905	June 16, 1905	4.35	24,000	1924	Oct. 3, 1923	6.0	18,500
				1925	May 21, 1925	4.6	6,300
1906	June 5, 1906	4.00	19,200				
1907	June 16, 1907	3.70	16,000	1926	June 19, 1926	5.0	10,800
1908	June 4, 1908	4.80	26,700	1927	Aug. 8, 1927	4.7	9,200
1909	June 11, 1909	5.0	29,600	1928	June 12, 1928	5.4	15,600
1910	Oct. 16, 1909	3.1	6,900	1929	June 5, 1929	6.0	20,900
				1930	Oct. 4, 1929	4.75	11,000
1911	Feb. 13, 1911	3.6	3,550				
1912	Apr. 5, 1912	5.2	15,000	1931	Apr. 3, 1931	4.62	6,900
1913	Oct. 14, 1912	4.4	9,040				

Peak stages and discharges of North Platte River at North Platte, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Mar. 19, 1932	4.36	6,320	1948	July 29, 1948	3.97	3,360
1933	May 29, 1933	4.50	9,980	1949	Aug. 2, 1949	3.66	2,580
1934	May 6, 1934	3.91	3,840	1950	May 6, 1950	3.23	1,910
1935	June 18, 1935	5.20	11,700				
				1951	May 15, 1951	4.71	5,390
1936	Mar. 5, 1936	-	6,400	1952	Mar. 23, 1952	a6.54	-
1937	Feb. 24, 1937	-	3,900		June 11, 1952	-	3,050
1938	Apr. 29, 1938	4.08	5,010	1953	July 10, 1953	3.80	2,500
1939	Mar. 12, 1939	3.91	3,920	1954	July 21, 1954	3.70	2,160
1940	June 7, 1940	3.46	2,320	1955	Aug. 9, 1955	3.82	2,160
1941	July 29, 1941	3.37	1,580	1956	June 18, 1956	3.80	2,120
1942	Sept. 3, 1942	4.32	6,610	1957	July 23, 1957	3.85	1,980
1943	June 15, 1943	3.73	2,430	1958	Aug. 18, 1958	4.74	3,710
1944	Aug. 25, 1944	3.70	2,510	1959	July 22, 1959	3.98	2,100
1945	Dec. 1, 1944	a6.37	-	1960	Jan. 1, 1960	a4.34	-
	Aug. 5, 1945	-	2,650		Aug. 10, 1960	-	2,080
1946	June 19, 1946	3.47	-	1961	July 22, 1961	4.09	2,050
	July 22, 1946	-	2,060	1962	May 18, 1962	4.86	3,540
1947	Aug. 21, 1947	3.79	2,630				

a Backwater from ice.

6950. South Platte River above Elevenmile Canyon Reservoir, near Hartsel, Colo.

Location.--Lat 38°58'03", long 105°34'51", in sec.32, T.12 S., R.73 W., 250 ft downstream from highway bridge, 2.5 miles upstream from water line of Elevenmile Canyon Reservoir at elevation 8,561 ft, and 13 miles southeast of Hartsel.

Drainage area.--880 sq mi.

Gage.--Recording gage and Parshall flume. Altitude of gage is 8,590 ft (from topographic map).

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

Remarks.--Flow regulated by Antero Reservoir (capacity, 22,300 acre-ft). Diversions above station for irrigation of 24,000 acres. Regulation and diversions substantially affect peak flows. 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)
1939	June 1, 1939	2.30	350	1951	July 30, 1951	4.33	796
1940	Sept. 9, 1940	3.25	608	1952	Aug. 28, 1952	4.45	830
				1953	June 20, 1953	3.61	820
1941	June 25, 1941	3.65	605	1954	July 17, 1954	3.98	1,050
1942	Aug. 1, 1942	4.14	a740	1955	Aug. 7, 1955	3.75	908
1943	June 29, 1943	2.25	278				
1944	May 28, 1944	2.73	381	1956	June 4, 1956	2.80	375
1945	Aug. 2, 1945	4.88	954	1957	July 22, 1957	5.22	1,240
				1958	June 7, 1958	3.36	589
1946	July 18, 1946	3.98	695	1959	July 25, 1959	3.84	728
1947	Sept. 1, 1947	4.48	837	1960	Mar. 27, 1960	-	b800
1948	Apr. 20, 1948	4.44	1,260				
1949	June 19, 1949	4.42	1,290	1961	Aug. 3, 1961	-	b600
1950	June 12, 1950	2.08	249	1962	July 13, 1962	2.12	315

a Maximum recorded; higher peak probably occurred during April.
b Maximum daily discharge.

6960. South Platte River near Lake George, Colo.

Location.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., 700 ft downstream from Elevenmile Canyon Reservoir and 8.2 miles southwest of town of Lake George.

Drainage area.--963 sq mi.

Gage.--Recording gage and Parshall flume. At site 1 mile downstream at datum 8,423.95 ft above mean sea level, adjustment of 1912, prior to Oct. 26, 1940. Altitude of gage is 8,458 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions through East and West Hoosier ditches at Hoosier Pass prior to 1941, storage in Antero Reservoir (capacity 22,300 acre-ft), Elevenmile Canyon Reservoir (capacity 81,920 acre-ft prior to 1957 and 97,780 acre-ft thereafter) since 1933, diversions for irrigation, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. 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)
1930	Aug. 15, 1930	4.80	990	1947	June 24, 1947	4.17	568
				1948	Apr. 22, 1948	4.84	716
1931	Oct. 7, 1930	2.73	357	1949	June 20, 1949	5.85	954
1932	Apr. 25, 1932	2.60	306	1950	July 10, 1950	2.76	303
1933	June 13, 1933	3.54	592				
1934	May 23, 1934	2.26	249	1951	Aug. 6, 1951	4.76	698
1935	July 22, 1935	3.71	633	1952	May 5, 1952	3.41	411
				1953	June 20, 1953	3.65	459
1936	Aug. 6, 1936	4.07	744	1954	June 8, 1954	3.22	370
1937	May 26, 1937	2.37	267	1955	Aug. 8, 1955	3.35	400
1938	Sept. 3, 1938	3.63	624				
1939	June 1, 1939	2.83	384	1956	June 19, 1956	3.25	381
1940	May 18, 1940	2.01	169	1957	Aug. 17, 1957	4.74	694
				1958	May 25, 1958	3.55	439
1941	June 27, 1941	3.94	518	1959	June 21, 1959	3.01	339
1942	Apr. 15, 1942	4.63	670	1960	Mar. 29, 1960	3.91	512
1943	Aug. 11, 1943	2.18	206				
1944	June 2, 1944	2.95	328	1961	Aug. 5, 1961	3.96	523
1945	Aug. 7, 1945	4.88	740	1962	Apr. 19, 1962	3.22	376
1946	June 11, 1946	3.89	508				

6962. South Platte River at Lake George, Colo.
(Published as "South Fork South Platte River," 1911-13, 1916-29)

Location.--Lat 38°59'10", long 105°21'30", in sec.19, T.12 S., R.71 W., at highway bridge a quarter of a mile downstream from Lake George.

Drainage area.--1,084 sq mi.

Gage.--Recording gage or nonrecording gages within 600 ft of described site. Altitude of gage is 7,880 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 860 cfs.

Bankfull stage.--2 ft.

Remarks.--Natural flow of stream affected by storage reservoirs, diversions for irrigation and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. 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)
1913	July 24, 1913	3.28	697	1920	July 27, 1920	3.50	1,230
1914	June 17, 1914	6.0	a3,000				
1915	Aug. 9, 1915	2.8	510	1921	June 16, 1921	4.00	1,280
1917	July 27, 1917	3.12	681	1923	July 17, 1923	-	a7,000

a Estimated; dam upstream failed.

6985. Tarryall Creek near Jefferson, Colo.

Location.--Lat 39°18', long 105°42', in sec.6, T.9 S., R.74 W., half a mile upstream from Rock Creek and 7 miles southeast of Jefferson.

Drainage area.--184 sq mi.

Gage.--Nonrecording. Altitude of gage is 9,050 ft.

Stage-discharge relation.--Defined by current-meter measurements below 340 cfs.

Bankfull stage.--3 ft.

Remarks.--Boreas ditch has diverted water from headwaters of the Blue River to Tarryall Creek above station since 1948. Natural flow also affected by diversions above station for irrigation of 11,500 acres and for supply purposes. Diversions substantially affect peak flows. 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)
1912	July 24, 1912	3.2	580	1916	July 31, 1916	2.4	425
1913	June 10, 1913	3.1	545	1917	July 9, 1917	4.1	1,320
1914	June 15, 1914	3.6	760				
1915	June 4, 1915	2.8	580				

6995. Tarryall Creek near Lake George, Colo.
(Published as "near Hayman," 1910-12)

Location.--Lat 39°04'30", long 105°24'30", in sec.23, T.11 S., R.72 W., 5½ miles upstream from mouth and 8 miles northwest of town of Lake George.

Drainage area.--434 sq mi.

Gage.--Recording. At site 250 ft downstream prior to Nov. 8, 1940. Altitude of most recent gage is 8,250 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs.

Remarks.--Transmountain diversion from Colorado River basin via Boreas Pass ditch enters above station. Diversions above station for irrigation of 13,000 acres. Diversions substantially affect most peak flows. 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)
1925	Aug. 28, 1925	3.30	318	1941	June 5, 1941	3.97	417
				1942	June 9, 1942	4.26	475
1926	July 5, 1926	4.64	569	1943	June 30, 1943	2.36	131
1927	Aug. 10, 1927	3.82	415	1944	July 4, 1944	3.04	239
1928	June 4, 1928	3.60	376	1945	Aug. 5, 1945	5.12	685
1929	July 29, 1929	4.52	655				
1930	July 30, 1930	4.47	567	1946	July 29, 1946	2.89	212
				1947	June 23, 1947	5.27	721
1931	May 23, 1931	2.78	249	1948	Apr. 21, 1948	6.08	1,030
1932	July 30, 1932	3.06	322	1949	June 12, 1949	4.44	618
1933	Sept.11, 1933	3.25	349	1950	July 10, 1950	4.37	601
1934	Aug. 15, 1934	2.86	269				
1935	July 31, 1935	5.20	643	1951	July 19, 1951	3.65	428
				1952	June 11, 1952	2.78	236
1936	Aug. 1, 1936	5.18	640	1953	June 21, 1953	3.83	471
1937	June 27, 1937	4.11	480	1954	May 25, 1954	2.25	142
1938	Sept.14, 1938	3.51	383	1955	Aug. 29, 1955	2.49	206
1939	June 1, 1939	3.22	330				
1940	July 3, 1940	3.24	346				

7000. South Platte River above Cheesman Lake, Colo.
(Published as "South Fork South Platte River above Lake Cheesman" by State engineer 1924-33; "South Fork South Platte River at Lake Cheesman," 1899 and 1901; and "below Lake Cheesman," 1900)

Location.--Lat 39°09', long 105°19', in sec.22, T.10 S., R.71 W., 0.5 mile upstream from high-water line of Cheesman Lake.

Drainage area.--1,628 sq mi.

Gage.--Recording. Datum of gage is 6,845.86 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 330 cfs.

Remarks.--Diversions above station for irrigation of 39,000 acres. Flow partly regulated by Antero Reservoir (capacity, 22,300 acre-ft) and since 1933 by Elevenmile Canyon Reservoir (capacity, 81,920 acre-ft). Regulation and diversion substantially affect peak flows. Records for 1924-33 furnished by State engineer of Colorado. 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)
1925	July 23, 1925	-	550	1935	Aug. 1, 1935	3.60	1,100
1926	July 5, 1926	3.92	960	1936	Aug. 6, 1936	5.30	3,030
1927	Aug. 11, 1927	3.82	838	1937	June 27, 1937	2.26	572
1928	July 31, 1928	4.34	1,200	1938	Aug. 28, 1938	2.85	985
1929	Aug. 8, 1929	4.34	1,470	1939	June 2, 1939	2.54	768
1930	Aug. 16, 1930	4.40	1,790	1940	May 19, 1940	1.82	329
1931	July 2, 1931	3.22	500	1941	June 5, 1941	2.89	978
1932	July 31, 1932	3.30	530	1942	Apr. 23, 1942	3.64	1,580
1933	June 13, 1933	4.0	840	1943	July 21, 1943	2.24	558
1934	July 25, 1934	2.80	405				

7005. Goose Creek above Cheesman Lake, Colo.
(Known also as "Lost Park Creek"; published as "Goose Creek at Lake Cheesman," 1899, 1925-33)

Location.--Lat 39°12'32", long 105°18'11", in sec.2, T.10 S., R.71 W., 1 mile upstream from water line of Cheesman Lake at elevation 6,842 ft.

Drainage area.--86.6 sq mi.

Gage.--Recording. Altitude of gage is 6,910 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 170 cfs.

Remarks.--Diversions for irrigation do not substantially affect peak flows. Records for 1925-33 furnished by State engineer of Colorado. Base for partial-duration series, 110 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Sept. 7, 1925	2.26	110	1930	July 22, 1930	2.40	125
					July 30, 1930	3.45	268
1926	May 6, 1926	3.02	204		Aug. 5, 1930	2.77	170
	May 27, 1926	-	a360		Aug. 14, 1930	3.46	269
	July 6, 1926	2.43	128				
				1931	May 18, 1931	2.75	147
1927	Apr. 28, 1927	2.12	95		May 23, 1931	2.73	145
1928	May 2, 1928	2.40	125	1932	July 29, 1932	2.70	161
	May 7, 1928	2.34	118				
	May 26, 1928	-	a211	1933	May 22, 1933	4.0	355
	June 4, 1928	-	190		June 3, 1933	3.93	344
	June 15, 1928	2.46	132		July 6, 1933	2.26	111
					Sept. 9, 1933	2.99	201
1929	May 15, 1929	2.42	127				
	Aug. 10, 1929	2.80	174	1934	May 6, 1934	2.48	135

a Daily discharge.

Peak stages and discharges of Goose Creek above Cheesman Lake, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 25, 1935	2.70	162	1948	Apr. 19, 1948	2.35	134
	June 13, 1935	2.75	168		Apr. 30, 1948	2.60	164
					May 18, 1948	2.92	208
1936	May 14, 1936	2.31	116				
	June 23, 1936	2.70	162	1949	Apr. 30, 1949	2.21	119
	Aug. 6, 1936	2.75	168		May 3, 1949	2.13	111
	Aug. 19, 1936	2.94	194		May 16, 1949	2.83	196
					June 14, 1949	4.39	435
1937	June 26, 1937	2.4	126		July 8, 1949	2.84	198
	July 28, 1937	2.33	118				
				1950	May 30, 1950	1.54	62
1938	Apr. 26, 1938	2.80	192				
	May 1, 1938	2.74	184	1951	May 23, 1951	2.05	104
	May 15, 1938	2.86	200				
	May 29, 1938	2.98	217	1952	May 6, 1952	3.00	220
	June 23, 1938	2.43	144		May 15, 1952	2.65	171
	July 29, 1938	2.27	126		June 4, 1952	3.05	227
	Sept. 3, 1938	2.95	213				
	Sept.13, 1938	2.64	170	1953	May 22, 1953	2.44	145
					May 29, 1953	2.21	119
1939	Oct. 8, 1938	2.17	115		July 30, 1953	2.40	140
	Apr. 23, 1939	2.35	134		Aug. 3, 1953	2.64	170
	Apr. 29, 1939	2.48	150				
	June 1, 1939	2.43	144	1954	July 19, 1954	1.48	58
1940	May 21, 1940	2.12	110	1955	May 25, 1955	2.32	131
1941	May 14, 1941	3.57	304	1956	Apr. 27, 1956	1.65	87
	May 25, 1941	2.88	203				
				1957	May 11, 1957	2.42	157
1942	May 1942	-	260		May 20, 1957	2.63	190
	May 12, 1942	3.53	298		June 9, 1957	4.11	487
	May 30, 1942	4.57	464		July 9, 1957	2.59	183
	July 19, 1942	2.23	111		July 14, 1957	2.26	134
	Aug. 3, 1942	2.50	140		July 20, 1957	2.65	193
					July 29, 1957	2.55	177
1943	May 11, 1943	2.08	106		Aug. 6, 1957	2.92	239
					Aug. 16, 1957	2.80	218
1944	May 14, 1944	2.98	217				
	May 29, 1944	2.68	174	1958	May 8, 1958	2.43	158
					May 23, 1958	2.96	246
1945	May 8, 1945	2.26	125		June 6, 1958	2.71	203
	July 25, 1945	2.88	202				
	Aug. 8, 1945	3.74	331	1959	May 1, 1959	2.25	133
	Aug. 21, 1945	2.98	217		May 3, 1959	2.15	120
1946	Aug. 24, 1946	1.71	74	1960	May 13, 1960	2.25	139
					May 22, 1960	2.63	199
1947	May 5, 1947	3.15	242		June 9, 1960	2.06	116
	May 30, 1947	3.08	232				
	June 13, 1947	2.96	214	1961	May 12, 1961	2.25	140
	June 23, 1947	3.10	235		July 28, 1961	2.44	160
	July 18, 1947	2.48	150		Aug. 1, 1961	2.26	134
	Aug. 4, 1947	2.51	153				
	Aug. 12, 1947	2.37	137	1962	Apr. 21, 1962	2.48	172
	Aug. 25, 1947	2.42	142		Apr. 25, 1962	2.52	179
					Apr. 29, 1962	2.35	153
1948	Oct. 15, 1947	2.21	119		May 10, 1962	2.58	190

7015. South Platte River below Cheesman Lake, Colo.
(Published as "South Fork South Platte River below Lake Cheesman," 1926-33 by State engineer of Colorado)

Location.--Lat 39°12'33", long 105°16'02", in SE¼NW¼ sec.6, T.10 S., R.70 W., on left bank 1,400 ft downstream from toe of Cheesman Dam and 4 miles southwest of Deckers.

Drainage area.--1,752 sq mi.

Gage.--Recording gage and Parshall flume. At site 370 ft upstream at datum 0.50 ft higher prior to May 14, 1956. Datum of gage is 6,609.29 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,800 cfs.

Remarks.--Diversions above station for irrigation of 40,000 acres. Flow partly regulated by Elevenmile Canyon Reservoir and Cheesman Lake, transmountain diversions, and return flow from irrigated areas. Regulation and diversions substantially affect peak flows. Records for 1926-33 furnished by State engineer of Colorado. 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)
1926	May 28, 1926	5.43	1,220	1945	Aug. 11, 1945	5.60	1,110
1927	July 1, 1927	4.37	805				
1928	June 5, 1928	4.52	860	1946	July 16, 1946	4.88	782
1929	Aug. 9, 1929	6.15	1,580	1947	June 24, 1947	6.65	1,640
1930	July 31, 1930	6.07	1,310	1948	Apr. 22, 1948	-	2,180
				1949	June 15, 1949	7.60	2,070
1931	Oct. 1, 1930	4.90	814	1950	Nov. 6, 1949	4.98	741
1932	July 15, 1932	4.60	600				
1933	June 15, 1933	5.12	880	1951	Aug. 3, 1951	4.77	674
1934	May 29, 1934	4.08	521	1952	Aug. 3, 1952	4.92	835
1935	July 23, 1935	6.38	1,430	1953	Aug. 1, 1953	5.16	865
				1954	July 13, 1954	4.55	646
1936	June 25, 1936	6.40	1,630	1955	Aug. 9, 1955	4.65	628
1937	June 28, 1937	4.98	932				
1938	Aug. 29, 1938	5.13	932	1956	June 8, 1956	3.10	692
1939	June 2, 1939	4.58	728	1957	Aug. 18, 1957	4.20	1,120
1940	June 24, 1940	4.08	556	1958	May 26, 1958	4.27	1,110
				1959	June 23, 1959	3.61	906
1941	Apr. 30, 1941	5.25	1,020	1960	June 23, 1960	3.15	710
1942	Apr. 23, 1942	8.46	3,020				
1943	Apr. 21, 1943	5.39	921	1961	Aug. 17, 1961	2.92	628
1944	May 30, 1944	4.64	636	1962	Apr. 29, 1962	3.13	702

7055. Geneva Creek at Grant, Colo.
(Published as "at Sullivan's ranch, near Grant," prior to 1911)

Location.--Lat 39°27'35", long 105°39'50", in NE¼ sec.9, T.7 S., R.74 W., just downstream from bridge at Grant and 300 ft upstream from mouth.

Drainage area.--77.5 sq mi.

Gage.--Nonrecording. At site 3 miles upstream at different datum July 1, 1908, to Nov. 2, 1911. Datum of gage is 8,578.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 410 cfs.

Remarks.--Diversions for irrigation of about 100 acres above station do not substantially affect peak flows. 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)
1909	June 20, 1909	2.60	550	1914	June 1, 1914	4.3	1,700
1910	Oct. 1, 1909	1.30	136	1915	June 1, 1915	2.5	371
1911	July 5, 1911	2.1	340	1916	May 10, 1916	2.2	244
1912	June 8, 1912	2.50	445	1917	June 17, 1917	3.1	546
1913	June 10, 1913	2.6	490				

7060. North Fork South Platte River below Geneva Creek, at Grant, Colo.
(Published as "at Cassells," 1908-13)

Location.--Lat 39°27'28", long 105°39'28", in NW¼ sec.10, T.7 S., R.74 W., on left bank just east of Grant, 1,600 ft downstream from Geneva Creek.

Drainage area.--217 sq mi.

Gage.--Nonrecording prior to July 23, 1948; recording thereafter. At sites 2 miles downstream at different datums July 4, 1908, to Nov. 30, 1913. At site 1,200 ft upstream at datum 13.07 ft higher June 19, 1942, to Mar. 15, 1948. At site 400 ft upstream at datum 6.35 ft higher Mar. 16 to July 22, 1948. Datum of gage is 8,558.60 ft above mean sea level (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 580 cfs.

Remarks.--Diversions for irrigation of about 200 acres do not substantially affect peak flows. 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)
1909	June 18, 1909	3.00	750	1951	June 19, 1951	4.18	563
1910	June 2, 1910	2.00	250	1952	June 10, 1952	4.37	788
1911	July 5, 1911	2.90	660	1953	June 13, 1953	3.97	496
1912	June 8, 1912	3.30	990	1954	May 22, 1954	3.17	155
1913	June 8, 1913	2.20	322	1955	Apr. 4, 1955	3.83	-
1943	June 30, 1943	2.14	335		Aug. 3, 1955	3.42	236
1944	June 9, 1944	2.50	515	1956	June 1, 1956	3.88	458
1945	June 25, 1945	2.40	465	1957	June 7, 1957	-	a590
1946	June 8, 1946	1.98	261		June 20, 1957	4.15	547
1947	June 18, 1947	2.70	630		June 28, 1957	4.18	566
1948	May 20, 1948	3.10	630		July 19, 1957	4.07	540
1949	June 13, 1949	4.32	754		Aug. 7, 1957	4.05	528
	June 17, 1949	4.20	670	1958	May 21, 1958	4.16	599
	July 4, 1949	4.15	635	1959	June 16, 1959	3.70	370
	July 7, 1949	4.21	677	1960	June 17, 1960	3.87	418
1950	June 17, 1950	4.52	464	1961	July 31, 1961	3.60	250
				1962	May 10, 1962	3.91	390

a Maximum daily discharge.

7070. North Fork South Platte River at South Platte, Colo.

Location.--Lat 39°24'30", long 105°10'30", in SW¼ sec.25, T.7 S., R.70 W., on left bank 0.2 mile west of South Platte and 0.3 mile upstream from mouth.

Drainage area.--479 sq mi.

Gage.--Nonrecording prior to May 13, 1925; recording thereafter. Datum of gage is 6,090.55 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by discharge measurements below 1,500 cfs.

Remarks.--Small diversions above station for irrigation of about 2,000 acres do not substantially affect peak flows. Base for partial-duration series, 450 cfs.

Peak stages and discharges of North Fork South Platte River at South Platte, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 3, 1909	4.80	1,550
1910	July 29, 1910	5.40	1,800
1913	May 13, 1913	-	880
1914	May 23, 1914	5.5	1,860
1915	June 12, 1915	4.25	980
1916	May 11, 1916	3.07	448
1917	June 18, 1917	4.8	1,300
1918	June 22, 1918	4.4	1,080
1919	May 21, 1919	3.65	695
1920	May 25, 1920	4.45	1,030
1921	June 8, 1921	5.9	1,910
1922	May 27, 1922	3.75	674
1923	June 17, 1923	4.55	1,130
1924	June 7, 1924	4.8	1,380
1925	June 21, 1925	2.87	341
1926	Apr. 25, 1926	3.82	670
	May 6, 1926	3.93	722
	May 25, 1926	4.76	1,300
	June 7, 1926	5.02	1,520
1927	May 18, 1927	3.14	459
1928	May 30, 1928	4.14	964
	July 19, 1928	3.12	473
1929	Aug. 7, 1929	4.04	857
1930	May 31, 1930	3.65	670
	June 12, 1930	3.24	490
	Aug. 14, 1930	3.74	700
1931	May 18, 1931	3.74	680
	May 27, 1931	3.90	740
	July 1, 1931	3.20	490
1932	May 23, 1932	3.35	518
1933	May 8, 1933	3.46	547
	May 23, 1933	-	1,240
	June 2, 1933	5.85	1,330
	July 6, 1933	4.27	676
	Sept. 9, 1933	6.18	1,490
1934	May 10, 1934	3.38	335
1935	June 13, 1935	4.47	833
	July 21, 1935	3.54	470
	July 30, 1935	4.08	676
	Aug. 17, 1935	4.14	700
	Aug. 25, 1935	3.76	552
1936	May 17, 1936	4.24	673
	June 11, 1936	4.30	740
	June 23, 1936	4.36	776
	Aug. 6, 1936	4.64	943
	Aug. 12, 1936	5.76	1,620
	Aug. 18, 1936	5.25	1,250
1937	June 3, 1937	3.58	482
	June 27, 1937	4.08	715
	Aug. 17, 1937	3.81	585
1938	May 1, 1938	3.80	590
	June 3, 1938	4.74	1,050
	June 23, 1938	4.28	800
	July 14, 1938	3.72	544
	Sept. 3, 1938	4.10	785
	Sept.12, 1938	4.06	785
1939	June 1, 1939	3.57	543
1940	June 1, 1940	2.85	232
1941	May 14, 1941	4.63	1,030
	May 27, 1941	4.18	797
1941	June 25, 1941	3.89	647
	Aug. 12, 1941	3.49	472
1942	Apr. 23, 1942	5.08	1,150
	May 11, 1942	5.44	1,330
	May 27, 1942	5.51	1,370
	July 29, 1942	3.14	500
1943	May 30, 1943	3.60	571
	June 30, 1943	3.54	513
	July 22, 1943	3.70	494
1944	May 16, 1944	3.72	709
	May 24, 1944	3.61	648
	June 1, 1944	3.82	765
	June 10, 1944	4.25	1,040
1945	June 25, 1945	3.46	565
	July 25, 1945	3.42	522
	Aug. 8, 1945	4.38	1,100
	Aug. 14, 1945	4.56	1,240
	Aug. 21, 1945	4.66	1,360
1946	June 19, 1946	2.93	350
1947	May 11, 1947	3.59	536
	June 21, 1947	4.76	1,000
	July 16, 1947	3.99	696
	Aug. 12, 1947	3.43	514
1948	Apr. 30, 1948	3.66	590
	May 23, 1948	4.78	1,040
	June 3, 1948	4.55	946
1949	May 15, 1949	3.61	614
	May 28, 1949	3.61	614
	June 13, 1949	6.30	2,050
	July 8, 1949	4.22	972
1950	June 17, 1950	3.31	496
1951	May 29, 1951	3.47	650
	June 21, 1951	3.71	786
1952	May 15, 1952	3.04	459
	June 7, 1952	4.44	1,390
1953	May 29, 1953	3.54	679
	June 3, 1953	3.26	516
	June 14, 1953	3.37	578
1954	July 20, 1954	2.80	324
1955	Aug. 7, 1955	3.38	561
1956	May 26, 1956	3.38	534
	June 1, 1956	3.40	556
1957	May 10, 1957	3.23	498
	May 20, 1957	3.72	748
	June 8, 1957	4.43	1,230
	June 21, 1957	4.13	1,010
	June 29, 1957	4.00	976
	July 20, 1957	3.70	730
	Aug. 6, 1957	3.63	692
1958	May 13, 1958	3.20	480
	May 25, 1958	3.87	885
	June 6, 1958	3.71	772
1959	June 21, 1959	3.13	444
1960	June 5, 1960	3.30	550
	June 18, 1960	3.16	480
1961	Sept. 7, 1961	3.12	439
1962	May 10, 1962	3.52	631
	June 29, 1962	3.41	575

7075. South Platte River at South Platte, Colo.
(Published as "at Deansburg," 1887-90, 1895-97; "at Deansburg and Platte Canyon," 1891-92; "at Platte Canyon," 1899; "near Platte Canyon," 1900; and "below North Fork at South Platte," 1914)

Location.--Lat 39°24'30", long 105°10'10", in SE¼ sec.25, T.7 S., R.70 W., on left bank at South Platte, 200 ft downstream from bridge on State Highway 75 and 400 ft downstream from North Fork.

Drainage area.--2,579 sq mi.

Gage.--Nonrecording prior to Mar. 13, 1910; recording thereafter. At bridge 200 ft upstream at different datum Mar. 28, 1902, to May 6, 1905. Datum of gage is 6,078.43 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 3,500 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions above station for irrigation of about 42,000 acres, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. 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)
1904	July 24, 1904	8.00	2,750	1933	June 2, 1933	5.92	2,080
1905	June 8, 1905	5.20	2,250	1934	May 30, 1934	3.59	765
				1935	July 23, 1935	4.62	1,630
1906	May 26, 1906	4.00	1,300				
1907	July 29, 1907	5.20	2,250	1936	Aug. 12, 1936	5.37	2,770
1908	Aug. 6, 1908	3.80	1,000	1937	June 28, 1937	4.05	1,260
1909	Sept.15, 1909	6.50	2,900	1938	May 30, 1938	4.50	1,660
1910	July 29, 1910	4.60	1,300	1939	May 28, 1939	3.85	1,100
				1940	Sept. 3, 1940	3.91	1,150
1911	July 6, 1911	5.95	2,280				
1912	June 30, 1912	5.60	2,180	1941	June 6, 1941	4.58	1,640
1913	June 18, 1913	5.20	1,540	1942	Apr. 23, 1942	8.15	5,210
1914	June 2, 1914	7.65	3,200	1943	July 22, 1943	4.83	1,180
1915	June 5, 1915	5.00	1,500	1944	May 31, 1944	4.63	1,640
				1945	Aug. 21, 1945	5.48	2,500
1916	June 16, 1916	4.10	1,130				
1917	June 20, 1917	5.40	2,050	1946	July 16, 1946	3.72	1,010
1918	June 24, 1918	6.90	3,000	1947	June 24, 1947	5.83	2,490
1919	Aug. 1, 1919	5.10	1,850	1948	Apr. 23, 1948	-	2,500
1920	June 14, 1920	4.60	1,390	1949	June 14, 1949	7.93	4,810
	June 16, 1920	4.60	1,390	1950	Jan. 30, 1950	4.23	-
	July 30, 1920	4.35	1,390		June 17, 1950	3.42	777
1921	June 8, 1921	8.95	6,320	1951	Aug. 3, 1951	3.78	1,010
1922	Aug. 5, 1922	4.48	1,720	1952	June 8, 1952	4.14	1,220
1923	July 16, 1923	4.85	1,860	1953	Aug. 3, 1953	4.30	1,330
1924	June 7, 1924	5.42	2,300	1954	July 14, 1954	3.23	702
1925	June 11, 1925	2.94	690	1955	Aug. 7, 1955	3.93	1,130
1926	June 8, 1926	-	2,540	1956	May 27, 1956	4.16	1,230
1927	July 2, 1927	3.55	1,160	1957	July 22, 1957	4.83	1,600
1928	May 30, 1928	4.42	1,960	1958	May 26, 1958	5.53	2,170
1929	Aug. 9, 1929	4.84	2,340	1959	June 25, 1959	4.03	1,140
1930	Aug. 14, 1930	4.69	2,110	1960	June 23, 1960	3.66	846
1931	July 1, 1931	3.89	1,320	1961	Aug. 18, 1961	4.05	1,160
1932	July 30, 1932	3.54	1,020	1962	May 11, 1962	4.25	1,190

7080. South Platte River at Waterton, Colo.

Location.--Lat 39°29'18", long 105°05'32", in NE¼ sec.34, T.6 S., R.69 W., on left bank 250 ft downstream from bridge on State Highway 221, half a mile east of Waterton, 5 miles west of Louviers, and 6 miles upstream from Plum Creek.

Drainage area.--2,621 sq mi.

Gage.--Recording. Datum of gage is 5,484.43 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 5,200 cfs.

Bankfull stage.--2 ft.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions above station for municipal use and for irrigation of about 80,000 acres, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. Records for 1926-30 furnished by State engineer of Colorado. 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)
1926	June 9, 1926	2.78	2,150	1946	July 17, 1946	2.09	801
1927	July 1, 1927	2.15	746	1947	June 24, 1947	3.58	2,400
1928	June 3, 1928	2.80	2,150	1948	Apr. 23, 1948	3.50	2,300
1929	Aug. 6, 1929	2.87	1,470	1949	June 13, 1949	5.11	5,470
1930	Aug. 14, 1930	2.70	1,300	1950	Nov. 7, 1949	1.97	804
1931	May 25, 1931	2.34	973	1951	July 11, 1951	2.01	686
1932	July 30, 1932	2.24	783	1952	June 7, 1952	2.15	957
1933	May 22, 1933	2.94	1,480	1953	Aug. 3, 1953	2.14	1,040
1934	May 25, 1934	1.47	539	1954	July 20, 1954	1.97	813
1935	July 23, 1935	2.28	1,280	1955	Aug. 11, 1955	2.02	739
1936	Aug. 12, 1936	3.10	2,670	1956	May 27, 1956	2.22	1,060
1937	May 16, 1937	1.92	888	1957	July 13, 1957	-	1,430
1938	Sept. 3, 1938	2.45	1,620		July 22, 1957	2.95	-
1939	May 26, 1939	2.37	876	1958	May 26, 1958	3.46	2,010
1940	Aug. 23, 1940	1.86	576	1959	June 25, 1959	2.15	736
				1960	Apr. 12, 1960	2.38	704
1941	Aug. 12, 1941	2.68	1,090				
1942	Apr. 23, 1942	5.68	5,700	1961	Aug. 2, 1961	2.43	864
1943	July 22, 1943	1.83	560	1962	Dec. 13, 1961	a2.74	-
1944	June 10, 1944	2.52	1,090		Apr. 20, 1962	-	970
1945	Aug. 14, 1945	3.35	2,320				

a Backwater from ice.

7085. Deer Creek near Littleton, Colo.

Location.--Lat 39°32'55", long 105°08'00", in NE¼ sec.8, T.6 S., R.69 W., at Deer Creek Park, 3½ miles downstream from South Fork and 7½ miles southwest of Littleton.

Drainage area.--26.2 sq mi.

Gage.--Nonrecording. Datum of gage is 5,683.21 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 120 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)
1942	June 29, 1942	1.74	18	1945	June 25, 1945	2.00	42
1943	Aug. 17, 1943	2.04	47				
1944	May 9, 1944	2.90	162	1946	Sept. 7, 1946	2.00	42

7095. Plum Creek near Louviers, Colo.
(Published as "near Sedalia," 1942-47)

Location.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., on right bank at downstream side of bridge on county road, three-quarters of a mile northeast of Louviers, 1¼ miles downstream from Indian Creek, and 7½ miles upstream from mouth.

Drainage area.--302 sq mi; 274 sq mi at site used 1942-47, and 319 sq mi at site used 1947-57.

Gage.--Nonrecording prior to May 4, 1944; recording thereafter. At site 3½ miles upstream at datum 5,722.81 ft above mean sea level, datum of 1929, prior to Oct. 1, 1947. At site 2½ miles downstream at datum 5,518.71 ft above mean sea level, datum of 1929, Oct. 1, 1947, to Sept. 30, 1954, and at datum 5,517.19 ft above mean sea level, datum of 1929, Oct. 1, 1954, to Feb. 11, 1957. Altitude of present gage is 5,585 ft (from topographic map).

Stage-discharge relation.--1942-47: Defined by current-meter measurements below 350 cfs and by slope-area measurement at 7,700 cfs. 1947-57: Defined by current-meter measurements below 1,800 cfs and by surface-velocity measurement at 3,000 cfs. 1957-62: Defined by current-meter measurements below 420 cfs.

Remarks.--Diversions above station for irrigation affect some peak flows. Only annual peaks are shown prior to 1948. Base for partial-duration series, 220 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 13, 1942	2.46	a760	1955	May 24, 1955	3.42	330
1943	Oct. 17, 1942	1.42	150		Aug. 7, 1955	4.33	375
1944	May 15, 1944	3.58	620				
1945	Aug. 8, 1945	6.52	7,700	1956	May 23, 1956	3.49	320
					Aug. 1, 1956	4.75	1,940
1946	Aug. 24, 1946	3.31	431		Aug. 18, 1956	3.32	288
1947	July 22, 1947	3.76	664				
				1957	May 6, 1957	4.22	257
1948	Mar. 14, 1948	2.65	519		May 9, 1957	4.49	500
	May 1, 1948	2.06	402		May 20, 1957	4.64	790
	June 18, 1948	1.75	272		June 1, 1957	4.30	500
	June 22, 1948	1.70	228		July 13, 1957	4.63	800
					July 22, 1957	4.27	476
1949	May 12, 1949	1.98	389		July 26, 1957	4.45	625
	June 6, 1949	2.07	442		July 29, 1957	4.43	607
	June 13, 1949	2.72	948		Aug. 6, 1957	4.61	780
1950	Apr. 16, 1950	1.39	44	1958	May 9, 1958	3.84	215
1951	July 30, 1951	2.01	222	1959	Apr. 28, 1959	4.10	300
1952	May 27, 1952	1.71	255	1960	Mar. 24, 1960	4.97	1,120
					Apr. 13, 1960	3.89	264
1953	May 20, 1953	1.91	235		May 11, 1960	4.12	479
	July 29, 1953	4.41	2,700				
				1961	May 20, 1961	3.91	394
1954	July 14, 1954	3.13	1,130		July 31, 1961	4.07	465
	July 21, 1954	5.07	3,800		Aug. 2, 1961	5.35	1,720
	Aug. 7, 1954	4.11	2,290				
	Aug. 13, 1954	2.67	719	1962	Apr. 22, 1962	3.38	215
1955	May 20, 1955	3.22	405				

a Result of discharge measurement.

7100. South Platte River at Littleton, Colo.

Location.--Lat 39°37'10", long 105°01'10", in NE¼ sec.17, T.5 S., R.68 W., on left bank 200 ft downstream from Hazard Street Bridge in Littleton, and 3.1 miles upstream from Bear Creek.

Drainage area.--3,069 sq mi.

Gage.--Nonrecording prior to Nov. 23, 1948; recording thereafter. At site 200 ft upstream prior to Nov. 23, 1948, and at datum 1.00 ft higher prior to Oct. 1, 1951. Datum of gage is 5,305.11 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,800 cfs.

Bankfull stage.--6 ft.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversion for irrigation and municipal use, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. 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)
1942	Apr. 23, 1942	8.55	9,720	1953	July 29, 1953	3.56	1,900
1943	May 30, 1943	2.60	556	1954	July 21, 1954	3.58	1,920
1944	May 17, 1944	3.84	1,770	1955	Aug. 7, 1955	3.52	2,020
1945	Aug. 8, 1945	5.45	3,520				
				1956	Aug. 1, 1956	2.75	1,190
1946	July 14, 1946	2.96	691	1957	May 20, 1957	3.80	2,150
1947	June 24, 1947	5.84	3,140		Aug. 19, 1957	4.72	-
1948	Apr. 30, 1948	5.78	2,950	1958	May 26, 1958	6.13	2,280
1949	June 14, 1949	7.56	5,980	1959	June 25, 1959	4.66	746
1950	Nov. 7, 1949	3.08	690	1960	Mar. 27, 1960	5.33	1,380
1951	Aug. 3, 1951	1.96	592	1961	Aug. 3, 1961	5.92	1,670
1952	May 24, 1952	2.94	844	1962	Apr. 30, 1962	5.60	1,150

7105. Bear Creek at Morrison, Colo.
(Published as "near Morrison," 1900-1902"; as "at Starbuck," 1919-28; and as "at Idledale," 1929-34)

Location.--Lat 39°39'11", long 105°11'42", in SE¼SW¼ sec.35, T.4 S., R.70 W., on right bank 100 ft upstream from bridge on U.S. Highway 285 at Morrison, and a quarter of a mile upstream from Mount Vernon Creek.

Drainage area.--164 sq mi.

Gage.--Nonrecording prior to Mar. 1, 1921; recording thereafter. At site a quarter of a mile downstream at different datum prior to Apr. 1, 1899. At site a quarter of a mile upstream at different datum Apr. 1, 1899, to Feb. 28, 1902. At site 4 miles upstream at different datum Oct. 1, 1919, to Sept. 30, 1934. Datum of present gage is 5,780.43 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 760 cfs and by slope-area measurement at 6,200 cfs.

Remarks.--Diversions above station for irrigation of about 1,000 acres do not substantially affect peak flows. Records for 1920-34 furnished by State engineer of Colorado. Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1888	Aug. 17, 1888	-	139	1900	Apr. 29, 1900	7.00	691
1889	May 20, 1889	-	195				
1890	July 23, 1890	-	75	1901	June 15, 1901	5.2	214
1891	May 27, 1891	-	622	1920	May 2, 1920	2.1	360
1896	July 24, 1896	-	8,600	1921	June 3, 1921	3.03	678
1897	Aug. 4, 1897	6.1	1,180				
1898	July 13, 1898	-	208	1922	June 25, 1922	2.60	350
1899	Aug. 4, 1899	5.8	325				

Peak stages and discharges of Bear Creek at Morrison, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 9, 1923	2.96	525
	Aug. 6, 1923	3.36	733
	Aug. 16, 1923	3.95	1,070
1924	June 5, 1924	2.85	482
1925	Aug. 30, 1925	3.08	590
1926	Apr. 21, 1926	2.74	588
	June 3, 1926	2.76	474
	July 6, 1926	2.43	293
	July 10, 1926	2.47	321
	Aug. 7, 1926	2.42	321
1927	Aug. 14, 1927	3.10	390
1928	May 17, 1928	2.67	305
	May 31, 1928	2.67	305
1929	July 22, 1929	4.60	1,560
	July 30, 1929	2.88	484
1930	Aug. 4, 1930	3.55	741
	Aug. 17, 1930	2.81	370
1931	May 18, 1931	2.46	246
	June 3, 1931	2.48	270
1932	June 27, 1932	2.48	302
1933	May 22, 1933	2.98	463
	July 7, 1933	-	8,110
1934	Aug. 9, 1934	7.09	4,620
1935	May 18, 1935	1.74	447
	June 11, 1935	2.01	642
	July 12, 1935	2.16	1,060
	Aug. 3, 1935	1.48	389
	Aug. 23, 1935	2.09	690
1936	May 17, 1936	2.03	266
	June 11, 1936	2.07	315
	Aug. 12, 1936	2.50	745
1937	June 4, 1937	1.94	293
	June 26, 1937	1.98	377
	Aug. 30, 1937	1.98	392
1938	May 30, 1938	2.20	448
	July 28, 1938	2.14	381
	Sept. 2, 1938	9.20	6,200
1939	Oct. 1, 1938	3.49	295
1940	Aug. 25, 1940	3.65	615
1941	May 13, 1941	3.59	384
	June 21, 1941	6.28	2,500
	July 9, 1941	3.55	246
1941	July 25, 1941	3.63	339
	Aug. 12, 1941	3.70	307
1942	Apr. 19, 1942	5.80	1,850
	Apr. 28, 1942	5.18	765
	May 27, 1942	4.52	560
	June 7, 1942	4.50	584
1943	June 30, 1943	4.32	244
1944	May 15, 1944	4.57	542
1945	Aug. 20, 1945	4.58	375
1946	Aug. 24, 1946	4.20	152
1947	June 22, 1947	4.71	386
1948	Apr. 30, 1948	4.40	398
1949	May 12, 1949	4.63	475
	June 6, 1949	5.22	1,250
	June 13, 1949	4.79	902
	July 8, 1949	4.00	380
1950	June 16, 1950	3.63	264
1951	Aug. 3, 1951	3.15	238
1952	May 23, 1952	3.58	455
	June 7, 1952	3.41	373
1953	July 31, 1953	3.56	444
1954	July 21, 1954	3.58	445
	Sept. 6, 1954	3.18	269
1955	Aug. 10, 1955	5.31	1,700
	Aug. 27, 1955	3.97	717
1956	May 23, 1956	3.73	348
1957	May 9, 1957	3.94	485
	May 19, 1957	4.36	807
	May 31, 1957	4.01	541
	June 7, 1957	4.06	555
	Aug. 4, 1957	3.86	295
	Aug. 6, 1957	3.94	348
	Aug. 21, 1957	5.63	1,640
1958	May 9, 1958	4.35	299
	May 16, 1958	4.55	421
1959	June 23, 1959	4.21	147
1960	May 9, 1960	4.56	208
1961	Aug. 3, 1961	4.26	252
1962	May 7, 1962	4.13	152

7110. Turkey Creek near Morrison, Colo.

Location.--Lat 39°38'08", long 105°10'05", in NE¼ sec.12, T.5 S., R.70 W., at county bridge 2 miles upstream from mouth and 2 miles southeast of Morrison.

Drainage area.--50.1 sq mi.

Gage.--Nonrecording prior to Mar. 8, 1947; recording thereafter. Datum of gage is 5,717.54 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 180 cfs and by contracted-opening measurement at 1,200 cfs.

Remarks.--Small diversions above station for irrigation do not substantially affect peak flows. Only annual peaks are shown prior to 1947. Base for partial-duration series, 50 cfs.

Peak stages and discharges of Turkey Creek near Morrison, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Oct. 15, 1942	1.24	18	1948	June 12, 1948	2.05	121
1944	May 6, 1944	2.46	175		June 22, 1948	1.67	51
1945	June 8, 1945	1.30	18				
				1949	May 12, 1949	-	-
1946	Aug. 24, 1946	5.79	1,200		June 6, 1949	3.08	384
					June 13, 1949	2.67	272
1947	Mar. 18, 1947	1.95	55				
	Mar. 23, 1947	1.93	52	1950	June 18, 1950	1.98	110
	May 16, 1957	2.18	121		July 4, 1950	1.76	62
	May 28, 1957	2.05	99		Sept. 8, 1950	1.80	74
	June 11, 1957	1.91	81				
	June 22, 1957	2.17	126	1951	May 22, 1951	1.65	47
1948	Oct. 15, 1947	2.10	108	1952	Apr. 30, 1952	1.99	110
	Mar. 24, 1948	2.04	121		May 17, 1952	1.72	58
	Mar. 29, 1948	2.12	138		May 24, 1952	2.32	185
	Apr. 3, 1948	1.86	85				
	Apr. 28, 1948	2.44	215	1953	July 16, 1953	2.17	149
	May 12, 1948	2.01	104				

7115. Bear Creek at mouth, at Sheridan, Colo.

(Published as "at mouth," 1914, 1927-33, and as "at Sheridan Junction," 1934-41)

Location.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., on left bank just downstream from bridge on State Highway 70 at northwest city limits of Sheridan, 1.3 miles upstream from mouth and 2.3 miles west of city hall in Englewood.

Drainage area.--260 sq mi.

Gage.--Recording. At site 1 mile downstream at different datums prior to June 19, 1931. At site 0.8 mile downstream June 19, 1931, to Oct. 8, 1953. At datum 5,282.72 ft above mean sea level, datum of 1929, from June 19, 1931, to June 5, 1949, and at datum 2.00 ft lower June 6, 1949, to Oct. 8, 1953. Altitude of present gage is 5,295 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,100 cfs prior to Oct. 9, 1953; below 1,600 cfs thereafter.

Remarks.--Storage and diversions above station for irrigation of 12,000 acres substantially affect peak flows. Records for 1927-33 furnished by State engineer of Colorado. 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	Aug. 14, 1927	2.31	350	1946	Aug. 24, 1946	6.36	1,580
1928	May 15, 1928	1.68	464	1947	June 22, 1947	5.27	1,010
1929	July 23, 1929	1.95	235	1948	Oct. 15, 1947	4.35	605
1930	Aug. 4, 1930	3.55	752	1949	June 5, 1949	6.01	1,800
				1950	June 16, 1950	5.93	1,510
1931	July 17, 1931	2.44	75				
1932	July 16, 1932	4.27	785	1951	June 9, 1951	1.86	60
1933	July 7, 1933	6.95	3,000	1952	May 27, 1952	5.02	533
1934	Aug. 9, 1934	5.22	1,300	1953	July 17, 1953	5.15	330
1935	July 12, 1935	4.33	612	1954	Aug. 6, 1954	4.38	178
				1955	Aug. 11, 1955	6.20	1,170
1936	July 11, 1936	4.19	745				
1937	June 2, 1937	3.43	222	1956	May 23, 1956	4.78	314
1938	Sept. 2, 1938	7.21	2,810	1957	Aug. 21, 1957	6.45	2,560
1939	Apr. 16, 1939	3.17	141	1958	May 24, 1958	4.93	597
1940	Aug. 25, 1940	5.46	690	1959	May 22, 1959	3.72	180
				1960	Mar. 22, 1960	4.64	524
1941	June 22, 1941	5.16	980				
1942	Apr. 19, 1942	6.26	1,600	1961	June 7, 1961	4.93	738
1943	May 30, 1943	3.42	158	1962	May 7, 1962	3.78	-
1944	May 14, 1944	4.74	508		June 8, 1962	-	156
1945	Aug. 20, 1945	5.88	1,410				

7120. Cherry Creek near Franktown, Colo.

Location.--Lat 39°21'30", long 104°45'50", in NE¼ sec.15, T.8 S., R.66 W., on right bank 1¼ miles upstream from Russellville Gulch and 2¼ miles south of Franktown.

Drainage area.--169 sq mi.

Gage.--Recording. At site 1,000 ft downstream prior to Oct. 1, 1953. At datum 6,149.53 ft above mean sea level, unadjusted, prior to Apr. 13, 1942, and at datum 2.00 ft lower Apr. 13, 1942, to Sept. 30, 1953. Altitude of gage is 6,150 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 830 cfs and by float measurement at 9,170 cfs prior to Oct. 1, 1953, and below 770 cfs and by slope-area measurements at 2,620 and 5,380 cfs thereafter.

Remarks.--Diversions for irrigation of 800 acres above station do not substantially affect peak flows. 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)
1940	June 6, 1940	2.60	2,000	1950	July 27, 1950	1.91	146
	Aug. 22, 1940	1.95	711				
	Aug. 25, 1940	1.62	272	1951	Aug. 3, 1951	1.91	81
	Sept. 3, 1940	2.01	880				
				1952	Aug. 23, 1952	3.09	817
1941	July 13, 1941	3.08	4,700		Aug. 28, 1952	3.44	1,350
	Aug. 23, 1941	1.90	398				
	Aug. 27, 1941	2.48	2,090	1953	July 10, 1953	2.42	235
					Aug. 16, 1953	2.75	455
1942	Mar. 13, 1942	2.91	3,620				
				1954	Aug. 7, 1954	7.23	2,620
1943	June 28, 1943	1.86	198				
				1955	Aug. 5, 1955	5.67	790
1944	Apr. 12, 1944	1.70	200		Aug. 27, 1955	5.20	520
	July 12, 1944	2.12	390				
				1956	May 23, 1956	4.66	326
1945	June 24, 1945	1.70	206		July 2, 1956	6.24	1,230
	July 20, 1945	2.54	1,100		July 31, 1956	7.62	3,380
	July 24, 1945	3.04	1,800				
	Aug. 2, 1945	2.76	1,400	1957	May 9, 1957	4.28	368
	Aug. 5, 1945	4.91	9,170		May 18, 1957	6.07	1,390
	Aug. 6, 1945	3.19	1,610		May 31, 1957	4.08	244
	Aug. 21, 1945	3.61	386		July 30, 1957	9.66	5,380
					Aug. 6, 1957	8.22	3,740
1946	Aug. 14, 1946	3.40	270		Aug. 7, 1957	6.28	1,610
	Aug. 24, 1946	4.77	1,470				
	Aug. 28, 1946	3.70	416	1958	Feb. 18, 1958	4.23	152
1947	Mar. 18, 1947	3.55	928	1959	Feb. 16, 1959	3.97	156
	July 16, 1947	2.92	202				
	Aug. 14, 1947	3.13	308	1960	Mar. 24, 1960	7.62	2,340
1948	Mar. 14, 1948	2.82	668	1961	July 11, 1961	4.25	200
	Mar. 19, 1948	2.88	925		July 31, 1961	8.84	3,410
	Mar. 23, 1948	2.94	1,220		Aug. 10, 1961	5.94	750
1949	May 11, 1949	2.16	516	1962	Mar. 7, 1962	3.64	68
	June 13, 1949	2.78	1,080				
	July 2, 1949	1.84	210				

7125. Cherry Creek near Melvin, Colo.

Location.--Lat 39°35'42", long 104°48'44", in SE¼SE¼ sec.19, T.5 S., R.66 W., near right bank on downstream side of Arapahoe Road bridge, 0.9 mile upstream from Piney (South Cherry) Creek, 2.3 miles southeast of former site of Melvin, 5½ miles upstream from Cherry Creek Dam, and 6.0 miles northwest of Parker.

Drainage area.--336 sq mi.

Gage.--Recording. At site 1 mile downstream at datum 5,608.21 ft above mean sea level, datum of 1929, prior to Oct. 1, 1960. Altitude of gage is 5,630 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs, by slope-area measurements at 5,310 and 9,950 cfs, and by a float measurement at 10,700 cfs prior to Oct. 1, 1960. Defined by current-meter measurements below 3,500 cfs since 1960.

Bankfull stage.--7 ft.

Historical data.--Maximum stage known, 9.72 ft, former site and datum, Aug. 3, 1933; discharge 34,000 cfs, by slope-area measurement at Kenwood damsite 6 miles downstream. Flood was caused by failure of Castlewood Dam.

Remarks.--Diversions above station for irrigation of about 1,800 acres do not substantially affect peak flows. Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 3, 1933	9.72	a34,000	1950	July 25, 1950	3.35	1,450
1940	June 6, 1940	3.60	1,760	1951	Aug. 22, 1951	3.44	1,040
	July 28, 1940	3.12	1,970				
	Aug. 22, 1940	3.78	2,320	1952	Aug. 29, 1952	2.69	321
	Aug. 25, 1940	4.04	2,980				
	Sept. 6, 1940	4.38	4,500	1953	July 29, 1953	3.62	1,420
	Sept. 9, 1940	4.29	2,430		Aug. 27, 1953	3.52	1,670
1941	June 8, 1941	4.01	1,980	1954	Aug. 13, 1954	3.20	611
	July 14, 1941	4.06	2,390				
	Aug. 21, 1941	3.55	1,490	1955	Aug. 5, 1955	6.00	4,510
					Aug. 27, 1955	3.50	1,600
1942	Mar. 13, 1942	3.61	1,530				
	Aug. 3, 1942	4.03	2,220	1956	July 31, 1956	6.45	5,310
1943	Aug. 4, 1943	4.70	3,580	1957	July 22, 1957	3.78	2,210
					July 26, 1957	5.90	9,950
1944	July 9, 1944	3.53	1,380		July 31, 1957	2.87	3,480
					Aug. 6, 1957	2.82	2,110
1945	Aug. 5, 1945	6.50	10,700				
	Aug. 8, 1945	5.40	7,980	1958	July 18, 1958	4.97	5,290
	Aug. 11, 1945	3.97	2,800		Aug. 15, 1958	4.10	3,440
1946	July 18, 1946	7.45	17,600	1959	Mar. 22, 1959	-	558
	Aug. 25, 1946	3.65	1,980		Apr. 9, 1959	2.69	-
1947	Mar. 18, 1947	3.30	1,790	1960	Mar. 24, 1960	3.88	2,720
1948	Mar. 14, 1948	3.53	1,540	1961	July 31, 1961	4.76	5,600
	May 30, 1948	4.77	3,760				
				1962	-	-	(b)
1949	June 13, 1949	3.64	1,420				

a Slope-area measurement at Kenwood damsite 6 miles downstream of peak flow caused by failure of Castlewood Dam.
b Probably less than 100 cfs.

7140. South Platte River at Denver, Colo.

Location.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., on right bank 20 ft upstream from Nineteenth Street Bridge in Denver, 0.4 mile downstream from Cherry Creek.

Drainage area.--3,804 sq mi.

Gage.--Nonrecording prior to Aug. 12, 1909; recording thereafter. At several sites within half a mile of present site at approximately the same datum prior to Aug. 28, 1931. Datum of present gage is 5,162.12 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 8,800 cfs and by float-area measurement at 15,500 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation and municipal use, and return flow from irrigated areas. Diversion and regulation substantially affect peak flows. Records for 1914-33 furnished by State engineer of Colorado. 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)
1895	Aug. 2, 1895	-	1,940	1930	Aug. 4, 1930	5.2	3,250
1896	Oct. 7, 1895	-	1,090	1931	Aug. 16, 1931	4.75	2,680
1897	Aug. 5, 1897	-	2,420	1932	July 13, 1932	3.44	2,000
1898	May 28, 1898	-	2,310	1933	Sept.10, 1933	10.98	22,000
1899	Aug. 5, 1899	7.2	1,420	1934	Aug. 9, 1934	3.30	1,300
1900	Apr. 29, 1900	10.0	5,980	1935	May 31, 1935	8.10	12,320
1901	June 15, 1901	-	1,390	1936	Aug. 12, 1936	4.75	4,020
				1937	June 1, 1937	5.35	5,280
1903	June 16, 1903	3.0	1,240	1938	Aug. 28, 1938	5.60	5,870
1904	June 3, 1904	3.45	1,700	1939	Mar. 10, 1939	5.10	4,790
1905	May 4, 1905	3.6	2,200	1940	Sept.10, 1940	4.14	2,480
1906	May 26, 1906	2.8	1,020	1941	June 22, 1941	4.98	4,000
				1942	Apr. 25, 1942	8.08	10,200
1909	Aug. 7, 1909	5.50	5,100	1943	July 21, 1943	3.20	1,400
1910	July 30, 1910	3.65	1,600	1944	June 8, 1944	4.32	2,500
				1945	Aug. 6, 1945	6.14	6,280
1911	Aug. 11, 1911	4.7	2,900				
1912	July 14, 1912	7.7	13,000	1946	July 18, 1946	4.86	3,530
1913	July 25, 1913	6.2	4,000	1947	June 22, 1947	4.98	3,920
1914	May 21, 1914	8.8	9,480	1948	Apr. 30, 1948	4.45	3,440
1915	Apr. 27, 1915	5.6	2,620	1949	June 14, 1949	6.21	8,800
				1950	June 16, 1950	4.23	4,290
1916	Aug. 4, 1916	3.6	2,400				
1917	May 25, 1917	4.2	2,400	1951	Aug. 3, 1951	4.57	5,470
1918	June 24, 1918	4.85	3,050	1952	May 24, 1952	3.06	1,850
1919	Aug. 1, 1919	6.25	4,650	1953	July 9, 1953	4.07	4,290
1920	May 3, 1920	4.05	2,410	1954	July 21, 1954	2.94	2,010
				1955	Aug. 28, 1955	3.87	3,800
1921	June 8, 1921	7.5	8,790				
1922	July 28, 1922	6.0	5,850	1956	Aug. 1, 1956	4.93	5,920
1923	July 12, 1923	6.0	4,200	1957	May 15, 1957	4.67	4,920
1924	June 4, 1924	4.32	2,950	1958	May 8, 1958	3.76	3,080
1925	Aug. 12, 1925	4.02	1,310	1959	May 21, 1959	2.12	1,930
				1960	July 3, 1960	2.71	2,820
1926	Apr. 22, 1926	4.07	3,190				
1927	Aug. 14, 1927	3.70	1,890	1961	July 31, 1961	2.66	2,200
1928	June 3, 1928	3.42	1,930	1962	June 29, 1962	2.42	1,610
1929	Aug. 6, 1929	3.30	2,140				

7165. Clear Creek near Lawson, Colo.

Location.--Lat 39°45'40", long 105°39'06", in SE¼NE¼ sec.27, T.3 S., R.74 W., on right bank 500 ft south of U.S. Highways 6 and 40, 0.4 mile downstream from West Fork Clear Creek, and 1 mile west of Lawson.

Drainage area.--145 sq mi.

Gage.--Recording. Datum of gage is 8,193.72 ft above mean sea level, (State Highway Department bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 1,600 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions. No diversions above station for irrigation. Inflow does not substantially affect peak flows. Base for partial-duration series, 600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 12, 1946	-	880	1955	June 22, 1955	4.77	686
1947	June 8, 1947	4.96	1,110	1956	May 31, 1956	5.07	945
	June 20, 1947	5.28	1,360		June 4, 1956	7.41	a6,130
	June 29, 1947	5.01	1,120		June 8, 1956	5.22	1,100
1948	May 23, 1948	4.83	661	1957	June 8, 1957	5.13	1,030
	June 2, 1948	5.15	885		June 20, 1957	5.07	976
					June 29, 1957	5.72	1,910
1949	June 19, 1949	5.39	1,180		July 13, 1957	5.20	1,290
	July 7, 1949	5.26	968		July 26, 1957	4.63	758
1950	June 7, 1950	4.93	823	1958	May 28, 1958	5.30	1,310
	June 16, 1950	5.19	1,100		June 5, 1958	5.22	1,210
1951	June 1, 1951	4.89	750	1959	June 15, 1959	5.03	1,070
	June 21, 1951	5.44	1,390				
	June 27, 1951	5.27	1,160	1960	June 5, 1960	4.81	852
					June 19, 1960	5.10	1,060
1952	June 9, 1952	5.82	2,230				
				1961	June 11, 1961	4.65	712
1953	June 2, 1953	4.71	694		June 20, 1961	4.72	718
	June 13, 1953	5.45	1,480				
	July 11, 1953	4.72	636	1962	June 14, 1962	4.82	875
					June 21, 1962	4.98	965
1954	May 21, 1954	4.35	400		June 30, 1962	4.94	947
1955	June 13, 1955	4.70	630				

a Caused by failure of Georgetown Dam about 3 miles upstream.

7170. Fall River near Idaho Springs, Colo.

Location.--Lat 39°45'19", long 105°33'22", in sec.28, T.3 S., R.73 W., 400 ft upstream from mouth and 1½ miles west of Idaho Springs.

Drainage area.--23.5 sq mi.

Gage.--Recording. At site 150 ft downstream at different datum prior to July 6, 1937. Altitude of gage is 7,720 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 150 cfs.

Bankfull stage.--3 ft.

Remarks.--Flow regulated by storage for irrigation. No diversions for irrigation above 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)
1930	June 18, 1930	1.62	172	1935	June 13, 1935	1.90	190
1931	May 26, 1931	1.90	268	1936	May 30, 1936	1.60	130
1932	June 19, 1932	1.67	112	1937	July 27, 1937	1.79	221
1933	June 1, 1933	1.82	188	1938	June 29, 1938	2.08	325
1934	May 31, 1934	1.43	98				

7195. Clear Creek near Golden, Colo.
(Published as "at Forks Creek," 1899-1908, 1910)

Location.--Lat 39°45'05", long 105°14'55", in NE¼ sec.32, T.3 S., R.70 W., on left bank half a mile downstream from Golden Canal diversion and 1 mile west of Golden.

Drainage area.--399 sq mi; 339 sq mi at site at Forks Creek.

Gage.--Nonrecording at site about 9 miles upstream 1899-1908, 1910; recording thereafter. At site half a mile upstream at different datum 1909 and 1911 to May 15, 1919. At present site at datum 3.13 ft higher May 15, 1919, to Mar. 16, 1934; at datum 4.00 ft higher Mar. 17, 1934, to Aug. 29, 1941; and at datum 2.00 ft higher Aug. 30, 1941, to Apr. 16, 1942. At site 600 ft downstream at datum 7.50 ft lower Apr. 17, 1942, to Jan. 20, 1943. Datum of present gage is 5,735.27 ft above mean sea level (State Highway Department bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by slope-area measurements at 4,090, 5,140, and 5,890 cfs.

Historical data.--Maximum discharge known, 8,700 cfs Aug. 1, 1888, from reports of State engineer of Colorado at site 5½ miles upstream.

Remarks.--Natural flow affected by transmountain diversions, several small reservoirs and diversions for irrigation of 3,000 acres above station. Diversions do not substantially affect peak flows. Records for 1930-33 furnished by State engineer of Colorado. Base for partial-duration series, 1,050 cfs. Only annual peaks are shown prior to 1911.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1888	Aug. 1, 1888	-	8,700	1921	July 31, 1921	5.10	4,420
1899	June 21, 1899	4.9	1,460	1922	June 13, 1922	2.90	1,170
1900	June 8, 1900	4.7	1,340	1923	June 16, 1923	3.70	2,110
1901	May 21, 1901	3.9	889		July 26, 1923	b10.2	-
1902	June 11, 1902	-	600		July 27, 1923	-	a1,120
1903	June 20, 1903	3.9	1,660				
1904	June 20, 1904	4.4	1,750	1924	May 19, 1924	3.78	1,500
1905	June 5, 1905	4.64	2,070		June 13, 1924	4.90	2,450
1906	June 15, 1906	5.25	1,630	1925	June 21, 1925	3.3	720
1907	July 9, 1907	9.2	5,000				
1908	June 12, 1908	6.0	647	1926	June 7, 1926	4.70	2,100
1909	July 4, 1909	-	a2,290				
1910	July 28, 1910	7.0	1,270	1927	June 29, 1927	4.13	1,080
1911	July 3, 1911	4.41	1,820	1928	May 30, 1928	4.66	1,560
1912	June 6, 1912	4.04	1,610				
	June 30, 1912	5.5	3,200	1929	Aug. 5, 1929	4.37	1,280
	July 21, 1912	3.95	1,520	1930	June 13, 1930	4.35	1,280
1913	May 27, 1913	3.54	1,120				
	July 18, 1913	3.47	1,060	1931	June 8, 1931	4.78	1,310
1914	June 1, 1914	5.40	2,900	1932	June 26, 1932	4.29	863
	June 15, 1914	4.80	2,210				
	July 30, 1914	4.33	1,730	1933	June 12, 1933	5.87	1,650
					July 10, 1933	b11.12	-
1915	June 13, 1915	4.3	1,460		Sept. 9, 1933	8.44	5,890
	June 23, 1915	4.40	1,520				
				1934	May 30, 1934	2.84	1,380
1916	June 18, 1916	3.30	872		Aug. 9, 1934	3.20	2,160
1917	June 18, 1917	4.8	1,670	1935	June 12, 1935	2.80	2,410
					Aug. 3, 1935	4.83	4,900
1918	June 14, 1918	5.40	2,090				
				1936	May 31, 1936	2.76	1,840
1919	July 4, 1919	2.65	1,090		June 13, 1936	2.63	1,560
					July 11, 1936	2.60	1,500
1920	June 8, 1920	2.9	1,340				
	Aug. 1, 1920	2.95	1,390	1937	June 26, 1937	2.72	1,750
1921	June 13, 1921	4.36	3,020	1938	June 6, 1938	3.82	3,120
	July 6, 1921	3.00	1,180		June 23, 1938	2.97	1,890

a Daily discharge.
b Backwater from tributary or dam.

Peak stages and discharges of Clear Creek near Golden, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	July 28, 1938	2.76	1,590	1951	June 1, 1951	5.31	1,210
	Sept. 2, 1938	4.57	4,090		June 21, 1951	5.83	2,020
1939	June 1, 1939	2.18	927	1952	June 10, 1952	6.48	3,140
1940	July 28, 1940	2.34	1,110	1953	June 14, 1953	6.04	1,900
1941	May 13, 1941	2.43	1,250	1954	May 21, 1954	5.06	526
	June 5, 1941	2.43	1,380				
	June 22, 1941	4.68	5,140	1955	Aug. 10, 1955	5.73	1,280
	June 25, 1941	2.60	1,480				
				1956	June 4, 1956	7.20	c5,250
1942	June 18, 1942	4.02	1,220		June 13, 1956	5.45	1,180
1943	June 29, 1943	4.85	1,040	1957	June 8, 1957	6.00	2,640
					June 21, 1957	5.35	1,710
1944	June 2, 1944	5.03	1,260		June 30, 1957	5.94	2,840
					July 17, 1957	5.38	2,160
1945	June 25, 1945	4.84	1,130		Aug. 21, 1957	5.19	1,830
	Aug. 2, 1945	5.00	1,200				
	Aug. 21, 1945	4.80	1,090	1958	May 24, 1958	5.28	1,940
					May 28, 1958	5.34	2,040
1946	July 15, 1946	4.67	1,010		June 6, 1958	5.08	1,620
					July 18, 1958	4.97	1,600
1947	June 9, 1947	5.08	1,680				
	June 26, 1947	5.20	1,900	1959	June 16, 1959	4.99	1,410
					June 20, 1959	4.89	1,280
1948	May 23, 1948	4.73	1,100				
	June 4, 1948	4.98	1,480	1960	June 5, 1960	4.95	1,390
	June 7, 1948	5.20	1,900		June 17, 1960	5.12	1,580
1949	June 19, 1949	6.13	3,190	1961	June 10, 1961	4.73	1,110
	July 7, 1949	5.81	1,950		July 27, 1961	4.81	1,230
1950	June 16, 1950	5.63	1,560	1962	June 22, 1962	4.76	1,110

c Caused by failure of Georgetown Dam.

7205. South Platte River at Henderson, Colo.

Location.--Lat 39°55'12", long 104°52'18", in NW¼SE¼ sec.34, T.1 S., R.67 W., on left bank 1,200 ft upstream from bridge on State Highway 22 and 0.3 mile west of Henderson.

Drainage area.--4,713 sq mi.

Gage.--Recording. At site 1,240 ft downstream prior to Apr. 17, 1956, and at site 840 ft downstream Apr. 17, 1956, to May 31, 1960. At datum 3.00 ft higher prior to Apr. 20, 1942, and at datum 1.00 ft higher Apr. 20, 1942, to Sept. 30, 1953. Datum of present gage is 5,005.12 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,500 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. Records for 1926-33 furnished by State engineer of Colorado. 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)
1926	June 14, 1926	5.6	3,350	1936	Aug. 3, 1936	5.94	3,610
1927	June 12, 1927	5.05	2,720	1937	June 2, 1937	5.20	3,200
1928	June 4, 1928	5.82	3,560	1938	May 30, 1938	6.16	4,480
1929	Aug. 6, 1929	4.40	1,950	1939	Mar. 11, 1939	7.20	5,730
1930	Aug. 14, 1930	4.82	2,360	1940	July 3, 1940	4.83	2,410
1931	Aug. 16, 1931	3.93	1,680	1941	June 22, 1941	5.61	3,710
1932	July 14, 1932	3.40	1,290	1942	Apr. 26, 1942	8.40	10,700
1933	Sept.10, 1933	7.15	5,600	1943	May 9, 1943	2.74	962
1934	May 31, 1934	3.42	1,200	1944	May 17, 1944	4.42	2,720
1935	June 12, 1935	6.22	3,940	1945	Aug. 6, 1945	5.89	5,720

Peak stages and discharges of South Platte River at Henderson, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Sept. 8, 1946	3.90	2,190	1955	Aug. 28, 1955	4.78	3,280
1947	June 22, 1947	6.51	5,670				
1948	May 31, 1948	7.49	7,920	1956	Aug. 1, 1956	5.53	3,970
1949	June 14, 1949	7.66	8,850	1957	May 9, 1957	11.35	14,800
1950	June 17, 1950	4.31	3,520	1958	May 25, 1958	6.06	4,560
				1959	May 21, 1959	4.96	3,200
1951	Aug. 3, 1951	4.58	3,890	1960	July 4, 1960	4.73	2,240
1952	June 10, 1952	3.49	2,500				
1953	July 9, 1953	3.60	2,840	1961	July 31, 1961	5.40	3,160
1954	July 14, 1954	4.05	1,880	1962	June 29, 1962	4.14	1,750

7210. South Platte River at Fort Lupton, Colo.

Location.--Lat 40°04'50", long 104°49'18", in NW¼ sec.6, T.1 N., R.66 W., 50 ft downstream from bridge on State Highway 52 at Fort Lupton and 1 mile downstream from Big Dry Creek.

Drainage area.--5,010 sq mi.

Gage.--Nonrecording at site 1 mile downstream at different datum prior to Apr. 29, 1929, and at site 250 ft downstream at different datum Jan. 18 to June 20, 1935. Recording Apr. 29, 1929, to Jan. 17, 1935, and since June 21, 1935. At site 650 ft upstream at same datum June 21, 1935, to Oct. 2, 1947. Datum of present gage is 4,888.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,400 cfs.

Bankfull stage.--About 6.0 ft.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of 288,000 acres, and return flow from irrigated areas. Diversions and regulation substantially affect peak flows. Records for 1906, 1929-33, furnished by the State engineer of Colorado. 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	Aug. 9, 1929	3.82	1,730	1944	May 18, 1944	4.26	2,520
1930	Aug. 14, 1930	4.74	2,310	1945	Aug. 6, 1945	5.70	4,240
1931	Aug. 17, 1931	3.28	1,170	1946	Sept. 8, 1946	3.83	1,970
1932	July 31, 1932	3.07	898	1947	June 22, 1947	7.55	8,840
1933	Sept.11, 1933	5.80	4,510	1948	May 31, 1948	6.54	4,510
1934	May 31, 1934	2.87	793	1949	June 14, 1949	6.96	7,660
1935	June 1, 1935	-	4,000	1950	June 17, 1950	5.30	3,880
1936	Aug. 4, 1936	3.75	3,140	1951	Aug. 3, 1951	5.40	4,060
1937	June 2, 1937	3.40	2,680	1952	May 24, 1952	4.44	2,570
1938	Sept. 4, 1938	4.88	4,220	1953	July 10, 1953	4.56	2,760
1939	Mar. 11, 1939	5.59	5,030	1954	July 21, 1954	3.77	1,550
1940	July 3, 1940	3.99	1,880	1955	Aug. 28, 1955	5.33	3,820
1941	June 23, 1941	4.41	2,410	1956	Aug. 1, 1956	5.68	4,130
1942	Apr. 26, 1942	7.24	9,000	1957	May 9, 1957	7.57	8,480
1943	May 9, 1943	2.47	1,010				

7215. North St. Vrain Creek near Allens Park, Colo.

Location.--Lat 40°13'10", long 105°31'50", in SW¼ sec.14, T.3 N., R.73 W., 1 mile upstream from Horse Creek and 2 miles north of Allens Park.

Drainage area.--32.6 sq mi.

Gage.--Recording at site 300 ft upstream at different datum prior to June 6, 1929; nonrecording thereafter. Altitude of gage is 8,230 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 360 cfs.

Remarks.--Practically no diversions above station. Base for partial-duration series, 300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	May 24, 1926	2.37	312	1928	June 29, 1928	2.60	402
	June 8, 1926	3.05	488				
	June 30, 1926	2.48	340	1929	June 9, 1929	-	a1,000
					June 28, 1929	-	b274
1927	June 18, 1927	2.51	355				
	June 27, 1927	2.70	407	1930	Aug. 14, 1930	2.10	333
1928	May 30, 1928	3.05	499				

a Estimated; caused by Copeland Dam failure.
b Daily discharge.

7220. North St. Vrain Creek at Longmont Dam, near Lyons, Colo.

Location.--Lat 40°13'30", long 105°21'00", in sec.16, T.3 N., R.71 W., three-quarters of a mile upstream from Longmont Dam and 4 miles west of Lyons.

Drainage area.--106 sq mi.

Gage.--Recording. At datum 1.00 ft higher prior to Oct. 8, 1936. Altitude of gage is 6,050 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 610 cfs.

Remarks.--Small diversions above station for irrigation of about 300 acres. Flow partly regulated by small reservoirs above station. Diversions and regulation do not substantially affect peak flows. Records for 1926-33 furnished by State engineer of Colorado. Base for partial-duration series, 360 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	June 7, 1926	2.70	698	1933	May 18, 1933	2.23	435
	June 13, 1926	2.64	657		June 11, 1933	2.60	630
	July 6, 1926	2.3	450		June 20, 1933	2.77	744
1927	June 29, 1927	2.25	426	1934	May 9, 1934	2.00	360
					May 31, 1934	2.10	410
1928	May 14, 1928	2.32	469				
	May 30, 1928	2.93	783	1935	May 18, 1935	2.31	418
	June 8, 1928	2.33	474		May 23, 1935	2.25	395
	June 17, 1928	2.14	391		June 15, 1935	3.15	790
	June 29, 1928	2.41	511		Sept. 6, 1935	3.40	930
1929	June 9, 1929	3.37	1,050	1936	June 1, 1936	2.72	598
	June 15, 1929	2.13	374		June 16, 1936	2.71	593
	June 26, 1929	2.22	420		July 11, 1936	2.30	477
	July 14, 1929	2.38	507		Aug. 3, 1936	2.42	528
	July 27, 1929	2.22	442				
				1937	June 3, 1937	3.50	533
1930	Aug. 15, 1930	2.50	486		June 26, 1937	3.86	713
					July 7, 1937	3.20	398
1931	June 5, 1931	2.90	835				
				1938	June 4, 1938	3.55	558
1932	June 16, 1932	2.15	401		June 22, 1938	3.92	744
	June 28, 1932	2.22	435		Sept. 2, 1938	4.34	972

Peak stages and discharges of North St. Vrain Creek at Longmont Dam, near Lyons, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 6, 1939	3.10	356	1947	May 11, 1947	4.15	505
					June 17, 1947	5.58	1,250
1940	June 21, 1940	3.04	319				
				1948	May 25, 1948	3.94	421
1941	Apr. 29, 1941	3.18	360		June 3, 1948	4.14	501
	May 13, 1941	3.20	369		June 10, 1948	4.42	613
	May 26, 1941	3.23	377				
	June 22, 1941	6.09	1,630	1949	May 12, 1949	4.03	457
					May 30, 1949	3.80	370
1942	Apr. 23, 1942	4.27	534		June 4, 1949	5.88	1,540
	Apr. 30, 1942	4.10	416		June 6, 1949	5.43	1,260
	June 12, 1942	4.56	690		June 13, 1949	4.55	742
	June 19, 1942	4.45	663		July 8, 1949	3.39	550
	July 18, 1942	3.84	394				
				1950	June 7, 1950	3.84	407
1943	June 2, 1943	4.50	681		June 18, 1950	4.14	526
	June 10, 1943	4.32	580				
	June 30, 1943	4.41	645	1951	May 28, 1951	4.05	522
					June 18, 1951	4.63	800
1944	May 15, 1944	4.08	514				
	May 25, 1944	3.75	386	1952	May 5, 1952	3.83	407
	May 31, 1944	3.90	442		June 7, 1952	4.55	705
	June 11, 1944	4.04	486		June 25, 1952	3.86	418
1945	June 14, 1945	3.95	490	1953	May 28, 1953	3.85	414
	June 24, 1945	4.42	713		June 13, 1953	4.39	662
					June 19, 1953	4.11	542
1946	June 18, 1946	3.95	470				

7225. South St. Vrain Creek near Ward, Colo.

Location.--Lat 40°05'27", long 105°30'50", in NE¼SW¼ sec.36, T.2 N., R.73 W., at downstream side of bridge, 1.3 miles northwest of Ward and 3½ miles downstream from Brainard Lake.

Drainage area.--14.4 sq mi.

Gage.--Recording. At site 600 ft downstream at datum 24.37 ft lower May 29, 1926, to Sept. 30, 1927, and May 21, 1929, to Sept. 30, 1931. Altitude of gage is 9,372 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 270 cfs.

Remarks.--No diversions above station. Flow partly regulated by several small lakes above station which do not substantially affect peak flow. Base for partial-duration series, 170 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	May 25, 1926	-	200	1957	June 8, 1957	3.92	196
	June 7, 1926	2.48	313		June 13, 1957	4.01	223
	July 4, 1926	2.11	212		June 20, 1957	3.85	178
					June 29, 1957	4.06	462
1927	June 29, 1927	2.02	225		July 4, 1957	3.86	331
1929	June 8, 1929	2.06	231	1958	May 28, 1958	3.70	245
	June 25, 1929	1.98	185		June 7, 1958	3.75	278
	July 14, 1929	2.07	214				
	July 28, 1929	1.92	181	1959	June 14, 1959	3.69	252
					June 21, 1959	3.60	191
1930	June 12, 1930	2.17	176				
				1960	June 4, 1960	3.59	203
1931	June 7, 1931	2.27	195		June 15, 1960	3.62	221
1955	June 23, 1955	3.76	148	1961	June 2, 1961	3.71	186
					June 8, 1961	3.71	186
1956	May 22, 1956	3.83	196		June 21, 1961	3.83	240
	May 25, 1956	3.80	187				
	June 2, 1956	3.90	220	1962	July 1, 1962	3.83	252

7230. Middle St. Vrain Creek near Allens Park, Colo.

Location.--Lat 40°10'05", long 105°26'35", in NW¼ sec.3, T.2 N., R.72 W., 2 miles downstream from Cave Creek and 5 miles southeast of Allens Park.

Drainage area.--28.0 sq mi.

Gage.--Nonrecording gage and Cippoletti weir 600 ft downstream at different datum prior to Apr. 12, 1928; recording gage thereafter. Altitude of present gage is 7,560 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 240 cfs.

Remarks.--Practically no diversions above station. Base for partial-duration series, 190 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	June 6, 1926	2.65	387	1929	June 8, 1929	2.45	240
	July 6, 1926	2.42	246		Aug. 3, 1929	2.30	199
1927	June 28, 1927	2.30	194	1930	June 12, 1930	2.30	196
					Aug. 14, 1930	2.43	211
1928	May 27, 1928	2.70	290				
	June 28, 1928	2.33	202				

7240. St. Vrain Creek at Lyons, Colo.
(Published as "near Lyons," 1901, 1903)

Location.--Lat 40°13'05", long 105°15'34", in NW¼NW¼ sec.20, T.3 N., R.70 W., on left bank 75 ft southwest of State Highways 7 and 66 at southeast edge of Lyons, 400 ft upstream from headgate of St. Vrain Supply Canal, and 0.4 mile downstream from confluence of North and South St. Vrain Creeks.

Drainage area.--212 sq mi.

Gage.--Nonrecording at different datums prior to Apr. 6, 1923; recording thereafter. At datum 1.00 ft higher Apr. 6, 1923, to Sept. 30, 1956. Altitude of gage is 5,292 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,100 cfs and by slope-area measurement at 9,400 cfs.

Remarks.--Diversions above station for irrigation of about 20,000 acres. Flow partly regulated by many small reservoirs above station. Diversions substantially affect peak flows. Records for 1904-8, 1914-33, furnished by the State engineer of Colorado. 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)
1888	June 19, 1888	6.0	535	1910	June 3, 1910	-	465
1889	May 28, 1889	-	548				
1890	June 2, 1890	-	675	1911	June 9, 1911	-	660
				1912	June 25, 1912	-	1,150
1891	May 27, 1891	-	1,400	1913	June 11, 1913	-	490
				1914	June 2, 1914	-	1,540
1895	June 16, 1895	5.08	1,130	1915	June 20, 1915	-	955
1896	Aug. 18, 1896	6.0	1,500	1916	June 20, 1916	-	620
1897	May 18, 1897	5.6	1,020	1917	June 23, 1917	4.35	1,240
1898	June 17, 1898	4.2	603	1918	June 22, 1918	-	1,700
1899	June 20, 1899	4.7	1,180	1919	July 30, 1919	7.90	9,400
1900	Apr. 29, 1900	4.80	918	1920	May 26, 1920	3.85	733
1901	June 23, 1901	4.20	857	1921	June 7, 1921	5.55	2,050
1902	June 9, 1902	3.70	514	1922	June 14, 1922	3.05	574
1903	June 23, 1903	4.8	1,710	1923	June 9, 1923	4.95	1,670
1904	June 20, 1904	-	850	1924	June 14, 1924	5.00	2,230
1905	June 9, 1905	-	1,660	1925	June 2, 1925	2.96	410
1906	June 13, 1906	-	1,170	1926	June 9, 1926	4.18	1,100
1907	July 2, 1907	-	1,120	1927	June 29, 1927	3.29	604
1908	July 30, 1908	-	650	1928	May 31, 1928	4.19	1,010
1909	July 4, 1909	-	1,150	1929	July 3, 1929	3.66	765

Peak stages and discharges of St. Vrain Creek at Lyons, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Aug. 10, 1930	5.10	2,040	1947	June 17, 1947	4.58	2,360
				1948	June 11, 1948	2.94	820
1931	July 17, 1931	4.76	1,450	1949	June 4, 1949	4.95	2,970
1932	June 18, 1932	3.64	854	1950	June 13, 1950	3.33	712
1933	June 20, 1933	4.40	1,130				
1934	May 10, 1934	3.28	628	1951	Aug. 3, 1951	5.37	3,920
1935	May 27, 1935	5.50	2,340	1952	June 8, 1952	3.71	1,610
				1953	June 13, 1953	3.50	970
1936	June 17, 1936	3.75	832	1954	May 21, 1954	1.94	285
1937	June 26, 1937	4.37	1,230	1955	July 24, 1955	2.97	680
1938	Sept. 3, 1938	4.74	1,650				
1939	Aug. 30, 1939	3.82	978	1956	June 3, 1956	2.84	749
1940	May 27, 1940	3.57	675	1957	May 9, 1957	5.97	3,060
				1958	May 8, 1958	4.90	1,290
1941	June 22, 1941	8.06	10,500	1959	June 15, 1959	4.35	857
1942	Aug. 2, 1942	3.84	1,510	1960	June 18, 1960	4.24	717
1943	May 29, 1943	3.56	1,230				
1944	May 18, 1944	3.48	962	1961	June 3, 1961	5.73	2,540
1945	June 25, 1945	3.30	1,000	1962	June 30, 1962	4.51	1,140
1946	July 18, 1946	4.32	2,140				

7245. Lefthand Creek near Boulder, Colo.

Location.--Lat 40°07'30", long 105°18'15", in NE¼ sec.23, T.2 N., R.71 W., on right bank 0.1 mile upstream from diversion dam of Lefthand ditch, 0.1 mile downstream from Spruce Gulch, and 7½ miles north of Boulder.

Drainage area.--52.0 sq mi; 49.2 sq mi at site used Oct. 7, 1949, to Mar. 12, 1957.

Gage.--Recording. At site 0.4 mile upstream at different datum prior to Oct. 7, 1949, and at site 0.9 mile upstream at different datum Oct. 7, 1949, to Mar. 12, 1957. Altitude of gage is 5,710 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 780 cfs.

Remarks.--Diversions above station for irrigation. A large part of flow is water diverted from South St. Vrain Creek for irrigation of lands along Lefthand Creek downstream from station. Diversions substantially affect peak flows. 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	July 17, 1929	2.49	216	1950	June 16, 1950	4.02	234
1930	Aug. 26, 1930	2.80	340				
				1951	Aug. 3, 1951	5.39	785
1931	Aug. 2, 1931	2.94	396	1952	June 15, 1952	4.09	252
				1953	June 13, 1953	4.18	245
1947	June 22, 1947	3.13	254				
1948	June 7, 1948	3.66	510	1956	May 22, 1956	4.15	230
1949	June 4, 1949	4.20	1,140	1957	May 9, 1957	4.18	707

7255. Middle Boulder Creek at Nederland, Colo.

Location.--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec.13, T.1 S., R.73 W., at Nederland just downstream from North Beaver Creek and 1,000 ft upstream from Barker Reservoir.

Drainage area.--36.2 sq mi.

Gage.--Recording gage and compound sharp-crested weir. At datum 2.5 ft lower Mar. 18, 1909, to Apr. 23, 1952. Datum of gage is 8,186.0 ft above mean sea level (Public Service Company bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 610 cfs.

Remarks.--No diversions above station. North Beaver Creek entered Middle Boulder Creek downstream from station June 1 to Dec. 31, 1907, March 1911, to Dec. 31, 1916. Records furnished by State engineer of Colorado. Only annual peaks are shown prior to 1945. Base for partial-duration series, 280 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	June 2, 1914	5.37	811	1953	June 2, 1953	2.77	372
					June 13, 1953	3.98	730
1945	May 30, 1945	3.28	284		June 19, 1953	3.53	555
	June 13, 1945	3.60	362				
	June 25, 1945	4.14	491	1954	May 20, 1954	2.12	208
1946	June 17, 1946	3.68	346	1955	June 13, 1955	2.30	270
1947	June 8, 1947	4.04	341	1956	May 23, 1956	3.21	528
	June 21, 1947	4.48	427		June 2, 1956	3.06	462
	July 4, 1947	3.93	320		June 10, 1956	2.64	360
	Aug. 1, 1947	3.83	301				
				1957	June 8, 1957	3.40	522
1948	May 22, 1948	3.80	295		June 13, 1957	3.39	519
	June 3, 1948	3.90	308		June 20, 1957	2.96	410
	June 8, 1948	3.91	310		June 29, 1957	4.25	745
	June 12, 1948	3.86	301		July 12, 1957	3.38	517
					July 18, 1957	2.91	370
1949	June 4, 1949	4.09	483				
	June 13, 1949	4.66	674	1958	May 23, 1958	3.74	622
	June 16, 1949	4.45	598		June 6, 1958	3.31	498
	July 7, 1949	3.79	383				
				1959	June 9, 1959	3.05	425
1950	June 7, 1950	3.60	346		June 14, 1959	3.27	480
	June 11, 1950	3.84	411		June 20, 1959	3.08	435
	June 14, 1950	3.85	414		June 27, 1959	2.81	368
	June 17, 1950	3.75	389				
				1960	June 4, 1960	3.03	420
1951	May 28, 1951	3.88	432		June 8, 1960	2.89	378
	June 18, 1951	4.75	800		June 17, 1960	3.18	460
	July 3, 1951	3.71	339				
	July 20, 1951	3.67	324	1961	June 2, 1961	2.97	412
					June 8, 1961	2.87	388
1952	May 5, 1952	2.47	291		June 20, 1961	2.81	372
	June 3, 1952	3.65	630				
	June 10, 1952	3.71	648	1962	June 14, 1962	2.67	331
					June 20, 1962	2.76	352
1953	May 28, 1953	2.87	400		June 30, 1962	3.23	470

7270. Boulder Creek near Orodell, Colo.
(Published as "North Boulder Creek," 1887-88 and as "at Orodell," 1907-16)

Location.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., 0.7 mile southwest of old Orodell, 1 mile upstream from Fourmile Creek, and 3 miles southwest of courthouse in Boulder.

Drainage area.--102 sq mi.

Gage.--Nonrecording prior to Sept. 1, 1907; recording thereafter. At sites 1 mile downstream, just upstream from Fourmile Creek, at different datums prior to May 12, 1917. Altitude of gage is 5,826 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Remarks.--Diversion above station for irrigation of 100 acres. Flow regulated by Barker Reservoir (capacity, 11,500 acre-ft). Regulation substantially affects peak flows. 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)
1888	June 19, 1888	3.40	350	1936	June 19, 1936	3.27	626
				1937	June 25, 1937	3.10	455
1907	July 1, 1907	-	840	1938	June 22, 1938	3.53	802
1908	June 17, 1908	-	465	1939	May 31, 1939	3.01	425
1909	June 20, 1909	-	875	1940	Sept.21, 1940	3.15	490
1910	July 28, 1910	3.44	324				
				1941	June 21, 1941	3.86	1,120
1911	June 14, 1911	3.5	469	1942	June 12, 1942	3.52	793
1912	July 30, 1912	4.40	880	1943	June 30, 1943	3.34	634
1913	June 2, 1913	3.39	366	1944	June 22, 1944	3.27	578
				1945	June 26, 1945	3.32	617
1916	June 29, 1916	2.07	458				
1917	June 25, 1917	3.23	545	1946	June 18, 1946	3.12	469
1918	June 22, 1918	3.74	812	1947	June 21, 1947	4.00	1,290
1919	Aug. 3, 1919	4.6	1,300	1948	June 7, 1948	3.40	712
1920	June 10, 1920	3.34	436	1949	June 6, 1949	3.70	965
				1950	June 16, 1950	3.26	518
1921	June 6, 1921	4.31	2,500				
1922	June 16, 1922	2.95	554	1951	June 21, 1951	3.93	1,220
1923	June 15, 1923	3.58	983	1952	June 7, 1952	3.96	1,180
1924	June 14, 1924	3.42	926	1953	June 11, 1953	3.64	786
1925	June 24, 1925	2.87	374	1954	May 20, 1954	3.07	374
				1955	June 26, 1955	3.21	436
1926	June 8, 1926	3.62	929				
1927	June 11, 1927	3.30	672	1956	May 23, 1956	3.50	588
1928	June 2, 1928	3.42	767	1957	June 29, 1957	3.87	1,010
1929	June 22, 1929	3.17	548	1958	June 6, 1958	3.75	855
1930	June 14, 1930	3.08	490	1959	June 21, 1959	3.41	602
				1960	June 16, 1960	3.66	776
1931	May 28, 1931	3.25	535				
1932	June 26, 1932	3.27	550	1961	June 20, 1961	3.53	634
1933	June 12, 1933	3.39	480	1962	July 1, 1962	3.42	546
1934	May 31, 1934	2.96	576				
1935	June 15, 1935	3.62	1,060				

7275. Fourmile Creek at Orodell, Colo.

Location.--Lat 40°01'10", long 105°19'30", in SE¼ sec.27, T.1 N., R.71 W., at Orodell, a quarter of a mile upstream from mouth and 2 miles west of Boulder.

Drainage area.--24.1 sq mi.

Gage.--Recording. Altitude of gage is 5,750 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 110 cfs.

Bankfull stage.--8 ft.

Remarks.--A few small diversions for irrigation above station do not substantially affect peak flows. Base for partial-duration series, 30 cfs.

Peak stages and discharges of Fourmile Creek at Orodell, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	May 11, 1947	2.53	68	1950	July 3, 1950	2.40	30
	June 1, 1947	2.55	86				
	June 22, 1947	2.75	126	1951	May 23, 1951	2.78	64
	July 9, 1947	2.57	76		July 21, 1951	2.61	40
	Aug. 23, 1947	2.65	90		Aug. 3, 1951	2.61	42
1948	Oct. 14, 1947	2.48	47	1952	Apr. 25, 1952	2.74	72
	May 1, 1948	2.35	31		May 24, 1952	2.79	84
	May 22, 1948	2.38	35		July 11, 1952	2.77	81
	June 27, 1948	2.36	39		Aug. 23, 1952	3.09	142
1949	May 13, 1949	2.48	43	1953	May 29, 1953	2.46	34
	June 6, 1949	3.66	256		June 12, 1953	2.45	32

7280. Boulder Creek near Boulder, Colo.

(Published as "North Boulder Creek" 1889-90, and as "at Boulder" 1895-98)

Location.--Lat 40°00'45", long 105°18'05", in sec.35, T.1 N., R.71 W., half a mile west of Boulder and 1½ miles downstream from Fourmile Creek.

Drainage area.--129 sq mi.

Gage.--Recording at different datum prior to May 12, 1895; nonrecording thereafter. Altitude of most recent gage is 5,450 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 650 cfs.

Remarks.--Diversions above station for irrigation of 300 acres. Water for municipal supply for the city of Boulder is diverted above station. Flow regulated by numerous lakes in the headwaters and a few reservoirs. Regulation substantially affects peak flows. Records furnished by State engineer of Colorado. 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)
1889	May 31, 1889	-	a785	1898	June 16, 1898	2.45	566
1890	Aug. 4, 1890	-	a1,200	1899	July 2, 1899	2.95	851
				1900	June 1, 1900	2.90	824
1891	June 8, 1891	-	a540				
1892	June 23, 1892	-	a646	1901	June 23, 1901	2.90	810
1895	July 31, 1895	3.80	1,090	1905	June 9, 1905	-	a779
				1906	June 16, 1906	-	a802
1896	Aug. 19, 1896	3.60	1,320	1907	July 3, 1907	-	a840
1897	June 10, 1897	5.00	1,600	1908	June 17, 1908	-	a374

a Maximum daily discharge.

7290. South Boulder Creek near Rollinsville, Colo.

Location.--Lat 39°54'50", long 105°30'05", in SE¼ sec.36, T.1 S., R.73 W., at bridge on State Highway 119, a quarter of a mile south of Rollinsville, and half a mile downstream from Moon Gulch.

Drainage area.--42.7 sq mi.

Gage.--Nonrecording 1910-18; recording 1945-49. At site three-quarters of a mile upstream prior to June 2, 1916; at site 4,500 ft upstream June 2, 1916, to Sept. 30, 1918; each at different datum. Altitude of most recent gage is 8,380 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 590 cfs.

Remarks.--Records for period 1945-49 have been adjusted for inflow from Moffat water tunnel. No diversions above station. Only annual peaks are shown.

Peak stages and discharges of South Boulder Creek near Rollinsville, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	June 12, 1911	3.0	350	1945	June 28, 1945	-	410
1912	June 8, 1912	3.40	450				
1913	May 31, 1913	2.70	320	1946	June 10, 1946	-	358
1914	June 2, 1914	3.75	542	1947	June 21, 1947	-	622
1915	June 20, 1915	3.45	484	1948	May 22, 1948	-	498
				1949	June 12, 1949	-	718
1916	June 10, 1916	2.15	324				
1917	June 22, 1917	2.38	432				

7295. South Boulder Creek near Eldorado Springs, Colo.
(Published as "at" or "near Marshall" prior to Jan. 1, 1911; as "at Eldorado Springs," Jan. 1, 1911, to Dec. 13, 1913)

Location.--Lat 39°55'52", long 105°17'43", in SE¼ sec.26, T.1 S., R.71 W., 0.2 mile downstream from South Draw, 1 mile west of Eldorado Springs, and 5 miles south of Boulder.

Drainage area.--109 sq mi.

Gage.--Recording or nonrecording at sites 1 mile downstream at different datums prior to Sept. 25, 1929. Recording at site a quarter of a mile downstream at different datum Sept. 25, 1929, to May 2, 1934. Recording at site 250 ft upstream at datum 4.00 ft higher than present datum May 3, 1934, to Sept. 3, 1938. Nonrecording at site 300 ft upstream or recording at site half a mile downstream at different datums Sept. 4, 1938, to May 9, 1940. Altitude of present gage is 6,080 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 770 cfs and by slope-area measurement at 7,390 cfs.

Remarks.--Diversions above station for irrigation of about 500 acres. Most of water imported from Colorado River basin through Moffat water tunnel is diverted 1½ miles upstream. Diversions do not substantially affect peak flows. Flow regulated since May 1, 1955, by Gross Reservoir (capacity, 43,060 acre-ft). Records for 1888-92, 1904-33, furnished by the State engineer of Colorado. Only annual peaks are shown prior to 1921 and subsequent to 1954. 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)
1888	June 19, 1888	3.80	245	1918	June 22, 1918	-	915
1889	May 31, 1889	-	730	1919	Aug. 7, 1919	-	560
1890	May 28, 1890	-	705	1920	May 26, 1920	3.30	531
1891	May 25, 1891	-	650	1921	May 7, 1921	2.50	499
1892	June 24, 1892	-	730		June 6, 1921	3.75	1,440
					July 16, 1921	2.40	476
1895	June 3, 1895	4.0	1,130	1922	June 13, 1922	2.68	397
1896	May 29, 1896	2.6	382				
1897	June 11, 1897	3.6	650	1923	June 9, 1923	3.25	646
1898	June 17, 1898	-	475		July 27, 1923	2.50	481
1899	June 20, 1899	-	700				
1900	May 9, 1900	-	1,100	1924	May 19, 1924	2.45	469
					June 14, 1924	2.75	625
1901	June 24, 1901	-	360	1925	June 22, 1925	1.96	186
1905	June 5, 1905	-	740	1926	May 6, 1926	2.72	484
1906	June 14, 1906	-	655		May 24, 1926	2.76	561
1907	June 15, 1907	-	685				
1908	June 15, 1908	-	315	1927	May 22, 1927	2.30	343
1909	June 20, 1909	-	1,340				
1910	June 3, 1910	-	245	1928	May 14, 1928	2.07	476
					May 27, 1928	2.80	490
1911	June 9, 1911	-	440				
1912	June 25, 1912	-	645	1929	June 6, 1929	2.46	310
1913	May 29, 1913	-	350				
1914	May 24, 1914	-	1,240	1930	May 31, 1930	1.85	442
1915	June 12, 1915	-	885		June 19, 1930	2.00	536
					June 22, 1930	1.80	412
1916	June 11, 1916	-	350				
1917	June 18, 1917	3.10	563	1931	June 8, 1931	2.01	427

Peak stages and discharges of South Boulder Creek near Eldorado Springs, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1932	May 23, 1932	1.84	356
1933	May 19, 1933	2.43	666
	June 2, 1933	2.37	636
	July 6, 1933	1.89	402
1934	May 15, 1934	3.28	275
1935	May 23, 1935	3.57	423
	June 11, 1935	3.75	477
1936	May 16, 1936	3.46	420
1937	May 19, 1937	3.33	427
	May 25, 1937	3.27	401
	June 18, 1937	3.56	525
	June 26, 1937	4.12	780
1938	June 4, 1938	4.11	734
	June 12, 1938	3.92	689
	July 1, 1938	3.69	586
	Sept. 2, 1938	9.24	7,390
1939	May 23, 1939	2.96	414
	June 1, 1939	3.22	540
1940	July 28, 1940	4.43	688
1941	May 12, 1941	4.20	672
	May 27, 1941	3.90	451
	June 22, 1941	4.10	573
1942	May 13, 1942	4.52	913
	June 12, 1942	4.24	680
1943	May 30, 1943	4.08	538
	June 10, 1943	3.97	472
1944	June 2, 1944	4.13	528
	June 10, 1944	3.98	438
1945	June 14, 1945	3.91	414
	June 25, 1945	4.15	558
1946	June 7, 1946	3.92	430
1946	June 15, 1946	4.09	568
1947	May 11, 1947	4.15	580
	June 21, 1947	4.96	1,290
	July 17, 1947	4.20	610
1948	May 23, 1948	3.94	639
	June 3, 1948	3.54	415
1949	June 6, 1949	4.98	1,430
	July 7, 1949	3.91	621
1950	June 7, 1950	2.79	577
	June 13, 1950	2.99	737
1951	June 1, 1951	3.14	908
	June 18, 1951	4.16	2,370
	June 25, 1951	3.26	600
	June 27, 1951	3.23	570
	July 2, 1951	3.19	532
1952	May 16, 1952	3.08	498
	May 23, 1952	3.16	564
	June 4, 1952	3.63	1,080
	June 16, 1952	3.37	764
	June 24, 1952	3.03	461
1953	May 29, 1953	3.30	690
	June 2, 1953	3.08	498
	June 15, 1953	3.56	988
	June 20, 1953	3.20	598
1954	May 21, 1954	2.54	247
1955	June 9, 1955	3.04	478
1956	May 29, 1956	3.55	852
1957	July 21, 1957	3.57	905
1958	June 6, 1958	2.93	345
1959	June 17, 1959	3.15	680
1960	June 6, 1960	3.18	556
1961	June 21, 1961	2.90	375
1962	May 13, 1962	2.95	458

7310. St. Vrain Creek at mouth, near Platteville, Colo.

Location.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., 140 ft downstream from bridge on county road, 1.3 miles upstream from mouth, and 4 miles northwest of Platteville.

Drainage area.--976 sq mi.

Gage.--Nonrecording July 1, 1904, to Dec. 31, 1906; recording since Feb. 24, 1927. At bridge 140 ft upstream or at site 180 ft upstream at different datums prior to Apr. 25, 1960. Altitude of gage is 4,740 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 6,100 cfs.

Remarks.--Diversions above station for irrigation of about 177,000 acres. Flow partly regulated by small reservoirs above station. Diversions for irrigation substantially affect peak flows. Only annual peaks are shown.

Peak stages and discharges of St. Vrain Creek at mouth, near Platteville, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	June 11, 1905	7.15	2,680	1944	May 13, 1944	5.42	2,390
				1945	May 26, 1945	4.28	1,230
1906	May 6, 1906	5.70	1,620				
				1946	July 18, 1946	4.99	1,820
1927	July 29, 1927	4.10	1,470	1947	June 23, 1947	7.19	5,920
1928	May 28, 1928	4.93	1,970	1948	Oct. 15, 1947	3.42	874
1929	Aug. 4, 1929	4.10	1,200	1949	June 7, 1949	7.44	6,150
1930	Aug. 15, 1930	4.63	1,310	1950	May 26, 1950	3.04	715
1931	June 6, 1931	3.16	662	1951	Aug. 4, 1951	7.00	5,390
1932	July 13, 1932	2.28	320	1952	May 24, 1952	5.28	3,480
1933	May 20, 1933	4.61	1,870	1953	June 14, 1953	2.76	593
1934	June 14, 1934	5.10	2,380	1954	July 15, 1954	1.64	178
1935	May 28, 1935	5.08	2,360	1955	June 15, 1955	2.20	360
1936	June 11, 1936	4.13	1,420	1956	July 28, 1956	2.75	589
1937	June 27, 1937	5.20	1,990	1957	May 9, 1957	6.15	9,450
1938	Sept. 3, 1938	8.93	11,300	1958	May 9, 1958	6.18	4,420
1939	May 2, 1939	3.12	595	1959	May 23, 1959	4.63	1,890
1940	July 3, 1940	4.33	1,420	1960	May 6, 1960	4.80	1,210
1941	June 23, 1941	5.40	1,740	1961	June 4, 1961	6.50	3,220
1942	May 3, 1942	6.72	4,940	1962	July 1, 1962	3.54	754
1943	May 19, 1943	4.83	1,620				

7320. Glacier Creek near Estes Park, Colo.

Location.--Lat 40°20'50", long 105°34'50", in sec.4, T.4 N., R.73 W., 30 ft downstream from trail bridge, half a mile downstream from Mill Creek, three-quarters of a mile upstream from mouth, and 4 miles southwest of Estes Park.

Drainage area--24.4 sq mi.

Gage.--Recording. Altitude of gage is 7,980 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 290 cfs.

Remarks.--City of Estes Park pipeline diverts water above station. Diversion does not substantially affect peak flows. Records for 1942-46 furnished by Bureau of Reclamation. Base for partial-duration series, 170 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 27, 1942	-	170	1949	July 7, 1949	2.77	214
	June 12, 1942	-	215				
	June 18, 1942	-	195	1950	June 14, 1950	2.80	200
	July 18, 1942	-	180				
				1951	May 28, 1951	2.81	211
1943	May 30, 1943	-	180		June 20, 1951	3.37	311
	June 2, 1943	2.93	252		June 26, 1951	2.67	187
	June 30, 1943	-	195				
				1952	June 6, 1952	3.19	318
1944	June 10, 1944	2.52	167		June 16, 1952	3.01	272
1945	June 24, 1945	2.89	243	1953	May 28, 1953	2.86	235
	July 24, 1945	2.62	186		June 13, 1953	2.93	252
					June 19, 1953	2.85	232
1946	June 18, 1946	2.50	163				
				1954	May 21, 1954	2.09	95
1947	May 8, 1947	2.53	176				
	June 8, 1947	2.98	266	1955	June 16, 1955	2.59	178
	June 21, 1947	3.03	276		July 24, 1955	3.24	332
	July 4, 1947	2.54	178				
				1956	May 22, 1956	3.12	300
1948	June 3, 1948	2.55	174		May 31, 1956	2.69	198
1949	June 6, 1949	2.72	219	1957	June 13, 1957	3.27	305
	June 13, 1949	3.08	271		June 20, 1957	2.99	248
	June 17, 1949	3.42	338		June 29, 1957	3.48	352
	June 27, 1949	2.67	196		July 18, 1957	3.04	258

7325. Fall River at Estes Park, Colo.

Location.--Lat 40°22'40", long 105°31'40", in sec.25, T.5 N., R.73 W., 150 ft upstream from Main Street Bridge (U.S. Highway 34) in Estes Park, half a mile upstream from mouth.

Drainage area.--39.8 sq mi.

Gage.--Recording. Datum of gage is 7,547.06 ft above mean sea level (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 320 cfs.

Bankfull stage.--3 ft.

Remarks.--Small power development above station. Flow partly regulated by Lawn Lake Reservoir (capacity, 817 acre-ft). Power development and regulation do not substantially affect peak flows. Records for 1946 furnished by Bureau of Reclamation. Base for partial-duration series, 180 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 25, 1945	2.23	284	1949	June 18, 1949	2.73	424
	July 20, 1945	2.04	227		July 9, 1949	2.28	302
1946	June 9, 1946	2.00	220	1950	June 15, 1950	2.00	220
1947	May 11, 1947	1.86	190	1951	May 29, 1951	1.99	208
	May 28, 1947	1.93	208		June 20, 1951	2.91	434
	June 9, 1947	2.59	397		July 5, 1951	2.35	242
	June 21, 1947	2.56	388		Aug. 3, 1951	2.06	195
	July 9, 1947	2.23	289	1952	June 7, 1952	2.61	448
1948	May 22, 1948	1.98	220	1953	May 29, 1953	1.87	215
	June 3, 1948	2.10	250		June 2, 1953	1.80	195
	June 8, 1948	2.16	265		June 14, 1953	2.69	476
1949	June 6, 1949	2.08	235		June 20, 1953	2.34	344
	June 14, 1949	2.41	328				

7330. Big Thompson River at Estes Park, Colo.
(Published as "Thompson River at Estes Park," 1947)

Location.--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec.30, T.5 N., R.72 W., at eastern edge of Estes Park, 600 ft downstream from bridge on State Highways 7 and 66, 900 ft downstream from Black Canyon Creek, and 0.3 mile northwest of Estes powerplant.

Drainage area.--137 sq mi.

Gage.--Recording. At site 740 ft downstream at different datum prior to May 18, 1949. At site 60 ft upstream at datum 1.2 ft higher May 18, 1949, to Mar. 22, 1951. Datum of present gage is 7,492.5 ft above mean sea level (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs.

Remarks.--Diversion from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947, and ended Aug. 2, 1950. Small power developments and small diversions above station for irrigation and municipal use. Diversions do not substantially affect peak flows. Base for partial-duration series, 600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	May 11, 1947	3.22	722	1948	June 3, 1948	3.52	953
	May 28, 1947	3.10	650		June 8, 1948	3.42	888
	June 9, 1947	3.91	1,210				
	June 21, 1947	3.93	1,220	1949	June 6, 1949	2.55	1,140
	July 4, 1947	3.60	1,010		June 14, 1949	3.00	1,520
					June 18, 1949	3.16	1,660
1948	May 22, 1948	3.36	849		July 6, 1949	2.54	1,030

Peak stages and discharges of Big Thompson River at Estes Park, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 7, 1950	2.42	a936	1957	June 13, 1957	6.21	1,270
	June 18, 1950	2.72	a1,180		June 21, 1957	5.50	929
					June 30, 1957	6.87	1,630
1951	May 29, 1951	3.80	850		July 18, 1957	5.24	833
	June 21, 1951	4.35	1,490				
	June 26, 1951	3.90	940	1958	May 27, 1958	6.06	1,190
	July 21, 1951	3.51	617		June 7, 1958	5.50	929
	July 29, 1951	3.52	624				
	Aug. 3, 1951	3.56	652	1959	June 10, 1959	5.38	882
					June 15, 1959	5.26	840
1952	June 8, 1952	4.24	1,600		June 21, 1959	5.72	1,020
					June 28, 1959	4.99	757
1953	May 29, 1953	3.81	758				
	June 13, 1953	4.50	1,530	1960	June 8, 1960	5.27	843
	June 10, 1953	4.08	1,000		June 18, 1960	5.47	917
1954	May 21, 1954	3.22	406	1961	May 31, 1961	5.28	846
					June 2, 1961	5.15	805
1955	June 24, 1955	3.46	543		June 10, 1961	5.56	955
					June 21, 1961	5.37	878
1956	May 22, 1956	4.05	970				
	May 26, 1956	3.94	830	1962	June 15, 1962	4.88	730
	June 3, 1956	4.14	1,020		June 22, 1962	5.09	787
					June 28, 1962	5.17	811
1957	June 8, 1957	5.93	1,120		July 12, 1962	4.33	603

a Includes inflow from Alva B. Adams Tunnel.

7345. Fish Creek near Estes Park, Colo.

Location.--Lat 40°22'10", long 105°29'40", in SW¼ sec.29, T.5 N., R.72 W., 100 ft upstream from high-water line of Lake Estes, 0.4 mile upstream from bridge on State Highway 66, and 2 miles southeast of Estes Park.

Drainage area.--16.0 sq mi.

Gage.--Recording. At different datum prior to Apr. 9, 1951. Datum of gage is 7,475.80 ft above mean sea level (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 93 cfs.

Remarks.--Small diversions above station for irrigation do not substantially affect peak flows. Base for partial-duration series, 20 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 4, 1947	2.24	22	1951	Aug. 2, 1951	3.50	147
	June 13, 1947	2.48	36				
	June 22, 1947	2.74	53	1952	Apr. 30, 1952	1.42	38
					May 12, 1952	1.00	23
1948	Apr. 27, 1948	2.00	14		May 15, 1952	1.12	27
					May 23, 1952	1.50	44
1949	May 13, 1949	2.25	23		June 3, 1952	1.82	53
	June 6, 1949	4.12	108				
				1953	May 18, 1953	.58	8.4
1950	June 9, 1950	1.97	4.6				
				1954	Oct. 23, 1953	.53	6.9
1951	May 25, 1951	7.32	1,480				
	June 20, 1951	1.30	22	1955	July 23, 1955	.43	4.7
	July 30, 1951	1.60	42				

7355. Big Thompson River near Estes Park, Colo.
(Published as "Thompson River near Estes Park," 1934-47)

Location.--Lat 40°22'35", long 105°29'10", in sec.29, T.5 N., R.72 W., 100 ft upstream from Dry Creek, 500 ft downstream from Olympus Dam, and 1½ miles east of Estes Park.

Drainage area.--156 sq mi.

Gage.--Nonrecording at site 1½ miles downstream at different datum prior to Jan. 29, 1934; recording thereafter. At site 0.4 mile downstream at datum 10.5 ft lower Jan. 29, 1934, to Mar. 21, 1951. Datum of present gage is 7,422.5 ft above mean sea level (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 1,300 cfs.

Remarks.--Diversions from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947. Small power developments and small diversions for irrigation and municipal use above station and some regulation by Lake Estes (capacity, 2,980 acre-ft). Diversions, regulation, and inflow substantially affect peak flows since 1947. Records for 1930-33 furnished by State engineer of Colorado. Base for partial-duration series, 650 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)
1930	July 18, 1930	3.00	1,390	1942	June 18, 1942	4.06	838
1931	June 8, 1931	2.4	1,010	1943	June 2, 1943	4.14	932
					June 10, 1943	3.72	750
1932	June 16, 1932	2.16	713		June 30, 1943	3.82	710
1933	June 20, 1933	4.0	2,800	1944	June 11, 1944	3.95	777
1934	May 29, 1934	3.77	454	1945	June 24, 1945	4.18	908
					July 20, 1945	3.72	660
1935	June 16, 1935	5.54	1,590				
	July 4, 1935	4.08	788	1946	June 7, 1946	3.87	739
	July 12, 1935	4.02	756		June 18, 1946	3.77	689
1936	May 31, 1936	4.12	909	1947	May 11, 1947	3.75	745
	June 16, 1936	4.07	891		June 9, 1947	4.67	1,540
	June 28, 1936	4.36	1,060		June 21, 1947	4.76	1,630
	July 11, 1936	4.43	1,100		July 4, 1947	4.14	1,080
	Aug. 1, 1936	4.08	885				
				1948	June 3, 1948	4.05	1,020
1937	May 29, 1937	4.23	784	1949	June 18, 1949	4.98	1,820
	June 12, 1937	4.12	790	1950	June 18, 1950	4.36	1,170
	June 26, 1937	5.05	1,370				
				1951	June 21, 1951	4.64	1,360
1938	May 30, 1938	4.81	1,180	1952	June 8, 1952	4.48	1,330
	June 22, 1938	5.03	1,350	1953	June 14, 1953	4.66	1,400
	Sept. 3, 1938	4.64	1,180	1954	Dec. 21, 1953	3.54	530
				1955	July 24, 1955	2.84	410
1939	June 1, 1939	3.70	665				
				1956	June 3, 1956	3.45	495
1940	June 3, 1940	3.62	612	1957	June 30, 1957	5.71	939
				1958	May 22, 1958	4.46	632
1941	May 26, 1941	3.83	715	1959	June 21, 1959	4.32	601
	June 19, 1941	4.07	755	1960	June 18, 1960	3.55	439
	July 14, 1941	4.62	1,170				
				1961	June 9, 1961	3.70	469
1942	June 7, 1942	4.27	962	1962	June 30, 1962	5.07	776

7360. North Fork Big Thompson River at Drake, Colo.
(Published as "North Fork Thompson River at Drake," 1947)

Location.--Lat 40°26'00", long 105°20'20", in NW¼ sec.3, T.5 N., R.71 W., at Drake, 400 ft upstream from mouth.

Drainage area.--82.8 sq mi.

Gage.--Recording. Altitude of gage is 6,170 ft (from topographic map).

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

Remarks.--Diversions above station for irrigation do not substantially affect peak flows. Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 21, 1947	4.30	410	1951	July 30, 1951	3.67	163
					Aug. 3, 1951	3.86	211
1948	June 11, 1948	3.48	166				
				1952	May 6, 1952	3.65	156
1949	June 4, 1949	5.00	820		May 23, 1952	3.70	172
	June 6, 1949	4.92	766		June 5, 1952	3.94	283
	July 8, 1949	3.77	234				
				1953	June 13, 1953	3.83	223
1950	July 10, 1950	4.23	450		June 19, 1953	3.79	206
1951	May 18, 1951	3.78	184	1954	June 27, 1954	3.17	47
	June 1, 1951	3.79	187				
	June 19, 1951	3.92	232	1955	Aug. 14, 1955	3.52	114
	July 29, 1951	3.67	160				

7365. Big Thompson River below powerhouse, near Drake, Colo.
(Published as "Big Thompson Creek near Drake" prior to 1921, "Thompson River near Drake," 1921-26, "Thompson River at mouth of canyon, near Drake," October to December 1926, and as "Thompson River below powerhouse, near Drake," 1929-47)

Location. Lat 40°25'10", long 105°16'05", in NW¼ sec.8, T.5 N., R.70 W., 500 ft north of U.S. Highway 34, 700 ft upstream from Cedar Creek, a quarter of a mile downstream from hydroelectric plant of city of Loveland, and 4 miles east of Drake.

Drainage area.--280 sq mi.

Gage.--Recording except June 16, 1921, to Dec. 31, 1926, when nonrecording gage was used. At site 3 miles upstream at different datum prior to June 16, 1921. At site 3½ miles upstream at different datum June 16, 1921, to Dec. 31, 1926. Altitude of present gage is 5,600 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs.

Remarks.--Natural flow of stream affected by diversion from Colorado River to Big Thompson River above station via Alva B. Adams tunnel since Aug. 10, 1947, and regulation by Lake Estes (capacity, 2,890 acre-ft). Regulation and diversion substantially affect peak flows. 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)
1918	June 20, 1918	-	1,600	1931	June 8, 1931	3.98	812
1919	July 31, 1919	9.5	8,000	1932	June 28, 1932	3.72	760
1920	June 9, 1920	4.5	1,600	1933	June 14, 1933	4.08	1,010
				1934	May 31, 1934	3.12	654
1921	June 7, 1921	6.7	3,000	1935	June 14, 1935	5.00	1,950
1922	June 14, 1922	4.05	1,100				
1923	June 9, 1923	6.0	3,590	1936	June 28, 1936	4.15	1,320
1924	June 15, 1924	5.6	2,960	1937	June 26, 1937	4.20	1,460
1925	May 30, 1925	3.62	640	1938	Sept. 3, 1938	4.50	1,670
				1939	June 1, 1939	3.38	818
1926	June 7, 1926	4.7	1,970	1940	June 3, 1940	3.28	755
1927	June 29, 1927	-	920				
1928	May 31, 1928	-	1,400	1941	June 22, 1941	3.82	1,110
1929	July 28, 1929	-	1,320	1942	June 8, 1942	4.00	1,250
1930	Aug. 14, 1930	4.19	868	1943	June 2, 1943	3.96	1,220

Peak stages and discharges of Big Thompson River below powerhouse, near Drake, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	June 11, 1944	3.78	1,070	1950	June 18, 1950	4.10	1,140
1945	June 25, 1945	4.04	1,230				
				1951	June 21, 1951	4.40	1,470
1946	June 18, 1946	3.53	882	1952	June 7, 1952	4.40	1,390
1947	June 21, 1947	4.74	1,890	1953	June 14, 1953	4.36	1,340
1948	June 3, 1948	3.94	1,150	1954	Dec. 20, 1953	3.11	458
1949	June 7, 1949	4.86	1,990	1955	July 24, 1955	3.15	525

7380. Big Thompson River at mouth of canyon, near Drake, Colo. (Published as "Big Thompson Creek at Arkins," 1888-92, "Big Thompson near Arkins," 1901-3, "Thompson River at mouth of canyon, near Drake," 1927-30, 1938-47, and by State engineer as "Arkins Station on Big Thompson Creek," 1891, and "Big Thompson River at canyon mouth," 1931-33)

Location.--Lat 40°25'20", long 105°13'35", in NW¼ sec.10, T.5 N., R.70 W., at mouth of canyon, 500 ft upstream from Handy ditch diversion dam, and 6 miles east of Drake.

Drainage area.--304 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1927; recording thereafter. At sites within half a mile downstream below Handy ditch diversion dam at different datums Aug. 25, 1887, to Sept. 30, 1892, and Apr. 1, 1899, to Sept. 21, 1903. At site 1½ miles downstream and 600 ft downstream from Home Supply ditch diversion dam at different datum May 9, 1895, to Mar. 31, 1899. At site 6½ miles upstream at different datum Oct. 1, to Dec. 31, 1926. At site 1 mile upstream at different datum Jan. 1, 1927, to Sept. 30, 1933. At site 50 ft downstream at datum 1.45 ft lower Apr. 19, 1938, to Sept. 30, 1949. Datum of present gage is 5,297.47 ft above mean sea level (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 2,300 cfs.

Remarks.--Diversions above station for irrigation. Diversion from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947. Flow regulated by Lake Estes (capacity, 2,890 acre-ft). Since May 17, 1955, part of the natural flow of Big Thompson River has also been diverted through Olympus tunnel and returned to the river just below this station. Diversions and regulation substantially affect peak flows. Records for 1887-90, June 1891, 1895-1900, and 1931-33 furnished by State engineer of Colorado. 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)
1888	June 18, 1888	3.80	889	1941	June 22, 1941	6.02	4,690
				1942	June 7, 1942	5.55	3,730
1895	July 30, 1895	4.0	1,900	1943	June 23, 1943	3.57	1,330
				1944	June 11, 1944	3.46	1,260
1896	May 30, 1896	2.3	1,010	1945	July 19, 1945	7.55	7,600
1897	June 11, 1897	2.6	1,060				
1898	July 11, 1898	3.3	1,360	1946	July 19, 1946	4.00	1,680
1899	June 20, 1899	3.2	1,920	1947	June 21, 1947	4.57	2,320
				1948	June 3, 1948	3.44	1,300
1902	June 10, 1902	2.3	773	1949	June 4, 1949	5.83	3,330
1903	June 18, 1903	3.00	1,300				
				1951	Aug. 3, 1951	7.09	3,530
1906	July 7, 1906	-	6,000	1952	June 7, 1952	4.57	1,500
				1953	June 14, 1953	4.60	1,500
1927	June 29, 1927	5.12	1,060	1954	May 21, 1954	2.52	390
1928	May 31, 1928	6.00	1,800	1955	July 24, 1955	2.77	495
1929	July 28, 1929	5.76	1,600				
1930	Aug. 14, 1930	5.75	1,590	1956	June 3, 1956	3.23	608
				1957	May 9, 1957	5.80	2,040
1931	June 7, 1931	5.24	1,190	1958	May 27, 1958	3.91	900
1932	June 28, 1932	4.82	928	1959	June 21, 1959	3.41	680
1933	June 14, 1933	5.75	1,460	1960	June 18, 1960	3.04	504
1938	Sept. 1, 1938	6.60	5,600	1961	June 3, 1961	4.31	1,140
1939	June 1, 1939	3.14	923	1962	July 2, 1962	3.56	735
1940	June 3, 1940	2.90	839				

7395. Buckhorn Creek near Masonville, Colo.

Location.--Lat 40°27'15", long 105°11'50", in SE¼ sec.26, T.6 N., R.70 W., 1½ miles upstream from Buckhorn Reservoir Dam and 2½ miles south of Masonville.

Drainage area.--131 sq mi.

Gage.--Recording. Altitude of gage is 5,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,300 cfs and by slope area measurement at 14,000 cfs.

Bankfull stage.--10½ ft.

Historical data.--Flood of June 15, 1923, discharge, 10,500 cfs, by slope-area measurement, 1½ miles above station. Flood of Sept. 1, 1938, discharge 10,200 cfs, by slope-area measurement, half a mile below station.

Remarks.--Diversions above station for irrigation of 500 acres do not substantially affect peak flows. Base for partial-duration series, 350 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 15, 1923	-	10,500	1951	Aug. 3, 1951	13.40	14,000
1938	Sept. 1, 1938	-	10,200	1952	May 23, 1952	4.62	355
1947	June 22, 1947	4.52	324	1953	May 20, 1953	3.10	49
1948	May 30, 1948	10.35	5,750	1954	July 19, 1954	6.00	1,490
					July 20, 1954	5.98	1,520
1949	June 4, 1949	8.34	3,740				
	June 7, 1949	6.04	1,540	1955	Aug. 26, 1955	5.12	544
	June 13, 1949	5.68	1,240				
1950	July 28, 1950	3.73	104				

7410. Cottonwood Creek near Pinewood, Colo.

Location.--Lat 40°23'00", long 105°14'30", in SW¼ sec.21, T.5 N., R.70 W., 1½ miles upstream from mouth, 2½ miles northeast of Pinewood, and 9 miles west of Loveland.

Drainage area.--15.1 sq mi.

Gage.--Recording. Altitude of gage is 5,650 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 76 cfs and by slope-area measurement at 330 cfs.

Remarks.--Small diversions above station do not substantially affect peak flows. Base for partial-duration series, 20 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Oct. 15, 1947	2.20	38	1951	July 22, 1951	2.30	42
	Mar. 23, 1948	2.19	27		Aug. 3, 1951	5.91	2,260
	May 24, 1948	2.07	22				
				1952	Oct. 5, 1951	2.00	22
1949	June 4, 1949	3.11	330		Jan. 24, 1952	a2.15	-
	June 6, 1949	2.33	127		May 23, 1952	2.08	29
	June 10, 1949	2.23	47		June 26, 1952	2.10	31
	June 13, 1949	2.45	90				
				1953	July 9, 1953	4.52	1,020
1950	May 26, 1950	1.91	9.8		Aug. 19, 1953	2.40	23

a Backwater from ice.

7420. Little Thompson River near Berthoud, Colo.

Location.--Lat 40°15'30", long 105°12'15", in NW¼ sec.2, T.3 N., R.70 W., at mouth of canyon, 7½ miles southwest of Berthoud.

Drainage area.--101 sq mi.

Gage.--Recording. At site a quarter of a mile upstream at different datum May 26, 1929, to Sept. 30, 1930. Altitude of gage is 5,220 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,900 cfs.

Bankfull stage.--10½ ft.

Remarks.--One small diversion above station does not substantially affect peak flows. Base for partial-duration series, 100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	July 20, 1929	2.59	218	1953	July 9, 1953	-	a95
	July 29, 1929	2.25	150				
	Aug. 3, 1929	2.13	134	1955	Sept.19, 1955	-	a115
1930	Aug. 10, 1930	7.2	3,620	1956	June 18, 1956	-	a262
	Aug. 26, 1930	4.64	1,010	1957	May 9, 1957	8.36	4,000
1947	May 2, 1947	3.05	116	1958	Apr. 17, 1958	3.32	170
	May 31, 1947	3.59	233		May 8, 1958	5.62	1,470
	June 14, 1947	3.21	157		May 14, 1958	4.30	515
	June 22, 1947	3.57	229	1959	Apr. 15, 1959	3.12	123
	July 8, 1947	6.50	1,360		Apr. 25, 1959	3.08	121
1948	June 27, 1948	3.13	101		May 22, 1959	3.62	261
1949	May 12, 1949	3.60	156	1960	May 5, 1960	3.09	203
	June 4, 1949	6.72	1,510		May 28, 1960	3.03	191
	June 6, 1949	9.3	3,500	1961	May 17, 1961	3.53	302
1950	June 4, 1950	3.13	82		June 2, 1961	4.62	742
1951	May 18, 1951	4.14	232		June 3, 1961	6.55	2,380
	Aug. 3, 1951	7.87	2,380		June 19, 1961	3.42	198
1952	Apr. 25, 1952	4.23	279		July 8, 1961	3.64	255
	Apr. 30, 1952	4.20	270		Aug. 17, 1961	3.12	135
	May 24, 1952	4.09	242		Sept.24, 1961	3.42	198
	June 3, 1952	3.37	111				

a Adjusted for inflow from CBT project.

7486. South Fork Cache la Poudre River near Rustic, Colo.

Location.--Lat 40°38'30", long 105°29'30", in SW¼ sec.20, T.8 N., R.72 W., on left bank 5.7 miles upstream from mouth, 6 miles southeast of Rustic, and 22 miles west of Fort Collins.

Drainage area.--90.3 sq mi.

Gage.--Recording. Datum of gage is 7,596.86 ft above mean sea level (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 530 cfs.

Bankfull stage.--6 ft; right bank only.

Remarks.--No diversion above station. Slight regulation by small reservoirs and lakes does not affect peak flows substantially. Base for partial-duration series, 250 cfs.

Peak stages and discharges of South Fork Cache la Poudre River near Rustic, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 13, 1957	4.22	792	1959	June 20, 1959	3.53	412
	June 21, 1957	3.58	415				
	June 29, 1957	4.70	1,120	1960	June 6, 1960	3.49	396
	July 13, 1957	3.68	469		June 17, 1960	3.66	458
1958	May 27, 1958	4.12	732	1961	June 2, 1961	3.75	532
	June 7, 1958	3.81	546		June 12, 1961	3.76	538
	June 25, 1958	3.31	294				
				1962	June 14, 1962	3.24	306
1959	June 10, 1959	3.37	348		June 30, 1962	3.39	380
	June 14, 1959	3.66	470				

7515. North Fork Cache la Poudre River near Livermore, Colo.
(Published as "at Livermore," 1929-31)

Location.--Lat 40°42'15", long 105°14'10", in sec.33, T.9 N., R.70 W., a quarter of a mile upstream from mouth, a quarter of a mile downstream from Milton Seaman Reservoir, and 6 miles southeast of Livermore.

Drainage area.--568 sq mi.

Gage.--Nonrecording at Livermore 9 miles upstream at datum 5,715.0? ft above mean sea level, datum of 1929, May 24, 1929, to Oct. 4, 1931; recording at described site since May 1947. Altitude of present gage is 5,380 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,900 cfs.

Historical data.--Maximum flood known, 20,000 cfs (estimated) May 20, 1904.

Remarks.--Diversions above station for irrigation of about 35,000 acres. Natural flow of stream affected by storage reservoirs and inflow from Laramie River basin via Columbine ditch. Diversions substantially affect peak flows. 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)
1904	May 20, 1904	-	20,000	1952	June 5, 1952	5.20	535
				1953	May 16, 1953	3.67	60
1929	May 29, 1929	2.74	486	1954	Sept.13, 1954	3.93	87
1930	May 31, 1930	9.82	6,800	1955	Sept.18, 1955	3.92	51
1931	July 30, 1931	4.80	1,440	1956	May 25, 1956	5.07	432
				1957	June 16, 1957	5.83	866
1947	June 22, 1947	5.83	765	1958	May 24, 1958	6.11	1,170
1948	Aug. 17, 1948	4.42	199	1959	May 25, 1959	6.44	1,380
1949	June 10, 1949	7.09	1,910	1960	June 13, 1960	4.95	406
1950	June 4, 1950	4.15	142				
				1961	May 17, 1961	6.78	1,590
1951	Aug. 3, 1951	8.55	3,460	1962	May 12, 1962	4.91	383

7520. Cache la Poudre River at mouth of canyon, near Fort Collins, Colo.
(Published as "Cache la Poudre Creek or River at or near Fort Collins" prior to 1902)

Location.--Lat 40°39'55", long 105°13'10", in sec.15, T.8 N., R.70 W., at mouth of canyon, half a mile downstream from diversion dam for Poudre Valley Canal, three-quarters of a mile upstream from Lewstone Creek, and 8½ miles northwest of Fort Collins.

Drainage area.--1,055 sq mi.

Gage.--Recording. Altitude of gage is 5,240 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 5,200 cfs.

Remarks.--Natural flow of stream affected by transbasin and transmountain diversions, diversions for irrigation of 50,000 acres, and diversions for municipal use. Diversions substantially affect peak flows. Records prior to 1904 and those for 1910-33 furnished by State engineer of Colorado. 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)
1882	June 28, 1882	-	1,730	1923	June 15, 1923	7.4	8,550
1883	June 22, 1883	-	7,900	1924	June 14, 1924	6.9	7,440
1884	May 20, 1884	5.6	6,850	1925	June 22, 1925	3.72	1,780
1885	June 5, 1885	4.3	4,040				
				1926	June 7, 1926	5.82	4,350
1886	Aug. 18, 1886	4.7	4,820	1927	June 10, 1927	4.34	2,410
1887	June 2, 1887	-	3,000	1928	July 29, 1928	5.6	4,050
1888	June 19, 1888	-	1,800	1929	June 9, 1929	5.10	3,430
1889	June 1, 1889	-	2,100	1930	May 31, 1930	7.0	10,200
1890	June 2, 1890	-	1,900				
				1931	June 8, 1931	4.22	2,280
1891	June 9, 1891	-	a21,000	1932	May 23, 1932	4.56	3,200
1892	June 21, 1892	-	3,200	1933	June 11, 1933	5.29	3,500
1893	June 11, 1893	-	3,200	1934	May 10, 1934	3.77	1,660
1894	June 6, 1894	-	4,000	1935	July 22, 1935	5.52	4,110
1895	June 3, 1895	-	4,000				
				1936	June 1, 1936	4.76	3,280
1896	May 30, 1896	-	2,500	1937	June 2, 1937	3.89	2,020
1897	May 24, 1897	-	3,300	1938	June 22, 1938	6.36	6,180
1898	June 3, 1898	-	1,900	1939	June 6, 1939	4.35	2,580
1899	June 21, 1899	-	4,200	1940	Aug. 17, 1940	5.00	3,510
1900	May 29, 1900	-	5,000				
				1941	May 26, 1941	4.08	2,180
1901	May 21, 1901	7.46	12,000	1942	June 12, 1942	4.87	3,300
1902	May 16, 1902	-	2,500	1943	June 2, 1943	4.92	3,380
1903	June 9, 1903	-	4,100	1944	June 10, 1944	4.58	2,770
1904	May 20, 1904		(b)	1945	June 25, 1945	4.10	2,110
1905	June 9, 1905	-	4,700				
				1946	June 7, 1946	4.64	2,900
1906	June 13, 1906	-	3,000	1947	June 22, 1947	5.61	4,660
1907	June 16, 1907	-	4,000	1948	May 22, 1948	4.59	2,850
1908	Aug. 1, 1908	-	2,700	1949	June 5, 1949	6.30	6,090
1909	June 19, 1909	-	5,900	1950	June 17, 1950	4.85	2,910
1910	June 2, 1910	3.73	2,240				
				1951	Aug. 3, 1951	5.83	4,630
1911	June 9, 1911	3.98	2,470	1952	June 8, 1952	5.30	3,660
1912	June 27, 1912	4.72	3,820	1953	June 14, 1953	4.62	2,490
1913	May 31, 1913	4.05	2,700	1954	May 21, 1954	3.52	1,220
1914	June 2, 1914	5.45	5,380	1955	June 9, 1955	4.19	1,840
1915	June 20, 1915	4.05	2,700				
				1956	May 25, 1956	5.07	3,040
1916	June 18, 1916	3.80	2,340	1957	June 30, 1957	6.10	4,370
1917	June 23, 1917	6.3	7,000	1958	May 29, 1958	5.78	3,770
1918	June 20, 1918	5.6	5,200	1959	June 8, 1959	4.96	2,680
1919	May 30, 1919	3.43	1,670	1960	June 5, 1960	4.87	2,580
1920	June 9, 1920	5.30	4,510				
				1961	June 10, 1961	5.17	2,960
1921	June 8, 1921	5.76	5,230	1962	June 30, 1962	4.73	2,440
1922	June 14, 1922	5.30	4,450				

a Caused by failure of Chambers Lake Dam.
b Greater than 21,000 cfs for flood on June 9, 1891.

7530. Lonetree Creek near Granite Canyon, Wyo.

Location.--41°05'10", long 105°11'10", in sec.24, T.13 N., R.70 W., 1½ miles southwest of Granite Canyon.

Drainage area.--24.3 sq mi.

Gage.--Recording. Altitude of gage is 7,320 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurement below 16 cfs.

Remarks.--Diversions above station for irrigation of about 700 acres. 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)
1933	Sept. 8, 1933	4.86	230	1936	Apr. 26, 1936	1.14	13
1934	Apr. 8, 1934	.97	8.2	1937	June 2, 1937	1.30	13
1935	May 30, 1935	2.10	68	1938	Apr. 28, 1938	1.33	18

7535. Lonetree Creek near Nunn, Colo.

Location.--Lat 40°46'00", long 104°47'25", in NE¼ sec.8, T.9 N., R.66 W., on right bank 200 ft upstream from bridge on U.S. Highway 85 and 4½ miles north of Nunn.

Drainage area.--199 sq mi.

Gage.--Recording. Altitude of gage is 5,320 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 110 cfs and by slope-area measurement at 775 cfs.

Remarks.--Many small diversions for irrigation and stock-water reservoirs above 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)
1951	Aug. 3, 1951	3.42	239	1955	Aug. 7, 1955	4.65	775
1952	June 27, 1952	1.84	14				
1953	July 30, 1953	2.68	107	1956	June 16, 1956	2.57	160
1954	July 16, 1954	1.66	7.3	1957	Aug. 7, 1957	2.40	131

7540. South Platte River near Kersey, Colo.
(Published as "at Kersey," 1901-3, 1914)

Location.--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec.9, T.5 N., R.64 W., on downstream side of bridge on State Highway 37, 1.9 miles north of railroad in Kersey, and 2½ miles downstream from Cache la Poudre River.

Drainage area.--9,598 sq mi.

Gage.--Nonrecording at site 150 ft downstream at different datum prior to July 8, 1919; recording thereafter. At site 450 ft downstream at different datum July 8, 1919, to Sept. 7, 1921. At site 750 ft downstream at different datum Sept. 8, 1921, to Sept. 12, 1923. At site 200 ft downstream Sept. 12, 1923, to July 2, 1935. Datum of present gage is 4,575.77 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs.

Remarks.--Diversions above station for irrigation of 888,000 acres. Natural flow of stream also affected by transbasin and transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1914-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges of South Platte River near Kersey, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902	Sept.22, 1902	4.50	3,000	1933	Sept.12, 1933	6.59	7,500
1903	June 19, 1903	5.00	3,850	1934	Feb. 19, 1934	3.07	687
1905	May 23, 1905	8.5	11,200	1935	May 31, 1935	7.29	10,800
1906	May 7, 1906	-	2,080	1936	Aug. 5, 1936	5.39	2,200
1907	July 30, 1907	-	4,610	1937	June 28, 1937	5.47	2,140
1908	July 31, 1908	-	1,350	1938	Sept. 4, 1938	9.73	18,500
1909	July 6, 1909	7.8	10,200	1939	Mar. 12, 1939	6.59	4,160
1910	Oct. 16, 1909	-	1,790	1940	July 4, 1940	4.73	1,670
1911	July 6, 1910	-	848	1941	June 10, 1941	5.62	2,640
1912	July 17, 1912	-	5,120	1942	Apr. 25, 1942	9.50	19,200
1914	June 4, 1914	-	17,500	1943	June 3, 1943	5.97	3,090
1915	Apr. 27, 1915	-	7,500	1944	May 18, 1944	6.51	4,900
1916	May 22, 1916	-	3,650	1945	Aug. 10, 1945	6.13	4,310
1917	June 2, 1917	7.85	8,950	1946	July 20, 1946	4.99	1,890
1918	June 26, 1918	-	7,990	1947	June 24, 1947	9.62	14,400
1919	Aug. 2, 1919	3.92	2,820	1948	June 2, 1948	6.28	4,620
1920	May 5, 1920	4.54	4,190	1949	June 15, 1949	9.66	17,800
1921	June 7, 1921	-	31,000	1950	June 18, 1950	4.97	1,960
1922	Dec. 13, 1921	1.83	937	1951	Aug. 5, 1951	8.55	10,300
1923	June 11, 1923	-	17,500	1952	June 9, 1952	6.70	5,470
1924	June 7, 1924	6.45	12,200	1953	June 21, 1953	4.44	1,370
1925	June 16, 1925	4.50	1,660	1954	Nov. 6, 1953	3.60	610
1926	Apr. 23, 1926	6.96	9,210	1955	Aug. 8, 1955	5.63	2,510
1927	July 30, 1927	4.89	2,860	1956	May 28, 1956	5.21	2,190
1928	June 5, 1928	6.63	7,120	1957	May 10, 1957	10.26	14,300
1929	Aug. 8, 1929	4.95	3,050	1958	May 26, 1958	8.70	11,200
1930	Aug. 16, 1930	6.44	6,360	1959	May 23, 1959	6.07	4,000
1931	May 31, 1931	3.73	1,200	1960	May 20, 1960	5.71	3,800
1932	July 30, 1932	5.20	3,250	1961	June 5, 1961	8.35	11,200
				1962	July 2, 1962	5.63	3,400

7545. Middle Crow Creek near Hecla, Wyo.

(Published as "Middle Fork Crow Creek," 1933-45, 1948-55)

Location.--Lat 41°10'30", long 105°15'10", in sec.20, T.14 N., R.70 W., a quarter of a mile upstream from high-water line of Granite Springs Reservoir, 4½ miles northwest of Hecla, and 7 miles northwest of Granite Canyon.

Drainage area.--25.8 sq mi.

Gage.--Nonrecording at sites 1¼ miles downstream at different datums Apr. 1, 1902, to Nov. 21, 1903; recording at present site and datum since May 1933. Altitude of gage is 7,270 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 52 cfs and by slope-area measurement at 495 cfs.

Remarks.--Diversions above station for irrigation of 100 acres do not substantially affect peak flows. Base for partial-duration series, 23 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902a/	May 14, 1902	2.50	31	1938	May 1, 1938	1.88	61
1903	Apr. 27, 1903	2.90	96		May 16, 1938	1.37	38
1933	May 23, 1933	1.87	54		May 21, 1938	1.42	39
	Sept. 8, 1933	4.90	495		Aug. 10, 1938	3.07	140
1934	May 4, 1934	.70	12		Aug. 25, 1938	3.37	183
1935	May 31, 1935	3.15	147		Aug. 30, 1938	1.28	34
1936	June 24, 1936	3.05	144	1939	Apr. 23, 1939	1.13	28
1937	June 1, 1937	1.33	34		May 4, 1939	1.33	35
1938	Apr. 19, 1938	1.48	45	1940	Apr. 29, 1940	.58	10
				1941	Apr. 13, 1941	1.14	27
					Apr. 29, 1941	2.23	72
					May 11, 1941	2.00	60
					June 10, 1941	1.89	56

a Peaks above base probably occurred prior to beginning of record in 1902.

Peak stages and discharges of Middle Crow Creek near Hecla, Wyo.---Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 15, 1941	1.12	25	1950	May 27, 1950	1.24	32
	July 13, 1941	2.15	68		July 3, 1950	1.16	30
	July 25, 1941	3.20	169	1951	May 17, 1951	1.45	36
1942	Apr. 11, 1942	1.04	26		July 31, 1951	1.87	54
	Apr. 23, 1942	1.53	45	1952	Apr. 19, 1952	1.56	40
	May 11, 1942	2.85	117		Apr. 30, 1952	1.70	46
	June 12, 1942	1.75	54		May 9, 1952	1.32	31
	July 28, 1942	1.40	40		May 27, 1952	1.64	44
1943	Oct. 16, 1942	1.18	31				
	Apr. 25, 1943	1.25	30	1953	July 31, 1953	1.08	23
	May 11, 1943	1.59	44				
	May 24, 1943	2.14	67	1954	Apr. 7, 1954	.95	20
1944	May 13, 1944	2.00	62	1955	June 17, 1955	1.00	22
	June 5, 1944	1.30	32	1956	May 23, 1956	1.17	27
1945	May 7, 1945	-	b34				
	June 5, 1945	1.79	52	1957	Apr. 23, 1957	1.49	42
	June 9, 1945	-	b22		May 4, 1957	2.72	98
	June 16, 1945	-	b22		May 9, 1957	2.70	97
	July 31, 1945	-	b14		May 17, 1957	2.36	80
	Aug. 3, 1945	-	b17		June 16, 1957	1.63	47
1946	June 2, 1946	1.02	22		July 12, 1957	2.42	83
				1958	Apr. 17, 1958	2.28	76
1947	Apr. 16, 1947	1.32	33		May 9, 1958	1.72	51
	Apr. 21, 1947	1.66	46		May 14, 1958	1.67	49
	May 3, 1947	2.40	80		May 23, 1958	1.10	26
	May 13, 1947	2.02	61		June 19, 1958	1.20	30
	May 30, 1947	1.61	44		July 24, 1958	2.32	78
	June 14, 1947	1.67	47				
	June 18, 1947	1.31	32	1959	Apr. 27, 1959	1.31	36
	June 21, 1947	1.76	50		May 5, 1959	1.36	37
	July 10, 1947	1.52	41		May 10, 1959	1.11	27
	July 18, 1947	1.10	24		May 23, 1959	1.40	38
	July 22, 1947	1.54	42				
				1960	Mar. 21, 1960	-	-
1948	Apr. 18, 1948	1.02	25		Apr. 7, 1960	.84	18
	Apr. 29, 1948	1.12	27				
	May 25, 1948	1.05	25	1961	Apr. 6, 1961	1.09	26
					Apr. 7, 1961	1.15	28
1949	Apr. 26, 1949	1.41	41		May 16, 1961	1.95	61
	May 8, 1949	1.47	41		June 4, 1961	2.61	92
	May 14, 1949	1.30	34		July 29, 1961	2.08	67
	May 21, 1949	2.35	80				
	June 10, 1949	2.76	108	1962	Mar. 29, 1962	1.18	30
	July 6, 1949	1.20	30		Apr. 16, 1962	1.80	52
					June 8, 1962	1.34	32
1950	May 25, 1950	1.07	26				

b Daily discharge; peak probably exceeded base.

7550. South Crow Creek near Hecla, Wyo.
(Published as "South Fork Crow Creek" prior to October 1950)

Location.--Lat 41°07'40", long 105°12'00", in sec.2, T.13 N., R.70 W., just upstream from high-water line of South Crow Creek Reservoir, 2½ miles southwest of Hecla, and 3 miles northwest of Granite Canyon.

Drainage area.--16 sq mi, approximately.

Gage.--Recording. Altitude of gage is 7,190 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 25 cfs.

Remarks.--Diversions above station for irrigation of 100 acres do not substantially affect peak flows. Base for partial-duration series, 16 cfs.

Peak stages and discharges of South Crow Creek near Hecla, Wyo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Sept. 8, 1933	2.59	26	1949	June 9, 1949	2.57	26
1934	Apr. 8, 1934	1.83	4.5	1950	May 27, 1950	2.14	10
1935	May 23, 1935	2.36	26	1951	May 17, 1951	2.17	12
	May 31, 1935	2.39	27	1952	Apr. 7, 1952	2.30	20
1936	Apr. 26, 1936	1.92	6.3	1953	July 10, 1953	2.30	20
1937	June 1, 1937	2.22	15	1954	Apr. 7, 1954	1.85	4.6
1938	Apr. 27, 1938	2.10	12	1955	June 13, 1955	1.98	7.1
1939	Apr. 18, 1939	2.00	9.8	1956	May 22, 1956	2.15	13
1940	Apr. 27, 1940	1.87	5.8	1957	Apr. 23, 1957	2.37	24
1941	Apr. 29, 1941	2.41	26		May 4, 1957	2.36	24
	May 11, 1941	2.22	17		May 9, 1957	2.48	31
	July 26, 1941	2.36	24		May 18, 1957	2.55	26
	Aug. 10, 1941	3.02	61	1958	Apr. 18, 1958	2.89	62
1942	May 5, 1942	2.66	37		May 8, 1958	2.33	22
	June 12, 1942	2.36	22		May 15, 1958	2.22	16
	July 28, 1942	2.46	27		July 18, 1958	2.61	41
1943	Oct. 16, 1942	2.27	20		July 25, 1958	2.23	16
	May 11, 1943	2.26	19		Aug. 15, 1958	2.76	52
	May 22, 1943	2.56	34	1959	Apr. 27, 1959	2.28	19
1944	May 7, 1944	2.28	20		May 4, 1959	2.35	23
	July 19, 1944	3.52	91		May 24, 1959	2.44	29
1945	July 21, 1945	3.78	110	1960	Mar. 21, 1960	-	-
1946	May 28, 1946	2.01	9.2		Apr. 7, 1960	1.96	6.2
1948	Apr. 28, 1948	2.06	9.8	1961	May 16, 1961	2.63	42
1949	June 6, 1949	2.67	32		June 5, 1961	2.37	24
				1962	Apr. 16, 1962	2.20	16

7555. North Fork Crow Creek near Hecla, Wyo.

Location.--Lat 41°13'40", long 105°11'50", in sec.35, T.15 N., R.70 W., 800 ft upstream from high-water line of North Crow Creek diversion reservoir, 1¼ miles downstream from dam for Upper North Crow Creek Reservoir, 5½ miles northwest of Hecla, and 9 miles northwest of Granite Canyon.

Drainage area.--27 sq mi, approximately.

Gage.--Recording. Altitude of gage is 6,920 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 25 cfs.

Bankfull stage.--5 ft.

Remarks.--Diversions above station for irrigation of 100 acres. Flow partly regulated by Upper North Crow Creek Reservoir. Regulation and diversions substantially affect peak flows. 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)
1933	Sept. 8, 1933	8.65	-	1939	July 30, 1939	3.24	81
1934	June 30, 1934	2.47	29	1940	Aug. 25, 1940	5.43	-
1935	May 30, 1935	3.20	54	1941	July 25, 1941	6.93	-
1936	Aug. 2, 1936	3.60	80	1942	May 10, 1942	3.46	108
1937	July 28, 1937	4.20	-	1943	May 24, 1943	2.93	58
1938	July 27, 1938	5.09	-	1944	July 19, 1944	3.71	138

7570. South Platte River at Sublette, Colo.

Location.--Lat 40°18'14", long 104°10'43", in NW¼ sec.23, T.4 N., R.61 W., 30 ft upstream from highway bridge, a quarter of a mile south of Sublette, and 3½ miles east of Masters.

Drainage area.--12,170 sq mi.

Gage.--Recording. At datum 1.00 ft higher prior to Oct. 1, 1948. At site 175 ft downstream prior to Sept. 14, 1943. Auxiliary recording gage on secondary channel 600 ft to right at present datum since June 1950. Datum of present gage is 4,419.48 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,100 cfs at present site; below 8,400 cfs at site 175 ft downstream.

Remarks.--Diversions above station for irrigation of 940,000 acres. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1926-33, 1942, furnished by State engineer of Colorado. 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)
1926	Apr. 23, 1926	5.85	8,090	1941	June 24, 1941	4.20	2,170
1927	July 30, 1927	3.28	2,410				
1928	June 5, 1928	5.8	8,060	1944	May 19, 1944	5.91	4,240
				1945	Aug. 11, 1945	5.05	3,090
1930	Aug. 16, 1930	5.50	3,670				
				1946	July 21, 1946	3.43	1,510
1931	May 30, 1931	3.18	869	1947	June 25, 1947	-	a12,000
1932	July 31, 1932	3.53	1,210	1948	Apr. 26, 1948	4.31	2,730
1933	Sept.13, 1933	5.13	2,840	1949	June 16, 1949	9.31	17,100
1934	May 15, 1934	2.40	498	1950	June 20, 1950	b3.63	1,430
1935	June 1, 1935	6.45	4,720				
				1951	Aug. 6, 1951	b7.45	9,440
1936	June 6, 1936	3.56	1,300	1952	June 10, 1952	b5.71	4,950
1937	June 28, 1937	4.44	2,140	1953	June 21, 1953	b3.22	1,060
1938	Sept. 5, 1938	8.78	10,700	1954	Oct. 25, 1953	b2.17	485
1939	Mar. 13, 1939	6.30	4,740	1955	Aug. 9, 1955	-	879
1940	July 5, 1940	2.57	782				

a Maximum daily discharge.
b Gage height is for main channel.

7576. Kiowa Creek at K-79 Reservoir, near Eastonville, Colo.

Location.--Lat 39°04'00", long 104°34'55", in SE¼NW¼ sec.29, T.11 S., R.64 W., in reservoir area, 140 ft upstream and 250 ft from left end of earth-fill dam on Kiowa Creek and 1.2 miles west of Eastonville.

Drainage area.--3.20 sq mi.

Gage.--Recording. Concrete drop-inlet control structure and grass sodded emergency spillway. Datum of gage is 7,287.14 ft above mean sea level.

Stage-discharge relation.--For outflow: Defined by current-meter measurements below 68 cfs and by slope-area measurement at 1,400 cfs. For inflow: Computed from outflow and change in reservoir contents.

Remarks.--Maximum inflow is average for a 5-minute interval.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	July 30, 1957	-	5,250	1961	Aug. 17, 1961	-	17
1958	Sept. 9, 1958	-	255	1962	July 26, 1962	-	12
1959	July 16, 1959	-	493				
1960	Mar. 25, 1960	-	33				

7582. Kiowa Creek at Kiowa, Colo.

Location.--Lat 39°20', long 104°29', in SW¼ sec.20, T.8 S., R.63 W., on left bank 0.7 mile upstream from bridge on State Highway 86 and 0.7 mile south of Kiowa.

Drainage area.--111 sq mi.

Gage.--Recording. Altitude of gage is 6,350 ft (estimated from nearby bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 2,200 cfs.

Bankfull stage.--16 ft.

Remarks.--Little or no diversion above station. Floodflow regulated to some extent by a series of retarding dams on Kiowa Creek and tributaries above station. Retarding dams substantially affect peak flows. 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	July 31, 1956	5.79	4,290	1960	Mar. 19, 1960	a4.73	-
1957	July 20, 1957	6.62	5,980		Mar. 24, 1960	-	1,080
1958	Feb. 5, 1958	a3.79	-				
	May 15, 1958	-	176	1961	July 28, 1961	5.07	592
1959	Apr. 9, 1959	3.81	196	1962	Mar. 11, 1962	3.98	20

a Backwater from ice.

7585. South Platte River near Weldona, Colo.

Location.--Lat 40°19'20", long 103°55'15", in SW¼SW¼ sec.7, T.4 N., R.58 W., on left bank 400 ft downstream from bridge on State Highway 144, 2.8 miles southeast of Weldona, and 4.2 miles upstream from Bijou Creek.

Drainage area.--13,245 sq mi.

Gage.--Recording. Datum of gage is 4,307.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs.

Remarks.--Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas; peak flows substantially affected. 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)
1953	June 22, 1953	4.11	822	1958	May 27, 1958	8.38	8,840
1954	Aug. 6, 1954	3.82	637	1959	May 24, 1959	5.88	2,560
1955	June 15, 1955	4.93	1,740	1960	May 21, 1960	5.41	1,810
1956	May 29, 1956	4.62	1,080	1961	June 6, 1961	8.22	7,740
1957	May 11, 1957	9.92	14,200	1962	Oct. 17, 1961	5.39	1,980

7590. Bijou Creek near Wiggins, Colo.

Location.--Lat 40°14'53", long 104°02'08", in SW¼SW¼ sec.6, T.3 N., R.59 W., on downstream side of fifth pier from right end of bridge on U.S. Highways 6 and 34, 2 miles northeast of Wiggins and 5.7 miles downstream from Antelope Creek.

Drainage area.--1,314 sq mi.

Gage.--Recording. Altitude of gage is 4,490 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 35,000 cfs.

Remarks.--Small diversions above station for irrigation do not substantially affect peak flows. 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 23, 1951	5.13	646	1954	Aug. 6, 1954	3.76	1,060
	Aug. 3, 1951	10.22	50,100		Aug. 14, 1954	3.54	826
	Aug. 6, 1951	5.84	7,180				
	Aug. 9, 1951	4.80	2,830	1955	June 15, 1955	4.07	1,710
	Sept. 2, 1951	4.48	1,020		Aug. 20, 1955	3.68	1,200
					Aug. 28, 1955	4.48	2,450
1952	Aug. 22, 1952	6.12	7,840				
				1956	July 30, 1956	5.5	5,700
1953	July 30, 1953	3.82	1,080		July 31, 1956	7.8	19,000
1954	July 30, 1954	5.52	5,700				

7595. South Platte River at Fort Morgan, Colo.

Location.--Lat 40°16'08", long 103°48'02", in sec.31, T.4 N., R.57 W., at bridge on State Highway 52, half a mile north of Fort Morgan and 3½ miles downstream from Bijou Creek.

Drainage area.--14,810 sq mi.

Gage.--Recording. Altitude of gage is 4,250 ft (from topographic map).

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

Historical data.--Maximum flood known, 84,300 cfs May 31, 1935, by slope-area measurement of peak flow 1 mile upstream; flood came principally from Bijou Creek.

Remarks.--Diversions above station for irrigation of 980,000 acres. Natural flow of stream also affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, and return flow from irrigated areas. Diversions substantially affect peak flows. 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)
1944	May 13, 1944	6.31	2,920	1952	Aug. 22, 1952	6.63	4,080
1945	Aug. 21, 1945	9.33	10,400	1953	July 30, 1953	4.49	1,460
				1954	Aug. 6, 1954	3.92	1,000
1946	Sept. 8, 1946	6.15	2,710	1955	June 15, 1955	4.71	1,660
1947	June 25, 1947	10.37	16,200				
1948	May 3, 1948	5.59	2,740	1956	July 31, 1956	6.90	5,600
1949	June 16, 1949	10.66	18,100	1957	May 16, 1957	9.70	20,900
1950	June 20, 1950	3.78	1,020	1958	May 18, 1958	8.50	9,850
1951	Aug. 3, 1951	12.90	33,800				

7600. South Platte River at Balzac, Colo.

Location.--Lat 40°24'24", long 103°27'58", in NE¼ sec.13, T.5 N., R.55 W., just upstream from highway bridge at Balzac siding, and 2¾ miles northeast of Union.

Drainage area.--16,852 sq mi.

Gage.--Nonrecording or recording at nearby sites at various datums prior to Oct. 18, 1935. Nonrecording Oct. 18 to Dec. 16, 1935, and recording Dec. 17, 1935, to Aug. 20, 1947; both at site 250 ft upstream at present datum. Supplementary recording gage on secondary channel 600 ft to the left at datum 1.69 ft lower since Oct. 1, 1936. Datum of present gage is 4,091.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs.

Remarks.--Diversions above station for irrigation of 1,065,000 acres. Natural flow of stream also affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, and return flow from irrigated areas. Diversions substantially affect peak flows. Records for 1918-33 furnished by State engineer of Colorado. 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)
1918	June 25, 1918	3.95	3,000	1941	June 10, 1941	3.96	855
1919	Feb. 14, 1919	2.80	1,190	1942	Apr. 27, 1942	8.89	17,000
1920	May 8, 1920	3.60	2,300	1943	May 27, 1943	5.61	2,400
				1944	May 13, 1944	6.06	2,990
1921	June 11, 1921	-	31,200	1945	Aug. 22, 1945	7.16	5,220
1922	Mar. 1, 1922	2.20	1,110				
1923	June 13, 1923	7.18	17,000	1946	Sept. 8, 1946	5.60	2,080
1924	June 9, 1924	5.90	10,700	1947	June 26, 1947	10.47	12,100
1925	July 31, 1925	3.32	2,540	1948	Mar. 17, 1948	7.04	2,330
				1949	June 17, 1949	9.33	14,600
1926	June 16, 1926	4.63	6,050	1950	June 21, 1950	3.30	674
1927	Apr. 20, 1927	2.68	2,180				
1928	June 6, 1928	4.80	6,570	1951	Aug. 4, 1951	9.55	11,200
1929	Sept.11, 1929	2.69	2,110	1952	May 30, 1952	6.64	3,490
1930	Aug. 17, 1930	3.63	2,830	1953	June 23, 1953	3.40	593
				1954	Aug. 7, 1954	3.37	507
1931	Sept.25, 1931	2.48	1,510	1955	June 15, 1955	-	2,310
1932	July 31, 1932	5.65	4,760				
1933	Aug. 4, 1933	5.20	4,090	1956	Aug. 1, 1956	-	2,200
1934	Feb. 27, 1934	2.22	480	1957	May 16, 1957	9.12	8,010
1935	May 31, 1935	11.43	-	1958	May 19, 1958	8.54	8,220
				1959	May 25, 1959	6.35	2,290
1936	Aug. 5, 1936	5.25	4,950	1960	Mar. 31, 1960	5.73	1,720
1937	May 26, 1937	3.53	1,420				
1938	Sept. 8, 1938	8.45	15,600	1961	June 7, 1961	8.76	7,770
1939	Mar. 12, 1939	7.80	11,300	1962	Feb. 3, 1962	6.01	1,790
1940	Sept.11, 1940	4.04	1,100				

7605. South Platte River near Crook, Colo.

Location.--Lat 40°50'36", long 102°48'46", in SW¼NE¼ sec.15, T.10 N., R.49 W., 0.4 mile upstream from bridge on State Highway 25 and 1 mile south of Crook.

Drainage area.--19,238 sq mi.

Gage.--Recording. Datum of gage is 3,705.39 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 8,400 cfs.

Remarks.--Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas; peak flows substantially affected. Only annual peaks are shown.

Peak stages and discharges of South Platte River near Crook, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Aug. 16, 1954	3.32	360	1957	May 18, 1957	8.02	9,890
1955	June 17, 1955	4.25	670	1958	May 20, 1958	7.65	8,140
1956	Aug. 3, 1956	3.88	431				

7610. Lodgepole Creek near Federal, Wyo.

Location.--Lat 41°18'40", long 105°13'00", in sec.34, T.16 N., R.70 W., 1¼ miles upstream from North Fork and 6 miles northwest of Federal.

Drainage area.--25 sq mi, approximately

Gage.--Recording. Altitude of gage is 6,970 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 28 cfs.

Bankfull stage.--3 ft.

Remarks.--Diversions above station for irrigation of 200 acres substantially affect peak flows. 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)
1934	Apr. 8, 1934	0.95	6.4	1937	June 1, 1937	1.17	b14
1935	May 31, 1935	2.93	89	1938	Apr. 28, 1938	1.57	28
1936	Apr. 16, 1936	1.27	a12				

a Maximum during the period Apr. 16 to Sept. 30, 1936.
b Maximum during the period Apr. 27 to Sept. 30, 1937.

7615. South Fork Lodgepole Creek near Federal, Wyo.

Location.--Lat 41°16'20", long 105°13'00", in sec.15, T.15 N., R.70 W., 5½ miles west of Federal and 9 miles upstream from mouth.

Drainage area.--16 sq mi, approximately.

Gage.--Recording. Altitude of gage is 7,080 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 17 cfs.

Remarks.--Diversions above station for irrigation of 100 acres do not substantially affect peak flows. Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Sept. 8, 1933	4.95	410	1936	Aug. 2, 1936	3.44	236
1934	Mar. 25, 1934	1.05	4.9	1937	June 1, 1937	.70	a12
1935	July 18, 1935	3.12	210	1938	Aug. 10, 1938	2.48	150

a Maximum during the period Apr. 27 to Sept. 30, 1937.

7625. Lodgepole Creek at Bushnell, Nebr.

Location.--Lat 41°14', long 103°51', in sec.33, T.15 N., R.57 W., on right bank 1½ miles east of Bushnell and 1½ miles upstream from Oliver Reservoir.

Drainage area.--1,361 sq mi.

Gage.--Nonrecording prior to Mar. 26, 1938; recording thereafter. Datum of gage is 4,812.3 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,700 cfs and by slope-area measurement at 16,500 cfs.

Remarks.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. 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)
1932	June 27, 1932	3.33	151	1949	May 15, 1949	4.85	347
1933	Aug. 27, 1933	7.00	3,010	1950	Sept.15, 1950	9.98	16,500
1934	Aug. 8, 1934	3.10	121				
1935	June 11, 1935	6.30	1,630	1951	Sept. 7, 1951	7.23	3,540
				1952	Mar. 24, 1952	1.55	24
1936	Aug. 1, 1936	2.80	98	1953	Aug. 1, 1953	6.25	1,850
1937	Aug 18, 1937	5.30	665	1954	Mar. 12, 1954	a3.63	-
1938	Sept. 3, 1938	6.00	1,280		July 14, 1954	-	88
1939	May 31, 1939	3.00	116	1955	Sept.19, 1955	7.55	4,560
1940	Sept. 6, 1940	1.98	52				
				1956	Feb. 28, 1956	1.72	26
1941	June 10, 1941	5.20	562	1957	July 19, 1957	5.04	494
1942	Sept. 5, 1942	1.79	45	1958	July 18, 1958	4.85	390
1943	July 1, 1943	2.48	67	1959	Mar. 30, 1959	1.87	35
1944	July 10, 1944	3.57	154	1960	July 7, 1960	4.50	260
1945	June 23, 1945	5.25	527				
				1961	June 3, 1961	4.26	206
1947	June 23, 1947	2.08	24	1962	July 31, 1962	4.79	361
1948	July 14, 1948	7.37	3,910				

a Backwater from snow.

7635. Lodgepole Creek at Ralton, Nebr.

Location.--Lat 41°02'00", long 102°24'00", in NE¼NW¼ sec.12, T.12 N., R.45 W., on right bank 20 ft downstream from county road bridge at Ralton, 2.1 miles north of Colorado-Nebraska State line, and 5½ miles southeast of Chappell.

Drainage area.--3,307 sq mi.

Gage.--Recording. Altitude of gage is 3,590 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs and by slope-area measurement at 1,150 cfs.

Remarks.--Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigation and return flow from irrigated areas. 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)
1951	Sept. 2, 1951	5.70	1,150	1957	Mar. 26, 1957	a3.16	-
1952	May 19, 1952	2.75	89		May 26, 1957	-	74
1953	Feb. 24, 1953	a3.72	-	1958	July 21, 1958	3.56	152
	Aug. 20, 1953	-	81	1959	Mar. 29, 1959	a2.90	-
1954	Mar. 15, 1954	a3.09	-		Apr. 3, 1959	-	69
	Apr. 7, 1954	-	52	1960	Mar. 9, 1960	a5.1	-
1955	Feb. 28, 1955	a4.54	-				
	May 30, 1955	-	209	1961	May 21, 1961	-	33
					(b)	a2.54	-
1956	Dec. 23, 1955	a2.94	-	1962	Aug. 6, 1962	3.86	133
	Apr. 4, 1956	-	48				

a Backwater from ice.
b Date unknown.

7640. South Platte River at Julesburg, Colo.
(Published as "near Julesburg," 1903-8, 1915-16, and as "at Ovid," 1922-24)

Location.--Lat 40°58'46", long 102°15'15", in NE¼ sec.33, T.12 N., R.44 W., 215 ft downstream from bridge on U.S. Highway 385, 0.9 mile southeast of Julesburg, 3 miles upstream from Colorado-Nebraska State line, and 8 miles downstream from Lodgepole Creek.

Drainage area.--23,138 sq mi.

Gage.--Nonrecording prior to May 11, 1922; recording thereafter. On channel 1,600 ft to right at several sites within 1,800 ft of present site Apr. 1, 1902, to May 10, 1922, and Oct. 1, 1924, to Sept. 30, 1956. At different datum prior to May 12, 1908; at datum 2.0 ft higher May 12, 1908, to Mar. 17, 1915; at datum 1.0 ft higher Mar. 18, 1915, to May 10, 1922, and Oct. 1, 1924, to June 29, 1940. At site 8.5 miles upstream at Ovid at different datum May 11, 1922, to Sept. 30, 1924. At site 135 ft downstream at present datum Oct. 1, 1956, to Dec. 10, 1958. Datum of present gage is 3,446.76 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of 1,220,000 acres above station, and return flow from irrigated areas. Diversions substantially affect peak flows. Records 1915-30 furnished by State engineer of Colorado. Only annual peaks are shown, except maximum daily discharges for 1915-33, 1936, 1946, and 1960.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902	Sept. 29, 1902	2.3	662	1933	May 13, 1933	-	659
1903	Jan. 17, 1903	3.60	-	1934	June 16, 1934	-	3,480
	Apr. 7, 1903	2.5	1,390	1935	June 2, 1935	-	31,300
1904	June 6, 1904	3.75	6,500				
1905	June 11, 1905	4.95	12,400	1936	Feb. 29, 1936	-	480
				1937	Feb. 14, 1937	-	642
1906	Mar. 9, 1906	2.85	-	1938	Sept. 10, 1938	-	7,980
	Apr. 13, 1906	2.5	1,800	1939	Mar. 14, 1939	-	9,330
				1940	Mar. 16, 1940	-	349
1909	June 15, 1909	3.60	6,040				
1910	Mar. 11, 1910	5.70	18,800	1941	June 13, 1941	-	661
				1942	May 5, 1942	-	16,200
1911	Jan. 17, 1911	-	700	1943	May 30, 1943	-	2,090
1912	Aug. 9, 1912	3.4	1,460	1944	May 15, 1944	-	3,080
				1945	Aug. 15, 1945	-	1,960
1914	June 8, 1914	4.15	13,400				
1915	June 12, 1915	-	4,500	1946	Dec. 29, 1945	-	1,630
				1947	June 28, 1947	-	13,000
1917	June 1, 1917	-	9,100	1948	Mar. 19, 1948	-	2,450
1918	June 29, 1918	-	1,120	1949	June 19, 1949	-	16,800
				1950	Aug. 6, 1950	-	1,080
1920	May 12, 1920	-	2,490				
				1951	Aug. 10, 1951	-	2,350
1921	June 16, 1921	-	30,800	1952	June 1, 1952	-	3,700
1922	Mar. 11, 1922	-	1,640	1953	Apr. 19, 1953	-	707
1923	June 18, 1923	-	16,000	1954	Nov. 25, 1953	-	463
1924	June 10, 1924	-	11,000	1955	June 19, 1955	-	562
1926	June 19, 1926	-	5,400	1956	June 18, 1956	-	399
1927	Apr. 21, 1927	-	2,400	1957	May 21, 1957	6.05	8,160
1928	June 8, 1928	-	3,820	1958	May 21, 1958	6.82	7,510
1929	Apr. 26, 1929	-	1,880	1959	May 29, 1959	3.62	1,900
1930	Feb. 17, 1930	-	3,220	1960	Mar. 12, 1960	-	1,500
1931	Apr. 2, 1931	-	1,880	1961	June 10, 1961	-	7,120
1932	Jan. 12, 1932	-	903	1962	Mar. 7, 1962	-	2,490

7650. South Platte River at Paxton, Nebr.
(Published as "at Ogallala" prior to October 1939)

Location.--Lat 41°07', long 101°21', in sec.8, T.13 N., R.35 W., near left bank on downstream side of pier of highway bridge, half a mile south of Paxton.

Drainage area.--23,700 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 2, 1940; recording thereafter. At datum 1.50 ft higher August 1939 to Oct. 15, 1947, and June 25, 1948, to Oct. 3, 1951; 0.50 ft higher Oct. 16, 1947, to June 24, 1948. Gage heights 1940-51 adjusted to datum used since 1951. Datum of gage is 3,047.34 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. South Platte canal diverts 6 miles above station; diversion began Nov. 13, 1946. 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)
1940	June 7, 1940	4.37	477	1953	Oct. 7, 1952	1.92	-
					June 7, 1953	-	155
1941	June 17, 1941	4.26	329	1954	May 16, 1954	1.32	88
1942	May 7, 1942	9.34	16,900	1955	June 18, 1955	1.02	51
1943	May 31, 1943	5.02	1,730				
1944	May 16, 1944	5.85	2,700	1956	Mar. 29, 1956	1.13	56
1945	Aug. 16, 1945	4.83	1,360	1957	May 17, 1956	7.16	-
					May 22, 1956	-	8,680
1947	June 29, 1947	8.86	13,000	1958	May 23, 1958	6.68	6,610
1948	Mar. 17, 1948	5.91	3,010	1959	May 31, 1959	2.54	420
1949	June 21, 1949	9.48	16,500	1960	Mar. 20, 1960	3.26	906
1950	Oct. 13, 1949	3.59	489				
				1961	June 12, 1961	6.04	4,840
1951	May 21, 1951	5.26	3,820	1962	Jan. 30, 1962	a4.43	-
1952	June 3, 1952	4.38	2,660		Feb. 10, 1962	-	1,990

a Backwater from ice.

7655. South Platte River at North Platte, Nebr.

Location.--Lat 41°07', long 100°46', in sec.9, T.13 N., R.30 W., near left bank on downstream side of bridge on U.S. Highway 83, three-quarters of a mile south of city of North Platte and 4 miles upstream from confluence with North Platte River.

Drainage area.--24,300 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 8, 1936; recording thereafter. At or near present site at different datums prior to July 19, 1945; at present site thereafter. At datum 4.90 ft higher July 19, 1945, to July 9, 1952; 3.90 ft higher July 10, 1952, to Dec. 6, 1953; 2.90 ft higher Dec. 7, 1953, to July 18, 1954; at datum 1.90 ft higher July 19, 1954, to Dec. 10, 1956. Gage heights 1928-56 adjusted to datum used since 1957. Datum of gage is 2,790.30 ft above mean sea level (city of North Platte bench mark).

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. South Platte canal diverts around station; diversion began Nov. 13, 1946. Only annual peaks are shown.

Peak stages and discharges of South Platte River at North Platte, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	June 21, 1897	-	4,427	1942	May 1, 1942	13.02	-
					May 7, 1942	-	14,700
1914	June 10, 1914	5.55	11,800	1943	June 14, 1943	9.08	1,840
1915	May 28, 1915	5.4	11,400	1944	May 17, 1944	9.31	2,600
				1945	Aug. 28, 1945	7.91	1,250
1917	June 1, 1917	-	11,400				
				1946	Jan. 7, 1946	8.19	1,470
1921	June 13, 1921	-	24,000	1947	June 30, 1947	10.75	12,000
1922	Mar. 9, 1922	3.6	4,660	1948	Mar. 18, 1948	8.64	2,580
1923	June 16, 1923	5.6	21,800	1949	June 21, 1949	11.48	16,200
1924	June 8, 1924	5.0	11,000	1950	Apr. 17, 1950	6.52	569
1925	Feb. 11, 1925	3.5	1,320				
				1951	May 22, 1951	6.41	1,700
1926	June 21, 1926	3.9	5,600	1952	June 4, 1952	7.21	2,240
1927	Apr. 30, 1927	3.25	2,540	1953	Feb. 23, 1953	a5.99	-
1928	June 10, 1928	11.87	4,210	1954	Jan. 26, 1954	a5.80	-
1929	Apr. 29, 1929	11.07	1,690		May 19, 1954	-	239
1930	May 12, 1930	11.02	1,830	1955	Feb. 3, 1955	a3.75	-
					June 28, 1955	-	471
1931	Apr. 4, 1931	10.82	1,600				
1932	Mar. 17, 1932	10.42	1,020	1956	June 17, 1956	4.00	575
1933	Apr. 20, 1933	10.52	1,060	1957	May 23, 1957	7.63	8,620
1934	June 22, 1934	10.57	1,060	1958	June 2, 1958	7.51	6,400
1935	June 3, 1935	14.02	37,100	1959	Jan. 10, 1959	a4.95	-
					June 2, 1959	-	529
1936	Mar. 4, 1936	-	942	1960	Mar. 23, 1960	5.02	1,380
1937	Mar. 6, 1937	-	530				
1938	Sept.13, 1938	11.95	4,980	1961	June 13, 1961	6.44	4,750
1939	Mar. 16, 1939	12.11	7,460	1962	Jan. 27, 1962	a5.88	-
1940	Feb. 12, 1940	9.68	712		Feb. 11, 1962	-	1,710
1941	Feb. 24, 1941	a9.67	-				
	Apr. 4, 1941	-	384				

a Backwater from ice.

7660. Platte River at Brady, Nebr.

Location.--Lat 41°02', long 100°23', on two channels in sec. 11 and 23, T.12 N., R.27 W., on downstream side of highway bridges half a mile and 2½ miles, respectively, south of Brady, and 18 miles downstream from confluence of North Platte and South Platte Rivers.

Drainage area.--56,900 sq mi, approximately.

Gage.--Recording gages on two channels. Gage on north channel at datum 1 ft higher Nov. 18, 1938, to Sept. 30, 1942. Datum of gage on north channel is 2,639.19 ft above mean sea level, datum of 1929, and on south channel, 2,641.66 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. Tri-County main supply canal (capacity, about 2,000 cfs) diverts 8 miles above station; diversion started Nov. 26, 1940. River flows in two channels; figures given herein represent combined 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)
1938	Sept.14, 1938	-	6,830	1951	May 16, 1951	-	6,830
1939	Mar. 16, 1939	-	8,670	1952	Mar. 25, 1952	-	4,540
1940	Mar. 3, 1940	-	2,900	1953	July 10, 1953	-	1,860
				1954	July 23, 1954	-	1,660
1941	Dec. 3, 1940	-	1,680	1955	July 21, 1955	-	1,550
1942	May 7, 1942	-	15,400				
1943	June 16, 1943	-	2,370	1956	June 19, 1956	-	2,510
1944	May 16, 1944	-	1,830	1957	May 24, 1957	-	6,550
1945	Aug. 22, 1945	-	1,570	1958	June 4, 1958	-	4,970
				1959	Aug. 5, 1959	-	1,430
1946	July 25, 1946	-	1,200	1960	Mar. 23, 1960	-	2,600
1947	July 1, 1947	-	10,400				
1948	Feb. 17, 1948	-	3,080	1961	Aug. 17, 1961	-	3,090
1949	June 22, 1949	-	14,500	1962	May 19, 1962	-	2,430
1950	July 22, 1950	-	917				

7665. Platte River near Cozad, Nebr.

Location.--Lat 40°50', long 99°59', in sec.18, T.10 N., R.23 W., on downstream side of highway bridges, 1½ miles south of Cozad.

Drainage area.--57,200 sq mi, approximately.

Gage.--Recording gages on two channels. South channel gage at datum 4.02 ft higher May 4 to Sept. 30, 1940; 3.02 ft higher Oct. 1, 1940, to July 20, 1947; 2.02 ft higher July 21 to Sept. 22, 1947; and 1.53 ft higher Sept. 23, 1947, to July 18, 1949. North channel gage at datum 2.00 ft higher Mar. 17, 1939, to Sept. 30, 1940; 1.00 ft higher Oct. 1, 1940, to July 11, 1955. Datum of gage on south channel is 2,474.07 ft above mean sea level, datum of 1929, and on north channel, 2,476.72 ft above mean sea level, datum of 1929 (Nebraska Department of Roads bench mark).

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. River flows in two channels; figures given herein represent combined 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)
1938	Sept.15, 1938	-	7,200	1951	May 17, 1951	-	6,140
				1952	Mar. 26, 1952	-	3,300
1940	June 9, 1940	-	5,500	1953	Jan. 9, 1953	-	783
				1954	Feb. 1, 1954	-	525
1941	Nov. 22, 1940	-	1,370	1955	Mar. 11, 1955	-	607
1942	May 10, 1942	-	16,600				
1943	June 28, 1943	-	4,200	1956	June 20, 1956	-	1,840
1944	May 12, 1944	-	1,980	1957	May 25, 1957	-	6,230
1945	June 10, 1945	-	2,030	1958	May 26, 1958	-	4,710
				1959	May 21, 1959	-	800
1946	Jan. 11, 1946	-	577	1960	Mar. 23, 1960	-	3,630
1947	June 23, 1947	-	12,100				
1948	July 29, 1948	-	3,640	1961	Aug. 18, 1961	-	2,010
1949	June 23, 1949	-	13,600	1962	June 8, 1962	-	4,120
1950	Nov. 11, 1949	-	2,380				

7670. Platte River near Lexington, Nebr.

Location.--Lat 40°44', long 99°45', in sec.20, T.9 N., R.21 W., on highway bridge 2½ miles south of Lexington.

Drainage area.--58,400 sq mi, approximately.

Gage.--Nonrecording. At different datum prior to Dec. 1, 1921. Altitude of gage is 2,380 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1902	May 17, 1902	-	15,500	1918	June 29, 1918	-	10,400
1904	June 17, 1904	-	20,000	1920	June 22, 1920	-	16,500
1905	June 16, 1905	-	30,200				
				1921	June 14, 1921	-	35,600
1906	June 7, 1906	-	17,200	1922	Mar. 11, 1922	-	11,400
				1923	June 17, 1923	-	16,200
1916	May 24, 1916	-	5,000	1924	June 9, 1924	-	19,100
1917	June 11, 1917	-	22,300				

7671. South Fork Plum Creek tributary near Farnam, Nebr.

Location.--Lat 40°42', long 100°15', in SW¼ sec.35, T.9 N., R.26 W., on downstream side of bridge on State Highway 23N, 2.3 miles west of Farnam.

Drainage area.--9.81 sq mi.

Gage.--Crest-stage gage. At datum 0.39 ft lower prior to June 13, 1958. Altitude of gage is 2,740 ft (from topographic map).

Stage-discharge relation.--Defined by measured area and velocity estimates, below 184 cfs, and extended on the basis of indirect measurements at 968, 1,170, and 2,320 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)
1951	June 8, 1951	13.88	1,170	1957	July 7, 1957	12.70	215
1952	Aug. 14, 1952	13.36	650	1958	Apr. 23, 1958	12.09	130
1953	July 12, 1953	9.1	1	1959	May 26, 1959	12.31	215
1954	Aug. 7, 1954	12.05	125	1960	Mar. 21, 1960	12.31	215
1955	Aug. 9, 1955	11.62	85				
				1961	May 22, 1961	11.46	110
1956	July 5, 1956	11.19	62	1962	June 16, 1962	15.81	2,320

7672. North Fork Plum Creek tributary near Farnam, Nebr.

Location.--Lat 40°42'03", long 100°15'12", in NW¼SW¼ sec.36, T.9 N., R.26 W., on downstream side of bridge on State Highway 23N., 0.1 mile east of north-south dirt road, and 1.3 miles west of main street in Farnam.

Drainage area.--1.83 sq mi.

Gage.--Crest-stage gage. Altitude of gage 2,750 ft (from topographic map).

Stage-discharge relation.--Defined by field estimates and a current-meter measurement below 42 cfs and by indirect measurements at 53 and 435 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)
1952	Aug. 14, 1952	11.37	52	1958	May 26, 1958	10.61	19
				1959	May 26, 1959	10.91	22
1955	-	-	0	1960	June 15, 1960	12.00	206
1956	June 17, 1956	10.42	13	1961	May 22, 1961	10.10	3
1957	July 7, 1957	11.25	48	1962	June 16, 1962	12.50	435

7673. Plum Creek tributary at Farnam, Nebr.

Location.--Lat 40°42', long 100°13', in S½ sec.31, T.9 N., R.25 W., on downstream side of bridge on north-south main street in Farnam and 0.2 mile south of State Highway 23N.

Drainage area.--19.8 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,720 ft (from topographic map).

Stage-discharge relation.--Defined by estimates below 90 cfs and extended by slope-area measurements at 95, 396, 480, 2,070, and 3,110 cfs.

Bankfull stage.--12½ ft.

Historical data.--In April of 1951, Charles Maurey, a resident of Farnam for 26 years, stated that the floods of 1947 and 1948 were about the same height and much higher than any other floods during the 26 years. These two floods came to the bed of an auto on the bridge, and to the railroad station floor. Precipitation reports published by the Weather Bureau indicate that two floods occurred June 22, 1947, and June 22, 1948. In August 1960 the Chicago, Burlington, & Quincy Railroad Station agent pointed out that the water for the flood of June 1948 reached the window sill of the station, which is at elevation 18.8 ft, gage datum.

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)
1947	June 22, 1947	18.8	4,300	1956	June 17, 1956	10.75	10
1948	June 22, 1948	18.8	4,300	1957	Apr. 22, 1957	11.83	95
				1958	Feb. 27, 1958	10.96	17
1951	June 8, 1951	16.3	2,070	1959	May 26, 1959	11.97	118
1952	Aug. 14, 1952	13.06	325	1960	July 11, 1960	14.45	811
1953	July 12, 1953	8.85	2				
1954	Aug. 7, 1954	11.10	25	1961	May 22, 1961	(a)	3
1955	Apr. 12, 1955	9.0	4	1962	June 16, 1962	17.31	3,110

a Less than 10 ft.

7674. North Plum Creek near Farnam, Nebr.

Location.--Lat 40°44', long 100°10', in SW¼ sec.22, T.9 N., R.25 W., at downstream side of bridge on State Highway 47, 3 miles northeast of Farnam.

Drainage area.--38.3 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,710 ft (from topographic map).

Stage-discharge relation.--Defined by low-flow estimates and a current-meter measurement at 407 cfs and by an indirect measurement at 1,600 cfs.

Bankfull stage.--12 ft.

Historical data.--In April 1951 a heavy trash deposit was found under the bridge at a 17.8-ft stage. This was from some unidentified past flood which was at least this high and could have been higher. Based on precipitation records, this flood probably occurred on June 22, 1947.

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)
1947	June 22, 1947	17.8	1,600	1957	Apr. 22, 1957	11.30	138
				1958	July 18, 1958	12.39	159
1951	June 8, 1951	14.3	385	1959	-	-	0
1952	Aug. 14, 1952	7.1	7	1960	July 11, 1960	16.22	865
1953	July 13, 1953	4.7	1				
1954	June 16, 1954	10.76	104	1961	-	(a)	20
1955	-	-	0	1962	July 11, 1962	17.34	1,600
1956	-	-	0				

a Less than 10 ft.

7674.1. Plum Creek near Farnam, Nebr.

Location.--Lat 40°41', long 100°09', in NE¼NW¼ sec.10, T.8 N., R.25 W., at downstream side of truss bridge on east-west dirt road, 0.4 mile west of State Highway 23N, and 4 miles southeast of Farnam.

Drainage area.--79.8 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,650 ft (from topographic map).

Stage-discharge relation.--Defined velocity-area studies, a current-meter measurement at 1,050 cfs, and by slope-area measurements at 170, 344, 452, and 1,970 cfs.

Bankfull stage.--13 ft.

Historical data.--In 1951 a local resident stated that water had been over the top of the bridge truss which is at elevation 23.3 ft, but the date and recurrence interval of the flood is unknown. A debris deposit was found in 1951 at elevation 22.6 ft. Precipitation records indicate that the latter flood may have occurred June 22, 1947.

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)
1947	June 22, 1947	22.6	3,800	1957	Apr. 22, 1957	12.20	170
				1958	Feb. 27, 1958	11.76	133
1951	June 8, 1951	19.5	2,310	1959	May 25, 1959	10.03	52
1952	Aug. 14, 1952	10.27	58	1960	July 11, 1960	15.21	630
1953	July 12, 1953	6.66	3.3				
1954	June 16, 1954	9.7	42	1961	Aug. 17, 1961	10.26	58
1955	July 14, 1955	7.1	6	1962	June 16, 1962	18.74	1,970
1956	July 5, 1956	10.23	57				

7675. Plum Creek near Smithfield, Nebr.

Location.--Lat 40°39'40", long 99°42'00", in NW¼SW¼ sec.15, T.8 N., R.21 W., on left pier on downstream side of county highway bridge and 6½ miles northeast of Smithfield.

Drainage area.--229 sq mi.

Gage.--Recording at site 100 ft downstream at datum 4.78 ft higher prior to Oct. 1, 1955; crest-stage gage thereafter. Altitude of gage is 2,390 ft (from topographic map).

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

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)
1947	June 23, 1947	23.41	2,800	1956	July 5, 1956	11.93	116
1948	June 23, 1948	22.38	2,230	1957	June 16, 1957	18.64	844
1949	June 6, 1949	19.93	1,220	1958	Feb. 27, 1958	14.35	259
1950	May 30, 1950	15.80	404	1959	Mar. 26, 1959	13.01	175
				1960	Mar. 22, 1960	17.46	620
1951	June 10, 1951	17.24	588				
1952	May 27, 1952	11.60	90	1961	Aug. 17, 1961	16.35	470
1953	May 10, 1953	9.65	18	1962	June 7, 1962	17.55	562
1954	May 16, 1954	13.85	220				
1955	June 16, 1955	13.45	196				

7680. Platte River near Overton, Nebr.

Location.--Lat 40°41', long 99°32', in sec.12, T.8 N., R.20 W., on right bank just downstream from highway bridge, 4 miles south of Overton and 4 miles downstream from Plum Creek.

Drainage area.--58,400 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 1, 1930; recording thereafter. At site 8 miles downstream at different datum, July 1914 to October 1917. At present site at datum 2 ft higher June 1918 to Sept. 12, 1928. Datum of gage is 2,299.83 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1915	May 29, 1915	3.85	19,600	1945	June 11, 1945	3.85	5,530
1916	May 24, 1916	-	5,200	1946	Mar. 16, 1946	3.49	3,490
1917	June 2, 1917	-	29,300	1947	June 23, 1947	6.03	18,700
				1948	June 23, 1948	3.94	5,990
1919	Oct. 10, 1918	-	9,000	1949	June 24, 1949	5.58	15,100
1920	May 18, 1920	-	21,500	1950	Nov. 14, 1949	3.17	3,210
1921	June 14, 1921	-	37,000	1951	Feb. 13, 1951	a5.25	-
1922	May 23, 1922	-	9,400		May 18, 1951	-	7,550
1923	June 17, 1923	-	22,000	1952	Jan. 30, 1952	a4.73	-
					Mar. 27, 1952	-	5,710
1926	June 20, 1926	-	15,500	1953	Dec. 27, 1952	a5.70	-
1927	Apr. 19, 1927	-	12,800		Jan. 9, 1953	-	4,640
1928	June 12, 1928	-	23,000	1954	Nov. 6, 1953	-	2,930
1929	June 7, 1929	-	19,000		Jan. 18, 1954	a5.70	-
1930	May 13, 1930	4.70	9,940	1955	Jan. 13, 1955	a5.96	-
					Mar. 10, 1955	-	2,370
1931	Apr. 4, 1931	4.85	10,600				
1932	Mar. 18, 1932	4.39	6,120	1956	Feb. 14, 1956	a6.00	-
1933	Apr. 23, 1933	4.82	8,440		Mar. 31, 1956	-	1,970
1934	Feb. 1, 1934	3.99	5,210	1957	Jan. 24, 1957	a4.83	-
1935	June 5, 1935	6.25	37,600		May 25, 1957	-	7,530
				1958	Mar. 10, 1958	a5.49	-
1937	Mar. 20, 1937	3.83	7,050		May 26, 1958	-	5,800
1938	Feb. 28, 1938	4.08	7,680	1959	Jan. 26, 1959	a5.80	-
1939	Feb. 8, 1939	a5.00	-		Mar. 29, 1959	-	2,960
	Mar. 18, 1939	-	9,660	1960	Jan. 14, 1960	a5.28	-
1940	Mar. 2, 1940	4.07	8,940		Mar. 24, 1960	-	6,950
1941	Mar. 16, 1941	3.35	2,330	1961	Jan. 31, 1961	a4.03	-
1942	May 10, 1942	5.32	15,200		June 19, 1961	-	3,490
1943	Apr. 12, 1943	3.48	3,860	1962	Dec. 28, 1961	a5.42	-
1944	May 12, 1944	3.58	4,070		June 9, 1962	-	7,100

a Backwater from ice.

7681. East Branch Buffalo Creek tributary near Buffalo, Nebr.

Location.--Lat 41°00'17", long 99°50'14", in SE¼SW¼ sec.16, T.12 N., R.22 W., on upstream side of bridge, 100 ft south of fork in road and 1.2 miles north of road intersection at Buffalo.

Drainage area.--5.24 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,575 ft (from topographic map).

Stage-discharge relation.--Defined by several low-flow estimates and slope-area measurements at 49 and 208 cfs.

Historical data.--On Apr. 25, 1951, a flood debris deposit was found at gage height 13.4 ft; date of occurrence unknown.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of East Branch Buffalo Creek tributary near Buffalo, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 30, 1951	11.07	64	1957	June 17, 1957	11.23	72
1952	Aug. 11, 1952	7.7	2	1958	July 19, 1958	13.31	208
1953	Sept. 2, 1953	9.94	15	1959	July 17, 1959	11.20	71
1954	June 16, 1954	10.78	49	1960	Mar. 21, 1960	11.32	78
1955	June 28, 1955	9.09	5				
				1961	May 30, 1961	10.62	42
1956	Aug. 17, 1956	9.3	5	1962	July 16, 1962	12.26	135

7682. East Branch Buffalo Creek near Buffalo, Nebr.

Location.--Lat 40°59', long 99°50', in N½NE¼ sec.28, T.12 N., R.22 W., on downstream side of bridge on dirt road 0.2 mile east of crossroads at Buffalo.

Drainage area.--32.8 sq mi, of which 28.3 sq mi contributes directly to surface runoff.

Gage.--Crest-stage gage. Altitude of gage is 2,560 ft (from topographic map).

Stage-discharge relation.--Defined by low-flow estimates and current-meter measurements below 40 cfs and by indirect measurements at 66, 267, and 1,570 cfs.

Bankfull stage.--14 ft.

Historical data.--On Apr. 25, 1951, a floodmark at a stage of 14.0 ft was observed; date of occurrence unknown. Local reports are that water has been over the bridge floor which is at elevation 19.34 ft; date and recurrence interval of flood unknown.

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)
1951	May 30, 1951	14.92	250	1957	June 16, 1957	15.05	270
1952	Aug. 11, 1952	8.8	30	1958	July 19, 1958	18.26	1,570
1953	Sept. 2, 1953	9.3	12	1959	July 7, 1959	13.04	115
1954	Aug. 18, 1954	11.83	66	1960	Mar. 21, 1960	15.21	267
1955	June 28, 1955	10.85	40				
				1961	May 30, 1961	11.72	64
1956	Aug. 17, 1956	12.35	85	1962	Mar. 24, 1962	16.38	500

7683. East Branch Buffalo Creek tributary No. 2 near Buffalo, Nebr.

Location.--Lat 40°59', long 99°51', on west line of sec.28, T.12 N., R.22 W., on downstream side of bridge on gravel road 0.5 mile west and 0.3 mile south of crossroads at Buffalo.

Drainage area.--2.10 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,550 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, an estimate of 30 cfs, and an indirect measurement at 148 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)
1951	May 30, 1951	11.44	50	1957	June 16, 1957	12.12	117
1952	-	-	0	1958	June 12, 1958	12.52	172
1953	-	-	0	1959	Aug. 14, 1959	11.30	40
1954	-	-	0	1960	Sept.20, 1960	10.82	145
1955	-	-	0				
				1961	Aug. 11, 1961	10.48	101
1956	-	-	0	1962	July 16, 1962	10.64	121

7684. West Branch Buffalo Creek near Buffalo, Nebr.

Location.--Lat 40°59', long 99°52', in NW¼NE¼ sec.30, T.12 N., R.22 W., at downstream side of bridge on dirt road and 2.0 miles west of crossroads at Buffalo.

Drainage area.--16.3 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,590 ft (from topographic map).

Stage-discharge relation.--Defined by several estimates below 5 cfs and by slope-area measurements at 29 and 479 cfs.

Bankfull stage.--13½ 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)
1951	May 30, 1951	14.27	185	1957	June 17, 1957	12.64	87
1952	Aug. 11, 1952	9.3	2	1958	July 19, 1958	15.81	475
1953	Sept. 2, 1953	10.75	28.8	1959	July 7, 1959	11.00	35
1954	Aug. 18, 1954	12.00	66	1960	Mar. 21, 1960	11.60	54
1955	June 17, 1955	9.3	4				
				1961	Aug. 11, 1961	14.24	182
1956	June 22, 1956	11.18	41	1962	Mar. 24, 1962	11.85	61

7685. Buffalo Creek near Darr, Nebr.

Location.--Lat 40°54'00", long 99°50'00", in NE¼ sec.28, T.11 N., R.22 W., on left bank 12 ft downstream from county road bridge and 6½ miles northeast of Darr.

Drainage area.--63 sq mi, approximately, of which 58.5 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,466.7 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,000 cfs and by slope-area measurement at 9,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Flow affected at times by waste from Gothenburg Canal which is spilled into Buffalo Creek above station. Base for partial-duration series, 100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Oct. 5, 1946	10.32	515	1954	Oct. 7, 1953	-	-
	Oct. 7, 1946	10.62	746				
	June 22, 1947	18.4	9,000	1955	June 28, 1955	5.66	35
	July 10, 1947	8.05	188				
	July 17, 1947	10.12	376	1956	Oct. 14, 1955	5.78	25
1948	Mar. 15, 1948	11.11	524	1957	June 16, 1957	12.04	586
	June 21, 1948	13.33	1,440		July 14, 1957	6.90	105
	July 29, 1948	12.52	970		Aug. 23, 1957	7.15	118
1949	Feb. 24, 1949	a7.70	-	1958	May 26, 1958	9.38	279
					June 12, 1958	10.00	345
1950	July 9, 1950	7.90	167		July 10, 1959	-	229
					July 19, 1959	12.61	1,130
1951	May 31, 1951	10.02	344				
	June 14, 1951	7.20	136	1959	June 30, 1959	8.05	174
	June 22, 1951	7.40	144		July 3, 1959	8.87	235
1952	Aug. 11, 1952	6.47	108	1960	Mar. 22, 1960	-	450
					June 9, 1960	11.15	536
1953	Sept.21, 1953	5.52	42		Sept.21, 1960	11.16	538

a Backwater from ice.

Peak stages and discharges of Buffalo Creek near Darr, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 31, 1961	9.07	268	1962	June 16, 1962	10.27	461
	Aug. 12, 1961	7.18	128		July 17, 1962	8.86	234
					July 29, 1962	7.19	130
1962	Mar. 24, 1962	12.00	803		Aug. 1, 1962	7.01	123
	June 7, 1962	7.20	154		Aug. 3, 1962	8.32	207

7690. Buffalo Creek near Overton, Nebr.

Location.--Lat 40°44'00", long 99°30'20", in SE¼ sec.20, T.9 N., R.19 W., on left bank just downstream from bridge on U.S. Highway 30, 1½ miles east of Overton and 10 miles upstream from mouth.

Drainage area.--175 sq mi, of which 170 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,297.08 ft above mean sea level, datum of 1929.

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

Remarks.--Flow affected by spill from irrigation canals above station and from small diversions by pumping. 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	Sept.11, 1949	6.90	215	1955	June 17, 1955	3.74	-
1950	May 31, 1950	5.25	124	1955	July 1, 1955	-	34
1951	June 26, 1951	8.07	270	1956	June 22, 1956	4.08	43
1952	Aug. 13, 1952	6.64	195	1957	June 19, 1957	8.11	186
1953	Oct. 8, 1952	4.72	90	1958	July 12, 1958	10.47	383
1954	Aug. 20, 1954	6.04	107				

7691. Elm Creek tributary near Overton, Nebr.

Location.--Lat 40°53', long 99°34', in SE¼ sec.26, T.11 N., R.20 W., on upstream side of bridge on dirt road 10 miles north and 1.3 miles west of Overton.

Drainage area.--0.54 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,440 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow and several estimates of discharge below 45 cfs and by indirect measurements at 139 and 171 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)
1951	Apr. 26, 1951	12.0	38	1957	June 16, 1957	13.38	126
1952	July 14, 1952	10.37	1.3	1958	July 10, 1958	13.59	142
1953	May 9, 1953	10.90	8	1959	July 3, 1959	11.48	20
1954	Aug. 18, 1954	12.20	48	1960	Mar. 21, 1960	12.72	78
1955	Sept.25, 1955	12.15	45				
				1961	Aug. 10, 1961	13.17	103
1956	-	-	0	1962	July 16, 1962	13.20	112

7692. Elm Creek near Sumner, Nebr.

Location.--Lat 40°52', long 99°32', in NE corner sec.12, T.10 N., R.20 W., on downstream side of bridge on dirt road, 1.7 miles west and 6.7 miles south of Sumner, and 8.0 miles north of Overton.

Drainage area.--14.9 sq mi.

Gage.--Crest-stage gage. The gage was raised 0.44 ft on July 29, 1958, but all stages shown are adjusted to the present datum. Altitude of gage is 2,415 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, low-flow estimates, and two current-meter measurements below 110 cfs.

Bankfull stage.--12 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)
1951	June 22, 1951	12.79	88	1957	June 16, 1957	13.32	145
1952	July 14, 1952	11.12	3.5	1958	July 10, 1958	14.41	271
1953	May 9, 1953	12.66	73	1959	July 3, 1959	12.80	88
1954	Aug. 18, 1954	12.06	12.7	1960	Mar. 21, 1960	13.32	145
1955	Sept.25, 1955	11.44	5				
				1961	Aug. 10, 1961	13.02	112
1956	Aug. 17, 1956	10.31	1	1962	Mar. 25, 1962	13.44	158

7693. Elm Creek tributary No. 2 near Overton, Nebr.

Location.--Lat 40°51', long 99°32', in SW¼NW¼ sec.7, T.10 N., R.19 W., on downstream side of bridge on gravel road 7.5 miles north of Overton.

Drainage area.--5.19 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,415 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, current-meter measurements below 1.8 cfs, estimates between 10 and 40 cfs, and a contracted-opening measurement at 276 cfs.

Historical data.--In 1951 old floodmarks from a flood of unknown date prior to 1951 were found on the bridge stringers at elevation 13.25 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)
1951	June 22, 1951	12.62	180	1957	June 16, 1957	12.90	246
1952	July 14, 1952	12.58	174	1958	July 10, 1958	13.03	276
1953	May 9, 1953	12.77	216	1959	July 3, 1959	13.00	272
1954	Aug. 18, 1954	12.31	122	1960	July 11, 1960	12.46	150
1955	June 17, 1955	11.52	28				
				1961	June 14, 1961	13.13	307
1956	Aug. 17, 1956	10.71	2	1962	June 7, 1962	12.92	246

7695. Elm Creek near Overton, Nebr.

Location.--Lat 40°50'40", long 99°30'20", in NE¼NE¼ sec.17, T.10 N., R.19 W., on left bank 250 ft downstream from county road bridge and 7¾ miles northeast of Overton.

Drainage area.--31 sq mi, approximately.

Gage.--Recording. Altitude of gage is 2,390 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 250 cfs and by velocity-area study at 8,000 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)
1947	June 22, 1947	19.65	8,000	1954	Aug. 18, 1954	5.67	72
1948	June 27, 1948	14.59	747	1955	Feb. 18, 1955	a4.86	-
1949	Feb. 24, 1949	a10.85	-		June 15, 1955	-	35
	July 6, 1949	-	399				
1950	June 18, 1950	4.77	53	1956	Feb. 22, 1956	a2.65	-
					Sept.23, 1956	-	4.2
1951	June 22, 1951	9.45	338	1957	June 16, 1957	16.07	1,320
1952	July 14, 1952	5.08	63	1958	July 10, 1958	18.14	4,470
1953	May 10, 1953	8.37	256				

a Backwater from ice.

7700. Platte River near Odessa, Nebr.

Location.--Lat 40°40', long 99°15', in sec.16, T.8 N., R.7 W., near right bank on downstream side of pier of highway bridge, 2½ miles south of Odessa and 5 miles downstream from Elm Creek.

Drainage area.--58,800 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 7, 1938; recording thereafter. At datum 1.00 ft higher prior to Sept. 30, 1942. Gage heights prior to 1943 adjusted to present datum. Datum of gage is 2,197.07 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1937	Mar. 21, 1937	-	5,800	1952	Mar. 5, 1952	a5.89	-
1938	Feb. 28, 1938	-	7,600		Mar. 27, 1952	-	7,110
1939	Mar. 18, 1939	4.20	7,540	1953	Jan. 15, 1953	a3.80	-
1940	Feb. 8, 1940	a4.65	-		Mar. 6, 1953	-	2,780
	Mar. 3, 1940	-	6,700	1954	Nov. 7, 1953	-	2,650
					Feb. 4, 1954	a3.66	-
1941	Dec. 29, 1940	a3.17	-	1955	Jan. 6, 1955	a4.45	-
	Apr. 3, 1941	-	995		Mar. 22, 1955	-	2,790
1942	May 5, 1942	4.76	-				
	May 10, 1942	-	17,500	1956	Jan. 6, 1956	a3.72	-
1943	Apr. 11, 1943	3.56	4,650		Mar. 16, 1956	-	1,670
1944	Apr. 25, 1944	3.66	5,040	1957	May 26, 1957	4.02	7,110
1945	June 10, 1945	3.90	6,410	1958	Feb. 11, 1958	a4.86	-
					May 28, 1958	-	5,360
1946	Mar. 17, 1946	3.33	3,150	1959	Dec. 12, 1958	a3.75	-
1947	June 24, 1947	5.52	22,700		July 4, 1959	-	3,520
1948	June 24, 1948	3.67	5,500	1960	Feb. 14, 1960	a5.59	-
1949	June 25, 1949	4.93	14,800		Mar. 24, 1960	-	8,020
1950	May 30, 1950	3.34	4,100				
				1961	Feb. 19, 1961	a3.99	-
1951	Jan. 3, 1951	a4.85	-		May 22, 1961	-	5,830
	June 26, 1951	-	7,690	1962	June 9, 1962	4.32	9,250

a Backwater from ice.

7705. Platte River near Grand Island, Nebr.

Location.--Lat 40°53', long 98°17', in sec.36, T.11 N., R.9 W., on left bank 30 ft downstream from bridge on U.S. Highway 34, 2 miles upstream from Chicago, Burlington & Quincy Railroad bridge, and 5 miles southeast of Grand Island.

Drainage area.--59,500 sq mi, approximately.

Gage.--Recording. Altitude of gage is 1,840 ft (from report of State engineer).

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1934	Mar. 5, 1934	4.27	7,580	1951	Dec. 15, 1950	a4.40	-
1935	June 6, 1935	5.99	30,000		May 19, 1951	-	7,060
				1952	Feb. 7, 1952	a4.74	-
1937	Mar. 7, 1937	3.92	5,390		Mar. 27, 1952	-	7,800
				1953	Jan. 27, 1953	a4.17	-
1939	Mar. 19, 1939	4.28	9,720		Mar. 6, 1953	-	2,970
1940	Mar. 4, 1940	a5.83	-	1954	Feb. 6, 1954	a4.40	-
	Mar. 5, 1940	-	8,000		Feb. 22, 1954	-	3,450
				1955	Mar. 10, 1955	-	4,500
1942	May 6, 1942	4.96	15,300		Mar. 10, 1955	a4.22	-
1943	July 5, 1943	3.75	4,930				
1944	May 13, 1944	3.84	5,450	1956	Mar. 1, 1956	4.22	1,860
1945	Dec. 25, 1944	a4.59	-	1957	May 27, 1957	4.08	5,830
	June 11, 1945	-	6,420	1958	Feb. 25, 1958	a4.89	-
					Apr. 3, 1958	-	4,680
1946	Jan. 6, 1946	a4.39	-	1959	Mar. 2, 1959	a4.56	-
	Mar. 17, 1946	-	4,150		Mar. 26, 1959	-	4,000
1947	June 23, 1947	5.66	20,300	1960	Mar. 27, 1960	-	10,100
1948	Mar. 18, 1948	a5.62	-		Mar. 27, 1960	a6.16	-
	Mar. 19, 1948	-	15,900				
1949	Mar. 4, 1949	a6.03	-	1961	Feb. 3, 1961	a4.18	-
	June 26, 1949	-	14,100		May 23, 1961	-	5,430
1950	Feb. 19, 1950	a4.32	-	1962	Feb. 12, 1962	a4.65	-
	May 9, 1950	-	4,310		June 11, 1962	-	7,000

a Backwater from ice.

7706. Wood River tributary near Lodi, Nebr.

Location.--Lat 41°11'59", long 99°50'21", in SE¼NE¼ sec.9, T.14 N., R.22 W., on upstream end of bridge on State Highway 40, 50 ft upstream from railroad bridge, 6.1 miles northwest of junction of State Highways 40 and 21 at Oconto.

Drainage area.--2.02 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,640 ft (from topographic map). Gage heights herein are to datum in use subsequent to 1962.

Stage-discharge relation.--Definition based on field estimates and velocity-area studies.

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)
1952	-	-	0	1958	July 19, 1958	11.89	26
1953	May 28, 1953	10.5	5	1959	-	-	0
1954	June 17, 1954	12.08	27	1960	Mar. 23, 1960	11.76	23.4
1955	-	-	0				
				1961	-	-	0
1956	Aug. 17, 1956	11.96	27	1962	Aug. 3, 1962	12.30	32
1957	-	-	0				

7707. Wood River near Lodi, Nebr.

Location.--Lat 41°10'15", long 99°48'20", in SE¼NE¼ sec.23, T.14 N., R.22 W., on downstream side of bridge on State Highway 40, 50 ft downstream from Union Pacific Railroad, 2.9 miles northwest of Oconto, 4 miles southeast of Lodi, and 10 miles southeast of Calloway.

Drainage area.--12.9 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,595 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, flow estimates below 12 cfs, and by slope-area measurement at 75 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)
1952	Aug. 13, 1952	8.5	1	1958	July 19, 1958	10.71	75
1953	May 28, 1953	9.36	12	1959	-	-	0
1954	June 17, 1954	10.33	52	1960	Mar. 23, 1960	10.43	58
1955	June 16, 1955	11.63	142	1961	-	-	0
1956	Aug. 17, 1956	11.09	101	1962	June 7, 1962	10.46	59
1957	-	-	0				

7708. Wood River near Oconto, Nebr.

Location.--Lat 41°09'45", long 99°47'40", in SW¼SW¼ sec.24, T.14 N., R.22 W., on downstream side of State Highway 40 bridge, 50 ft upstream from Union Pacific Railroad, and 2.6 miles northwest of junction of State Highways 40 and 21 at Oconto.

Drainage area.--26.4 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,588 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, several low-flow estimates, and slope-area measurements at 186 and 790 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)
1950	July 8, 1950	13.6	600	1957	June 16, 1957	11.22	152
				1958	July 19, 1958	13.85	652
1952	Aug. 13, 1952	8.5	1	1959	-	-	0
1953	May 28, 1953	11.45	186	1960	Mar. 23, 1960	13.09	490
1954	June 17, 1954	14.47	790				
1955	June 16, 1955	13.44	563	1961	May 22, 1961	(a)	5
				1962	June 7, 1962	12.29	330
1956	June 17, 1956	12.77	422				

a Less than 10 ft.

7709. Wood River at Oconto, Nebr.

Location.--Lat 41°08'50", long 99°45'25", in NW corner of sec.32, T.14 N., R.21 W., on downstream side of State Highway 21 bridge, 0.8 mile north of junction with State Highway 40, and just north of Oconto.

Drainage area.--44.8 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,555 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow and several low-flow estimates and extended on basis of a conveyance study and indirect measurements at 69, 485, and 2,390 cfs.

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)
1950	July 8, 1950	14.8	430	1957	June 16, 1957	12.14	205
				1958	July 19, 1958	18.58	2,390
1952	Mar. 13, 1952	10.64	110	1959	June 29, 1959	10.60	105
1953	May 28, 1953	9.96	69	1960	Mar. 23, 1960	14.15	485
1954	June 17, 1954	15.55	590				
1955	June 16, 1955	14.48	390	1961	May 22, 1961	(a)	30
				1962	June 7, 1962	15.35	700
1956	Aug. 17, 1956	9.2	35				

a Less than 10 ft.

7709.1. Wood River near Lomax, Nebr.

Location.--Lat 41°03'40", long 99°40'50", in SW¼SW¼ sec.25, T.13 N., R.21 W., on downstream side of State Highway 40, 50 ft downstream from Union Pacific Railroad and half a mile southeast of crossroads at Lomax.

Drainage area.--79.6 sq mi, of which 77.9 sq mi contributes directly to surface runoff.

Gage.--Crest-stage gage. Altitude of gage is 2,470 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter and slope-area measurements below 210 cfs and by slope-area measurement at 1,470 cfs.

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)
1952	Mar. 13, 1952	9.63	48	1958	July 19, 1958	19.67	1,470
1953	Sept. 2, 1953	11.09	112	1959	June 29, 1959	8.02	12
1954	June 17, 1954	12.46	200	1960	Sept.20, 1960	20.83	1,750
1955	June 17, 1955	11.76	148				
				1961	May 30, 1961	16.36	730
1956	Aug. 17, 1956	-	30	1962	Mar. 24, 1962	a18.58	990
1957	June 16, 1957	17.34	937				

a Backwater from snow.

7710. Wood River near Riverdale, Nebr.

Location.--Lat 40°47'50", long 99°11'50", in NW¼NW¼ sec.31, T.10 N., R.16 W., near right bank on downstream side of bridge on State Highway 40, 1½ miles northwest of Riverdale.

Drainage area.--379 sq mi.

Gage.--Recording. Datum of gage is 2,163.8 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by contracted-opening measurement at 20,000 cfs.

Historical data.--Flood in 1923 reached a stage of 18.2 ft, from records of Bureau of Roads and Bridges (discharge, about 13,000 cfs). In 1935, water overtopped bridges on Wood River according to Kearney newspapers.

Bankfull stage.--9 ft.

Remarks.--Peak discharges not appreciably affected by irrigation development above station. 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)
1923	-	18.2	a13,000	1955	June 17, 1955	10.88	700
1947	Oct. 7, 1946	-	2,100	1956	July 5, 1956	9.03	406
	Oct. 9, 1946	-	918				
	June 19, 1947	-	255	1957	June 17, 1957	10.97	815
	June 22, 1947	19.75	20,000				
	June 23, 1947	-	3,140	1958	May 28, 1958	8.27	285
	July 17, 1947	-	487		June 14, 1958	9.41	445
					July 12, 1958	8.93	384
1948	Feb. 29, 1948	7.01	373		July 20, 1958	12.27	1,500
	Mar. 17, 1948	12.07	1,820				
	June 24, 1948	6.36	294	1959	July 4, 1959	8.35	316
	June 27, 1948	8.63	600		July 16, 1959	7.33	209
	July 29, 1948	8.82	630				
	July 31, 1948	6.48	312	1960	Mar. 25, 1960	11.55	1,130
					May 6, 1960	7.72	276
1949	Feb. 23, 1949	6.60	334		June 9, 1960	10.66	827
	June 7, 1949	10.75	1,100		June 15, 1960	7.02	230
	June 10, 1949	10.97	1,200		June 22, 1960	6.80	210
	June 14, 1949	5.80	246		Sept.23, 1960	7.16	257
	June 28, 1949	5.43	209				
	Sept.11, 1949	6.28	299	1961	June 3, 1961	7.23	251
					Aug. 11, 1961	7.41	271
1950	May 28, 1950	5.38	204		Aug. 13, 1961	7.88	331
	June 19, 1950	6.20	274				
	July 9, 1950	9.57	707	1962	Mar. 22, 1962	9.94	676
	Sept.20, 1950	7.45	432		Mar. 26, 1962	10.22	713
					May 20, 1962	8.03	373
1951	June 2, 1951	6.48	296		May 30, 1962	6.75	248
	June 26, 1951	6.18	266		June 10, 1962	8.26	422
					June 13, 1962	7.67	337
1952	May 27, 1952	5.41	207		June 19, 1962	10.76	845
	July 14, 1952	5.49	215		July 19, 1962	6.83	255
					July 30, 1962	6.48	204
1953	May 27, 1953	8.58	568		Aug. 5, 1962	9.51	573
					Aug. 16, 1962	8.20	390
1954	June 15, 1954	7.13	394				

a About, from Bureau of Roads and Bridges.

7715. Wood River near Gibbon, Nebr.

Location.--Lat 40°46'10", long 98°48'00", in NW¼ sec.9, T.9 N., R.13 W., on left bank 10 ft downstream from bridge on county highway and 2½ miles northeast of Gibbon.

Drainage area.--572 sq mi.

Gage.--Nonrecording prior to July 26, 1949; recording thereafter. Datum of gage is 2,024.88 ft above mean sea level, datum of 1929.

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

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 2, 1949	12.72	670	1957	Aug. 30, 1957	9.75	370
	June 9, 1949	15.63	1,600				
	Sept.12, 1949	8.25	312	1958	June 16, 1958	9.94	326
					July 11, 1958	14.88	961
1950	July 10, 1950	15.74	1,680		July 19, 1958	15.20	1,140
	July 24, 1950	11.62	524		July 23, 1958	15.02	1,020
	July 27, 1950	9.04	324		Aug. 15, 1958	10.38	372
	Aug. 4, 1950	9.31	379				
	Sept.21, 1950	11.13	511	1959	July 5, 1959	12.54	590
					July 18, 1959	10.81	401
1951	June 3, 1951	8.27	300				
	June 15, 1951	8.95	352	1960	Mar. 28, 1960	16.14	2,100
	June 27, 1951	11.2	534		May 6, 1960	11.66	527
					June 11, 1960	14.39	817
1952	May 28, 1952	14.42	992		June 17, 1960	10.11	325
	July 15, 1952	8.89	352		June 21, 1960	11.29	435
1953	May 11, 1953	13.44	766	1961	May 23, 1961	8.92	240
	May 28, 1953	11.76	583				
				1962	Mar. 24, 1962	-	410
1954	June 16, 1954	10.43	436		Mar. 28, 1962	13.07	659
	June 18, 1954	12.81	707		May 21, 1962	9.89	338
					June 14, 1962	10.50	350
1955	May 19, 1955	9.55	362		June 20, 1962	11.79	496
	June 18, 1955	12.50	672		July 2, 1962	10.50	350
					Aug. 5, 1962	-	400
1956	July 6, 1956	12.08	588		Aug. 16, 1962	10.54	354
1957	June 17, 1957	13.73	821				

7720. Wood River near Alda, Nebr.

Location.--Lat 40°51'10", long 98°28'20", in NE¼SE¼ sec.7, T.10 N., R.10 W., on right bank 1.2 miles south of Alda, 2.2 miles upstream from old north channel of the Platte River, and 19 miles upstream from present mouth.

Drainage area.--628 sq mi.

Gage.--Recording. Altitude of gage is 1,910 ft (from topographic map).

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

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 19, 1954	9.45	484	1957	June 20, 1957	9.70	-
					June 21, 1957	9.54	472
1955	June 20, 1955	9.54	523		Aug. 31, 1957	8.45	319
	July 11, 1955	8.73	389				
				1958	July 13, 1958	10.12	529
1956	July 8, 1956	8.67	351		July 25, 1958	10.83	742

Peak stages and discharges of Wood River near Alda, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	July 6, 1959	9.34	390	1961	May 24, 1961	7.94	218
1960	Mar. 29, 1960	10.95	1,370	1962	Mar. 25, 1962	a9.60	-
	May 7, 1960	9.23	395		Mar. 29, 1962	-	490
	June 12, 1960	10.74	1,020		June 15, 1962	8.65	336
	June 22, 1960	9.23	391		June 21, 1962	9.18	384

a Backwater from ice.

7730. Dry Creek at Cairo, Nebr.

Location.--Lat 41°00'10", long 98°36'30", in SW¼SW¼ sec.18, T.12 N., R.11 W., on left bank 15 ft downstream from bridge on State Highway 60 at north limits of Cairo and 8 miles upstream from mouth.

Drainage area.--22.2 sq mi.

Gage.--Recording. Datum of gage is 1,938.37 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 465 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)
1949	June 6, 1949	-	a1,100	1952	July 14, 1952	5.19	134
1950	May 19, 1950	6.77	354	1953	May 27, 1953	7.64	586
1951	May 31, 1951	6.53	340				

a Result of slope-area measurement by Bureau of Reclamation.

7740. Platte River near Duncan, Nebr.
(Published as "near Columbus," 1895-1915)

Location.--Lat 41°22', long 97°29', in sec.12, T.16 N., R.2 W., on left bank 25 ft downstream from highway bridge, 1½ miles south of Duncan and 12 miles upstream from Loup River.

Drainage area.--61,600 sq mi, approximately.

Gage.--Nonrecording prior to Feb. 20, 1935; recording thereafter. At site 7 miles downstream at different datums prior to October 1928. Datum of gage is 1,478.55 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 34,000 cfs.

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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)
1896	June 10, 1896	4.65	15,600	1907	June 11, 1907	5.60	25,400
1897	June 12, 1897	5.45	24,400	1908	June 8, 1908	6.30	34,200
1898	June 2, 1898	5.15	24,700	1909	June 13, 1909	5.80	25,400
1899	June 30, 1899	5.25	23,300				
1900	May 7, 1900	5.70	29,200	1911	Mar. 30, 1911	2.08	2,840
1901	Apr. 17, 1901	5.20	23,200	1913	May 3, 1913	4.85	12,100
1902	May 19, 1902	4.31	13,900	1914	June 13, 1914	5.60	20,100
1903	June 1, 1903	5.10	19,000	1915	June 21, 1915	6.10	24,400
1904	June 17, 1904	5.00	20,200				
1905	June 23, 1905	6.50	44,100	1928	June 16, 1928	5.85	18,100
				1929	Mar. 12, 1929	-	19,100
1906	May 3, 1906	5.20	23,300		June 9, 1929	5.03	-

Peak stages and discharges of Platte River near Duncan, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	June 5, 1930	4.68	15,000	1949	Mar. 16, 1949	a5.97	-
					June 27, 1949	-	13,000
1931	Oct. 14, 1930	4.11	10,200	1950	Mar. 7, 1950	a4.66	-
1932	Feb. 27, 1932	5.40	20,500		Mar. 18, 1950	-	4,700
1933	Apr. 25, 1933	4.02	8,490				
1934	Mar. 5, 1934	3.94	10,300	1951	Feb. 24, 1951	a4.64	-
1935	June 7, 1935	6.28	30,000		June 29, 1951	-	7,840
				1952	Mar. 10, 1952	-	10,000
1937	Mar. 6, 1937	3.57	6,450		Mar. 26, 1952	a5.12	-
				1953	Jan. 29, 1953	a3.95	-
1939	Mar. 11, 1939	a5.14	-		Mar. 6, 1953	-	6,300
	Mar. 20, 1939	-	11,800	1954	Feb. 8, 1954	a3.82	3,960
1940	Mar. 5, 1940	a4.16	-	1955	Mar. 10, 1955	a3.84	-
	Mar. 6, 1940	-	10,600		Mar. 11, 1955	-	6,080
1941	Feb. 7, 1941	a2.76	-	1956	Feb. 16, 1956	a3.56	-
	Mar. 13, 1941	-	1,210		Mar. 18, 1956	-	3,920
1942	May 12, 1942	4.80	16,000	1957	May 29, 1957	3.83	6,580
1943	Mar. 23, 1943	3.45	6,100	1958	Feb. 26, 1958	a3.99	-
1944	Apr. 27, 1944	3.71	7,090		July 25, 1958	-	5,090
1945	June 12, 1945	3.82	6,700	1959	Mar. 3, 1959	a4.17	-
					Mar. 28, 1959	-	4,470
1946	Mar. 18, 1946	3.32	4,430	1960	Mar. 28, 1960	6.36	25,400
1947	June 24, 1947	5.91	23,800				
1948	Mar. 19, 1948	a5.20	-	1961	May 25, 1961	3.68	6,720
	Mar. 20, 1948	-	14,000	1962	Mar. 24, 1962	4.72	7,000

a Backwater from ice.

7750. Middle Loup River near Seneca, Nebr.

Location.--Lat 42°02'40", long 100°56'10", in SW¼ sec.17, T.24 N., R.31 W., on right bank, a quarter of a mile north of Kelso siding on Chicago, Burlington & Quincy Railroad and 5 miles west of Seneca.

Drainage area.--1,140 sq mi, of which about 60 sq mi contributes directly to surface runoff.

Gage.--Recording. Altitude of gage is 3,000 ft (from topographic map).

Stage-discharge relation.--Defined 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)
1948	Aug. 12, 1948	1.75	307	1951	Sept. 5, 1951	2.20	358
1949	Jan. 7, 1949	a2.61	-	1952	Apr. 1, 1952	2.24	384
	Mar. 26, 1949	-	328	1953	Feb. 20, 1953	a2.55	-
1950	Aug. 8, 1950	2.09	457		Mar. 13, 1953	-	373

a Backwater from ice.

7755. Middle Loup River at Dunning, Nebr.

Location.--Lat 41°49'50", long 100°06'20", in SW¼ sec.33, T.22 N., R.24 W., on right bank just downstream from highway bridge at north limits of Dunning, a quarter of a mile upstream from bridge on State Highway 2 and 1¼ miles upstream from Dismal River.

Drainage area.--1,760 sq mi, approximately, of which about 80 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 12, 1946; recording thereafter. Datum of gage is 2,607.17 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Middle Loup River at Dunning, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 6, 1946	a6.60	-	1955	Feb. 24, 1955	a6.02	-
	Mar. 16, 1946	-	571		Mar. 10, 1955	-	720
1947	Oct. 4, 1946	-	821				
	Jan. 31, 1947	a5.96	-	1956	Dec. 6, 1955	a6.12	-
1948	Mar. 11, 1948	a6.10	-		Mar. 16, 1956	-	589
	Mar. 14, 1948	-	557	1957	Jan. 22, 1957	a6.50	-
1949	Mar. 31, 1949	a7.02	b660		May 14, 1957	-	742
1950	Mar. 8, 1950	a6.68	-	1958	Mar. 4, 1958	a6.52	-
	Aug. 10, 1950	-	540		Sept.13, 1958	-	830
				1959	Feb. 21, 1959	a6.09	-
1951	Dec. 9, 1950	a5.79	-		Mar. 14, 1959	-	621
	Sept. 5, 1951	-	630	1960	Jan. 21, 1960	a6.02	-
1952	Mar. 18, 1952	a6.18	-		Mar. 18, 1960	-	670
	May 26, 1952	-	626				
1953	Feb. 24, 1953	a6.49	-	1961	Dec. 23, 1960	a5.63	-
	Mar. 14, 1953	-	637		Aug. 18, 1961	-	725
1954	Dec. 22, 1953	a6.92	-	1962	Feb. 24, 1962	a6.03	-
	Apr. 29, 1954	-	642		July 14, 1962	-	932

a Backwater from ice.
b Estimated.

7765. Dismal River at Dunning, Nebr.

Location.--Lat 41°49'23", 100°06'05", in sec.4, T.21 N., R.24 W., on right bank 100 ft downstream from bridge on State Highway 2 at southeast corner of Dunning and 1 mile upstream from mouth.

Drainage area.--1,780 sq mi, approximately, of which about 50 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 20, 1956; recording thereafter. At site a quarter of a mile upstream at datum 0.5 ft lower, Mar. 1 to June 30, 1932. Datum of gage is 2,606.3 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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)
1932	June 11, 1932	5.84	741	1954	Feb. 1, 1954	-	480
				1955	Feb. 23, 1955	a3.86	-
1946	Feb. 4, 1946	3.40	530		Mar. 4, 1955	-	500
1947	Oct. 5, 1946	-	572				
	Jan. 19, 1947	a5.21	-	1956	Dec. 3, 1955	a4.30	-
1948	Feb. 13, 1948	a5.20	-		Feb. 11, 1956	-	460
	July 18, 1948	-	412	1957	Jan. 11, 1957	a4.27	-
1949	Feb. 23, 1949	a4.68	-		May 14, 1957	-	568
	Apr. 9, 1949	-	492	1958	Mar. 3, 1958	a4.49	-
1950	Oct. 10, 1949	-	703		Sept.14, 1958	-	635
	Mar. 8, 1950	a4.96	-	1959	Feb. 8, 1959	a5.17	-
					July 16, 1959	-	460
1951	Feb. 15, 1951	a4.80	-	1960	Jan. 31, 1960	-	475
	May 14, 1951	-	568		Feb. 28, 1960	a5.08	-
1952	Jan. 14, 1952	a4.00	-				
	May 26, 1952	-	996	1961	Dec. 2, 1960	a3.20	-
1953	Jan. 20, 1953	-	550		Aug. 17, 1961	-	466
	Feb. 23, 1953	a4.20	-	1962	Jan. 5, 1962	a4.60	-
1954	Jan. 18, 1954	a4.70	-		July 14, 1962	-	650

a Backwater from ice.

7770. Middle Loup River near Milburn, Nebr.

Location.--Lat 41°49'02", long 99°58'15", in NE¼SW¼ sec.3, T.21 N., R.23 W., on right bank at upstream side of Laughran bridge, 9 miles upstream from Rifle Creek and 15 miles northwest of Milburn.

Drainage area.--3,690 sq mi, approximately, of which 135 sq mi contributes directly to surface runoff.

Gage.--Recording. At site 7.6 miles downstream Nov. 9, 1951, to May 7, 1953, and at site 7.0 miles downstream at different datums May 8, 1953, to Aug. 8, 1955. Datum of gage is 2,556.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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)
1952	Jan. 14, 1952	a5.31	-	1956	Dec. 12, 1955	-	1,050
	May 26, 1952	-	2,440				
1953	Jan. 21, 1953	a5.50	1,790	1958	Mar. 5, 1958	a3.84	-
1954	Feb. 3, 1954	a5.12	-		Sept.14, 1958	-	1,850
	Feb. 5, 1954	-	1,580				
1955	Mar. 9, 1955	a5.54	-	1961	Dec. 20, 1960	a4.65	-
	Mar. 27, 1955	-	1,540		Mar. 8, 1961	-	1,200
				1962	Feb. 3, 1962	a3.82	-
1956	Dec. 7, 1955	a4.11	-		July 14, 1962	-	1,590

a Backwater from ice.

7775. Middle Loup River at Walworth, Nebr.

Location.--Lat 41°39'20", long 99°34'00", in NW¼ sec.1, T.19 N., R.20 W., on left bank 40 ft downstream from highway bridge, a quarter of a mile northeast of Walworth, and 2 miles upstream from Lillian Creek.

Drainage area.--4,340 sq mi, approximately, of which about 430 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to July 8, 1941; recording thereafter. Datum of gage is 2,377.56 ft above mean sea level, unadjusted.

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

Remarks.--Diversions for Sargent irrigation district and numerous small diversions for irrigation above station affect peak 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)
1941	Mar. 1, 1941	-	-	1951	May 15, 1951	-	2,930
	Mar. 5, 1941	a4.50	-	1952	Mar. 5, 1952	a4.87	-
1942	Mar. 4, 1942	3.36	2,340		May 27, 1952	-	1,670
1943	Mar. 20, 1943	3.20	1,780	1953	Jan. 21, 1953	a4.31	-
1944	Mar. 7, 1943	-	-		Feb. 26, 1953	-	1,490
	Mar. 8, 1944	a5.47	-	1954	Feb. 5, 1954	-	1,610
1945	Feb. 21, 1945	a4.61	-		Feb. 12, 1954	a6.03	-
	May 27, 1945	-	1,960	1955	Feb. 19, 1955	a5.58	-
					Mar. 28, 1955	-	1,740
1946	Dec. 13, 1945	a4.31	-				
	Feb. 22, 1946	-	2,040	1956	Mar. 2, 1956	-	1,340
1947	Oct. 5, 1946	-	2,990		Mar. 8, 1956	a4.80	-
	Feb. 26, 1947	a5.42	-	1957	Feb. 25, 1957	a3.88	-
1948	Feb. 17, 1948	-	-		May 14, 1957	-	1,630
	Mar. 14, 1948	a5.09	-	1958	Feb. 8, 1958	a4.83	-
1949	Mar. 16, 1949	a5.82	-		Sept.14, 1958	-	2,390
	Apr. 1, 1949	-	-	1959	Dec. 16, 1958	a4.06	-
1950	Feb. 8, 1950	a4.46	-		Mar. 14, 1959	-	1,420
	Mar. 16, 1950	-	-	1960	Mar. 22, 1960	a4.88	-
					Mar. 25, 1960	-	2,700
1951	Dec. 27, 1950	a4.95	-				

a Backwater from ice.

7776. Lillian Creek tributary near Broken Bow, Nebr.

Location.--Lat 41°30'15", long 99°39'30", in SE¼NE¼ sec.30, T.18 N., R.20 W., at bridge on north-south gravel road 7.5 miles north of Broken Bow.

Drainage area.--2.02 sq mi.

Gage.--Crest-stage gage. Altitude of gage 2,600 ft (from topographic map).

Stage-discharge relation.--Definition based on field estimates and velocity-area studies.

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)
1952	-	-	0	1958	Apr. 5, 1958	10.86	5.5
1953	June 7, 1953	10.35	2.5	1959	-	-	0
1954	June 20, 1954	10.20	2	1960	July 4, 1960	11.28	8
1955	May 17, 1955	10.34	2.4				
				1961	Aug. 12, 1961	10.67	4
1956	June 22, 1956	10.81	5.2	1962	June 6, 1962	12.51	-
1957	May 16, 1957	10.42	2.8				

7777. Lillian Creek near Broken Bow, Nebr.

Location.--Lat 41°30'35", long 99°39'25", in NE¼NE¼ sec.30, T.18 N., R.20 W., on downstream side of bridge on gravel road and 8 miles north of State Highway 2 in Broken Bow.

Drainage area.--4.77 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,595 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow and one low-flow estimate and extended on the basis of three indirect measurements at 36, 133, and 447 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)
1947	June 22, 1947	12.2	930	1957	Sept.13, 1957	10.48	53
				1958	May 25, 1958	10.78	162
1953	Aug. 10, 1953	-	0.6	1959	July 16, 1959	10.26	29
1954	June 16, 1954	10.35	35.7	1960	Mar. 21, 1960	10.40	40
1955	May 17, 1955	10.48	53				
				1961	Aug. 12, 1961	10.93	227
1956	June 17, 1956	11.39	447	1962	June 6, 1962	11.68	607

7778. Lillian Creek tributary No. 2 near Walworth, Nebr.

Location.--Lat 41°37'35", long 99°34'15", in SE¼SW¼ sec.12, T.19 N., R.20 W., on downstream side of bridge on dirt road 2 miles south of Walworth.

Drainage area.--2.04 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,409 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, three low-flow estimates, and extended on basis of two slope-area measurements at 68 and 585 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Lillian Creek tributary No. 2 near Walworth, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Aug. 12, 1951	12.4	585	1957	-	-	0
1952	-	-	0	1958	May 25, 1958	9.94	14
1953	June 7, 1953	8.7	.1	1959	-	-	0
1954	June 16, 1954	8.7	.1	1960	Mar. 21, 1960	11.46	255
1955	June 23, 1955	-	2				
				1961	May 5, 1961	10.57	61
1956	May 29, 1956	10.63	68.2	1962	Mar. 24, 1962	12.32	550

7780. Middle Loup River at Sargent, Nebr.

Location.--Lat 41°37'50", long 99°23'10", in NE¼SE¼ sec.9, T.19 N., R.18 W., on left bank 0.3 mile downstream from Sand Creek, 0.8 mile upstream from county highway bridge, and 1 mile southwest of Sargent.

Drainage area.--4,480 sq mi, approximately, of which about 475 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at highway bridge 0.8 mile downstream at different datum prior to Jan. 1, 1939; recording thereafter. Altitude of gage is 2,300 ft (from topographic map).

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

Remarks.--Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. 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)
1937	Feb. 15, 1937	a5.40	-	1957	Feb. 10, 1957	a3.82	-
	Mar. 24, 1937	-	1,280		May 13, 1957	-	1,720
1938	Apr. 27, 1938	4.58	2,280	1958	Mar. 6, 1958	a4.30	-
					Sept.14, 1958	-	1,920
1953	Jan. 22, 1953	a4.25	-	1959	Jan. 9, 1959	a4.17	-
	Feb. 26, 1953	-	1,560		Mar. 12, 1959	-	1,500
1954	Jan. 31, 1954	a3.71	-	1960	Mar. 22, 1960	a4.37	-
	Feb. 6, 1954	-	1,660		Mar. 26, 1960	-	3,400
1955	Mar. 28, 1955	a4.98	-				
	Mar. 28, 1955	-	2,000	1961	Feb. 24, 1961	a5.07	1,800
				1962	Mar. 24, 1962	a5.52	-
1956	Mar. 4, 1956	-	1,480		June 6, 1962	-	3,200
	Mar. 14, 1956	a4.71	-				

a Backwater from ice.

7790. Middle Loup River at Arcadia, Nebr.

Location.--Lat 41°25'20", long 99°08'10", in sec.26, T.17 N., R.16 W., on left bank just downstream from bridge on State Highway 57 at southwest edge of Arcadia.

Drainage area.--4,730 sq mi, approximately, of which about 820 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,146.30 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

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

Remarks.--Middle Loup Public Power and Irrigation District began diversion above station Mar. 30, 1938. Only annual peaks are shown.

Peak stages and discharges of Middle Loup River at Arcadia, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 12, 1938	3.20	4,110	1952	Feb. 20, 1952	a5.48	-
1939	June 25, 1939	4.63	6,600		May 27, 1952	-	2,570
1940	Dec. 26, 1939	a4.98	-	1953	Jan. 21, 1953	a4.84	-
	June 6, 1940	-	3,550		June 7, 1953	-	1,890
				1954	Feb. 3, 1954	a4.75	-
1941	Nov. 16, 1940	a3.80	-		Feb. 6, 1954	-	1,880
	Sept.22, 1941	-	2,620	1955	Jan. 18, 1955	a4.86	-
1942	Sept. 2, 1942	4.23	3,930		June 23, 1955	-	2,440
1943	June 14, 1943	3.35	2,630				
1944	Dec. 22, 1943	a4.10	-	1956	Mar. 18, 1956	a5.15	-
	May 14, 1944	-	3,090		May 29, 1956	-	2,140
1945	May 27, 1945	5.12	9,700	1957	Dec. 17, 1956	a5.46	-
					May 14, 1957	-	4,520
1946	Dec. 29, 1945	a4.06	-	1958	Feb. 24, 1958	a4.84	-
	June 18, 1946	-	2,590		Feb. 25, 1958	-	2,300
1947	June 22, 1947	6.24	-	1959	Dec. 8, 1958	a4.75	-
1948	Feb. 18, 1948	a4.22	2,000		Mar. 1, 1959	-	1,600
1949	Feb. 27, 1949	a5.53	-	1960	Mar. 27, 1960	a6.41	5,000
	Apr. 1, 1949	-	3,440				
1950	May 19, 1950	4.15	3,120	1961	Feb. 21, 1961	a4.88	2,000
				1962	Mar. 25, 1962	a5.01	-
1951	Feb. 3, 1951	a5.45	-		June 7, 1962	-	7,140
	Aug. 13, 1951	-	4,660				

a Backwater from ice.

7800. Middle Loup River at Rockville, Nebr.

Location.--Lat 41°06'39", long 98°50'19", in NE¼SW¼ sec.8, T.13 N., R.13 W., on right bank just downstream from bridge on State Highway 68, 0.6 mile southwest of Rockville.

Drainage area.--5,000 sq mi, approximately, of which about 1,090 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,956.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1954.

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

Remarks.--Natural flow of stream affected by many diversions for irrigation and return flow from irrigated areas. 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	Nov. 20, 1955	-	2,540	1960	Mar. 25, 1960	a6.20	-
	Mar. 16, 1956	a5.37	-		Mar. 28, 1960	-	9,660
1957	Feb. 23, 1957	a6.03	-				
	June 16, 1957	-	10,400	1961	Feb. 2, 1961	a5.87	-
1958	Feb. 15, 1958	a5.99	-		May 31, 1961	-	3,130
	Feb. 26, 1958	-	5,480	1962	Mar. 23, 1962	a6.06	-
1959	Dec. 24, 1958	a6.07	-		June 7, 1962	-	7,810
	Mar. 26, 1959	-	2,090				

a Backwater from ice.

7820. South Loup River near Cumro, Nebr.

Location.--Lat 41°02'45", long 99°23'20", in NE¼NE¼ sec.5, T.12 N., R.18 W., at bridge on county road, 600 ft downstream from Cat Creek and 6½ miles southeast of Cumro.

Drainage area.--1,340 sq mi, approximately, of which about 700 sq mi contributes directly to surface runoff.

Gage.--Recording. At site half a mile upstream at datum 5.0 ft higher prior to July 24, 1952. Datum of gage is 2,202.68 ft above mean sea level, datum of 1929.

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

Remarks.--Diversions for irrigation do not affect peak discharges. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges of South Loup River near Cumro, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 18, 1946	4.72	1,310	1950	Feb. 18, 1950	a3.64	-
					July 9, 1950	2.79	606
1947	Oct. 5, 1946	6.66	2,680				
	Oct. 8, 1946	4.75	1,540	1951	Dec. 4, 1950	a4.52	-
	Feb. 15, 1947	4.85	1,210		May 18, 1951	4.49	1,700
	June 18, 1947	4.78	1,280		May 31, 1951	4.04	1,260
	June 22, 1947	10.90	7,200				
				1952	Mar. 4, 1952	a3.42	-
1948	Mar. 14, 1948	a6.44	-		Mar. 17, 1952	2.55	313
	Mar. 15, 1948	6.14	1,470				
	July 29, 1948	4.29	1,290	1953	May 27, 1953	6.57	3,130
1949	Sept. 6, 1949	4.97	2,260				

a Backwater from ice.

7825. South Loup River at Ravenna, Nebr.

Location.--Lat 41°00'35", long 98°54'45", on line between secs. 16 and 17, T.12 N., R.14 W., near center of main span on downstream side of highway bridge, three-quarters of a mile south of Ravenna, and 1 mile upstream from Mud Creek.

Drainage area.--1,660 sq mi, approximately, of which about 890 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. At datum 0.48 ft lower prior to Mar. 10, 1958. Datum of gage is 1,984.21 ft above mean sea level, unadjusted.

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

Remarks.--Minor irrigation developments above 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)
1941	June 2, 1941	5.06	3,050	1951	May 31, 1951	4.65	2,210
1942	Sept. 3, 1942	5.70	4,810	1952	Jan. 20, 1952	a5.18	-
1943	June 14, 1943	7.66	8,600		May 27, 1952	-	1,900
1944	May 2, 1944	4.90	2,930	1953	May 27, 1953	5.25	3,150
1945	June 9, 1945	7.68	10,000	1954	June 17, 1954	7.12	11,200
				1955	Mar. 3, 1955	a4.93	-
1946	June 18, 1946	4.80	2,010		May 25, 1955	-	1,460
1947	June 22, 1947	12.6	-				
1948	Mar. 15, 1948	-	7,200	1956	June 18, 1956	5.07	2,010
1949	Feb. 25, 1949	a5.98	-	1957	June 16, 1957	6.71	6,580
	June 9, 1949	-	5,550	1958	July 19, 1958	7.32	7,590
1950	Feb. 18, 1950	a4.90	-				
	July 9, 1950	-	2,160				

a Backwater from ice.

7826. South Branch Mud Creek tributary near Broken Bow, Nebr.

Location.--Lat 41°25'55", long 99°42'10", in SW¼NE¼ sec.23, T.17 N., R.21 W., on downstream side of culvert on State Highway 2, 100 ft south of Chicago, Burlington & Quincy Railroad, and 4 miles northwest of Broken Bow.

Drainage area.--0.43 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,562 ft (from topographic map).

Stage-discharge relation.--Defined by several low-flow estimates, a current-meter measurement at 0.6 cfs, and by indirect measurements at 20, 63, 93, and 164 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of South Branch Mud Creek tributary near Broken Bow, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 21, 1951	11.62	63.4	1957	May 16, 1957	11.40	7
1952	June 1, 1952	10.92	3	1958	July 18, 1958	12.43	184
1953	June 7, 1953	11.5	30	1959	June 21, 1959	11.80	28
1954	Sept. 8, 1954	10.42	.5	1960	Sept.20, 1960	11.70	19
1955	Oct. 25, 1954	11.16	4				
				1961	June 14, 1961	11.88	43
1956	June 17, 1956	12.36	164	1962	June 6, 1962	12.53	93

7827. South Branch Mud Creek at Broken Bow, Nebr.

Location.--Lat 41°24'05", long 99°38'50", in SE¼NW¼ sec.32, T.17 N., R.20 W., on downstream side of bridge on State Highway 2 at west edge of Broken Bow and a quarter of a mile above confluence with North Branch of Mud Creek.

Drainage area.--400 sq mi, of which 45.9 sq mi contributes to surface runoff.

Gage.--Crest-stage gage. Altitude of gage is 2,474 ft (from topographic map).

Stage-discharge relation.--Defined by estimates and current-meter measurements below 126 cfs and by a contracted-opening measurement at 1,790 cfs.

Bankfull stage.--13 ft.

Historical data.--In April of 1951, Mrs. George Dunkel, local resident for about 50 years, remembers water to have been over the highway twice during the 50-year period, the higher stage being 4 years ago (June 22, 1947). The minimum road elevation is 16.64 ft and water was about 1 ft deep over the road on June 17, 1956. Computations for the 1956 peak show 1,075 cfs over the road and 711 cfs through the culvert.

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	May 27, 1945	-	a1,200	1957	May 25, 1957	10.58	3
				1958	Aug. 6, 1958	10.98	7
1951	July 21, 1951	12.32	79	1959	July 16, 1959	11.03	8
1952	-	-	0	1960	Mar. 21, 1960	13.41	300
1953	Aug. 3, 1953	10.75	4				
1954	Sept. 8, 1954	10.57	3	1961	Aug. 12, 1961	11.13	26
1955	July 8, 1955	10.80	5	1962	June 6, 1962	13.0°	188
1956	June 17, 1956	16.41	1,790				

a At site 1.5 miles upstream; contributing drainage area, 40.6 sq mi.

7828. North Branch Mud Creek at Broken Bow, Nebr.

Location.--Lat 41°24'35", long 99°39'45", in NW¼NE¼ sec.31, T.17 N., R.20 W., on downstream side of bridge on dirt road, 150 ft downstream from Chicago, Burlington & Quincy Railroad, 0.6 mile east of KCNI radio tower on State Highway 2, and 1.1 miles northwest of Broken Bow.

Drainage area.--15.5 sq mi, of which 10.8 sq mi contributes to surface runoff.

Gage.--Crest-stage gage. Altitude of gage is 2,986 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 77 cfs and by a slope-area measurement at 1,550 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of North Branch Mud Creek at Broken Bow, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 21, 1951	12.52	120	1957	May 16, 1957	11.09	7
1952	June 1, 1952	10.37	3	1958	July 18, 1958	12.38	207
1953	June 7, 1953	11.78	82	1959	July 16, 1959	12.57	250
1954	-	-	0	1960	Mar. 21, 1960	13.56	520
1955	-	-	0				
				1961	Aug. 12, 1961	13.75	590
1956	June 17, 1956	16.16	1,550	1962	June 6, 1962	14.75	960

7829. Mud Creek tributary near Broken Bow, Nebr.

Location.--Lat 41°22'30", 99°38'15", in NE¼NW¼ sec.8, T.16 N., R.20 W., on downstream side of double concrete box culvert on State Highway 21, 1.8 miles south of State Highway 2 in Broken Bow.

Drainage area.--5.98 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,494 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1.4 cfs and by indirect measurements at 43 and 870 cfs.

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)
1945	May 27, 1945	-	a1,500	1957	May 25, 1957	11.41	24
				1958	July 18, 1958	12.72	80
1951	July 21, 1951	14.80	870	1959	-	-	0
1952	July 14, 1952	11.36	23	1960	Apr. 13, 1960	13.11	170
1953	June 7, 1953	11.84	34				
1954	Aug. 14, 1954	12.43	53	1961	June 14, 1961	10.95	15
1955	-	-	0	1962	June 7, 1962	13.35	260
1956	Aug. 17, 1956	14.65	800				

a Result of contracted-opening measurement.

7830. Mud Creek near Broken Bow, Nebr.

Location.--Lat 41°22'30", long 99°35'05", in NW¼ sec.11, T.16 N., R.20 W., on right bank 6 ft downstream from bridge on State Highway 2 and 3.8 miles southeast of Broken Bow.

Drainage area.--440 sq mi, of which 81.1 sq mi contributes to surface runoff.

Gage.--Nonrecording prior to Aug. 5, 1949; recording thereafter. Altitude of gage is 2,415 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs.

Remarks.--Discharges for 1954-56 computed from stage-discharge relation defined in 1953. 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	May 27, 1945	--	5,000	1953	June 7, 1953	5.51	155
				1954	Aug. 6, 1954	4.04	93
1949	June 12, 1949	4.28	86	1955	Mar. 2, 1955	3.31	-
1950	July 23, 1950	7.75	410		July 8, 1955	-	44
1951	July 21, 1951	7.96	401	1956	June 17, 1956	9.48	600
1952	Mar. 16, 1952	3.69	77				

7835. Mud Creek near Sweetwater, Nebr.

Location.--Lat 41°02'15", long 98°59'35", in NE¼SE¼ sec.3, T.12 N., R.15 W., on right bank 12 ft downstream from bridge on State Highway 2, 0.9 mile southeast of Sweetwater, and 11.6 miles upstream from mouth.

Drainage area.--1,020 sq mi, of which 655 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,014.17 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and extended above by logarithmic plotting.

Historical data.--Maximum stage known since at least 1929, 23.20 ft June 22, 1947, from information by local resident.

Remarks.--Base for partial-duration series, 550 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Oct. 6, 1946	14.70	1,270	1955	May 19, 1955	10.90	555
	June 13, 1947	12.11	870				
	June 18, 1947	13.85	1,080	1956	June 29, 1956	14.70	1,060
	June 22, 1947	23.20	26,600				
				1957	May 16, 1957	11.49	620
1948	Feb. 28, 1948	15.15	1,100		June 18, 1957	17.27	1,740
	Mar. 16, 1948	17.70	2,940		July 15, 1957	12.35	723
	June 24, 1948	11.95	613		Sept.15, 1957	10.81	521
	June 27, 1948	13.18	790				
	July 31, 1948	11.69	612	1958	May 29, 1958	11.35	614
	Aug. 16, 1948	11.85	642		July 19, 1958	16.58	1,350
1949	June 7, 1949	11.26	564	1959	June 30, 1959	12.60	742
	June 9, 1949	15.25	1,040		Sept.17, 1959	11.40	593
	Sept. 6, 1949	12.76	732				
				1960	Mar. 27, 1960	15.92	1,260
1950	June 18, 1950	12.74	756		May 5, 1960	16.71	1,740
	July 10, 1950	14.66	1,040		July 30, 1960	16.62	1,760
	July 24, 1950	15.71	1,300				
	Aug. 14, 1950	15.81	1,330	1961	May 22, 1961	9.75	405
1951	May 31, 1951	12.75	832	1962	Mar. 25, 1962	-	980
	Aug. 14, 1951	13.42	920		May 19, 1962	13.02	887
					June 9, 1962	17.52	2,380
1952	Mar. 11, 1952	a8.91	-		June 18, 1962	17.93	2,520
	Mar. 18, 1952	7.63	245		June 23, 1962	13.62	868
					July 14, 1962	11.23	573
1953	May 27, 1953	15.18	1,200		Aug. 3, 1962	13.17	830
	June 9, 1953	-	b600		Aug. 5, 1962	17.48	1,960
1954	June 17, 1954	16.66	1,660				

a Backwater from ice.
b Daily discharge.

7840. South Loup River at St. Michael, Nebr.

Location.--Lat 41°01'52", long 98°44'28", in NE¼NE¼ sec.11, T.12 N., R.13 W., on right bank 100 ft upstream from county highway bridge, 0.6 mile northeast of St. Michael, and 3.4 miles upstream from Sweet Creek.

Drainage area.--2,560 sq mi, approximately, of which about 1,650 sq mi contributes directly to surface runoff.

Gage.--Recording except June 25, 1947, to July 3, 1958. At site 100 ft downstream at datum 2.00 ft higher prior to Sept. 30, 1947. At site 100 ft downstream at present datum Oct. 1, 1947, to July 3, 1958. At site 500 ft upstream at present datum July 4, 1958, to Sept. 7, 1960. Datum of gage is 1,921.28 ft above mean sea level, unadjusted.

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

Remarks.--Diversions for irrigation do not affect peak discharges. Only annual peaks are shown.

Peak stages and discharges of South Loup River at St. Michael, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 2, 1944	-	-	1954	June 17, 1954	6.98	7,820
1945	June 9, 1945	-	-	1955	Mar. 4, 1955	a4.52	-
					June 17, 1955	-	1,480
1946	June 18, 1946	3.29	2,050				
1947	June 22, 1947	-	-	1956	June 19, 1956	4.90	2,300
1948	Mar. 16, 1948	7.26	6,350	1957	June 17, 1957	7.46	6,010
1949	Feb. 26, 1949	a5.87	-	1958	July 20, 1958	8.95	7,680
	June 9, 1949	-	4,170	1959	Mar. 2, 1959	a5.78	-
1950	Feb. 19, 1950	a4.35	-		June 30, 1959	-	1,700
	June 18, 1950	-	1,890	1960	Mar. 24, 1960	a9.99	-
					Mar. 27, 1960	-	5,750
1951	May 31, 1951	4.53	2,780				
1952	Jan. 23, 1952	a4.32	-	1961	May 22, 1961	6.20	2,730
	May 27, 1952	-	1,870	1962	Mar. 23, 1962	a10.92	-
1953	May 27, 1953	5.40	4,180		June 18, 1962	-	3,950

a Backwater from ice.

7843. Oak Creek near Loup City, Nebr.

Location.--Lat 41°17'36", long 98°52'04", near center of north line of sec.12, T.15 N., R.14 W., on left bank 30 ft downstream from county bridge and 5.1 miles northeast of Loup City.

Drainage area.--41.9 sq mi.

Gage.--Nonrecording prior to July 14, 1952, recording thereafter. Datum of gage is 2,069.93 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs and by an indirect measurement at 1,420 cfs.

Remarks.--Base for partial-duration series, 75 cfs. Only annual peaks are shown prior to 1953.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 9, 1950	14.08	1,070	1957	May 25, 1957	5.01	111
					June 16, 1957	11.66	499
1951	July 3, 1951	15.50	1,420		July 14, 1957	6.22	169
1952	Mar. 12, 1952	5.97	130		Sept.14, 1957	6.50	183
1953	May 10, 1953	2.30	9.1	1958	Feb. 21, 1958	4.92	107
					Mar. 24, 1958	7.24	220
1954	June 17, 1954	12.74	594		July 3, 1958	9.59	358
	Aug. 2, 1954	6.50	115		July 11, 1958	5.10	113
	Aug. 6, 1954	9.39	297		July 19, 1958	6.38	177
					July 24, 1958	11.90	516
1955	Mar. 1, 1955	5.58	79				
	July 13, 1955	9.46	302	1959	May 21, 1959	4.55	91
	July 20, 1955	9.10	277		June 30, 1959	6.44	180
					July 5, 1959	5.16	116
1956	June 5, 1956	6.78	129				
	June 18, 1956	5.71	120	1960	Mar. 27, 1960	8.77	309
	June 26, 1956	5.07	88		May 5, 1960	11.35	478
	July 5, 1956	13.88	655		May 8, 1960	5.10	113
	Aug. 10, 1956	4.59	107		July 12, 1960	4.22	76
	Aug. 18, 1956	6.28	172				
				1961	July 26, 1961	4.46	a87
1957	May 14, 1957	7.85	254				
	May 16, 1957	5.50	134				

a Maximum during period July to September 1961.

7845. Oak Creek near Dannebrog, Nebr.

Location.--Lat 41°07'10", long 98°36'45", in NW¼NW¼ sec.8, T.13 N., R.11 W., on left bank 200 ft downstream from bridge on State Highway 58 and 60, 2 miles upstream from Dry Creek, and 3½ miles west of Dannebrog.

Drainage area.--122 sq mi.

Gage.--Recording. Datum of gage is 1,879.45 ft above mean sea level, unadjusted.

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

Historical data.--On July 11, 1951, an old unidentified floodmark was found under the bridge at 19.0 ft stage. From reconnaissance survey notes of August 25, 1948, a flood occurred in June 1948 which bypassed through the town of Dannebrog and was a maximum of 2 ft deep in the streets. The flood height was not referenced to the gage site.

Remarks.--Base for partial-duration series, 350 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 29, 1950	8.12	395	1954	May 15, 1954	7.43	411
	June 18, 1950	7.90	400		June 14, 1954	7.84	442
	July 9, 1950	17.00	1,780		June 17, 1954	17.23	1,880
	July 12, 1950	9.44	543		Aug. 6, 1954	10.02	638
	July 24, 1950	12.04	1,030				
				1955	June 17, 1955	5.91	282
1951	Apr. 27, 1951	11.49	914				
	May 31, 1951	14.40	1,420	1956	July 6, 1956	7.44	426
	July 3, 1951	12.54	1,080				
				1957	May 14, 1957	7.42	447
1952	Mar. 13, 1952	a6.62	-		June 16, 1957	14.17	1,170
	July 15, 1952	4.05	130		Sept.14, 1957	10.60	822
1953	May 10, 1953	13.62	1,270				

a Backwater from ice.

7847. Turkey Creek near Farwell, Nebr.

Location.--Lat 41°13'14", long 98°40'45", in NW¼NE¼ sec.3, T.14 N., R.12 W., on downstream side of bridge on State Highway 92, 0.2 mile west of School No. 78, and 2.7 miles west of Farwell.

Drainage area.--27.2 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,957 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, current-meter measurements at 90, 93, and 608 cfs, and by slope-area measurement at 1,150 cfs.

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)
1950	July 9, 1950	17.50	1,600	1957	June 16, 1957	15.27	440
				1958	July 19, 1958	16.72	1,290
1953	May 10, 1953	15.96	1,000	1959	June 30, 1959	17.02	1,410
1954	June 17, 1954	16.37	1,150	1960	May 5, 1960	15.76	720
1955	June 17, 1955	14.42	200				
				1961	May 30, 1961	16.30	1,100
1956	July 4, 1956	13.21	66	1962	June 16, 1962	16.46	1,220

7850. Middle Loup River at St. Paul, Nebr.

Location.--Lat 41°11'55", long 98°26'50", in sec.10, T.14 N., R.10 W., on left bank at St. Paul, 450 ft upstream from bridge on U.S. Highway 281, and 6 miles upstream from confluence with North Loup River.

Drainage area.--7,720 sq mi, approximately, of which about 3,200 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to June 14, 1934; recording thereafter. At site 430 ft downstream at datum 2.06 ft higher prior to April 1899. At several sites 530 ft downstream at datum 1.87 ft higher April to October 1899 and April to November 1903. At site 430 ft downstream at datum 2.00 ft higher Aug. 15, 1928, to June 13, 1934. At site 470 ft upstream at datum 2.00 ft higher June 14, 1934, to June 23, 1947. At site 170 ft upstream July 25, 1947, to Apr. 26, 1951, and at site 30 ft downstream at present datum Apr. 27, 1951, to June 4, 1957. Datum of gage is 1,776.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs.

Remarks.--Only annual peaks are shown prior to 1941 and subsequent to 1956. Base for partial-duration series, 6,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	June 3, 1895	3.36	5,800	1946	June 19, 1946	-	6,250
1896	June 6, 1896	4.85	16,000	1947	Oct. 6, 1946	5.30	7,370
1897	Apr. 3, 1897	2.6	4,290		June 18, 1947	4.97	7,520
1898	Oct. 27, 1897	2.8	5,200		June 23, 1947	10.69	72,000
1899	June 26, 1899	4.59	19,000	1948	Mar. 16, 1948	a7.48	-
1903	May 30, 1903	4.10	9,610	1949	Feb. 25, 1949	a7.42	-
1929	Mar. 11, 1929	3.70	9,400		June 9, 1949	-	10,800
1930	June 4, 1930	2.7	8,050	1950	Mar. 6, 1950	a7.35	-
1931	Oct. 12, 1930	3.00	8,280		July 9, 1950	6.51	9,600
1932	Mar. 17, 1932	5.19	18,000		July 24, 1950	5.57	7,000
1933	July 15, 1933	2.52	4,830	1951	Nov. 27, 1950	a6.80	-
1934	June 17, 1934	4.36	4,610		May 31, 1951	5.86	8,600
1935	June 1, 1935	5.87	14,800		July 3, 1951	5.53	6,650
1936	Mar. 2, 1936	a6.90	-	1952	Mar. 25, 1952	a6.61	-
1937	June 26, 1937	5.14	8,500		May 27, 1952	-	3,720
1938	July 7, 1938	5.47	12,000	1953	Jan. 16, 1953	a6.04	-
1939	May 3, 1939	5.18	7,650		May 10, 1953	-	6,180
1940	Mar. 4, 1940	a5.57	-	1954	June 17, 1954	7.11	20,100
	June 10, 1940	-	8,600	1955	Mar. 23, 1955	a6.82	-
1941	May 20, 1941	5.33	9,500		June 24, 1955	-	3,630
	June 3, 1941	4.83	7,250	1956	Mar. 5, 1956	a5.98	-
1942	Mar. 4, 1942	5.55	11,200		July 5, 1956	-	3,540
	June 12, 1942	4.90	7,100	1957	June 17, 1957	6.20	17,800
	June 20, 1942	5.32	9,200	1958	July 20, 1958	6.28	11,600
	Sept. 3, 1942	6.06	13,400	1959	Mar. 3, 1959	a6.43	-
1943	June 15, 1943	6.77	17,800		June 30, 1959	-	8,050
	July 3, 1943	4.93	9,020	1960	Mar. 27, 1960	a9.08	-
1944	Jan. 21, 1944	a5.43	-		Mar. 28, 1960	-	13,500
	Apr. 24, 1944	-	4,800	1961	May 22, 1961	5.80	7,200
1945	May 28, 1945	5.19	7,240	1962	Mar. 23, 1962	a7.16	-
	May 31, 1945	5.27	7,490		June 17, 1962	-	11,500
	June 10, 1945	6.34	14,100				
1946	Jan. 2, 1946	a4.73	-				

a Backwater from ice.

7855. North Loup River at Brewster, Nebr.

Location.--Lat 41°56'30", long 99°51'37", in NW¼NW¼ sec.27, T.23 N., R.22 W., near right bank on downstream side of pier of bridge on State Highway 7 at the northeast limits of Brewster.

Drainage area.--1,890 sq mi, of which about 140 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 2,467.7 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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)
1946	Jan. 1, 1946	a3.40	-	1949	Mar. 4, 1949	a3.92	1,000
	Sept.10, 1946	-	605	1950	Feb. 24, 1950	a4.20	700
1947	Feb. 2, 1947	a3.84	-				
	Feb. 16, 1947	-	800	1951	June 14, 1951	3.40	1,600
1948	Feb. 18, 1948	a3.42	850				

a Backwater from ice.

7860. North Loup River at Taylor, Nebr.

Location.--Lat 41°46'37", long 99°22'45", in NE¼SE¼ sec.22, T.21 N., R.18 W., on left bank 3 ft downstream from bridge on U.S. Highway 183 and 0.4 mile north of Taylor.

Drainage area.--2,210 sq mi, approximately, of which about 180 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 28, 1938; recording thereafter. At site 450 ft upstream at same datum Sept. 28, 1938, to July 16, 1958. Datum of gage is 2,248.21 ft above mean sea level, datum of 1929.

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

Remarks.--North Loup Public Power and Irrigation District canal began diversion from river in November 1937 at point 6 miles above station. Several smaller diversions above station for irrigation. 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)
1937	Feb. 19, 1937	a6.28	-	1951	Jan. 3, 1951	a7.28	-
	Mar. 7, 1937	-	870		June 14, 1951	-	2,770
1938	Feb. 7, 1938	a6.15	-	1952	Jan. 16, 1952	a6.44	-
	Apr. 7, 1938	-	1,310		Apr. 22, 1952	-	1,420
1939	June 25, 1939	5.98	-	1953	Dec. 22, 1952	a7.91	-
1940	Mar. 1, 1940	a6.30	-		Mar. 12, 1953	-	1,310
	Mar. 3, 1940	-	1,030	1954	Jan. 11, 1954	a7.15	-
					Apr. 30, 1954	-	1,180
1941	Mar. 8, 1941	-	-	1955	Jan. 18, 1955	a7.57	-
1942	May 1, 1942	5.89	-		June 18, 1955	-	2,710
	Sept. 2, 1942	-	2,480				
1943	Jan. 3, 1943	a6.61	-	1956	Mar. 2, 1956	a6.34	-
	June 15, 1943	-	1,260		Aug. 3, 1956	-	1,500
1944	Jan. 7, 1944	a6.74	-	1957	Feb. 25, 1957	a9.5	-
	June 16, 1944	-	1,700		July 28, 1957	-	2,460
1945	Jan. 31, 1945	a6.77	-	1958	Feb. 23, 1958	a7.33	-
	June 10, 1945	-	1,260		May 26, 1958	-	1,240
				1959	Dec. 30, 1958	a6.78	-
1946	Jan. 30, 1946	a7.49	-		Mar. 1, 1959	-	1,200
	Mar. 17, 1946	-	1,010	1960	Mar. 2, 1960	a7.35	-
1947	Oct. 5, 1946	-	1,710		Mar. 23, 1960	-	1,700
	Feb. 21, 1947	a7.80	-				
1948	Feb. 19, 1948	-	870	1961	Jan. 1, 1961	a6.93	-
	Mar. 9, 1948	a7.39	-		Feb. 14, 1961	-	1,230
1949	Dec. 24, 1948	a6.96	-	1962	Feb. 21, 1962	a7.02	-
	Apr. 10, 1949	-	1,420		Mar. 22, 1962	-	2,330
1950	Mar. 2, 1950	a6.90	-				
	May 7, 1950	-	1,140				

a Backwater from ice.

7865. North Loup River at Burwell, Nebr.

Location.--Lat 41°47'10", long 99°09'20", in SE¼SW¼ sec.15, T.21 N., R.16 W., on left bank 50 ft downstream from bridge on county road, 1 mile west of Burwell, and 1.5 miles upstream from Calamus River.

Drainage area.--2,510 sq mi, approximately, of which about 400 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,157.64 ft above mean sea level, datum of 1929, adjustment of 1953 (levels by Bureau of Reclamation).

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

Remarks.--The Taylor-Ord Canal of the North Loup River Public Power and Irrigation District and numerous pumps divert water above station for irrigation. 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)
1953	Jan. 27, 1953	a4.50	-	1956	Mar. 12, 1956	-	2,380
	Mar. 9, 1953	-	1,280	1957	Feb. 25, 1957	a5.99	-
1954	Feb. 6, 1954	a4.18	-		July 28, 1957	-	1,710
	June 29, 1954	-	1,340	1958	Feb. 23, 1958	a5.65	-
1955	Mar. 10, 1955	-	2,350		July 20, 1958	-	1,850
	Mar. 22, 1955	a4.38	-	1959	Mar. 2, 1959	a4.74	1,300
				1960	Mar. 22, 1960	a5.79	-
1956	Mar. 3, 1956	a4.78	-		Mar. 26, 1960	-	2,600

a Backwater from ice.

7875. Calamus River near Burwell, Nebr.

Location.--Lat 41°47'25", long 99°11'05", in NW¼ sec.9, T.21 N., R.16 W., on left bank 300 ft downstream from highway bridge, 1½ miles upstream from mouth, and 3 miles northwest of Burwell.

Drainage area.--1,260 sq mi, approximately, of which about 110 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 20, 1945; recording thereafter. At site 300 ft upstream at same datum prior to Apr. 20, 1945. Datum of gage is 2,156.48 ft above mean sea level, datum of 1929, adjustment of 1953 (levels by Bureau of Reclamation).

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

Remarks.--Diversions for irrigation affect most peak 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)
1941	Jan. 20, 1941	a3.64	-	1952	May 20, 1952	-	526
	Sept.24, 1941	-	358	1953	Feb. 25, 1953	a4.21	-
1942	Jan. 17, 1942	a3.58	-		Mar. 14, 1953	-	570
	Sept. 2, 1942	-	472	1954	Dec. 28, 1953	a4.13	530
1943	Feb. 17, 1943	a3.32	-	1955	Mar. 11, 1955	-	457
	Mar. 20, 1943	-	770		Mar. 22, 1955	a4.93	-
1944	Feb. 14, 1944	a2.86	-				
	June 16, 1944	-	534	1956	Dec. 18, 1955	a4.15	-
1945	July 16, 1945	2.33	418		May 29, 1956	-	505
				1957	Feb. 9, 1957	a4.11	-
1946	Jan. 2, 1946	a3.31	-		May 19, 1957	-	500
	Jan. 3, 1946	-	730	1958	Feb. 12, 1958	a4.18	-
1947	Feb. 15, 1947	a3.85	-		July 19, 1958	-	822
	June 22, 1947	-	606	1959	Jan. 15, 1959	a4.38	-
1948	Feb. 17, 1948	a3.53	470		July 17, 1955	-	505
1949	Feb. 24, 1949	a4.26	-	1960	Jan. 17, 1960	a4.45	-
	Apr. 8, 1949	-	635		Mar. 26, 1960	-	730
1950	Mar. 19, 1950	a5.19	-				
	Mar. 26, 1950	-	592	1961	Dec. 4, 1960	a4.08	520
				1962	Jan. 7, 1962	a4.24	-
1951	May 16, 1951	3.76	1,060		May 30, 1962	-	1,500
1952	Jan. 17, 1952	a4.25	-				

a Backwater from ice.

7885. North Loup River at Ord, Nebr.
(Published as "near Ord," 1936-38)

Location.--Lat 41°36'27", long 98°55'17", in SW¼NW¼ sec.22, T.19 N., R.14 W., on right bank 150 ft downstream from bridge on State Highway 70 at Ord.

Drainage area.--3,960 sq mi, approximately, of which about 770 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at site 2 miles downstream at different datum prior to Sept. 30, 1938; recording thereafter. Datum of gage is 2,012.14 ft above mean sea level, datum of 1929, adjustment of 1954.

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

Remarks.--Diversions above station for irrigation. Flow includes return water from North Loup Irrigation District. 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)
1937	Sept. 4, 1937	-	3,440	1957	Feb. 25, 1957	b4.43	-
	Feb. 19, 1937	a5.22	-		June 17, 1957	-	3,440
1938	May 12, 1938	3.42	2,160	1958	Feb. 24, 1958	b4.50	-
					Apr. 5, 1958	-	3,260
1952	June 27, 1952	2.73	957	1959	Feb. 28, 1959	b3.96	-
1953	Dec. 19, 1952	b4.99	-		July 5, 1959	-	1,910
	June 7, 1953	-	3,200	1960	Mar. 23, 1960	b4.94	-
1954	Jan. 11, 1954	b5.17	-		Mar. 27, 1960	-	3,360
	June 29, 1954	-	2,420				
1955	Mar. 10, 1955	b4.33	-	1961	Dec. 25, 1960	b4.33	-
	June 18, 1955	-	3,120		May 31, 1961	-	2,450
				1962	June 7, 1962	5.52	10,100
1956	May 29, 1956	4.42	4,430				

a Top of ice.
b Backwater from ice.

7890. North Loup River at Scotia, Nebr.

Location.--Lat 41°27'30", long 98°42'40", in SW¼ sec.8, T.17 N., R.12 W., on right bank 30 ft downstream from trestle on Union Pacific Railroad spur, half a mile upstream from Wallace Creek, and 0.9 mile southwest of Scotia.

Drainage area.--4,100 sq mi, approximately, of which about 910 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 1, 1938; recording thereafter. Datum of gage is 1,893.13 ft above mean sea level, datum of 1929, adjustment of 1954.

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

Remarks.--Diversions above station for irrigation. Flow includes practically all return water from North Loup irrigation project. 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)
1937	July 19, 1937	4.36	4,200	1950	Feb. 28, 1950	a5.31	-
1938	July 3, 1938	4.86	4,870		July 9, 1950	-	12,200
1939	June 25, 1939	5.30	8,800				
1940	June 4, 1940	5.04	6,750	1951	Feb. 24, 1951	a4.68	-
					Aug. 13, 1951	-	4,920
1941	Mar. 9, 1941	a4.75	-	1952	Mar. 4, 1952	a6.28	-
	Sept.24, 1941	-	3,360		May 17, 1952	-	2,520
1942	Sept. 2, 1942	5.22	7,560	1953	Jan. 28, 1953	a4.56	-
1943	June 12, 1943	4.32	3,860		June 7, 1953	-	6,200
1944	June 12, 1944	5.00	6,380	1954	Feb. 7, 1954	a4.71	-
1945	May 27, 1945	6.27	-		June 29, 1954	-	2,380
				1955	Feb. 15, 1955	a4.78	-
1946	June 18, 1946	4.25	4,370		June 19, 1955	-	3,270
1947	June 22, 1947	8.18	-				
1948	June 16, 1948	6.14	16,100	1956	Mar. 13, 1956	a5.59	-
1949	Mar. 6, 1949	a5.48	-		May 29, 1956	-	9,920
	June 13, 1949	-	4,960	1957	Feb. 26, 1957	a4.93	-

a Backwater from ice.

Peak stages and discharges of North Loup River at Scotia, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 17, 1957	-	5,640	1960	Mar. 28, 1960	-	6,000
1958	Feb. 25, 1958	a5.10	-				
	Apr. 5, 1958	-	6,500	1961	Feb. 21, 1961	a5.42	-
1959	Mar. 2, 1959	a4.27	-		May 31, 1961	-	3,450
	Mar. 26, 1959	-	2,340	1962	June 7, 1962	6.14	16,500
1960	Mar. 27, 1960	a6.18	-				

a Backwater from ice.

7891. Davis Creek tributary near North Loup, Nebr.

Location.--Lat 41°24'01", long 98°54'17", in NE¼SE¼ sec.34, T.17 N., R.14 W., at downstream end of a double 60-inch steel culvert on gravel road 9½ miles southwest of North Loup.

Drainage area.--2.29 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,115 ft (from topographic map).

Stage-discharge relation.--Defined by point of zero flow, several low-flow estimates, and indirect measurements at 15.6, 171, 533, 906, and 1,780 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)
1951	July 3, 1951	17.74	1,680	1957	June 16, 1957	14.46	420
1952	July 7, 1952	9.2	1	1958	July 24, 1958	15.02	533
1953	Aug. 11, 1953	13.56	285	1959	May 31, 1959	11.16	15
1954	Aug. 1, 1954	9.6	2	1960	Mar. 27, 1960	13.98	350
1955	May 18, 1955	12.83	171				
				1961	May 30, 1961	12.36	100
1956	June 22, 1956	11.56	28	1962	June 16, 1962	17.84	1,780

7892. Davis Creek tributary No. 2 near North Loup, Nebr.

Location.--Lat 41°25'45", long 98°54'15", in NW¼SW¼ sec.23, T.17 N., R.14 W., on downstream side of bridge on gravel road 8 miles southwest of North Loup.

Drainage area.--6.79 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,105 ft (from topographic map).

Stage-discharge relation.--Defined by estimates and current-meter measurements below 183 cfs and by a slope-area measurement at 371 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)
1951	July 3, 1951	12.96	136	1957	July 14, 1957	16.82	722
1952	Aug. 3, 1952	7.83	1	1958	July 24, 1958	14.83	367
1953	Aug. 11, 1953	11.00	42	1959	June 30, 1959	9.70	15
1954	Aug. 23, 1954	9.96	19	1960	Mar. 27, 1960	14.98	390
1955	May 18, 1955	15.01	396				
				1961	May 30, 1961	11.27	51
1956	May 22, 1956	12.28	92	1962	June 16, 1962	14.22	262

7893. Davis Creek near North Loup, Nebr.

Location.--Lat 41°24'45", long 98°52'00", in NW¼SW¼ sec.30, T.17 N., R.13 W., on downstream side of bridge on dirt road, 7½ miles southwest of North Loup.

Drainage area.--21.1 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,055 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements and estimates below 13 cfs and by slope-area measurements at 87, 838, 983, 1,170, and 1,520 cfs.

Remarks.--The road was rebuilt in October 1954 and some channel changes were made immediately downstream from the gage but the rating change is not as great as had been anticipated. 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)
1951	July 3, 1951	11.5	983	1957	July 14, 1957	15.68	1,820
1952	Aug. 3, 1952	1.4	3	1958	July 24, 1958	12.69	1,180
1953	Aug. 11, 1953	6.59	114	1959	May 31, 1959	7.0	190
1954	Aug. 1, 1954	5.35	43	1960	Mar. 27, 1960	12.53	1,160
1955	May 18, 1955	5.70	54				
				1961	May 30, 1961	9.0	540
1956	June 22, 1956	10.34	775	1962	June 16, 1962	16.77	1,520

7894. Davis Creek southwest of North Loup, Nebr.

Location.--Lat 41°24'30", long 98°48'30", in NE¼NE¼ sec.33, T.17 N., R.13 W., on upstream side of bridge on dirt road 6½ miles southwest of North Loup.

Drainage area.--41.6 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,998 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 128 cfs and by slope-area measurements at 156, 358, 642, 1,480, and 1,730 cfs.

Bankfull stage.--18 ft.

Historical data.--On Apr. 23, 1951, an old unidentified floodmark was found at elevation of the low wood of the bridge which is about 21.5-ft stage.

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)
1951	July 3, 1951	17.76	1,480	1957	June 16, 1957	19.35	2,220
1952	July 7, 1952	8.2	5	1958	July 24, 1958	17.93	700
1953	Aug. 11, 1953	12.12	165	1959	May 31, 1959	11.47	75
1954	May 1, 1954	11.08	90	1960	May 5, 1960	17.62	642
1955	May 18, 1955	15.53	680				
				1961	June 14, 1961	13.61	185
1956	June 22, 1956	15.96	780	1962	June 16, 1962	20.31	1,730

7895. Davis Creek near Cotesfield, Nebr.

Location.--Lat 41°23'50", long 98°41'00", in NE¼SW¼ sec.34, T.17 N., R.12 W., on left bank 1¼ miles upstream from mouth and 4 miles northwest of Cotesfield.

Drainage area.--94 sq mi.

Gage.--Nonrecording prior to May 26, 1949; recording thereafter. At county bridge 1.3 miles upstream at different datum Dec. 11, 1947, to Oct. 10, 1948. Datum of gage is 1,870.8 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 425 cfs for site in use in 1948. Defined by current-meter measurements below 1,200 cfs at present site and by slope-area measurement at 1,230 cfs.

Remarks.--Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Aug. 15, 1948	6.88	860	1954	Aug. 1, 1954	7.51	596
1949	June 27, 1949	6.30	594	1955	Mar. 1, 1955	a7.28	-
					May 18, 1955	6.67	274
1950	July 9, 1950	9.54	1,230		July 12, 1955	7.08	337
	July 11, 1950	-	1,200		Aug. 10, 1955	7.01	284
	July 18, 1950	-	790				
	July 23, 1950	7.68	664	1956	June 22, 1956	8.05	356
					June 26, 1956	7.71	312
1951	June 23, 1951	6.13	325				
	June 26, 1951	6.30	355	1957	May 14, 1957	10.09	1,310
	July 3, 1951	9.87	1,290		June 16, 1957	11.10	1,160
	Aug. 9, 1951	5.49	264		July 14, 1957	9.00	710
	Aug. 13, 1951	7.70	627		Sept.14, 1957	6.79	308
	Sept.12, 1951	7.32	538				
				1958	Mar. 24, 1958	7.27	397
1952	Mar. 12, 1952	a5.14	130		July 3, 1958	7.11	360
					July 9, 1958	12.73	1,720
1953	May 10, 1953	7.80	593		July 24, 1958	-	600

a Backwater from ice.

7905. North Loup River near St. Paul, Nebr.

Location.--Lat 41°15'35", long 98°26'50", in sec.22, T.15 N., R.10 W., on right bank 310 ft downstream from bridge on U.S. Highway 281, 3 miles north of St. Paul, and 4 miles upstream from confluence with Middle Loup River.

Drainage area.--4,460 sq mi, approximately, of which about 1,270 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Mar. 20, 1934; recording thereafter. At several sites within 2 miles of present site at various datums prior to Aug. 16, 1928. At site 110 ft upstream Aug. 16, 1928, to Mar. 19, 1934, at site 50 ft upstream Mar. 20, 1934, to Sept. 8, 1954, and at present site, Sept. 9-30, 1954, all at datum 3.0 ft higher. Datum of gage is 1,759.39 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 34,000 cfs.

Remarks.--Natural flow affected by diversions and ground-water withdrawals for irrigation, and return flow from irrigated area. Only annual peaks are shown.

Peak stages and discharges of North Loup River near St. Paul, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	June 6, 1896	14.9	90,000	1948	Feb. 27, 1948	a4.95	-
1897	Apr. 4, 1897	4.3	4,500		June 17, 1948	-	11,600
				1949	Mar. 7, 1949	a5.42	-
1899	June 27, 1899	3.90	7,690		June 13, 1949	-	5,330
				1950	Mar. 7, 1950	a4.95	-
1903	July 3, 1903	-	10,000		July 9, 1950	-	16,800
1929	June 18, 1929	5.1	22,000	1951	Mar. 16, 1951	a3.51	-
1930	June 14, 1930	3.4	9,850		Aug. 13, 1951	-	5,470
				1952	Mar. 13, 1952	-	3,860
1931	Oct. 12, 1930	2.96	5,880		Mar. 24, 1952	a3.86	-
1932	May 31, 1932	5.60	12,600	1953	May 10, 1953	3.42	9,030
1933	July 8, 1933	4.40	8,060	1954	June 30, 1954	1.63	2,260
1934	Sept. 2, 1934	2.73	3,240	1955	Mar. 9, 1955	a5.85	-
1935	Apr. 25, 1935	5.13	11,200		June 19, 1955	-	2,990
1936	Mar. 3, 1936	a6.10	-	1956	Mar. 4, 1956	a6.07	-
1937	May 26, 1937	3.26	4,150		May 29, 1956	-	8,660
1938	July 7, 1938	3.70	5,220	1957	Feb. 26, 1957	a7.73	-
1939	June 26, 1939	3.81	5,000		June 16, 1957	-	10,300
1940	Mar. 3, 1940	3.55	-	1958	Feb. 25, 1958	a6.78	-
	June 4, 1940	-	5,800		July 24, 1958	-	7,820
				1959	Mar. 2, 1959	a6.13	-
1941	Mar. 9, 1941	a3.83	3,700		July 6, 1959	-	3,230
1942	Sept. 3, 1942	3.36	11,300	1960	Mar. 27, 1960	a8.35	-
1943	June 13, 1943	3.60	9,240		Mar. 28, 1960	-	9,190
1944	June 12, 1944	2.94	5,850				
1945	May 27, 1945	4.31	15,850	1961	Feb. 22, 1961	a5.55	-
					June 1, 1961	-	5,160
1946	Dec. 31, 1945	a2.52	-	1962	Mar. 24, 1962	a6.95	-
	June 18, 1946	-	4,180		June 7, 1962	-	12,300
1947	June 22, 1947	6.60	36,000				

a Backwater from ice.

7906. East Branch Spring Creek tributary near Walbach, Nebr.

Location.--Lat 41°27'30", long 98°28'45", in NE¼SE¼ sec.11, T.17 N., R.10 W., on downstream side of bridge on county road, 0.6 mile south of east-west dirt road, 1.1 miles north of gravel road to Brayton, and 4½ miles northwest of Walbach.

Drainage area.--1.52 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,930 ft (from topographic map).

Stage-discharge relation.--Defined by field estimates below 20 cfs and by slope-area measurements at 66.6 and 127 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)
1952	May 27, 1952	10.74	20	1958	Apr. 5, 1958	11.88	126
1953	July 3, 1953	11.94	136	1959	June 30, 1959	12.44	220
1954	Apr. 20, 1954	11.42	73	1960	June 9, 1960	11.35	67
1955	June 17, 1955	10.41	5				
				1961	May 30, 1961	11.89	127
1956	July 4, 1956	13.09	370	1962	June 16, 1962	12.28	66.6
1957	June 16, 1957	12.44	220				

7907. West Branch Spring Creek at Brayton, Nebr.

Location.--Lat 41°27'25", long 98°28'40", in NE¼SW¼ sec.9, T.17 N., R.10 W., on downstream side of steel truss bridge on north-south dirt road, 200 ft north of "T" in road and 0.4 mile south of Brayton.

Drainage area.--19.5 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,920 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 40 cfs and by slope-area measurements at 547, 599, and 3,540 cfs.

Bankfull stage.--11 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	July 16, 1945	18.4	3,700	1957	June 16, 1957	15.52	2,120
				1958	July 18, 1958	12.05	505
1952	June 27, 1952	5.9	7	1959	June 30, 1959	15.72	2,220
1953	May 10, 1953	18.10	3,540	1960	June 27, 1960	14.53	625
1954	Apr. 20, 1954	12.17	547				
1955	Apr. 23, 1955	4.96	1	1961	May 30, 1961	13.69	490
				1962	June 16, 1962	14.52	620
1956	July 4, 1956	14.64	1,690				

7908. West Branch Spring Creek near Wolbach, Nebr.

Location.--Lat 41°26'00", long 98°26'05", in SW¼NE¼ sec.23, T.17 N., R.10 W., on downstream side of steel truss bridge on State Highway 101, 2.7 miles north of junction with State Highway 22, and 3 miles northwest of Wolbach.

Drainage area.--36.9 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,880 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 81 cfs and by a slope-area measurement at 4,040 cfs.

Bankfull stage.--13 ft.

Remarks.--Only annual peaks are shown.

Peak stages and dischargss

Water year	Date	Gage hsight (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Apr. 27, 1951	14.60	1,370	1957	June 16, 1957	14.74	1,470
1952	June 27, 1952	6.9	2	1958	Apr. 5, 1958	13.10	520
1953	May 10, 1953	17.20	4,040	1959	June 30, 1959	14.68	1,450
1954	Apr. 20, 1954	13.34	630	1960	Mar. 27, 1960	15.27	1,680
1955	Apr. 23, 1955	10.43	117				
				1961	May 30, 1961	13.58	690
1956	July 4, 1956	13.83	880	1962	June 16, 1962	13.93	850

7909. Mary's Creek at Wolbach, Nebr.

Location.--Lat 41°24'00", long 98°23'40", in NW¼SE¼ sec.31, T.17 N., R.9 W., at bridge 0.2 mile north of center of Wolbach village.

Drainage area.--7.63 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,840 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 50 cfs and by slope-area measurements at 116, 129, 173, and 251 cfs.

Bankfull stage.--8½ ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Mary's Creek at Wolbach, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	June 27, 1952	10.39	195	1958	Apr. 5, 1958	13.78	440
1953	July 3, 1953	10.24	173	1959	May 20, 1959	11.79	109
1954	Apr. 20, 1954	8.8	30	1960	May 5, 1960	10.81	35
1955	June 17, 1955	10.60	65	1961	May 30, 1961	11.85	116
1956	July 4, 1956	10.75	75	1962	June 16, 1962	12.75	251
1957	July 15, 1957	11.11	110				

7911. Spring Creek near Cushing, Nebr.

Location.--Lat 41°17'05", long 98°22'35", in SE¼NW¼ sec.8, T.15 N., R.9 W., on downstream side of bridge, 0.9 mile southwest of Cushing, and 1.8 miles upstream from Loup River.

Drainage area.--165 sq mi; 164 sq mi at former site.

Gage.--Nonrecording prior to May 25, 1949, and since Apr. 13, 1954; recording at site 1.9 miles upstream at different datum May 25, 1949, to Sept. 30, 1953. Altitude of gage is 1,738 ft (from topographic map).

Stage-discharge relation.--At site used prior to 1954, defined by current-meter measurements below 1,500 cfs and by slope-area measurement at 5,350 cfs. At present site, defined by current-meter measurements below 1,120 cfs and by relation to former gage at 5,350 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)
1948	Aug. 16, 1948	10.06	1,240	1956	July 4, 1956	17.79	1,820
1949	June 27, 1949	5.79	448	1957	June 16, 1957	17.76	1,810
1950	July 22, 1950	15.00	2,560	1958	July 10, 1958	19.82	2,760
1951	Apr. 27, 1951	9.40	1,170	1959	June 30, 1959	15.03	860
1952	June 27, 1952	4.92	280	1960	Mar. 27, 1960	20.04	2,870
1953	May 10, 1953	a19.44	5,350	1961	May 31, 1961	16.11	1,220
1954	Apr. 20, 1954	14.00	604	1962	June 16, 1962	16.92	1,480
1955	June 17, 1955	14.94	840				

a Site and datum then in use; 24.56 ft present site and datum.

7915. Cedar River near Spalding, Nebr.

Location.--Lat 41°42'41", long 98°26'48", in NE¼NE¼NE¼ sec.15, T.20 N., R.10 W., on left bank 15 ft downstream from bridge on State Highway 91, 0.4 mile upstream from small tributary, and 4.7 miles northwest of Spalding.

Drainage area.--805 sq mi, approximately, of which about 50 sq mi contributes directly to surface runoff.

Gage.--Recording. At two sites 6½ miles upstream at different datum prior to Jan. 4, 1961. Altitude of gage is 1,900 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 640 cfs and by slope-area measurement at 4,000 cfs.

Remarks.--Regulation by powerplant above station does not affect peak discharges significantly. Only annual peaks are shown.

Peak stages and discharges of Cedar River near Spalding, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	July 16, 1945	3.74	497	1953	May 2, 1953	3.80	749
1946	Feb. 3, 1946	a3.87	-	1958	Jan. 10, 1958	a3.72	-
	June 19, 1946	-	284		Apr. 8, 1958	-	562
1947	June 23, 1947	7.50	4,000	1959	Jan. 23, 1959	a3.77	-
1948	Feb. 16, 1948	3.56	554		Apr. 3, 1959	-	335
1949	Apr. 7, 1949	4.10	765	1960	May 8, 1960	4.42	1,000
1950	July 8, 1950	5.12	1,320	1961	Feb. 4, 1961	a3.78	-
1951	July 17, 1951	5.10	1,190		July 31, 1961	-	368
1952	Feb. 16, 1952	-	539	1962	June 10, 1962	4.43	1,040
	Mar. 23, 1952	a5.02	-				

a Backwater from ice.

7920. Cedar River near Fullerton, Nebr.

Location.--Lat 41°23'45", long 98°00'15", on line between SE¼SE¼ sec.33, T.17 N., R.6 W., and NE¼NE¼ sec.4, T.16 N., R.6 W., near left bank on downstream side of pier of bridge on State Highway 52, 3 miles northwest of Fullerton, and 5¾ miles upstream from mouth.

Drainage area.--1,220 sq mi, approximately, of which about 480 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 5, 1942, and from June 24, 1947, to Apr. 6, 1948. Recording Nov. 5, 1942, to June 23, 1947, and since Apr. 7, 1948. Datum of all gages is 1,640.40 ft above mean sea level, datum of 1929 (tentative adjustment).

Stage-discharge relation.--Defined by current-meter measurements below 6,600 cfs and extended above by logarithmic plotting.

Historical data.--Flood of Sept. 27, 1915, was "highest in ten years" according to Union Pacific Railroad Yearbook 760.

Flood of June 18, 1923: "as far back as Fullerton recalls none so great" according to Fullerton News Journal of June 21, 1923.

Remarks.--Peak discharges not affected by irrigation or power developments upstream. 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)
1932	June 9, 1932	7.05	1,440	1948	Feb. 28, 1948	9.40	9,760
					June 22, 1948	4.70	2,710
1941	June 22, 1941	8.60	6,600		June 27, 1948	6.25	4,580
					July 29, 1948	6.48	4,530
1942	Mar. 4, 1942	a6.28	-		Aug. 13, 1948	3.87	1,610
	June 20, 1942	4.80	1,100		Aug. 15, 1948	6.44	4,410
1943	Feb. 3, 1943	a9.12	5,000	1949	June 1, 1949	5.35	2,190
	May 29, 1943	6.90	4,040				
	June 1, 1943	5.50	2,460	1950	Feb. 28, 1950	5.61	2,110
	June 12, 1943	7.05	4,380		Mar. 5, 1950	5.92	2,350
	June 13, 1943	7.92	5,660		Mar. 17, 1950	5.28	1,910
	June 15, 1943	7.94	5,690		Mar. 24, 1950	6.17	2,590
	July 3, 1943	5.75	2,820		May 9, 1950	6.10	2,400
					June 2, 1950	5.15	2,940
1944	June 13, 1944	5.40	2,320		July 9, 1950	9.00	7,750
	Aug. 30, 1944	5.55	2,230		July 12, 1950	9.24	8,550
					July 17, 1950	7.61	5,140
1945	Mar. 9, 1945	5.16	1,510		July 19, 1950	9.64	10,100
	May 27, 1945	4.77	1,850		Aug. 12, 1950	4.57	1,830
1946	May 30, 1946	7.19	4,580	1951	Mar. 16, 1951	a5.20	-
	June 18, 1946	5.78	2,740		Mar. 23, 1951	5.08	2,730
	June 26, 1946	6.72	3,650		Apr. 27, 1951	5.16	2,800
					June 11, 1951	4.80	2,510
1947	May 15, 1947	7.75	5,200				
	June 1, 1947	7.38	4,800	1952	Mar. 25, 1952	a6.98	-
	June 4, 1947	7.11	5,110		Aug. 7, 1952	-	1,970
	June 12, 1947	8.08	6,670				
	June 23, 1947	8.40	7,510	1953	May 11, 1953	8.45	6,050

a Backwater from ice.

Peak stages and discharges of Cedar River near Fullerton, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	June 8, 1953	4.92	2,610	1958	July 24, 1958	5.95	3,850
1954	Feb. 28, 1954	3.27	863	1959	May 31, 1959	4.98	2,650
1955	Dec. 29, 1954	a5.08	-	1960	Mar. 28, 1960	a11.75	4,300
	July 5, 1955	-	2,090		Apr. 1, 1960	3.59	1,510
					May 5, 1960	4.25	2,070
1956	May 29, 1956	4.30	2,100		June 18, 1960	3.54	1,540
	Aug. 18, 1956	4.42	2,190		June 20, 1960	4.78	2,820
					June 27, 1960	3.63	1,600
1957	May 14, 1957	3.81	1,660				
	May 21, 1957	5.09	2,610	1961	May 14, 1961	5.21	2,690
	June 16, 1957	7.07	4,410		June 15, 1961	5.11	2,610
	July 14, 1957	4.02	1,750				
	Sept.14, 1957	4.03	1,800	1962	Mar. 27, 1962	b8.08	2,000
					June 6, 1962	4.31	2,040
1958	Mar. 24, 1958	4.67	2,510		June 10, 1962	3.53	1,530
	Apr. 5, 1958	4.03	1,870		June 17, 1962	4.48	2,250
	July 19, 1958	4.95	2,880		July 20, 1962	4.17	2,010
	July 21, 1958	5.90	3,880				

a Backwater from ice.
b Occurred Mar. 26, 1962.

7935. Beaver Creek at Loretto, Nebr.

Location.--Lat 41°45'50", long 98°04'50", in E½ sec.26, T.21 N., R.7 W., on left bank just downstream from highway bridge at west edge of Loretto.

Drainage area.--311 sq mi, of which 100 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to May 14, 1945; recording thereafter. Datum of gage is 1,785.95 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,600 cfs.

Bankfull stage.--9 ft.

Remarks.--Peak discharges not appreciably affected by diversions above station. 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)
1945	June 6, 1945	9.12	1,330	1950	July 9, 1950	10.78	2,890
	June 30, 1945	8.59	1,120		July 12, 1950	9.32	1,120
					July 17, 1950	10.74	2,830
1946	May 30, 1946	8.15	536		July 19, 1950	9.69	1,480
					July 23, 1950	8.42	580
1947	June 1, 1947	8.07	512				
	June 10, 1947	9.03	659	1951	Mar. 25, 1951	8.70	613
	June 12, 1947	9.87	1,680		May 20, 1951	7.94	501
	June 22, 1947	9.79	780		July 18, 1951	10.01	1,750
					Aug. 20, 1951	9.41	1,040
1948	Feb. 28, 1948	9.81	1,620		Sept.12, 1951	8.26	510
	July 29, 1948	-	517				
				1952	May 26, 1952	8.00	551
1949	Mar. 8, 1949	8.35	544				
				1953	May 10, 1953	9.66	1,490
1950	June 2, 1950	11.74	4,570		June 8, 1953	9.39	1,320

7940. Beaver Creek at Genoa, Nebr.

Location.--Lat 41°26'30", long 97°44'00", in SE¼SE¼ sec.14, T.17 N., R.4 W., on left bank in city park at southwest corner of Genoa, 0.2 mile downstream from Union Pacific Railroad bridge, 0.2 mile upstream from bridge on State Highway 39, and 2½ miles upstream from mouth.

Drainage area.--627 sq mi, of which about 410 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 6, 1942; recording thereafter. At site 0.4 mile upstream at datum 4.62 ft higher prior to Nov. 2, 1955. Datum of gage is 1,542.13 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs.

Remarks.--Peak discharges not appreciably affected by diversions or power developments above station. 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)
1941	Mar. 9, 1941	a7.08	-	1951	Mar. 24, 1951	6.90	1,580
	Sept. 3, 1941	6.24	1,190		Apr. 27, 1951	5.40	1,100
					June 10, 1951	6.80	1,470
1942	June 21, 1942	15.5	5,750		Aug. 10, 1951	5.63	1,130
					Aug. 20, 1951	6.06	1,260
1943	June 11, 1943	9.65	2,020				
	June 13, 1943	9.70	2,030	1952	Aug. 25, 1952	4.48	792
	June 15, 1943	11.95	2,730				
				1953	May 11, 1953	6.15	1,400
1944	May 13, 1944	12.54	2,970				
	Aug. 30, 1944	9.60	2,080	1954	June 15, 1954	9.90	2,610
1945	June 9, 1945	6.32	1,120	1955	May 26, 1955	6.77	1,500
					July 5, 1955	8.03	1,910
1946	May 30, 1946	8.92	1,870				
	June 27, 1946	7.00	1,330	1956	May 30, 1956	6.48	865
1947	May 15, 1947	7.85	1,410	1957	June 13, 1957	7.20	1,160
	June 2, 1947	9.57	1,850		June 16, 1957	15.10	4,100
	June 13, 1947	10.70	2,220		July 14, 1957	7.50	1,290
	June 22, 1947	11.20	2,410				
				1958	July 24, 1958	11.05	2,600
1948	Feb. 19, 1948	11.25	1,400				
	Feb. 28, 1948	13.67	3,700	1959	May 31, 1959	7.79	1,300
	Mar. 15, 1948	10.15	2,220				
	July 29, 1948	7.85	1,520	1960	Mar. 30, 1960	12.02	3,340
					May 7, 1960	10.52	2,450
1949	June 2, 1949	13.2	3,400		June 21, 1960	13.29	3,700
					June 29, 1960	10.32	2,320
1950	June 2, 1950	16.11	8,470				
	July 9, 1950	16.32	9,100	1961	May 15, 1961	5.78	579
	July 12, 1950	13.20	3,920				
	July 19, 1950	18.70	21,200	1962	Mar. 28, 1962	8.54	1,600
	July 23, 1950	6.75	1,460		June 9, 1962	7.56	1,210
	Aug. 13, 1950	5.55	1,110		July 21, 1962	7.70	1,260

a Backwater from ice.

7945. Loup River at Columbus, Nebr.

Location.--Lat 41°24'50", long 97°22'00", in sec.30, T.17 N., R.1 E., on left bank 20 ft downstream from bridge on U.S. Highway 30 at Columbus, 3½ miles upstream from mouth, and 14 miles downstream from Lookingglass Creek.

Drainage area.--15,200 sq mi, approximately, of which about 6,530 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 21, 1933, June 3 to Dec. 3, 1935, and May 20, 1936, to Dec. 10, 1937; recording for other periods. At several sites within 2 miles of present site at various datums prior to Nov. 21, 1933. At site 1,500 ft downstream Nov. 21, 1933, to June 2, 1935. At bridge 20 ft upstream June 3 to Dec. 3, 1935. At site 280 ft downstream Dec. 4, 1935, to May 19, 1936. At bridge 20 ft upstream May 20, 1936, to Dec. 10, 1957. All gages at datum 2.00 ft higher than present datum Mar. 9, 1931, to Aug. 27, 1950. Datum of gage is 1,430.29 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs and extended above by logarithmic plotting.

Remarks.--Natural flow of stream affected by power developments, ground-water withdrawals, diversions for irrigation, and return flow from irrigated areas. Records since Dec. 2, 1936, do not include flow of Loup River power canal which diverts at point 25 miles upstream and returns to Platte River below mouth of Loup River. 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)
1895	June 3, 1895	7.40	20,300	1939	May 22, 1939	4.05	12,200
				1940	June 7, 1940	5.08	19,000
1896	June 6, 1896	12.55	70,000				
1897	July 1, 1897	7.71	28,200	1941	June 22, 1941	4.6	14,400
1898	Oct. 28, 1897	6.8	18,000	1942	Sept. 3, 1942	5.80	25,700
1899	June 28, 1899	6.5	12,200	1943	June 15, 1943	6.65	33,800
1900	June 17, 1900	6.5	15,600	1944	Apr. 24, 1944	3.85	9,160
				1945	June 10, 1945	5.41	19,600
1901	June 16, 1901	7.2	14,100				
1902	July 3, 1902	6.9	15,200	1946	June 19, 1946	4.55	12,400
1903	Aug. 27, 1903	7.2	20,000	1947	June 23, 1947	10.0	35,000
1904	June 10, 1904	7.3	20,000	1948	Feb. 29, 1948	7.0	32,300
1905	May 14, 1905	9.0	-	1949	June 2, 1949	4.05	12,300
				1950	July 10, 1950	7.0	42,100
1906	May 1, 1906	8.4	34,000				
1907	Aug. 7, 1907	7.0	16,000	1951	May 31, 1951	6.8	11,500
1908	June 5, 1908	7.5	26,600	1952	Mar. 26, 1952	6.34	7,790
1909	July 6, 1909	6.65	20,400	1953	May 11, 1953	7.14	18,200
1910	Aug. 18, 1910	5.7	6,100	1954	June 18, 1954	7.72	19,800
				1955	Mar. 11, 1955	6.31	12,300
1911	May 14, 1911	6.0	13,300				
				1956	Nov. 22, 1955	-	7,500
1913	May 3, 1913	5.5	11,000		Mar. 7, 1956	6.22	-
1914	June 13, 1914	6.3	-	1957	June 17, 1957	8.40	26,000
1915	June 4, 1915	7.2	-	1958	Feb. 26, 1958	a7.53	-
					July 25, 1958	-	12,200
1933	July 8, 1933	4.20	-	1959	Dec. 3, 1958	-	5,100
1934	Aug. 14, 1934	2.59	9,620		Mar. 5, 1959	a6.18	-
1935	Apr. 26, 1935	3.77	41,500	1960	Mar. 28, 1960	10.50	52,000
1936	Mar. 5, 1936	a6.57	-	1961	Feb. 17, 1961	a6.38	-
1937	July 13, 1937	5.45	21,300		June 15, 1961	-	7,910
1938	Sept.13, 1938	5.14	16,300	1962	Mar. 26, 1962	7.48	19,200

a Backwater from ice.

7950. Shell Creek at Newman Grove, Nebr.

Location.--Lat 41°44'30", long 97°45'00", in NW¼NW¼ sec.2, T.20 N., R.4 W., on left bank just downstream from highway bridge, 1 mile east of Newman Grove and 5 miles downstream from North Branch.

Drainage area.--122 sq mi.

Gage.--Nonrecording prior to Aug. 15, 1949; recording thereafter. Datum of gage is 1,674.87 ft above mean sea level, datum of 1929 (preliminary).

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

Bankfull stage.--16 ft.

Historical data.--Flood of June 2, 1950, is highest since 1892, from information by local residents.

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	Mar. 24, 1950	11.75	517	1956	July 18, 1956	12.04	723
	June 2, 1950	20.13	11,600		Aug. 18, 1956	12.04	734
	July 9, 1950	16.74	1,120				
	July 11, 1950	14.72	755	1957	June 16, 1957	12.78	636
	July 16, 1950	18.71	4,550		June 22, 1957	10.57	513
	July 18, 1950	20.20	12,000				
	July 21, 1950	15.60	825	1958	Mar. 24, 1958	11.98	552
	Aug. 12, 1950	11.90	525		Apr. 5, 1958	12.26	607
					July 3, 1958	11.94	546
1951	Mar. 23, 1951	14.67	747				
	July 18, 1951	17.16	2,940	1959	May 31, 1959	14.20	1,080
	Aug. 15, 1951	14.14	708				
	Aug. 20, 1951	16.99	2,650	1960	Mar. 29, 1960	-	630
	Sept.12, 1951	14.25	717		Apr. 1, 1960	11.92	619
					May 6, 1960	15.90	1,420
1952	Mar. 13, 1952	12.82	603		June 10, 1960	14.60	1,100
	June 27, 1952	17.65	4,280		June 20, 1960	19.4	4,800
	July 7, 1952	15.48	1,020		June 27, 1960	17.80	2,470
	Aug. 20, 1952	11.93	531				
				1961	June 7, 1961	12.30	672
1953	May 10, 1953	16.55	1,950		Aug. 1, 1961	11.76	596
	June 8, 1953	15.00	1,330		Aug. 10, 1961	13.20	820
	June 12, 1953	15.00	1,300				
	June 24, 1953	13.77	1,040	1962	Mar. 26, 1962	15.64	1,340
					May 18, 1962	14.56	1,090
1954	Feb. 4, 1954	a5.79	-		May 21, 1962	15.54	1,310
	June 2, 1954	-	87		May 22, 1962	13.62	904
					June 6, 1962	14.10	1,000
1955	June 24, 1955	10.7	532		June 7, 1962	17.43	2,170
					June 17, 1962	16.30	1,570
1956	June 26, 1956	10.48	517		July 20, 1962	12.27	668

a Backwater from ice.

7955. Shell Creek near Columbus, Nebr.

Location.--Lat 41°31'30", long 97°17'00", in NE¼NW¼ sec.23, T.18 N., R.1 E., on right bank 80 ft upstream from county road bridge, 1 mile upstream from Loseke Creek and 7 miles northeast of Columbus.

Drainage area.--270 sq mi, approximately.

Gage.--Recording. Altitude of gage is 1,460 ft (from topographic map, Army Map Service).

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

Bankfull stage.--19 ft.

Historical data.--Flood of June 2, 1947, reached a stage of 21.7 ft, from floodmark (discharge, 4,600 cfs) and is the highest stage since 1912, from information by local residents.

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges of Shell Creek near Columbus, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 2, 1947	21.7	4,600	1954	June 16, 1954	7.98	590
1948	Feb. 19, 1948	13.70	1,330	1955	June 25, 1955	11.47	1,040
	Mar. 1, 1948	19.28	2,480				
	Mar. 17, 1948	19.78	2,310	1956	May 30, 1956	10.73	840
	June 27, 1948	16.63	1,900				
	July 19, 1948	17.61	2,090	1957	June 17, 1957	18.21	1,700
	July 30, 1948	10.62	818				
	Aug. 13, 1948	10.60	815	1958	Apr. 6, 1958	9.90	720
1949	June 2, 1949	21.20	3,800	1959	June 1, 1959	11.17	970
					June 28, 1959	12.33	1,150
1950	Mar. 6, 1950	12.90	1,150		July 1, 1959	11.18	970
	June 3, 1950	21.38	5,970		Aug. 2, 1959	16.02	1,800
	July 20, 1950	21.10	3,870				
	Aug. 14, 1950	11.58	967	1960	Mar. 30, 1960	a19.7	-
					Apr. 2, 1960	15.18	1,640
1951	Mar. 27, 1951	-	750		May 6, 1960	13.42	1,330
	Apr. 28, 1951	9.95	723		June 22, 1960	17.90	2,180
	Aug. 16, 1951	9.82	705		June 30, 1960	9.67	746
	Aug. 21, 1951	13.89	1,300				
				1961	Aug. 19, 1961	6.72	340
1952	Mar. 13, 1952	a10.19	-				
	July 15, 1952	8.56	654	1962	Mar. 25, 1962	21.15	2,820
					May 23, 1962	10.30	840
1953	May 12, 1953	11.29	1,010		June 9, 1962	10.05	802

a Backwater from ice.

7960. Platte River at North Bend, Nebr.

Location.--Lat 41°27'10", long 96°45'50", in SE¼ sec.7, T.17 N., R.6 E., on left bank 30 ft upstream from bridge on State Highway 79, 1 mile south of North Bend, and 5 miles downstream from Shell Creek.

Drainage area.--77,800 sq mi, approximately.

Gage.--Nonrecording prior to Sept. 12, 1951; recording thereafter. Datum of gage is 1,264.32 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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	June 2, 1949	5.05	21,000	1956	Mar. 19, 1956	-	7,000
1950	Mar. 7, 1950	a6.0	-	1957	June 17, 1957	6.06	44,200
	July 12, 1950	-	25,000	1958	Feb. 26, 1958	a6.26	-
					Feb. 26, 1958	-	29,100
1951	Feb. 24, 1951	a5.80	-	1959	Mar. 12, 1959	a5.55	-
	May 31, 1951	-	30,800		Aug. 2, 1959	-	21,700
1952	Feb. 13, 1952	a8.17	-	1960	Mar. 29, 1960	a8.04	112,000
	Mar. 28, 1952	-	18,000				
1953	Feb. 8, 1953	a5.14	-	1961	Feb. 16, 1961	a4.93	-
	May 11, 1953	-	20,900		May 23, 1961	-	15,700
1954	June 18, 1954	5.33	22,800	1962	Mar. 23, 1962	a6.78	-
1955	Mar. 9, 1955	a6.20	-		Mar. 26, 1962	-	39,000
	Mar. 10, 1955	-	12,700				

a Backwater from ice.

7975. Elkhorn River at Ewing, Nebr.

Location.--Lat 42°16'10", long 98°20'20", in sec.35, T.27 N., R.9 W., on right bank 350 ft downstream from bridge on State Highway 108, three-quarters of a mile north of Ewing, and 1½ miles upstream from South Fork Elkhorn River.

Drainage area.--1,400 sq mi, approximately, of which about 740 sq mi contributes directly to surface runoff.

Gage.--Recording.

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

Historical data.--Maximum stage known, 11.32 ft June 23, 1947, from floodmark.

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)
1947	June 23, 1947	11.32	6,600	1954	May 7, 1954	5.95	842
					June 3, 1954	5.67	567
1948	June 29, 1948	2.76	193				
				1955	June 24, 1955	4.87	442
1949	Mar. 8, 1949	10.45	4,200				
	Mar. 29, 1949	10.15	3,830	1956	Mar. 8, 1956	a5.62	-
	Apr. 7, 1949	10.74	7,280		Apr. 7, 1956	4.38	252
	June 1, 1949	5.61	787				
				1957	May 21, 1957	7.25	1,180
1950	Mar. 7, 1950	6.12	961		May 29, 1957	6.97	1,030
	Apr. 2, 1950	7.97	1,810		June 18, 1957	6.36	820
	May 10, 1950	6.31	1,030				
	June 22, 1950	5.93	896	1958	Apr. 9, 1958	7.66	1,400
	July 15, 1950	5.70	818		Apr. 29, 1958	5.97	671
	Aug. 16, 1950	4.78	543		July 28, 1958	6.62	911
1951	Oct. 1, 1950	4.68	519	1959	Mar. 30, 1959	5.40	593
	Mar. 30, 1951	7.23	1,360		June 6, 1959	a6.44	-
	Apr. 27, 1951	8.84	2,055				
	May 18, 1951	10.65	5,970	1960	Mar. 28, 1960	a10.97	-
	June 5, 1951	10.05	2,910		Mar. 29, 1960	10.66	6,440
	June 23, 1951	7.40	1,422		Apr. 6, 1960	9.58	3,560
	July 16, 1951	6.38	1,079		Apr. 16, 1960	7.29	1,300
	Aug. 20, 1951	6.18	977		May 2, 1960	6.82	1,080
	Sept.15, 1951	6.34	1,037		May 8, 1960	10.14	4,720
					May 21, 1960	8.67	2,290
1952	Oct. 4, 1951	6.05	903		June 23, 1960	6.61	994
	Oct. 19, 1951	6.53	1,100		June 27, 1960	6.90	1,110
	Dec. 9, 1951	5.45	733				
	Feb. 15, 1952	a9.30	2,630	1961	Mar. 20, 1961	5.27	571
	Mar. 21, 1952	8.20	1,860				
	Mar. 31, 1952	8.94	2,990	1962	Mar. 28, 1962	9.80	4,600
	Apr. 23, 1952	6.30	870		May 25, 1962	6.98	1,290
	May 27, 1952	7.62	1,472		May 31, 1962	9.67	3,940
					June 10, 1962	10.60	7,500
1953	Mar. 16, 1953	7.77	1,230		June 19, 1962	9.62	4,160
	Apr. 17, 1953	5.32	512		July 20, 1962	6.92	1,620
	May 5, 1953	9.32	2,760		July 29, 1962	6.04	1,170
	June 8, 1953	6.26	1,010				

a Backwater from ice.

7980. South Fork Elkhorn River at Ewing, Nebr.

Location.--Lat 42°15'00", long 98°20'10", in SW¼ sec.2, T.26 N., R.9 W., on right bank at southeast limits of Ewing.

Drainage area.--320 sq mi, approximately, of which about 190 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 10, 1948; recording thereafter. Altitude of gage, 1,870 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and extended above by logarithmic plotting.

Remarks.--Peak discharges not appreciably affected by diversions above station. Base for partial-duration series, 600 cfs.

Peak stages and discharges of South Fork Elkhorn River at Ewing, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	-	6.5	-	1951	May 20, 1951	4.05	1,220
1947	June 1947	7.22	-	1952	Oct. 6, 1951	3.26	724
					Feb. 7, 1952	a4.43	-
1948	June 26, 1948	-	-		Feb. 13, 1952	2.86	648
					Mar. 20, 1952	2.89	713
1949	Mar. 7, 1949	a6.12	-		Mar. 29, 1952	2.71	627
	Mar. 29, 1949	3.92	910				
	Apr. 5, 1949	5.02	1,760	1953	May 1, 1953	3.29	1,020
	Apr. 11, 1949	3.91	812				
				1961	June 12, 1961	3.00	475
1950	Mar. 26, 1950	a5.10	-				
	Mar. 27, 1950	-	-	1962	Mar. 27, 1962	a4.26	1,260
	June 4, 1950	-	616		June 9, 1962	3.96	1,340
	July 12, 1950	-	653				

a Backwater from ice.

7985. Elkhorn River at Neligh, Nebr.

Location.--Lat 42°07'20", long 98°01'40", in sec.20, T.25 N., R.6 W., on right bank 10 ft downstream from bridge on State Highway 14 at Neligh.

Drainage area.--2,200 sq mi, approximately, of which about 1,200 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 24, 1939; recording thereafter. Datum of gage is 1,713.88 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs.

Historical data.--Flood in spring of 1873 reported as "Highest flood in history of Elkhorn valley" in the Neligh Leader dated June 25, 1926. Flood of June 5, 1915, reported as "highest stage ever known" in the Neligh Register dated June 10, 1915. Although contradictory, the 1873 and the 1915 floods were probably the greatest of knowledge prior to 1926. The flood of June 1926 was noted to be comparatively unimportant. Flood of May 1930 reached a stage of 8.0 ft according to information furnished by local resident (discharge, about 2,400 cfs). Flood of June 3, 1935, was the highest since 1926 according to the Neligh Leader dated June 3, 1935.

Remarks.--Peak discharges not appreciably affected by irrigation developments above station. 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)
1932	June 11, 1932	3.64	406	1944	Apr. 26, 1944	6.87	1,667
					May 6, 1944	9.13	4,010
1933	May 12, 1933	4.77	596		June 19, 1944	8.63	3,249
1934	Apr. 3, 1934	4.27	456	1945	June 10, 1945	5.59	1,210
1935	May 22, 1935	6.70	1,170	1946	May 24, 1946	5.61	1,260
	June 3, 1935	9.44	4,610				
				1947	Oct. 14, 1946	5.55	1,049
1936	May 13, 1936	4.58	634		Apr. 15, 1947	7.19	1,826
					June 15, 1947	9.46	4,122
1937	July 30, 1937	5.25	830		June 23, 1947	12.53	12,000
1938	May 18, 1938	6.04	1,020	1948	Aug. 11, 1948	5.05	879
1939	Mar. 3, 1939	a4.28	-	1949	Mar. 10, 1949	9.15	4,870
	May 26, 1939	-	366		Mar. 30, 1949	9.85	5,860
					Apr. 7, 1949	10.93	8,890
1940	June 20, 1940	4.83	663		May 23, 1949	6.32	1,890
					June 1, 1949	5.62	1,470
1941	Apr. 22, 1941	4.65	594				
				1950	Mar. 6, 1950	4.86	1,100
1942	May 18, 1942	8.34	2,890		Mar. 27, 1950	7.27	2,880
	June 28, 1942	7.05	1,544		Apr. 2, 1950	7.17	3,270
					May 9, 1950	5.40	1,360
1943	June 17, 1943	6.33	1,380		May 21, 1950	5.64	1,650

a Backwater from ice.

Peak stages and discharges of Elkhorn River at Neligh, Nebr.--Contirued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 4, 1950	6.19	1,830	1953	June 8, 1953	5.53	1,840
	June 22, 1950	5.02	1,280				
	July 15, 1950	5.98	1,770	1954	May 2, 1954	5.32	1,900
	July 23, 1950	6.42	2,210		June 3, 1954	5.29	1,250
	Aug. 12, 1950	7.01	2,740		June 22, 1954	5.92	1,800
	Aug. 15, 1950	5.33	1,490				
				1955	June 24, 1955	4.14	664
1951	Oct. 3, 1950	6.68	2,390				
	Mar. 26, 1951	7.64	2,830	1956	Oct. 3, 1955	-	532
	Apr. 8, 1951	4.37	1,240		Mar. 12, 1956	a4.61	-
	Apr. 29, 1951	7.95	3,810				
	May 19, 1951	10.62	9,030	1957	May 22, 1957	5.96	1,700
	June 1, 1951	6.69	3,220		May 29, 1957	5.27	1,220
	June 5, 1951	7.96	3,940		June 16, 1957	8.07	3,860
	July 3, 1951	5.89	2,050		June 19, 1957	5.50	1,460
	July 17, 1951	4.69	1,260				
	July 21, 1951	5.26	1,580	1958	Mar. 27, 1958	4.89	1,170
	Aug. 15, 1951	6.81	2,660		Apr. 7, 1958	6.78	2,560
	Aug. 22, 1951	6.91	2,700		Apr. 25, 1958	5.11	1,230
	Sept.15, 1951	5.32	1,670		July 28, 1958	5.52	1,510
1952	Oct. 6, 1951	5.64	1,960	1961	Mar. 19, 1961	4.33	703
	Oct. 19, 1951	4.52	1,340				
	Feb. 16, 1952	7.66	3,590	1962	Mar. 29, 1962	7.86	4,870
	Mar. 21, 1952	7.06	3,400		May 21, 1962	5.53	1,700
	Apr. 1, 1952	7.59	3,800		June 2, 1962	7.56	4,180
	Apr. 15, 1952	4.23	1,060		June 10, 1962	9.17	10,800
	Apr. 23, 1952	5.81	2,190		June 20, 1962	8.28	6,220
	May 25, 1952	6.95	2,780		July 20, 1962	5.40	1,850
					July 29, 1962	5.07	1,570
1953	Mar. 16, 1953	6.08	2,020				
	May 5, 1953	8.13	4,900				

a Backwater from ice.

7990. Elkhorn River near Norfolk, Nebr.

Location.--Lat 42°00'20", long 97°28'40", in SW¼ sec.31, T.24 N., R.1 W., on left bank 75 ft downstream from bridge on county road, 3½ miles west-southwest of Norfolk, and 7 miles upstream from North Fork Elkhorn River.

Drainage area.--2,790 sq mi, approximately, of which about 1,790 sq mi contributes directly to surface runoff.

Gage.--Nonrecording July 1896 to November 1903, Oct. 1, 1945, to Aug. 15, 1947, and Mar. 6, 1949, to Aug. 29, 1958. Recording Aug. 16, 1947, to Mar. 5, 1949, and since Aug. 30, 1958. At site 3½ miles downstream at different datum July 1896 to November 1903. At sites on or near bridge 3¼ miles downstream at datum 17.88 ft lower, Oct. 1, 1945, to Aug. 29, 1958. Datum of gage is 1,522.83 ft above mean sea level, datum of 1929.

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

Remarks.--Only annual peaks are shown for 1897-1903, 1940-45. 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)
1897	Apr. 8, 1897	6.95	6,390	1946	May 30, 1946	5.40	1,800
1898	June 5, 1898	5.40	3,670				
1899	June 28, 1899	3.75	1,380	1947	June 1, 1947	9.6	8,090
1900	Apr. 29, 1900	3.70	1,250		June 13, 1947	8.60	6,690
					June 26, 1947	11.1	12,600
1901	June 28, 1901	6.67	3,440				
1902	Sept.30, 1902	6.00	2,940	1948	Feb. 28, 1948	a12.25	3,500
1903	May 30, 1903	9.60	9,400		Aug. 11, 1948	7.13	3,940
1940	June 6, 1940	11.7	14,100	1949	Mar. 11, 1949	-	4,400
					Mar. 31, 1949	-	6,500
1941	June 3, 1941	6.8	3,800		Apr. 8, 1949	9.40	8,760
1942	June 21, 1942	10.2	10,300		May 27, 1949	6.45	2,680
1943	June 14, 1943	5.4	2,100		June 2, 1949	6.50	2,700
1944	May 13, 1944	11.8	14,300				
1945	June 10, 1945	7.8	5,400	1950	Mar. 24, 1950	6.60	2,730

a Backwater from ice.

Peak stages and discharges of Elkhorn River near Norfolk, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Mar. 28, 1950	6.20	2,290	1956	Mar. 5, 1956	a7.76	-
	Apr. 3, 1950	6.10	3,200		June 26, 1956	7.50	1,440
	June 3, 1950	6.35	2,960				
	July 19, 1950	8.50	6,660	1957	May 21, 1957	8.10	2,380
	Aug. 12, 1950	8.60	8,200		June 17, 1957	8.48	3,420
1951	Mar. 26, 1951	7.60	7,140	1958	Apr. 6, 1958	7.95	2,640
	Apr. 30, 1951	5.88	3,650		July 30, 1958	9.43	3,400
	May 20, 1951	8.15	8,410				
	June 2, 1951	5.40	2,720	1959	Mar. 6, 1959	a4.98	-
	June 6, 1951	5.70	3,090		May 6, 1959	4.63	2,480
	July 3, 1951	5.45	2,260				
	Aug. 14, 1951	7.22	5,090	1960	Mar. 30, 1960	8.60	13,500
	Aug. 20, 1951	6.96	4,340		Apr. 8, 1960	5.66	4,960
	Sept.12, 1951	6.68	4,380		May 6, 1960	6.30	6,700
					May 9, 1960	6.38	6,920
					May 22, 1960	5.00	3,190
1952	Feb. 10, 1952	a7.50	-		June 10, 1960	4.67	2,520
	Feb. 13, 1952	6.40	3,470		June 20, 1960	7.04	8,780
	Mar. 13, 1952	5.20	2,410		June 28, 1960	5.79	5,290
	Mar. 21, 1952	5.40	2,580				
	Apr. 1, 1952	5.93	3,220	1961	Mar. 31, 1961	3.81	1,100
	May 23, 1952	5.70	2,790				
	July 7, 1952	6.30	2,700	1962	Mar. 25, 1962	a8.37	-
					Mar. 28, 1962	6.24	7,320
1953	May 5, 1953	6.60	4,000		May 21, 1962	5.05	4,480
	May 10, 1953	8.10	7,550		June 3, 1962	5.13	4,660
	June 8, 1953	7.15	5,720		June 11, 1962	6.93	9,720
					June 21, 1962	5.77	5,980
1954	June 21, 1954	6.80	4,100		July 21, 1962	4.25	2,320
1955	Mar. 11, 1955	5.64	1,170				
	Sept.17, 1955	8.10	-				

a Backwater from ice.

7995. Logan Creek near Uehling, Nebr.

Location.--Lat 41°42'50", long 96°31'15", on south line of SE¼SE¼ sec.9, T.20 N., R.8 E., near right bank on downstream side of bridge on county road, 2 miles southwest of Uehling, and 8 miles upstream from mouth.

Drainage area.--1,030 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 5, 1945; recording thereafter. Datum of gage is 1,210.73 ft above mean sea level, datum of 1929.

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

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)
1940	June 5, 1940	18.6	a22,200	1945	June 16, 1945	11.60	4,570
1941	Apr. 20, 1941	8.52	1,990	1946	Feb. 6, 1946	b10.90	-
	Sept.16, 1941	11.66	3,380		June 29, 1946	-	1,500
1942	Mar. 6, 1942	9.40	2,270	1947	Mar. 13, 1947	b9.74	-
					June 13, 1947	9.36	3,160
1943	Feb. 4, 1943	b12.48	-		June 25, 1947	9.16	3,080
	June 16, 1943	-	1,220				
				1948	Feb. 18, 1948	b13.5	-
1944	May 13, 1944	13.20	5,870		Feb. 28, 1948	-	6,000
	June 4, 1944	12.40	5,210		Mar. 17, 1948	-	3,120
	June 11, 1944	17.65	13,700		July 30, 1948	-	2,500
	July 8, 1944	9.21	3,090				
	July 12, 1944	10.80	4,340	1949	Mar. 5, 1949	b14.25	-
	Aug. 2, 1944	9.00	3,120		Mar. 7, 1949	-	-
	Aug. 4, 1944	9.21	3,090		Mar. 22, 1949	-	1,800
					May 22, 1949	-	3,640
1945	Mar. 10, 1945	b16.40	-		June 2, 1949	-	6,000
	May 31, 1945	7.62	1,990		Sept.11, 1949	-	-
	June 6, 1945	10.80	3,940				

a Annual peak only.
b Backwater from ice.

Peak stages and discharges of Logan Creek near Uehling, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Mar. 5, 1950	15.4	8,350	1955	Mar. 3, 1955	b13.88	c1,500
	Mar. 24, 1950	-	5,710				
	June 18, 1950	-	3,230	1956	May 30, 1956	10.60	5,000
	July 19, 1950	-	3,860		June 26, 1956	13.82	7,880
	July 22, 1950	-	3,520				
				1957	June 14, 1957	11.63	5,770
1951	Mar. 27, 1951	14.78	8,820		June 16, 1957	7.05	2,340
	Apr. 30, 1951	-	3,500		July 15, 1957	13.56	7,660
	June 2, 1951	7.65	2,540				
	June 18, 1951	-	3,500	1958	Feb. 27, 1958	12.72	6,820
	July 3, 1951	12.95	6,630		July 3, 1958	6.90	2,290
	Aug. 15, 1951	-	4,000		July 30, 1958	7.57	2,690
	Aug. 21, 1951	-	-		Aug. 14, 1958	10.14	4,560
	Aug. 28, 1951	12.94	6,590				
	Sept.10, 1951	-	-	1959	May 29, 1959	7.85	3,350
	Sept.12, 1951	8.94	3,480		May 31, 1959	11.28	6,300
					Aug. 2, 1959	7.22	2,480
1952	Oct. 4, 1951	7.52	2,600				
	Mar. 13, 1952	12.95	6,830	1960	Apr. 2, 1960	15.20	9,400
	Mar. 30, 1952	11.78	5,620		May 6, 1960	7.08	2,600
	May 23, 1952	12.88	7,280		June 16, 1960	8.28	3,350
	June 27, 1952	8.34	2,980		June 20, 1960	9.95	4,520
	July 7, 1952	6.85	2,180		Aug. 28, 1960	7.02	2,560
1953	May 11, 1953	6.0	1,750	1961	Feb. 24, 1961	b9.13	-
	June 8, 1953	13.17	7,450		Mar. 15, 1961	-	2,240
1954	Mar. 18, 1954	7.22	2,700	1962	Mar. 27, 1962	18.15	19,400
	May 31, 1954	13.64	7,980		May 21, 1962	8.45	2,980
	June 3, 1954	10.62	5,290		May 23, 1962	8.05	2,740
	June 18, 1954	10.26	5,050		June 8, 1962	13.36	7,560
	June 21, 1954	13.79	8,220		June 17, 1962	11.25	5,520
	June 27, 1954	6.10	2,020				

b Backwater from ice.
c Release of temporary storage behind ice jam at gage.

8000. Maple Creek near Nickerson, Nebr.

Location.--Lat 41°33', long 96°30', in NE¼SW¼ sec.10, T.18 N., R.8 E., on right bank 120 ft upstream from bridge on U.S. Highways 77 and 275, 1½ miles northwest of Nickerson, and 4 miles upstream from mouth.

Drainage area.--450 sq mi, approximately.

Gage.--Nonrecording prior to July 28, 1960; recording thereafter. At site 120 ft downstream prior to July 28, 1960. Datum of gage is 1,194.56 ft above mean sea level, datum of 1929.

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

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	June 11, 1944	16.28	35,000	1957	Sept. 2, 1957	8.25	740
1952	Feb. 3, 1952	a7.30	-	1958	Feb. 28, 1958	12.6	2,300
	June 28, 1952	6.97	480		July 20, 1958	10.04	1,100
					July 31, 1958	12.6	2,200
1953	June 9, 1953	7.78	718		Aug. 7, 1958	12.66	2,100
	June 25, 1953	8.58	870				
				1959	May 21, 1959	12.50	2,130
1954	Apr. 21, 1954	8.26	757		June 1, 1959	11.34	1,660
					June 18, 1959	7.45	722
1955	June 25, 1955	10.12	1,100		June 30, 1959	12.86	2,670
	July 15, 1955	8.68	812		Aug. 4, 1959	13.41	5,450
					Aug. 15, 1959	8.25	895
1956	May 30, 1956	7.65	850				
				1960	Mar. 31, 1960	13.40	6,260
1957	June 18, 1957	12.61	2,300		May 7, 1960	11.90	1,890
	June 22, 1957	10.15	1,010		May 21, 1960	11.10	1,620
	July 3, 1957	12.65	2,200		June 11, 1960	12.90	5,400
	July 15, 1957	8.95	880		June 17, 1960	13.10	5,820

a Backwater from ice.

Peak stages and discharges of Maple Creek near Nickerson, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	June 21, 1960	14.67	10,800	1962	Mar. 26, 1962	-	5,500
					May 22, 1962	8.93	1,080
1961	May 31, 1961	11.73	1,660		May 29, 1962	9.05	1,120
	June 14, 1961	8.00	789		June 7, 1962	12.58	2,330
	July 29, 1961	8.18	869		June 8, 1962	12.96	2,480
1962	Mar. 25, 1962	a13.95	-				

a Backwater from ice.

8005. Elkhorn River at Waterloo, Nebr.
(Published as "at Arlington," 1899-1903, 1913-15)

Location.--Lat 41°17'25", long 96°17'05", in SW¼ sec.3, T.15 N., R.10 E., on right bank 100 ft upstream from bridge at north edge of Waterloo and 3½ miles downstream from Rawhide Creek.

Drainage area.--6,900 sq mi, approximately, of which about 5,900 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 13, 1934, June 9 to July 1, 1940, and July 4 to Oct. 25, 1951; recording for other periods. At sites 10 miles upstream at different datums Apr. 28, 1899, to Nov. 21, 1903, and July 20, 1913, to Sept. 30, 1915. At present site at different datum May 19, 1911, to July 19, 1913. At present site at datum 3.00 ft higher Aug. 18, 1928, to July 1, 1940. At site 3½ miles upstream at different datum July 2, 1940, to Oct. 25, 1951. At present site at datum 3.00 ft higher Oct. 26, 1951, to Sept. 30, 1960. Datum of gage is 1,106.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs and by current-meter measurement of peak flow in main channel and velocity-area studies of overflow section for flood of June 12, 1944.

Historical data.--Stage and discharge for the flood of June 12, 1944, are the greatest known since at least 1880.

Remarks.--Only annual peaks are shown prior to 1944. 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)
1881	-	a11.5	-	1943	June 14, 1943	6.09	8,570
1899	June 13, 1899	5.80	3,700	1944	May 16, 1944	8.40	15,700
1900	Sept.13, 1900	5.95	4,160		June 12, 1944	16.6	100,000
1901	June 23, 1901	7.23	4,740	1945	Mar. 11, 1945	8.39	11,900
1902	July 10, 1902	9.2	7,780		June 1, 1945	6.09	10,300
1903	June 3, 1903	10.47	8,680		June 10, 1945	6.93	12,700
					June 16, 1945	6.80	13,000
1911	June 30, 1911	4.25	3,670		July 6, 1945	5.19	6,900
1912	Apr. 2, 1912	a13	-		July 17, 1945	6.69	13,600
1913	May 18, 1913	6.35	5,740				
1914	June 16, 1914	5.30	5,750	1946	Feb. 7, 1946	4.80	5,720
1915	July 17, 1915	9.30	-	1947	June 4, 1947	5.68	10,400
1929	June 19, 1929	5.72	6,620		June 13, 1947	7.16	14,100
1930	May 12, 1930	8.3	12,600		June 22, 1947	5.89	10,400
					June 26, 1947	5.93	10,500
1931	Nov. 21, 1930	3.60	2,120		June 30, 1947	6.72	13,370
1932	May 7, 1932	7.19	10,900				
1933	July 13, 1933	6.04	7,020	1948	Feb. 29, 1948	6.70	11,300
1934	June 9, 1934	6.46	8,040		Mar. 19, 1948	-	-
1935	June 6, 1935	-	3,300		Aug. 11, 1948	5.90	8,720
1936	Mar. 8, 1936	9.23	16,000	1949	Mar. 7, 1949	9.39	21,000
1937	June 20, 1937	4.73	2,920		Mar. 14, 1949	4.58	7,340
1938	July 8, 1938	6.50	7,450		Mar. 22, 1949	6.60	16,400
1939	Mar. 13, 1939	-	7,500		Mar. 25, 1949	4.75	8,630
1940	June 7, 1940	12.05	22,900		Apr. 1, 1949	4.60	7,670
					Apr. 12, 1949	5.60	9,210
1941	Mar. 10, 1941	6.55	7,080		May 22, 1949	5.41	8,300
1942	June 20, 1942	5.27	6,500		June 3, 1949	6.67	11,500

a Datum used 1928-40.

Peak stages and discharges of Elkhorn River at Waterloo, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Mar. 6, 1950	8.65	16,700	1957	June 17, 1957	8.08	13,000
	Mar. 24, 1950	5.65	9,210		June 22, 1957	7.35	11,600
	June 5, 1950	4.80	6,730		July 2, 1957	7.32	10,800
	July 16, 1950	5.43	7,640		July 15, 1957	6.46	7,900
	July 20, 1950	6.62	13,400				
	July 22, 1950	7.08	12,600	1958	Feb. 28, 1958	8.96	17,100
	Aug. 15, 1950	6.36	10,200		Aug. 1, 1958	10.19	20,300
					Aug. 6, 1958	7.70	12,600
1951	Feb. 28, 1951	4.87	6,500		Aug. 14, 1958	6.06	7,930
	Mar. 27, 1951	11.72	27,500				
	Apr. 28, 1951	5.28	9,020	1959	May 21, 1959	6.02	8,050
	May 1, 1951	5.82	10,800		May 29, 1959	6.85	10,200
	May 23, 1951	5.25	7,810		May 31, 1959	7.88	13,400
	May 31, 1951	7.34	13,600		June 30, 1959	6.48	9,220
	July 4, 1951	8.15	17,800		Aug. 3, 1959	7.71	13,000
	Aug. 15, 1951	6.85	13,400				
	Aug. 21, 1951	8.64	22,500	1960	Mar. 30, 1960	11.95	29,800
	Aug. 28, 1951	6.00	10,700		Apr. 2, 1960	14.11	46,900
	Sept.10, 1951	4.88	6,940		May 6, 1960	7.39	13,000
	Sept.13, 1951	5.68	8,930		May 21, 1960	6.01	9,650
					June 10, 1960	6.03	8,450
1952	Feb. 18, 1952	-	6,600		June 16, 1960	6.45	11,300
	Mar. 13, 1952	7.27	14,200		June 22, 1960	11.82	28,900
	Mar. 31, 1952	7.21	13,800		June 29, 1960	-	8,500
	May 24, 1952	6.85	12,800				
	June 27, 1952	5.68	6,840	1961	June 2, 1961	8.85	9,480
1953	May 12, 1953	5.69	9,180	1962	Mar. 29, 1962	17.12	50,200
	June 9, 1953	7.45	14,300		May 22, 1962	8.35	8,400
					May 29, 1962	7.20	6,250
1954	May 31, 1954	6.75	9,880		June 4, 1962	7.20	6,340
	June 3, 1954	5.62	6,710		June 7, 1962	8.85	10,400
	June 22, 1954	8.38	15,400		June 9, 1962	12.25	21,900
					June 18, 1962	8.70	10,200
1955	July 14, 1955	5.64	6,440				
1956	June 26, 1956	5.96	6,960				

8012. Olive Branch above Sprague, Nebr.

Location.--Lat 40°36'29", long 96°46'41", in NW¼NW¼ sec.5, T.7 N., R.6 E., at downstream side of bridge on north-south county road, 2 miles west and 1¼ miles south of Sprague.

Drainage area.--43 sq mi, approximately.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by current-meter measurements below 1,600 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. 18, 1956	17.46	1,670	1959	July 4, 1959	17.31	1,620
1957	June 17, 1957	16.90	1,500	1960	Mar. 27, 1960	18.28	1,950
1958	July 11, 1958	17.19	1,590				

8013. Salt Creek subwatershed No. 3 near Sprague, Nebr.

Location.--Lat 40°37'20", long 96°43'40", in NW¼NE¼ sec.34, T.8 N., R.6 E., on right bank 1,000 ft upstream from confluence with Olive Branch, half a mile east of Sprague, and 0.9 mile downstream from Linn Creek detention dam.

Drainage area.--4.20 sq mi.

Gage.--Recording. Altitude of gage is 1,245 ft (from topographic map).

Stage-discharge relation.--Defined 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	Sept.20, 1955	4.37	115	1958	July 11, 1958	5.82	158
				1959	May 18, 1959	4.91	126
1956	July 2, 1956	6.24	244				
1957	June 17, 1957	3.81	66				

8014. Salt Creek subwatershed No. 1 near Roca, Nebr.

Location.--Lat 40°38'30", long 96°39'00", in SE¼ sec.20, T.8 N., R.7 E., on right bank at upstream side of U.S. Soil Conservation Service channel stabilizing structure, 800 ft downstream from county road, and 1½ miles southeast of Roca.

Drainage area.--1.46 sq mi.

Gage.--Recording. Datum of gage is 1,232.2 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow of stream affected by detention storage in reservoirs upstream. 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 24, 1955	2.12	70.8	1959	May 18, 1959	2.63	250
				1960	Mar. 27, 1960	1.95	46.4
1956	July 2, 1956	3.12	610				
1957	July 1, 1957	2.23	96.8	1961	Oct. 13, 1960	2.01	55.5
1958	July 10, 1958	2.87	400				

8015. Salt Creek subwatershed No. 12 at Roca, Nebr.

Location.--Lat 40°39'20", long 96°38'40", in SW¼ sec.16, T.8 N., R.7 E., on left bank 10 ft upstream from bridge on east-west county road and three-quarters of a mile east of Roca.

Drainage area.--1.12 sq mi.

Gage.--Recording. Altitude of gage is 1,258 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 430 cfs.

Remarks.--Base for partial-duration series, 50 cfs.

Peak stages and discharges of Salt Creek subwatershed No. 12 at Roca, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Aug. 22, 1954	2.95	246	1959	May 2, 1959	2.03	134
					May 4, 1959	3.90	330
1955	June 24, 1955	2.44	189		May 18, 1959	5.89	452
					June 18, 1959	1.82	106
1956	July 2, 1956	5.76	448		June 20, 1959	3.30	276
1957	July 1, 1957	4.69	389	1960	Mar. 27, 1960	2.99	245
					Mar. 28, 1960	1.91	118
1958	Oct. 15, 1957	1.16	356		June 20, 1960	1.34	49.8
	Feb. 27, 1958	1.30	50				
	July 10, 1958	7.95	528	1961	Apr. 11, 1961	-	a28.4
	July 11, 1958	5.28	424				
	July 19, 1958	1.68	94				

a Maximum prior to June 30, 1961; probably not maximum for year.

8025. Salt Creek subwatershed No. 34 near Roca, Nebr.

Location.--Lat 40°38'20", long 96°39'42", in SW¼SW¼ sec.20, T.8 N., R.7 E., on left bank 50 ft downstream from trestle of Missouri Pacific Railroad and 1¼ miles south of Roca.

Drainage area.--5.72 sq mi.

Gage.--Recording. Altitude of gage is 1,230 ft (from topographic map).

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

Remarks.--Base for partial-duration series, 140 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Aug. 6, 1954	6.12	245	1958	July 19, 1958	5.42	141
	Aug. 23, 1954	6.25	250				
				1959	Mar. 26, 1959	6.36	289
1955	June 24, 1955	6.05	152		May 3, 1959	6.54	405
					May 4, 1959	8.46	910
1956	May 26, 1956	6.57	253		May 18, 1959	8.02	650
	July 2, 1956	9.93	2,230		June 18, 1959	5.07	158
	Aug. 8, 1956	7.03	459		July 4, 1959	6.18	332
	Aug. 18, 1956	9.89	2,600				
				1960	Mar. 27, 1960	9.71	1,800
1957	June 17, 1957	5.89	222		Mar. 28, 1960	6.60	328
					June 20, 1960	5.76	190
1958	Oct. 12, 1957	7.92	390				
	Oct. 14, 1957	7.03	255	1961	Oct. 13, 1960	7.12	434
	Feb. 27, 1958	6.56	781		June 19, 1961	7.23	459
	July 11, 1958	9.24	1,160				

8030. Salt Creek at Roca, Nebr.

Location.--Lat 40°39'33", long 96°39'39", in SW¼ sec.17, T.8 N., R.7 E., on left bank 15 ft downstream from highway bridge at west edge of Roca.

Drainage area.--174 sq mi.

Gage.--Nonrecording prior to May 16, 1956; recording thereafter. Datum of gage is 1,192.50 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--16 ft.

Historical data.--Flood of May 8, 1950, reached a stage of 26.0 ft, from floodmark established by Corps of Engineers, but may have been exceeded by flood of July 5, 1908.

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

Peak stages and discharges of Salt Creek at Roca, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 2, 1951	22.0	9,300	1956	July 2, 1956	20.82	5,700
	June 7, 1951	17.9	2,570		Aug. 18, 1956	20.10	4,840
	June 15, 1951	17.2	2,200				
	June 18, 1951	20.2	5,450	1957	June 18, 1957	16.39	1,670
	June 22, 1951	17.3	2,240				
	Aug. 15, 1951	17.7	2,440	1958	Feb. 28, 1958	19.50	4,370
	Aug. 24, 1951	19.2	3,850		July 10, 1958	22.70	16,700
	Sept.12, 1951	18.9	3,490				
				1959	May 3, 1959	19.52	3,180
1952	June 27, 1952	18.58	5,220		May 5, 1959	21.12	7,100
	July 14, 1952	20.71	7,410		May 18, 1959	19.15	2,900
1953	June 8, 1953	9.69	542	1960	Mar. 27, 1960	20.85	5,900
1954	June 9, 1954	18.91	3,010	1961	June 20, 1961	13.82	958
	June 17, 1954	19.82	2,980				
	Aug. 7, 1954	19.20	3,730	1962	July 20, 1962	20.05	3,000
	Aug. 23, 1954	21.16	5,380				
1955	June 24, 1955	15.50	870				

8034. Antelope Creek at Lincoln, Nebr.

Location.--Lat 40°49'30", long 96°41'40", in SE¼NW¼ sec.24, T.10 N., R.6 E., on right bank 40 ft downstream from 17th Street bridge in Lincoln and 3,600 ft upstream from mouth.

Drainage area.--12.5 sq mi.

Gage.--Recording and concrete control. Datum of gage is 1,130.97 ft above mean sea level, datum of 1929.

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

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)
1958	July 10, 1958	9.50	2,800	1960	June 20, 1960	5.63	827
	July 10, 1958	a11.99	-		July 17, 1960	6.32	1,120
	July 19, 1958	5.73	867		Aug. 6, 1960	5.00	575
	July 24, 1958	5.88	927		Aug. 17, 1960	5.00	575
	July 27, 1958	4.98	567		Aug. 24, 1960	4.80	500
	Aug. 5, 1958	5.60	815		Aug. 28, 1960	4.82	507
	Sept. 4, 1958	6.55	1,220		Sept.23, 1960	5.61	819
1959	May 2, 1959	4.87	524	1961	Oct. 13, 1960	4.84	514
	May 4, 1959	7.18	1,550		July 1, 1961	6.36	1,140
	May 18, 1959	7.78	1,880		July 27, 1961	4.81	504
	June 18, 1959	4.96	559		Aug. 21, 1961	6.52	1,210
	June 18, 1959	4.97	563				
	June 20, 1959	6.05	998	1962	May 28, 1962	5.11	619
					July 20, 1962	5.67	843
1960	Mar. 27, 1960	5.29	691		Aug. 23, 1962	5.52	783
	May 20, 1960	4.87	524		Aug. 31, 1962	6.77	1,340

a Backwater from Salt Creek.

8035. Salt Creek at Lincoln, Nebr.

Location.--Lat 40°50'50", long 96°40'50", in SW¼ sec.7, T.10 N., R.7 E., near center of channel on downstream side of pier of bridge on North 27th Street at north edge of Lincoln, 1 mile downstream from Oak Creek.

Drainage area.--710 sq mi, approximately.

Gage.--Recording for stages above 6.2 ft; nonrecording gage read twice daily. Datum of gage is 1,113.9 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of June 2, 1951, may have been equaled or exceeded in discharge by flood of July 6, 1908, which reached a stage of 33.6 ft. Channel changes since 1908 have materially altered the stage-discharge relation.

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)
1950	Oct. 10, 1949	9.93	2,460	1957	Apr. 26, 1957	9.24	2,410
	Feb. 28, 1950	9.74	2,290		June 17, 1957	15.08	9,160
	May 9, 1950	26.05	27,800		June 22, 1957	9.16	2,350
	May 29, 1950	10.02	2,670		July 1, 1957	19.43	14,400
					July 20, 1957	9.98	2,980
1951	Oct. 3, 1950	9.98	2,460				
	Feb. 28, 1951	9.31	2,200	1958	Oct. 12, 1957	10.54	3,060
	Apr. 26, 1951	10.37	3,070		Feb. 28, 1958	15.53	11,900
	May 1, 1951	11.41	3,470		July 10, 1958	23.00	21,700
	May 25, 1951	10.69	2,950		July 19, 1958	15.81	9,720
	June 2, 1951	26.15	28,200		July 24, 1958	16.18	10,300
	June 7, 1951	17.15	10,000		July 27, 1958	10.70	3,200
	June 11, 1951	11.35	3,840		Aug. 6, 1958	13.10	5,930
	June 14, 1951	15.49	8,020		Sept. 6, 1958	12.26	4,910
	June 18, 1951	19.88	18,600				
	June 21, 1951	12.00	4,760	1959	May 4, 1959	9.50	2,460
	June 26, 1951	10.69	3,200		May 6, 1959	16.27	11,300
	Aug. 14, 1951	11.20	3,330		May 13, 1959	13.48	6,920
	Aug. 25, 1951	9.94	2,430		May 18, 1959	13.80	7,400
	Sept.13, 1951	9.14	2,000		May 22, 1959	10.75	3,600
					June 22, 1959	11.62	4,550
1952	Mar. 31, 1952	10.21	2,520				
	Apr. 9, 1952	9.43	2,160	1960	Mar. 27, 1960	18.75	17,200
	Apr. 22, 1952	10.42	2,860		Apr. 2, 1960	10.93	4,400
	June 27, 1952	17.28	15,600		May 16, 1960	11.49	5,070
	July 14, 1952	15.19	7,820		May 19, 1960	14.28	9,030
					May 21, 1960	14.15	8,820
1953	July 21, 1953	8.39	1,660		June 20, 1960	17.12	13,900
					July 10, 1960	9.20	2,570
1954	May 2, 1954	9.80	2,920		Aug. 24, 1960	14.05	8,660
	June 9, 1954	10.12	2,970		Aug. 29, 1960	10.68	4,100
	June 17, 1954	15.83	11,800				
	July 2, 1954	11.24	4,330	1961	Sept.11, 1961	9.72	2,650
	Aug. 23, 1954	12.20	4,570				
				1962	Oct. 10, 1961	11.35	4,900
1955	June 24, 1955	13.10	6,060		Mar. 11, 1962	9.05	2,440
					Mar. 20, 1962	8.62	2,060
1956	June 7, 1956	9.30	2,110		Mar. 24, 1962	10.60	4,010
	July 3, 1956	11.50	4,060		May 29, 1962	9.87	3,220
	July 15, 1956	9.25	2,340		July 20, 1962	12.35	4,950
	July 31, 1956	8.98	2,180		Aug. 31, 1962	9.84	2,630
	Aug. 18, 1956	10.57	3,290				
	Sept. 5, 1956	12.62	5,960				

8035.7. Wahoo Creek tributary near Weston, Nebr.
(Previously published as "Dunlap Creek tributary near Weston")

Location.--Lat 41°12', long 96°49', in SE¼SE¼ sec.2, T.14 N., R.5 E., at upstream end of box culvert on State Highway 79, 200 ft north of U.S. Highway 30A and State Highway 92, and 3½ miles northwest of Weston.

Drainage area.--0.31 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,370 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 20 cfs and by indirect measurements at 37.4, 122, 176, 383, 536, and 923 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	Aug. 12, 1950	13.6	480	1957	June 15, 1957	13.76	383
				1958	July 19, 1958	13.40	310
1951	June 1, 1951	13.90	550	1959	Aug. 2, 1959	13.40	176
1952	June 27, 1952	12.40	208	1960	Aug. 24, 1960	14.07	215
1953	July 27, 1953	10.09	11				
1954	Aug. 7, 1954	9.6	1	1961	Apr. 11, 1961	11.01	13
1955	June 24, 1955	12.79	205	1962	Oct. 10, 1961	12.92	122
1956	-	-	0				

8036. North Fork Wahoo Creek near Prague, Nebr.

Location.--Lat 41°16', long 96°49', in NW¼NW¼ sec.24, T.15 N., R.5 E., on right bank downstream side of bridge on State Highway 79, 0.2 mile south of road intersection, and 3½ miles south of Prague.

Drainage area.--15.2 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,276 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 200 cfs and by indirect measurements at 4,500, 12,800, and 15,900 cfs.

Bankfull stage.--27 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)
1951	May 31, 1951	30.68	12,800	1957	July 1, 1957	26.98	5,230
1952	June 27, 1952	25.81	4,520	1958	Apr. 3, 1958	15.79	440
1953	July 27, 1953	18.54	1,650	1959	Aug. 2, 1959	31.12	12,800
1954	Feb. 20, 1954	10.74	55	1960	Aug. 24, 1960	26.68	5,000
1955	June 24, 1955	18.20	1,540				
				1961	Aug. 21, 1961	11.23	353
1956	May 13, 1956	22.76	3,220	1962	May 28, 1962	13.49	880

8037. Dunlap Creek near Weston, Nebr.

Location.--Lat 41°13', long 96°49', in SW¼SW¼ sec.36, T.15 N., R.5 E., at left bank on downstream side of bridge on State Highway 79, 1.1 miles north of U.S. Highway 30A and State Highway 92, and 4 miles northwest of Weston.

Drainage area.--8.90 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,300 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 326 cfs and by indirect measurements at 1,920, 2,280, and 13,800 cfs.

Bankfull stage.--16 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Dunlap Creek near Weston, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 12, 1950	15.05	2,070	1957	July 1, 1957	15.26	2,280
				1958	July 19, 1958	8.6	610
1951	May 31, 1951	18.20	4,130	1959	Aug. 2, 1959	14.12	1,800
1952	June 27, 1952	15.00	1,920	1960	Aug. 24, 1960	12.5	1,400
1953	July 27, 1953	11.21	1,090				
1954	July 1, 1954	7.78	500	1961	Aug. 21, 1961	3.99	225
1955	June 24, 1955	8.69	630	1962	May 28, 1962	6.70	550
1956	June 18, 1956	3.0	50				

8039. North Fork Wahoo Creek at Weston, Nebr.

Location.--Lat 41°12', long 96°44', NE¼NW¼ sec.10, T.14 N., R.6 E., on downstream side of bridge on U.S. Highway 30A and State Highway 92, 1 mile northeast of Weston.

Drainage area.--43.7 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,225 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs, by a contracted-opening measurement at 9,600 cfs, and by indirect measurements at 10,200 and 81,400 cfs for floods of June 16, 1964, and June 24, 1963.

Bankfull stage.--20 ft.

Historical data.--In 1951, W. H. Nolte, nearby resident, reported the May 31, 1951, stage was the highest in his 50 years of knowledge.

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)
1951	May 31, 1951	22.36	9,600	1957	June 16, 1957	21.33	5,400
1952	June 27, 1952	20.83	3,700	1958	July 19, 1958	19.02	1,670
1953	July 27, 1953	11.49	640	1959	Aug. 2, 1959	21.43	5,830
1954	July 1, 1954	14.3	1,000	1960	Aug. 24, 1960	21.18	4,900
1955	June 24, 1955	19.68	1,830				
				1961	Apr. 11, 1961	9.20	380
1956	May 13, 1956	12.94	820	1962	Oct. 10, 1961	14.83	1,080

8040. Wahoo Creek at Ithaca, Nebr.

Location.--Lat 41°08'40", long 96°32'20", in northeast corner sec.32, T.14 N., R.8 E., on downstream side of bridge on State Highway 63, half a mile south of Ithaca.

Drainage area.--272 sq mi.

Gage.--Nonrecording prior to Feb. 23, 1961; recording thereafter. At site 1½ miles upstream at datum 8.21 ft higher Oct. 28, 1959, to Feb. 22, 1961. Datum of gage is 1,110.48 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and by a flow-over-road measurement at 77,400 cfs.

Bankfull stage.--19 ft.

Historical data.--Maximum stage known since about 1910, that of Aug. 2, 1959.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges of Wahoo Creek at Ithaca, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Feb. 28, 1950	21.08	5,430	1958	July 19, 1958	19.60	2,280
	Mar. 5, 1950	15.24	1,200		July 31, 1958	19.51	2,240
	May 25, 1950	15.71	1,310		Aug. 6, 1958	21.42	8,160
	May 29, 1950	15.30	1,210		Sept. 6, 1958	18.10	1,760
	Aug. 13, 1950	18.72	2,370	1959	May 6, 1959	20.40	3,850
1951	Feb. 28, 1951	16.43	1,500		May 21, 1959	17.58	1,610
	Mar. 23, 1951	16.85	1,590		May 29, 1959	17.57	1,610
	May 31, 1951	22.34	18,900		June 28, 1959	19.70	2,820
	June 7, 1951	19.60	2,450		July 1, 1959	19.92	3,140
	June 11, 1951	15.18	1,240		July 14, 1959	18.13	1,780
	Aug. 13, 1951	14.46	1,090		Aug. 2, 1959	23.22	45,300
	Aug. 15, 1951	16.37	1,490		Aug. 10, 1959	15.11	1,060
	Aug. 21, 1951	16.55	1,530		Aug. 14, 1959	15.79	1,200
1952	Oct. 21, 1951	16.45	1,500		Aug. 29, 1959	17.87	1,700
	June 27, 1952	20.90	4,900	1960	Mar. 29, 1960	21.68	5,080
	Aug. 26, 1952	19.80	2,980		Apr. 2, 1960	21.30	4,430
1953	July 27, 1953	10.55	429		May 19, 1960	22.38	6,650
					June 10, 1960	19.70	2,640
1954	July 2, 1954	15.30	1,040		June 20, 1960	22.50	7,000
					July 12, 1960	18.40	1,880
1955	June 25, 1955	20.84	4,070		Aug. 24, 1960	21.00	3,990
				1961	June 6, 1961	12.50	1,070
1956	May 13, 1956	17.64	1,620		June 15, 1961	14.95	1,950
1957	May 14, 1957	15.97	1,220	1962	Oct. 11, 1961	16.49	2,700
	June 17, 1957	21.04	4,380		Mar. 19, 1962	14.43	1,740
	June 22, 1957	19.70	2,220		Mar. 20, 1962	17.68	3,380
	July 2, 1957	20.69	3,420		Mar. 22, 1962	13.57	1,420
	July 20, 1957	17.76	1,650		May 29, 1962	18.45	3,920
	Aug. 28, 1957	18.50	1,800		June 7, 1962	17.86	3,500
	Sept. 2, 1957	18.48	1,800		July 14, 1962	12.37	1,030
1958	Feb. 28, 1958	21.35	7,600				

8041. Silver Creek near Cedar Bluffs, Nebr.

Location.--Lat 41°23', long 96°35', in NW¼NE¼ sec.11, T.16 N., R.7 E., on downstream side of bridge on county road, 0.8 mile east of State Highway 109, and 1½ miles southeast of Cedar Bluffs.

Drainage area.--10.9 sq mi (undetermined amount is noncontributing).

Gage.--Crest-stage gage. Altitude of gage is 1,270 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 160 cfs and by indirect measurements at 801, 1,900, 2,670, and 4,040 cfs.

Historical data.--Flood of Aug. 2, 1959, is the highest in at least 65 years, according to local residents.

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	Aug. 12, 1950	12.7	950	1957	June 16, 1957	11.76	360
				1958	Aug. 6, 1958	13.41	1,560
1951	May 31, 1951	12.98	2,670	1959	Aug. 2, 1959	15.02	4,040
1952	Aug. 14, 1952	11.41	210	1960	June 10, 1960	12.74	620
1953	Aug. 7, 1953	8.8	9				
1954	May 2, 1954	7.65	1	1961	June 14, 1961	12.11	862
1955	June 24, 1955	10.82	170	1962	May 28, 1962	12.32	1,020
1956	Aug. 28, 1956	12.61	801				

8042. Silver Creek near Colon, Nebr.

Location.--Lat 41°19', long 96°34', in NW¼NW¼ sec.6, T.15 N., R.8 E., at right bank on downstream side of bridge on State Highway 64, 2.1 miles east of State Highway 109, and 2½ miles east of Colon.

Drainage area.--29.9 sq mi (undetermined amount is noncontributing).

Gage.--Crest-stage gage. Altitude of gage is 1,228 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 510 cfs by indirect measurements at 758, 2,740, 8,720, and 12,000 cfs.

Bankfull stage.--13 ft.

Historical data.--Flood of Aug. 2, 1959, is the highest in at least 65 years, according to local residents.

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	Aug. 12, 1950	16.0	3,250	1957	Sept. 2, 1957	14.38	1,820
				1958	Aug. 6, 1948	14.75	2,110
1951	May 31, 1951	15.59	2,740	1959	Aug. 2, 1959	19.22	12,000
1952	June 27, 1952	11.14	360	1960	June 20, 1960	14.88	2,050
1953	June 24, 1953	8.6	42				
1954	May 2, 1954	7.98	11	1961	June 14, 1961	16.46	3,730
1955	June 24, 1955	11.53	430	1962	May 28, 1962	13.84	920
1956	May 13, 1956	11.32	400				

8043. Silver Creek tributary near Colon, Nebr.

Location.--Lat 41°21', long 96°39", in NW¼NE¼ sec.20, T.16 N., R.7 E., at downstream end of culvert on county road, 2.3 miles west of State Highway 109, and 4 miles northwest of Colon.

Drainage area.--14.3 sq mi (undetermined amount is noncontributing).

Gage.--Crest-stage gage. Altitude of gage is 1,280 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 520 cfs and by indirect measurements at 686, 815, and 5,000 cfs.

Historical data.--Flood of Aug. 2, 1959, is highest in at least 65 years, according to local residents. According to testimony given in 1951 by Mrs. J. H. Holtorf, longtime resident of adjacent farm, flood of May 31, 1951, only exceeded by high water 40 years earlier but nearly equaled in 1944.

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)
1951	May 31, 1951	14.48	750	1957	June 22, 1957	12.08	73
1952	Aug. 14, 1952	11.28	9	1958	Aug. 6, 1958	14.56	770
1953	Feb. 19, 1953	11.46	14	1959	Aug. 2, 1959	17.32	5,000
1954	-	-	0	1960	Mar. 29, 1960	13.30	340
1955	June 24, 1955	12.22	55				
				1961	June 14, 1961	11.25	43
1956	May 13, 1956	11.76	20	1962	May 28, 1962	11.36	51

8044. Silver Creek tributary at Colon, Nebr.

Location.--Lat 41°18', long 96°36', in NW¼ sec.2, T.15 N., R.7 E., at left bank on downstream side of culvert on State Highway 109, 0.2 mile east of Colon, and 0.5 mile south of State Highway 64.

Drainage area.--22.4 sq mi (undetermined amount is noncontributing).

Gage.--Crest-stage gage. Datum of gage is 1,219.36 ft above mean sea level (levels by State Department of Roads).

Stage-discharge relation.--Defined by current-meter measurements below 1,000 cfs and by an indirect measurement at 4,640 cfs.

Historical data.--Flood of Aug. 2, 1959, is highest in at least 65 years, according to local residents.

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)
1951	May 31, 1951	13.89	660	1957	June 16, 1957	12.76	200
1952	June 27, 1952	11.4	35	1958	Aug. 6, 1958	15.15	1,200
1953	June 24, 1953	10.8	18	1959	Aug. 2, 1959	19.29	4,640
1954	May 2, 1954	9.5	.5	1960	Mar. 29, 1960	14.00	710
1955	June 24, 1955	12.21	62	1961	June 14, 1961	11.61	76
1956	May 13, 1956	12.11	86	1962	May 28, 1962	13.49	470

8045. Silver Creek at Ithaca, Nebr.

Location.--Lat 41°09'50", long 96°31'25", in NE¼ sec.28, T.14 N., R.8 E., near center of span on downstream side of bridge on county road half a mile east of Ithaca.

Drainage area.--72 sq mi (undetermined amount is noncontributing).

Gage.--Nonrecording. Datum of gage is 1,120.96 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and by indirect measurements at 10,400 and 21,600 cfs.

Bankfull stage.--11 ft.

Historical data.--Flood of Aug. 2, 1959, is highest in at least 65 years, from information by local residents. At time of the Aug. 6, 1958, flood, it was reported to be the highest stage since at least 1900, from information by local residents.

Remarks.--Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Feb. 28, 1950	10.80	940	1954	May 23, 1954	6.43	210
	Mar. 5, 1950	6.39	226				
	Aug. 13, 1950	10.23	751	1955	June 24, 1955	7.27	312
	Aug. 17, 1950	6.70	256				
				1956	May 13, 1956	6.37	231
1951	Mar. 1, 1951	8.58	490				
	Mar. 23, 1951	7.36	333	1957	June 17, 1957	8.79	509
	May 31, 1951	12.22	2,450		June 22, 1957	7.98	398
	June 7, 1951	6.65	250		July 1, 1957	8.32	443
	July 6, 1951	6.50	236		Sept. 2, 1957	9.59	626
1952	June 27, 1952	8.18	471	1958	Feb. 28, 1958	10.40	704
					Apr. 5, 1958	9.00	455
1953	Dec. 3, 1952	a3.50	-		July 20, 1958	9.43	519
	Feb. 11, 1952	3.21	13		July 30, 1958	6.26	159

a Backwater from ice.

Peak stages and discharges of Silver Creek at Ithaca, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Aug. 6, 1958	12.81	3,300	1961	June 14, 1961	12.50	b3,420
1959	Aug. 2, 1959	16.92	b21,600	1962	May 28, 1962	10.34	b890
1960	June 10, 1960	12.06	b2,150				

b Annual peak only.

8050. Salt Creek near Ashland, Nebr.

Location.--Lat 41°02'50", long 96°20'30", in SW¼ sec.31, T.13 N., R.10 E., near center of channel on downstream side of pier of bridge on U.S. Highway 6, 1 mile east of Ashland, and 2½ miles upstream from mouth.

Drainage area.--1,640 sq mi, approximately.

Gage.--Recording prior to Mar. 4, 1949, and since Aug. 7, 1956; nonrecording Mar. 4, 1949, to Aug. 6, 1956. Datum of gage is 1,047.04 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of July 7, 1908, was reported "3 ft higher than ever before" by Lincoln Daily News, and reached a stage 6.8 ft higher than that of June 13, 1947, at house on Silver Street in Ashland as determined by Corps of Engineers. Flood of June 13, 1947, highest since 1908, from information published by Nebraska State Journal, reached a stage of 15.13 ft, from floodmark.

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)
1908	July 7, 1908	21.21	-	1956	July 2, 1956	8.61	a5,530
					Aug. 18, 1956	7.75	6,820
1947	June 13, 1947	15.13	21,000		Sept. 5, 1956	8.33	8,030
1948	Feb. 18, 1948	11.37	11,500	1957	June 16, 1957	11.30	14,800
	Feb. 28, 1948	-	-		June 23, 1957	6.10	4,010
	Mar. 19, 1948	13.43	20,100		July 2, 1957	12.40	19,500
	July 30, 1948	12.30	14,700		Aug. 14, 1957	7.65	6,620
	Aug. 3, 1948	6.95	4,100		Aug. 16, 1957	6.44	4,550
	Aug. 15, 1948	8.80	7,100		Aug. 29, 1957	7.25	5,920
1949	Feb. 26, 1949	8.78	7,030	1958	Feb. 28, 1958	12.13	18,400
	Mar. 6, 1949	14.14	26,100		July 11, 1958	12.72	21,600
	Mar. 22, 1949	7.40	4,800		July 19, 1958	11.32	15,000
	May 22, 1949	10.88	11,000		July 24, 1958	10.62	12,800
	June 2, 1949	9.45	8,120		Aug. 6, 1958	11.47	15,600
	June 13, 1949	10.81	10,800		Sept. 6, 1958	9.85	10,700
	June 24, 1949	8.67	6,870				
	June 29, 1949	8.50	6,600	1959	May 5, 1959	12.36	19,500
	Sept.11, 1949	7.30	4,680		May 13, 1959	9.87	10,800
					May 18, 1959	9.45	9,720
1950	May 9, 1950	12.98	19,300		May 22, 1959	6.93	4,900
					May 30, 1959	6.51	4,200
1951	Apr. 26, 1951	7.35	4,810		Aug. 3, 1959	12.12	18,300
	May 1, 1951	8.62	6,820				
	June 2, 1951	14.72	46,200	1960	Mar. 29, 1960	12.97	23,100
	June 8, 1951	10.59	13,500		Mar. 30, 1960	a13.85	-
	June 11, 1951	8.72	9,070		Apr. 2, 1960	9.66	8,800
	June 15, 1951	10.19	12,300		May 16, 1960	6.55	4,260
	June 18, 1951	11.95	19,000		May 21, 1960	11.55	15,900
	June 22, 1951	7.20	6,330		June 20, 1960	12.87	22,600
	July 6, 1951	6.65	5,400		July 13, 1960	7.37	5,580
	Aug. 15, 1951	5.90	4,190		Aug. 24, 1960	9.30	10,100
					Aug. 29, 1960	8.03	7,460
1952	Apr. 22, 1952	7.00	5,990				
	June 27, 1952	11.61	18,900	1961	June 15, 1961	5.54	2,950
	July 15, 1952	9.00	9,600				
				1962	Oct. 11, 1961	6.44	4,110
1953	July 21, 1953	4.0	1,550		Mar. 20, 1962	6.91	5,700
					Mar. 25, 1962	6.03	4,240
1954	June 17, 1954	11.24	15,200		May 29, 1962	6.61	5,140
	Aug. 23, 1954	7.65	6,920		July 21, 1962	6.62	5,150
					Aug. 31, 1962	6.35	4,720
1955	June 24, 1955	11.25	15,600				

a Backwater from Platte River.

8055. Platte River near South Bend, Nebr.
(Published as "near Ashland," 1928-53, and as "at Louisville," 1953-61)

Location.--Lat 41°01'30", long 96°17'50", in NE¼ sec.9, T.12 N., R.10 E., at right downstream side of bridge on Interstate Highway 80, at mile 434, and 5 miles northwest of South Bend.

Drainage area.--85,500 sq mi, approximately; 83,800 sq mi, approximately, at site near Ashland.

Gage.--Nonrecording prior to Oct. 14, 1933; recording thereafter. At former highway bridge 3½ miles upstream prior to Oct. 8, 1933, and Dec. 11, 1938, to June 16, 1948; at site 950 ft upstream from former bridge Oct. 14, 1933, to Dec. 10, 1938. At datum 17.30 ft higher prior to Oct. 1, 1929, and 16.26 ft higher Oct. 1, 1929, to Oct. 7, 1933. At bridge on U.S. Highway 6, 3 miles upstream at datum 13.98 ft higher June 17, 1948, to May 1953. At site 7 miles downstream at datum 31.43 ft lower May 1953 to Dec. 5, 1961. Datum of present gage is 1,038.53 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum discharge known since at least 1881, 124,000 cfs Mar. 30, 1960.

Remarks.--Natural flow of stream affected by storage reservoirs, power developments, diversions and ground-water withdrawals for irrigation, and return flow from irrigated areas. 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	Mar. 13, 1929	-	(a)	1946	June 19, 1946	5.23	21,800
1930	Feb. 19, 1930	6.05	39,800	1947	June 25, 1947	7.85	79,400
				1948	Mar. 1, 1948	8.0	58,500
1931	Oct. 14, 1930	4.60	18,300	1949	Mar. 8, 1949	-	46,000
1932	Feb. 28, 1932	6.7	58,000	1950	July 20, 1950	6.30	47,900
1933	May 8, 1933	4.50	19,800				
1934	Mar. 6, 1934	4.37	14,200	1951	June 1, 1951	5.91	49,900
1935	June 7, 1935	7.29	44,400	1952	Mar. 13, 1952	4.28	31,800
				1953	May 12, 1953	8.20	33,300
1936	Mar. 6, 1936	-	48,000	1954	June 19, 1954	7.55	25,800
1937	Mar. 6, 1937	5.80	24,500	1955	Mar. 11, 1955	7.21	28,100
1938	July 8, 1938	7.01	40,100				
1939	Mar. 21, 1939	3.98	13,400	1956	May 31, 1956	6.18	10,900
1940	June 8, 1940	5.81	32,500	1957	June 17, 1957	10.35	71,000
				1958	Feb. 28, 1958	8.83	54,700
1941	May 22, 1941	4.87	21,700	1959	Aug. 3, 1959	9.50	51,500
1942	June 21, 1942	6.50	44,100	1960	Mar. 30, 1960	12.45	124,000
1943	June 14, 1943	6.08	56,000				
1944	June 12, 1944	7.50	107,000	1961	June 2, 1961	7.02	19,400
1945	June 11, 1945	6.17	36,800	1962	Mar. 27, 1962	8.90	60,400

a Greater than 36,000 cfs.

WAUBONSIE CREEK BASIN

8060. Waubonsie Creek near Bartlett, Iowa

Location.--Lat 40°53'05", long 95°44'45", in NE¼NE¼ sec.11, T.70 N., R.43 W., on left pier on downstream side of highway bridge, 2.5 miles east of Bartlett, and 3.5 miles west of Tabor.

Drainage area.--30.4 sq mi.

Gage.--Nonrecording prior to June 16, 1951; recording thereafter. Supplemental high-stage recording gage, Jan. 10, 1946, to May 8, 1950. Datum of gage is 936.96 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,900 cfs and by slope-area measurements at 10,300 and 14,500 cfs.

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

Peak stages and discharges of Waubonsie Creek near Bartlett, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Aug. 7, 1946	-	1,500	1953	June 27, 1953	15.82	1,270
	Sept. 4, 1946	37.7	12,500				
				1954	May 31, 1954	16.10	1,360
1947	June 4, 1947	34.0	9,400		Aug. 21, 1954	17.9	2,000
	June 12, 1947	-	5,000		Aug. 23, 1954	21.6	3,560
	June 18, 1947	-	1,580				
	June 22, 1947	-	1,250	1955	Sept.29, 1955	17.54	1,860
	Aug. 24, 1947	-	1,330				
				1956	July 11, 1956	18.07	1,430
1948	Feb. 27, 1948	23.5	*2,700		July 15, 1956	26.9	5,200
	Aug. 10, 1948	-	1,420		Aug. 1, 1956	20.97	2,450
	Sept. 1, 1948	-	1,280		Aug. 18, 1956	23.85	2,820
1949	June 1, 1949	-	1,820	1957	June 7, 1957	22.85	2,430
	June 13, 1949	-	1,960		July 1, 1957	19.98	1,500
	June 22, 1949	-	5,150				
	June 27, 1949	32.83	10,300	1958	July 19, 1958	22.64	2,360
	July 6, 1949	-	1,630		July 30, 1958	22.57	2,360
1950	May 4, 1950	-	2,510	1959	May 18, 1959	25.90	3,760
	May 8, 1950	37.8	14,500		July 31, 1959	22.42	2,290
	June 8, 1950	-	13,500		Aug. 28, 1959	20.50	1,640
	July 12, 1950	-	5,860		Sept.18, 1959	20.43	1,610
	Aug. 12, 1950	-	1,830				
				1960	Aug. 18, 1960	21.72	2,040
1951	July 3, 1951	20.03	2,840				
				1961	June 27, 1961	21.42	1,940
1952	Oct. 4, 1951	15.68	1,240				
	Aug. 8, 1952	18.37	2,200	1962	May 28, 1962	22.67	2,400

WEEPING WATER CREEK BASIN

8064. Weeping Water Creek at Elmwood, Nebr.

Location.--Lat 40°51', long 96°17', in SW¼NW¼ sec.10, T.10 N., R.10 E., on left bank on downstream side of bridge on State Highway 1, 0.6 mile north of Elmwood.

Drainage area.--21.4 sq mi.

Gage.--Crest-stage gage. At datum 0.50 ft lower prior to Feb. 9, 1962. Altitude of gage is 1,206 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,300 cfs and by indirect measurements at 3,490, 5,240, and 6,390 cfs.

Bankfull stage.--15½ 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)
1950	May 9, 1950	24.6	7,600	1957	July 1, 1957	22.24	6,390
				1958	Aug. 6, 1958	16.74	680
1951	June 1, 1951	22.62	5,240	1959	May 4, 1959	20.72	3,550
1952	Apr. 22, 1952	16.2	530	1960	Aug. 28, 1960	19.18	1,900
1953	Apr. 30, 1953	10.23	65				
1954	Aug. 23, 1954	15.18	330	1961	Sept.12, 1961	10.46	1,685
1955	June 24, 1955	20.76	3,240	1962	May 28, 1962	16.84	880
1956	Aug. 18, 1956	10.64	3,150				

8064.2. Stove Creek near Elmwood, Nebr.

Location.--Lat 40°29', long 96°18', in SE¼SW¼ sec.21, T.10 N., R.10 E., on downstream end of multiple box culvert on U.S. Highway 34, 0.6 mile west of State Highway 1, and 2 miles south of Elmwood.

Drainage area.--4.94 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,255 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs and by indirect measurements at 1,550 and 3,570 cfs.

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)
1950	May 9, 1950	18.2	3,730	1957	July 1, 1957	16.83	1,980
				1958	Aug. 6, 1958	14.76	470
1951	June 1, 1951	17.33	2,550	1959	May 18, 1959	15.79	1,080
1952	June 26, 1952	12.98	152	1960	Aug. 28, 1960	17.50	2,750
1953	July 4, 1953	9.05	3				
1954	Aug. 23, 1954	14.84	510	1961	Sept.12, 1961	15.11	640
1955	June 24, 1955	16.92	2,080	1962	May 28, 1962	16.39	1,550
1956	Aug. 18, 1956	18.00	3,430				

8064.4. Stove Creek at Elmwood, Nebr.

Location.--Lat 40°50', long 96°17', in SW¼NW¼ sec.15, T.10 N., R.10 E., on downstream side of bridge on State Highway 1 at south side of Elmwood.

Drainage area.--10.0 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,220 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs and by a contracted-opening measurement at 5,280 cfs.

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)
1950	May 9, 1950	23.0	9,500	1957	July 1, 1957	17.40	1,920
				1958	Aug. 6, 1958	14.61	550
1951	June 1, 1951	20.28	5,280	1959	May 4, 1959	17.73	2,220
1952	June 26, 1952	12.89	350	1960	Aug. 28, 1960	17.90	2,400
1953	July 4, 1953	7.67	5				
1954	Aug. 23, 1954	15.91	850	1961	Sept.12, 1961	16.24	1,050
1955	June 24, 1955	19.14	3,780	1962	May 28, 1962	19.03	3,660
1956	Aug. 18, 1956	17.64	2,160				

8064.6. Weeping Water Creek at Weeping Water, Nebr.

Location.--Lat 40°51', long 96°07', in NW¼NW¼ sec.7, T.10 N., R.12 E., on downstream side of railroad bridge of Missouri Pacific Lines, just south of north-south dirt road, and 1 mile southeast of Weeping Water.

Drainage area.--75.5 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,062 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs and by slope-area measurements at 16,200 and 30,300 cfs.

Bankfull stage.--12 ft.

Historical data.--Floods since 1882 in descending order of magnitude, according to weighted testimony of local residents in Weeping Water, are the floods of 1950, 1888, 1951, 1947, and 1907.

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)
1947	June 4, 1947	-	13,000	1956	Aug. 18, 1956	12.38	3,020
				1957	July 1, 1957	13.54	4,100
1950	May 9, 1950	18.5	30,300	1958	Aug. 6, 1958	15.06	7,900
				1959	May 5, 1959	13.33	3,850
1951	June 1, 1951	16.5	16,200	1960	Aug. 28, 1960	12.12	2,800
1952	Aug. 14, 1952	12.55	3,150				
1953	July 4, 1953	3.6	200	1961	Sept.12, 1961	6.48	650
1954	May 15, 1954	13.79	4,400	1962	May 28, 1962	13.71	4,300
1955	June 24, 1955	12.68	3,180				

8064.7. Weeping Water Creek tributary near Weeping Water, Nebr.

Location.--Lat 40°52', long 96°06', in NW¼SE¼ sec.6, T.10 N., R.12 E., on upstream side of railroad culvert of Missouri Pacific Lines, 1,200 ft west of north-south road, and 1.8 miles southeast of Weeping Water.

Drainage area.--1.07 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,060 ft (from topographic map).

Stage-discharge relation.--Defined by indirect measurements at 590, 622, and 1,160 cfs; low-flow estimates, and point of zero flow.

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	May 9, 1950	15.2	622	1957	July 1, 1957	14.28	473
				1958	Aug. 6, 1958	14.56	517
1951	June 1, 1951	15.0	590	1959	May 18, 1959	13.18	310
1952	June 26, 1952	12.65	240	1960	June 20, 1960	12.82	263
1953	July 4, 1953	10.51	10				
1954	May 15, 1954	18.02	1,160	1961	Sept.12, 1961	12.91	252
1955	Oct. 5, 1954	10.42	8	1962	July 22, 1962	14.02	425
1956	Aug. 18, 1956	17.26	1,010				

8065. Weeping Water Creek at Union, Nebr.

Location.--Lat 40°47'35", long 95°54'40", in NW¼ sec.36, T.10 N., R.13 E., near left bank on downstream side of pier of bridge on U.S. Highways 73 and 75, 1½ miles southeast of Union, and 2¾ miles downstream from South Branch Weeping Water Creek.

Drainage area.--238 sq mi.

Gage.--Nonrecording at site 2 miles upstream at different datum prior to May 14, 1951; recording thereafter. Datum of gage is 929.72 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by an indirect measurement at 60,300 cfs.

Bankfull stage.--22 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)
1950	May 5, 1950	23.3	7,200	1956	Aug. 18, 1956	20.80	3,260
	May 9, 1950	29.8	60,300				
	July 12, 1950	22.8	5,300	1957	June 17, 1957	20.75	3,760
	Aug. 7, 1950	26.0	28,000		July 2, 1957	19.44	3,240
1951	May 1, 1951	24.24	10,900	1958	July 19, 1958	19.94	3,160
	June 2, 1951	24.30	20,600		Aug. 6, 1958	23.03	5,400
	June 7, 1951	21.66	4,240				
	July 3, 1951	20.86	3,660	1959	May 3, 1959	21.50	4,440
	July 6, 1951	22.92	8,200		May 5, 1959	18.77	3,110
	July 18, 1951	22.15	5,000		May 18, 1959	22.83	5,520
	Aug. 15, 1951	21.81	5,220				
				1960	Mar. 29, 1960	21.40	4,200
1952	Aug. 14, 1952	20.14	3,130		June 20, 1960	19.35	3,020
					Aug. 29, 1960	19.75	3,170
1953	July 4, 1953	8.06	203				
				1961	Sept.13, 1961	18.82	2,840
1954	May 16, 1954	23.20	9,000				
	Aug. 24, 1954	23.15	4,900	1962	May 29, 1962	23.22	4,850
					July 22, 1962	21.63	4,010
1955	June 25, 1955	17.77	2,660				

MISSOURI RIVER MAIN STEM

8070. Missouri River at Nebraska City, Nebr.

Location.--Lat 40°40'30", long 95°50'10", in NW¼SW¼ sec.10, T.8 N., R.14 E., on downstream side of pier near center of Waubonsie Highway Bridge at Nebraska City and at mile 561.9.

Drainage area.--414,400 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 22, 1931; recording thereafter. Datum of gage is 903.94 ft above mean sea level, datum of 1929.

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

Remarks.--Flow partly regulated by upstream main-stem reservoirs. Only annual peaks are shown. Gage-height records collected near Nebraska City August 1878 to December 1899 are contained in reports of the Missouri River Commission.

Peak stages and discharges of Missouri River at Nebraska City, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	May 11, 1930	11.63	95,200	1948	Feb. 27, 1948	18.65	-
					July 29, 1948	-	135,000
1931	Jan. 5, 1931	11.02	-	1949	Mar. 6, 1949	a25.8	-
	June 24, 1931	-	56,200		Apr. 13, 1949	-	182,000
1932	June 17, 1932	12.9	138,000	1950	Apr. 28, 1950	20.95	185,000
1933	May 29, 1933	12.2	112,000				
1934	Mar. 5, 1934	12.4	138,000	1951	Mar. 29, 1951	-	163,000
1935	Feb. 16, 1935	15.25	-		June 2, 1951	18.52	-
	June 23, 1935	-	106,000	1952	Apr. 18, 1952	27.66	-
					Apr. 19, 1952	-	414,000
1936	Mar. 6, 1936	a15.25	-	1953	June 27, 1953	15.91	121,000
	Mar. 10, 1936	-	113,000	1954	June 21, 1954	16.83	123,000
1937	June 25, 1937	16.55	111,000	1955	Mar. 3, 1955	12.98	-
1938	July 12, 1938	17.90	125,000		Mar. 14, 1955	-	65,000
1939	Apr. 6, 1939	17.15	149,000				
1940	June 8, 1940	12.95	69,500	1956	Jan. 11, 1956	a12.12	-
					Mar. 19, 1956	-	54,000
1941	June 19, 1941	17.05	106,000	1957	June 18, 1957	17.08	116,000
1942	May 21, 1942	18.40	134,000	1958	Aug. 6, 1958	13.48	85,000
1943	Apr. 14, 1943	19.88	181,000	1959	June 1, 1959	14.92	-
1944	June 14, 1944	19.70	214,000		Aug. 3, 1959	-	83,400
1945	Feb. 14, 1945	16.85	-	1960	Apr. 5, 1960	21.43	178,000
	June 17, 1945	-	129,000				
				1961	June 15, 1961	11.42	55,800
1946	June 24, 1946	13.7	96,700	1962	Mar. 31, 1962	20.65	151,000
1947	July 1, 1947	20.1	172,000				

a Backwater from ice.

NISHNABOTNA RIVER BASIN

8075. West Nishnabotna River at White Cloud, Iowa

Location.--Lat 40°57', long 95°34', in sec.2, T.71 N., R.41 W., at highway bridge near Chicago, Burlington & Quincy Railroad and Wabash Railway crossing at White Cloud, 3 miles upstream from Silver Creek, and 4 miles southeast of Malvern.

Drainage area.--920 sq mi.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 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)
1919	Oct. 28, 1918	18.5	7,500	1922	July 30, 1922	19.4	10,600
1920	Apr. 19, 1920	18.0	9,130	1923	Aug. 11, 1923	17.6	8,710
				1924	June 8, 1924	17.0	8,080
1921	Sept.20, 1921	17.61	8,710				

8077.6. Middle Silver Creek near Oakland, Iowa

Location.--Near east quarter corner sec.4, T.75 N., R.41 W., at bridge 8½ miles northwest of Oakland.

Drainage area.--25.7 sq mi.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by indirect measurements between 200 and 1,500 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Middle Silver Creek near Oakland, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	June 10, 1953	9.53	991	1958	Aug. 5, 1958	12.28	1,450
1954	Aug. 22, 1954	8.27	759	1959	May 28, 1959	9.24	936
1955	July 9, 1955	9.94	1,070	1960	May 25, 1960	8.15	737
1956	Aug. 17, 1956	7.56	631	1961	June 12, 1961	7.15	557
1957	June 16, 1957	9.81	1,040	1962	July 13, 1962	5.55	305

8077.8. Middle Silver Creek at Treynor, Iowa

Location.--Near northeast corner sec.1, T.74 N., R.42 W., at bridge on County Road F , 1 mile north of Treynor.

Drainage area.--42.7 sq mi.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by indirect measurements between 100 and 2,600 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)
1953	June 10, 1953	12.28	1,700	1958	Sept. 5, 1958	16.01	2,600
1954	June 21, 1954	9.80	1,180	1959	June 28, 1959	11.89	1,620
1955	Mar. 2, 1955	10.32	1,280	1960	Aug. 28, 1960	13.84	2,060
1956	-	(a)	-	1961	Feb. 22, 1961	9.84	1,320
1957	June 16, 1957	10.01	1,220	1962	July 27, 1962	9.00	1,020

a Peak stage did not reach bottom of gage.

8080. Mule Creek near Malvern, Iowa

Location.--Lat 40°56'40", long 95°35'40", in NW¼NW¼ sec.20, T.71 N., R.41 W., on left bank 10 ft downstream from highway bridge, 1.8 miles upstream from mouth, and 4.4 miles south of Malvern.

Drainage area.--10.6 sq mi.

Gage.--Recording gage and concrete control. Datum of gage is 974.20 ft above mean sea level (levels by Soil Conservation Service).

Stage-discharge relation.--Defined by current-meter measurements below 510 cfs and by a slope-area measurement at 2,070 cfs.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Aug. 21, 1954	15.84	2,070	1958	July 19, 1958	6.92	334
	Aug. 23, 1954	14.19	1,680		July 30, 1958	12.35	1,180
1955	Mar. 1, 1955	7.51	411	1959	May 2, 1959	6.62	332
					May 18, 1959	11.50	1,180
1956	July 11, 1956	7.55	398		May 29, 1959	8.07	549
	July 15, 1956	15.54	1,990		Sept.18, 1959	7.57	472
	Aug. 18, 1956	10.4	867				
				1960	Aug. 28, 1960	8.22	565
1957	May 29, 1957	12.58	1,310		Sept.24, 1960	7.30	428
	June 7, 1957	9.80	849				
	June 15, 1957	6.30	334	1961	June 27, 1961	8.12	549
	June 17, 1957	7.40	479				
	July 1, 1957	8.70	678	1962	May 28, 1962	10.00	886

8082. Spring Valley Creek near Tabor, Iowa

Location.--Lat 40°54'35", long 95°36'00", in SW¼NE¼ sec.31, T.71 N., R.41 W., on left bank 20 ft downstream from highway bridge, 1.5 miles upstream from mouth, and 4.0 miles northeast of Tabor.

Drainage area.--7.65 sq mi.

Gage.--Recording gage and concrete control. Altitude of gage is 975 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 210 cfs and by slope-area measurement at 2,310 cfs.

Remarks.--Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	July 11, 1956	8.59	317	1959	May 29, 1959	-	670
	July 15, 1956	13.50	2,310		Aug. 5, 1959	8.40	279
	Aug. 18, 1956	8.78	359		Sept.18, 1959	8.51	298
1957	May 29, 1957	12.07	1,480	1960	Aug. 17, 1960	9.30	473
	June 7, 1957	10.58	865		Aug. 28, 1960	12.28	1,570
	June 17, 1957	8.90	380		Sept.24, 1960	8.63	328
	July 1, 1957	10.33	778	1961	June 27, 1961	12.13	1,480
1958	July 19, 1958	10.85	935				
	July 30, 1958	15.48	4,150	1962	May 28, 1962	11.77	1,300
1959	May 18, 1959	12.57	1,730		May 31, 1962	9.36	486
					June 6, 1962	-	370

8085. West Nishnabotna River at Randolph, Iowa

Location.--Lat 40°52'25", long 95°34'40", in NE¼NE¼ sec.17, T.70 N., R.41 W., on downstream side of bridge on State Highway 184, 0.3 mile downstream from Deer Creek, 0.5 mile west of Randolph, and 16.2 miles upstream from confluence with East Nishnabotna River.

Drainage area.--1,326 sq mi.

Gage.--Nonrecording prior to Aug. 26, 1955; recording thereafter. Supplemental recording gage operating above 8.4 ft, June 30, 1949, to Aug. 25, 1955. Datum of gage is 932.99 ft above mean sea level, unadjusted.

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

Historical data.--Flood of June 1947 reached a stage of about 24 ft, from information by local residents.

Remarks.--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)
1947	June 24, 1947	24	-	1952	June 22, 1952	20.50	25,500
					June 27, 1952	18.37	19,500
1949	Mar. 5, 1949	24.6	16,000		Aug. 29, 1952	18.80	20,600
	June 13, 1949	-	6,800	1953	June 28, 1953	11.77	4,980
1950	Feb. 28, 1950	18.50	20,000				
	May 9, 1950	21.93	29,600	1954	Aug. 23, 1954	17.15	13,400
	June 9, 1950	16.29	11,300				
	June 18, 1950	15.40	9,300	1955	Mar. 2, 1955	14.69	10,500
	July 12, 1950	16.17	11,100		July 9, 1955	16.18	13,900
	Aug. 12, 1950	16.25	11,100				
				1956	July 8, 1956	17.8	17,900
1951	Apr. 27, 1951	12.95	7,050		July 15, 1956	14.06	9,260
	May 1, 1951	21.35	28,200				
	May 10, 1951	13.02	7,050	1957	June 16, 1957	17.58	15,600
	June 2, 1951	21.66	29,100				
	June 7, 1951	16.90	15,600	1958	Feb. 24, 1958	18.62	19,100
	June 20, 1951	14.96	11,200		July 3, 1958	17.70	16,500
	July 3, 1951	21.77	29,400		July 19, 1958	15.35	8,400
	Aug. 15, 1951	13.19	7,450		July 30, 1958	17.30	14,600
	Aug. 17, 1951	12.72	6,510		Aug. 6, 1958	16.50	11,800
	Aug. 20, 1951	15.86	13,400		Sept. 6, 1958	18.20	17,900

Peak stages and discharges of West Nishnabotna River at Randolph, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 3, 1959	13.15	6,580	1960	Sept.18, 1960	14.76	8,410
	May 18, 1959	14.43	8,200				
	May 29, 1959	18.13	16,200	1961	Mar. 13, 1961	15.56	11,700
					June 27, 1961	14.36	7,570
1960	Mar. 30, 1960	19.18	20,600				
	May 6, 1960	14.42	7,570	1962	Mar. 22, 1962	14.91	8,830
	June 30, 1960	14.73	8,200		May 21, 1962	14.39	7,570
	Aug. 7, 1960	14.26	7,360		May 29, 1962	21.60	26,600
	Aug. 29, 1960	17.16	14,500		June 11, 1962	15.18	8,620

8090. Davids Creek near Hamlin, Iowa

Location.--Lat 41°40'25", long 94°48'20", in NE¼NE¼ sec.9, T.79 N., R.34 W., on left bank 20 ft downstream from bridge on State Highway 64, 5.2 miles east of Hamlin, and 8 miles upstream from mouth and East Nishnabotna River.

Drainage area.--26.0 sq mi.

Gage.--Recording. Datum of gage is 1,266.54 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and by slope-area measurement at 22,700 cfs.

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)
1952	June 21, 1952	10.72	435	1957	June 16, 1957	14.80	1,160
	June 27, 1952	12.55	760				
	July 7, 1952	10.85	450	1958	July 2, 1958	19.35	22,700
	Aug. 15, 1952	13.07	860		July 3, 1958	14.84	1,190
	Aug. 29, 1952	11.27	526		July 19, 1958	12.26	625
					Sept. 5, 1958	11.08	425
1953	Feb. 19, 1953	10.55	420				
	June 4, 1953	11.18	510	1959	May 29, 1959	9.66	240
	June 10, 1953	11.46	558				
				1960	Mar. 29, 1960	-	600
1954	Aug. 23, 1954	8.89	199		Aug. 7, 1960	10.70	453
1955	Apr. 23, 1955	10.27	378	1961	Feb. 22, 1961	10.90	468
					Sept.30, 1961	10.32	427
1956	June 6, 1956	11.34	406				
	Aug. 16, 1956	11.31	406	1962	June 8, 1962	13.62	882
	Sept. 4, 1956	12.41	574		June 19, 1962	10.43	434

8095. East Nishnabotna River at Red Oak, Iowa

Location.--Lat 41°00'55", long 95°14'15", in NW¼NE¼ sec.29, T.72 N., R.38 W., on right bank 10 ft downstream from bridge on U.S. Highway 34, 0.5 mile west of Red Oak, and 0.9 mile upstream from Red Oak Creek.

Drainage area.--894 sq mi.

Gage.--Nonrecording prior to July 5, 1925, and May 29, 1936, to Nov. 13, 1952; recording thereafter. Supplemental recording gage operating above 3.2 ft July 30, 1939, to Nov. 13, 1952. At site 0.5 mile downstream at datum 0.40 ft lower prior to July 5, 1925. Datum of gage is 1,010.45 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs and extended above by logarithmic plotting.

Remarks.--Base for partial-duration series, 4,500 cfs.

Peak stages and discharges of East Nishnabotna River at Red Oak, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 7, 1917	21.7	23,500
1918	May 29, 1918	13.6	3,740
1919	June 13, 1919	13.1	3,300
1920	Apr. 21, 1920	12.6	2,920
1921	Sept.21, 1921	12.4	2,800
1922	Sept. 2, 1922	13.6	3,740
1923	Sept.29, 1923	12.2	2,700
1924	June 9, 1924	16.5	6,800
	June 26, 1924	18.2	10,000
1925	June 25, 1925	10.0	1,850
1936	Sept.16, 1936	14.8	3,800
1937	Feb. 19, 1937	15.7	4,800
	Mar. 4, 1937	18.6	9,600
1938	Sept.14, 1938	14.9	3,810
1939	Aug. 12, 1939	18.2	9,070
1940	Aug. 13, 1940	-	5,000
1941	June 4, 1941	15.5	4,580
	June 10, 1941	15.4	4,550
1942	May 12, 1942	15.9	5,100
	June 29, 1942	16.1	5,300
	July 20, 1942	18.4	8,100
1943	Feb. 4, 1943	17.9	8,610
	May 16, 1943	16.8	6,810
1944	May 22, 1944	17.7	8,200
	June 14, 1944	16.0	5,900
	Aug. 2, 1944	17.9	8,500
1945	Mar. 11, 1945	15.5	5,400
	Apr. 24, 1945	16.5	6,400
	May 15, 1945	17.6	8,000
	May 23, 1945	20.5	16,100
	May 28, 1945	15.8	8,000
	June 1, 1945	17.0	9,800
	June 7, 1945	17.2	10,100
	June 16, 1945	14.5	6,300
1946	Jan. 6, 1946	-	6,400
	Feb. 6, 1946	18.2	12,000
	Mar. 6, 1946	13.5	5,350
	Mar. 13, 1946	12.9	4,850
	May 3, 1946	12.6	4,600
	June 18, 1946	14.3	6,090
	Aug. 26, 1946	18.2	12,000
1947	Oct. 18, 1946	14.3	6,800
	Apr. 11, 1947	16.1	8,900
	May 15, 1947	12.5	5,150
	June 2, 1947	19.0	13,900
	June 5, 1947	18.7	13,400
	June 13, 1947	23.2	36,200
1947	June 18, 1947	12.1	7,100
	June 23, 1947	19.6	15,800
1948	Feb. 28, 1948	15.8	12,400
	Mar. 19, 1948	18.9	18,400
	July 21, 1948	12.0	7,000
	July 28, 1948	10.3	5,200
1949	Mar. 5, 1949	17.7	15,800
	Mar. 22, 1949	9.8	4,720
	June 2, 1949	9.6	4,540
	July 20, 1949	9.8	4,720
1950	Feb. 9, 1950	10.5	6,550
	Feb. 28, 1950	11.8	8,580
	May 9, 1950	11.2	7,620
	June 18, 1950	11.4	7,940
1951	Mar. 29, 1951	14.31	10,700
	Apr. 25, 1951	9.55	4,850
	May 1, 1951	16.97	15,200
	June 2, 1951	14.1	10,400
	June 8, 1951	13.7	9,920
	July 3, 1951	14.9	11,600
	Aug. 20, 1951	10.9	6,190
1952	Mar. 11, 1952	10.56	5,860
	Mar. 31, 1952	11.58	7,020
	June 22, 1952	15.53	12.600
	June 27, 1952	13.54	9,500
	July 3, 1952	9.95	5,250
	July 7, 1952	11.28	6,660
	Aug. 15, 1952	10.22	5,450
	Aug. 29, 1952	12.58	8,280
1953	June 10, 1953	7.77	3,250
1954	Aug. 23, 1954	14.08	10,400
1955	Mar. 3, 1955	13.58	9,640
	Apr. 24, 1955	10.19	5,450
1956	Sept. 5, 1956	12.57	7,630
1957	May 30, 1957	11.35	6,780
	June 17, 1957	15.12	11,800
1958	Feb. 24, 1958	12.17	7,710
	July 3, 1958	22.27	35,600
	July 19, 1958	13.20	9,700
	Aug. 1, 1958	10.30	5,960
	Sept. 7, 1958	18.58	19,900
1959	Feb. 27, 1959	-	4,800
	May 3, 1959	10.35	6,080
	May 29, 1959	15.14	12,700
1960	Mar. 30, 1960	16.40	15,100
	May 25, 1960	9.25	5,000
1961	Feb. 23, 1961	10.88	6,880
	Mar. 15, 1961	12.25	8,510
1962	Mar. 23, 1962	12.00	9,460
	May 29, 1962	15.28	13,000
	June 9, 1962	11.61	7,730

8100. Nishnabotna River above Hamburg, Iowa

Location.--Lat 40°38'00", long 95°37'35", in SW¼SE¼ sec.11, T.67 N., R.42 W., on left bank 1,200 ft downstream from Chicago, Burlington & Quincy Railroad bridge, 1.6 miles downstream from confluence of East Nishnabotna and West Nishnabotna Rivers, and 2 miles northeast of Hamburg.

Drainage area.--2,806 sq mi.

Gage.--Nonrecording prior to Nov. 17, 1950; recording thereafter. At site 6 miles downstream at different datum prior to Oct. 1, 1923, at site 1,000 ft upstream at datum 0.42 ft higher Oct. 5, 1928, to Sept. 6, 1929, at present site and datum Sept. 7, 1929, to June 5, 1947, at site 1,000 ft upstream at different datum June 6 to July 22, 1947. Datum of gage is 894.17 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater from Missouri River at times.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 7, 1917	21	-
1922	Apr. 12, 1922	16.7	11,800
1923	Mar. 27, 1923	16.0	8,800
1929	Mar. 13, 1929	22.3	21,100
	July 6, 1929	18.2	9,500
	July 15, 1929	19.1	11,100
1930	Feb. 8, 1930	-	3,020
1931	June 22, 1931	18.1	9,350
1932	Nov. 25, 1931	19.1	11,100
	Aug. 16, 1932	19.1	10,300
1933	Jan. 22, 1933	17.1	8,020
1934	June 9, 1934	14.6	5,620
1935	June 26, 1935	17.5	8,500
1936	Mar. 5, 1936	22.2	20,600
1937	Mar. 5, 1937	21.6	16,500
1938	Aug. 28, 1938	17.9	9,060
	Sept.14, 1938	18.2	9,650
1939	Mar. 12, 1939	-	22,100
	Aug. 11, 1939	17.9	9,060
1940	Aug. 8, 1940	18.4	9,800
	Aug. 12, 1940	18.9	10,700
	Aug. 14, 1940	18.2	9,500
	Aug. 17, 1940	18.4	9,800
1941	June 9, 1941	20.4	14,600
	Sept.15, 1941	19.1	11,100
1942	Oct. 22, 1941	18.8	10,500
	June 20, 1942	19.2	11,700
	June 25, 1942	19.2	11,400
1943	May 16, 1943	19.1	11,100
	June 3, 1943	18.6	10,100
	June 5, 1943	18.6	10,100
	Aug. 3, 1943	18.9	10,700
1944	May 26, 1944	17.9	9,060
	June 4, 1944	19.5	11,600
	June 9, 1944	18.8	9,200
	June 15, 1944	20.8	11,800
1945	Mar. 11, 1945	18.6	9,350
	Apr. 23, 1945	18.8	10,500
	May 15, 1945	18.4	9,800
	May 23, 1945	22.6	21,000
	June 3, 1945	18.0	9,200
1946	Feb. 6, 1946	18.9	10,700
	June 18, 1946	19.1	11,100
	Sept. 4, 1946	19.7	11,300
1947	Apr. 10, 1947	-	9,800
	June 2, 1947	19.8	11,200
	June 6, 1947	23.0	28,700
	June 14, 1947	25.7	52,100
	June 24, 1947	26.0	55,500
1948	Feb. 28, 1948	21.5	17,600
	Mar. 20, 1948	24.5	36,300
1949	Mar. 7, 1949	-	32,200
	June 2, 1949	19.2	12,000
	June 28, 1949	18.5	9,950
1950	Feb. 9, 1950	18.4	10,500
	May 10, 1950	22.5	19,900
	June 19, 1950	18.4	10,500
	Aug. 12, 1950	19.2	12,000
1951	Mar. 29, 1951	21.46	16,200
	May 2, 1951	24.51	23,800
	June 3, 1951	24.32	23,200
	June 8, 1951	21.0	14,500
	June 20, 1951	17.9	9,170
	July 4, 1951	21.89	16,600
1952	Mar. 13, 1952	18.2	10,700
	June 23, 1952	20.92	12,800
	June 28, 1952	20.6	12,300
	Aug. 29, 1952	20.20	11,800
1953	June 9, 1953	14.65	5,440
1954	Aug. 23, 1954	21.32	12,600
1955	Apr. 24, 1955	18.8	12,000
	July 9, 1955	18.64	10,600
1956	July 8, 1956	20.90	13,500
	Sept. 6, 1956	18.38	9,760
1957	June 7, 1957	18.90	13,400
	June 16, 1957	21.59	20,400
1958	July 6, 1958	22.75	14,600
	July 19, 1958	19.45	10,000
	July 30, 1958	20.43	11,300
	Aug. 6, 1958	20.53	11,400
	Sept. 6, 1958	20.55	10,300
1959	May 19, 1959	17.90	9,640
	May 29, 1959	21.70	15,400
1960	Mar. 31, 1960	24.56	23,900
1961	Feb. 23, 1961	18.30	9,240
	Mar. 13, 1961	21.33	14,400
	Mar. 15, 1961	20.35	12,600
1962	Mar. 23, 1962	21.60	16,200
	May 29, 1962	23.62	18,000
	June 9, 1962	19.05	9,500

8101. Hooper Creek tributary near Palmyra, Nebr.

Location.--Lat 40°46', long 96°25', in NW¼NW¼ sec.9, T.9 N., R.9 E., on downstream side of bridge on east-west portion of State Highway 43, 300 ft east of turn in highway, and 4½ miles north of Palmyra.

Drainage area.--7.81 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 25 cfs and by indirect measurements at 228, 536, and 3,090 cfs.

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)
1950	May 9, 1950	16.3	2,620	1957	July 1, 1957	14.46	670
				1958	July 10, 1958	15.65	1,630
1951	June 1, 1951	16.55	3,090	1959	May 4, 1959	15.43	1,380
1952	Apr. 21, 1952	13.71	470	1960	Mar. 27, 1960	14.81	530
1953	June 8, 1953	7.4	15				
1954	Aug. 23, 1954	11.73	228	1961	Sept.12, 1961	11.34	120
1955	June 24, 1955	14.08	540	1962	Aug. 31, 1962	14.99	620
1956	Aug. 18, 1956	14.03	536				

8102. Hooper Creek near Palmyra, Nebr.

Location.--Lat 40°43', long 96°19', in NE¼NW¼ sec.32, T.9 N., R.10 E., on downstream side of bridge on State Highway 2, 3.3 miles east of Palmyra.

Drainage area.--57.5 sq mi.

Gage.--Crest-stage gage. At datum 0.61 ft lower prior to Apr. 23, 1959, and 1.00 ft lower Apr. 23, 1959, to July 5, 1962. Altitude of gage is 1,100 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,600 cfs and by an indirect measurement at 13,100 cfs.

Bankfull stage.--16.5 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)
1950	May 9, 1950	a23.0	47,600	1957	July 1, 1957	18.90	5,000
				1958	July 10, 1958	18.80	4,250
1951	June 1, 1951	19.94	13,100	1959	May 5, 1959	19.04	6,100
1952	July 14, 1952	18.39	2,300	1960	Mar. 27, 1960	18.42	2,340
1953	Apr. 30, 1953	11.11	190				
1954	Aug. 23, 1954	18.46	2,380	1961	Sept.12, 1961	14.88	1,370
1955	June 24, 1955	18.92	5,020	1962	May 28, 1962	16.12	2,060
1956	Aug. 18, 1956	18.38	2,290				

a From floodmark by Corps of Engineers.

8103. Owl Creek near Syracuse, Nebr.

Location.--Lat 40°40', long 96°13', in NE¼NE¼ sec.18, T.8 N., R.11 E., on downstream side of bridge on State Highway 2, 350 ft upstream from Chicago, Burlington & Quincy Railroad, half a mile upstream from Little Nemaha River, and 2½ miles northwest of Syracuse.

Drainage area.--25.4 sq mi.

Gage.--Crest-stage gage. Datum of gage is 1,026.38 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs and by an indirect measurement at 11,500 cfs.

Bankfull stage.--24 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)
1950	May 9, 1950	30.6	16,000	1957	July 1, 1957	12.63	440
				1958	July 10, 1958	26.67	4,200
1951	June 1, 1951	27.36	11,500	1959	May 18, 1959	17.62	2,200
1952	July 14, 1952	16.42	1,530	1960	Mar. 27, 1960	11.94	1,100
1953	June 8, 1953	6.0	40				
1954	Aug. 23, 1954	12.56	420	1961	Sept.12, 1961	9.47	920
1955	June 24, 1955	21.67	5,100	1962	May 28, 1962	9.67	970
1956	Aug. 18, 1956	15.76	1,230				

8104. Little Nemaha River tributary near Syracuse, Nebr.

Location.--Lat 40°40', long 96°12', in SE¼SE¼ sec.8, T.8 N., R.11 E., on upstream side of multiple box culvert on State Highway 2, 50 ft west of north-south dirt road, and 1½ miles northwest of Syracuse.

Drainage area.--0.76 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,060 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 10 cfs and by four indirect measurements up to 723 cfs.

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)
1950	May 9, 1950	16.6	1,280	1957	July 1, 1957	11.73	291
				1958	July 10, 1958	11.28	234
1951	June 1, 1951	12.6	411	1959	May 18, 1959	13.65	620
1952	July 14, 1952	12.62	414	1960	Aug. 28, 1960	11.46	257
1953	May 19, 1953	8.61	0.1				
1954	Aug. 23, 1954	10.48	148	1961	Sept.12, 1961	10.72	173
1955	June 24, 1955	14.01	723	1962	Aug. 31, 1962	11.89	312
1956	Aug. 18, 1956	14.01	723				

8105. Little Nemaha River near Syracuse, Nebr.

Location.--Lat 40°38', long 96°11', in NW¼SW¼ sec.27, T.8 N., R.11 E., on left bank 300 ft downstream from bridge on State Highway 50, 1.1 miles south of Syracuse, and 3¼ miles downstream from Owl Creek.

Drainage area.--218 sq mi.

Gage.--Nonrecording prior to Aug. 28, 1951; recording thereafter. At site 300 ft upstream at same datum prior to Aug. 28, 1951. Datum of gage is 997.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 23,000 cfs and by an indirect measurement at 225,000 cfs.

Bankfull stage.-- 29 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)
1950	May 9, 1950	36.7	a225,000	1958	July 10, 1958	28.75	25,300
					July 19, 1958	12.19	4,550
1951	June 2, 1951	28.00	28,600		July 24, 1958	11.90	4,320
	June 15, 1951	15.10	9,400		Aug. 6, 1958	13.65	5,780
	Aug. 15, 1951	11.05	5,000				
				1959	May 3, 1959	15.60	9,010
1952	July 14, 1952	12.55	6,570		May 5, 1959	18.30	12,200
					May 18, 1959	15.40	8,790
1953	Apr. 30, 1953	4.56	379				
				1960	Mar. 28, 1960	14.77	8,270
1954	Aug. 23, 1954	11.80	5,150		Aug. 29, 1960	-	6,700
1955	June 24, 1955	16.85	18,800	1961	Sept.12, 1961	9.70	3,640
1956	Aug. 18, 1956	14.10	5,940	1962	May 29, 1962	11.70	5,230
1957	July 1, 1957	13.75	4,820				

a Annual peak only.

8115. Little Nemaha River at Auburn, Nebr.

Location.--Lat 40°23'30", long 95°48'40", in NW¼ sec.23, T.5 N., R.14 E., near left bank on downstream side of pier of bridge on State Highway 3, 1 mile downstream from Longs Creek, and 1 mile east of Auburn.

Drainage area.--801 sq mi.

Gage.--Recording. Datum of gage is 889.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1954.

Stage-discharge relation.--Defined by current-meter measurements below 49,000 cfs and by indirect measurements at 56,800 and 164,000 cfs.

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)
1950	May 5, 1950	18.30	9,020	1951	June 18, 1951	16.43	9,240
	May 9, 1950	27.65	164,000		June 22, 1951	16.09	8,800
	June 9, 1950	14.58	6,800		June 26, 1951	14.83	7,170
	July 12, 1950	14.88	7,160		July 6, 1951	24.31	43,200
	Aug. 7, 1950	13.05	5,100				
	Aug. 15, 1950	14.58	6,800	1952	June 27, 1952	22.26	21,500
					July 14, 1952	21.98	21,000
1951	Oct. 2, 1950	21.40	18,100		Aug. 14, 1952	15.61	7,430
	Oct. 7, 1950	13.77	5,890		Aug. 17, 1952	16.70	8,970
	Apr. 25, 1951	20.45	15,600		Aug. 21, 1952	13.54	5,110
	Apr. 27, 1951	13.71	5,820				
	May 1, 1951	22.65	24,000	1953	Apr. 30, 1953	7.37	680
	June 2, 1951	24.96	56,800				
	June 7, 1951	17.75	11,100	1954	June 9, 1954	18.98	14,400
	June 11, 1951	14.02	6,040		June 17, 1954	22.80	34,600
	June 15, 1951	16.98	10,000		Aug. 24, 1954	14.41	7,070

Peak stages and discharges of Little Nemaha River at Auburn, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 5, 1954	19.35	14,000	1959	May 3, 1959	17.85	10,900
	June 24, 1955	21.72	19,900		May 5, 1959	17.15	10,000
					May 18, 1959	18.84	12,300
1956	July 2, 1956	18.70	12,400		May 30, 1959	14.22	6,360
	Aug. 18, 1956	13.10	5,130		June 30, 1959	17.76	10,800
1957	May 30, 1957	15.77	9,760	1960	Mar. 27, 1960	24.20	48,000
	June 17, 1957	19.17	15,100		Aug. 29, 1960	18.52	11,700
	July 1, 1957	13.40	6,690				
				1961	June 15, 1961	14.00	6,100
1958	July 10, 1958	24.28	49,200		Sept.13, 1961	14.76	7,410
	July 19, 1958	15.80	8,260		Sept.30, 1961	12.65	5,000
	July 24, 1958	14.85	7,120				
	Aug. 6, 1958	23.05	33,600	1962	Oct. 10, 1961	18.78	17,600
	Sept. 4, 1958	17.40	10,300		Nov. 16, 1961	13.63	6,060
	Sept.10, 1958	16.65	9,340		Mar. 11, 1962	12.81	5,560
					May 28, 1962	19.48	20,900
1959	Mar. 26, 1959	13.20	5,440				

TARKIO RIVER BASIN

8117.6. Tarkio River near Elliot, Iowa

Location.--Near northeast corner sec.28, T.73 N., R.37 W., at bridge 4½ miles southeast of Elliot.

Drainage area.--10.7 sq mi.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by indirect measurements between 60 and 1,200 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)
1952	June 22, 1952	11.88	1,200	1958	Aug. 28, 1958	11.48	1,050
1953	-	(a)	-				
1954	-	(a)	-	1960	June 30, 1960	10.33	728
1955	Mar. 1, 1955	9.16	478				
				1961	Feb. 27, 1961	4.38	61
1956	July 7, 1956	6.19	138	1962	May 28, 1962	10.11	675
1957	May 29, 1957	5.16	88				

a Peak stage did not reach bottom of gage.

8118.4. Tarkio River at Stanton, Iowa

Location.--Lat 40°58'55", long 95°06'35", in NW¼SW¼ sec.4, T.71 N., R.37 W., on right bank 10 ft downstream from highway bridge and half a mile west of Stanton.

Drainage area.--49.3 sq mi.

Gage.--Recording and concrete control. Datum of gage is 1,104.67 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,550 cfs and by slope-area measurement at 3,380 cfs.

Historical data.--Flood of July 16, 1956, reached a stage of 15.37 ft (discharge, 3,380 cfs).

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

Peak stages and discharges of Tarkio River at Stanton, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 3, 1958	14.26	2,400	1960	June 30, 1960	16.23	4,240
	July 30, 1958	14.74	2,750		Aug. 28, 1960	13.79	2,070
	Aug. 6, 1958	13.84	2,010		Sept.18, 1960	16.61	4,650
					Sept.24, 1960	13.81	2,070
1959	May 19, 1959	13.12	1,580				
	May 29, 1959	14.13	2,300	1961	Mar. 27, 1961	13.70	2,000
1960	Mar. 28, 1960	14.53	2,640	1962	May 29, 1962	14.65	2,730

8120. Tarkio River at Blanchard, Iowa

Location.--Lat 40°35'40", long 95°13'25", on line between SE¼ sec.20 and NE¼ sec.29, T.67 N., R.38 W., at bridge on State Highway 333, 1 mile north of Blanchard, and 8.2 miles downstream from Snake Creek.

Drainage area.--200 sq mi, approximately.

Gage.--Recording. Datum of gage is 945.32 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs and by slope-area measurement at 9,980 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)
1935	May 31, 1935	9.10	1,920	1937	May 21, 1937	12.16	5,620
				1938	Aug. 20, 1938	10.12	4,240
1936	Apr. 28, 1936	12.7	4,330	1939	Mar. 12, 1939	18.12	9,980

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.

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

a Annual peak only.

8130. Tarkio River at Fairfax, Mo.

Location.--Lat 40°20'20", long 95°24'20", in SE¼SE¼ 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.

Gage.--Nonrecording prior to Oct. 23, 1953; recording thereafter. At datum 2.0 ft higher prior to Oct. 1, 1931. 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 9, 1922	15.06	2,850	1942	Oct. 31, 1941	16.10	5,770
					May 5, 1942	18.63	8,870
1923	May 11, 1923	8.60	1,100		May 11, 1942	12.70	6,170
					June 20, 1942	18.91	16,300
1924	June 12, 1924	17.95	6,610		June 25, 1942	20.50	13,800
	June 24, 1924	16.64	5,700				
	July 17, 1924	17.00	5,960	1943	June 5, 1943	17.05	6,710
	July 19, 1924	16.10	5,380		June 10, 1943	17.7	7,560
					June 16, 1943	17.00	6,710
1925	June 15, 1925	14.80	4,530				
				1944	May 3, 1944	18.6	7,960
1926	June 13, 1926	15.70	5,120				
	Sept. 4, 1926	19.3	7,940	1945	May 14, 1945	15.65	5,310
					July 5, 1945	16.00	5,670
1927	Oct. 3, 1926	9.53	1,740		Aug. 3, 1945	18.81	9,400
					Aug. 14, 1945	15.20	4,960
1928	Sept.12, 1928	18.71	7,090				
				1946	Sept. 4, 1946	12.0	4,760
1929	Mar. 6, 1929	17.60	6,350				
	July 7, 1929	22.33	15,000	1947	June 5, 1947	17.87	11,800
	July 15, 1929	18.00	6,610		June 12, 1947	18.56	12,700
					June 18, 1947	19.5	14,000
1930	June 19, 1930	8.86	1,560		June 22, 1947	12.50	5,310
1931	June 15, 1931	16.15	5,310	1948	Mar. 19, 1948	14.1	7,340
1932	Nov. 23, 1931	15.70	5,810	1949	Feb. 18, 1949	a15.12	-
	May 30, 1932	15.96	6,000		Feb. 24, 1949	a20.44	b4,000
	Aug. 15, 1932	15.20	5,500		Mar. 4, 1949	a15.2	6,980
					June 2, 1949	19.0	12,800
1933	Aug. 21, 1933	11.80	3,570		June 28, 1949	19.85	14,100
1934	Sept.26, 1934	5.90	710	1950	May 9, 1950	18.0	11,200
					June 9, 1950	14.0	5,600
1935	Oct. 19, 1934	14.80	4,860				
	June 1, 1935	18.00	6,670	1951	Oct. 2, 1950	13.36	5,000
					Apr. 25, 1951	14.70	8,780
1936	Apr. 28, 1936	15.22	5,080		May 1, 1951	17.50	12,700
					June 2, 1951	16.90	10,500
1937	Mar. 2, 1937	15.05	6,300		June 22, 1951	12.75	5,080
	Apr. 20, 1937	17.15	8,610		June 26, 1951	12.70	4,970
	July 30, 1937	17.20	8,730		Aug. 26, 1951	13.10	5,420
1938	June 11, 1938	14.50	5,800	1952	June 21, 1952	14.08	6,630
	Aug. 6, 1938	17.7	9,480		June 27, 1952	13.10	5,420
	Aug. 21, 1938	14.00	5,300		July 14, 1952	15.35	8,360
1939	Mar. 12, 1939	18.8	10,900	1953	June 9, 1953	11.06	2,120
	June 21, 1939	16.00	7,410				
				1954	June 9, 1954	11.81	2,660
1940	July 28, 1940	17.00	5,800				
	Aug. 27, 1940	17.5	6,150	1955	Feb. 18, 1955	15.0	5,000
1941	June 9, 1941	20.3	12,400	1956	July 8, 1956	15.32	4,630
	Sept.15, 1941	17.80	7,690				
				1957	May 30, 1957	16.16	5,860
1942	Oct. 4, 1941	16.90	6,600		June 7, 1957	17.40	7,610
	Oct. 7, 1941	17.70	7,560		June 18, 1957	19.00	10,400
	Oct. 22, 1941	18.55	8,870				

a Backwater from ice.
b Daily mean discharge.

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)
1958	July 2, 1958	16.80	6,700	1960	May 16, 1960	16.4	7,920
	July 4, 1958	18.10	8,770		Aug. 18, 1960	15.35	6,030
	July 19, 1958	20.95	14,200		Aug. 29, 1960	17.6	8,750
	July 30, 1958	20.30	12,800				
	Aug. 6, 1958	19.28	10,900	1961	Apr. 11, 1961	14.40	4,830
					July 2, 1961	18.50	9,900
1959	May 30, 1959	18.82	9,990		Sept.13, 1961	18.36	9,770
	June 30, 1959	16.13	5,730		Sept.30, 1961	14.80	5,310
	Aug. 31, 1959	15.45	4,860				
				1962	May 28, 1962	16.25	7,000
1960	Jan. 13, 1960	19.9	12,000		July 22, 1962	14.55	5,070
	Mar. 29, 1960	19.8	11,900				

MISSOURI RIVER MAIN STEM

8135. Missouri River at Rulo, Nebr.

Location.--Lat 40°03'15", long 95°25'15", in NW¼NW¼ sec.17, T.1 N., R.18 E., on downstream side of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 miles upstream from Nemaha River, and at mile 498.0.

Drainage area.--418,905 sq mi.

Gage.--Nonrecording prior to Sept. 13, 1950; recording thereafter. Datum of gage is 837.23 ft above mean sea level, datum of 1929.

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

Historical data.--Flood in 1881 reached a stage of 22.9 ft, from flocdmark.

Remarks.--Flow partly regulated by upstream main-stem reservoirs. Gage-height records collected at site 80 ft upstream January 1886 to December 1899 are contained in reports of Missouri River Commission and September 1929 to September 1950 in files of Kansas City Office of Corps of Engineers. 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	Apr. 29, 1950	-	185,000	1956	Aug. 19, 1956	12.2	54,000
	Apr. 30, 1950	21.6	-	1957	June 18, 1957	18.71	117,000
				1958	July 11, 1958	b17.4	99,000
1951	May 2, 1951	20.9	-	1959	May 30, 1959	16.62	109,000
	June 3, 1951	-	175,000	1960	Apr. 6, 1960	22.36	181,000
1952	Apr. 22, 1952	25.60	358,000				
1953	June 28, 1953	17.47	117,000	1961	Sept.13, 1961	14.10	80,100
1954	June 22, 1954	17.18	122,000	1962	Apr. 1, 1962	19.58	142,000
1955	Feb. 19, 1955	a17.99	-				
	Mar. 14, 1955	-	59,500				

a Backwater from ice.
b Backwater from Nemaha River.

8137. Tennessee Creek tributary near Seneca, Kans.

Location.--Lat 39°48'50", long 96°02'40", in SE¼SW¼ sec.2, T.3 S., R.12 E., 6 ft upstream from culvert on highway, 1.8 miles southeast of Seneca, and 10.8 miles northwest of Corning.

Drainage area.--0.90 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 35 cfs, by computations of critical flow through culvert, and by flow-through-culvert measurements at 383 and 1,220 cfs.

Remarks.--Only annual peaks are shown. Two farm ponds control runoff from 0.14 sq mi.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 29, 1957	12.23	90	1961	Sept.11, 1961	13.32	140
1958	July 31, 1958	17.95	720	1962	May 28, 1962	a17.38	550
1959	May 30, 1959	18.64	1,220				
1960	Oct. 3, 1959	18.02	800				

a Backwater from debris.

8140. Turkey Creek near Seneca, Kans.

Location.--Lat 39°57', long 96°06', in SW¼ sec.20, T.1 S., R.12 E., at highway bridge 2 miles downstream from Clear Creek, 5 miles upstream from Nemaha River, and 8 miles northwest of Seneca.

Drainage area.--276 sq mi.

Gage.--Recording Apr. 1, 1949, to Oct. 18, 1956 and since Mar. 28, 1958; non-recording Oct. 19, 1956, to Mar. 27, 1958. Altitude of gage is 1,160 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 7,400 cfs and by velocity-area study at 12,000 cfs.

Remarks.--Base for partial-duration series, 3,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 2, 1949	22.95	8,250	1953	Apr. 30, 1953	13.4	1,320
	June 13, 1949	20.85	5,420				
	June 25, 1949	20.59	5,210	1954	June 10, 1954	19.30	3,540
	June 28, 1949	25.17	12,000		June 17, 1954	24.18	10,800
	July 7, 1949	21.35	6,130		Aug. 8, 1954	23.10	8,600
	July 9, 1949	19.14	3,820				
	Sept.12, 1949	21.64	6,380	1955	June 25, 1955	18.88	3,230
1950	May 9, 1950	22.10	7,020	1956	June 27, 1956	9.87	670
	July 17, 1950	18.18	3,280				
				1957	June 18, 1957	10.6	890
1951	Oct. 2, 1950	22.76	7,920				
	May 1, 1951	23.37	9,140	1958	June 12, 1958	18.04	3,390
	June 7, 1951	22.08	6,730		July 11, 1958	23.51	15,200
	June 15, 1951	23.53	9,460		Sept. 4, 1958	24.20	18,000
	June 22, 1951	22.10	6,760				
	June 26, 1951	22.28	7,050	1959	July 4, 1959	17.97	3,140
	July 11, 1951	20.65	4,880				
	July 18, 1951	22.40	7,260	1960	Oct. 2, 1959	18.02	3,160
	July 23, 1951	21.75	6,250		Jan. 13, 1960	19.12	4,020
	Aug. 15, 1951	19.3	3,540		Mar. 28, 1960	22.73	11,700
	Sept. 4, 1951	19.22	3,480				
	Sept.12, 1951	21.16	5,490	1961	Sept.13, 1961	20.18	5,370
1952	Apr. 22, 1952	19.10	3,380	1962	Oct. 1, 1961	20.90	6,700
	May 22, 1952	21.99	6,590		May 28, 1962	21.51	8,180
	Aug. 30, 1952	20.05	4,200		July 20, 1962	20.59	6,080

8145. North Fork Nemaha River at Humboldt, Nebr.

Location.--Lat 40°09'25", long 95°56'40", in N½ sec.10, T.2 N., R.13 E., on right pile bent under bridge on State Highway 305 at south edge of Humboldt, 800 ft downstream from Long Branch Creek.

Drainage area.--531 sq mi.

Gage.--Recording. Datum of gage is 944.44 ft above mean sea level, datum of 1929.

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

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)
1953	Aug. 6, 1953	9.15	2,180	1959	Mar. 26, 1959	14.36	12,600
					May 3, 1959	11.40	7,480
1954	June 9, 1954	20.02	23,900		May 5, 1959	11.28	7,280
	June 17, 1954	28.48	43,300		May 30, 1959	11.48	7,620
	Aug. 8, 1954	15.62	14,400		June 30, 1959	12.32	9,040
	Aug. 21, 1954	14.16	11,400		July 4, 1959	12.84	9,930
	Aug. 24, 1954	15.15	13,400				
				1960	Oct. 2, 1959	11.85	9,360
1955	Oct. 5, 1954	11.17	5,890		Oct. 6, 1959	11.85	9,360
	Feb. 18, 1955	13.73	12,000		Oct. 8, 1959	10.86	7,550
	June 24, 1955	14.60	13,500		Jan. 12, 1960	14.35	14,300
					Jan. 14, 1960	10.35	6,640
1956	July 2, 1956	17.61	18,800		May 27, 1960	24.20	36,200
					Aug. 29, 1960	15.90	15,000
1957	Apr. 3, 1957	11.10	5,740				
	May 30, 1957	13.15	9,440	1961	June 7, 1961	13.35	10,300
	June 17, 1957	13.65	10,400		Sept.12, 1961	16.44	17,000
					Sept.30, 1961	22.15	30,700
1958	Oct. 12, 1957	16.55	16,400				
	Feb. 27, 1958	11.85	7,160	1962	Oct. 10, 1961	13.70	11,500
	July 10, 1958	31.70	51,000		Nov. 16, 1961	13.20	10,300
	July 17, 1958	14.00	11,100		Mar. 11, 1962	11.25	7,460
	July 24, 1958	15.95	15,100		May 28, 1962	13.40	12,400
					July 20, 1962	16.75	20,300
1958	Sept. 4, 1958	19.50	22,700				
	Sept.21, 1958	11.25	6,220				

8150. Nemaha River at Falls City, Nebr.

Location.--Lat 40°02'00", long 95°35'30", on line between secs. 22 and 23, T.1 N., R.16 E., near right bank on downstream side of pier of bridge on U.S. Highway 73, 1 mile south of Falls City, and 13 miles upstream from mouth.

Drainage area.--1,340 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 16, 1952; recording thereafter. Datum of gage is 861.24 ft above mean sea level, datum of 1929, supplementary adjustment of 1943, tentative (levels by Corps of Engineers).

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

Historical data.--Great flood July 1858 resulted from 10 days of rain, information in Omaha World Herald for Dec. 4, 1949. Flood of June 17, 1883, reported as "highest rise of water ever known" in Falls City News, June 21, 1883. Flood of June 1, 1929, reported as "worst flood since 1883" in Falls City Times June 7, 1929, and comparable to flood of June 2, 1949, according to Falls City Journal, June 2, 1949. Flood of June 10, 1941, reached a stage of 27.6 ft (discharge, 30,000 cfs, estimated), from information by Nebraska Bureau of Roads.

Remarks.--Base for partial-duration series, 15,000 cfs.

Peak stages and discharges of Nemaha River at Falls City, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 10, 1941	27.6	a30,000	1952	Aug. 21, 1952	22.90	23,700
					Aug. 29, 1952	24.06	26,300
1944	Apr. 23, 1944	21.68	17,200				
	May 3, 1944	22.30	18,400	1953	Aug. 7, 1953	7.84	1,920
1945	Apr. 16, 1945	20.20	15,300	1954	June 9, 1954	21.22	23,200
	May 14, 1945	25.50	22,100		June 17, 1954	27.44	51,400
					Aug. 8, 1954	24.00	32,500
1946	Sept. 4, 1946	25.77	27,300		Aug. 24, 1954	19.35	20,900
1947	Apr. 10, 1947	22.65	19,200	1955	June 24, 1955	17.41	16,000
	June 7, 1947	22.3	19,500				
	June 12, 1947	25.65	26,100	1956	July 3, 1956	17.10	13,400
	June 23, 1947	21.05	16,100				
				1957	June 17, 1957	14.83	13,200
1948	Mar. 19, 1948	19.76	14,000				
				1958	July 10, 1958	26.13	35,100
1949	June 2, 1949	28.80	34,200		July 24, 1958	18.50	15,900
	June 28, 1949	26.90	28,800		July 31, 1958	18.55	16,000
					Sept. 4, 1958	25.85	34,200
1950	May 9, 1950	26.0	26,300				
				1959	Mar. 26, 1959	15.70	17,000
1951	Oct. 2, 1950	25.87	25,900		May 30, 1959	17.40	20,500
	May 1, 1951	27.27	33,200		July 4, 1959	16.10	16,000
	June 2, 1951	25.95	29,900				
	June 7, 1951	22.80	22,700	1960	Jan. 12, 1960	18.15	19,200
	June 15, 1951	22.00	21,100		Mar. 28, 1960	27.75	46,900
	June 22, 1951	26.00	30,000				
	June 26, 1951	22.00	21,100	1961	Sept.13, 1961	19.30	22,500
	July 6, 1951	27.00	27,500		Sept.30, 1961	23.00	31,900
	July 11, 1951	25.62	27,300				
	July 18, 1951	23.10	22,800	1962	Oct. 10, 1961	17.22	17,300
					May 29, 1962	19.95	23,600
1952	May 22, 1952	19.40	16,400		July 20, 1962	22.90	31,600
	July 14, 1952	19.32	16,900				

a Annual peak only; discharge estimated.

8155. Muddy Creek at Verdon, Nebr.

Location.--Lat 40°08'40", long 95°43'10", in NE¼NW¼ sec.15, T.2 N., R.15 E., on downstream end of right pier of bridge on U.S. Highway 73, 0.4 mile west of Verdon, and 1 mile downstream from Sardine Creek.

Drainage area.--188 sq mi.

Gage.--Recording. Datum of gage is 896.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs and by slope-area measurement at 31,900 cfs.

Bankfull stage.--32 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)
1953	Nov. 16, 1952	11.87	4,040	1958	Oct. 12, 1957	18.17	7,800
					July 10, 1958	31.50	31,900
1954	June 9, 1954	16.13	8,580		July 17, 1958	14.90	4,360
	June 17, 1954	22.97	17,100		July 24, 1958	15.95	5,350
	Aug. 23, 1954	16.08	8,520		Sept. 4, 1958	19.37	9,440
					Sept.10, 1958	20.05	10,400
1955	Feb. 18, 1955	a16.12	-				
	Feb. 18, 1955	-	6,480	1959	Mar. 26, 1959	16.26	6,700
					May 19, 1959	15.20	5,100
1956	July 2, 1956	16.67	8,370		June 30, 1959	15.50	5,400
1957	May 30, 1957	15.91	7,300	1960	Oct. 2, 1959	16.68	6,650
	June 15, 1957	13.40	4,540		Jan. 12, 1960	18.45	10,800
	June 17, 1957	18.35	10,200		Mar. 27, 1960	23.90	20,000
	Aug. 16, 1957	13.18	4,300		May 16, 1960	18.40	8,580

a Backwater from ice.

Peak stages and discharges of Muddy Creek at Verdon, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	June 30, 1960	21.00	12,000	1961	July 6, 1961	15.25	5,150
	Aug. 29, 1960	20.45	11,200		Sept.12, 1961	16.72	6,690
					Sept.30, 1961	24.58	17,800
1961	June 7, 1961	14.67	4,600				
	June 14, 1961	17.90	7,990	1962	May 28, 1962	19.60	10,100

MILL CREEK BASIN

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.

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, 400 cfs.

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	1955	July 6, 1955	3.95	479
	Mar. 2, 1951	4.75	840				
	June 15, 1951	4.04	518	1956	July 2, 1956	3.8	417
	June 19, 1951	4.17	576				
	June 21, 1951	4.40	695	1957	June 14, 1957	3.71	381
	June 27, 1951	3.90	458				
	June 28, 1951	4.10	545	1958	June 12, 1958	4.80	930
	Aug. 9, 1951	3.83	429		July 11, 1958	3.87	446
	Aug. 14, 1951	4.13	558		July 15, 1958	4.00	500
	Aug. 15, 1951	4.37	678		July 25, 1958	4.20	590
	Aug. 24, 1951	3.80	417		July 30, 1958	7.0	2,640
					Sept. 6, 1958	3.97	487
1952	Nov. 12, 1951	3.14	194		Sept. 9, 1958	5.50	1,420
	May 21, 1952	2.98	158				
				1959	May 21, 1959	3.77	405
1953	Nov. 17, 1952	2.51	78		June 29, 1959	4.00	500
1954	Aug. 21, 1954	4.20	590	1960	June 30, 1960	4.48	b739
1955	Oct. 4, 1954	3.84	433	1961	Sept. 3, 1961	7.10	b2,730
	Feb. 18, 1955	(a)	(a)				
	June 24, 1955	4.42	706	1962	May 28, 1962	4.5	b750

a Gage height and discharge unknown.
b Annual peak only.

NODAWAY RIVER BASIN

8165. West Nodaway River at Villisca, Iowa

Location.--Lat 40°55'45", long 94°59'40", in sec.28, T.71 N., R.36 W., at Chicago, Burlington & Quincy Railroad bridge, 0.5 mile west of Villisca, and 1 mile upstream from confluence with Middle Nodaway River.

Drainage area.--360 sq mi.

Gage.--Nonrecording. At datum 2.00 ft higher prior to Oct. 1, 1919.

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs and extended by logarithmic plotting.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of West Nodaway River at Villisca, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	May 28, 1918	12.2	a1,420	1922	July 29, 1922	18.0	3,900
1919	Mar. 18, 1919	19.2	5,100	1923	Mar. 23, 1923	-	263
1920	May 12, 1920	17.0	3,300	1924	June 9, 1924	-	6,200
				1925	June 15, 1925	4.8	b940
1921	June 3, 1921	5.8	408				

a Maximum for period May 20 to Sept. 30, 1918.
b Maximum for period Oct. 1, 1924, to July 4, 1925.

8170. Nodaway River at Clarinda, Iowa

Location.--Lat 40°44'10", long 95°00'30", in NE¼ sec.32, T.69 N., R.36 W., on downstream side of center bridge pier on State Highway 2, 0.5 mile downstream from Neele Branch, 1.2 miles east of city square of Clarinda, and 7.5 miles upstream from East Nodaway River.

Drainage area.--762 sq mi.

Gage.--Nonrecording prior to July 5, 1925, and May 28, 1936, to Mar. 26, 1957; recording thereafter. Datum of gage is 960.36 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs and extended above by logarithmic plotting.

Historical data.--Flood of August 1903 reached a stage of 25.4 ft, from floodmarks.

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)
1903	August	25.4	-	1942	Oct. 7, 1941	16.0	9,300
					Nov. 1, 1941	12.0	5,700
1918	May 29, 1918	9.7	4,630		May 11, 1942	15.0	8,400
					May 22, 1942	12.9	6,510
1919	Apr. 11, 1919	13.0	7,900		June 20, 1942	14.9	8,310
	Apr. 24, 1919	10.2	5,100				
	Sept.30, 1919	11.8	5,460	1943	Feb. 3, 1943	11.5	5,300
					June 16, 1943	13.8	7,320
1920	May 12, 1920	11.3	5,140		Aug. 3, 1943	13.8	7,320
1921	June 3, 1921	7.2	2,140	1944	May 3, 1944	12.9	6,510
					May 26, 1944	13.3	6,870
1922	July 29, 1922	11.0	4,900		June 4, 1944	16.6	9,660
					June 8, 1944	14.2	7,500
1923	June 9, 1923	6.1	1,600				
				1945	Mar. 11, 1945	11.0	5,900
1924	June 9, 1924	16.4	9,840		Mar. 15, 1945	13.8	8,700
	June 27, 1924	15.0	8,400		May 14, 1945	15.9	10,900
					May 21, 1945	14.0	8,700
1925	June 14, 1925	12.0	5,700				
				1946	Mar. 26, 1946	11.6	6,500
1936	Sept.12, 1936	-	2,440		June 18, 1946	15.8	11,100
1937	Feb. 19, 1937	11.4	6,300	1947	Apr. 10, 1947	11.7	7,200
	Mar. 4, 1937	17.0	12,100		May 29, 1947	11.5	7,200
	May 21, 1937	16.5	11,600		June 2, 1947	10.9	6,400
	May 26, 1937	9.7	4,630		June 5, 1947	21.3	17,200
					June 13, 1947	25.3	31,100
1938	May 31, 1938	14.7	9,600		June 18, 1947	17.6	12,600
	June 11, 1938	11.3	6,200		June 21, 1947	18.0	13,200
	Aug. 31, 1938	11.3	6,200				
				1948	Feb. 27, 1948	10.3	5,200
1939	Mar. 12, 1939	17.6	13,000		Mar. 19, 1948	17.4	12,800
	July 5, 1939	13.5	7,050		July 22, 1948	10.6	5,450
	Aug. 11, 1939	12.6	6,240				
				1949	Feb. 23, 1949	11.5	6,350
1940	Aug. 13, 1940	10.9	4,690		Mar. 4, 1949	13.1	8,000
					June 1, 1949	16.0	11,000
1941	June 3, 1941	15.2	8,760				
	June 9, 1941	18.0	11,000	1950	Feb. 28, 1950	12.0	6,900
	Sept.15, 1941	15.8	9,120		May 9, 1950	19.8	15,400

Peak stages and discharges of Nodaway River at Clarinda, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 28, 1951	15.5	10,400	1958	Sept. 7, 1958	10.26	6,810
	Apr. 30, 1951	13.0	7,700		Sept.10, 1958	12.60	9,880
	May 1, 1951	19.5	15,000				
	June 2, 1951	14.4	8,740	1959	Feb. 24, 1959	-	6,500
	June 15, 1951	18.0	13,000		May 11, 1959	11.79	8,990
	July 3, 1951	18.1	13,100		May 30, 1959	14.97	13,200
					June 30, 1959	11.70	8,830
1952	Mar. 11, 1952	10.0	5,130		Aug. 6, 1959	14.00	11,700
	May 22, 1952	11.0	6,080				
	June 22, 1952	17.15	13,400	1960	Jan. 12, 1960	16.90	14,900
					Mar. 30, 1960	18.88	16,900
1953	Apr. 30, 1953	5.6	1,630		June 30, 1960	12.40	9,620
					Aug. 29, 1960	13.80	11,400
1954	Aug. 23, 1954	10.13	3,930		Sept.18, 1960	13.82	11,400
1955	July 9, 1955	13.50	7,100	1961	Feb. 23, 1961	11.85	8,820
					Mar. 13, 1961	12.08	10,100
1956	July 7, 1956	10.0	3,850		Mar. 27, 1961	9.35	5,380
					Apr. 11, 1961	13.20	10,700
1957	May 30, 1957	10.45	6,980		Sept.13, 1961	10.65	7,120
	June 17, 1957	9.86	6,150				
				1962	Mar. 19, 1962	12.05	9,100
1958	July 3, 1958	15.85	13,800		May 29, 1962	16.10	17,300
	July 30, 1958	15.56	13,600		July 21, 1962	10.76	7,740

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.

Gage.--Nonrecording prior to June 29, 1939; recording thereafter. At site half a mile upstream at different datum Oct. 26, 1928, to June 9, 1929. Datum of 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	1932	Nov. 23, 1931	14.45	13,900
					Aug. 15, 1932	15.00	15,400
1923	Mar. 26, 1923	7.94	3,480				
				1933	Apr. 1, 1933	6.55	1,750
1924	June 9, 1924	12.60	9,900				
	June 26, 1924	13.42	10,200	1934	Sept.27, 1934	7.20	2,150
1925	June 14, 1925	9.50	5,000	1935	May 31, 1935	13.45	10,600
					June 2, 1935	12.62	9,760
1926	Feb. 2, 1926	13.38	10,200		June 18, 1935	11.97	8,500
	June 13, 1926	12.26	8,550				
	Sept. 3, 1926	19.5	18,200	1936	Feb. 25, 1936	10.95	6,520
1927	Oct. 3, 1926	13.25	6,800	1937	Mar. 4, 1937	14.55	17,100
					May 21, 1937	11.97	11,300
1928	June 17, 1928	13.79	9,420		July 19, 1937	11.50	10,300
	July 21, 1928	15.70	12,800				
				1938	May 31, 1938	17.07	19,800
1929	Mar. 6, 1929	15.60	12,600		June 14, 1938	12.50	10,700
	Mar. 14, 1929	16.20	13,800		Aug. 21, 1938	11.99	9,860
	Apr. 21, 1929	14.20	10,000				
	June 1, 1929	17.59	16,800	1939	Mar. 21, 1939	16.7	19,600
	July 6, 1929	19.40	21,000		June 21, 1939	12.00	10,300
	July 15, 1929	17.50	16,600		July 4, 1939	15.41	17,000
1930	May 7, 1930	11.20	6,220	1940	July 28, 1940	11.74	8,140
1931	Sept.25, 1931	9.40	4,100				

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)
1941	June 4, 1941	12.80	11,200	1951	May 25, 1951	14.90	20,500
	June 9, 1941	18.44	22,100		June 2, 1951	15.50	22,200
	Sept.15, 1941	16.47	17,700		June 15, 1951	12.05	13,200
					July 3, 1951	11.40	11,700
1942	Oct. 7, 1941	13.32	12,000		July 6, 1951	13.90	17,900
	Oct. 22, 1941	15.26	15,600		Aug. 15, 1951	10.40	9,490
	Oct. 31, 1941	15.20	15,400		Aug. 26, 1951	10.17	9,070
	May 5, 1942	16.95	19,000		Sept. 9, 1951	10.25	9,070
	May 11, 1942	11.93	9,850				
	June 20, 1942	13.95	13,200	1952	Mar. 11, 1952	9.63	9,920
	June 25, 1942	15.95	16,800		May 22, 1952	10.10	8,860
					June 22, 1952	12.44	14,100
1943	June 5, 1943	15.30	16,700				
	June 10, 1943	15.5	17,200	1953	June 9, 1953	7.53	4,300
	June 16, 1943	13.60	13,300				
	Aug. 3, 1943	12.73	11,600	1954	May 31, 1954	8.45	5,680
1944	Apr. 23, 1944	12.16	10,400	1955	Feb. 18, 1955	11.6	12,200
	May 2, 1944	16.9	20,300				
	June 4, 1944	12.13	10,400	1956	July 8, 1956	10.85	10,000
1945	Mar. 15, 1945	12.25	10,900	1957	June 18, 1957	8.70	5,820
	Apr. 16, 1945	13.20	12,900				
	May 14, 1945	15.93	18,500	1958	July 3, 1958	13.29	16,200
	May 21, 1945	11.23	9,100		July 19, 1958	16.87	26,000
	July 5, 1945	12.30	11,100		July 30, 1958	14.22	18,600
	Aug. 14, 1945	11.20	9,100				
				1959	May 11, 1959	11.65	11,700
1946	Mar. 26, 1946	13.9	13,900		May 30, 1959	15.55	22,400
	June 19, 1946	11.29	9,000		June 30, 1959	15.50	22,200
					Aug. 6, 1959	11.0	10,200
1947	Apr. 10, 1947	14.20	18,700		Sept.26, 1959	13.52	16,200
	May 28, 1947	10.12	8,860				
	June 6, 1947	17.90	28,800	1960	Jan. 12, 1960	16.90	26,000
	June 14, 1947	19.0	32,000		Jan. 14, 1960	11.52	11,400
	June 18, 1947	13.60	17,100		Mar. 28, 1960	16.10	25,700
	June 21, 1947	16.00	23,800		June 5, 1960	13.12	17,500
					June 30, 1960	11.43	13,000
1948	Mar. 19, 1948	14.6	19,700		Aug. 29, 1960	12.70	16,400
1949	Feb. 24, 1949	a18.3	9,000	1961	Mar. 13, 1961	11.30	14,200
	Mar. 5, 1949	a19.69	10,000		Mar. 27, 1961	9.82	11,000
	June 2, 1949	15.97	23,500		Apr. 12, 1961	10.97	13,500
	June 27, 1949	15.70	22,700		Sept.13, 1961	11.60	14,900
1950	May 9, 1950	13.74	17,400	1962	Oct. 12, 1961	9.15	9,400
					Nov. 16, 1961	9.83	11,000
1951	Feb. 26, 1951	9.65	11,500		Feb. 15, 1962	9.80	10,000
	Mar. 28, 1951	12.07	13,400		Mar. 11, 1962	10.00	10,800
	Apr. 25, 1951	10.18	9,070		Mar. 20, 1962	9.60	10,600
	May 1, 1951	16.42	24,600		May 29, 1962	12.20	16,300
	May 10, 1951	10.28	9,280		July 22, 1962	10.00	10,000

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

MISSOURI RIVER MAIN STEM

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 thereafter. At site 52.1 miles downstream 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 at present site adjusted to present datum. Records for sites "at St. Joseph" and "at Leavenworth" considered equivalert for flood-frequency study. Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,175,000 acre-ft. Only arnual peaks are shown.

Peak stages and discharges of Missouri River at St. Joseph, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	a24.5	350,000	1941	June 11, 1941	16.29	115,000
				1942	June 25, 1942	17.15	134,000
1881	Apr. 29, 1881	a27.2	370,000	1943	Apr. 18, 1943	18.30	154,000
				1944	Apr. 19,		
1903	June 2, 1903	a20.5	252,000		June 18, 1944	-	161,000
					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				
1924	June 28, 1924	49.3	221,000	1946	June 19, 1946	14.70	114,000
1925	June 16, 1925	47.7	235,000	1947	June 16, 1947	20.4	180,000
				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				
1928	June 9, 1928	46.4	-	1951	May 3, 1951	19.9	198,000
	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
				1955	June 25, 1955	15.7	91,600
1931	June 23, 1931	12.3	65,600				
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
				1960	Apr. 6, 1960	22.05	175,000
1936	Mar. 12, 1936	14.10	108,000				
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				
1940	June 10, 1940	12.39	65,600				

a Present site and datum.
b Backwater from ice.

PLATTE RIVER BASIN (IOWA-MISSOURI)

8190. Platte River at Conception Junction, Mo.

Location.--Lat 40°16'15", long 94°42'15", on line between NW¼ sec.14 and SW¼ sec.11, T.63 N., R.34 W., at county highway bridge half a mile west of Conception Junction and 6 miles downstream from Honey Creek.

Drainage area.--492 sq mi.

Gage.--Nonrecording. At site 1 mile upstream at different datum prior to Aug. 6, 1928. Altitude of gage is 940 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 9,000 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.

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	1930	June 16, 1930	14.02	4,200
1923	Nov. 13, 1922	17.45	3,900				
				1931	Sept.25, 1931	10.42	1,810
1929	July 6, 1929	21.70	12,200	1932	Nov. 24, 1931	17.12	10,200

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-pile 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.

Gage.--Nonrecording prior to Sept. 15, 1958; recording thereafter. At site 3 miles downstream at datum 5.68 ft lower prior to June 20, 1934. Datum of present 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	May 8, 1940	13.9	3,640
1941	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
1951	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
	Feb. 5, 1962	15.20	4,400
	Feb. 15, 1962	16.47	5,150
	Mar. 12, 1962	18.46	6,470
	Mar. 20, 1962	15.10	4,350
	May 29, 1962	19.80	8,430
	July 22, 1962	16.08	4,910

a Annual peak only.
b Backwater from ice.

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.

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 contracted-opening measurements at 2,250 and 4,100 cfs.

Bankfull stage.--11 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)
1949	June 1, 1949	13.41	4,100	1955	Mar. 1, 1955	6.40	161
	June 27, 1949	8.76	422		Apr. 13, 1955	10.27	900
1950	July 17, 1950	8.15	328	1956	July 7, 1956	8.30	395
1951	Feb. 20, 1951	8.80	431	1957	Apr. 3, 1957	6.52	169
	Apr. 25, 1951	9.00	470				
	Apr. 30, 1951	10.54	920	1958	May 3, 1958	8.97	510
	June 21, 1951	8.89	450		May 4, 1958	9.29	580
	June 22, 1951	8.72	413		May 16, 1958	11.58	1,660
	July 22, 1951	9.13	502		July 19, 1958	12.25	2,300
	Aug. 15, 1951	9.27	548				
	Aug. 25, 1951	8.71	431	1959	Mar. 26, 1959	8.55	438
					May 30, 1959	11.32	1,430
1952	Nov. 12, 1951	10.78	1,020		Aug. 5, 1959	9.63	675
	May 22, 1952	9.85	695		Sept.23, 1959	9.54	645
	June 21, 1952	11.56	1,610		Sept.26, 1959	10.93	1,200
1953	Apr. 30, 1953	5.45	107	1960	May 16, 1960	11.45	a1,540
1954	May 31, 1954	7.33	256	1961	Sept.12, 1961	11.35	a1,460
	Apr. 26, 1954	6.48	169				
				1962	May 28, 1962	10.19	a860
1955	Feb. 18, 1955	6.76	198				
	Feb. 26, 1955	6.90	209				

a Annual peak only.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 125 cfs and by culvert measurements at 462 and 614 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	1957	-	(a)	<50
				1958	July 19, 1958	3.62	462
1951	Apr. 30, 1951	3.74	478	1959	Sept.26, 1959	4.52	585
1952	June 21, 1952	5.40	705	1960	May 16, 1960	4.74	614
1953	Apr. 30, 1953	2.98	378				
1954	May 31, 1954	2.78	353	1961	Sept.12, 1961	4.58	593
1955	-	(a)	<50	1962	May 28, 1962	3.54	450
1956	July 3,7, 1956	1.78	97				

a Stage did not reach bottom of gage during year.

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.

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

a Backwater from ice.
b Daily discharge.

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)
1953	May 1, 1953	14.74	6,800	1960	Jan. 16, 1960	23.3	17,900
					Mar. 31, 1960	26.09	29,100
1954	May 3, 1954	15.00	7,070		June 5, 1960	18.1	8,930
					July 2, 1960	21.8	14,100
1955	Feb. 19, 1955	21.16	11,900		Aug. 19, 1960	17.9	8,500
	Mar. 4, 1955	16.0	8,100		Aug. 27, 1960	16.4	7,060
	Apr. 14, 1955	15.85	7,880		Aug. 30, 1960	19.1	9,830
	June 25, 1955	16.40	8,540		Sept.25, 1960	18.7	9,370
1956	July 3, 1956	13.94	6,050	1961	Feb. 19, 1961	18.85	9,480
					Mar. 14, 1961	22.95	17,900
1957	Apr. 4, 1957	16.75	8,980		Mar. 28, 1961	21.36	13,700
					Apr. 13, 1961	19.53	10,400
1958	May 5, 1958	20.36	10,600		Sept. 3, 1961	21.22	13,300
	July 16, 1958	22.94	16,700		Sept.14, 1961	25.50	26,500
	July 20, 1958	19.40	9,170				
	Aug. 1, 1958	21.13	12,000	1962	Oct. 1, 1961	17.85	8,400
					Oct. 12, 1961	20.95	12,900
1959	Mar. 27, 1959	19.19	9,060		Nov. 3, 1961	21.35	13,700
	Apr. 21, 1959	19.58	9,620		Nov. 17, 1961	23.30	18,800
	May 6, 1959	17.25	7,060		Feb. 6, 1962	a24.40	10,000
	May 21, 1959	17.6	7,390		Feb. 16, 1962	19.42	10,200
	June 2, 1959	22.9	16,700		Mar. 13, 1962	20.75	12,500
	July 2, 1959	18.82	8,580		Mar. 21, 1962	20.10	11,200
	Sept.24, 1959	18.72	8,470		May 20, 1962	17.86	8,500
	Sept.27, 1959	20.47	11,200		May 30, 1962	23.72	20,000
1960	Oct. 6, 1959	19.0	8,800				

a Backwater from ice.

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.

Gage.--Recording and concrete control. Altitude of gage is 905 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs and by slope-area measurement at 1,730 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	1956	May 30, 1956	9.03	1,730
	June 19, 1951	3.24	221		July 13, 1956	3.46	259
	June 21, 1951	5.04	582				
	June 22, 1951	4.40	440	1957	Apr. 3, 1957	2.22	53
	June 26, 1951	3.79	324				
	June 27, 1951	3.62	310	1958	May 3, 1958	4.70	462
	July 5, 1951	4.78	526		June 12, 1958	4.72	462
	July 11, 1951	3.29	230		June 14, 1958	3.88	286
	July 12, 1951	3.39	252		July 11, 1958	4.33	385
	Aug. 8, 1951	3.49	276		July 15, 1958	5.24	597
	Aug. 15, 1951	3.60	304		July 17, 1958	4.44	407
	Aug. 28, 1951	3.52	283		July 27, 1958	4.42	396
	Sept. 9, 1951	3.75	314		July 30, 1958	5.50	662
1952	Sept. 1, 1952	3.00	181	1959	Aug. 5, 1959	5.86	772
					Sept.22, 1959	6.62	968
1953	May 5, 1953	2.51	97				
				1960	Oct. 4, 1959	4.38	396
1954	May 31, 1954	3.71	335		Oct. 22, 1959	3.55	216
	June 2, 1954	5.36	666		Mar. 27, 1960	4.17	341
					June 21, 1960	4.60	440
1955	Oct. 3, 1954	3.75	314		June 23, 1960	4.72	462
	Oct. 4, 1954	3.82	324		June 30, 1960	6.33	884
	Oct. 13, 1954	4.01	362		July 10, 1960	4.05	319
	Feb. 18, 1955	3.78	324		Aug. 7, 1960	4.47	407
	June 24, 1955	4.55	471		Aug. 17, 1960	5.70	716

Peak stages and discharges of Jenkins Branch at Gower, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Apr. 22, 1961	4.68	462	1962	Oct. 12, 1961	4.33	385
	May 5, 1961	3.53	208		Oct. 29, 1961	6.40	912
	May 7, 1961	8.75	1,660		Nov. 2, 1961	6.75	1,020
	July 23, 1961	4.31	374		Nov. 15, 1961	3.66	237
	July 26, 1961	4.90	510		June 6, 1962	5.80	744
	Sept.13, 1961	4.37	385				
	Sept.20, 1961	4.50	418				

KANSAS RIVER BASIN

8215. Arikaree River at Haigler, Nebr.

Location.--Lat 40°01'30", long 101°57'25", in NE¼SW¼ sec.28, T.1 N., R.41 W., on right bank 40 ft downstream from bridge on U.S. Highway 34, 0.6 mile upstream from Chicago, Burlington & Quincy Railroad bridge, 1 mile upstream from confluence with North Fork Republican River, 1 mile northwest of Haigler, and 4 miles downstream from Kansas-Nebraska State line.

Drainage area.--1,460 sq mi, approximately, of which about 1,330 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 21, 1938; recording thereafter. At site 0.6 mile downstream prior to May 9, 1956. At datum 1.25 ft lower prior to May 30, 1935. At datum 3.25 ft lower May 30, 1935, to Sept. 30, 1940. At datum 4.25 ft lower Oct. 1, 1940, to May 9, 1956. Datum of gage is 3,246.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,800 cfs and by slope-area measurement at 50,000 cfs.

Remarks.--Natural flow affected by ground-water withdrawals and diversions for irrigation of about 1,500 acres in Colorado and by return flow from Pioneer Canal. Only annual peaks are shown prior to 1946. 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)
1932	Aug. 27, 1932	6.10	2,330	1948	June 27, 1948	4.03	1,730
1933	July 9, 1933	11.0	-		June 28, 1948	3.98	1,680
1934	June 15, 1934	7.60	3,520				
1935	May 31, 1935	11.2	50,000	1949	May 11, 1949	4.14	1,580
1936	May 29, 1936	8.00	16,300	1950	Aug. 26, 1950	7.39	4,060
1937	Sept. 7, 1937	2.50	434		Aug. 29, 1950	5.26	1,360
1938	Sept. 3, 1938	6.00	7,700		Sept.15, 1950	4.86	1,010
1939	July 31, 1939	5.50	3,700				
1940	Sept. 3, 1940	8.25	19,500	1951	May 15, 1951	5.22	1,130
					June 8, 1951	5.12	1,010
1941	July 12, 1941	6.53	7,070		June 11, 1951	5.47	1,720
					June 22, 1951	5.80	1,590
1942	Mar. 13, 1942	6.01	5,510		Sept. 4, 1951	5.76	1,550
					Sept. 7, 1951	7.52	3,900
1943	July 30, 1943	3.44	210				
				1952	May 8, 1952	4.6	680
1944	Aug. 23, 1944	5.94	2,450				
				1953	Aug. 4, 1953	5.13	924
1945	June 24, 1945	4.45	570				
				1954	Sept.28, 1954	4.91	872
1946	May 23, 1946	5.29	1,420				
	June 18, 1946	5.06	1,240	1955	May 17, 1955	7.60	3,590
	July 5, 1946	5.38	1,720		May 27, 1955	6.04	1,680
	July 8, 1946	5.01	1,390		June 15, 1955	9.08	6,360
	July 19, 1946	7.20	3,830				
				1956	Aug. 11, 1956	7.99	2,120
1947	Apr. 28, 1947	5.80	2,400		Aug. 17, 1956	9.17	5,680
	June 6, 1947	4.93	1,360				
	July 22, 1947	4.76	1,240	1957	May 16, 1957	7.55	2,960
					May 31, 1957	6.45	1,940
1948	May 23, 1948	5.19	1,840		June 27, 1957	5.51	1,270
	May 29, 1948	4.38	1,090		July 14, 1957	5.37	1,180
	June 16, 1948	8.47	-		July 21, 1957	5.95	1,560
	June 20, 1948	4.36	2,170		July 24, 1957	6.01	1,610
	June 21, 1948	4.58	2,410		July 26, 1957	5.60	1,320

Peak stages and discharges of Arikaree River at Haigler, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 20, 1958	5.26	1,120	1962	June 6, 1962	5.93	1,860
	Aug. 16, 1958	10.48	7,790		June 7, 1962	5.78	1,740
					June 8, 1962	5.78	1,740
1959	May 20, 1959	4.04	511		June 30, 1962	5.00	1,180
					July 1, 1962	8.32	4,020
1960	Mar. 24, 1960	8.09	5,690		July 18, 1962	7.12	2,860
					July 31, 1962	10.06	6,850
1961	Aug. 1, 1961	6.35	3,090				
	Aug. 13, 1961	5.60	2,230				

8220. North Fork Republican River near Wray, Colo.

Location.--Lat 40°04', long 102°17', in NE¼NE¼ sec.9, T.1 N., R.44 W., 150 ft upstream from bridge on State Highway 29, 1½ miles upstream from Chief Creek, and 2½ miles west of Wray

Drainage area.--1,019 sq mi, of which 929 sq mi are noncontributing.

Gage.--Nonrecording prior to Aug. 2, 1940; recording thereafter. At site three-quarters of a mile upstream at different datum prior to Oct. 1, 1946.

Stage-discharge relation.--Defined by current-meter measurements below 130 cfs.

Bankfull stage.--6 ft.

Remarks.--Diversions for irrigation of 400 acres above station do not substantially affect peak flows. Base for partial-duration series, 100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	July 24, 1937	7.10	124	1946	July 7, 1946	8.82	205
1938	July 13, 1938	9.82	270	1952	Aug. 20, 1952	2.07	50
1939	July 31, 1939	6.66	84	1953	Apr. 24, 1953	2.18	60
1940	May 17, 1940	7.90	149	1954	July 4, 1954	3.86	196
					Aug. 16, 1954	3.88	198
1941	July 12, 1941	7.35	104				
	Aug. 19, 1941	8.15	161	1955	June 14, 1955	4.09	158
					June 18, 1955	5.28	268
1942	Sept. 2, 1942	8.30	174				
				1956	Aug. 11, 1956	5.43	283
1943	Oct. 15, 1942	6.10	45				
				1957	May 30, 1957	4.26	102
1944	Aug. 23, 1944	8.01	163		June 1, 1957	4.45	110
1945	Sept.28, 1945	6.73	80				

8230. North Fork Republican River at Colorado-Nebraska State line.

Location.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., on right bank 100 ft east of Colorado-Nebraska State line and 9½ miles upstream from confluence with Arikaree River.

Drainage area.--320 sq mi, approximately, of which about 130 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 17, 1934; recording thereafter. Datum of gage is 3,336.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs and by slope-area measurement at 2,110 cfs.

Remarks.--Peak discharges somewhat affected by irrigation developments. Base for partial-duration series, 130 cfs.

Peak stages and discharges of North Fork Republican River at Colorado-Nebraska State line

Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Apr. 1, 1931	4.31	190
1932	July 22, 1932	-	a198
	July 30, 1932	3.50	378
	Aug. 13, 1932	-	a255
1933	July 9, 1933	3.27	213
	Aug. 22, 1933	-	a152
1934	June 15, 1934	4.00	512
1935	June 1, 1935	3.49	367
	June 12, 1935	-	a168
	Aug. 23, 1935	-	a190
1936	Mar. 1, 1936	-	a269
	May 29, 1936	3.71	433
	June 6, 1936	-	a197
1937	July 24, 1937	2.66	139
1938	Apr. 25, 1938	-	591
	May 30, 1938	4.54	628
	July 14, 1938	-	a180
	July 16, 1938	-	323
1939	Aug. 1, 1939	2.83	127
1940	June 7, 1940	3.16	225
	Sept. 3, 1940	5.72	1,220
	Sept.24, 1940	3.03	203
1941	Dec. 21, 1940	-	130
	May 27, 1941	2.94	210
	June 5, 1941	3.36	386
	June 8, 1941	2.66	166
	July 12, 1941	2.86	210
	July 31, 1941	2.87	190
	Aug. 1, 1941	3.02	210
	Aug. 19, 1941	2.71	168
	Aug. 24, 1941	2.91	242
	Aug. 26, 1941	2.72	176
1942	Oct. 26, 1941	2.84	190
	Apr. 30, 1942	2.82	171
	Sept. 2, 1942	3.03	224
1943	Oct. 15, 1942	2.67	144
1944	Mar. 25, 1944	2.52	130
	Apr. 23, 1944	2.60	139
	May 3, 1944	2.64	151
	Aug. 22, 1944	2.68	158
1945	Sept.27, 1945	2.94	245
1946	July 8, 1946	3.05	210
1947	Apr. 28, 1947	5.92	2,110
	June 6, 1947	2.59	162
	June 22, 1947	3.10	317
1948	May 23, 1948	2.38	140
	June 15, 1948	3.92	637
	June 21, 1948	2.90	278
	Sept. 7, 1948	2.59	187
1949	May 21, 1949	2.61	212
	May 31, 1949	2.43	158
	June 7, 1949	2.36	136
	June 18, 1949	2.88	281
	Aug. 16, 1949	2.89	350
1949	Aug. 18, 1949	2.72	284
	Aug. 31, 1949	2.68	198
1950	May 8, 1950	2.43	173
	July 30, 1950	2.83	287
	Aug. 10, 1950	2.97	324
	Aug. 13, 1950	2.45	160
	Aug. 26, 1950	2.89	324
	Sept.15, 1950	2.60	198
1951	May 15, 1951	4.62	1,460
	May 18, 1951	3.22	552
	July 22, 1951	2.45	133
	Aug. 10, 1951	4.47	1,360
	Sept. 3, 1951	3.40	660
	Sept. 7, 1951	3.85	942
1952	Mar. 27, 1952	2.19	100
1953	Apr. 24, 1953	2.30	131
	Aug. 15, 1953	2.46	193
1954	Aug. 17, 1954	3.54	819
1955	May 17, 1955	2.42	236
	June 15, 1955	2.33	205
	June 19, 1955	2.58	278
1956	Aug. 2, 1956	2.41	183
	Aug. 11, 1956	3.10	544
	Aug. 16, 1956	2.50	259
1957	Nov. 6, 1956	-	-
	Mar. 27, 1957	-	-
	May 16, 1957	2.63	294
	May 29, 1957	2.70	324
	June 8, 1957	2.27	180
	June 15, 1957	2.42	240
	June 17, 1957	2.35	219
	June 27, 1957	2.25	205
	July 14, 1957	2.86	466
	July 15, 1957	2.41	259
	July 21, 1957	2.43	270
	July 26, 1957	3.13	620
1958	May 2, 1958	4.30	1,260
	May 14, 1958	2.37	207
	May 29, 1958	2.43	250
	July 19, 1958	2.03	134
1959	Mar. 28, 1959	2.84	295
1960	Mar. 22, 1960	1.93	136
	May 19, 1960	1.98	145
	July 6, 1960	2.91	424
1961	June 7, 1961	2.20	148
	Aug. 1, 1961	2.35	176
	Aug. 14, 1961	2.31	168
1962	May 16, 1962	2.90	284
	May 28, 1962	2.16	142
	June 6, 1962	2.98	303
	June 7, 1962	3.83	542
	June 7, 1962	3.40	412
	June 13, 1962	3.30	384
	June 25, 1962	2.41	202
	July 1, 1962	4.00	598
	July 4, 1962	2.34	171
	July 29, 1962	2.46	193
	July 31, 1962	5.43	1,230

a Daily discharge.

8235. Buffalo Creek near Haigler, Nebr.

Location.--Lat 40°02'45", long 101°52'15", in NW¼NW¼ sec.20, T.1 N., R.40 W., on right bank 90 ft downstream from highway bridge, three-quarters of a mile upstream from mouth, and 4 miles northeast of Haigler.

Drainage area.--180 sq mi, approximately, of which about 21 sq mi contributes directly to surface runoff.

Gage.--Recording and concrete control. Datum of gage is 3,204.57 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 30 cfs and extended above by logarithmic plotting.

Historical data.--Flood stage is about 6.2 ft and according to local residents in 1942 there had been no flood damage in 25 years.

Remarks.--Peak discharges not appreciably affected by irrigation development above station. Base for partial-duration series, 20 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	May 26, 1941	2.50	26	1951	Feb. 6, 1951	a2.98	-
	July 11, 1941	2.79	31		Apr. 5, 1951	2.12	26
					May 15, 1951	2.35	30
1942	Apr. 19, 1942	3.10	29		May 20, 1951	2.27	28
	Sept. 2, 1942	4.53	92		July 5, 1951	2.12	28
	Sept.14, 1942	2.85	21		Aug. 3, 1951	2.03	22
					Aug. 10, 1951	2.47	51
1943	Oct. 15, 1942	3.32	50		Sept. 3, 1951	2.92	80
	Apr. 12, 1943	2.85	23		Sept. 7, 1951	2.49	39
	June 11, 1943	2.82	27				
				1952	Jan. 6, 1952	a3.61	-
1944	Jan. 15, 1944	a3.83	-		Mar. 28, 1952	2.47	25
	Mar. 22, 1944	2.90	32		May 16, 1952	2.55	22
	Apr. 12, 1944	2.89	23				
	Apr. 23, 1944	3.45	61	1953	Jan. 12, 1953	2.65	18
	Apr. 29, 1944	3.35	60		Feb. 21, 1953	a4.50	-
	July 13, 1944	2.75	24				
	July 16, 1944	2.90	30	1954	Jan. 28, 1954	a4.04	-
	July 24, 1944	3.18	47		May 26, 1954	3.54	21
1945	Sept.27, 1945	3.89	63	1955	Feb. 4, 1955	a4.76	-
					June 27, 1955	3.57	16
1946	Dec. 15, 1945	a4.56	-				
	Dec. 20, 1945	4.05	25	1956	Dec. 4, 1955	a4.90	-
	Dec. 28, 1945	4.15	32		Aug. 11, 1956	4.14	24
	Mar. 16, 1946	3.55	35		Aug. 16, 1956	4.04	21
	June 18, 1946	3.30	26				
	July 19, 1946	3.40	32	1957	Mar. 25, 1957	a5.35	-
					Mar. 26, 1957	5.35	33
1947	Oct. 4, 1946	3.30	25		May 16, 1957	4.28	27
	Dec. 30, 1946	a4.62	-		May 31, 1957	4.45	32
	Dec. 30, 1946	4.55	25		June 27, 1957	4.52	35
	Feb. 11, 1947	3.80	24				
	Apr. 28, 1947	2.88	34	1958	Jan. 5, 1958	a4.52	-
	May 16, 1947	2.60	23		Apr. 5, 1958	4.03	21
	June 5, 1947	2.57	28		June 19, 1958	4.30	28
	June 12, 1947	2.45	27		June 24, 1958	4.15	23
					July 18, 1958	4.02	21
1948	June 27, 1948	4.37	-				
	July 15, 1948	1.55	25	1959	Mar. 27, 1959	a4.78	34
1949	Jan. 6, 1949	a4.12	-	1960	Mar. 7, 1960	a5.78	-
	Mar. 21, 1949	1.43	24		Mar. 9, 1960	-	25
	Mar. 26, 1949	1.60	33				
	May 8, 1949	1.32	27	1961	Apr. 8, 1961	a4.92	-
	June 18, 1949	1.30	20		June 6, 1961	-	24
	Aug. 17, 1949	1.68	36				
				1962	Jan. 10, 1962	a5.30	-
1950	May 8, 1950	2.51	58		June 7, 1962	-	43
	Aug. 11, 1950	4.62	-				
	Sept.15, 1950	2.30	37				

a Backwater from ice.

8240. Rock Creek at Parks, Nebr.

Location.--Lat 40°02'30", long 101°43'40", in SW¼NE¼ sec.21, T.1 N., R.39 W., on right bank at west edge of Parks, 100 ft downstream from highway bridge and half a mile upstream from mouth.

Drainage area.--180 sq mi, approximately, of which about 14 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 3,093.35 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 40 cfs.

Bankfull stage.--Overflow occurs over the first bank at 3½ ft. A stage of over 7 ft is required to flood secondary banks.

Historical data.--A stage as high as 7 ft has not occurred in the past 32 years according to local residents.

Remarks.--A series of small dams and one lake at the State Fish Hatchery upstream may affect flood peaks. 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)
1941	Apr. 30, 1941	2.50	84	1951	Apr. 26, 1951	1.87	27
	June 8, 1941	3.63	90		May 20, 1951	2.26	36
					Aug. 3, 1951	2.15	32
1942	Jan. 14, 1942	-	a27		Aug. 10, 1951	2.01	29
					Sept. 3, 1951	3.80	95
1943	Nov. 8, 1942	2.18	35				
	Dec. 3, 1942	2.55	44	1952	Mar. 25, 1952	-	-
					May 20, 1952	1.81	29
1944	Jan. 28, 1944	2.88	88				
	Apr. 23, 1944	2.16	26	1953	Feb. 27, 1953	-	a19
	July 13, 1944	3.68	73				
	July 24, 1944	2.38	27	1954	Dec. 14, 1953	-	21
1945	July 7, 1945	2.55	27	1955	Aug. 11, 1955	2.74	25
	Sept.27, 1945	3.14	53				
				1956	Aug. 11, 1956	2.48	33
1946	May 23, 1946	3.27	67		Aug. 17, 1956	2.29	31
	May 24, 1946	3.47	77				
				1957	Mar. 25, 1957	-	-
1947	July 22, 1947	1.46	24		May 16, 1957	2.53	32
					May 28, 1957	2.64	38
1948	May 23, 1948	2.84	54		May 31, 1957	3.01	51
	June 15, 1948	2.04	35		Sept. 5, 1957	2.59	40
	June 20, 1948	1.75	29				
	June 27, 1948	2.30	42	1958	June 19, 1958	2.50	37
	July 7, 1948	2.14	40		Aug. 22, 1958	1.79	25
	July 14, 1948	1.97	37				
	Aug. 3, 1948	1.95	36	1959	Mar. 27, 1959	2.24	27
	Aug. 9, 1948	-	-		July 29, 1959	2.36	37
					Aug. 29, 1959	2.32	35
1949	Feb. 1, 1949	3.90	39				
	May 8, 1949	1.72	26	1960	Oct. 26, 1959	2.12	28
	June 8, 1949	2.36	41		Mar. 18, 1960	2.06	30
1950	Oct. 9, 1949	1.70	34	1961	Apr. 11, 1961	2.52	25
	May 5, 1950	2.35	42				
	June 21, 1950	1.90	31	1962	Nov. 16, 1961	2.39	27
	June 28, 1950	2.49	42		June 8, 1962	2.76	28
	July 8, 1950	2.13	34		July 1, 1962	4.57	110
	July 29, 1950	3.04	56		July 29, 1962	2.76	28
	Aug. 8, 1950	2.37	43		July 30, 1962	2.98	32

a Daily discharge.

8245. Republican River at Benkelman, Nebr.

Location.--Lat 40°01'55", long 101°32'30", in SE¼SW¼ sec.19, T.1 N., R.37 W., on downstream side of bridge on U.S. Highway 34, 0.6 mile south of Chicago, Burlington & Quincy Railroad track, 1 mile southwest of Benkelman, 2 miles upstream from South Fork Republican River, and 11 miles downstream from Rock Creek.

Drainage area.--4,770 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording at several sites within 1½ miles of present site at various datums prior to Dec. 17, 1946; recording thereafter. Datum of gage is 2,975.34 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum stage known, 13.1 ft May 31, 1935, from elevations furnished by State Highway Department.

Remarks.--Floodflow not significantly affected by irrigation developments above station. 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)
1947	Apr. 28, 1947	6.80	4,620	1955	May 18, 1955	5.76	3,500
					June 15, 1955	6.30	5,250
1948	May 23, 1948	-	3,250		June 19, 1955	5.83	3,720
	June 15, 1948	7.44	5,500				
	June 28, 1948	-	2,730	1956	Aug. 11, 1956	5.84	2,420
					Aug. 17, 1956	6.21	3,970
1949	Feb. 23, 1949	a5.72	-				
	May 21, 1949	4.73	1,190	1957	May 16, 1957	5.60	3,200
					May 31, 1957	5.71	3,340
1950	Aug. 9, 1950	7.80	3,900				
	Aug. 26, 1950	5.87	3,560	1958	Aug. 16, 1958	6.15	4,190
					Sept.12, 1958	5.30	2,200
1951	May 15, 1951	5.27	2,130				
	June 11, 1951	5.23	2,120	1959	Feb. 14, 1959	a4.66	-
	June 22, 1951	5.16	2,030		Mar. 26, 1959	4.10	520
	Aug. 10, 1951	-	-				
	Sept. 4, 1951	7.30	5,510	1960	Mar. 24, 1960	5.94	4,910
	Sept. 7, 1951	7.58	6,040				
				1961	Aug. 13, 1961	4.82	1,440
1952	Mar. 24, 1952	5.25	924				
				1962	June 6, 1962	5.26	2,790
1953	Jan. 21, 1953	a5.05	340		June 7, 1962	5.29	2,840
					June 8, 1962	5.22	2,720
1954	Feb. 2, 1954	a5.32	-		June 30, 1962	4.99	2,300
	Aug. 18, 1954	4.34	373		July 1, 1962	6.18	4,580
					July 18, 1962	5.67	3,550
1955	May 17, 1955	5.80	3,560		July 31, 1962	6.61	5,570

a Backwater from ice.

8250. South Fork Republican River near Idalia, Colo.

Location.--Lat 39°37'00", long 102°14'30", in SE¼SW¼ sec.13, T.5 S., R.44 W., on left bank 0.7 mile east of State Highway 51, 1½ miles upstream from Landsman Creek, 4 miles upstream from Bonny Dam, and 6½ miles southeast of Idalia.

Drainage area.--1,300 sq mi, approximately.

Gage.--Recording. At site 4 miles upstream at different datum prior to Aug. 10, 1951. At site 2½ miles upstream at different datum Aug. 10, 1951, to Sept. 30, 1955.

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

Bankfull stage.--7 ft.

Remarks.--Diversions above station for irrigation do not substantially affect peak flows. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges of South Fork Republican River near Idalia, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 31, 1935	-	a103,000	1956	July 12, 1956	5.23	1,490
1951	June 10, 1951	5.26	3,190	1957	May 12, 1957	5.16	1,020
	June 22, 1951	3.56	1,140		May 15, 1957	5.90	2,150
	July 7, 1951	3.41	1,090		May 16, 1957	9.64	14,300
	July 12, 1951	7.24	6,660		May 31, 1957	9.15	12,400
	July 21, 1951	5.11	3,690		June 7, 1957	6.48	3,200
	July 22, 1951	6.41	5,860		July 24, 1957	9.22	12,600
1952	Aug. 20, 1952	3.17	184		July 26, 1957	7.06	5,230
					Aug. 27, 1957	8.11	6,980
1953	Aug. 19, 1953	7.53	6,920	1958	July 21, 1958	6.83	3,070
					Aug. 16, 1958	6.18	1,190
1954	July 26, 1954	6.25	4,290				
	Aug. 13, 1954	3.53	1,000	1959	July 2, 1959	8.67	9,880
1955	May 16, 1955	4.56	1,360	1960	Mar. 21, 1960	6.72	1,520
	June 12, 1955	3.75	1,100				
	June 15, 1955	6.56	4,850	1961	May 13, 1961	8.40	2,960
1956	Oct. 4, 1955	6.56	3,730	1962	June 7, 1962	7.74	1,820
	May 22, 1956	5.07	1,330		June 25, 1962	10.21	9,610

a Annual peak only.

8255. Landsman Creek near Hale, Colo.

Location.--Lat 39°34'40", long 102°14'50", in SW¼ sec.36, T.5 S., R.44 W., on right bank 300 ft downstream from bridge on State Highway 51, 3 miles upstream from mouth, 5 miles southwest of Bonny Dam, and 7 miles southwest of Hale.

Drainage area.--268 sq mi.

Gage.--Recording and Parshall flume. At datum 0.68 ft lower prior to Aug. 10, 1951. Altitude of gage is 3,720 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 940 cfs and by slope-area measurements at 2,590 and 3,110 cfs.

Remarks.--Small diversions above station for irrigation do not substantially affect peak flows. Base for partial-duration series, 350 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 31, 1935	10	-	1957	June 30, 1957	7.2	2,600
					July 24, 1957	8.84	4,570
1951	June 6, 1951	6.33	1,530		July 29, 1957	6.29	1,680
	June 10, 1951	7.67	2,540		Aug. 3, 1957	4.57	534
	June 22, 1951	6.30	1,510		Aug. 27, 1957	5.50	1,040
	July 7, 1951	6.46	1,620				
	July 12, 1951	8.37	3,110	1958	Oct. 14, 1957	6.05	1,480
	July 16, 1951	5.99	1,290		May 2, 1958	6.37	1,750
	July 21, 1951	8.08	2,860		May 23, 1958	5.90	1,360
					June 17, 1958	4.96	684
1952	Aug. 20, 1952	6.63	2,180		June 18, 1958	4.90	660
					July 21, 1958	5.31	888
1953	Aug. 19, 1953	8.79	4,510		Aug. 4, 1958	4.44	489
	Aug. 23, 1953	4.26	627		Aug. 16, 1958	5.67	1,180
1954	June 14, 1954	3.50	345	1959	July 2, 1959	7.90	3,380
1955	May 26, 1955	4.05	540	1960	Apr. 13, 1960	4.86	612
	June 15, 1955	3.93	548				
				1961	May 13, 1961	4.69	576
1956	Oct. 4, 1955	3.63	398				
	Mar. 3, 1956	4.08	552	1962	June 7, 1962	4.38	364
	May 23, 1956	5.40	1,240		June 24, 1962	8.01	2,590
	July 4, 1956	6.34	1,800		June 25, 1962	5.01	574
	July 18, 1956	4.94	1,010		July 13, 1962	4.97	560
					July 28, 1962	6.83	1,580
1957	Apr. 8, 1957	4.62	486		July 31, 1962	7.79	2,370
	May 14, 1957	4.89	656		Aug. 24, 1962	7.33	1,960
	May 16, 1957	5.78	1,260		Sept.16, 1962	5.53	795
	June 7, 1957	5.68	1,180				

8275. South Fork Republican River near Benkelman, Nebr.
(Published as "at Benkelman" prior to 1906, as "Republican River at Benkelman," 1931-32)

Location.--Lat 40°00'25", long 101°32'30", in NE¼SW¼ sec.31, T.1 N., R.37 W., on downstream end of second pier from left end of bridge on State Highway 61, 1 mile downstream from Kansas-Nebraska State line, 2½ miles southwest of Benkelman, and 4 miles upstream from mouth.

Drainage area.--2,580 sq mi, approximately, of which about 2,550 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 10, 1947; recording thereafter. At several sites within 3½ miles of present site at various datums prior to Aug. 27, 1937. At site a quarter of a mile downstream at present datum Aug. 27, 1937, to Mar. 4, 1940. Datum of gage is 2,992.91 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum stage known since at least 1923, 10.1 ft May 31, 1935, from floodmarks at site a quarter of a mile downstream, present datum (discharge, 150,000 cfs, by slope-area measurement).

Remarks.--Natural flow affected by irrigation development above station, and since July 6, 1950, by storage in Bonny Reservoir. 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)
1903	Aug. 2, 1903	1.30	79	1946	July 19, 1946	6.8	8,900
1904	June 19, 1904	2.30	397	1947	July 22, 1947	5.4	4,630
1905	Apr. 25, 1905	2.25	300	1948	June 14, 1948	7.0	-
				1949	Aug. 31, 1949	5.32	3,430
1906	Apr. 27, 1906	2.3	317	1950	Aug. 2, 1950	6.25	3,880
1931	June 5, 1931	2.57	667	1951	Aug. 10, 1951	6.45	7,190
1932	May 26, 1932	3.50	750	1952	May 8, 1952	4.54	1,760
				1953	Aug. 20, 1953	2.54	184
1935	May 31, 1935	a10.1	150,000	1954	June 13, 1954	5.34	6,640
				1955	May 25, 1955	5.59	7,170
1938	Sept. 1, 1938	3.75	2,690				
1939	June 24, 1939	3.30	2,360	1956	Aug. 11, 1956	5.25	6,310
1940	Sept. 4, 1940	5.80	3,610	1957	July 21, 1957	4.93	6,110
				1958	Aug. 16, 1958	8.70	19,600
1941	July 12, 1941	8.60	13,100	1959	June 25, 1959	1.57	324
1942	Aug. 3, 1942	6.70	7,920	1960	Mar. 19, 1960	3.34	2,020
1943	Jan. 23, 1943	3.65	279				
1944	July 12, 1944	6.75	9,590	1961	July 9, 1961	3.95	3,470
1945	June 24, 1945	8.8	14,000	1962	July 31, 1962	5.01	4,930

a At site a quarter of a mile downstream.

8280. Republican River at Max, Nebr.

Location.--Lat 40°06'10", long 101°23'50", in NE¼ sec.32, T.2 N., R.36 W., at county highway bridge three-quarters of a mile south of Max.

Drainage area.--7,580 sq mi, approximately, of which about 4,450 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 21, 1938, July 16 to Aug. 17, 1941, Mar. 15 to Dec. 11, 1942, and June 25, 1945, to Sept. 30, 1946; recording Nov. 21, 1938, to July 12, 1941, Aug. 18, 1941, to Mar. 14, 1942, and Dec. 12, 1942, to June 24, 1945. At datum 2.00 ft higher prior to May 31, 1935. At site 300 ft downstream at datum 1.00 ft lower June 26, 1935, to Mar. 3, 1936. At site 160 ft upstream at present datum Nov. 21, 1938, to July 12, 1941, and Aug. 18, 1941, to Mar. 14, 1942. At site 80 ft downstream at present datum Dec. 12, 1942, to June 24, 1945. Datum of last gage used is 2,877.32 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs and by slope-area measurement at 190,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Republican River at Max, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 7, 1929	4.60	1,160	1939	June 24, 1939	6.00	9,330
1930	June 4, 1930	4.90	1,810	1940	Sept. 4, 1940	-	8,000
1931	June 13, 1931	4.14	803	1941	July 12, 1941	7.00	12,000
1932	Aug. 1, 1932	4.86	1,810	1942	Aug. 4, 1942	5.13	6,810
1933	Aug. 29, 1933	7.20	5,620	1943	Dec. 13, 1942	4.14	1,240
1934	June 15, 1934	6.30	3,970	1944	July 13, 1944	6.14	10,300
1935	May 31, 1935	13.80	190,000	1945	June 24, 1945	7.2	24,500
1937	May 11, 1937	6.10	10,700	1946	July 19, 1946	6.10	8,600
1938	May 31, 1938	5.20	4,200				

8285. Republican River at Stratton, Nebr.

Location.--Lat 40°08'40", long 101°13'30", in NW¼ sec.13, T.2 N., R.35 W., on left bank half a mile south of Stratton, half a mile downstream from Muddy Creek, 10 miles upstream from Trenton Dam, and 19 miles downstream from South Fork Republican River.

Drainage area.--7,940 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Recording. Datum of gage is 2,775.49 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum flood known since about 1826 occurred May 31, 1935, (discharge, about 200,000 cfs), based on slope-area measurement at Max.

Remarks.--Natural flow affected by irrigation development above station and by storage in Bonny Reservoir. 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)
1951	Sept. 4, 1951	6.50	18,900	1957	July 7, 1957	5.56	7,970
1952	May 8, 1952	4.27	3,050	1958	Aug. 16, 1958	7.03	13,900
1953	Mar. 3, 1953	2.68	356	1959	May 20, 1959	3.61	894
1954	Feb. 1, 1954	a3.53	-	1960	Mar. 19, 1960	a5.34	-
	June 13, 1954	-	1,000		Mar. 24, 1960	-	4,320
1955	May 26, 1955	4.68	-				
	June 19, 1955	-	5,680	1961	Aug. 13, 1961	4.34	1,820
				1962	July 31, 1962	9.34	26,800
1956	Aug. 17, 1956	4.56	5,060				

a Backwater from ice.

8295. Republican River at Trenton, Nebr.

Location.--Lat 40°10'00", long 101°02'40", in SE¼ sec.4, T.2 N., R.33 W., on left bank 300 ft upstream from Elm Creek, 0.9 mile downstream from centerline of spillway at Trenton Dam, and 1½ miles southwest of Trenton.

Drainage area.--8,100 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording prior to Sept. 13, 1948; recording thereafter. At site 2 miles downstream at datum 8.19 ft lower prior to Nov. 11, 1954. At present site at datum 5.00 ft higher Nov. 12, 1954, to Sept. 30, 1959. Datum of gage is 2,671.06 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum flood known since about 1826 occurred May 31, 1935 (discharge, about 200,000 cfs). Discharge of 21,100 cfs was measured June 3, 1946 (gage height, 6.0 ft), former site and datum.

Remarks.--Natural flow affected by irrigation development above station, by storage in Bonny Reservoir since July 6, 1950, and since 1953, by storage in Swanson Lake. Only annual peaks are shown.

Peak stages and discharges of Republican River at Trenton, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 6, 1947	5.00	10,200	1955	Aug. 9, 1955	-	493
1948	June 16, 1948	5.64	16,800				
1949	Feb. 22, 1949	a4.58	-	1956	June 7, 1956	5.67	360
	Aug. 31, 1949	-	5,960	1957	May 23, 1957	8.92	-
1950	Aug. 3, 1950	4.95	11,600		May 24, 1957	-	4,000
				1958	Apr. 16, 1958	3.57	-
1951	Sept. 4, 1951	5.90	15,200		June 10, 1958	-	457
1952	May 8, 1952	3.07	1,800	1959	Apr. 5, 1959	2.70	468
1953	Jan. 9, 1953	a2.45	-	1960	May 5, 1960	b9.25	1,130
	Mar. 4, 1953	-	430				
1954	Dec. 22, 1953	a3.18	700	1961	May 23, 1961	8.20	715
1955	July 12, 1955	6.59	-	1962	June 14, 1962	9.82	2,120

a Backwater from ice.
b Backwater from Elm Creek.

8300. Republican River at Culbertson, Nebr.

Location.--Lat 40°13'15", long 100°50'15", in SE¼SE¼ sec.17, T.3 N., R.31 W., on the downstream side of bridge on State Highway 17, three-quarters of a mile south of Culbertson, and 1.1 miles upstream from Frenchman Creek.

Drainage area.--8,200 sq mi, approximately, of which about 5,000 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. At different datums prior to May 30, 1935.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and at 200,000 cfs by slope-area measurements at stations at Max and near Bloomington.

Remarks.--Natural flow of stream affected by irrigation developments above station and since July 6, 1950, by storage in Bonny Reservoir. 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)
1913	Nov. 19, 1913	2.0	-	1940	Sept. 4, 1940	4.60	4,930
1915	June 17, 1915	3.6	5,500	1941	July 13, 1941	7.5	19,400
				1942	Aug. 4, 1942	5.15	-
1931	Apr. 2, 1931	2.6	490		Sept. 3, 1942	-	8,060
1932	June 19, 1932	5.40	11,400	1943	June 10, 1943	4.20	3,010
1933	Aug. 28, 1933	8.00	34,600	1944	July 13, 1944	6.18	14,400
1934	June 15, 1934	3.04	2,030	1945	June 24, 1945	5.04	8,780
1935	May 31, 1935	11.4	200,000				
				1946	July 3, 1946	6.98	29,400
1936	May 30, 1936	9.4	80,000	1947	June 6, 1947	5.46	13,000
1937	June 1, 1937	7.07	25,600	1948	June 16, 1948	5.72	16,700
1938	May 31, 1938	-	10,700	1949	Aug. 18, 1949	5.05	8,530
	Aug. 15, 1938	6.00	-	1950	Aug. 9, 1950	5.46	12,000
1939	June 20, 1939	7.90	33,400				

8310. Frenchman Creek below Champion, Nebr.

Location.--Lat 40°28'00", long 101°43'10", in SW¼ sec.22, T.6 N., R.39 W., on left bank 0.4 mile downstream from bridge on State Highway 48 at Champion and three-quarters of a mile upstream from Sand Creek.

Drainage area.--519 sq mi, approximately, of which about 421 sq mi contributes directly to surface runoff.

Gage.--Recording. Altitude of gage is 3,240 ft (from topographic map for Harvey Reservoir in Report on Survey for Flood Control Republican River by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 1,100 cfs and extended above on basis of channel conveyance-slope studies.

Remarks.--Diversions for irrigation and regulation at a powerplant a short distance above station do not affect peak flows. Base for partial-duration series, 300 cfs.

Peak stages and discharges of Frenchman Creek below Champion, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 28, 1935	6.67	888	1948	Mar. 17, 1948	2.08	99
1936	Apr. 19, 1936	3.46	273	1949	Dec. 1, 1948	-	159
1937	May 10, 1937	5.10	504		Jan. 5, 1949	a3.52	-
1938	May 30, 1938	7.23	1,060	1950	Dec. 9, 1949	2.29	122
	July 20, 1938	7.13	1,030	1951	May 15, 1951	3.88	360
1939	June 24, 1939	5.16	520		May 20, 1951	8.51	1,370
1940	June 7, 1940	13.70	2,850		May 31, 1951	4.24	425
1941	June 5, 1941	2.50	141		June 23, 1951	4.60	493
1942	Sept. 1, 1942	3.12	258	1952	Mar. 25, 1952	2.10	116
1943	June 9, 1943	4.18	409		July 17, 1952	2.14	-
	June 14, 1943	8.40	1,340	1953	Feb. 20, 1953	a3.75	-
1944	Jan. 26, 1944	3.55	308		Feb. 23, 1953	-	127
1945	Sept.28, 1945	5.77	769	1954	May 16, 1954	2.88	199
1946	Sept.11, 1946	5.22	653	1955	June 20, 1955	3.83	351
1947	June 24, 1947	5.24	651		June 29, 1955	5.46	666
				1956	July 6, 1956	3.87	368

a Backwater from ice.

8315. Frenchman Creek near Imperial, Nebr.

Location.--Lat 40°25'45", long 101°37'25", in SW¼NW¼ sec.3, T.5 N., R.38 W., on right bank 0.2 mile downstream from bridge on county highway, 5.8 miles upstream from Enders Dam, and 6.1 miles south of Imperial.

Drainage area.--1,220 sq mi, approximately, of which about 760 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at bridge 0.2 mile upstream at different datum prior to Mar. 7, 1941; recording thereafter. At site a quarter of a mile downstream at datum 5.35 ft lower Mar. 7 to Sept. 30, 1941, and at datum 4.35 ft lower Oct. 1, 1941, to Sept. 30, 1958.

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

Remarks.--Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 7, 1940	12.4	-	1949	May 20, 1949	2.22	230
1941	Jan. 30, 1941	2.86	146		June 6, 1949	1.81	158
1942	Mar. 14, 1942	2.98	154	1950	May 12, 1950	1.66	146
	Sept. 2, 1942	4.17	460	1951	May 14, 1951	3.52	532
1943	June 9, 1943	3.55	313		May 21, 1951	6.69	1,860
	June 10, 1943	3.38	276		June 4, 1951	2.10	173
	June 12, 1943	3.65	336		June 24, 1951	2.72	326
	June 14, 1943	7.00	1,860	1952	Aug. 28, 1952	1.70	167
	July 18, 1943	2.55	191	1953	Aug. 17, 1953	1.58	150
	Aug. 2, 1943	2.42	169	1954	Apr. 3, 1954	1.57	154
1944	Aug. 5, 1944	2.65	272		May 17, 1954	2.05	231
1945	June 5, 1945	2.80	261		June 14, 1954	1.61	166
	Sept.29, 1945	3.03	328		Aug. 16, 1954	1.82	202
1946	Sept.11, 1946	2.76	284		Sept.16, 1954	2.14	266
1947	June 24, 1947	2.31	208	1955	Jan. 1, 1955	1.55	159
1948	June 27, 1948	2.09	200		Jan. 2, 1955	1.52	154
					June 21, 1955	2.54	309
					June 30, 1955	2.50	330

Peak stages and discharges of Frenchman Creek near Imperial, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 26, 1956	2.03	249	1959	May 18, 1959	2.49	170
	June 16, 1956	4.02	802				
	June 18, 1956	4.11	824	1960	Mar. 12, 1960	4.24	643
	June 25, 1956	1.58	159		Mar. 22, 1960	8.43	2,340
	July 7, 1956	2.41	298				
	July 30, 1956	1.99	220	1961	July 16, 1961	3.31	400
1957	May 16, 1957	1.62	177	1962	May 27, 1962	3.07	328
	June 26, 1957	2.65	383		June 6, 1962	2.65	258
	July 20, 1957	1.73	201		June 8, 1962	2.79	286
	July 24, 1957	1.52	170		July 2, 1962	2.46	221
	July 29, 1957	1.67	186		July 13, 1962	3.27	391
					July 16, 1962	3.31	400
1958	May 15, 1958	2.25	292		July 30, 1962	2.23	178
	July 18, 1958	5.01	1,070				
	July 23, 1958	2.70	380				

8335. Frenchman Creek near Hamlet, Nebr.

Location.--Lat 40°22'30", long 101°12'50", in NW¼ sec.29, T.5 N., R.34 W., on right bank 120 ft downstream from county highway bridge, a quarter of a mile downstream from Chicago, Burlington & Quincy Railroad bridge, and 1½ miles east of Hamlet.

Drainage area.--1,480 sq mi, approximately, of which about 960 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 20, 1932; recording thereafter. At bridge on U.S. Highway 6 a quarter of a mile upstream at datum 1.66 ft higher prior to June 15, 1940. Datum of gage is 2,797.61 ft above mean sea level, datum of 1929.

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

Remarks.--Natural flow affected by irrigation development above station and by storage in Enders Reservoir since Oct. 23, 1950. 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)
1928	Aug. 3, 1928	11.0	-	1943	June 16, 1943	6.10	702
1929	June 6, 1929	6.0	717	1944	June 13, 1944	4.38	418
1930	Aug. 29, 1930	5.20	520	1945	June 5, 1945	4.71	444
1931	Aug. 9, 1931	10.00	1,970	1946	Sept. 9, 1946	7.45	993
1932	July 31, 1932	5.86	581	1947	Oct. 4, 1946	7.45	1,000
1933	Sept.11, 1933	6.00	584	1948	Feb. 16, 1948	a3.35	-
1934	June 15, 1934	6.98	925		July 14, 1948	-	198
1935	May 27, 1935	10.34	2,200	1949	June 7, 1949	5.94	802
				1950	Feb. 5, 1950	a3.93	-
1936	May 28, 1936	6.00	750		May 7, 1950	-	390
1937	June 15, 1937	9.66	1,980				
1938	June 2, 1938	-	353	1951	Sept. 2, 1951	9.10	1,770
	Aug. 27, 1938	3.72	-	1952	Aug. 28, 1952	3.96	427
1939	June 24, 1939	6.39	922	1953	July 23, 1953	3.85	359
1940	June 17, 1940	10.95	2,420	1954	Aug. 17, 1954	6.82	960
				1955	June 16, 1955	9.18	1,700
1941	July 12, 1941	6.88	884				
1942	Apr. 30, 1942	5.75	639	1956	June 17, 1956	12.20	7,000

a Backwater from ice.

8345. Stinking Water Creek near Wauneta, Nebr.

Location.--Lat 40°29'20", long 101°19'50", in NE¼ sec.18, T.6 N., R.35 W., on left bank half a mile downstream from county highway bridge, 1½ miles downstream from Spring Creek, and 6 miles northeast of Wauneta.

Drainage area.--1,260 sq mi, approximately, of which about 340 sq mi contributes directly to surface runoff.

Gage.--Recording. At site half a mile upstream at different datum prior to May 18, 1943. Altitude of gage is 2,930 ft (from topographic map in Report on Survey for Flood Control Republican River by Corps of Engineers).

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

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 23, 1941	5.39	100	1947	Oct. 10, 1946	3.88	160
					June 5, 1947	4.27	161
1942	Oct. 4, 1941	7.61	424		June 21, 1947	6.00	408
	Apr. 30, 1942	5.62	224		June 22, 1947	5.40	267
	June 1, 1942	4.55	177		June 23, 1947	4.98	218
	Sept. 3, 1942	5.14	218	1948	July 14, 1948	3.81	168
1943	June 13, 1943	6.11	447	1949	Feb. 24, 1949	4.15	173
1944	Apr. 24, 1944	3.82	112		Apr. 6, 1949	3.07	119
					May 15, 1949	4.89	223
1945	June 5, 1945	6.33	531		June 6, 1949	6.59	626
					June 13, 1949	3.07	119
1946	Sept. 9, 1946	6.12	450	1950	Apr. 4, 1950	2.18	-
1947	Oct. 4, 1946	5.23	245		July 27, 1950	2.14	74

8350. Stinking Water Creek near Palisade, Nebr.

Location.--Lat 40°22'10", long 101°06'50", at southwest corner of NW¼ sec.30, T.5 N., R.33 W., on right bank 25 ft downstream from county bridge, 1¼ miles upstream from mouth, and 1¾ miles northwest of Palisade.

Drainage area.--1,390 sq mi, approximately, of which about 430 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,740.99 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs and by slope-area measurement at 3,030 cfs.

Remarks.--Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 25, 1950	8.02	442	1955	June 17, 1955	10.11	1,250
					Aug. 9, 1955	7.04	361
1951	May 15, 1951	9.46	846		Sept.19, 1955	6.47	336
	May 23, 1951	6.94	372				
	June 8, 1951	6.87	365	1956	June 9, 1956	8.63	591
	June 18, 1951	7.69	447		June 17, 1956	11.30	3,030
	June 23, 1951	4.65	160		June 26, 1956	6.82	351
	June 27, 1951	4.81	173		Aug. 1, 1956	6.17	299
	July 22, 1951	9.12	718		Aug. 17, 1956	5.20	216
	Sept. 2, 1951	4.85	176				
	Sept. 8, 1951	6.91	369	1957	May 17, 1957	5.44	239
					June 17, 1957	4.82	190
1952	Aug. 28, 1952	9.81	1,030		June 27, 1957	5.27	226
					July 7, 1957	5.04	186
1953	Mar. 1, 1953	a3.53	-		July 20, 1957	4.79	169
	Aug. 20, 1953	-	106				
				1958	May 13, 1958	8.82	634
1954	May 18, 1954	4.49	156		June 16, 1958	5.14	207
	June 15, 1954	4.62	166		July 19, 1958	10.36	1,270
	Aug. 17, 1954	4.96	193				

a Backwater from ice.

Peak stages and discharges of Stinking Water Creek near Palisade, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 19, 1959	6.11	338	1962	May 19, 1962	4.78	192
	July 14, 1959	5.63	285		June 7, 1962	6.22	334
	July 21, 1959	4.70	194		June 21, 1962	5.18	239
					June 30, 1962	5.47	268
1960	Mar. 22, 1960	10.80	1,780		July 15, 1962	4.19	152
	May 18, 1960	6.37	367		July 17, 1962	5.56	278
	June 21, 1960	5.45	266		July 18, 1962	4.92	214
					Aug. 2, 1962	7.55	514
1961	Aug. 27, 1961	4.40	145				

8355. Frenchman Creek at Culbertson, Nebr.

Location.--Lat 40°14'05", long 100°52'40", in SW¼SE¼ sec.12, T.3 N., R.32 W., on right bank 19 ft upstream from bridge on U.S. Highways 6 and 34, 2 miles west of Culbertson, and 4.5 miles upstream from mouth.

Drainage area.--3,080 sq mi, approximately, of which about 1,560 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at bridge 3.3 miles downstream prior to Nov. 2, 1950; recording thereafter. At different datum June 12, 1913, to Sept. 30, 1915; at datum 20.51 ft lower Mar. 11, 1931, to May 31, 1935; and at datum 21.51 ft lower June 1, 1935, to Nov. 1, 1950. Datum of gage is 2,583.44 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs.

Remarks.--Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir. 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)
1914	June 13, 1914	6.0	1,770	1948	May 30, 1948	4.43	744
				1949	June 7, 1949	5.80	1,440
1931	Aug. 10, 1931	3.9	716	1950	July 24, 1950	5.64	1,300
1932	July 31, 1932	3.0	483				
1933	Aug. 28, 1933	7.0	4,450	1951	June 17, 1951	10.43	5,400
1934	June 15, 1934	5.3	1,370	1952	Aug. 29, 1952	5.54	797
1935	May 31, 1935	14.8	15,000	1953	Dec. 26, 1952	a5.97	-
					Jan. 8, 1953	-	230
1936	May 29, 1936	3.60	527	1954	Jan. 16, 1954	a5.45	-
1937	June 1, 1937	7.3	3,220		Aug. 18, 1954	-	616
1938	July 2, 1938	5.0	1,150	1955	June 17, 1955	8.08	1,750
1939	June 20, 1939	6.2	1,820				
1940	June 9, 1940	8.14	4,250	1956	June 18, 1956	9.36	3,350
				1957	July 8, 1957	8.79	2,450
1941	June 2, 1941	4.92	1,030	1958	July 20, 1958	7.63	1,390
1942	June 24, 1942	5.18	1,160	1959	July 13, 1959	8.82	2,480
1943	June 17, 1943	3.96	604	1960	Mar. 23, 1960	8.61	2,390
1944	June 12, 1944	5.30	1,120				
1945	Sept.27, 1945	5.78	1,340	1961	Jan. 4, 1961	a5.22	-
					July 21, 1961	-	373
1946	Sept.10, 1946	4.66	836	1962	July 31, 1962	8.95	2,420
1947	Oct. 6, 1946	5.52	1,230				

a Backwater from ice.

8360. Blackwood Creek near Culbertson, Nebr.

Location.--Lat 40°14'05", long 100°48'25", in SE¼SW¼ sec.10, T.3 N., R.31 W., on left bank 60 ft upstream from bridge on U.S. Highway 6 and 34, a quarter of a mile north of Chicago, Burlington & Quincy Railroad bridge, 1¼ miles east of Culbertson, and 2 miles upstream from mouth.

Drainage area.--290 sq mi, approximately.

Gage.--Recording and concrete control. Datum of gage is 2,555.25 ft above mean sea level, datum of 1929.

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

Historical data.--Debris on bridge stringers indicate that a stage of about 19 ft has occurred. Weather records at Hayes Center indicate that the time of occurrence may have been in May 1935 when 7.33 inches rainfall was recorded during May 27-31.

Remarks.--Peak discharges not appreciably affected by irrigation development above station. Base for partial-duration series, 350 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 18, 1946	7.17	394	1955	June 17, 1955	14.64	1,650
1947	Oct. 7, 1946	8.90	541	1956	June 17, 1956	14.08	1,560
	June 22, 1947	13.68	1,600				
	July 10, 1947	12.88	1,410	1957	July 8, 1957	6.73	406
1948	June 28, 1948	8.32	595	1958	May 15, 1958	5.81	383
1949	June 7, 1949	5.80	238	1959	May 21, 1959	6.12	421
					July 14, 1959	8.26	664
1950	July 25, 1950	8.80	643				
				1960	Mar. 21, 1960	14.36	1,630
1951	May 16, 1951	10.89	1,190				
	May 21, 1951	9.08	825	1961	July 22, 1961	3.22	79
	June 9, 1951	6.39	373				
	June 18, 1951	10.40	1,090	1962	June 7, 1962	7.14	425
	July 18, 1951	11.74	1,360		June 8, 1962	9.33	704
	Sept. 2, 1951	6.58	425		June 17, 1962	10.04	806
					June 30, 1962	12.89	-
1952	Aug. 29, 1952	3.63	100		July 2, 1962	9.36	708
					Aug. 4, 1962	7.19	431
1953	Aug. 6, 1953	3.80	134				
1954	June 13, 1954	4.77	205				

8365. Driftwood Creek near McCook, Nebr.

Location.--Lat 40°08'50", long 100°39'40", in SE¼SW¼ sec.12, T.2 N., R.30 W., on right bank at downstream side of bridge on county road, half a mile downstream from siphon and wasteway on Meeker Canal, 4 miles southwest of McCook, and 5 miles upstream from mouth.

Drainage area.--360 sq mi, approximately.

Gage.--Recording and concrete control. Datum of gage is 2,493.78 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs.

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)
1946	Sept. 9, 1946	20.57	3,400	1948	May 30, 1948	13.45	1,150
					June 21, 1948	15.77	1,520
1947	Oct. 5, 1946	13.76	1,080				
	Oct. 7, 1946	18.03	1,860	1949	May 21, 1949	9.28	565
	Oct. 10, 1946	18.43	2,040		June 18, 1949	11.40	780
	June 25, 1947	18.85	2,270				
	July 9, 1947	10.55	645	1950	July 11, 1950	10.54	665

Peak stages and discharges of Driftwood Creek near McCook, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 17, 1950	10.62	654	1956	Aug. 11, 1956	11.68	702
	July 25, 1950	16.13	1,630				
	July 27, 1950	9.00	579	1957	Apr. 23, 1957	14.10	847
	Aug. 7, 1950	25.43	4,740		May 17, 1957	14.37	891
					May 25, 1957	12.42	607
1951	May 21, 1951	11.54	776		May 30, 1957	22.16	3,620
	June 18, 1951	11.69	797		June 28, 1957	14.12	842
	Aug. 11, 1951	10.62	654				
	Sept. 5, 1951	21.09	3,010	1958	Oct. 23, 1957	12.04	560
	Sept. 8, 1951	24.76	4,470		July 21, 1958	11.04	553
1952	July 5, 1952	15.11	1,370	1959	July 20, 1959	7.54	220
1953	July 12, 1953	7.11	124	1960	Mar. 21, 1960	21.08	2,830
					June 11, 1960	14.59	1,030
1954	Aug. 18, 1954	10.95	593		July 29, 1960	10.90	524
1955	June 18, 1955	9.23	284	1961	May 21, 1961	6.43	147
1956	June 17, 1956	23.10	3,810	1962	June 9, 1962	13.06	851
	July 2, 1956	12.09	764		June 21, 1962	11.74	647
	July 5, 1956	16.66	1,630		July 1, 1962	11.29	583
	July 6, 1956	17.05	1,710		Aug. 1, 1962	13.43	940
	Aug. 1, 1956	10.95	593		Aug. 4, 1962	10.59	535

8370. Republican River at McCook, Nebr.

Location.--Lat 40°11'15", long 100°37'05", in SW¼NE¼ sec.32, T.3 N., R.29 W., on left bank 25 ft downstream from bridge on U.S. Highway 83 at south edge of McCook, 2½ miles downstream from Driftwood Creek, and 10½ miles upstream from Red Willow Creek.

Drainage area.--12,560 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording prior to Mar. 14, 1959; recording thereafter. At former highway bridge 325 ft upstream at different datum October 1930 to June 1932. Datum of gage is 2,456.37 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum flood known since about 1826 occurred May 31, 1935, (discharge, about 245,000 cfs).

Remarks.--Natural flow affected by irrigation development above station and by storage in Bonny Reservoir, Enders Reservoir, and Swanson Lake. 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 5, 1931	4.8	800	1959	July 14, 1959	6.59	1,830
				1960	Mar. 21, 1960	9.14	5,890
1955	June 18, 1955	7.00	2,590				
				1961	Jan. 21, 1961	a6.07	-
1956	June 18, 1956	8.04	3,530		June 4, 1961	-	714
1957	May 30, 1957	8.70	5,040	1962	July 1, 1962	8.30	4,230
1958	July 21, 1958	7.10	2,190				

a Backwater from ice.

8375. Red Willow Creek near McCook, Nebr.

Location.--Lat 40°20'50", long 100°38'35", in SW¼NW¼ sec.6, T.4 N., R.29 W., on left bank at downstream side of bridge on U.S. Highway 83, 10 miles north of McCook.

Drainage area.--600 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Recording prior to Oct. 1, 1947, and subsequent to Apr. 5, 1961; nonrecording Nov. 22, 1957, to Apr. 5, 1961. At datum 9.55 ft higher prior to Oct. 1, 1947.

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and by contracted-opening measurement at 30,000 cfs.

Historical data.--Flood of June 1, 1935, reached a stage of 23.9 ft, determined by Corps of Engineers from the slope between two floodmarks.

Remarks.--Flow regulated by Hugh Butler Lake since Sept. 5, 1961. Base for partial-duration series, 124 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	May 20, 1941	11.27	1,060	1944	July 12, 1944	-	-
	June 2, 1941	11.12	995		July 14, 1944	7.20	560
	June 6, 1941	8.02	423		July 18, 1944	8.95	896
	June 10, 1941	12.49	1,320		July 31, 1944	12.58	1,780
	June 22, 1941	10.72	910		Aug. 20, 1944	8.28	683
	June 26, 1941	9.79	720				
	July 13, 1941	-	270	1945	May 5, 1945	14.73	3,120
	Sept. 2, 1941	-	a500		May 31, 1945	12.66	1,970
	Sept.22, 1941	10.15	785		June 9, 1945	7.48	633
	Sept.24, 1941	12.30	1,280		June 24, 1945	12.65	2,020
					Aug. 12, 1945	10.37	1,320
1942	Oct. 5, 1942	7.65	420		Sept.27, 1945	12.15	1,700
	Mar. 6, 1942	7.54	413				
	Apr. 18, 1942	14.35	1,790	1946	May 29, 1946	13.89	2,730
	May 3, 1942	7.23	323		Aug. 26, 1946	4.85	327
	June 12, 1942	8.38	529		Sept. 9, 1946	4.72	382
	June 20, 1942	5.77	218				
	June 24, 1942	12.75	1,390	1947	Oct. 5, 1946	-	723
	June 26, 1942	10.36	828		Oct. 7, 1946	-	1,050
	Sept. 2, 1942	12.60	1,475		Oct. 10, 1946	-	1,360
	Sept. 6, 1942	5.38	210		June 22, 1947	22.4	30,000
1943	June 13, 1943	4.52	152	1958	Sept.14, 1958	16.84	b1,330
	July 3, 1943	6.05	300				
	July 3, 1943	5.50	242	1959	June 19, 1959	12.16	b500
	Aug. 8, 1943	6.02	288				
				1960	Mar. 23, 1960	19.04	b1,760
1944	Apr. 23, 1944	-	a360				
	Apr. 30, 1944	7.40	533	1961	May 19, 1961	10.35	238
	May 31, 1944	6.45	411				
	June 5, 1944	5.52	326	1962	Jan. 15, 1962	10.19	217
	June 25, 1944	9.38	959				

a Daily discharge.
b Annual peak only.

8380. Red Willow Creek near Red Willow, Nebr.

Location.--Lat 40°14'10", long 100°30'00", in NE¼NE¼ sec.17, T.3 N., R.28 W., on left bank at downstream side of bridge on U.S. Highway 6 and 34, three-quarters of a mile north of Red Willow, and 2½ miles upstream from mouth.

Drainage area.--710 sq mi, approximately, of which about 400 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at bridge 1½ miles upstream at datum 11.16 ft higher prior to May 26, 1945; recording thereafter. Datum of gage is 2,398.64 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,800 cfs and by slope-area measurement at 30,000 cfs.

Remarks.--Natural flow affected by irrigation above station and since Sept. 5, 1961, by storage in Hugh Butler Lake. Base for partial-duration series, 750 cfs.

Peak stages and discharges of Red Willow Creek near Red Willow, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 7, 1940	10.83	1,250	1949	June 13, 1949	12.50	1,620
1941	May 20, 1941	11.00	1,083	1950	May 28, 1950	11.12	805
	June 2, 1941	12.40	4,610		July 26, 1950	11.83	1,020
	June 6, 1941	10.81	1,039		July 31, 1950	12.01	1,070
	June 8, 1941	10.68	1,248		Sept.15, 1950	11.46	968
	June 10, 1941	11.91	-				
	July 13, 1941	9.87	867	1951	May 15, 1951	10.84	838
	Sept. 2, 1941	12.20	1,303		May 21, 1951	10.83	846
	Sept.22, 1941	10.80	1,056		June 8, 1951	11.07	854
	Sept.24, 1941	11.90	1,270		July 11, 1951	10.56	773
1942	Apr. 18, 1942	12.20	4,400	1952	May 27, 1952	11.90	1,120
	June 24, 1942	10.87	1,390				
	Sept. 2, 1942	10.28	930	1953	July 11, 1953	12.21	1,160
1943	Aug. 21, 1943	9.90	739	1954	Aug. 17, 1954	12.23	1,140
1944	July 11, 1944	-	a542	1955	June 17, 1955	16.00	5,400
1945	May 31, 1945	15.02	3,500	1956	July 5, 1956	15.57	2,940
	June 5, 1945	14.98	1,950				
	June 24, 1945	12.90	1,440	1957	Apr. 22, 1957	14.00	2,310
	Aug. 5, 1945	12.58	1,370		May 14, 1957	14.97	3,930
	Aug. 13, 1945	13.31	1,550		May 16, 1957	-	2,770
	Sept.27, 1945	13.76	1,670		May 25, 1957	12.38	1,320
					May 31, 1957	-	790
1946	May 30, 1946	13.70	1,370		June 16, 1957	-	790
	July 4, 1946	10.13	754		July 8, 1957	12.52	1,170
					July 14, 1957	-	1,470
1947	Oct. 5, 1946	13.60	1,250				
	Oct. 8, 1946	14.21	1,660	1958	Sept.14, 1958	10.89	858
	Oct. 10, 1946	13.68	1,270				
	June 22, 1947	18.36	30,000	1959	May 20, 1959	8.93	496
1948	June 21, 1948	16.77	14,800	1960	Feb. 4, 1960	14.73	830
	June 26, 1948	9.75	751		Mar. 22, 1960	14.07	2,350
	June 28, 1948	12.10	1,390		June 20, 1960	12.12	1,240
	July 9, 1948	12.72	1,810				
	Aug. 13, 1948	14.20	3,690	1961	May 21, 1961	9.91	709
1949	June 6, 1949	10.15	826	1962	July 18, 1962	13.86	b2,210

a Daily discharge.
b Annual peak only.

8390. Medicine Creek at Maywood, Nebr.

Location.--Lat 40°39'20", long 100°36'40", in NE¼NE¼ sec.21, T.8 N., R.29 W., on right bank 150 ft downstream from bridge on county road, a quarter of a mile east of Maywood, and 5 miles upstream from Brushy Creek.

Drainage area.--207 sq mi, approximately, of which about 82 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 21, 1951; recording thereafter. At site 150 ft upstream at same datum prior to Aug. 21, 1951. Datum of gage is 2,614.44 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 810 cfs.

Remarks.--Natural flow affected by irrigation development above 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)
1951	May 20, 1951	9.90	2,120	1955	June 17, 1955	4.21	185
1952	Aug. 1, 1952	5.78	349				
1953	Jan. 16, 1953	a2.22	-	1956	July 5, 1956	5.73	314
	Mar. 14, 1953	-	53	1957	Apr. 22, 1957	5.12	240
1954	May 15, 1954	-	290	1958	July 20, 1958	4.18	179
	May 17, 1954	5.43	-				

a Backwater from ice.

8392. Elkhorn Canyon near Maywood, Nebr.

Location.--Lat 40°36'10", long 100°42'00", in NE¼SW¼ sec.2, T.7 N., R.30 W., on tree on left bank 10 ft downstream from bridge on county road, 6 miles southwest of Maywood, and 4½ miles upstream from confluence with Brushy Creek.

Drainage area.--6.74 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,780 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 25 cfs by slope-area measurements at 264, 324, 742, and 1,220 cfs.

Bankfull stage.--15 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)
1952	Aug. 1, 1952	11.2	108	1958	July 20, 1958	11.88	146
1953	Aug. 10, 1953	14.50	324	1959	May 19, 1959	11.81	142
1954	Aug. 8, 1954	11.64	132	1960	Mar. 19, 1960	13.11	230
1955	June 16, 1955	12.1	162				
				1961	July 26, 1961	14.62	340
1956	July 5, 1956	17.44	1,220	1962	July 1, 1962	17.47	1,250
1957	May 12, 1957	16.93	900				

8394. Elkhorn Canyon southwest of Maywood, Nebr.

Location.--Lat 40°37'20", long 100°39'00", in SE¼NE¼ sec.31, T.8 N., R.29 W., on downstream side of county road bridge, half a mile upstream from confluence with Brushy Creek, and 3 miles southwest of Maywood.

Drainage area.--13.2 sq mi.

Gage.--Crest-stage gage. At datum 0.67 ft higher prior to Oct. 7, 1954. Altitude of gage is 2,670 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 40 cfs and by slope-area measurements at 130, 287, 446, 1,220, 2,040 and 8,660 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)
1952	Aug. 1, 1952	9.8	40	1958	July 20, 1958	12.35	210
1953	Aug. 10, 1953	12.77	446	1959	May 19, 1959	10.68	70
1954	Aug. 8, 1954	11.36	110	1960	Mar. 19, 1960	12.53	220
1955	June 16, 1955	11.6	130				
				1961	July 26, 1961	12.58	230
1956	July 5, 1956	27.2	8,660	1962	July 1, 1962	16.54	2,450
1957	Apr. 22, 1957	16.55	1,220				

8395. Brushy Creek near Maywood, Nebr.

Location.--Lat 40°37'45", long 100°37'45", in SW¼SW¼ sec.28, T.8 N., R.29 W., on right bank 420 ft downstream from bridge on U.S. Highway 83, 2 miles south of Maywood, 2½ miles upstream from Frazier Creek, and 5 miles upstream from mouth.

Drainage area.--130 sq mi, approximately, of which about 72 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 14, 1951; recording thereafter. At site 150 ft upstream at same datum prior to Aug. 14, 1951. Datum of gage is 2,630.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs and by slope-area measurements at 3,840 and 5,250 cfs.

Historical data.--Local residents report that the flood of June 21, 1947, is the highest known since at least 1906. The flood of May 1935 is the second highest since 1906 and was about 6.5 ft lower than the 1947 flood.

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)
1951	Apr. 26, 1951	16.42	-	1957	Apr. 22, 1957	18.82	4,390
	Sept. 2, 1951	-	2,270	1958	July 19, 1958	11.61	918
1952	July 31, 1952	6.76	486				
1953	Aug. 10, 1953	7.65	369	1960	Mar. 20, 1960	14.50	2,150
1954	May 15, 1954	12.20	1,350	1961	July 26, 1961	7.30	315
1955	May 18, 1955	5.64	191	1962	July 17, 1962	19.40	4,700
1956	July 5, 1956	19.41	5,250				

8396. Frazier Creek near Maywood, Nebr.

Location.--Lat 40°35'05", long 100°37'45", on line between sec.8 and 9, T.7 N., R.29 W., at both upstream and downstream ends of box culvert on U.S. Highway 83, 5 miles south of Maywood, and 5½ miles upstream from confluence with Brushy Creek.

Drainage area.--11.3 sq mi.

Gage.--Crest-stage gage. At site 300 ft upstream at different datum prior to May 19, 1959. Altitude of gage is 2,722 ft (from topographic map).

Stage-discharge relation.--Prior to 1958, defined by current-meter measurements below 50 cfs and by 6 indirect measurements between 67 and 11,200 cfs. Since 1959, defined by indirect measurements at 180, 333, 1,630, and 1,730 cfs.

Remarks.--The 1958 and 1959 peaks were determined directly from indirect measurements. 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)
1952	July 14, 1952	a10.31	67	1958	July 20, 1958	c19.01	860
1953	Aug. 10, 1953	a11.86	343	1959	May 19, 1959	b11.68	180
1954	Aug. 8, 1954	a11.42	260	1960	Mar. 19, 1960	b13.28	330
1955	Aug. 9, 1955	a13.30	594				
				1961	July 20, 1961	b15.25	1,630
1956	July 5, 1956	27.30	11,200	1962	July 1, 1962	b16.28	1,500
1957	Apr. 22, 1957	b19.67	1,790				

a Floodmark in culvert barrel.
b At upstream end of culvert.
c Backwater from construction work.

8397. Frazier Creek tributary near Maywood, Nebr.

Location.--Lat 40°35'30", long 100°37'45", in SE¼NE¼ sec.8, T.7 N., R.29 W., at downstream end of box culvert on old U.S. Highway 83, 4½ miles south of Maywood.

Drainage area.--0.72 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,740 ft (from topographic map).

Stage-discharge relation.--Defined by estimate of zero flow, a conveyance study, and critical-depth measurements at 238 and 483 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)
1952	July 14, 1952	10.1	21	1958	July 20, 1958	a12.33	b150
1953	-	-	0	1959	May 19, 1959	10.53	40
1954	Aug. 8, 1954	9.88	16	1960	Mar. 19, 1960	11.27	170
1955	June 15, 1955	10.82	70				
				1961	June 14, 1961	-	b15
1956	July 5, 1956	11.53	483	1962	July 1, 1962	12.10	-
1957	July 7, 1957	11.43	260				

a Backwater from construction work.
b Estimated.

8398.5. Fox Creek north of Curtis, Nebr.

Location.--Lat 40°49'35", long 100°31'05", in NE¼NW¼ sec.21, T.10 N., R.28 W., on downstream side of timber bridge 13 miles north of Curtis.

Drainage area.--13.8 sq mi.

Gage.--Crest-stage gage. At datum 1.24 ft lower prior to Feb. 23, 1961. Altitude of gage is 2,760 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by slope-area measurements at 420, 1,320, and 2,080 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)
1952	July 13, 1952	9.5	2	1958	June 18, 1958	10.09	10
1953	-	-	0	1959	May 19, 1959	13.9	2,080
1954	Aug. 17, 1954	10.73	100	1960	Mar. 20, 1960	11.56	600
1955	-	-	0				
				1961	June 14, 1961	10.73	-
1956	May 27, 1956	11.66	420	1962	Aug. 6, 1962	12.00	-
1957	Aug. 27, 1957	12.76	1,320				

8399. Fox Creek above Cut Canyon, near Curtis, Nebr.

Location.--Lat 40°44'40", long 100°31'55", in SE¼SE¼ sec.17, T.9 N., R.28 W., on downstream side of timber bridge 7½ miles north of Curtis.

Drainage area.--31.8 sq mi.

Gage.--Crest-stage gage. At datum 0.75 ft lower prior to Apr. 8, 1960. Altitude of gage is 2,640 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 40 cfs and by slope-area measurements at 432, 1,340, and 2,810 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Fox Creek above Cut Canyon, near Curtis, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 20, 1951	23.0	2,810	1957	Aug. 27, 1957	19.48	1,340
1952	July 14, 1952	14.3	560	1958	Sept.19, 1958	10.74	90
1953	Aug. 10, 1953	11.40	170	1959	May 19, 1959	19.58	1,370
1954	Aug. 18, 1954	11.30	150	1960	Mar. 30, 1960	12.77	432
1955	May 25, 1955	11.93	230				
				1961	-	-	a50
1956	May 27, 1956	15.77	770	1962	June 16, 1962	14.52	690

a Estimated.

8399.5. Cut Canyon near Curtis, Nebr.

Location.--Lat 40°43'40", long 100°32'10", in NE¼NW¼ sec.29, T.9 N., R.28 W., on downstream side of timber bridge 6½ miles north of Curtis.

Drainage area.--25.6 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 2,625 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 20 cfs and by slope-area measurements at 234, 476, 846, and 976 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)
1951	May 21, 1951	17.0	976	1957	Aug. 27, 1957	12.89	234
1952	July 14, 1952	19.6	1,560	1958	July 18, 1958	11.87	120
1953	Aug. 10, 1953	-	11	1959	May 19, 1959	14.70	515
1954	June 13, 1954	14.0	395	1960	Mar. 20, 1960	13.19	270
1955	May 25, 1955	17.31	1,040				
				1961	Sept.20, 1961	13.08	260
1956	July 5, 1956	11.77	110	1962	July 17, 1962	17.41	1,070

8400. Fox Creek at Curtis, Nebr.

Location.--Lat 40°39'09", long 100°30'30", in NW¼NW¼ sec.21, T.8 N., R.28 W., on right bank 0.5 mile east of Curtis Cemetery and 2.7 miles upstream from mouth.

Drainage area.--77 sq mi, approximately.

Gage.--Nonrecording prior to June 5, 1951, and since August 1960; recording June 5, 1951, to September 30, 1958. At site 6.3 miles downstream at different datum prior to June 5, 1951. At site 2.3 miles downstream at datum 2,519.58 ft above mean sea level June 5, 1951, to Sept. 30, 1958. Altitude of present gage is 2,550 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,340 cfs.

Historical data.--Maximum stage known, 27.3 ft June 21, 1947, from floodmarks (discharge not determined).

Bankfull stage.--19.5 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)
1947	June 21, 1947	27.3	-	1956	July 5, 1956	a12.95	-
				1957	May 13, 1957	a12.12	-
1951	May 31, 1951	15.35	3,340		Aug. 28, 1957	-	1,210
1952	July 14, 1952	6.85	338	1958	July 21, 1958	a10.10	-
1953	Aug. 11, 1953	4.91	74		Sept.19, 1958	-	375
1954	May 16, 1954	9.96	777				
1955	May 26, 1955	10.17	724	1960	Mar. 21, 1960	14.14	-
				1961	Sept.20, 1961	10.44	170
1956	May 27, 1956	-	395	1962	July 17, 1962	19.66	1,490

a Backwater from Medicine Creek.

8405. Dry Creek near Curtis, Nebr.

Location.--Lat 40°38'33", long 100°26'40", in SW¼SE¼ sec.24, T.8 N., R.28 W., on left bank, 10 ft upstream from county road bridge, 3½ miles upstream from mouth, and 3½ miles east of Curtis.

Drainage area.--20 sq mi, approximately.

Gage.--Nonrecording prior to Aug. 23, 1951; recording thereafter. Datum of gage is 2,548.21 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and by slope-area measurement at 3,310 cfs.

Bankfull stage.--17 ft.

Historical data.--Maximum stage known, 27.7 ft June 21, 1947, (discharge at site 2¾ miles upstream, 25,900 cfs, from slope-area 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)
1947	June 21, 1947	27.7	a25,900	1955	June 16, 1955	5.00	148
1951	June 8, 1951	13.15	4,430	1956	July 5, 1956	9.44	1,350
1952	Aug. 11, 1952	4.67	206	1957	May 13, 1957	11.84	3,490
1953	Aug. 10, 1953	5.90	328	1958	July 18, 1958	7.32	453
1954	May 15, 1954	6.22	478				

a Discharge at site 2¾ miles upstream.

8410. Medicine Creek above Harry Strunk Lake, Nebr.
(Published as "above Medicine Creek Reservoir" prior to October 1950)

Location.--Lat 40°30'10", long 100°19'20", in SW¼ sec.7, T.6 N., R.26 W., on right bank a third of a mile downstream from top of Harry Strunk Lake flood-control pool, 2½ miles upstream from top of irrigation pool, 3¾ miles southeast of Stockville, and 13½ miles upstream from Medicine Creek Dam.

Drainage area.--930 sq mi, approximately, of which about 540 sq mi contributes directly to surface runoff.

Gage.--Recording and concrete control. Datum of gage is 2,380.94 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs and extended above by logarithmic plotting.

Historical data.--Maximum stage known since at least 1874, 24.4 ft June 22, 1947, from floodmark (discharge not determined).

Remarks.--Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 22, 1947	24.4	-	1956	July 12, 1956	10.43	2,130
1950	July 26, 1950	7.80	3,030	1957	May 13, 1957	19.45	11,200
					July 3, 1957	12.08	2,950
1951	May 21, 1951	14.17	10,900				
	May 31, 1951	9.83	5,150	1958	July 21, 1958	7.89	1,270
	June 8, 1951	10.22	5,600				
	June 22, 1951	11.00	6,570	1959	May 20, 1959	7.96	1,330
	July 10, 1951	7.90	3,100				
	Sept. 2, 1951	7.85	3,050	1960	Mar. 22, 1960	12.57	3,210
1952	July 14, 1952	5.30	806	1961	May 21, 1961	7.30	930
1953	July 12, 1953	8.32	3,420	1962	June 7, 1962	13.64	3,240
					June 17, 1962	18.78	8,980
1954	May 16, 1954	6.55	1,350		July 17, 1962	14.95	4,200
1955	June 17, 1955	7.07	1,310				

8415. Mitchell Creek above Harry Strunk Lake, Nebr.
(Published as "above Medicine Creek Reservoir" prior to October 1950)

Location.--Lat 40°28'20", long 100°15'25", in NW¼SE¼ sec.22, T.6 N., R.26 W., on left bank at top of Harry Strunk Lake flood-control pool, 2½ miles southeast of Orafino, 9½ miles upstream from Medicine Creek Dam, and 14 miles northwest of Cambridge.

Drainage area.--53 sq mi, approximately.

Gage.--Recording and concrete low-water control since Feb. 26, 1953. Datum of gage is 2,376.95 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs and by a slope-area measurement at 5,230 cfs.

Historical data.--Maximum flood known since about 1890 occurred June 21, 1948, (stage about 28 ft, from floodmarks, discharge not determined).

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 21, 1948	28	-	1957	July 8, 1957	7.00	348
					Aug. 2, 1957	7.15	353
1950	July 4, 1950	6.33	220		Sept.13, 1957	7.69	456
1951	Apr. 27, 1951	7.80	453	1958	Mar. 28, 1958	5.73	120
	May 20, 1951	17.35	5,230				
	May 31, 1951	12.41	1,400	1959	May 20, 1959	6.82	306
	June 8, 1951	13.83	1,750				
	June 22, 1951	12.48	1,420	1960	Feb. 3, 1960	8.20	528
	July 10, 1951	13.28	1,610		Mar. 21, 1960	10.60	1,010
	Sept. 2, 1951	8.39	587		May 19, 1960	16.00	3,350
					June 21, 1960	7.60	414
1952	Aug. 11, 1952	5.67	111				
				1961	Aug. 18, 1961	6.61	236
1953	July 13, 1953	5.91	139				
				1962	Mar. 24, 1962	6.72	315
1954	May 16, 1954	13.34	1,620		May 18, 1962	7.43	464
					May 27, 1962	9.29	967
1955	May 27, 1955	9.10	700		June 7, 1962	7.94	590
	June 17, 1955	9.67	814		June 8, 1962	9.22	946
					June 16, 1962	19.94	4,960
1956	June 18, 1956	7.75	442		July 17, 1962	8.52	736
					July 18, 1962	14.77	2,890
1957	Apr. 22, 1957	7.94	509		July 20, 1962	12.32	1,910
	May 25, 1957	8.74	614		Aug. 11, 1962	-	446
	June 16, 1957	12.93	1,570		Aug. 24, 1962	10.92	1,460
	July 3, 1957	10.89	1,200				

8430. Medicine Creek at Cambridge, Nebr.

Location.--Lat 40°17'55", long 100°10'35", in NE¼SE¼ sec.19, T.4 N., R.25 W., on left bank 100 ft upstream from highway bridge, three-quarters of a mile north of Cambridge, 2½ miles upstream from mouth, and 7½ miles dowrstream from Harry Strunk Lake.

Drainage area.--1,070 sq mi, approximately, of which about 680 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 2, 1940,and Sept. 25, 1947, to Apr. 25, 1948; recording during other periods. At site 1.1 miles upstream Dec. 10, 1936, to Apr. 13, 1942, and at site 1 mile upstream Apr. 14, 1942, to Sept. 30, 1943, both at datum 8.49 ft higher. At site 2 miles downstream Aug. 24, 1944, to June 21, 1947, and at site 1¾ miles downstream Sept. 25, 1947, to Apr. 25, 1948, both at datum 8.64 ft lower. Datum of gage is 2,252.86 ft atove mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 39,000 cfs and by a slope-area measurement at 120,000 cfs.

Remarks.--Flow regulated by Harry Strunk Lake since Aug. 8, 1949. Only annual peaks are shown.

Peak stages and discharges of Medicine Creek at Cambridge, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 2, 1937	9.55	1,860	1948	June 21, 1948	22.42	38,600
1938	July 2, 1938	10.5	2,190	1949	Feb. 24, 1949	a9.67	-
1939	June 20, 1939	13.74	7,200		July 9, 1949	7.50	833
1940	June 7, 1940	14.8	9,740	1950	Aug. 6, 1950	6.80	614
1941	May 20, 1941	14.80	9,740	1951	Sept. 2, 1951	8.94	1,360
1942	Apr. 19, 1942	15.41	15,000	1952	July 13, 1952	5.90	570
1943	Sept. 3, 1943	12.22	4,390	1953	May 28, 1953	11.00	1,950
				1954	July 22, 1954	5.18	312
1945	June 5, 1945	12.64	14,700	1955	June 23, 1955	6.49	570
1946	May 30, 1946	8.05	3,110	1956	July 29, 1956	5.04	306
1947	June 22, 1947	21.5	120,000	1957	June 16, 1957	8.23	936

a Backwater from ice.

8435. Republican River at Cambridge, Nebr.

Location.--Lat 40°17'05", long 100°08'35", in NW¼SE¼ sec.28, T.4 N., R.25 W., on left bank 400 ft south of U.S. Highways 6 and 34, half a mile downstream from Medicine Creek, 1 mile east of Cambridge, and 1.3 miles upstream from Cambridge diversion dam.

Drainage area.--14,300 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording prior to Sept. 26, 1950; recording thereafter. At site 150 ft upstream at same datum prior to July 13, 1948. Datum of gage is 2,239.07 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by slope-area measurement at 160,000 cfs.

Historical data.--Maximum stage known, 17.6 ft May 31 to June 1, 1935, from information by local resident (discharge, about 280,000 cfs).

Remarks.--Natural flow affected by irrigation developments above station and since 1949, by regulation from upstream reservoirs. 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)
1946	July 3, 1946	7.55	-	1956	July 6, 1956	7.48	3,960
1947	June 22, 1947	16.7	160,000	1957	May 25, 1957	-	5,720
1948	June 21, 1948	14.0	-		June 16, 1957	8.35	-
1949	Feb. 14, 1949	a8.10	-	1958	Mar. 3, 1958	a7.02	-
	June 18, 1949	-	8,080		July 21, 1958	6.45	2,420
1950	Feb. 19, 1950	a7.3	-	1959	May 20, 1959	5.65	1,530
	Aug. 7, 1950	-	7,750		July 15, 1959	5.71	-
				1960	Mar. 22, 1960	9.35	9,080
1951	Sept. 4, 1951	-	11,000				
1952	May 9, 1952	5.17	1,580	1961	May 21, 1961	7.39	3,520
1953	May 28, 1953	5.92	2,250	1962	June 8, 1962	9.32	8,000
1954	Aug. 18, 1954	5.33	1,060				
1955	June 17, 1955	7.55	5,200				

a Backwater from ice.

8440. Muddy Creek at Arapahoe, Nebr.

Location.--Lat 40°18'20", long 99°54'40", in NW¼NW¼ sec.22, T.4 N., R.23 W., on left bank 20 ft downstream from bridge on U.S. Highways 6 and 34, a quarter of a mile west of Arapahoe, and 1½ miles upstream from mouth.

Drainage area.--243 sq mi.

Gage.--Nonrecording prior to Jan. 11, 1951; recording thereafter. Datum of gage is 2,143.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1960.

Stage-discharge relation.--Defined by current-meter measurements below 6,700 cfs.

Bankfull stage.--22 ft.

Historical data.--A stage of about 31 ft occurred June 22, 1947 (discharge not determined).

Remarks.--Peak stages not appreciably affected by irrigation developments. Base for partial-duration series, 750 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 22, 1947	31	-	1957	June 16, 1957	24.62	7,280
					July 3, 1957	14.98	1,200
1951	May 21, 1951	20.38	4,840		Sept.14, 1957	17.86	2,060
	June 8, 1951	11.50	1,260				
	June 22, 1951	14.18	2,230	1958	July 19, 1958	11.97	676
	July 10, 1951	16.50	3,160				
	Sept. 2, 1951	13.74	2,060	1959	May 26, 1959	8.34	255
1952	Aug. 11, 1952	14.05	2,180	1960	Mar. 22, 1960	19.80	2,600
					May 19, 1960	13.31	842
1953	May 28, 1953	10.44	748		June 11, 1960	17.31	1,630
					June 21, 1960	18.64	2,060
1954	May 16, 1954	19.00	3,360				
	Aug. 17, 1954	11.91	855	1961	May 21, 1961	12.00	645
	Aug. 23, 1954	11.53	763				
				1962	Mar. 24, 1962	15.08	1,090
1955	June 17, 1955	11.09	669		May 18, 1962	16.98	1,400
					June 7, 1962	21.29	2,620
1956	June 18, 1956	8.02	239		June 8, 1962	22.00	2,950
					June 17, 1962	15.50	1,140
1957	Apr. 23, 1957	18.91	2,490		July 18, 1962	14.00	895
	May 17, 1957	15.00	1,200		Aug. 3, 1962	16.07	1,250
	May 25, 1957	16.72	1,990		Aug. 24, 1962	18.55	1,820

8445. Republican River near Orleans, Nebr.

Location.--Lat 40°07'50", long 99°29'50", in NE¼NE¼ sec.19, T.2 N., R.19 W., on right bank 18 ft downstream from bridge on State Highway 89, 200 ft downstream from Chicago, Burlington & Quincy Railroad Co. bridge, 2 miles west of Orleans, 2¾ miles upstream from Sappa Creek, and 23 miles upstream from Harlan County Dam.

Drainage area.--15,400 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording prior to June 2, 1948; recording thereafter. Datum of gage is 1,972.57 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 29,000 cfs.

Historical data.--Maximum flood known occurred June 1, 1935 (stage and discharge not determined).

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Republican River near Orleans, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 23, 1947	14.00	-	1956	June 20, 1956	8.31	2,400
1948	June 22, 1948	11.25	40,600	1957	June 17, 1957	12.04	12,300
1949	Feb. 25, 1949	a10.76	-	1958	July 23, 1958	7.45	2,140
	June 18, 1949	-	5,410	1959	Feb. 28, 1959	a8.73	-
1950	July 27, 1950	9.43	6,080		Mar. 1, 1959	-	2,200
				1960	Mar. 22, 1960	a12.60	10,000
1951	May 21, 1951	11.65	11,600				
1952	July 14, 1952	8.41	3,260	1961	May 22, 1961	11.20	6,510
1953	May 28, 1953	8.69	5,160	1962	June 10, 1962	11.29	6,280
1954	May 16, 1954	7.78	2,330				
1955	June 18, 1955	9.76	5,160				

a Backwater from ice.

8450. Sappa Creek near Oberlin, Kans.

Location.--Lat 39°47'07", long 100°34'28", in NE¼ sec.21, T.3 S., R.29 W., 0.3 mile downstream from confluence of North and South Forks, 3½ miles southwest of Oberlin, and at mile 107.8.

Drainage area.--1,040 sq mi, approximately, of which an unknown part is noncontributing.

Gage.--Nonrecording prior to Jan. 15, 1945, Oct. 1, 1955, to May 21, 1958, and Jan. 5 to May 19, 1959; recording Jan. 16, 1945, to Sept. 30, 1955, and since May 19, 1959. At site 7 miles downstream at datum 2,522.98 ft above mean sea level, datum of 1929, Mar. 18, 1929, to June 30, 1932. At site 150 ft below previous site at datum 2.20 ft lower June 22, 1944, to Jan. 15, 1945. At site 100 ft above previous nonrecording gage at datum 2,522.50 ft above mean sea level, datum of 1929, Jan. 16, 1945, to Sept. 30, 1955. At bridge on U.S. Highway 83, 4.1 miles below present site at different datum Oct. 1, 1955, to May 21, 1958, and Jan. 5 to May 19, 1959. Altitude of gage is 2,570 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs and by indirect measurement at 10,600 cfs.

Remarks.--Some diversions above station for irrigation. 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)
1927	-	14.96	a1,200	1949	Feb. 11, 1949	5.49	256
					May 10, 1949	7.44	465
1929	May 29, 1929	9.88	600		May 21, 1949	7.50	435
	June 7, 1929	9.46	556		June 1, 1949	5.27	209
					June 17, 1949	7.98	495
1930	June 19, 1930	16.3	1,380		Aug. 19, 1949	12.40	2,500
	Aug. 18, 1930	7.88	386				
				1950	July 25, 1950	9.87	968
1931	Oct. 12, 1930	12.7	924		July 29, 1950	8.00	548
	Aug. 9, 1931	14.7	1,170		Aug. 8, 1950	7.46	485
1932	June 5, 1932	5.18	138	1951	May 21, 1951	7.34	418
					May 23, 1951	7.98	515
1941	June 9, 1941	-	a5,050		June 12, 1951	8.14	543
					June 17, 1951	5.54	226
1944	July 16, 1944	15.3	10,600		June 23, 1951	11.11	1,400
					July 12, 1951	14.6	6,800
1945	July 8, 1945	5.37	128		Aug. 13, 1951	7.13	392
					Sept. 4, 1951	11.5	1,600
1946	July 2, 1946	5.40	241				
	July 21, 1946	5.15	200	1952	July 15, 1952	4.74	144
1947	Oct. 7, 1946	13.50	3,750	1953	May 28, 1953	15.09	9,440
	June 9, 1947	5.26	222		July 11, 1953	5.42	226
1948	May 31, 1948	8.91	712	1954	May 17, 1954	7.98	558
	June 18, 1948	10.10	1,150		Aug. 17, 1954	9.41	868
	June 26, 1948	6.58	415		Sept. 8, 1954	6.46	341
	June 29, 1948	5.74	306				
	July 15, 1948	6.22	372	1955	July 5, 1955	10.33	1,180
	Aug. 4, 1948	6.27	384		Aug. 6, 1955	b6.35	270
	Aug. 14, 1948	7.78	537				

a Annual peak only.
b Backwater from Sappa-Oberlin State Park dam.

Peak stages and discharges of Sappa Creek near Oberlin, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	July 6, 1956	16.57	4,780	1958	May 2, 1958	7.95	228
	July 31, 1956	10.40	400		July 20, 1958	5.40	260
	Aug. 7, 1956	12.53	718		Aug. 1, 1958	7.81	523
	Aug. 10, 1956	10.45	405		Aug. 16, 1958	6.27	345
	Aug. 12, 1956	8.15	202				
	Aug. 18, 1956	11.70	540	1959	June 22, 1959	7.30	462
	Aug. 19, 1956	12.73	771		Sept. 4, 1959	4.88	214
1957	May 18, 1957	14.70	1,900	1960	Mar. 20, 1960	12.15	6,430
	May 26, 1957	8.05	236		June 11, 1960	8.75	1,120
	May 30, 1957	14.85	2,040		June 13, 1960	8.08	642
	June 4, 1957	10.43	422		July 29, 1960	7.23	454
	June 16, 1957	13.61	1,130				
	June 18, 1957	13.83	1,260	1961	May 23, 1961	6.49	333
	June 28, 1957	14.82	2,010		June 17, 1961	6.29	355
	July 2, 1957	13.21	934				
	July 22, 1957	9.00	306	1962	May 18, 1962	5.65	265
	Aug. 29, 1957	10.38	417		June 11, 1962	6.91	425
	Aug. 30, 1957	10.20	402		June 26, 1962	6.61	389
	Sept.13, 1957	9.90	378		July 18, 1962	7.46	543
	Sept.17, 1957	7.95	228		Aug. 1, 1962	7.61	588

8451. Long Branch Draw near Norcatur, Kans.

Location.--Lat 39°54'05", long 100°10'40", in SW¼SW¼ sec.6, T.2 S., R.25 W., near left bank on downstream side of highway bridge at Decatur-Norton County line, 4.7 miles north of Norcatur, and 16 miles northwest of Norton.

Drainage area.--31.7 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs and by slope-area measurement at 2,680 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 15, 1957	26.40	2,680	1961	July 19, 1961	18.54	1,040
1958	Aug. 16, 1958	12.09	200	1962	July 17, 1962	13.74	340
1959	July 14, 1959	15.44	560				
1960	Mar. 21, 1960	17.38	850				

8452. Sappa Creek near Beaver City, Nebr.

Location.--Lat 40°02'15", long 99°53'45", in SW¼SW¼ sec.14, T.1 N., R.23 W., on right bank 200 ft downstream from bridge on U.S. Highway 283, 7 miles southwest of Beaver City, and at mile 42.6.

Drainage area.--1,500 sq mi, approximately.

Gage.--Nonrecording at site 200 ft upstream at datum 2.56 ft higher prior to Sept. 11, 1945; recording thereafter. Datum of gage is 2,154.63 ft above mean sea level, datum of 1929, supplementary adjustment of 1960.

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

Historical data.--Flood of July 17, 1944, was reported to be the highest for over 20 years according to Beaver City Times-Tribune of July 20, 1944.

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

Peak stages and discharges of Sappa Creek near Beaver City, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 3, 1937	17.00	3,900	1947	June 24, 1947	16.13	1,380
	June 7, 1937	14.00	1,730		June 25, 1947	17.90	1,700
1938	June 2, 1938	12.81	1,330	1948	June 26, 1948	13.81	968
	June 16, 1938	12.98	1,380	1949	June 9, 1949	15.28	1,240
1939	May 26, 1939	14.02	1,600		June 12, 1949	17.04	1,900
	June 26, 1939	13.44	1,500		June 18, 1949	13.73	1,070
1940	July 28, 1940	15.30	2,450	1950	July 13, 1950	15.19	1,260
	Sept.24, 1940	14.20	1,830		July 27, 1950	18.80	3,270
1941	June 5, 1941	13.40	1,500		Aug. 6, 1950	19.50	3,990
	June 10, 1941	15.80	2,910	1951	July 16, 1951	17.36	2,170
	July 29, 1941	13.50	1,530		Aug. 15, 1951	15.34	1,270
	Aug. 23, 1941	12.60	1,290		Sept. 8, 1951	14.80	1,190
	Sept. 4, 1941	15.20	2,460	1952	Apr. 30, 1952	14.40	1,130
1942	June 13, 1942	14.30	1,600	1953	May 31, 1953	14.34	1,150
	June 24, 1942	12.00	1,160	1954	Aug. 17, 1954	14.58	1,040
	July 19, 1942	12.80	1,330	1955	July 9, 1955	8.43	318
	Aug. 14, 1942	12.20	1,220	1956	June 17, 1956	14.16	1,020
	Aug. 22, 1942	13.90	1,690	1957	June 16, 1957	17.78	2,130
1943	June 11, 1943	11.60	1,140	1958	Aug. 16, 1958	13.35	925
1944	May 31, 1944	11.30	1,140	1959	July 16, 1959	11.31	677
	July 17, 1944	18.70	5,500	1960	Mar. 23, 1960	20.03	5,690
	July 26, 1944	11.90	1,600		June 14, 1960	15.42	1,380
	Aug. 1, 1944	15.00	2,320	1961	May 22, 1961	10.65	666
1945	July 1, 1945	11.64	1,120	1962	July 2, 1962	14.14	1,150
1946	July 2, 1946	16.31	1,570				
	July 4, 1946	16.00	1,440				
1947	Oct. 10, 1946	18.31	1,780				
	Oct. 11, 1946	18.16	1,760				
	June 22, 1947	19.16	1,520				

8459. Little Beaver Creek tributary near McDonald, Kans.

Location.--Lat 39°46'00", long 101°22'20", in SW¼NW¼ sec.28, T.3 S., R.36 W., on right bank at downstream end of culvert on county road 1.3 miles south of McDonald and 18.0 miles southwest of Atwood.

Drainage area.--12 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by slope-area measurements at 50 and 996 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 20, 1957	12.91	1,100	1961	June 14, 1961	11.61	90
1958	July 25, 1958	12.25	350	1962	July 31, 1962	12.85	996
1959	-	-	0				
1960	July 8, 1960	11.80	140				

8460. Beaver Creek at Ludell, Kans.

Location.--Lat 39°51', long 100°58', in SE¼ sec.25, T.2 S., R.33 W., at highway bridge just west of Ludell and 6 miles downstream from Little Beaver Creek.

Drainage area.--1,460 sq mi, approximately, of which about 1,190 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 4, 1946, and since 1961; recording Oct. 5, 1946, to Sept. 30, 1953. At datum 1.7 ft higher prior to June 30, 1932. Datum of gage is 2,753.93 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs and extended above by logarithmic plotting.

Bankfull stage.--9 ft.

Remarks.--Gage heights adjusted to datum in use during 1946-53. Base for partial-duration series, 100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	July 23, 1929	9.23	a245	1950	July 4, 1950	6.5	270
					July 9, 1950	6.5	270
1930	Sept. 8, 1930	16.7	3,300		July 24, 1950	5.9	226
					July 27, 1950	7.4	342
1931	June 5, 1931	9.7	320		July 30, 1950	7.5	350
					Aug. 6, 1950	9.95	563
1932	May 26, 1932	10.9	510		Aug. 13, 1950	4.65	141
	June 6, 1932	9.1	230				
	June 9, 1932	10.4	425	1951	May 17, 1951	6.53	272
					May 21, 1951	7.59	357
1946	July 25, 1946	5.5	163		June 13, 1951	12.40	1,730
	Sept.10, 1946	13.0	1,600		June 20, 1951	8.95	494
					June 23, 1951	12.59	1,820
1947	Oct. 7, 1946	10.08	564		July 13, 1951	14.15	2,140
	Oct. 11, 1946	7.16	290		July 19, 1951	7.20	258
	June 7, 1947	5.57	166		July 21, 1951	5.77	172
	June 13, 1947	5.88	191		July 24, 1951	12.0	1,250
	June 22, 1947	5.85	184		Aug. 11, 1951	6.17	196
					Aug. 14, 1951	6.30	204
1948	June 17, 1948	10.37	597		Aug. 25, 1951	5.52	159
	June 21, 1948	6.48	234		Sept. 4, 1951	13.17	1,850
	June 28, 1948	12.05	1,100		Sept. 8, 1951	10.70	760
	July 20, 1948	7.26	314		Sept.12, 1951	5.32	149
	Aug. 10, 1948	5.4	174		Sept.16, 1951	4.41	104
1949	May 5, 1949	5.57	198	1952	May 10, 1952	5.79	174
	May 8, 1949	5.2	163		May 22, 1952	6.65	225
	May 14, 1949	4.6	117				
	May 20, 1949	11.1	756	1953	May 27, 1953	3.62	77
	June 2, 1949	4.37	117				
	June 9, 1949	6.0	233	1961	June 14, 1961	11.1	1,100
	June 18, 1949	5.18	177				
	June 29, 1949	7.20	326	1962	June 8, 1962	11.71	1,400
	Aug. 17, 1949	9.1	480				
	Sept. 3, 1949	7.05	318				

a Annual peak only.

8465. Beaver Creek at Cedar Bluffs, Kans.

Location.--Lat 39°59', long 100°35', in NE¼ sec.10, T.1 S., R.29 W., 100 ft downstream from bridge on U.S. Highway 83, a quarter of a mile north of Cedar Bluffs, and 1¼ miles south of Kansas-Nebraska State line.

Drainage area.--1,710 sq mi approximately, of which about 1,440 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,520.33 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Historical data.--Flood of July 1944 reached a stage of 18.16 ft, determined in 1946, from floodmarks.

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

Peak stages and discharges of Beaver Creek at Cedar Bluffs, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	July 1944	18.16	-	1954	May 18, 1954	9.46	272
1946	July 4, 1946	9.76	391	1955	July 13, 1955	6.09	78
	Sept.13, 1946	9.21	349	1956	July 7, 1956	12.85	512
1947	Oct. 6, 1946	15.42	1,160				
	Oct. 8, 1946	16.58	1,830	1957	May 17, 1957	11.99	518
	June 13, 1947	9.65	377		May 20, 1957	13.23	686
	June 25, 1947	10.96	477		May 27, 1957	18.07	4,370
	Aug. 16, 1947	8.50	300		May 30, 1957	18.18	4,620
					June 5, 1957	11.34	456
1948	June 22, 1948	8.52	300		June 17, 1957	13.17	676
					June 28, 1957	14.47	914
1949	May 22, 1949	9.39	356		July 3, 1957	12.27	551
					July 23, 1957	11.74	493
1950	July 17, 1950	9.50	370				
	July 24, 1950	15.68	1,250	1958	Aug. 17, 1958	13.02	652
	Aug. 8, 1950	9.87	398				
				1959	June 23, 1959	8.09	254
1951	May 22, 1951	8.52	309				
	June 17, 1951	10.64	436	1960	Mar. 21, 1960	16.73	2,500
	June 19, 1951	9.59	373		June 11, 1960	18.71	7,940
	June 26, 1951	16.24	1,540		June 21, 1960	10.02	442
	July 14, 1951	17.89	3,980		July 29, 1960	9.25	380
	July 21, 1951	9.48	367				
	July 27, 1951	12.12	528	1961	May 22, 1961	11.30	454
	Aug. 26, 1951	11.71	501		June 14, 1961	16.42	2,030
	Sept. 4, 1951	17.46	3,040				
	Sept. 8, 1951	17.68	3,520	1962	June 15, 1962	11.09	437
					June 25, 1962	10.92	448
1952	May 23, 1952	7.25	233		July 15, 1962	9.92	379
					July 20, 1962	10.65	431
1953	July 13, 1953	8.56	305		Aug. 4, 1962	14.50	1,030

8470. Beaver Creek near Beaver City, Nebr.

Location.--Lat 40°07'12", long 99°53'31", in SW¼SW¼ sec.23, T.2 N., R.23 W., on left bank 400 ft below bridge on U.S. Highway 283, 3½ miles west of Beaver City, and at mile 24.7.

Drainage area.--2,060 sq mi, approximately, of which about 1,790 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 13, 1947; recording thereafter. At site 400 ft upstream at datum 2.0 ft higher prior to Nov. 15, 1957. At site 3.6 miles upstream at different datum Nov. 15, 1957, to Sept. 22, 1958. Datum of gage is 2,162.96 ft above mean sea level, datum of 1929; supplementary adjustment of 1960.

Stage-discharge relation.--Defined by current-meter measurements below 3,200 cfs.

Historical data.--Flood of about July 1, 1905, reached a stage of 18.68 ft, from floodmark, reported by resident in 1939. Beaver City Times-Tribune on July 7, 1905, described this flood as "full 2 ft above any previous high-water mark."

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)
1905	July 1, 1905	18.68	-	1940	June 9, 1940	6.80	448
					July 28, 1940	7.89	594
1937	June 2, 1937	10.00	794		Sept.24, 1940	8.00	600
	June 4, 1937	9.70	730				
	July 17, 1937	10.00	794	1941	June 8, 1941	9.80	850
	Aug. 3, 1937	11.80	1,670		Aug. 24, 1941	6.78	415
1938	July 16, 1938	8.20	550	1942	June 14, 1942	11.00	1,300
					June 25, 1942	7.00	520
1939	May 26, 1939	11.00	1,140		Aug. 2, 1942	11.08	1,450
	June 25, 1939	7.80	548		Aug. 7, 1942	5.90	407
					Sept. 2, 1942	9.52	812
1940	May 30, 1940	6.80	448				

Peak stages and discharges of Beaver Creek near Beaver City, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Apr. 11, 1943	7.20	510	1951	Sept.10, 1951	12.42	2,240
1944	July 19, 1944	13.80	3,800	1952	May 1, 1952	9.95	760
	Aug. 2, 1944	10.00	800		May 16, 1952	10.15	800
1945	July 12, 1945	5.4	282		July 14, 1952	8.77	572
1946	May 30, 1946	7.12	454	1953	July 20, 1953	7.26	388
1947	Oct. 10, 1946	12.82	2,580	1954	Aug. 17, 1954	7.07	451
	June 22, 1947	13.22	3,140	1955	July 16, 1955	2.97	29
	July 11, 1947	11.97	1,170	1956	July 12, 1956	5.42	202
1948	June 23, 1948	11.37	1,240	1957	June 1, 1957	11.62	1,530
	June 26, 1948	8.82	586		June 16, 1957	11.90	1,640
	June 28, 1948	10.04	749	1958	Aug. 21, 1958	-	290
1949	May 6, 1949	12.00	1,620	1959	Mar. 28, 1959	10.85	1,150
	May 8, 1949	10.90	1,140		June 11, 1959	7.79	555
	May 21, 1949	9.40	654		June 13, 1959	12.97	2,810
	June 9, 1949	10.60	920		July 5, 1959	6.57	413
	June 13, 1949	7.75	470	1960	May 22, 1960	8.58	640
	Aug. 18, 1949	7.98	531		June 5, 1960	9.17	726
1950	May 29, 1950	10.31	824		June 14, 1960	6.73	416
	July 14, 1950	10.02	750		June 19, 1960	6.92	438
	July 26, 1950	12.80	2,400	1961	June 5, 1961	9.17	726
	Aug. 6, 1950	11.93	1,610	1962	June 10, 1962	6.59	413
1951	May 21, 1951	9.02	598		June 21, 1962	6.86	443
	June 8, 1951	10.35	855		July 18, 1962	7.08	506
	July 1, 1951	8.69	564		Aug. 8, 1962	7.60	532
	July 17, 1951	12.60	2,430				
	July 25, 1951	7.39	441				
	Aug. 16, 1951	8.36	531				
	Sept. 7, 1951	12.45	2,270				

8475. Sappa Creek near Stamford, Nebr.

Location.--Lat 40°08'00", long 99°33'15", in NW¼NW¼ sec.23, T.2 N., R.20 W., on left bank 40 ft south of Chicago, Burlington & Quincy Railroad track, 500 ft downstream from bridge on county highway, 2 miles east of Stamford, and 5½ miles upstream from mouth.

Drainage area.--3,840 sq mi, approximately.

Gage.--Recording. Datum of gage is 1,981.31 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,800 cfs.

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)
1944	July 19, 1944	18.0	4,760	1950	Aug. 8, 1950	17.07	3,300
					Aug. 12, 1950	12.84	1,180
1946	July 6, 1946	11.74	968	1951	May 22, 1951	12.53	1,080
1947	Oct. 12, 1946	-	4,860		June 10, 1951	13.60	1,400
	June 22, 1947	20.10	7,430		June 30, 1951	12.41	1,040
					July 19, 1951	17.10	4,260
1948	June 28, 1948	13.29	1,460		Aug. 16, 1951	13.70	1,570
					Sept.12, 1951	15.72	2,920
1949	May 6, 1949	12.95	1,420				
	May 9, 1949	14.45	2,120	1952	May 2, 1952	14.18	1,850
	May 22, 1949	12.28	1,150		July 15, 1952	14.95	2,250
	June 10, 1949	12.94	1,320				
	June 13, 1949	13.10	1,440	1953	June 2, 1953	11.35	1,050
	June 20, 1949	13.15	1,580				
				1954	Aug. 18, 1954	11.14	901
1950	July 15, 1950	12.63	1,110				
	July 29, 1950	15.80	2,350	1955	June 19, 1955	7.77	220
	Aug. 2, 1950	12.82	1,170				

Peak stages and discharges of Sappa Creek near Stamford, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	June 19, 1956	9.78	654	1960	June 16, 1960	15.35	2,580
1957	June 3, 1957	13.41	1,680	1961	May 21, 1961	14.25	2,100
	June 17, 1957	16.03	3,060		June 5, 1961	13.80	1,930
	July 3, 1957	11.22	1,030		Aug. 12, 1961	10.91	1,080
1958	July 17, 1958	11.16	1,020	1962	July 2, 1962	12.27	1,430
					July 19, 1962	11.76	1,290
1959	July 17, 1959	9.23	637		Aug. 5, 1962	11.21	1,150
1960	Mar. 24, 1960	17.08	3,780				

8476. Prairie Dog Creek tributary at Colby, Kans.

Location.--Lat 39°23'10", long 101°02'55", in NE¼SW¼ sec.6, T.8 S., R.33 W., at upstream end of concrete ford on West Ash Street in Colby.

Drainage area.--6 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 160 cfs and by indirect measurement of peak discharge of 682 cfs at culvert.

Historical data.--Maximum stage known since at least 1943, that of June 13, 1957, from information by local resident.

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 13, 1957	17.86	682	1961	May 21, 1961	12.86	45
1958	July 4, 1958	15.56	200	1962	June 8, 1962	16.66	350
1959	May 22, 1959	10.94	8				
1960	Mar. 20, 1960	16.51	320				

8480. Prairie Dog Creek at Norton, Kans.

Location.--Lat 39°48'23", long 99°55'34", on west line of sec.9, T.3 S., R.23 W., at county bridge 0.5 mile downstream from Norton Dam site and 3 miles southwest of Norton.

Drainage area.--684 sq mi; 721 sq mi at former site.

Gage.--Nonrecording prior to May 8, 1944; recording thereafter. At site 2.5 miles downstream at datum 15.74 ft lower prior to Oct. 1, 1961. Datum of gage is 2,233.56 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 1,500 cfs at present site.
1943-61: Defined by current-meter measurements below 14,000 cfs and by indirect measurement at 38,000 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)
1944	Apr. 23, 1944	11.5	980	1944	July 31, 1944	22.65	7,860
	Apr. 30, 1944	11.4	958		Aug. 25, 1944	17.25	2,290
	May 22, 1944	16.45	2,210				
	May 27, 1944	14.76	1,790	1945	June 24, 1945	12.50	1,150
	May 30, 1944	16.42	2,210		July 8, 1945	12.45	1,170
	June 8, 1944	16.6	2,260				
	July 5, 1944	17.35	2,240	1946	July 3, 1946	11.66	1,020
	July 16, 1944	16.8	2,100		July 4, 1946	16.89	2,340
	July 18, 1944	11.5	810		July 28, 1946	10.67	810

Peak stages and discharges of Prairie Dog Creek at Norton, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Oct. 5, 1946	13.51	1,250	1952	May 1, 1952	14.42	1,570
	Oct. 7, 1946	18.05	2,620				
	Oct. 9, 1946	20.38	3,730	1953	May 28, 1953	25.6	37,500
	June 6, 1947	16.75	2,130		July 20, 1953	19.03	3,140
	June 22, 1947	22.38	8,080				
	June 24, 1947	17.71	2,480	1954	Apr. 21, 1954	10.93	819
					May 17, 1954	13.46	1,540
1948	June 27, 1948	14.77	1,250		May 27, 1954	13.43	1,400
1949	May 6, 1949	13.84	1,320	1955	June 17, 1955	10.11	657
	May 18, 1949	16.12	1,910				
	May 21, 1949	15.24	1,600	1956	July 6, 1956	12.79	1,120
	June 9, 1949	17.69	2,480				
	June 14, 1949	14.27	1,500	1957	May 17, 1957	16.90	2,290
	June 18, 1949	18.58	3,050		May 30, 1957	12.30	1,080
	July 14, 1949	11.40	810		June 16, 1957	23.55	14,300
	July 26, 1949	13.82	1,280		June 28, 1957	13.40	1,380
					July 2, 1957	12.03	1,060
1950	Oct. 10, 1949	11.25	818				
	July 12, 1950	17.50	2,450	1958	June 19, 1958	10.96	917
	July 17, 1950	12.11	951		July 5, 1958	11.81	1,110
	July 21, 1950	12.44	1,010		July 20, 1958	11.88	1,120
	July 25, 1950	19.28	2,980				
	July 26, 1950	19.32	3,040	1959	July 14, 1959	9.54	636
	July 30, 1950	13.05	1,180				
	Aug. 7, 1950	12.60	1,090	1960	Mar. 22, 1960	20.86	5,380
	Aug. 9, 1950	16.21	2,050		May 15, 1960	11.90	1,190
	Aug. 12, 1950	17.78	2,590		June 11, 1960	11.27	1,040
	Aug. 26, 1950	11.15	818		June 20, 1960	11.44	1,030
1951	May 23, 1951	13.41	1,340	1961	May 21, 1961	11.54	1,050
	May 25, 1951	12.08	1,050		July 20, 1961	14.15	1,740
	June 22, 1951	21.25	5,620				
	July 12, 1951	23.65	14,400	1962	June 8, 1962	20.60	1,590
	Aug. 13, 1951	13.70	1,410		June 24, 1962	17.19	909
	Sept. 4, 1951	19.10	3,180		July 2, 1962	25.70	4,100
	Sept. 8, 1951	14.28	1,550				

8482. Prairie Dog Creek tributary near Norton, Kans.

Location.--Lat 39°51'20", long 99°53'15", in NW¼NW¼ sec.26, T.2 S., R.23 W., on right bank at downstream side of bridge on U.S. Highway 283, 1.6 miles north or Norton.

Drainage area.--1.02 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 90 cfs, by slope-area measurement at 375 cfs, and extended above by logarithmic plotting.

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 15, 1957	14.15	620	1961	May 21, 1961	11.74	100
1958	July 4, 1958	12.37	180	1962	July 1, 1962	13.31	375
1959	July 14, 1949	13.47	420				
1960	Mar. 21, 1960	12.59	220				

8485. Prairie Dog Creek near Woodruff, Kans.

Location.--Lat 39°59'00", long 99°28'30", in NW¼ sec.9 T.1 S., R.19 W., at bridge on U.S. Highway 383, 1 mile south of Kansas-Nebraska State line, 2½ miles west of Woodruff, and 33 miles upstream from mouth.

Drainage area.--980 sq mi, approximately; 1,050 sq mi, approximately, at former sites.

Gage.--Nonrecording Mar. 19, 1929, to June 30, 1932, May 8, 1951, to Feb. 19, 1952, and Oct. 1, 1954, to Oct. 6, 1955; recording May 11, 1945, to May 7, 1951, Feb. 20, 1952, to Sept. 30, 1954, and after Oct. 7, 1955. At site 200 ft downstream at different datum Mar. 19, 1929, to June 30, 1932. At site 18 miles downstream at datum 73.12 ft lower May 11, 1945, to May 7, 1951. At site 21 miles downstream at datum 82.94 ft lower May 8, 1951, to Feb. 19, 1952, and at site 18 miles downstream at datum 71.29 ft lower Feb. 20, 1952, to Oct. 6, 1955. Datum of present gage is 2,016.20 ft above mean sea level, datum of 1929.

Stage-discharge relation.--1929-32: Defined by current-meter measurements below 1,000 cfs; extended above by relation with later sites.
1945-62: Defined by current-meter measurements below 6,500 cfs and by contracted-opening measurement at 11,300 cfs.

Remarks.--Records at previous sites considered equivalent. Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	July 25, 1929	25.02	a6,680	1951	July 28, 1951	18.1	4,500
					Sept. 8, 1951	17.15	2,400
1930	June 20, 1930	14.66	a1,200	1952	July 14, 1952	14.47	1,410
1931	Oct. 12, 1930	20.10	a2,560	1953	May 29, 1953	18.48	11,300
1932	Feb. 21, 1932	16.07	1,400		July 22, 1953	15.17	1,720
1945	June 24, 1945	17.57	a1,580	1954	Aug. 17, 1954	12.43	1,000
1946	May 31, 1946	16.74	1,400	1955	Sept.20, 1955	12.02	948
1947	Oct. 12, 1946	17.88	1,620	1956	July 8, 1956	12.82	964
	June 23, 1947	21.04	15,000				
	June 26, 1947	18.17	2,310	1957	May 18, 1957	16.96	1,600
					June 16, 1957	26.70	8,910
1948	June 29, 1948	15.11	972	1958	July 22, 1958	12.64	906
1949	May 8, 1949	17.29	1,950				
	May 21, 1949	17.16	1,870	1959	June 23, 1959	11.83	725
	June 7, 1949	17.43	2,020				
	June 13, 1949	17.30	1,920	1960	Mar. 23, 1960	23.20	4,480
	June 20, 1949	17.30	1,850		May 16, 1960	21.67	3,400
1950	July 29, 1950	18.06	1,340	1961	May 22, 1961	20.78	2,890
					June 5, 1961	23.21	4,490
1951	June 9, 1951	17.01	2,260				
	June 25, 1951	17.20	2,510	1962	July 3, 1962	20.50	2,740
	July 14, 1951	19.25	8,560				

a Annual peak only.

8500. Turkey Creek at Naponee, Nebr.

Location.--Lat 40°04'30", long 99°08'20", in SW¼SW¼ sec.4, T.1 N., R.16 W., on upstream side of bridge on county road at Naponee, three-quarters of a mile upstream from mouth.

Drainage area.--160 sq mi.

Gage.--Nonrecording. Datum of gage is 1,870.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Turkey Creek at Naponee, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 28, 1948	7.28	804	1951	July 11, 1951	6.14	635
1949	May 8, 1949	6.83	688	1952	July 14, 1952	7.25	906
1950	Sept.20, 1950	9.50	1,920	1953	May 28, 1953	5.25	368

8502. Cottonwood Creek near Bloomington, Nebr.

Location.--Lat 40°05'10", long 99°03'55", in NW¼ sec.6, T.1 N., R.15 W., on right bank 50 ft downstream from bridge on county road, 1 mile upstream from mouth, and 1½ miles west of Bloomington.

Drainage area.--15.6 sq mi.

Gage.--Nonrecording prior to Aug. 5, 1949; recording gage thereafter. At datum 1.01 ft higher prior to June 29, 1949. Datum of gage is 1,846.20 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 60 cfs and by slope-area measurements at 490 and 1,100 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)
1948	June 27, 1948	2.50	220	1952	July 13, 1952	4.71	492
1949	June 24, 1949	4.12	542	1953	Aug. 19, 1953	1.77	48
1950	Jan. 26, 1950	a1.73	-	1954	Sept. 8, 1954	4.31	317
	May 4, 1950	-	21	1955	June 4, 1955	6.65	1,100
1951	June 6, 1951	3.39	256	1956	Sept. 5, 1956	1.81	27

a Backwater from ice.

8505. Republican River near Bloomington, Nebr.

Location.--Lat 40°04'00", long 99°02'10", in NW¼SE¼ sec.8, T.1 N., R.15 W., on right bank 600 ft downstream from highway bridge, 2 miles south of Bloomington, 2½ miles downstream from Cottonwood Creek, 9½ miles downstream from Turkey Creek, and 13¼ miles downstream from Harlan County Dam.

Drainage area.--20,800 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Nonrecording prior to Nov. 20, 1938; recording thereafter. At site 600 ft upstream at datum 1.00 ft higher prior to Apr. 13, 1935. Datum of gage is 1,824.15 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and by indirect measurements at 140,000 and 260,000 cfs.

Remarks.--Natural flow affected by irrigation development above station; since 1949, by storage in Bonny Reservoir; since 1950, by storage in Enders Reservoir and Harry Strunk Lake; since Nov. 14, 1952, by storage in Harlan County Reservoir; and since 1953, by storage in Swanson Lake. 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 9, 1929	8.44	10,600	1936	May 9, 1936	8.59	12,100
1930	June 5, 1930	8.54	11,000	1937	June 3, 1937	8.00	10,300
				1938	June 1, 1938	7.80	8,860
1931	Oct. 14, 1930	8.38	10,400	1939	June 22, 1939	7.72	13,600
1932	Feb. 24, 1932	7.37	7,370	1940	July 1, 1940	8.98	20,000
1933	Apr. 22, 1933	8.00	9,260				
1934	June 17, 1934	7.10	6,600	1941	July 27, 1941	8.85	19,500
1935	June 1, 1935	20.4	260,000	1942	Apr. 20, 1942	-	16,800

Peak stages and discharges of Republican River near Bloomington, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	June 13, 1942	7.66	-	1950	Aug. 9, 1950	7.34	8,950
1943	Apr. 11, 1943	6.80	6,960				
1944	Apr. 24, 1944	-	9,500	1951	May 22, 1951	7.14	11,500
	June 13, 1944	7.40	-	1952	July 14, 1952	4.93	3,330
1945	June 6, 1945	7.58	15,000	1953	Jan. 29, 1953	-	915
					Feb. 20, 1953	a4.32	-
1946	Sept. 7, 1946	6.76	8,810	1954	May 27, 1954	2.64	636
1947	June 23, 1947	15.1	140,000	1955	June 4, 1955	6.76	5,080
1948	June 23, 1948	7.54	22,000				
1949	Feb. 25, 1949	a8.72	-	1956	Aug. 1, 1956	2.64	547
	May 21, 1949	-	6,730	1957	June 16, 1957	7.40	4,720

a Backwater from ice.

8510. Center Creek at Franklin, Nebr.

Location.--Lat 40°06'12", long 98°58'45", in NW corner NE¼ sec.35, T.2 N., R.15 W., on downstream guardrail of bridge on State Highway 3, 1 mile northwest of Franklin, and 3 miles upstream from mouth.

Drainage area.--146 sq mi of which 57.4 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. At site 1.5 miles downstream at datum 31.11 ft lower prior to Dec. 19, 1952. Datum of gage is 1,859.18 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 420 cfs and by slope-area measurement at 3,150 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)
1948	Aug. 14, 1948	3.3	370	1953	Dec. 20, 1952	a1.88	-
1949	Feb. 23, 1949	a3.58	-		Mar. 4, 1953	-	14
	May 6, 1949	-	365	1954	Aug. 17, 1954	3.14	-
1950	Sept.20, 1950	6.8	3,150	1955	June 4, 1955	-	-
1951	July 11, 1951	3.0	815	1956	Jan. 25, 1956	a1.64	-
1952	July 14, 1952	2.30	211		Mar. 12, 1956	-	11

a Backwater from ice.

8511. West Branch Thompson Creek at Hildreth, Nebr.

Location.--Lat 40°21'40", long 99°01'40", in NW¼SW¼ sec.33, T.5 N., R.15 W., on right downstream wingwall of bridge on north-south county road, 4 miles west of State Highway 10, 1.5 miles north of State Spur 310, and 1.7 miles northeast of Hildreth.

Drainage area.--27.4 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 117 cfs and by indirect measurements at 228, 329, and 881 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)
1953	June 7, 1953	9.01	16	1958	Aug. 15, 1958	13.93	1,290
1954	May 16, 1954	11.04	88	1959	July 4, 1959	12.13	329
1955	June 17, 1955	11.16	110	1960	Mar. 27, 1960	12.13	329
1956	July 5, 1956	10.97	75	1961	May 21, 1961	11.26	130
1957	June 15, 1957	13.17	881	1962	July 1, 1962	12.03	305

8512. West Branch Thompson Creek near Hildreth, Nebr.

Location.--Lat 40°20'20", long 99°00'10", in NE¼NW¼ sec.10, T.4 N., R.15 W., on right downstream wingwall of bridge on State Spur 310, 2.2 miles east of Hildreth.

Drainage area.--56.6 sq mi.

Gage.--Crest-stage gage. At datum 2.70 ft lower prior to June 23, 1955. At datum 2.00 ft lower June 23, 1955, to Feb. 1, 1962.

Stage-discharge relation.--Defined by current-meter measurements below 162 cfs and by slope-area measurements at 652 and 1,670 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)
1953	June 7, 1953	11.18	10	1958	Aug. 15, 1958	14.90	306
1954	May 16, 1954	12.4	35	1959	July 4, 1959	15.83	652
1955	June 17, 1955	13.55	105	1960	Mar. 27, 1960	16.02	720
1956	July 5, 1956	11.04	8	1961	May 21, 1961	12.56	243
1957	June 15, 1957	18.35	1,670	1962	July 1, 1962	13.13	376

8513. West Branch Thompson Creek tributary near Hildreth, Nebr.

Location.--Lat 40°19'20", long 99°00'40", in NW¼NW¼ sec.15, T.4 N., R.15 W., on right downstream wingwall of bridge on north-south county road, 3 miles west of State Highway 10, 1.1 miles south of State Spur 310, and 2 miles southeast of Hildreth.

Drainage area.--13.9 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by low-flow field estimates, a current-meter measurement at 33 cfs, and indirect measurements at 50, 71, 336, 506, 539, and 907 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)
1953	June 7, 1953	10.48	11	1958	Aug. 15, 1958	15.47	486
1954	May 27, 1954	13.63	193	1959	July 4, 1959	15.52	490
1955	June 4, 1955	12.70	71	1960	May 19, 1960	15.10	460
1956	July 5, 1956	12.68	70	1961	May 21, 1961	13.28	190
1957	June 15, 1957	18.20	907	1962	July 1, 1962	15.11	457

8514. West Branch Thompson Creek near Upland, Nebr.

Location.--Lat 40°17'40", long 98°56'10", in NE¼NE¼ sec.30, T.4 N., R.14 W., on left downstream wingwall of bridge on State Highway 4, 0.8 mile east of State Highway 10, and 3 miles southwest of Upland.

Drainage area.--90.8 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 252 cfs and by slope-area measurements at 307 and 2,040 cfs.

Bankfull stage.--12 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of West Branch Thompson Creek near Upland, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Sept. 3, 1953	10.52	38	1958	Aug. 15, 1958	14.28	1,660
1954	Aug. 16, 1954	11.73	82	1959	July 4, 1959	12.47	450
1955	June 4, 1955	11.66	77	1960	Mar. 27, 1960	13.39	1,060
1956	July 5, 1956	11.00	105	1961	May 21, 1961	11.78	260
1957	June 15, 1957	14.89	2,040	1962	July 1, 1962	13.67	1,230

8515. Thompson Creek at Riverton, Nebr.

Location.--Lat 40°05'25", long 98°45'45", in NW¼ sec.2, T.1 N., R.13 W., on left bank 8 ft downstream from bridge on State Highway 3, at west edge of Riverton, half a mile upstream from mouth.

Drainage area.--223 sq mi.

Gage.--Recording. At datum 1.32 ft higher prior to July 9, 1950. Datum of gage is 1,753.38 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,200 cfs and by slope-area measurement at 12,200 cfs.

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)
1949	May 8, 1949	4.82	1,630	1953	Mar. 1, 1953	a4.48	-
	June 8, 1949	6.12	3,260		June 7, 1953	4.26	53
	June 24, 1949	4.96	1,610	1954	Aug. 17, 1954	4.80	375
1950	July 9, 1950	13.22	12,200				
	Sept.20, 1950	5.27	2,120	1955	June 4, 1955	8.00	3,160
1951	July 11, 1951	6.83	2,530	1956	Jan. 17, 1956	a4.71	-
					July 5, 1956	4.54	287
1952	July 14, 1952	7.70	2,660				

a Backwater from ice.

8520. Elm Creek at Amboy, Nebr.

Location.--Lat 40°05', long 98°26', in NE¼NW¼ sec.3, T.1 N., R.10 W., on right bank, 8 ft downstream from bridge on State Highway 3, at east edge of Amboy, 200 ft east of Chicago, Burlington & Quincy Railroad track, 2½ miles upstream from mouth, and 4½ miles east of Red Cloud.

Drainage area.--39.2 sq mi.

Gage.--Nonrecording prior to July 16, 1952; recording thereafter. At datum 1.00 ft higher prior to July 17, 1952. Datum of gage is 1,665.33 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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)
1948	June 22, 1948	4.3	412	1951	July 11, 1951	7.0	1,950
1949	May 21, 1949	6.25	1,100	1952	July 14, 1952	7.15	1,060
1950	Sept.20, 1950	8.45	3,860	1953	June 8, 1953	6.95	964

8530. Republican River near Guide Rock, Nebr.

Location.--Lat 40°04'05", long 98°22'25", in SW¼NE¼ sec.7, T.1 N., R.9 W., on left bank 300 ft upstream from Willow Creek, a quarter of a mile downstream from Courtland diversion dam, and 2 miles southwest of Guide Rock.

Drainage area.--22,060 sq mi, approximately, of which a large area does not contribute directly to surface runoff.

Gage.--Recording. At datum 5.00 ft higher prior to Oct. 1, 1959. Datum of gage is 1,624.13 ft above mean sea level, datum of 1929.

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

Historical data.--Maximum flood known occurred June 1 or 2, 1935 (discharge, about 250,000 cfs, from slope-area measurements near Bloomington and Hardy).

Remarks.--Natural flow affected by irrigation development above station, by storage in upstream reservoirs, and since Nov. 14, 1952, by storage in Harlan County Reservoir. 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	Sept.20, 1950	8.47	10,300	1957	June 16, 1957	15.73	29,200
				1958	Aug. 17, 1958	6.27	3,020
1951	May 22, 1951	9.82	14,300	1959	July 4, 1959	9.26	5,560
1952	July 14, 1952	7.51	7,980	1960	June 23, 1960	13.94	5,640
1953	June 8, 1953	5.43	2,720				
1954	May 23, 1954	5.59	3,010	1961	June 6, 1961	14.60	6,390
1955	June 5, 1955	10.15	10,200	1962	July 2, 1962	12.63	-
					July 19, 1962	-	4,380
1956	July 5, 1956	6.64	2,700				

8535. Republican River near Hardy, Nebr.
(Published as "at Bostwick," 1904-15, 1931-32)

Location.--Lat 40°00', long 97°56', in sec.6, T.1 S., R.5 W., in Kansas, at highway bridge 1¼ miles southwest of Hardy and at mile 145.1.

Drainage area.--22,400 sq mi, approximately, of which about 16,700 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to May 19, 1932; recording thereafter. At site at Bostwick 20 miles upstream at different datum prior to May 19, 1932. Datum of gage is 1,501.46 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and at 225,000 cfs from records for stations upstream.

Bankfull stage.--11 ft (U.S. Weather Bureau).

Historical data.--Indian legend indicates a great flood occurred in 1826 comparable to that of 1935 which is the greatest known since at least 1895.

Remarks.--Peak discharges prior to 1953 are not appreciably affected by storage reservoirs and irrigation developments. Active storage in Harlan County Reservoir began Nov. 14, 1952, but has probably reduced annual peak discharges of 1953-56 by less than 1,200 cfs. In subsequent years, the operation of reservoirs upstream may have an appreciable effect. Records for station at Bostwick are considered equivalent. Base for partial-duration series, 8,000 cfs. Only annual peaks are shown prior to 1933.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 29, 1903	-	35,500	1908	June 18, 1908	7.8	12,900
1904	July 5, 1904	6.8	9,460	1909	Sept.19, 1909	7.0	10,100
1905	July 4, 1905	11.0	30,000	1910	Aug. 20, 1910	5.5	6,200
1906	May 2, 1906	4.95	5,220	1911	Aug. 3, 1911	10.5	21,300
1907	June 7, 1907	4.0	3,540	1912	Mar. 28, 1912	6.5	8,150

Peak stages and discharges of Republican River near Hardy, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1913	May 10, 1913	4.3	3,130
1914	June 17, 1914	8.0	11,500
1915	June 19, 1915	12.5	38,000
1931	May 5, 1931	8.0	-
1932	Feb. 25, 1932	10.09	32,000
1933	Apr. 22, 1933	8.73	6,200
1934	June 18, 1934	8.50	6,000
1935	June 2, 1935	19.4	225,000
	June 19, 1935	11.0	11,200
	Aug. 28, 1935	10.25	10,200
	Aug. 30, 1935	9.48	8,660
	Sept. 9, 1935	10.97	12,200
1936	May 9, 1936	10.15	10,100
1937	June 4, 1937	9.65	9,100
1938	June 1, 1938	9.22	7,620
1939	June 10, 1939	8.98	8,680
	June 21, 1939	9.13	9,040
	June 23, 1939	10.24	11,700
1940	June 10, 1940	9.56	9,750
	July 2, 1940	8.85	8,580
1941	May 21, 1941	9.00	8,340
	June 3, 1941	9.80	10,200
	June 7, 1941	10.13	13,400
	June 9, 1941	13.20	24,800
	July 28, 1941	10.90	12,100
	Aug. 24, 1941	9.13	8,580
	Sept. 5, 1941	9.00	8,580
1942	Apr. 21, 1942	9.34	11,900
	June 14, 1942	10.20	11,400
	June 25, 1942	11.10	14,000
	Aug. 26, 1942	10.50	12,100
	Sept. 4, 1942	10.50	13,200
1943	Apr. 12, 1943	9.39	11,100
	June 11, 1943	10.47	10,200
	June 15, 1943	10.65	10,800
1944	Apr. 25, 1944	9.18	9,230
	June 9, 1944	9.65	8,630
	June 14, 1944	9.70	9,150
	July 24, 1944	9.45	8,130
	Aug. 26, 1944	10.22	9,150
1945	May 14, 1945	10.10	13,500
	May 21, 1945	9.30	9,420
	June 7, 1945	9.55	10,500
1945	July 17, 1945	11.12	18,500
1946	July 7, 1946	11.20	11,800
	July 8, 1946	10.18	9,980
	July 14, 1946	10.30	10,300
1947	Oct. 10, 1946	11.20	13,800
	Oct. 13, 1946	11.48	15,100
	June 24, 1947	17.00	100,000
	June 27, 1947	9.90	8,980
1948	Feb. 28, 1948	9.58	8,740
	Mar. 18, 1948	10.40	11,400
	June 24, 1948	11.15	13,700
	June 28, 1948	10.95	13,100
1949	May 9, 1949	10.24	11,400
	May 21, 1949	9.58	9,260
	June 9, 1949	12.60	20,000
	June 13, 1949	10.67	12,800
1950	July 10, 1950	13.70	30,000
	July 17, 1950	11.12	13,800
	Aug. 10, 1950	9.40	9,800
	Sept.20, 1950	11.08	15,300
1951	May 22, 1951	11.32	13,300
	June 2, 1951	12.59	18,600
	June 7, 1951	12.40	17,700
	June 22, 1951	9.22	8,100
	June 24, 1951	9.22	8,100
	July 11, 1951	12.29	17,200
	July 15, 1951	10.08	9,920
	Sept.10, 1951	9.98	10,800
1952	July 15, 1952	9.91	10,700
1953	June 8, 1953	9.02	6,380
1954	May 24, 1954	8.76	2,190
1955	June 6, 1955	10.40	a8,400
1956	July 6, 1956	8.11	2,710
1957	June 17, 1957	14.83	a38,900
1958	Sept. 6, 1958	11.18	6,960
1959	July 5, 1959	10.08	5,410
1960	Mar. 28, 1960	11.48	8,070
1961	June 7, 1961	10.56	6,550
1962	July 2, 1962	10.05	5,580

a Annual peak only.

8538. White Rock Creek near Burr Oak, Kans.

Location.--Lat 39°53'55", long 98°15'05", in NE¼ sec.7, T.2 S., R.8 W., at highway bridge 3½ miles northeast of Burr Oak.

Drainage area.--224 sq mi.

Gage.--Recording with concrete control. Datum of gage is 1,601.5 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 4,000 cfs.

Historical data.--Maximum stage known since at least 1869, 32.6 ft July 9, 1950, from floodmark and information by local resident.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges of White Rock Creek near Burr Oak, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 18, 1958	13.30	1,190	1960	June 23, 1960	13.09	1,420
	Sept. 6, 1958	12.45	1,050		Aug. 28, 1960	15.52	1,930
1959	May 4, 1959	13.56	1,230	1961	May 22, 1961	13.26	1,450
					June 6, 1961	18.96	4,940
1960	Oct. 6, 1959	14.53	1,380		Sept.13, 1961	16.07	2,190
	Mar. 27, 1960	16.93	2,280				
	Apr. 1, 1960	14.13	1,630	1962	Jan. 27, 1962	13.68	1,400
	June 16, 1960	12.42	1,280		June 1, 1962	13.73	1,330
	June 21, 1960	11.60	1,120		June 24, 1962	15.10	1,730

8540. White Rock Creek at Lovewell, Kans.

Location.--Lat 39°53'10", long 98°01'20", in NW¼ sec.17, T.2 S., R.6 W., on right bank 1,400 ft east of Lovewell Dam, 2.5 miles northwest of Lovewell, and 19.5 miles upstream from mouth.

Drainage area.--342 sq mi; 358 sq mi at site 2 miles downstream.

Gage.--Nonrecording May 21, 1946, to Sept. 13, 1947, and Apr. 24, 1951, to Nov. 8, 1952; recording Sept. 14, 1947, to Apr. 23, 1951, and since Nov. 9, 1952. At site 3 miles downstream at datum 1,513.95 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark) prior to Apr. 24, 1951. At site 2 miles downstream at datum 1,519.53 ft above mean sea level, datum of 1929, Apr. 24, 1951, to June 14, 1960. Datum of gage is 1,531.52 ft above mean sea level (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 5,200 cfs and extended above on basis of logarithmic plotting and current-meter measurement at 20,800 cfs made at site 6 miles upstream.

Historical data.--Flood of 1938 reached a stage of about 19.3 ft (adjusted to site and datum used 1951-60; discharge, about 4,000 cfs) from local information reported in 1946.

Floods of 1950 and 1951 are the greatest since 1870 according to information by local residents.

Remarks.--Gage heights 1938-50 adjusted to site and datum used 1951-60. Flow regulated by Lovewell Reservoir since May 29, 1957. 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)
1946	June 19, 1946	a14.4	1,470	1950	Sept.21, 1950	a14.1	1,380
	July 16, 1946	a16.1	1,960		Sept.29, 1950	a14.1	1,380
	Sept. 8, 1946	a16.2	2,000				
	Sept.15, 1946	a16.2	2,000	1951	Oct. 3, 1950	a17.8	2,950
					Apr. 25, 1951	13.25	1,360
1947	Nov. 16, 1946	a13.8	1,360		June 3, 1951	16.85	2,230
	Apr. 10, 1947	a14.8	1,590		June 7, 1951	20.6	9,800
	Apr. 29, 1947	a15.8	1,890		June 22, 1951	15.88	1,980
	June 6, 1947	a16.3	2,080		July 12, 1951	20.10	7,800
	June 12, 1947	a16.6	2,210		July 28, 1951	14.0	1,530
	June 22, 1947	16.7	2,260		Aug. 19, 1951	13.25	1,360
	June 27, 1947	18.6	3,400		Aug. 28, 1951	13.25	1,360
					Sept. 5, 1951	15.35	1,850
1948	Mar. 20, 1948	a14.4	1,140				
	July 9, 1948	a14.0	1,090	1952	May 22, 1952	13.07	1,260
					June 27, 1952	15.22	1,790
1949	Feb. 12, 1949	a14.4	1,200				
	Feb. 25, 1949	ab18.5	1,500	1953	May 27, 1953	14.22	1,460
	May 9, 1949	a14.4	1,540		June 8, 1953	12.68	1,250
	May 19, 1949	a12.8	1,140		Sept. 4, 1953	13.20	1,140
	May 22, 1949	a14.4	1,490				
	June 7, 1949	a14.7	1,560	1954	May 28, 1954	13.98	1,600
	June 10, 1949	a16.5	2,000		May 31, 1954	17.07	2,630
	June 14, 1949	a17.7	2,570				
				1955	Oct. 2, 1954	11.63	1,040
1950	Oct. 10, 1949	a16.8	2,320		June 5, 1955	16.59	2,130
	May 30, 1950	a15.5	1,970		June 19, 1955	19.19	4,330
	July 10, 1950	22.8	23,300				
	July 18, 1950	a15.4	1,560	1956	June 23, 1956	19.74	5,660
	Aug. 12, 1950	a17.8	3,010		July 2, 1956	15.33	1,680

a Gage heights are estimated.
b Backwater from ice.

Peak stages and discharges of White Rock Creek at Lovewell, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	July 3, 1956	13.00	1,160	1960	Apr. 12, 1960	11.06	780
	July 5, 1956	17.17	2,340	1961	June 14, 1961	8.72	767
1957	May 16, 1957	13.57	1,160	1962	June 4, 1962	7.09	541
1958	Sept. 4, 1958	17.68	2,650				
1959	June 2, 1959	9.97	631				

8545. Republican River at Scandia, Kans.

Location.--Lat 39°48', long 97°47', in NE¼ sec.17, T.3 S., R.4 W., at bridge on U.S. Highway 36 at Scandia, 4 miles downstream from Dry Creek, 4 miles upstream from School Creek, and at mile 125.2.

Drainage area.--22,930 sq mi, approximately, of which about 17,230 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 29, 1952; recording thereafter. Datum of gage is 1,422.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs, velocity-area study at 215,000 cfs, and records for stations upstream and downstream. Discharges during period of operation by U.S. Weather Bureau, 1945-50, based on 4 current-meter measurements, an indirect measurement at 78,500 cfs, and stage-discharge relation for adjacent periods.

Bankfull stage.--10 ft (U.S. Weather Bureau).

Historical data.--Indian legend indicates a great flood occurred in 1826 comparable to that of 1935 which is the greatest known since at least 1895. Peak stages shown for 1903, 1915, and 1935 obtained from floodmarks painted on Missouri Pacific Railroad station.

Remarks.--Peak discharges prior to 1953 are not appreciably affected by storage reservoirs and irrigation developments. Active storage in Harlan County Reservoir began Nov. 14, 1952, but has probably reduced annual peak discharges of 1953-56 by less than 1,200 cfs. In subsequent years, the operation of reservoirs upstream may have an appreciable effect. Gage heights for period 1945-50 furnished by U.S. Weather Bureau. 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)
1903	May 1903	12.3	ab38,400	1933	Apr. 22, 1933	8.50	8,620
1915	June 20, 1915	14.2	b60,000	1934	June 18, 1934	7.36	6,150
1919	Sept.19, 1919	10.9	22,500	1935	May 28, 1935	10.35	13,300
					June 2, 1935	17.8	215,000
1920	May 1920	5.85	4,100		June 19, 1935	11.5	40,000
					Aug. 28, 1935	8.1	8,970
1921	May 20, 1921	7.0	6,670		Sept. 9, 1935	9.0	11,400
1922	July 26, 1922	7.0	6,670	1936	May 10, 1936	10.0	15,000
					June 1, 1936	8.05	8,500
1923	May 26, 1923	b10.2	b16,000				
	June 12, 1923	11.4	27,500	1937	June 6, 1937	8.08	8,080
1924	July 21, 1924	7.1	6,850	1938	June 1, 1938	8.55	8,170
1925	June 24, 1925	6.2	5,220	1939	June 11, 1939	8.60	8,480
					June 23, 1939	9.41	10,300
1928	Aug. 4, 1928	9.1	11,000				
				1940	June 10, 1940	8.57	8,170
1929	June 10, 1929	8.10	7,680				
				1941	June 9, 1941	12.52	48,000
1930	June 6, 1930	8.56	8,820		July 28, 1941	10.1	12,700
					Sept.15, 1941	10.6	15,200
1931	Oct. 15, 1930	8.2	8,030				
	May 5, 1931	9.58	10,800	1942	Apr. 21, 1942	9.08	11,200
					June 13, 1942	10.0	12,300
1932	Feb. 25, 1932	7.78	7,270		June 25, 1942	11.1	17,200

a Annual peak only.
b Approximate.

Peak stages and discharges of Republican River at Scandia, Kans.,--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Aug. 26, 1942	12.21	27,200	1951	May 22, 1951	10.03	14,700
	Sept. 3, 1942	11.30	19,600		June 2, 1951	11.13	22,400
					June 7, 1951	11.25	23,800
1943	Apr. 12, 1943	9.8	11,600		June 22, 1951	8.75	10,600
	June 11, 1943	11.54	22,300		July 11, 1951	11.60	38,100
	June 15, 1943	11.36	21,400				
				1952	July 15, 1952	8.13	8,920
1944	Apr. 25, 1944	9.0	9,350				
	May 3, 1944	8.4	8,060	1953	June 8, 1953	7.70	7,720
	June 9, 1944	8.4	8,060				
	June 14, 1944	8.89	9,130	1954	June 9, 1954	6.50	4,800
	July 24, 1944	8.90	8,810				
	Aug. 26, 1944	11.00	17,900	1955	June 6, 1955	8.60	8,800
1945	May 14, 1945	11.8	a25,200	1956	June 22, 1956	8.70	8,950
1946	July 7, 1946	10.75	a16,400	1957	June 18, 1957	13.72	22,000
1947	June 24, 1947	15.0	ab78,500	1958	Sept. 5, 1958	13.06	19,100
1948	June 28, 1948	9.85	a13,700	1959	July 5, 1959	6.90	5,540
1949	June 9, 1949	11.5	a23,700	1960	Mar. 27, 1960	9.20	9,750
1950	July 10, 1950	12.75	a37,200	1961	June 8, 1961	7.49	6,280
1951	Oct. 2, 1950	b8.2	b8,000	1962	July 3, 1962	6.77	5,160

a Annual peak only.
b Approximate

8550. West Buffalo Creek near Jewell, Kans.

Location.--Lat 39°40', long 98°11', in NW¼ sec.25, T.4 S., R.8 W., 1 mile northwest of Jewell and 1 mile upstream from dam of city of Jewell.

Drainage area.--15.2 sq mi.

Gage.--Recording and concrete control. Datum of gage is 1,549.30 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 1,500 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)
1934	June 22, 1934	-	47	1937	June 13, 1937	7.78	814
1935	Sept. 1, 1935	12.09	3,520	1938	June 11, 1938	5.97	200
1936	May 10, 1936	3.89	82				

8560. Republican River at Concordia, Kans.

Location.--Lat 39°35'30", long 97°39'30", near center of sec.28, T.5 S., R.3 W., at bridge on U.S. Highway 81, 1 mile north of Concordia, 3.4 miles downstream from Buffalo Creek, and at mile 102.4.

Drainage area.--23,540 sq mi, approximately, of which about 17,840 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 7, 1947; recording thereafter. Gage heights only at site 0.7 mile upstream at datum 4.28 ft higher Apr. 1, 1930, to Mar. 13, 1940, at present site thereafter. At datum 1.20 ft higher Mar. 14 to Nov. 16, 1940, and at datum 2.0 ft higher Nov. 17, 1940, to Oct. 7, 1947. Datum of present gage is 1,333.62 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements since 1945 below 61,000 cfs and by records for stations upstream at 207,000 cfs.

Bankfull stage.--10 ft (U.S. Weather Bureau).

Historical data.--Indian legend indicates a great flood occurred in 1826 comparable to that of 1935 which is the greatest known since at least 1895.

Remarks.--Gage heights 1940-47 adjusted to present datum. Peak discharges prior to 1953 are not appreciably affected by storage reservoirs and irrigation developments upstream. Active storage in Harlan County Reservoir began Nov. 14, 1952, but has probably reduced annual peak discharges of 1953-56 by less than 1,200 cfs. In subsequent years, the operation of reservoirs upstream may have an appreciable effect. Gage heights 1930-45 furnished by U.S. Weather Bureau. 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)
1903	May 29, 1903	12.2	a41,000	1948	June 28, 1948	9.76	15,600
					July 9, 1948	8.52	9,150
1915	June 21, 1915	14.1	a60,000		July 20, 1948	8.53	9,150
1930	June 6, 1930	8.5	-	1949	May 9, 1949	8.72	9,680
					May 22, 1949	8.82	10,600
1931	May 5, 1931	8.3	-		June 9, 1949	10.36	17,000
					June 13, 1949	9.75	13,500
1932	Feb. 25, 1932	8.1	-	1950	May 9, 1950	8.40	13,200
1933	Apr. 22, 1933	7.6	-		July 10, 1950	11.12	32,600
					July 18, 1950	10.06	24,500
1934	June 19, 1934	6.5	-		Aug. 13, 1950	7.77	11,400
					Sept.21, 1950	9.52	18,200
1935	June 2, 1935	18	a207,000	1951	Oct. 2, 1950	8.87	13,000
1936	May 10, 1936	7.7	-		May 23, 1951	9.72	18,500
					June 2, 1951	10.20	23,300
1937	June 7, 1937	7.1	-		June 7, 1951	9.95	20,800
					June 11, 1951	8.26	10,100
1938	July 29, 1938	5.6	-		June 14, 1951	7.67	8,060
					June 23, 1951	10.03	21,600
1939	June 23, 1939	8.0	-		June 25, 1951	8.45	10,900
					June 27, 1951	8.19	9,860
1940	June 11, 1940	8.2	-		July 13, 1951	11.23	33,600
					July 16, 1951	8.86	12,800
1941	June 9, 1941	13.8	a49,000		Sept.11, 1951	7.80	9,500
1942	Sept. 4, 1942	10.9	a18,000	1952	July 15, 1952	6.92	7,020
1943	June 15, 1943	11.9	a24,000	1953	June 8, 1953	6.57	5,860
1954	Aug. 26, 1944	10.54	a16,000	1954	May 31, 1954	5.69	3,780
1945	May 14, 1945	11.7	a23,000	1955	June 6, 1955	8.12	7,550
1946	July 7, 1946	10.7	17,400	1956	June 23, 1956	7.56	6,220
	July 16, 1946	10.4	16,500				
	Sept. 7, 1946	10.85	17,900	1957	June 18, 1957	13.11	24,000
	Sept.14, 1946	10.2	15,100				
				1958	Sept. 5, 1958	13.06	19,100
1947	Oct. 13, 1946	10.20	15,100				
	Apr. 10, 1947	8.8	9,950	1959	May 7, 1959	6.95	5,430
	June 6, 1947	8.47	9,150				
	June 12, 1947	9.1	10,900	1960	Mar. 28, 1960	10.92	13,800
	June 25, 1947	14.90	75,000				
				1961	Sept.13, 1961	13.30	24,600
1948	Mar. 18, 1948	8.46	9,150				
	June 24, 1948	9.56	12,700	1962	July 3, 1962	7.19	6,200

a Annual peak only; approximate.

8561. West Salt Creek near Talmo, Kans.

Location.--Lat 39°40'00", long 97°36'50", in NW¼NW¼ sec.36, T.4 S., R.3 W., on left bank at downstream side of highway bridge, 2.5 miles southwest of Talmo, and 7.0 miles northeast of Concordia.

Drainage area.--42 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs, by contracted-opening measurement at 8,890 cfs, and extended above by logarithmic plotting.

Historical data.--Flood of June 1941 was 1.2 ft higher than that of Sept. 5,1958, and is the highest known since at least 1883, from information by local resident.

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)
1941	June 1941	24.45	-	1960	Mar. 27, 1960	18.47	1,100
1957	June 16, 1957	18.85	1,400	1961	Sept.12, 1961	22.58	7,000
1958	Sept. 5, 1958	23.25	8,890	1962	July 18, 1962	19.44	1,900
1959	May 5, 1959	11.77	130				

8566. Republican River at Clay Center, Kans.

Location.--Lat 39°21', long 97°08', in SW¼ sec.17, T.8 S., R.3 E., at downstream side of bridge on State Highway 15, 1 mile south of Clay Center, 4 miles downstream from Five Creeks, and at mile 42.1.

Drainage area.--24,570 sq mi, approximately, of which a large area is noncontributing.

Gage.--Nonrecording June 21, 1917, to Feb. 14, 1934, June 3, 1935, to May 7, 1936, and Jan. 19 to Sept. 22, 1949; recording Feb. 15, 1934, to June 2, 1935, May 8, 1936, to Jan. 18, 1949, and since Sept. 22, 1949. At site 15½ miles downstream, at Wakefield, at datum 39.88 ft lower prior to Feb. 14, 1934. Datum of gage is 1,159.21 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements since 1934 below 50,000 cfs and by velocity-area studies at 195,000 cfs.

Bankfull stage.--15 ft (U.S.Weather Bureau).

Historical data.--Indian legend indicates a great flood occurred in 1826 comparable to that in 1935. The flood of June 21, 1915, "has beat the record of 1903" according to Clay County Dispatch of June 24, 1915. The flood of 1935 was 3.2 ft higher in water plant than that at gage in 1915 according to information by City Engineer in 1941. The three greatest floods in the period 1895-1956 are respectively 1935, 1915, and 1903. That of 1935 is the greatest known.

Remarks.--Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado, Nebraska, and Kansas. Base for partial-duration series, 7,300 cfs. Only annual peaks are shown subsequent to 1951.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 29, 1903	24.8	ab84,000	1907	July 17, 1907	9.9	-
1904	Aug. 11, 1904	c7.6	-	1908	June 6, 1908	21.6	-
1905	July 7, 1905	22.6	-	1909	July 13, 1909	11.5	-
1906	May 5, 1906	10.5	-	1910	May 29, 1910	13.3	-

a Annual peak only.
b Approximate.
c Maximum for period Aug. 1 to Sept. 30.

Peak stages and discharges of Republican River at Clay Center, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1911	Aug. 12, 1911	17.4	-
1912	Feb. 18, 1912	15.6	-
1913	May 12, 1913	13.8	-
1914	June 19, 1914	13.8	-
1915	June 21, 1915	26.2	ab93,000
1916	Feb. 18, 1916	15.2	-
1917	June 6, 1917	17.4	-
1918	May 24, 1918	6.55	4,830
1919	June 10, 1919	11.05	18,200
	Sept.21, 1919	9.79	13,400
1920	May 15, 1920	6.6	4,920
	Sept.20, 1920	6.6	4,920
1921	June 5, 1921	6.60	4,880
1922	July 12, 1922	-	8,260
	July 27, 1922	8.5	9,340
1923	May 29, 1923	10.9	b15,000
	June 4, 1923	12.86	20,100
1924	July 24, 1924	7.02	5,700
1925	Feb. 13, 1925	7.02	4,940
1926	Sept. 6, 1926	8.6	8,260
	Sept.12, 1926	9.8	11,200
	Sept.15, 1926	11.15	14,800
1927	Apr. 19, 1927	11.6	16,100
	June 4, 1927	10.5	13,100
	June 17, 1927	10.2	12,300
	June 20, 1927	9.2	9,710
	July 21, 1927	10.2	12,300
	Aug. 3, 1927	9.4	10,500
	Aug. 13, 1927	11.3	15,200
1928	June 20, 1928	8.65	8,560
	June 25, 1928	9.4	10,300
	July 8, 1928	8.6	8,560
	July 13, 1928	9.2	9,840
	July 16, 1928	9.0	9,400
	July 19, 1928	9.2	9,840
	July 25, 1928	8.0	7,300
	July 30, 1928	10.05	11,600
	Aug. 4, 1928	10.24	12,000
	Aug. 8, 1928	9.2	9,840
1929	Apr. 19, 1929	8.7	8,770
	May 12, 1929	8.2	7,720
	June 1, 1929	9.1	9,620
	June 11, 1929	8.6	8,560
	June 24, 1929	8.2	7,720
	July 29, 1929	7.0	5,290
1930	May 8, 1930	9.64	9,720
	June 7, 1930	10.1	9,500
1931	May 6, 1931	8.6	7,430
1932	Feb. 26, 1932	9.0	8,450
	Sept. 1, 1932	8.85	8,760
1933	Apr. 24, 1933	8.46	7,220
1934	June 20, 1934	8.20	3,830
1935	May 21, 1935	11.67	9,340
	June 3, 1935	25.74	195,000
	June 21, 1935	17.23	21,300
	June 29, 1935	12.43	9,420
	Sept. 2, 1935	15.5	16,800
	Sept.11, 1935	13.30	11,500
1936	May 11, 1936	13.33	8,790
1937	June 5, 1937	13.28	8,470
	July 12, 1937	14.13	10,200
1938	May 17, 1938	15.78	14,800
	June 1, 1938	14.70	11,300
	June 11, 1938	15.04	12,200
	June 23, 1938	14.97	12,200
1939	June 12, 1939	14.06	8,240
	June 24, 1939	14.88	10,200
1940	June 11, 1940	13.43	7,310
1941	June 5, 1941	15.15	9,920
	June 10, 1941	21.08	50,800
	Sept.16, 1941	15.66	12,400
1942	Oct. 4, 1941	13.87	8,480
	Oct. 9, 1941	16.88	17,200
	Apr. 22, 1942	14.88	10,200
	June 14, 1942	15.89	13,100
	June 26, 1942	16.34	15,900
	Aug. 27, 1942	15.37	11,500
	Sept. 5, 1942	16.69	16,300
	Sept.15, 1942	15.02	10,400
1943	Apr. 13, 1943	15.85	11,800
	June 16, 1943	18.69	27,700
1944	Apr. 26, 1944	14.65	9,440
	May 3, 1944	16.29	14,700
	June 4, 1944	14.26	8,720
	June 14, 1944	15.04	10,400
	July 25, 1944	16.07	13,900
	Aug. 26, 1944	18.38	22,200
	Aug. 31, 1944	16.39	13,500
1945	Apr. 16, 1945	16.43	15,100
	May 15, 1945	18.97	29,900
	May 22, 1945	20.82	43,200
	June 8, 1945	15.66	13,100
	June 16, 1945	17.10	19,100
	July 1, 1945	16.08	14,700
	July 18, 1945	16.57	16,800
	July 26, 1945	18.37	27,000
1946	July 8, 1946	16.38	14,200
	July 17, 1946	18.75	25,700
	Sept. 7, 1946	18.48	23,800
	Sept.15, 1946	15.15	10,800
1947	Oct. 14, 1946	16.27	14,500
	Nov. 10, 1946	14.20	8,460
	Apr. 10, 1947	17.86	19,500
	June 7, 1947	16.14	12,700
	June 13, 1947	16.38	14,200
	June 26, 1947	22.92	62,400
1948	Mar. 19, 1948	17.84	19,100
	June 25, 1948	15.22	11,600
	June 29, 1948	16.15	14,500
	July 10, 1948	15.04	11,100
	July 21, 1948	16.38	14,500
1949	Feb. 27, 1949	13.73	7,390
	Mar. 6, 1949	13.84	7,590
	Mar. 10, 1949	14.89	9,940
	May 22, 1949	15.41	11,100
	June 10, 1949	18.02	17,800
	June 14, 1949	16.35	12,400
	June 28, 1949	17.5	18,600
1950	May 9, 1950	19.30	26,600
	July 11, 1950	19.47	26,600
	July 19, 1950	18.65	22,900
	July 26, 1950	15.95	13,000
	Aug. 12, 1950	16.60	15,100
	Sept.21, 1950	15.95	13,300
	Sept.29, 1950	15.08	10,900

a Annual peak only.
b Approximate.

Peak stages and discharges of Republican River at Clay Center, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 3, 1950	19.82	28,700	1952	Apr. 13, 1953	13.57	6,630
	May 23, 1951	16.80	15,500	1953	May 28, 1953	13.52	6,540
	June 3, 1951	17.57	17,800	1954	June 1, 1954	13.00	5,000
	June 8, 1951	18.27	20,400	1955	June 21, 1955	13.60	5,980
	June 12, 1951	14.98	10,800				
	June 15, 1951	14.92	10,700	1956	June 24, 1956	12.37	4,260
	June 22, 1951	20.20	31,600	1957	June 20, 1957	17.82	17,000
	June 28, 1951	16.79	15,500	1958	Sept. 6, 1958	11.63	16,400
	July 12, 1951	22.20	51,500	1959	May 7, 1959	6.95	5,430
	July 23, 1951	14.84	10,500	1960	Mar. 28, 1960	19.69	25,300
	Sept. 5, 1951	15.42	12,000				
	Sept.10, 1951	14.83	10,500	1961	May 22, 1961	19.34	20,400
	Sept.12, 1951	17.19	16,700	1962	Jan. 28, 1962	-	8,320

8568. Moll Creek near Green, Kans.

Location.--Lat 39°22'50", long 97°00'20", in NE¼NW¼ sec.8, T.8 S., R.4 E., on left bank at downstream side of bridge on U.S. Highway 24, 3.3 miles southwest of Green, and 6.2 miles east of Clay Center.

Drainage area.--4 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs, by indirect measurement of peak discharge through culvert at 485 cfs, and by logarithmic plotting.

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 26, 1957	14.80	300	1961	May 21, 1961	14.06	160
1958	July 3, 1958	15.53	700	1962	May 28, 1962	15.87	1,100
1959	Sept.18, 1959	14.57	250				
1960	June 16, 1960	16.00	1,200				

8570. Republican River at Milford, Kans.

Location.--Lat 39°09'53", long 96°54'56", in SW¼ sec.19, T.10 S., R.5 E., near right bank on downstream side of highway bridge at southwest city limits of Milford, at mile 18.6.

Drainage area.--24,900 sq mi, approximately, of which a large area is noncontributing.

Gage.--Nonrecording Apr. 26, 1895, to Oct. 31, 1905, and Nov. 14, 1950, to Dec. 18, 1951; recording thereafter. At site 14.4 miles downstream at Junction City at datum 38.92 ft lower Apr. 25, 1895, to Oct. 31, 1905. Datum of gage is 1,093.60 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 39,000 cfs and by velocity-area studies at 62,900 cfs.

Historical data.--Indian legend indicates a great flood occurred in 1826 comparable to that of 1935. Flood of June 25, 1869, reported as "highest ever known" at Junction City, 17 miles downstream, in Junction City Weekly Union of June 26, 1869. Regarding the flood of 1903 at Milford Fort Riley Gideon of June 7, 1903, reported "The old timers will now have to ring off. A new record of highwater has been established and the highwater mark of '69 is off". The Junction City Weekly Union of June 19, 1903, describing the flood of May 29, 1903, at Junction City reports: "The old timers who saw the flood of 1869 said that the waters of the late flood were 4 or 5 feet higher than they had ever seen before". The three greatest floods in the period 1869-1956 are respectively 1935, 1903, and 1915.

Remarks.--Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado, Nebraska, and Kansas. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges of Republican River at Milford, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 29, 1903	19.6	ab115,000	1953	May 28, 1953	9.32	6,080
1915	June 22, 1915	-	ab103,000	1954	June 2, 1954	10.43	8,870
1935	June 3, 1935	25.18	ab171,000	1955	June 21, 1955	9.50	6,800
1951	Oct. 3, 1950	-	a37,000	1956	June 5, 1956	9.34	6,100
	May 23, 1951	13.0	15,600				
	June 3, 1951	13.5	17,600	1957	June 21, 1957	13.53	15,300
	June 8, 1951	14.8	23,000				
	June 12, 1951	11.6	11,000	1958	Sept. 6, 1958	19.18	43,900
	June 15, 1951	12.2	12,800				
	June 22, 1951	17.7	39,100	1959	May 6, 1959	11.37	9,530
	June 28, 1951	14.6	22,000				
	July 12, 1951	19.7	62,900	1960	Mar. 28, 1960	15.20	22,300
	July 18, 1951	11.6	14,400				
	July 22, 1951	9.5	8,350	1961	May 22, 1961	14.67	20,200
	Sept. 5, 1951	11.8	15,200				
	Sept.13, 1951	13.3	21,200	1962	Jan. 28, 1962	11.71	11,300
1952	Apr. 13, 1952	9.74	8,150				

a Approximate.
b Annual peak only.

8585. North Fork Smoky Hill River near McAllaster, Kans.

Location.--Lat 39°01'00", long 101°21'00", in NW¼ sec.17, T.12 S., R 36 W., at downstream side of bridge on U.S. Highway 40, 3 miles east of McAllaster.

Drainage area.--670 sq mi, approximately.

Gage.--Nonrecording at site 2 miles upstream at datum 15.75 ft higher prior to July 18, 1947; recording thereafter. Datum of gage is 3,070.27 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and by contracted-opening measurements at 12,200 and 21,700 cfs.

Historical data.--Flood of 1930 reached an elevation of 3,101.0 ft above mean sea level, datum of 1912 (gage height, 14.4 ft) at railroad bridge 2 miles upstream, as reported by Union Pacific Railroad Company.
Maximum flood observed by local resident reached a stage of 16 ft on highway bridge 2 miles upstream, date uncertain as reported in 1947.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	-	14.4	-	1951	June 9, 1951	8.88	4,590
					June 13, 1951	6.91	1,250
1947	May 16, 1947	5.0	107		June 18, 1951	6.40	800
					June 22, 1951	6.94	1,280
1948	June 25, 1948	6.55	970		June 25, 1951	6.39	793
	July 4, 1948	5.47	255		July 22, 1951	9.10	5,050
	Aug. 2, 1948	5.09	112		Aug. 7, 1951	5.65	344
					Aug. 12, 1951	4.72	102
1949	June 5, 1949	8.63	4,110				
	June 7, 1949	6.74	1,140	1952	Sept. 1, 1952	3.88	22
	June 12, 1949	5.19	157				
	Aug. 13, 1949	5.86	327	1953	July 19, 1953	5.08	178
	Aug. 28, 1949	5.74	342		Aug. 3, 1953	5.45	278
					Aug. 4, 1953	4.67	102
1950	Oct. 2, 1949	5.44	243		Aug. 23, 1953	5.32	236
	July 21, 1950	6.29	769				
	Aug. 11, 1950	8.65	4,110	1960	Mar. 19, 1960	6.20	164
1951	May 14, 1951	5.58	114	1961	June 5, 1961	8.39	795
	May 21, 1951	6.87	1,210				
	May 24, 1951	6.20	660	1962	June 8, 1962	11.7	21,700
	June 6, 1951	10.95	12,200				

8595. Ladder Creek below Chalk Creek, near Scott City, Kans.

Location.--Lat 38°47', long 100°52', in SW¼ sec.34, T.14 S., R.32 W., near left bank on downstream side of county highway bridge, 1¾ miles upstream from mouth, 5 miles downstream from Chalk Creek, and 23 miles northeast of Scott City.

Drainage area.--1,460 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 16, 1951; recording thereafter. Datum of gage is 2,639.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs, by an indirect measurement at 8,650 cfs; extended to 42,000 cfs on basis of area-velocity study and records for Smoky Hill River at Elkader.

Historical data.--Floods of 1933, 1938, and 1950 reached stages of 16.1, 15.1, and 13.8 ft, respectively, from information reported by local resident in 1951. Flood of 1933 augmented by failure of dam at Lake McBride, 10 miles upstream (capacity, 930 acre-ft).

Remarks.--Base for partial-duration series, 750 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 6, 1933	16.1	a42,000	1957	May 28, 1957	9.59	2,630
					June 17, 1957	5.80	820
1938	May 30, 1938	15.1	a29,000		July 3, 1957	8.92	2,200
					July 10, 1957	5.73	799
1950	July 31, 1950	7.90	a18,000		July 13, 1957	7.25	1,360
					Aug. 29, 1957	8.55	2,010
1951	May 15, 1951	7.90	1,240		Sept. 14, 1957	8.74	2,090
	June 11, 1951	12.32	8,650				
	June 22, 1951	8.92	2,000	1958	May 16, 1958	5.52	968
	June 30, 1951	8.85	1,920		May 19, 1958	5.47	948
					July 21, 1958	6.15	1,280
1952	July 22, 1952	2.62	47		July 24, 1958	5.01	764
1953	Apr. 29, 1953	4.35	222	1959	Aug. 22, 1959	3.06	217
1954	June 2, 1954	2.35	70	1960	Mar. 20, 1960	4.05	400
1955	June 17, 1955	9.86	2,990	1961	July 21, 1961	6.65	1,520
1956	May 30, 1956	12.0	7,400	1962	May 31, 1962	2.61	141

a Annual peak only; approximate.

8600. Smoky Hill River at Elkader, Kans.

Location.--Lat 38°48', long 100°51', in sec.34, T.14 S., R.32 W., at downstream side of bridge on U.S. Highway 83 at Elkader, 0.1 mile downstream from Ladder Creek, and at mile 430.9.

Drainage area.--3,560 sq mi, approximately.

Gage.--Recording. Datum of gage is 2,624.62 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs and by slope-area measurement at 71,000 cfs.

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 30, 1938	13.2	a71,000	1941	June 9, 1941	6.42	5,430
					June 26, 1941	4.26	1,480
1940	July 1, 1940	5.7	3,770		July 2, 1941	7.01	8,000
	Aug. 7, 1940	4.36	1,590		July 15, 1941	6.61	5,990
	Aug. 27, 1940	3.94	1,140		July 26, 1941	3.94	1,140
	Sept. 4, 1940	4.75	2,260				
				1942	Apr. 18, 1942	4.59	1,780
1941	May 22, 1941	3.85	1,060				
	June 5, 1941	4.53	1,840	1943	Aug. 10, 1943	2.66	201

a Annual peak only.

Peak stages and discharges of Smoky Hill River at Elkader, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 1, 1944	3.47	738	1954	Aug. 31, 1954	1.20	36
1945	Aug. 6, 1945	4.43	1,720	1955	June 17, 1955	9.02	21,100
					July 5, 1955	3.91	1,420
1946	June 21, 1946	4.72	2,050				
	July 19, 1946	6.28	5,170	1956	May 30, 1956	6.32	8,320
					June 25, 1956	3.91	1,420
1947	Oct. 7, 1946	7.55	10,500		July 3, 1956	6.58	9,680
	June 22, 1947	3.33	715		July 5, 1956	4.95	4,420
1948	June 27, 1948	3.97	1,170	1957	May 17, 1957	4.62	3,210
	July 16, 1948	4.07	1,270		May 28, 1957	5.30	4,840
					May 31, 1957	4.65	3,040
1949	June 7, 1949	6.33	5,620		June 16, 1957	6.00	7,100
	Sept. 1, 1949	4.37	1,590		July 2, 1957	6.20	7,860
					July 11, 1957	7.93	15,100
1950	July 3, 1950	4.16	1,470		Aug. 29, 1957	4.87	3,670
	July 19, 1950	3.54	1,030		Sept.14, 1957	4.38	2,880
	July 26, 1950	4.60	2,040				
	July 30, 1950	6.57	5,840	1958	May 16, 1958	3.71	1,300
	Aug. 7, 1950	3.65	1,040		May 19, 1958	3.51	1,020
	Aug. 11, 1950	5.36	3,110		May 24, 1958	3.27	773
	Aug. 25, 1950	4.84	2,310		July 4, 1958	4.00	1,730
	Aug. 29, 1950	3.21	709		July 18, 1958	3.71	1,270
					July 22, 1958	4.74	3,360
1951	May 14, 1951	5.57	3,510				
	May 18, 1951	3.87	1,210	1959	Aug. 22, 1959	2.66	330
	May 22, 1951	3.49	913				
	June 6, 1951	7.21	12,000	1960	Mar. 19, 1960	3.66	1,210
	June 11, 1951	8.79	19,700		May 16, 1960	4.08	1,850
	June 18, 1951	3.19	773				
	June 21, 1951	6.69	9,800	1961	June 6, 1961	5.27	4,510
	June 29, 1951	5.50	5,440		July 21, 1961	4.75	3,020
	July 23, 1951	4.87	3,670				
				1962	June 8, 1962	7.58	13,800
1952	July 22, 1952	2.64	442		Aug. 24, 1962	3.72	1,140
1953	Aug. 16, 1953	2.70	460				

8603. South Branch Hackberry Creek near Orion, Kans.

Location.--Lat 38°56'30", long 100°42'10", in SW¼NW¼ sec.7, T.13 S., R.30 W., on left bank at downstream side of highway bridge, 1.5 miles south of Orion, and 11.8 miles southwest of Gove.

Drainage area.--49 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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 16, 1957	16.04	630	1961	May 21, 1961	13.31	200
1958	May 16, 1958	14.01	260	1962	Sept.16, 1962	11.64	90
1959	Sept.18, 1959	12.52	140				
1960	Aug. 25, 1960	18.86	2,300				

8605. Hackberry Creek near Gove, Kans.

Location.--Lat 38°57', long 100°29', in SW¼NE¼ sec.1, T.13 S., R.29 W., at bridge on State Highway 23, half a mile south of Gove.

Drainage area.--426 sq mi.

Gage.--Nonrecording Dec. 24, 1946, to Mar. 3, 1948; recording Mar. 4, 1948, to Sept. 30, 1953, crest-stage gage since 1960. Datum of gage 2,592.72 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,200 cfs and by slope-area measurement at 18,200 cfs.

Bankfull stage.--14 ft.

Historical data.--Flood of 1895 reached a stage 3 feet higher than those of 1903 and 1934, which were about equal, according to information obtained in 1950 from local residents.

Remarks.--Base for partial-duration series, 200 cfs. Only annual peaks are shown subsequent to 1953.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	1895	19.3	a20,000	1950	Aug. 13, 1950	13.07	3,800
					Aug. 25, 1950	7.44	617
1903	1903	16.3	a8,200				
				1951	May 15, 1951	11.12	2,180
1934	1934	16.3	a8,200		May 19, 1951	10.93	2,070
					May 23, 1951	9.16	1,180
1947	June 23, 1947	6.09	b234		June 7, 1951	19.0	18,200
					June 11, 1951	13.74	4,740
1948	June 28, 1948	9.38	1,610		June 18, 1951	-	c500
	July 16, 1948	7.67	830		June 22, 1951	12.82	3,850
	Aug. 13, 1948	6.09	282		June 27, 1951	8.06	1,160
	Aug. 15, 1948	5.88	232		July 11, 1951	-	c1,600
					July 23, 1951	9.61	1,820
1949	May 20, 1949	10.27	2,110		Aug. 8, 1951	-	c400
	June 5, 1949	7.18	502				
	June 9, 1949	6.33	276	1952	Mar. 28, 1952	3.11	14
	Aug. 18, 1949	10.52	2,100				
				1953	Aug. 7, 1953	4.20	117
1950	May 17, 1950	7.69	200				
	July 2, 1950	6.09	318	1960	Mar. 19, 1960	13.0	4,000
	July 11, 1950	11.20	2,230				
	July 26, 1950	13.35	4,120	1961	Aug. 1, 1961	7.7	950
	July 30, 1950	6.75	451	1962	Sept.16, 1962	11.08	2,500
	Aug. 7, 1950	15.33	6,800				

a Annual peak only; approximate.
b Maximum for Dec. 24, 1946, to Sept. 30, 1947; may have been exceeded during period of no record.
c Estimated.

8610. Smoky Hill River near Arnold, Kans.
(Published as "near Ransom" prior to 1951)

Location.--Lat 38°48'20", long 100°01'20", on west line sec.29, T.14 S., R.24 W., on right bank near downstream side of highway bridge, 7 miles upstream from headwaters of Cedar Bluff Reservoir, 12 miles north of Arnold, and at mile 377.

Drainage area.--5,220 sq mi, approximately; 5,370 sq mi at site near Ransom.

Gage.--Nonrecording June 29, 1948, to Mar. 29, 1950, and June 26, 1951, to Feb. 21, 1952; recording Mar. 30, 1950, to June 25, 1951, and since Feb. 22, 1952. At site 7 miles downstream at datum 56.87 ft lower (levels by Bureau of Reclamation) June 29, 1948, to June 25, 1951. At present site and datum June 26, 1951, to Dec. 14, 1955. At site a quarter of a mile downstream at datum 5.00 ft higher, Dec. 15, 1955, to Sept. 30, 1961. Datum of gage is 2,196.13 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of May 30, 1938, reached a stage of about 19 ft, present site and datum, based on relation of floodmark above low water; at point 1 mile upstream, identified in 1955 by local resident.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 30, 1938	a19.0	b87,000
1948	Aug. 3, 1948	6.5	c2,550
1949	May 28, 1949	6.1	2,010
	June 5, 1949	8.0	5,800
	June 8, 1949	8.8	8,080
1950	July 25, 1950	8.32	6,620
	July 31, 1950	10.15	12,900
	Aug. 7, 1950	8.11	6,070
	Aug. 14, 1950	9.57	10,800
	Aug. 28, 1950	7.22	3,450
1951	Oct. 2, 1950	7.10	3,650
	May 16, 1951	5.96	1,860
	May 19, 1951	6.09	2,000
	May 22, 1951	8.94	8,410
	June 2, 1951	7.97	5,720
	June 8, 1951	9.58	10,700
	June 11, 1951	12.57	23,800
	June 22, 1951	10.54	14,300
	June 30, 1951	-	d8,000
	July 22, 1951	-	d5,400
	July 25, 1951	5.80	2,500
1952	Apr. 20, 1952	4.25	802
1953	Aug. 7, 1953	5.25	1,840
1954	Sept. 9, 1954	3.4	98
1955	June 17, 1955	11.55	16,200
1956	May 30, 1956	8.33	8,270
1956	July 3, 1956	8.41	2,870
	July 6, 1956	7.80	1,880
1957	May 17, 1957	9.72	6,920
	May 28, 1957	10.59	10,100
	June 1, 1957	7.88	2,800
	June 16, 1957	12.61	20,400
	June 27, 1957	8.65	4,160
	June 30, 1957	8.91	4,700
	July 3, 1957	9.23	5,480
	July 11, 1957	10.07	8,140
	Sept.14, 1957	8.53	3,870
1958	May 17, 1958	7.81	2,500
	July 5, 1958	9.31	6,420
	July 23, 1958	7.62	2,670
1959	Aug. 15, 1959	6.91	1,650
1960	Mar. 21, 1960	9.75	7,720
	May 5, 1960	10.40	11,000
	May 17, 1960	7.04	2,310
	Aug. 24, 1960	16.77	16,400
1961	May 31, 1961	6.90	1,830
	June 2, 1961	7.12	2,120
	June 4, 1961	7.45	2,580
	June 6, 1961	9.63	7,390
	June 7, 1961	8.77	5,020
	Aug. 1, 1961	8.12	3,630
1962	June 9, 1962	8.96	5,810
	Sept.16, 1962	7.94	4,390

a Site and datum of 1956.
b Annual peak only; approximate.
c Maximum June 29 to Sept. 30; probably maximum for year.
d Approximate.

8633. Big Creek near Ogallah, Kans.

Location.--Lat 38°54'40", long 99°44'40", on west line of sec.23, T.13 S., R.22 W., at downstream side of bridge on State Highway 147, 5 miles south of Ogallah, 9.0 miles upstream from Ogallah Creek, and 10 miles west of Ellis.

Drainage area.--297 sq mi.

Gage.--Nonrecording prior to July 12, 1960; recording thereafter. Altitude of gage is 2,260 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by a slope-area measurement at 18,500 cfs.

Historical data.--Flood of June 19, 1909, was reported in the Western Kansas World. Field reconnaissance in August 1957 failed to reveal a stage for this flood.

Flood in August 1950 reached a stage of about 14 ft, from information by local resident.

Maximum stage known since at least 1914, that of June 16, 1957 (gage height, 19.02 ft).

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)
1950	August 1950	14	-	1959	Aug. 17, 1959	7.05	408
1956	Aug. 10, 1956	6.32	346	1960	Mar. 22, 1960	13.17	3,120
					May 4, 1960	11.80	1,870
1957	May 16, 1957	12.22	3,860		Aug. 24, 1960	13.55	2,940
	June 9, 1957	8.95	1,280				
	June 16, 1957	19.02	18,500	1961	July 21, 1961	12.31	2,140
	June 27, 1957	11.45	3,080		Aug. 19, 1961	13.14	2,650
	June 30, 1957	11.80	3,430				
	Sept.14, 1957	11.20	2,860	1962	July 3, 1962	10.95	1,600
1958	May 17, 1958	10.38	2,200				

8634. Big Creek tributary near Ogallah, Kans.

Location.--Lat 38°56'00", long 99°44'30", in NW¼SW¼ sec.11, T.13 S., R.22 W., on right bank at downstream side of highway bridge, 4.0 miles southwest of Ogallah, and 10.0 miles southeast of Wakeeney.

Drainage area.--4.5 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs and by slope-area measurement at 2,940 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 16, 1957	14.90	2,940	1961	July 20, 1961	13.79	1,100
1958	July 4, 1958	14.94	3,000	1962	July 11, 1962	11.56	80
1959	Sept.18, 1959	11.94	210				
1960	Aug. 23, 1960	12.81	370				

8635. Big Creek near Hays, Kans.

Location.--Lat 38°51', long 99°19', in SW¼ sec.10, T.14 S., R.18 W., on right bank at downstream side of county highway bridge, half a mile upstream from Custer Island Park Dam, 3 miles southeast of Hays, and 49 miles upstream from mouth.

Drainage area.--542 sq mi.

Gage.--Nonrecording prior to Nov. 19, 1947; recording thereafter. Datum of gage is 1,955.13 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,400 cfs and at 19,900 cfs by logarithmic plotting of main channel flow and slope-area measurement of overflow.

Bankfull stage.--19 ft.

Historical data.--Flood of June 11, 1867, is described in Lawrence, Kansas Daily Tribune dated June 18, 1867: "--At Ft. Hays--on Tuesday the (June) 11th--there was 20 feet of water in the Fort. There is no tradition in that country which tells of anything equalling that flood." This description refers to original site of Fort located about 29 miles downstream from gaging station. According to Hays Flood Control Study, an Engineering report by Servis, Van Doren, and Hazard, Engineers, dated March 1958, "four major floods have occurred on Big Creek at Hays in the past fifty years. They are listed--in order of their estimated magnitude: June 17, 1957, May 21-22, 1951, July 13, 1907, August 20, 1928".

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Sept.30, 1946	14.20	a2,220	1955	Sept.19, 1955	9.70	964
1947	Oct. 6, 1947	19.65	6,380	1956	July 6, 1956	9.14	741
	June 3, 1947	18.4	3,740				
	June 6, 1947	15.0	2,200	1957	May 17, 1957	16.64	2,740
	June 13, 1947	10.7	1,250		June 17, 1957	22.07	22,400
					June 28, 1957	17.40	2,970
1948	July 15, 1948	11.47	1,250		July 1, 1957	18.48	3,650
	July 18, 1948	8.97	773		Sept.15, 1957	15.05	2,260
1949	Feb. 19, 1949	b10.16	-	1958	May 17, 1958	13.88	1,930
	June 29, 1949	13.10	1,690		July 6, 1958	17.23	2,920
					July 18, 1958	9.80	927
1950	July 26, 1950	15.55	2,550		July 27, 1958	9.55	867
	Aug. 10, 1950	12.6	1,630		Aug. 16, 1958	12.82	1,760
	Aug. 13, 1950	11.0	1,250		Sept.21, 1958	8.72	711
1951	Oct. 3, 1950	17.03	3,110	1959	May 30, 1959	17.72	3,340
	May 22, 1951	21.46	19,900				
	May 24, 1951	12.38	1,570	1960	Mar. 23, 1960	16.48	2,770
	June 2, 1951	16.38	2,850		May 5, 1960	17.90	3,170
	June 6, 1951	14.61	2,200		Aug. 26, 1960	16.31	2,450
	June 9, 1951	18.98	4,550				
	June 14, 1951	19.11	4,800	1961	July 22, 1961	13.14	1,650
	June 23, 1951	20.12	9,010		July 23, 1961	12.63	1,780
	June 28, 1951	19.55	6,180		Aug. 20, 1961	17.29	3,440
	July 22, 1951	15.50	2,520				
	Sept. 5, 1951	10.48	1,140	1962	June 8, 1962	12.07	1,520
					July 5, 1962	9.10	862
1952	May 8, 1952	6.49	284		July 18, 1962	15.73	2,420
					July 20, 1962	9.23	891
1953	July 12, 1953	9.42	903				
1954	May 24, 1954	12.93	1,710				

a Maximum Apr. 1 to Sept. 30; probably maximum for year.
b Backwater from ice.

8640. Smoky Hill River near Russell, Kans.

Location.--Lat 38°47', long 98°51', in NW¼ sec.2, T.15 S., R.14 W., on downstream side of right pier of bridge on U.S. Highway 281, a quarter of a mile upstream from Landon Creek, 7.7 miles south of Russell, and at mile 287.0.

Drainage area.--6,965 sq mi.

Gage.--Nonrecording Oct. 19, 1939, to Sept. 10, 1940; recording thereafter. Datum of gage is 1,689.05 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 38,000 cfs and extended by logarithmic plotting to 70,000 cfs.

Historical data.--The three greatest floods in the period 1895-1962 are respectively 1938, 1927, and 1951 according to records at Ellsworth.

Remarks.--Flow regulated since Nov. 13, 1950, by Cedar Bluff Reservoir (capacity, 870,000 acre-ft) at river mile 357. Only annual peaks are shown for 1938 and 1951-62. Base for partial-duration series, 4,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Aug. 9, 1933	a9.9	a4,300	1948	July 17, 1948	6.68	1,830
1938	May 30, 1938	b29.0	70,000	1949	June 8, 1949	13.53	8,130
1940	July 3, 1940	11.4	5,640	1950	Oct. 10, 1949	15.50	10,800
					Aug. 1, 1950	15.94	11,400
1941	June 10, 1941	16.53	12,800		Aug. 14, 1950	16.10	11,800
	July 28, 1941	13.0	7,400		Aug. 30, 1950	13.10	7,420
1942	Apr. 20, 1942	14.30	8,970	1951	May 23, 1951	-	c41,500
	May 31, 1942	14.80	9,700	1952	Apr. 21, 1952	-	c1,060
	June 18, 1942	18.70	17,400	1953	Aug. 3, 1953	8.36	2,870
				1954	May 24, 1954	10.28	4,640
1943	Sept. 4, 1943	5.85	1,280	1955	June 19, 1955	-	c8,430
1944	May 3, 1944	16.07	12,000	1956	June 1, 1956	-	c4,600
	July 26, 1944	10.88	5,190	1957	June 18, 1957	-	12,900
				1958	Mar. 29, 1958	-	8,970
1945	June 24, 1945	13.60	8,160	1959	May 30, 1959	-	8,650
				1960	Aug. 29, 1960	-	10,300
1946	Sept. 8, 1946	12.65	7,070				
				1961	Sept.11, 1961	18.91	15,800
1947	Oct. 8, 1946	15.90	12,600	1962	July 2, 1962	14.32	8,680

a From floodmark and current-meter measurement at 0.8 ft lower stage, by Kansas State Board of Agriculture; may have been exceeded during year.
b From relation of 1938 and 1951 floodmarks in house 3 miles upstream.
c Annual peak adjusted to natural conditions, determined by Corps of Engineers.

8645. Smoky Hill River at Ellsworth, Kans.

Location.--Lat 38°44', long 98°14', in SE¼ sec.20, T.15 S., R.8 W., on downstream side of right pier of bridge on State Highway 14 in Ellsworth, 2 miles downstream from Turkey Creek, and at mile 238.0.

Drainage area.--7,580 sq mi, approximately.

Gage.--Nonrecording prior to Nov. 30, 1939; recording thereafter. At datum 1.61 ft higher prior to Oct. 31, 1905. Datum of gage is 1,509.02 ft above mean sea level, datum of 1929.

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

Bankfull stage.--20 ft (U.S. Weather Bureau).

Historical data.--The flood of May 1912 was influenced by the failure of a dam on Fossil Creek which enters the Smoky Hill River at mile 289.

Remarks.--Gage heights adjusted to present datum. Flow regulated by Cedar Bluff Reservoir since Nov. 13, 1950 (capacity, 870,400 acre-ft) at river mile 357. Only annual peaks shown for 1919, 1927, 1928, and 1951-62. Base for partial-duration series, 3,200 cfs.

Peak stages and discharges of Smoky Hill River at Ellsworth, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	June 5, 1895	12.0	6,820	1935	May 19, 1935	12.3	5,070
	July 5, 1895	21.6	26,000		May 21, 1935	15.90	8,970
					May 29, 1935	14.0	6,740
1896	June 7, 1896	9.8	4,550		June 3, 1935	14.8	7,630
					June 14, 1935	15.7	8,710
1897	Apr. 4, 1897	4.6	545		June 19, 1935	18.0	11,800
					June 26, 1935	12.2	4,980
1898	May 29, 1898	5.8	1,100		June 28, 1935	18.67	12,800
					June 30, 1935	13.50	6,200
1899	June 9, 1899	10.6	5,300		July 2, 1935	15.7	8,710
	July 8, 1899	15.6	12,400				
				1936	May 10, 1936	11.4	4,320
1900	July 2, 1900	4.8	750				
				1937	July 14, 1937	11.0	4,320
1901	Apr. 11, 1901	4.6	662		July 25, 1937	10.2	3,700
1902	June 20, 1902	10.6	5,430	1938	May 18, 1938	19.0	13,500
	July 11, 1902	8.6	3,580		June 1, 1938	b27.2	61,000
	Aug. 24, 1902	15.1	11,600		June 12, 1938	14.4	7,430
	Sept.24, 1902	15.6	12,400		June 19, 1938	12.0	5,180
1903	May 29, 1903	19.2	18,600	1939	Apr. 16, 1939	13.0	6,100
	Aug. 18, 1903	9.6	4,370		June 16, 1939	16.0	9,100
					June 28, 1939	9.7	3,340
1904	June 2, 1904	11.6	6,430		Aug. 17, 1939	11.15	4,450
	July 2, 1904	10.9	5,730				
	July 6, 1904	13.4	8,750	1940	July 4, 1940	11.17	4,680
					Sept. 6, 1940	9.87	3,710
1905	May 9, 1905	11.6	6,430				
	June 30, 1905	11.8	6,630	1941	June 11, 1941	18.55	12,900
	Aug. 13, 1905	10.8	5,630		July 5, 1941	8.88	3,300
					July 18, 1941	9.46	3,700
1912	May 1912	a25.5	42,800		July 29, 1941	10.65	4,470
					Aug. 24, 1941	18.8	13,200
1919	May 5, 1919	11.4	5,000		Sept. 2, 1941	21.14	18,300
1920	May 23, 1920	6.3	1,650	1942	Oct. 20, 1941	11.46	5,120
					Apr. 21, 1942	14.87	8,100
1921	July 6, 1921	8.1	2,410		Apr. 25, 1942	9.90	3,980
					May 3, 1942	9.32	3,560
1922	Apr. 24, 1922	18.1	12,900		June 1, 1942	13.84	7,020
					June 19, 1942	20.65	17,000
1923	June 9, 1923	11.45	5,050				
	Sept.19, 1923	14.1	7,880	1943	June 16, 1943	9.67	3,840
1924	Aug. 22, 1924	6.08	1,350	1944	Apr. 24, 1944	9.48	3,700
					May 4, 1944	18.57	12,900
1925	Apr. 3, 1925	8.35	2,560		July 10, 1944	12.16	5,660
					July 27, 1944	11.06	4,820
1927	Aug. 13, 1927	b25.7	44,800		Aug. 1, 1944	10.04	4,050
1928	Aug. 4, 1928	22.0	18,800	1945	May 21, 1945	18.71	13,100
					June 25, 1945	15.76	9,080
1929	May 12, 1929	19.85	15,200		June 28, 1945	10.44	4,330
	July 12, 1929	17.0	11,200				
	July 18, 1929	13.5	7,000	1946	Sept. 5, 1946	10.50	4,140
	Aug. 10, 1929	11.0	4,510		Sept. 9, 1946	12.41	5,680
1930	June 2, 1930	10.4	3,580	1947	Oct. 7, 1946	14.14	7,300
	June 5, 1930	19.3	13,600		Oct. 10, 1946	18.00	11,200
	June 7, 1930	12.2	4,980		Apr. 10, 1947	9.26	3,300
	June 11, 1930	11.0	4,000		June 5, 1947	9.08	3,440
	Sept. 5, 1930	11.0	4,000		June 24, 1947	9.08	3,440
1931	Oct. 8, 1930	10.44	3,580	1948	July 17, 1948	10.09	3,780
	Oct. 15, 1930	9.85	3,230				
	Apr. 21, 1931	10.0	3,320	1949	Feb. 21, 1949	14.15	c2,800
					June 9, 1949	18.44	11,000
1932	June 28, 1932	10.0	3,320		June 13, 1949	10.28	4,210
	July 5, 1932	12.0	4,800				
	Aug. 31, 1932	14.6	7,400	1950	Oct. 11, 1949	14.76	7,820
	Sept.12, 1932	15.46	8,470		June 15, 1950	14.50	7,550
					July 19, 1950	19.35	13,300
1933	Aug. 10, 1933	9.5	3,430		July 29, 1950	10.98	4,660
	Aug. 23, 1933	13.4	6,800		Aug. 2, 1950	16.60	9,440
	Aug. 25, 1933	10.4	4,060		Aug. 5, 1950	10.50	4,310
	Sept. 1, 1933	13.77	7,260		Aug. 9, 1950	10.97	4,660
					Aug. 12, 1950	10.33	4,180
1934	June 18, 1934	14.80	7,630		Aug. 16, 1950	17.69	10,400

a From floodmark furnished by U.S. Weather Bureau.
b From floodmarks.
c Backwater from ice.

Peak stages and discharges of Smoky Hill River at Ellsworth, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 31, 1950	13.10	6,290	1957	June 20, 1957	-	d22,000
				1958	Mar. 30, 1958	-	d10,500
1951	May 23, 1951	-	d32,000	1959	Oct. 7, 1958	16.64	e9,720
1952	May 24, 1952	18.28	e11,100	1960	Aug. 29, 1960	-	d19,000
1953	Aug. 4, 1953	-	d3,250				
1954	June 15, 1954	9.28	e3,510	1961	Sept.13, 1961	21.47	18,600
1955	July 1, 1955	18.05	e10,800	1962	July 9, 1962	20.12	15,100
1956	June 1, 1956	-	d4,520				

d Annual peak adjusted to natural conditions, determined by Corps of Engineers.
e Not appreciably affected by reservoir storage.

8647. Spring Creek near Kanopolis, Kans.

Location.--Lat 38°44'30", long 98°10'10", in NW¼NW¼ sec.24, T.15 S., R.8 W., on right bank at downstream end of culvert on U.S. Highway 40, 2.2 miles northwest of Kanopolis, and 3.4 miles northeast of Ellsworth.

Drainage area.--9 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and extended above by logarithmic plotting.

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	13.73	650	1961	May 5, 1961	14.14	750
1958	Mar. 29, 1958	13.34	550	1962	Jan. 27, 1962	11.96	260
1959	Oct. 7, 1958	13.98	710				
1960	Mar. 22, 1960	12.42	340				

8655. Smoky Hill River near Langley, Kans.

Location.--Lat 38°37', long 97°57', in SE¼ sec.35, T.16 S., R.6 W., at county highway bridge half a mile downstream from Kanopolis Dam, 5 miles north of Langley, and at mile 207.2.

Drainage area.--7,857 sq mi.

Gage.--Recording. At datum 2.00 ft higher prior to Apr. 1, 1952. Datum of gage is 1,400.66 ft above mean sea level (Corps of Engineers bench mark).

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

Historical data.--Flood of June 1938 reached a stage of 28.9 ft (present datum) from information by Corps of Engineers; discharge, about 45,000 cfs by extension of subsequent rating above 16,000 cfs and correlation with peak flow at adjacent stations.

Remarks.--Gage heights adjusted to present datum. Flow completely regulated since July 29, 1946, by Kanopolis Reservoir half a mile upstream (capacity, 450,000 acre-ft) and since Nov. 13, 1950, by Cedar Bluff Reservoir at river mile 357 (capacity, 870,400 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)
1938	June 1938	28.9	45,000	1944	May 5, 1944	22.23	11,300
				1945	May 22, 1945	22.09	10,100
1941	Sept. 3, 1941	24.78	15,700				
1942	Oct. 20, 1941	27.2	21,800	1946	Sept. 9, 1946	-	a5,610
1943	Oct. 3, 1942	16.62	5,490		Sept.10, 1946	11.37	b2,100

a Annual peak adjusted to natural conditions, determined by Corps of Engineers.
b Observed annual peak, affected by storage in Kanopolis Reservoir.

Peak stages and discharges of Smoky Hill River near Langley, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Oct. 10, 1946	-	a11,100	1954	June 15, 1954	-	a3,400
	Oct. 13, 1946	13.72	b3,260		June 17, 1954	5.88	c874
1948	July 17, 1948	-	a3,640	1955	July 1, 1955	-	a10,500
	Aug. 11, 1948	10.95	b2,130		Sept.29, 1955	5.52	c750
1949	June 9, 1949	-	a10,900				
	June 20, 1949	12.97	b3,100	1956	Oct. 4, 1955	5.49	c742
1950	July 19, 1950	-	a12,100		June 2, 1956	-	a4,480
	Sept.21, 1950	14.20	b4,130	1957	July 6, 1957	10.66	c2,810
				1958	July 27, 1958	9.16	c2,280
1951	May 24, 1951	-	a28,000	1959	June 9, 1959	9.08	c2,310
	July 15, 1951	17.29	c5,570	1960	Apr. 13, 1960	10.60	c3,420
1952	Oct. 20, 1951	14.60	c3,300				
	May 24, 1952	-	a11,000	1961	Sept.22, 1961	8.58	c2,410
1953	July 7, 1953	5.39	c837	1962	Oct. 4, 1961	8.58	c2,400
	Aug. 4, 1953	-	a3,140				

a Annual peak adjusted to natural conditions, determined by Corps of Engineers.
b Observed annual peak, affected by storage in Kanopolis Reservoir.
c Observed annual peak, affected by storage in Cedar Bluff and Kanopolis Reservoirs.

8660. Smoky Hill River at Lindsborg, Kans.

Location.--Lat 38°34', long 97°40', in SE¼ sec.17, T.17 S., R.3 W., at First Street Bridge in Lindsborg, 300 ft downstream from mill dam, and at mile 170.9.

Drainage area.--8,110 sq mi.

Gage.--Nonrecording prior to Feb. 24, 1934; recording thereafter. At datum 0.22 ft lower prior to Dec. 25, 1917.

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

Bankfull stage.--21 ft (U.S. Weather Bureau).

Historical data.--A major flood probably occurred in 1867. At Salina, 47 miles downstream, this flood was "higher at Salina than it has been since the great flood of 1844" according to the Junction City Weekly Union dated June 13, 1867. Peak stages of 1895, 1903, and 1927 determined in 1938 from flood-marks on mill 300 ft upstream.

Remarks.--Gage heights prior to Dec. 25, 1917, adjusted to present datum. Peak discharges since July 29, 1946, affected by storage in Kanopolis Reservoir (capacity, 450,000 acre-ft) at river mile 207.8 and since Nov. 13, 1950, by storage in Cedar Bluff Reservoir (capacity, 870,400 acre-ft) at river mile 357. Gage heights for period 1905-23 furnished by U.S. Weather Bureau. Only annual peaks are shown prior to 1930 and since 1945. Base for partial-duration series, 2,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	July 1895	33.1	-	1922	Apr. 26, 1922	23.5	-
				1923	June 11, 1923	21.3	-
1903	May , 1903	33.9	32,000				
				1927	August 1927	31.3	-
1905	July 2, 1905	23.8	-				
				1930	May 7, 1930	21.5	4,610
1906	1906	-	(a)		June 3, 1930	19.2	3,540
1907	July 19, 1907	14.3	-		June 7, 1930	24.0	6,420
1908	June 10, 1908	20.8	-		June 13, 1930	20.0	3,880
1909	June 14, 1909	27.3	10,400		June 16, 1930	18.0	3,080
1910	Jan. 22, 1910	17.3	-				
				1931	Oct. 9, 1930	18.0	3,080
1912	May 12, 1912	23.8	-				
1913	May 6, 1913	19.1	-	1932	June 20, 1932	18.6	4,040
1914	Mar. 29, 1914	21.3	-		July 6, 1932	20.4	4,760
1915	July 20, 1915	23.8	-		Sept.15, 1932	22.6	5,750
1916	Aug. 17, 1916	24.8	-	1933	Aug. 21, 1933	21.0	5,000
1917	Aug. 17, 1917	22.4	-		Aug. 24, 1933	23.88	6,300
1918	May 29, 1918	19.0	-		Sept. 3, 1933	20.8	4,920
1919	Mar. 15, 1919	25.5	-		Sept.16, 1933	17.6	3,580
1920	July 16, 1920	9.5	-		Sept.29, 1933	18.2	3,820
1921	May 10, 1921	19.6	-	1934	June 20, 1934	21.47	5,220

a Annual peak adjusted to natural conditions, determined by Corps of Engineers.

Peak stages and discharges of Smoky Hill River at Lindsborg, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 20, 1935	19.40	4,320	1942	May 12, 1942	16.96	3,200
	May 23, 1935	23.02	6,330		June 3, 1942	19.96	4,670
	May 29, 1935	22.27	5,850		June 21, 1942	27.96	11,500
	May 31, 1935	19.44	4,330		June 24, 1942	16.11	2,840
	June 5, 1935	22.30	5,860		Aug. 26, 1942	17.18	3,300
	June 16, 1935	22.08	5,720		Sept. 3, 1942	22.35	6,280
	June 21, 1935	25.33	8,130				
	June 27, 1935	19.58	4,390	1943	Oct. 4, 1942	20.78	5,190
	June 30, 1935	25.83	8,630		June 17, 1943	16.01	2,790
	July 4, 1935	23.73	6,830				
				1944	Apr. 10, 1944	17.17	3,300
1936	May 12, 1936	14.90	2,540		Apr. 23, 1944	22.07	5,900
					May 6, 1944	25.39	8,110
1937	June 10, 1937	18.16	3,880		July 11, 1944	18.60	3,950
					July 28, 1944	18.33	3,800
1938	May 18, 1938	16.95	3,390		Aug. 2, 1944	16.22	2,880
	May 20, 1938	20.73	4,900				
	May 26, 1938	19.00	4,180	1945	Apr. 16, 1945	21.95	5,840
	June 3, 1938	32.55	26,000		May 24, 1945	24.05	7,100
	June 11, 1938	16.82	3,260		June 27, 1945	21.78	5,720
	June 16, 1938	23.10	6,270		June 29, 1945	17.90	3,620
	June 20, 1938	19.30	4,270				
				1946	Sept.10, 1946	-	a5,150
1939	Apr. 17, 1939	17.60	3,580	1947	Oct. 10, 1946	-	a10,700
	June 17, 1939	19.58	4,410	1948	July 18, 1948	-	a4,320
	June 28, 1939	15.30	2,820	1949	June 10, 1949	-	a10,800
	Aug. 18, 1939	17.80	3,730	1950	July 19, 1950	-	a12,600
1940	July 5, 1940	16.20	3,320	1951	July 13, 1951	-	a29,600
	Sept. 7, 1940	14.70	2,890	1952	May 25, 1952	-	a9,640
				1953	May 27, 1953	17.00	b3,080
1941	June 14, 1941	24.58	7,940	1954	June 16, 1954	-	a2,740
	July 7, 1941	14.51	2,720	1955	July 1, 1955	-	a7,870
	July 18, 1941	15.42	3,030				
	July 30, 1941	16.00	3,250	1956	June 2, 1956	-	a4,270
	Aug. 25, 1941	20.00	4,820	1957	May 17, 1957	-	-
	Sept. 4, 1941	28.28	12,100	1958	July 27, 1958	-	a9,300
				1959	June 30, 1959	-	a5,400
1942	Oct. 20, 1941	32.46	24,400	1960	Apr. 14, 1960	-	a10,000
	Apr. 20, 1942	19.69	4,440				
	Apr. 23, 1942	22.93	6,140	1961	May 5, 1961	18.97	-
	Apr. 26, 1942	26.02	8,450	1962	May 5, 1962	17.21	3,690
	May 4, 1942	16.66	3,070				

a Annual peak adjusted to natural conditions, determined by Corps of Engineers.
b Not appreciably affected by reservoir storage.

8665. Smoky Hill River near Mentor, Kans.
(Published as "near Salina," 1948-49)

Location.--Lat 38°47'54", long 97°34'28", on south line of sec.29, T.14 S., R.2 W., at downstream side of highway bridge, 3.6 miles southeast of Salina City Hall, 4 miles north of Mentor, and at mile 131.5.

Drainage area.--8,230 sq mi.

Gage.--Nonrecording prior to Sept. 19, 1948; recording thereafter. At site 10 miles upstream at datum 20.9 ft higher prior to June 30, 1932. Datum of gage is 1,211.40 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 5,700 cfs, by slope-area measurement at 20,000 cfs, and by flood-routing study at 32,500 cfs.

Bankfull stage.--24 ft at each site.

Historical data.--Greatest flood known occurred in 1844. The Junction City Weekly Union dated June 13, 1867, reports, "Water higher at Salina than it has been since the great flood of 1844. It was 4 ft higher at that time."

Flood of August 1858 at Salina reached a stage about 5 ft lower than that of 1844. The Junction City Weekly Union dated July 22, 1867, reports, "--Nine years ago--high waters prevailed, and in August of that year--the Smoky Hill was not so high by a foot as this year."

Flood of July 10, 1895, at Salina was reported by Corps of Engineers to have reached about the same stage as that of 1867.

The second greatest known flood, May 29, 1903, reached a stage of 26.5 ft, from floodmarks, site and datum of 1923-32. At Salina, the Corps of Engineers reported the 1903 flood to have been 2½ ft higher than that of 1895.

Floods of August 1927 and June 1938 are possibly third and fourth highest floods, respectively, in the period 1844-1962 on basis of the foregoing relative stages 7 miles downstream at Salina.

Remarks.--Peak discharges since July 29, 1946, affected by storage in Kanopolis Reservoir (capacity, 450,000 acre-ft) at river mile 207.8 and since Nov. 13, 1950, by storage in Cedar Bluff Reservoir (capacity, 870,400 acre-ft) at river mile 357. Only annual peaks are shown for 1903, 1923, 1938, and 1948-62. Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 29, 1903	26.5	32,000	1930	June 14, 1930	19.8	3,400
1923	June 1923	a22.4	4,860	1931	Oct. 9, 1930	17.55	2,460
1924	Apr. 30, 1924	17.3	3,030	1932	June 21, 1932	18.1	b2,760
1925	June 25, 1925	13.6	2,100	1935	June 1935	c24.22	6,400
1926	Sept.17, 1926	19.0	3,770	1938	June 4, 1938	d26.14	24,000
1927	Apr. 19, 1927	19.1	3,600	1948	June 29, 1948	19.68	e3,510
	June 10, 1927	17.4	3,060	1949	June 11, 1949	-	f10,400
	June 18, 1927	20.9	4,240	1950	July 20, 1950	-	f11,200
	June 25, 1927	23.8	5,670				
	Aug. 17, 1927	26.2	25,500	1951	July 13, 1951	24.93	20,000
	Aug. 30, 1927	21.7	4,340	1952	May 26, 1952	-	f8,010
	Sept. 4, 1927	17.5	2,550	1953	Aug. 6, 1953	-	f2,520
				1954	May 28, 1954	-	f2,280
1928	June 19, 1928	19.1	3,120	1955	June 21, 1955	-	f6,900
	July 10, 1928	18.3	2,820				
	Aug. 4, 1928	25.4	13,000	1956	June 3, 1956	-	f4,000
				1957	June 28, 1957	-	3,820
1929	May 16, 1929	25.4	13,000	1958	May 4, 1958	-	4,000
	June 4, 1929	22.1	4,560	1959	June 11, 1959	-	2,300
	July 15, 1929	24.0	5,910	1960	Apr. 14, 1960	-	3,080
1930	May 8, 1930	21.2	4,060	1961	May 5, 1961	-	4,270
	June 8, 1930	22.0	4,200	1962	July 13, 1962	-	3,240

a From debris on bridge.
b Maximum Oct. 1 to June 30; may have been exceeded during period of no record.
c From information by Corps of Engineers.
d From information by U.S. Weather Bureau.
e Not appreciably affected by reservoir storage.
f Annual peak adjusted to natural conditions, determined by Corps of Engineers.

8669. Saline River near Wakeeney, Kans.

Location.--Lat 39°06'15", long 99°52'20", on west line of sec.10, T.11 S., R.23 W., at highway bridge on U.S. Highway 283, 1 mile upstream from Trego Creek, and 5 miles north of Wakeeney.

Drainage area.--696 sq mi.

Gage.--Nonrecording prior to May 24, 1958; recording thereafter. Datum of gage is 2,217.46 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of July 1950 reached a stage of about 27 ft and is the highest since at least 1879, from information by local residents.
Flood of Aug. 7, 1950, reached a stage of 18 to 20 ft, from information by local residents.
Flood of June 1909 reached a stage of 5 to 8 ft lower than that of July 1950, 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)
1950	July 1950	27	-	1959	Aug. 15, 1959	7.65	905
1956	May 30, 1956	17.20	7,480	1960	Mar. 21, 1960	15.31	5,760
					May 16, 1960	16.72	7,580
1957	May 17, 1957	16.00	6,500		Aug. 24, 1960	10.66	2,080
	June 14, 1957	9.42	1,550				
	June 17, 1957	19.40	13,000	1961	May 31, 1961	10.13	1,820
	June 28, 1957	15.77	6,210		June 6, 1961	9.45	1,520
	July 1, 1957	11.0	2,300		June 14, 1961	11.88	2,750
	Sept.14, 1957	11.37	2,500		July 21, 1961	15.30	5,750
					Aug. 18, 1961	17.72	9,240
1958	May 17, 1958	11.22	2,380				
	July 17, 1958	10.91	2,200	1962	July 2, 1962	18.95	11,900

8670. Saline River near Russell, Kans.

Location.--Lat 38°58', long 98°51', on east line of sec.34, T.12 S., R.14 W., at downstream side of bridge on U.S. Highway 281, 2 miles downstream from Salt Creek, and 5 miles north of Russell.

Drainage area.--1,502 sq mi.

Gage.--Nonrecording prior to Jan. 22, 1946; recording thereafter. Datum of gage is 1,551.59 ft above mean sea level, datum of 1929.

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

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)
1946	Sept. 7, 1946	13.76	5,620	1950	Aug. 13, 1950	14.42	6,050
	Sept.30, 1946	11.90	3,800		Aug. 30, 1950	10.40	2,590
1947	Oct. 9, 1946	16.60	11,000	1951	Oct. 3, 1950	11.33	3,120
	June 5, 1947	10.99	3,000		May 23, 1951	15.47	7,700
	June 8, 1947	12.38	4,210		June 3, 1951	10.21	2,170
	June 13, 1947	10.01	2,330		June 9, 1951	14.18	6,030
	June 22, 1947	9.81	2,130		June 13, 1951	11.17	2,960
					June 16, 1951	11.42	3,210
1948	June 30, 1948	10.79	2,840		June 22, 1951	18.44	14,600
					June 28, 1951	19.12	17,000
1949	Feb. 18, 1949	all.4	-		July 11, 1951	16.18	8,860
	Feb. 24, 1949	10.64	2,590		July 22, 1951	10.98	2,790
	June 7, 1949	10.74	2,670		July 26, 1951	11.12	2,920
					Sept. 4, 1951	17.01	10,600
1950	Oct. 10, 1949	11.41	3,080				
	May 10, 1950	12.32	4,100	1952	Apr. 30, 1952	6.95	560
	July 16, 1950	11.36	3,160				
	July 19, 1950	10.13	2,130	1953	July 12, 1953	8.54	1,130
	July 26, 1950	18.4	14,300				
	Aug. 9, 1950	15.26	7,170	1960	Mar. 24, 1960	13.04	4,530

a Backwater from ice.

Peak stages and discharges of Saline River near Russell, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Mar. 27, 1960	10.40	2,220	1961	June 6, 1961	10.68	2,400
	May 18, 1960	11.69	3,090		July 23, 1961	11.50	2,750
	Aug. 26, 1960	14.19	6,000		Aug. 21, 1961	13.55	4,710
1961	May 22, 1961	12.04	3,420	1962	July 4, 1962	13.61	4,780
	June 1, 1961	10.97	2,560		July 19, 1962	12.11	3,250
	June 2, 1961	11.32	2,800				

8675. Paradise Creek near Paradise, Kans.

Location.--Lat 39°04', long 98°51', on west line of sec.26, T.11 S., R.14 W., at bridge on U.S. Highway 281, 4½ miles southeast of Paradise.

Drainage area.--212 sq mi.

Gage.--Nonrecording prior to June 25, 1947; recording thereafter. Datum of gage is 1,601.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,300 cfs and by slope-area measurement at 14,800 cfs.

Remarks.--Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 19, 1946	9.25	650	1950	July 16, 1950	17.47	4,130
	Sept. 7, 1946	6.15	166		July 19, 1950	10.55	937
					July 27, 1950	10.73	981
1947	Nov. 6, 1946	7.8	398		Aug. 7, 1950	7.00	296
	Apr. 10, 1947	11.0	1,020		Aug. 14, 1950	16.20	3,030
	June 6, 1947	8.76	572		Aug. 28, 1950	9.84	790
	June 12, 1947	13.8	1,700				
	June 22, 1947	12.44	1,350	1951	Oct. 2, 1950	13.90	1,700
	June 27, 1947	9.67	750		May 22, 1951	12.70	1,430
					June 3, 1951	8.81	615
1948	May 30, 1948	6.13	163		June 7, 1951	13.78	1,670
	June 15, 1948	10.40	894		June 14, 1951	6.43	187
	June 28, 1948	11.8	1,200		June 22, 1951	17.35	4,020
	July 9, 1948	9.10	650		June 28, 1951	11.29	1,140
	July 20, 1948	8.26	480		July 3, 1951	6.64	217
	July 30, 1948	6.27	178		July 11, 1951	23.10	14,800
					July 22, 1951	10.99	1,070
1949	Jan. 23, 1949	7.83	406		July 30, 1951	9.26	710
	Feb. 11, 1949	a9.36	420		Aug. 13, 1951	7.20	272
	Feb. 18, 1949	11.02	850		Sept. 4, 1951	14.69	1,890
	May 21, 1949	6.17	158		Sept. 7, 1951	6.75	206
	June 5, 1949	7.34	303				
	June 8, 1949	8.87	534	1952	Apr. 21, 1952	7.07	254
	June 29, 1949	8.20	497		July 14, 1952	6.48	158
1950	Oct. 10, 1949	10.87	915	1953	July 13, 1953	6.92	226
	May 9, 1950	17.18	3,860		July 20, 1953	7.17	274
	June 28, 1950	7.15	254		Aug. 6, 1953	8.14	474
	July 5, 1950	10.00	750				

a Backwater from ice.

8678. Cedar Creek tributary near Bunker Hill, Kans.

Location.--Lat 38°56'00", long 98°42'40", in NW¼SE¼ sec.12, T.13 S., R.13 W., 25 ft upstream from culvert on county road, 4.3 miles northwest of Bunker Hill, and 8.5 miles northeast of Russell.

Drainage area.--0.99 sq mi of which 0.23 sq mi is controlled to an unknown degree by two farm ponds.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by a current-meter measurement at 3 cfs, by computation of flow over artificial control, and by slope-area measurements at 89 and 433 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 16, 1957	11.30	300	1961	Aug. 12, 1961	10.44	95
1958	Oct. 23, 1957	10.58	115	1962	Aug. 4, 1962	11.60	433
1959	May 29, 1959	10.80	160				
1960	Sept.23, 1960	10.12	62				

8680. Saline River near Wilson, Kans.

Location.--Lat 38°56', long 98°32', in SE¼ sec.10, T.13 S., R.11 W., on left bank 100 ft upstream from highway bridge, three-quarters of a mile upstream from Hell Creek, 8 miles northwest of Wilson, and at mile 135.0.

Drainage area.--1,900 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 8, 1931; recording thereafter. Datum of gage is 1,442.72 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by slope-area measurement of 19,300 cfs at site 3 miles downstream by Corps of Engineers.

Historical data.--Flood of July-August 1928 reached a stage of 26.8 ft, from floodmarks (discharge, 25,700 cfs, from rating curve extended above 10,000 cfs).

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)
1928	July-Aug.1928	26.8	a25,700	1938	May 17, 1938	15.25	6,750
					June 1, 1938	17.27	9,550
1929	May 11, 1929	11.6	2,990				
	July 27, 1929	12.0	b3,150	1939	Apr. 15, 1939	15.83	7,440
					June 16, 1939	12.37	3,640
1930	Sept.10, 1930	13.50	4,140		June 28, 1939	11.47	3,080
					July 26, 1939	12.51	3,820
1931	Oct. 6, 1930	10.30	2,390				
				1940	May 8, 1940	18.25	10,900
1932	Sept.13, 1932	10.10	2,300				
				1941	May 2, 1941	10.39	2,510
1933	July 17, 1933	6.70	1,000		June 11, 1941	19.93	11,000
					June 28, 1941	10.28	2,460
1934	June 17, 1934	15.8	5,500		Aug. 24, 1941	11.52	3,080
					Sept. 4, 1941	15.80	6,020
1935	May 14, 1935	10.38	2,500		Sept.17, 1941	10.85	2,560
	May 19, 1935	12.35	3,600				
	May 28, 1935	17.18	9,370	1942	June 19, 1942	10.95	2,810
	June 2, 1935	24.79	21,900				
	June 18, 1935	15.98	7,670	1943	June 17, 1943	16.82	6,970
	June 26, 1935	21.35	15,900				
	June 29, 1935	17.32	9,580	1944	May 4, 1944	15.89	6,110
					July 9, 1944	12.40	3,570
1936	Apr. 29, 1936	11.53	3,080		July 26, 1944	18.63	8,110
	May 10, 1936	13.13	4,290		Aug. 1, 1944	10.96	2,660
					Aug. 23, 1944	12.52	3,570
1937	May 21, 1937	8.09	1,560		Aug. 31, 1944	11.99	3,350

a Annual peak only.
b Maximum May 11 to Sept. 30; probably maximum for year.

Peak stages and discharges of Saline River near Wilson, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	May 22, 1945	12.43	3,570	1952	May 1, 1952	6.20	584
	June 25, 1945	13.26	4,120				
	June 27, 1945	19.02	9,680	1953	July 14, 1953	6.73	752
1946	Sept. 8, 1946	16.55	6,470	1954	June 16, 1954	14.87	4,990
1947	Oct. 1, 1946	10.43	2,530	1955	Sept.19, 1955	9.70	1,960
	Oct. 10, 1946	19.57	9,240				
	June 6, 1947	13.51	4,320	1956	June 6, 1956	11.88	2,830
	June 8, 1947	13.00	4,000		July 8, 1956	11.57	2,680
	June 22, 1947	11.02	2,850				
				1957	May 17, 1957	13.26	3,760
1948	June 29, 1948	10.43	2,530		June 16, 1957	14.87	4,790
	July 1, 1948	10.79	2,740		June 18, 1957	25.83	24,300
					June 22, 1957	13.2	3,710
1949	Feb. 19, 1949	c15.99	-		June 28, 1957	21.54	12,100
	Feb. 23, 1949	10.41	2,530		July 1, 1957	16.75	6,180
	June 8, 1949	12.67	3,640				
				1958	Mar. 29, 1958	16.60	6,280
1950	Oct. 10, 1949	12.08	3,460		May 17, 1958	20.55	10,900
	May 10, 1950	15.42	5,650		Aug. 17, 1958	11.16	2,630
	July 17, 1950	17.02	6,950		Sept. 4, 1958	11.76	2,960
	July 20, 1950	10.48	2,400				
	July 27, 1950	21.25	11,400	1959	May 30, 1959	16.97	5,580
	Aug. 10, 1950	16.97	6,180				
	Aug. 14, 1950	17.37	6,460	1960	Mar. 24, 1960	14.56	4,380
					Mar. 26, 1960	13.49	3,800
1951	Oct. 3, 1950	13.82	4,150		May 19, 1960	11.28	2,590
	May 24, 1951	17.95	6,880		Aug. 26, 1960	14.54	4,220
	June 7, 1951	20.09	9,340				
	June 10, 1951	15.96	5,450	1961	May 23, 1961	16.29	5,680
	June 14, 1951	12.28	3,260		June 3, 1961	14.53	4,320
	June 16, 1951	12.00	3,120		June 6, 1961	11.82	2,710
	June 21, 1951	13.05	3,710		July 22, 1961	21.32	2,960
	June 23, 1951	22.06	19,300		Aug. 21, 1961	13.51	3,610
	June 29, 1951	21.88	18,200				
	July 11, 1951	21.80	17,800	1962	July 5, 1962	13.98	3,940
	July 23, 1951	13.13	3,620		July 20, 1962	12.27	3,080
	July 26, 1951	11.82	2,890		Aug. 5, 1962	14.80	4,350
	Sept. 5, 1951	20.42	12,300				

c Backwater from ice; discharge less than maximum for year.

8683. Coon Creek tributary near Luray, Kans.

Location.--Lat 39°10'30", long 98°42'00", in NW¼NE¼ sec.19, T.10 S., R.12 W., on left bank at downstream side of highway bridge, 4.4 miles northwest of Luray, and 18.0 miles south of Osborne.

Drainage area.--8 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs and extended above by logarithmic plotting.

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 26, 1957	19.57	1,300	1961	May 21, 1961	17.72	600
1958	May 16, 1958	18.40	800	1962	July 1, 1962	17.57	550
1959	May 29, 1959	16.26	320				
1960	Mar. 27, 1960	16.70	390				

8685. Wolf Creek near Sylvan Grove, Kans.

Location.--Lat 39°01', long 98°28', on south line of sec.7, T.12 S., R.10 W., at county highway bridge, 3 miles upstream from mouth, and 4.5 miles west of Sylvan Grove.

Drainage area.--261 sq mi.

Gage.--Nonrecording prior to Sept. 20, 1946; recording thereafter. Datum of gage is 1,419.60 ft above mean sea level (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs and by contracted-opening and slope-area measurement at 29,300 cfs.

Bankfull stage.--30 ft.

Historical data.--Flood of 1935 is only known flood to have overflowed road east of gage in 50 years according to local resident in 1945. Road was also overflowed in 1951.

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)
1946	Sept. 8, 1946	19.44	1,670	1950	July 19, 1950	14.60	1,140
	Sept.14, 1946	a16.00	1,290		July 27, 1950	a17.36	1,340
1947	Oct. 10, 1946	a15.77	1,040	1951	May 23, 1951	14.90	1,180
	Apr. 10, 1947	a18.56	2,060		June 7, 1951	29.58	7,890
	June 6, 1947	a17.45	1,280		June 14, 1951	14.53	1,080
	June 13, 1947	13.97	1,280		June 23, 1951	28.95	6,650
	June 23, 1947	a20.51	2,250		June 29, 1951	19.34	2,010
					July 11, 1951	30.96	29,300
1948	June 15, 1948	13.62	1,180		July 22, 1951	17.80	1,510
	June 28, 1948	16.44	1,860		Sept. 4, 1951	b29.05	6,330
1949	Feb. 18, 1949	17.15	1,450	1952	Apr. 9, 1952	13.70	690
	June 9, 1949	21.70	2,680				
				1953	June 28, 1953	7.50	79
1950	Oct. 10, 1949	16.50	1,450				
	July 16, 1950	24.99	3,880				

a Backwater from Saline River.
b Occurred on following day.

8689. Elkhorn Creek tributary near Lincoln, Kans.

Location.--Lat 38°58'40", long 98°09'00", in $SW\frac{1}{4}SW\frac{1}{4}$ sec.30, T.12 S., R.7 W., on left bank at downstream side of bridge on State Highway K-14, 4.6 miles south of Lincoln, and 10.0 miles southwest of Beverly.

Drainage area.--3 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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	July 1, 1957	13.14	290	1961	June 2, 1961	13.20	310
1958	July 4, 1958	13.34	330	1962	Oct. 28, 1961	11.67	100
1959	May 5, 1959	10.76	42				
1960	Sept.24, 1960	11.86	120				

8695. Saline River at Tescott, Kans.

Location.--Lat 39°00', long 97°53', in SE¼ sec.16, T.12 S., R.5 W., on downstream side of left pier of highway bridge, half a mile south of Tescott, half a mile upstream from Dry Creek, and at mile 54.5.

Drainage area.--2,820 sq mi.

Gage.--Nonrecording prior to Nov. 23, 1934; recording thereafter. Datum of gage is 1,265.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs and by slope-area measurement at 61,400 cfs.

Bankfull stage.--25 ft (U.S. Weather Bureau).

Historical data.--Flood of July 13, 1951, was greatest known since at least 1903 and exceeded the flood of May-June 1903 by about a foot, from relative flood heights in house 7 miles upstream, obtained from local residents in 1957.

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)
1919	Sept.23, 1919	16.4	a2,250	1940	May 11, 1940	20.32	2,610
					Aug. 29, 1940	18.61	2,190
1920	Apr. 12, 1920	9.0	651				
				1941	June 15, 1941	29.18	5,690
1921	Sept.16, 1921	18.70	2,910		Aug. 26, 1941	19.82	2,610
					Sept. 7, 1941	27.41	5,210
1922	July 11, 1922	16.00	2,150				
				1942	Oct. 11, 1941	19.10	2,280
1923	June 10, 1923	18.00	2,700		Oct. 22, 1941	25.68	4,730
					Apr. 26, 1942	22.78	3,360
1924	Oct. 17, 1923	6.40	240		May 4, 1942	21.13	2,890
					May 14, 1942	21.13	2,910
1925	Sept. 1, 1925	18.90	2,860		June 20, 1942	26.34	4,690
					June 25, 1942	18.90	2,220
1926	Sept.15, 1926	15.02	1,920		Sept. 3, 1942	29.30	6,290
1927	Oct. 13, 1926	17.5	2,470	1943	June 21, 1943	21.89	3,120
	May 9, 1927	16.0	2,070				
	June 8, 1927	17.23	2,390	1944	Apr. 24, 1944	22.50	3,140
	June 18, 1927	28.04	5,510		May 7, 1944	26.73	5,340
	Aug. 17, 1927	29.6	8,900		July 30, 1944	23.01	3,360
	Aug. 29, 1927	18.10	2,640		Aug. 26, 1944	19.25	2,030
	Sept. 8, 1927	17.1	2,360		Sept. 2, 1944	19.1	2,000
1928	July 12, 1928	29.5	8,050	1945	May 23, 1945	27.99	5,080
	Aug. 4, 1928	29.48	7,900		July 1, 1945	28.24	5,180
1929	May 14, 1929	17.50	1,550	1946	Sept. 9, 1946	29.13	4,940
					Sept.16, 1946	26.86	3,900
1930	Sept.13, 1930	19.48	1,980				
				1947	Oct. 14, 1946	28.35	5,230
1931	Oct. 9, 1930	15.47	1,380		Apr. 12, 1947	20.0	2,100
					June 9, 1947	24.67	4,060
1932	Sept. 2, 1932	17.90	1,600		June 15, 1947	19.52	2,020
					June 25, 1947	21.46	2,600
1933	July 21, 1933	9.16	395				
				1948	July 1, 1948	19.6	2,150
1934	June 20, 1934	20.61	2,750		July 21, 1948	26.00	4,310
1935	May 23, 1935	23.74	3,860	1949	Jan. 25, 1949	b22.13	2,050
	May 27, 1935	24.7	3,880		Feb. 23, 1949	b21.43	2,050
	June 1, 1935	25.9	4,450		May 21, 1949	17.88	2,130
	June 3, 1935	29.57	8,640		June 12, 1949	22.32	3,290
	June 22, 1935	24.1	3,610				
	June 30, 1935	29.4	7,300	1950	Oct. 12, 1949	18.65	2,290
	Sept.28, 1935	21.40	2,550		May 12, 1950	19.30	2,490
					July 20, 1950	27.38	4,640
1936	May 13, 1936	20.85	2,350		July 31, 1950	25.91	4,190
					Aug. 13, 1950	23.04	3,340
1937	Sept.13, 1937	15.15	1,270		Aug. 18, 1950	25.92	4,190
1938	May 20, 1938	26.43	4,740	1951	Oct. 3, 1950	23.49	4,200
	May 26, 1938	24.45	4,010		Oct. 5, 1950	18.90	2,620
	June 4, 1938	28.93	5,730		May 27, 1951	27.05	5,620
					June 3, 1951	22.53	3,840
1939	Apr. 18, 1939	22.50	3,320		June 9, 1951	29.77	11,400
	June 19, 1939	18.49	2,100		June 17, 1951	24.72	4,690
	June 30, 1939	19.25	2,320		June 25, 1951	29.56	25,500

a Maximum Sept. 3-30; probably maximum for year.
b Backwater from ice.

Peak stages and discharges of Saline River at Tescott, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 1, 1951	29.22	9,800	1958	July 5, 1958	18.83	2,210
	July 13, 1951	30.06	61,400				
	July 26, 1951	23.93	3,360	1959	June 2, 1959	22.50	3,650
	Sept. 7, 1951	29.25	10,000		June 30, 1959	23.80	4,170
1952	Aug. 12, 1952	21.81	2,720	1960	Mar. 29, 1960	29.40	11,900
					Aug. 28, 1960	18.50	2,470
1953	July 16, 1953	13.38	687		Sept.25, 1960	21.08	3,270
1954	June 19, 1954	21.34	2,580	1961	May 5, 1961	21.60	3,330
					May 25, 1961	29.56	12,900
1955	Sept.22, 1955	16.63	1,230		June 3, 1961	25.93	4,970
					June 14, 1961	20.42	2,980
1956	June 9, 1956	19.80	2,090		June 15, 1961	22.32	3,550
					July 24, 1961	17.93	2,180
1957	May 15, 1957	21.37	3,080		Aug. 23, 1961	19.47	2,690
	May 19, 1957	26.23	4,870		Sept.14, 1961	21.05	3,160
	May 30, 1957	24.65	4,230				
	June 15, 1957	18.2	2,020	1962	June 5, 1962	18.60	2,440
	June 22, 1957	29.12	8,440		July 7, 1962	20.60	3,030
	July 1, 1957	29.54	13,600		July 11, 1962	18.40	2,380
					July 21, 1962	17.66	2,170
1958	Apr. 2, 1958	28.12	6,470		Aug. 8, 1962	23.32	3,930
	May 21, 1958	29.13	8,490				

8703. Gypsum Creek near Gypsum, Kans.

Location.--Lat 38°39'11", long 97°25'10", on south line of sec.15, T.16 S., R.1 W., at highway bridge, 2.6 miles upstream from Stag Creek, and 3.5 miles south of Gypsum.

Drainage area.--120 sq mi, approximately.

Gage.--Nonrecording prior to July 21, 1959; recording thereafter. Datum of gage is 1,232.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,500 cfs and extended above by logarithmic plotting.

Historical data.--Maximum stage known since at least 1869, 22.2 ft May 29, 1903. Flood in April 1929 reached a stage of 21.9 ft, and that of July 11, 1951, a stage of 21.7 ft, from floodmark, information from newspapers and local residents.

Remarks.--Base for partial-duration series, 650 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 29, 1903	22.2	-	1958	May 4, 1958	16.24	1,450
					July 5, 1958	14.24	814
1929	April 1929	21.9	-		July 27, 1958	15.28	1,100
					Sept.10, 1958	15.94	1,320
1951	July 11, 1951	21.7	-		Sept.16, 1958	14.61	903
1955	Apr. 13, 1955	19.00	6,900	1959	May 5, 1959	18.10	3,550
					Sept.21, 1959	14.87	970
1956	May 30, 1956	5.73	62				
				1960	Oct. 2, 1959	14.31	828
1957	May 13, 1957	14.03	767		Mar. 24, 1960	14.62	905
	May 16, 1957	17.53	2,620				
	May 25, 1957	16.07	1,360	1961	May 5, 1961	14.34	835
	May 30, 1957	15.36	1,030		May 22, 1961	15.63	1,200
	June 1, 1957	17.03	2,010				
	June 27, 1957	17.57	2,680	1962	Jan. 27, 1962	15.22	870
					May 29, 1962	18.09	2,270
1958	Oct. 8, 1957	15.53	1,180		June 3, 1962	17.57	1,880

8710. North Fork Solomon River at Glade, Kans.

Location.--Lat 39°40'40", long 99°18'30", on west line of sec.25, T.4 S., R.18 W., at bridge on U.S. Highway 183, half a mile south of Glade.

Drainage area.--849 sq mi.

Gage.--Nonrecording prior to Nov. 12, 1952; recording thereafter. Datum of gage is 1,756.04 ft above mean sea level, datum of 1929.

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

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)
1953	May 28, 1953	8.32	3,120	1957	June 16, 1957	16.55	23,300
	July 20, 1953	14.35	11,600		June 28, 1957	7.78	2,570
1954	Apr. 21, 1954	7.23	2,540	1958	July 4, 1958	4.58	992
	May 28, 1954	9.80	4,240				
	June 15, 1954	7.53	2,610	1959	July 14, 1959	10.21	3,330
1955	June 18, 1955	7.28	2,460	1960	Mar. 23, 1960	9.52	4,530
	Sept.26, 1955	9.63	4,100		May 16, 1960	11.08	4,330
1956	July 7, 1956	4.35	780	1961	May 22, 1961	9.48	3,840
					June 6, 1961	10.47	4,580
1957	May 16, 1957	8.17	2,820				
	May 29, 1957	11.34	5,450	1962	July 2, 1962	10.72	4,260

8715. Bow Creek near Stockton, Kans.

Location.--Lat 39°34', long 99°17', on west line of sec.1, T.6 S., R.18 W., near center of stream at downstream side of bridge on U.S. Highway 183, 8.5 miles north of Stockton.

Drainage area.--337 sq mi.

Gage.--Nonrecording prior to June 28, 1951; recording thereafter. Datum of gage is 1,801.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs and by contracted-opening measurement at 12,900 cfs.

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

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 22, 1951	-	a600	1957	May 29, 1957	9.24	2,140
	June 8, 1951	9.78	1,780		June 17, 1957	10.70	4,300
	June 22, 1951	12.25	6,900		June 28, 1957	7.00	680
	July 12, 1951	13.6	12,900		July 1, 1957	8.50	1,440
	July 22, 1951	8.12	925				
	Aug. 13, 1951	7.05	694	1958	July 17, 1958	7.08	756
	Sept. 4, 1951	7.60	810		Sept. 5, 1958	8.14	1,220
1952	May 30, 1952	8.84	1,210	1959	July 14, 1959	8.03	1,120
	Aug. 11, 1952	6.99	670				
				1960	Oct. 5, 1959	7.42	828
1953	July 21, 1953	6.08	470		Mar. 24, 1960	9.21	1,610
					May 18, 1960	9.14	2,040
1954	May 28, 1954	8.40	1,300				
	June 15, 1954	10.12	3,380	1961	May 21, 1961	8.78	1,320
					June 1, 1961	6.77	605
1955	Sept.26, 1955	6.40	572		June 3, 1961	6.89	635
					June 6, 1961	8.99	1,430
1956	July 7, 1956	6.07	486		June 8, 1961	7.37	766
1957	May 19, 1957	6.85	635	1962	July 1, 1962	9.21	1,410

a Approximate.

8718. North Fork Solomon River at Kirwin, Kans.

Location.--Lat 39°40', long 99°07', in two channels in SE¼ sec.33 (river outlet gage) and SW¼ sec.34 (spillway gage), T.4 S., R.16 W., 200 ft and 600 ft, respectively, downstream from toe of Kirwin Dam, half a mile and three quarters of a mile, respectively, south of Kirwin, 1.3 miles upstream from Deer Creek, and at mile 66.5.

Drainage area.--1,360 sq mi, approximately.

River outlet gage.--Nonrecording prior to June 25, 1942, and subsequent to July 31, 1955; recording June 25, 1942, to July 31, 1955. At site 300 ft downstream prior to Aug. 1, 1955, and at site 200 ft upstream subsequent to July 31, 1955; both at datum 1,656.95 ft above mean sea level (levels by Bureau of Reclamation). Datum of gage is 1,659.50 ft above mean sea level, (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 10,000 cfs and by slope-area and contracted-opening measurement at 23,000 cfs.

Historical data.--Flood of June 1915 reached a stage about 2 ft above handrail of bridge or about 27 ft, site and datum used prior to Aug. 1, 1955, from information by local resident in 1919

Remarks.--Flow completely regulated since Mar. 7, 1955, by Kirwin Reservoir just upstream (capacity, 513,000 acre-ft). 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)
1915	June 1915	27	a54,000	1947	Oct. 7, 1946	12.64	3,560
					June 6, 1947	16.08	7,060
1919	Sept.18, 1919	22.5	a24,000		June 23, 1947	18.4	11,500
					June 25, 1947	11.92	3,090
1920	Oct. 9, 1919	-	1,120				
				1948	July 19, 1948	7.8	1,200
1921	June 2, 1921	8.7	1,440				
				1949	May 19, 1949	9.08	1,670
1922	July 24, 1922	7.9	1,200		June 7, 1949	9.25	1,740
					June 13, 1949	13.05	3,700
1923	June 12, 1923	12.20	a2,950		June 18, 1949	10.52	2,310
1924	July 13, 1924	6.10	674	1950	July 17, 1950	11.22	2,670
					July 27, 1950	13.77	4,750
1925	June 22, 1925	10.15	b1,970		Aug. 7, 1950	11.62	2,910
					Aug. 12, 1950	22.3	23,000
1929	July 24, 1929	17.0	8,900		Aug. 26, 1950	9.9	2,040
					Aug. 29, 1950	9.2	1,720
1930	Aug. 24, 1930	10.6	2,160				
				1951	May 22, 1951	15.35	5,280
1931	Aug. 24, 1931	10.4	2,260		May 31, 1951	8.91	1,650
					June 8, 1951	15.07	5,040
1942	June 9, 1942	10.31	2,220		June 22, 1951	19.75	13,600
	Aug. 3, 1942	10.9	2,500		July 11, 1951	20.42	15,600
	Aug. 14, 1942	16.82	8,540		July 22, 1951	11.27	2,910
	Sept. 3, 1942	13.58	4,240		Aug. 13, 1951	11.51	3,060
	Sept.15, 1942	9.6	1,900		Sept. 4, 1951	13.54	4,270
1943	Apr. 11, 1943	14.98	5,200	1952	May 31, 1952	10.20	2,020
	June 15, 1943	10.28	2,210				
				1953	May 29, 1953	12.02	2,050
1944	Apr. 23, 1944	13.0	3,810		July 21, 1953	16.70	7,080
	May 13, 1944	10.07	2,110				
	June 18, 1944	18.4	12,200	1954	Apr. 21, 1954	13.30	3,160
	July 5, 1944	15.16	5,690		May 18, 1954	12.57	2,430
	July 19, 1944	9.35	2,560		May 23, 1954	13.00	2,860
	Aug. 1, 1944	16.0	6,900		May 27, 1954	14.02	3,860
					June 15, 1954	15.85	5,850
1945	Apr. 23, 1945	8.76	1,540				
	June 24, 1945	12.0	3,140	1955	Sept.26, 1955	-	c4,900
1946	June 19, 1946	11.43	2,800	1956	July 7, 1956	-	c1,300

a Annual peak only.
b Maximum Oct. 1 to June 30; probably maximum for year.
c Adjusted approximately for storage in Kirwin Reservoir.

8721. Middle Cedar Creek at Kensington, Kans.

Location.--Lat 39°00'20", long 99°02'10", in NE¼NE¼ sec.32, T.3 S., R.15 W., on left bank at downstream side of bridge on U.S. Highway 36, 0.5 mile south of Kensington, and 6.0 miles southwest of Athol.

Drainage area.--57 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 950 cfs and extended above by logarithmic plotting.

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 16, 1957	29.11	4,000	1961	May 21, 1961	20.48	1,400
1958	Aug. 16, 1958	14.42	395	1962	July 1, 1962	17.22	800
1959	Oct. 1, 1958	9.95	90				
1960	Oct. 5, 1959	14.82	450				

8725. North Fork Solomon River near Downs, Kans.

Location.--Lat 39°31', long 98°36', on south line of sec.19, T.6 S., R.11 W., on downstream side of left pier of bridge on U.S. Highway 24, 3 miles west of Downs, 4½ miles upstream from Oak Creek, and at mile 16.4.

Drainage area.--2,390 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 5, 1946; recording thereafter. Datum of gage is 1,460.32 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and extended above by logarithmic plotting.

Historical data.--Flood of June 15, 1915, reached a stage about 1 ft higher than that of July 12, 1951, from information by Kansas Highway Commission.

Remarks.--Peak discharges after Mar. 7, 1955, affected by storage in Kirwin Reservoir (capacity, 513,000 acre-ft). Only annual peaks are shown for 1956-62. 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)
1946	May 31, 1946	21.0	5,100	1950	Aug. 30, 1950	22.08	6,300
	June 20, 1946	20.4	4,620				
	Aug. 27, 1946	23.0	7,250	1951	May 21, 1951	22.92	7,330
	Sept. 8, 1946	21.0	5,100		June 1, 1951	22.29	6,450
	Sept.14, 1946	22.5	6,620		June 9, 1951	24.37	10,000
					June 23, 1951	27.36	18,800
1947	Oct. 9, 1946	21.9	5,950		July 12, 1951	30.41	35,700
	Apr. 29, 1947	21.82	5,850		July 23, 1951	21.50	5,470
	June 7, 1947	23.96	8,900		July 29, 1951	20.55	4,520
	June 13, 1947	18.11	3,440		Aug. 15, 1951	19.80	3,910
	June 22, 1947	19.20	3,930		Sept. 6, 1951	21.68	5,690
	June 24, 1947	23.38	7,830				
	June 26, 1947	20.86	5,010	1952	July 15, 1952	20.05	4,940
1948	June 28, 1948	14.78	2,310	1953	July 21, 1953	17.95	3,720
1949	Feb. 24, 1949	22.64	7,050	1954	May 29, 1954	17.34	3,770
	May 9, 1949	20.04	4,530		June 16, 1954	20.60	5,560
	May 22, 1949	19.23	4,060				
	June 8, 1949	22.29	6,660	1955	June 18, 1955	25.92	14,000
	June 10, 1949	18.62	3,750		Sept.27, 1955	17.07	3,080
	June 14, 1949	26.64	15,600				
	June 19, 1949	21.60	5,830	1956	June 22, 1956	20.53	4,620
				1957	June 17, 1957	29.68	26,500
1950	July 17, 1950	20.03	4,050	1958	Oct. 23, 1957	14.29	2,200
	July 19, 1950	20.23	4,050	1959	May 5, 1959	10.74	1,280
	July 28, 1950	20.38	4,530	1960	Oct. 6, 1959	21.70	5,300
	Aug. 8, 1950	21.02	5,150				
	Aug. 13, 1950	28.23	22,500	1961	June 7, 1961	24.60	10,500
	Aug. 27, 1950	19.64	3,910	1962	Aug. 5, 1962	18.92	3,970

8726. Oak Creek at Bellaire, Kans.

Location.--Lat 39°47'50", long 98°40'10", in NW¼NW¼ sec.15, T.3 S., R.12 W., on right bank at downstream side of bridge, at Bellaire, and 6.4 miles northeast of Smith Center.

Drainage area.--5 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 250 cfs and by slope-area measurements at 294 and 1,300 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 16, 1957	19.70	1,500	1961	June 5, 1961	19.40	1,300
1958	July 17, 1958	16.43	230	1962	June 25, 1962	14.51	110
1959	May 15, 1959	16.21	210				
1960	Oct. 5, 1959	17.60	480				

8730. South Fork Solomon River above Webster Reservoir, Kans.
(Published as "at Webster" prior to 1954)

Location.--Lat 39°22', long 99°35', on west line of sec.8, T.8 S., R.20 W., at downstream side of highway bridge, 4 miles north of Damar, 7 miles downstream from Wild Horse Creek, and 11 miles upstream from Webster Dam.

Drainage area.--1,040 sq mi, approximately.

Gage.--Nonrecording Jan. 8, 1945, to May 16, 1946, and May 21, 1951, to May 22, 1952; recording May 17, 1946, to May 20, 1951, and since May 23, 1952. At site 8 miles downstream at datum 94.52 ft lower prior to Sept. 30, 1951, and May 23, 1952, to May 23, 1954. At site 23 miles downstream at different datum, Oct. 1, 1951, to May 22, 1952. Datum of present gage is 1,936.51 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and by slope-area measurement at 55,200 cfs.

Historical data.--Flood of 1908 was 2 feet higher than flood of 1935 according to information obtained in 1945 by Kansas State Highway Commission.

Remarks.--Records at previous sites considered equivalent. Base for partial-duration series, 3,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	June 1908	a13.4	b31,000	1951	May 22, 1951	12.0	21,100
					June 7, 1951	-	12,000
1935	June 1935	a11.4	b21,000		June 14, 1951	-	8,800
					June 22, 1951	-	25,000
1945	June 24, 1945	7.7	7,300		June 28, 1951	-	10,000
					July 12, 1951	14.9	55,200
1946	Sept. 7, 1946	8.3	9,300		July 23, 1951	-	9,500
					Aug. 13, 1951	4.7	3,680
1947	Oct. 7, 1946	8.80	11,700		Sept. 4, 1951	4.8	3,840
	June 25, 1947	7.10	4,700				
				1952	Apr. 21, 1952	-	1,500
1948	May 30, 1948	6.67	3,410				
	June 22, 1948	11.12	25,300	1953	July 20, 1953	5.45	1,600
	June 28, 1948	7.29	5,400				
	Aug. 3, 1948	6.60	3,200	1954	May 28, 1954	6.15	3,320
	Aug. 14, 1948	6.72	3,560		June 13, 1954	6.10	3,200
					June 15, 1954	7.96	9,640
1949	Feb. 19, 1949	7.42	4,790				
	June 13, 1949	8.15	8,300	1955	Sept.26, 1955	6.40	4,000
1950	July 19, 1950	7.13	4,790	1956	July 6, 1956	6.38	3,940
	July 25, 1950	10.72	27,000				
	Aug. 7, 1950	7.96	10,400	1957	Apr. 23, 1957	6.78	3,600
	Aug. 13, 1950	8.54	12,000		May 16, 1957	8.60	7,980
	Aug. 29, 1950	6.37	4,020		June 17, 1957	12.02	25,100

a From information by Kansas State Highway Commission, converted to present site and datum.
b Annual peak only.

Peak stages and discharges of South Fork Solomon River above Webster Reservoir, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 27, 1957	7.32	4,620	1960	June 11, 1960	6.49	3,290
	July 1, 1957	7.79	5,700				
	Aug. 29, 1957	7.72	5,530	1961	May 21, 1961	7.05	4,240
					June 6, 1961	9.60	11,500
1958	July 17, 1958	9.12	9,720		Aug. 13, 1961	7.10	4,330
	Aug. 16, 1958	9.30	10,400				
				1962	June 8, 1962	7.97	5,610
1959	June 11, 1959	4.06	683		July 2, 1962	12.92	20,100
					July 18, 1962	6.68	3,400
1960	Mar. 22, 1960	6.98	4,070		July 20, 1962	11.54	13,700
	May 16, 1960	10.25	14,400				

8733. Ash Creek tributary near Stockton, Kans.

Location.--Lat 39°26'15", long 99°22'16", in SE¼SW¼ sec.18, T.7 S., R.18 W., at upstream end of culvert on U.S. Highway 24, 5.3 miles west of Stockton.

Drainage area.--1.0 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 10 cfs and by computation of critical flow through culvert.

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 10, 1957	13.42	280	1961	May 21, 1961	11.73	120
1958	July 16, 1958	11.29	85	1962	July 1, 1962	10.42	35
1959	June 21, 1959	10.32	30				
1960	Mar. 26, 1960	12.40	180				

8735. South Fork Solomon River at Alton, Kans.

Location.--Lat 39°27', long 98°57', in SW¼ sec.12, T.7 S., R.15 W., at county highway bridge half a mile south of Alton and at mile 47.6.

Drainage area.--1,720 sq mi, approximately.

Gage.--Nonrecording Aug. 31, 1919, to June 30, 1925, Aug. 12, 1928, to June 30, 1932, and July 30, 1951, to May 9, 1952; recording June 23, 1942, to July 11, 1951, and since May 10, 1952. At datum 2 ft higher prior to Sept. 30, 1923. Datum of gage is 1,598.20 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs and by contracted-opening and slope-area measurement at 91,900 cfs.

Remarks.--Gage heights adjusted to present datum. Peak discharges after May 3, 1956, affected by storage in Webster Reservoir (capacity, 401,650 acre-ft). Base for partial-duration series, 3,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	Sept.19, 1919	21.5	a23,500	1925	June 22, 1925	9.5	b2,100
1920	Aug. 19, 1920	7.7	1,300	1928	Aug. 1, 1928	24.5	a42,800
1921	June 5, 1921	5.4	b540	1929	July 25, 1929	11.0	2,900
1922	May 30, 1922	4.5	315	1930	Sept.10, 1930	9.0	1,820
1923	June 11, 1923	10.8	b3,000	1931	July 5, 1931	15.52	6,300
1924	July 21, 1924	3.7	179	1942	Aug. 14, 1942	10.80	a2,740

a Annual peak only.
b Maximum Oct. 1 to June 30; probably maximum for year.

Peak stages and discharges of South Fork Solomon River at Alton, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Apr. 11, 1943	11.72	3,460	1951	May 22, 1951	20.30	18,900
	June 16, 1943	19.94	17,300		June 7, 1951	18.52	12,500
					June 14, 1951	16.64	7,990
1944	May 2, 1944	16.78	8,290		June 23, 1951	22.26	26,900
	Aug. 1, 1944	16.3	7,410		June 28, 1951	17.47	9,640
					July 12, 1951	27.1	91,900
1945	June 25, 1945	11.26	3,200		July 23, 1951	-	8,500
					Sept. 4, 1951	15.5	6,120
1946	Sept. 8, 1946	13.87	4,640		Sept. 8, 1951	14.0	4,410
1947	Oct. 6, 1946	15.34	6,310	1952	Apr. 21, 1952	7.50	1,240
	Oct. 8, 1946	17.14	8,800				
				1953	July 22, 1953	6.14	924
1948	June 23, 1948	15.45	6,440				
				1954	May 28, 1954	13.4	4,770
1949	Feb. 23, 1949	13.35	4,050		June 16, 1954	16.05	7,520
	June 14, 1949	16.15	6,580				
				1955	Sept.27, 1955	7.95	1,380
1950	July 26, 1950	18.30	9,960				
	Aug. 8, 1950	16.18	7,340	1956	July 6, 1956	-	1,100
	Aug. 14, 1950	16.88	8,500				
	Aug. 27, 1950	13.00	3,810	1957	June 17, 1957	20.60	20,400
	Aug. 29, 1950	13.98	4,740				

8740. South Fork Solomon River at Osborne, Kans.

Location.--Lat 39°26', long 98°42', on west line of sec.20, T.7 S., R.12 W., on downstream side of bridge on U.S. Highway 281, half a mile south of Osborne, 0.6 mile downstream from Covert Creek, and at mile 26.1.

Drainage area.--2,024 sq mi.

Gage.--Nonrecording prior to Dec. 12, 1946: recording thereafter. Datum of gage is 1,505.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and by slope-area and contracted opening measurement at 81,200 cfs.

Remarks.--Storage in Webster Reservoir 64 miles upstream began May 3, 1956, but did not appreciably reduce the annual maximum discharge for 1956. In subsequent years, peak discharges affected by storage in Webster Reservoir; only annual peaks are shown. 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)
1946	June 20, 1946	14.25	2,270	1951	June 23, 1951	23.44	24,500
	July 6, 1946	13.50	2,010		June 28, 1951	19.88	9,340
	Sept. 8, 1946	15.86	3,120		July 13, 1951	27.65	81,200
					July 23, 1951	19.33	7,720
1947	Oct. 9, 1946	20.0	8,650		Aug. 14, 1951	17.06	3,760
	June 7, 1947	14.60	2,430		Sept. 4, 1951	18.92	6,740
					Sept. 9, 1951	16.0	2,800
1948	June 23, 1948	14.74	2,470				
	June 28, 1948	14.08	2,230	1952	Apr. 22, 1952	12.21	1,180
1949	June 9, 1949	15.23	2,980	1953	July 22, 1953	9.42	783
	June 14, 1949	17.85	5,790				
				1954	May 29, 1954	16.04	2,880
1950	Oct. 10, 1949	14.13	2,300		June 17, 1954	18.38	5,510
	May 9, 1950	18.90	6,680				
	July 26, 1950	19.35	7,900	1955	June 17, 1955	11.20	1,160
	Aug. 9, 1950	18.70	6,260				
	Aug. 14, 1950	19.74	8,800	1956	July 5, 1956	14.44	2,100
	Aug. 27, 1950	18.84	6,460				
	Aug. 29, 1950	20.13	10,000	1957	June 17, 1957	22.88	21,200
				1958	May 17, 1958	18.08	5,170
1951	Oct. 2, 1950	16.16	3,340	1959	May 30, 1959	10.34	933
	May 23, 1951	21.96	16,600	1960	Mar. 27, 1960	17.39	3,780
	June 2, 1951	14.0	2,250				
	June 8, 1951	20.87	12,500	1961	May 22, 1961	21.70	15,500
	June 12, 1951	15.4	2,900	1962	July 3, 1962	16.16	2,620
	June 15, 1951	18.91	6,720				

8745. East Limestone Creek near Ionia, Kans.

Location.--Lat 39°41'50", long 98°20'20", in NE¼NW¼ sec.21, T.4 S., R.9 W., near right bank at downstream side of highway bridge, 2.5 miles northeast of Ionia, and 9.0 miles southwest of Mankato.

Drainage area.--27.3 sq mi.

Gage.--Crest-stage gage. Recording gage and concrete control at same site and at datum 6.2 ft higher Mar. 1, 1934, to June 30, 1938. Altitude of gage is 1,580 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,800 cfs.

Remarks.--Gage heights 1934-38 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)
1934	Sept. 3, 1934	8.59	37	1958	Sept. 5, 1958	13.78	430
1935	May 28, 1935	22.55	3,920	1959	May 30, 1959	8.8	50
				1960	Apr. 1, 1960	17.41	900
1936	July 1, 1936	13.32	472				
1937	June 13, 1937	18.85	1,550	1961	Sept.12, 1961	19.99	1,400
1938	June 11, 1938	11.96	1,210	1962	July 1, 1962	16.90	760
1957	Sept. 6, 1957	12.78	320				

8750. Elm Creek near Ionia, Kans.

Location.--Lat 39°40', long 98°21', in SW¼ sec.28, T.4 S., R.9 W., 0.7 mile northeast of Ionia, and 1.2 miles upstream from East Limestone Creek.

Drainage area.--22.7 sq mi.

Gage.--Recording and concrete control. Altitude of gage is 1,570 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,400 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)
1934	June 22, 1934	-	29	1937	June 13, 1937	13.46	1,300
1935	Sept. 1, 1935	18.05	4,490	1938	June 11, 1938	11.17	692
1936	July 1, 1936	5.28	159				

8760. Solomon River at Beloit, Kans.

Location.--Lat 39°25'09", long 98°03'33", in NW¼ sec.25, T.7 S., R.7 W., on left bank 2.9 miles downstream from Plum Creek, 4 miles southeast of Beloit, and at mile 122.1.

Drainage area.--5,530 sq mi, approximately.

Gage.--Nonrecording prior to Mar. 18, 1930; recording thereafter. At sites in vicinity of city water plant in Beloit 8.5 miles upstream and at datum 14.19 ft higher prior to June 10, 1958. Datum of gage is 1,324.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs and at 125,000 cfs by slope-area measurements nearby, adjusted to gage site.

Historical data.--Flood of June 1903 was reported "16 inches above that of 1877" and was the highest known, at Delphos, 25 miles downstream, according to the Delphos Republican of June 5, 1903.

Annual peaks 1895-97, based on stage readings of unknown datum, are approximate.

Remarks.--Gage-height records for 1903-28 furnished by U.S. Weather Bureau. Only annual peaks are listed prior to 1929. After 1956, peak discharges are affected by storage in Kirwin and Webster Reservoirs. Only annual peaks are shown subsequent to 1951. Base for partial-duration series, 5,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	June 6, 1895	24.8	11,800	1937	June 6, 1937	20.97	5,100
1896	July 30, 1896	19.0	6,500	1938	May 27, 1938	21.53	6,160
					May 31, 1938	20.62	5,630
1897	June 16, 1897	24.0	10,700		June 3, 1938	20.67	5,670
1903	May 27, 1903	31.2	23,600	1939	Aug. 16, 1939	27.65	10,400
1905	July 3, 1905	26.2	11,500	1940	May 9, 1940	17.30	4,120
1908	June 20, 1908	33.25	30,800	1941	June 11, 1941	35.87	33,600
					June 29, 1941	24.26	6,060
1915	June 19, 1915	32.4	27,600		Sept. 5, 1941	29.02	15,500
					Sept.16, 1941	24.65	8,040
1916	June 15, 1916	19.0	4,250				
1917	May 26, 1917	22.0	6,290	1942	Oct. 10, 1941	26.27	8,120
1918	June 3, 1918	26.8	12,500				
1919	Sept.20, 1919	33.6	32,200	1943	Apr. 14, 1943	23.95	7,630
1920	Aug. 29, 1920	15.0	2,830		June 13, 1943	24.81	8,260
					June 18, 1943	27.83	12,900
1921	June 6, 1921	16.0	3,130				
1922	July 26, 1922	12.4	2,140	1944	Apr. 25, 1944	21.06	5,300
1923	May 25, 1923	28.8	16,700		May 4, 1944	29.06	15,300
1924	Aug. 17, 1924	17.5	3,620		June 21, 1944	24.66	7,810
1925	July 31, 1925	16.0	3,130		Sept. 1, 1944	21.21	5,360
1926	Sept.17, 1926	27.4	13,500	1945	May 23, 1945	23.51	6,780
1927	Apr. 16, 1927	29.0	17,200		June 27, 1945	20.30	5,100
1928	Aug. 2, 1928	28.8	16,700		July 19, 1945	27.83	12,200
1929	Apr. 21, 1929	22.4	6,660	1946	Sept. 8, 1946	29.35	14,400
	June 8, 1929	26.4	11,900		Sept.15, 1946	28.60	12,100
1930	Sept.11, 1930	15.65	3,010	1947	Oct. 11, 1946	26.93	8,850
					Apr. 11, 1947	22.46	5,210
1931	May 6, 1931	20.36	5,050		May 1, 1947	23.48	5,660
					June 9, 1947	26.48	8,270
1932	Sept.13, 1932	18.48	4,020		June 14, 1947	24.23	6,120
					June 24, 1947	24.88	6,620
1933	Apr. 23, 1933	18.50	3,870				
				1948	July 21, 1948	25.18	6,860
1934	June 19, 1934	24.50	7,100				
				1949	Feb. 26, 1949	26.75	9,550
1935	May 21, 1935	22.33	6,570		June 11, 1949	27.77	10,800
	May 29, 1935	25.51	10,400		June 16, 1949	28.09	11,200
	June 3, 1935	34.5	37,800		June 21, 1949	21.62	5,310
	June 19, 1935	28.44	15,800				
	Sept. 3, 1935	23.15	7,440	1950	Oct. 11, 1949	23.15	6,390
					May 10, 1950	26.41	9,130
1936	May 12, 1936	22.15	5,910		July 11, 1950	23.94	6,770

Peak stages and discharges of Solomon River at Beloit, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 18, 1950	26.12	8,100	1951	Aug. 16, 1951	24.52	7,690
	July 26, 1950	22.0	5,430		Sept. 6, 1951	27.22	10,800
	July 30, 1950	24.78	7,410		Sept.10, 1951	22.10	5,620
	Aug. 10, 1950	22.95	6,110				
	Aug. 15, 1950	33.33	23,600	1952	July 16, 1952	17.29	3,290
	Aug. 30, 1950	28.08	9,990	1953	July 23, 1953	14.03	2,100
				1954	June 17, 1954	20.1	4,450
1951	Oct. 4, 1950	25.04	7,990	1955	June 20, 1955	22.95	6,460
	May 24, 1951	29.78	15,900				
	June 4, 1951	25.55	8,500	1956	June 24, 1956	18.91	a4,160
	June 9, 1951	32.16	23,300	1957	June 19, 1957	34.29	b32,000
	June 17, 1951	22.22	5,650	1958	May 19, 1958	24.09	b8,000
	June 24, 1951	35.39	41,100	1959	May 31, 1959	20.40	b3,200
	June 30, 1951	27.31	10,800	1960	Mar. 28, 1960	32.24	b21,000
	July 13, 1951	39.30	125,000				
	July 25, 1951	26.00	9,000	1961	May 24, 1961	36.83	a25,700
	July 30, 1951	22.22	5,650	1962	June 5, 1962	24.84	a6,890

a Observed annual peak, affected by storage in Kirwin and Webster Reservoirs.
b Adjusted for storage in Kirwin and Webster Reservoirs.

8762. Middle Pipe Creek near Miltonvale, Kans.

Location.--Lat 39°21'00", long 97°33'40", in NE¼NW¼ sec.20, T.8 S., R.2 W., at downstream side of highway bridge, 6.0 miles west of Miltonvale.

Drainage area.--9 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs, by slope-area measurement at 753 cfs, and extended above by logarithmic plotting.

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 16, 1957	14.53	310	1961	May 21, 1961	18.52	840
1958	Sept. 4, 1958	19.67	1,050	1962	Mar. 20, 1962	11.96	120
1959	May 5, 1959	17.72	710				
1960	Mar. 27, 1960	18.98	900				

8769. Solomon River at Niles, Kans.
(Published as "near Bennington," October 1917 to May 1919)

Location.--Lat 38°58'08", long 97°28'34", in NW¼ sec.31, T.12 S., R.1 W., on downstream side of county highway bridge, three quarters of a mile west of Niles, and at mile 16.9.

Drainage area.--6,770 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 26, 1934; recording thereafter. At present site at different datum 1897 to 1903. At site 27 miles upstream at different datum Oct. 1, 1917, to May 31, 1919. At present site at datum 2 ft higher June 1, 1919, to Sept. 30, 1922. Datum of gage is 1,160.97 ft above mean sea level, datum of 1929.

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

Bankfull stage.--24 ft (U.S. Weather Bureau).

Remarks.--Gage heights for period May 15, 1919, to Sept. 30, 1922, adjusted to present datum. Peak discharges affected by storage in Kirwin and Webster Reservoirs since 1956. Records at previous sites considered equivalent. Base for partial-duration series, 3,800 cfs.

Peak stages and discharges of Solomon River at Niles, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)
1897	June 19, 1897	20.8	4,900
	July 2, 1897	22.2	5,600
1898	June 10, 1898	10.6	1,260
1899	June 5, 1899	24.0	6,440
	June 9, 1899	22.5	5,690
	July 1, 1899	20.0	4,450
1900	Apr. 20, 1900	20.4	4,710
1901	Apr. 12, 1901	14.0	2,200
1902	July 2, 1902	28.0	7,350
	July 30, 1902	21.5	4,820
1903	Oct. 1, 1902	29.9	9,500
	Mar. 15, 1903	22.7	5,000
	May 18, 1903	32.2	17,400
	May 23, 1903	21.9	4,700
	June 3, 1903	33.8	30,000
	July 16, 1903	20.2	4,070
	Aug. 5, 1903	25.9	6,220
	Aug. 19, 1903	28.6	7,580
1918	May 24, 1918	16.0	5,130
	June 6, 1918	21.0	8,130
	Sept. 4, 1918	17.0	5,710
1919	Oct. 10, 1918	15.6	4,900
	May 1, 1919	13.6	4,000
	May 14, 1919	15.0	4,700
	June 4, 1919	18.0	4,600
	June 16, 1919	24.7	8,420
	Sept.26, 1919	27.25	10,200
1920	Oct. 1, 1919	19.0	5,100
	Sept. 1, 1920	17.8	4,500
1921	May 10, 1921	19.1	5,150
1922	Apr. 24, 1922	9.50	1,260
1923	May 30, 1923	24.5	7,850
	June 11, 1923	26.66	9,300
	Sept.27, 1923	17.7	4,160
1924	Aug. 19, 1924	14.0	2,490
1925	Aug. 3, 1925	13.22	1,950
1926	July 17, 1926	19.8	4,290
	Sept.21, 1926	22.4	5,350
1927	Oct. 13, 1926	17.5	4,280
	Apr. 21, 1927	25.7	8,940
	May 5, 1927	19.0	5,030
	June 10, 1927	21.0	6,090
	June 20, 1927	27.05	9,860
	Aug. 4, 1927	17.5	4,280
	Aug. 14, 1927	22.2	6,750
	Aug. 28, 1927	21.7	6,480
	Sept.11, 1927	20.2	5,650
1928	June 23, 1928	20.2	5,650
	June 28, 1928	19.9	5,480
	July 10, 1928	26.5	9,480
	July 24, 1928	22.5	6,920
	Aug. 9, 1928	27.53	10,200
1929	Apr. 23, 1929	24.1	7,450
	June 12, 1929	26.67	8,860
	July 12, 1929	18.0	4,300
1930	May 7, 1930	17.3	4,270
	June 5, 1930	18.2	4,710
1931	May 8, 1931	16.8	4,040
1932	July 8, 1932	21.2	6,200
	Sept. 2, 1932	22.32	6,800
	Sept.16, 1932	16.5	3,900
1933	Apr. 25, 1933	16.08	3,720
1934	June 22, 1934	19.70	4,860
1935	May 24, 1935	19.56	5,400
	June 7, 1935	29.75	20,000
	June 24, 1935	26.79	9,630
	July 3, 1935	24.36	7,980
	Sept. 2, 1935	19.7	4,520
	Sept.13, 1935	18.70	4,060
	Sept.30, 1935	18.28	3,870
1936	May 14, 1936	19.15	4,290
1937	June 8, 1937	21.72	4,940
1938	May 18, 1938	22.03	5,560
	May 30, 1938	21.29	5,200
	June 3, 1938	22.58	5,850
1939	June 10, 1939	18.43	4,150
	Aug. 20, 1939	22.86	6,000
1940	Aug. 28, 1940	19.62	3,970
1941	June 11, 1941	23.51	6,120
	June 17, 1941	29.10	15,200
	July 2, 1941	20.70	4,830
	Sept.10, 1941	24.67	6,840
	Sept.19, 1941	21.30	5,080
1942	Oct. 14, 1941	27.90	9,880
	Oct. 23, 1941	24.45	6,370
	Apr. 28, 1942	22.37	5,300
	May 6, 1942	21.60	4,920
	May 12, 1942	21.55	4,920
	June 1, 1942	19.13	3,840
	June 19, 1942	27.82	9,700
	June 26, 1942	22.42	5,300
	Aug. 19, 1942	19.15	3,960
	Sept. 4, 1942	30.24	18,800
1943	Apr. 17, 1943	22.31	5,250
	June 8, 1943	22.34	5,250
	June 11, 1943	21.01	4,650
	June 17, 1943	27.01	8,650
	June 22, 1943	25.36	7,300
1944	Apr. 24, 1944	22.91	5,590
	Apr. 26, 1944	22.91	5,590
	May 9, 1944	27.61	9,390
	June 23, 1944	20.60	4,600
	July 10, 1944	18.72	3,840
	July 29, 1944	20.31	4,480
	Aug. 26, 1944	21.25	4,850
	Aug. 29, 1944	18.74	3,840
	Sept. 3, 1944	20.31	4,480
1945	Apr. 16, 1945	23.34	5,860
	May 25, 1945	27.93	9,880
	June 18, 1945	24.83	6,860
	June 29, 1945	20.38	4,520
	July 4, 1945	18.74	3,840
	July 8, 1945	19.77	4,280
	July 21, 1945	27.25	8,870
1946	July 20, 1946	18.67	3,840
	Aug. 30, 1946	19.08	4,000
	Sept. 8, 1946	30.13	18,200
	Sept.20, 1946	27.31	8,990
1947	Oct. 16, 1946	26.30	7,690
	Nov. 11, 1946	20.57	3,840
	Apr. 14, 1947	24.46	6,180
	June 6, 1947	22.22	4,710
	June 9, 1947	23.25	5,270
	June 14, 1947	23.95	5,800
	June 24, 1947	22.50	4,880
	June 29, 1947	23.78	5,660
1948	Mar. 20, 1948	19.10	4,000
	May 3, 1948	21.08	4,800

Peak stages and discharges of Solomon River at Niles, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 29, 1948	21.58	4,600	1951	July 14, 1951	31.76	178,000
	July 12, 1948	25.20	6,440		July 29, 1951	26.63	7,550
	July 20, 1948	29.67	16,200		Aug. 2, 1951	22.78	5,340
					Aug. 19, 1951	23.48	5,690
1949	Jan. 24, 1949	21.15	4,100		Sept. 6, 1951	28.12	13,800
	Feb. 12, 1949	23.67	5,570		Sept.11, 1951	27.72	11,400
	Mar. 2, 1949	25.41	7,680				
	May 25, 1949	19.35	4,080	1952	Apr. 20, 1952	23.60	6,330
	June 15, 1949	24.18	6,510		May 31, 1952	19.30	4,160
	June 21, 1949	25.14	7,080				
				1953	May 28, 1953	19.30	4,240
1950	Oct. 14, 1949	19.80	4,960				
	May 14, 1950	23.53	6,640	1954	June 2, 1954	23.86	6,470
	May 23, 1950	18.80	4,530				
	July 9, 1950	26.90	8,870	1955	June 23, 1955	17.50	3,800
	July 19, 1950	27.23	8,870				
	July 29, 1950	20.74	5,360	1956	July 9, 1956	14.88	2,750
	Aug. 1, 1950	21.84	5,860				
	Aug. 14, 1950	24.29	6,990	1957	June 24, 1957	28.13	a21,400
	Aug. 20, 1950	28.92	12,000				
	Sept. 4, 1950	28.08	9,540	1958	May 21, 1958	24.92	a8,020
1951	Oct. 4, 1950	26.95	7,800	1959	May 11, 1959	17.00	a3,650
	Apr. 22, 1951	19.52	3,890				
	Apr. 27, 1951	19.72	3,970	1960	Mar. 31, 1960	28.76	a15,800
	May 29, 1951	27.50	9,100				
	June 14, 1951	29.30	15,300	1961	May 27, 1961	28.76	15,200
	June 21, 1951	31.00	60,600				
	June 28, 1951	30.53	30,000	1962	June 5, 1962	23.58	6,940

a Annual peak adjusted to natural conditions.

8770. Smoky Hill River at Solomon, Kans.
(Published as "near Abilene," 1918-21)

Location.--Lat 38°54', long 97°22', in SE¼ sec.19, T.13 S., R.1 E., at highway bridge 500 ft downstream from Solomon River, 1 mile south of Solomon, and at mile 85.5.

Drainage area.--18,830 sq mi, approximately.

Gage.--Nonrecording. At datum 1.46 ft lower Apr. 27 to July 15, 1904. At site 9 miles downstream at different datum Feb. 3, 1918, to Sept. 30, 1921. Datum of gage is 1,137.10 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended to 230,000 cfs on basis of records for stations upstream and downstream.

Bankfull stage.--24 ft (U.S. Weather Bureau).

Historical data.--Flood of May 22, 1877, was the highest since 1869 according to Enterprise Kansas Gazette dated May 25, 1877, stating "Tuesday (May 22, 1877) the water was at a stand--. The Smoky has not been on such a tender since '69." The issue of June 2, 1877, describing flood at Enterprise, 30 miles downstream, states "The river rose last week 3 inches above the '69 mark."

Remarks.--Gage heights for 1903-4 adjusted to datum of 1922-34. The peak discharge for July 1951 was affected by storage in Kanopolis Reservoir (capacity, 450,000 acre-ft) at river mile 207.8. 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)
1903	June 3, 1903	30.4	a88,000	1923	May 30, 1923	18.0	7,600
					June 13, 1923	25.96	14,200
1904	July 10, 1904	26.4	a15,000				
				1924	May 1, 1924	13.45	4,450
1918	June 7, 1918	17.2	a9,250				
				1925	June 27, 1925	12.4	3,850
1919	June 14, 1919	21.3	a12,800				
				1926	July 18, 1926	14.0	5,100
1920	Aug. 27, 1920	14.2	a7,080		Sept.18, 1926	19.8	6,870
1921	May 11, 1921	12.7	a5,760	1927	June 10, 1927	21.2	9,440

a Annual peak only.

Peak stages and discharges of Smoky Hill River at Solomon, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	June 21, 1927	26.5	13,400	1930	June 16, 1930	20.6	9,600
	Aug. 21, 1927	26.8	13,700		Sept.10, 1930	14.0	4,650
1928	June 29, 1928	18.5	7,700	1931	May 9, 1931	13.4	4,700
	July 11, 1928	24.2	13,600				
	Aug. 10, 1928	28.0	18,400	1932	July 9, 1932	22.2	11,300
					Sept. 3, 1932	17.2	7,010
1929	Apr. 23, 1929	18.8	7,940		Sept.16, 1932	18.9	8,210
	May 12, 1929	23.5	10,900				
	June 2, 1929	20.0	8,020	1933	Aug. 25, 1933	16.8	6,750
	June 13, 1929	21.4	8,730				
	July 12, 1929	24.7	12,200	1934	June 22, 1934	22.3	11,400
1930	May 9, 1930	21.7	10,800	1951	July 1951	32.64	230,000
	June 6, 1930	18.5	7,700				

8772. East Turkey Creek near Elmo, Kans.

Location.--Lat 38°40'10", long 97°10'20", in SE¼SE¼ sec.11, T.16 S., R.2 E., on left bank at downstream end of highway bridge, 3.0 miles southeast of Elmo, and 5.5 miles southwest of Hope.

Drainage area.--24 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 900 cfs and by flow through culvert measurement at 1,980 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 16, 1957	18.96	1,200	1961	May 22, 1961	19.78	1,800
1958	May 3, 1958	19.93	1,980	1962	Sept.22, 1962	19.68	1,700
1959	May 5, 1959	19.54	1,600				
1960	June 21, 1960	18.76	1,000				

8774. East Turkey Creek tributary near Elmo, Kans.

Location.--Lat 38°41'00", long 97°11'10", in SW¼SW¼ sec.2, T.16 S., R.2 E., on right bank at downstream end of bridge on State Highway K-4, 2.3 miles east of Elmo, and 6.0 miles southwest of Hope.

Drainage area.--2.4 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 120 cfs and by slope-area measurement at 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)
1957	June 27, 1957	12.42	270	1961	May 22, 1961	16.76	1,600
1958	Oct. 23, 1957	16.57	1,490	1962	Sept.22, 1962	16.06	1,300
1959	July 5, 1959	15.50	1,000				
1960	Oct. 5, 1959	11.38	130				

8776. Smoky Hill River at Enterprise, Kans.

Location.--Lat 38°54'20", long 97°07'10", in sec.20, T.13 S., R.3 E., at bridge on State Highway 43 in Enterprise, 18.6 miles upstream from Chapman Creek, and at mile 55.4.

Drainage area.--19,200 sq mi, approximately.

Gage.--Recording. At site 0.2 mile downstream at datum 5.40 ft lower prior to May 3, 1959. Datum of gage is 1,103.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs and by slope-area measurement at 233,000 cfs.

Bankfull stage.--26 ft (U.S. Weather Bureau).

Historical data.--Flood of May 22, 1877, was reported to have been "3 inches above the '69 mark," information in the Enterprise Kansas Gazette of June 2, 1877.

Flood of May 1903 reached a stage of about 27 ft, present site and datum, (discharge, 90,000 cfs).

Remarks.--Peak discharges since July 29, 1946, affected by storage in Kanopolis Reservoir (capacity, 450,000 acre-ft), at river mile 207.8. Only annual peaks are shown prior to 1935 and subsequent to 1945. 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)
1903	May 1903	a32.0	90,000	1943	Oct. 4, 1942	21.84	9,640
					June 7, 1943	25.07	13,500
1908	June 1908	a28.1	18,000				
				1944	Apr. 12, 1944	20.86	8,930
1928	Aug. 10, 1928	a29.3	22,800		Apr. 23, 1944	23.63	15,000
1929	July 1929	a25.9	14,400		May 10, 1944	27.68	17,800
					July 16, 1944	18.42	7,090
1935	May 25, 1935	20.90	10,100		July 30, 1944	20.40	8,550
	June 9, 1935	29.12	20,200		Aug. 27, 1944	20.93	8,930
	June 26, 1935	26.05	14,400		Sept. 4, 1944	18.29	7,020
	July 5, 1935	27.39	16,400				
				1945	Apr. 16, 1945	23.72	20,000
1936	May 15, 1936	17.00	7,000		May 27, 1945	27.05	15,800
					June 19, 1945	18.03	7,390
1937	June 11, 1937	17.44	7,300		June 30, 1945	22.32	11,000
					July 18, 1945	23.76	30,400
1938	May 20, 1938	17.64	7,450		July 26, 1945	20.39	9,410
	May 30, 1938	19.41	8,820				
	June 7, 1938	23.60	12,200	1946	Sept.13, 1946	-	b21,600
	June 11, 1938	20.12	9,160	1947	Oct. 12, 1946	-	b16,100
	June 18, 1938	19.75	8,910	1948	July 21, 1948	-	b29,400
				1949	June 14, 1949	-	b17,600
1939	Aug. 20, 1939	18.90	8,340	1950	July 22, 1950	-	b22,700
1940	Sept.10, 1940	12.98	4,050	1951	July 14, 1951	33.96	33,000
				1952	Apr. 22, 1952	22.73	c12,200
1941	June 19, 1941	27.45	16,400	1953	May 28, 1953	21.41	c12,600
	Aug. 27, 1941	17.58	7,180	1954	June 2, 1954	-	b10,600
	Sept. 9, 1941	26.90	15,700	1955	June 24, 1955	-	b8,950
1942	Oct. 14, 1941	20.70	9,670	1956	July 10, 1956	-	b4,550
	Oct. 20, 1941	30.20	37,800	1957	June 28, 1957	-	d47,000
	Apr. 30, 1942	24.16	11,800	1958	May 23, 1958	-	d13,000
	May 7, 1942	20.50	8,630	1959	May 17, 1959	-	d4,500
	May 12, 1942	18.66	7,310	1960	Apr. 2, 1960	-	d32,000
	June 20, 1942	27.50	16,800				
	June 25, 1942	28.49	19,400	1961	May 23, 1961	-	26,500
	Sept. 7, 1942	29.60	25,200	1962	Sept.22, 1962	18.74	15,200

a From information by Corps of Engineers.
b Annual peak adjusted to natural conditions, determined by Corps of Engineers.
c Not appreciably affected by reservoir storage.
d Adjusted for storage in Kanopolis Reservoir.

8780. Chapman Creek near Chapman, Kans.

Location.--Lat 39°01'50", long 97°02'30", on south line of sec.1, T.12 S., R.3 E., at downstream side of bridge on State Highway 18, 5 miles northwest of Chapman, and 6 miles upstream from mouth.

Drainage area.--300 sq mi.

Gage.--Nonrecording prior to May 5, 1959; recording thereafter. Datum of gage is 1,102.41 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by contracted-opening measurement at 46,700 cfs.

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)
1951	July 1951	25.5	46,700	1960	Mar. 30, 1960	14.70	1,580
					Apr. 2, 1960	17.05	2,420
1954	June 2, 1954	19.65	2,780		Apr. 13, 1960	16.63	2,250
					Apr. 30, 1960	13.85	1,370
1955	June 5, 1955	14.63	1,470		May 5, 1960	14.20	1,450
					May 17, 1960	14.72	1,580
1956	Sept. 5, 1956	12.0	980		June 15, 1960	14.38	1,500
					Sept.25, 1960	16.83	2,330
1957	May 17, 1957	14.04	1,350				
	May 30, 1957	15.04	1,550	1961	May 5, 1961	16.18	2,020
	June 16, 1957	16.04	1,800		May 22, 1961	22.98	12,100
	June 18, 1957	16.24	1,850		June 3, 1961	19.80	4,300
					June 6, 1961	13.82	1,260
1958	May 4, 1958	19.0	2,620		June 15, 1961	20.03	4,530
	May 19, 1958	16.4	1,960		July 21, 1961	17.58	2,690
	June 25, 1958	15.1	1,700		Sept.13, 1961	14.70	1,520
	July 3, 1958	23.65	12,200		Sept.23, 1961	18.60	3,280
	July 17, 1958	18.1	2,350				
	Aug. 8, 1958	15.4	1,760	1962	Jan. 27, 1962	18.85	2,070
					Mar. 20, 1962	18.43	1,990
1959	May 6, 1959	14.29	1,400		May 29, 1962	18.90	2,080
	May 10, 1959	14.65	1,470		June 3, 1962	17.89	1,880
					June 24, 1962	15.47	1,390
1960	Oct. 2, 1959	16.23	1,810		Sept.19, 1962	16.13	1,530
	Jan. 15, 1960	14.56	1,450		Sept.22, 1962	18.74	2,050
	Mar. 28, 1960	21.60	6,620				

8785. Lyon Creek near Woodbine, Kans.

Location.--Lat 38°53', long 96°55', in NE¼ sec.31, T.13 S., R.5 E., at downstream side of highway bridge, 2 miles downstream from Cary Creek, 7 miles north of Woodbine, and 10 miles upstream from mouth.

Drainage area.--230 sq mi.

Gage.--Nonrecording prior to May 8, 1959; recording thereafter. Datum of gage is 1,109.79 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and by slope-area measurement at 93,000 cfs.

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)
1951	July 1951	30	93,000	1958	Oct. 8, 1957	15.0	2,270
					Oct. 24, 1957	15.4	2,390
1954	June 16, 1954	8.0	565		May 4, 1958	22.8	6,200
1955	July 1, 1955	15.94	2,510	1959	Oct. 7, 1958	14.90	2,650
					May 5, 1959	20.40	4,940
1956	Aug. 10, 1956	5.70	356		May 11, 1959	15.07	2,700
					May 17, 1959	27.21	14,100
1957	May 17, 1957	21.0	4,530		June 30, 1959	24.80	8,260
	June 27, 1957	19.0	3,630		July 4, 1959	14.40	2,500

Peak stages and discharges of Lyon Creek near Woodbine, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	July 14, 1959	22.52	6,260	1961	May 22, 1961	28.63	21,400
	Sept.22, 1959	16.74	3,260		June 14, 1961	14.57	2,340
					Sept.13, 1961	19.33	3,830
1960	Oct. 2, 1959	18.95	4,180				
	Oct. 5, 1959	19.11	4,260	1962	May 29, 1962	15.96	2,690
	Mar. 24, 1960	13.78	2,310		June 1, 1962	17.05	3,020
	Mar. 27, 1960	15.72	2,900		June 3, 1962	17.17	3,050
	June 8, 1960	15.05	2,700		Sept.19, 1962	13.76	2,140
					Sept.22, 1962	25.66	8,060
1961	Oct. 29, 1960	16.0	2,700		Sept.24, 1962	27.93	15,700
	May 5, 1961	14.99	2,450				

8792. Clark Creek near Junction City, Kans.

Location.--Lat 39°00'28", long 96°44'21", in W½ sec.14, T.12 S., R.6 E., at upstream side of bridge on State Highway 57, 5 miles southeast of Junction City, 7.5 miles upstream from Humbolt Creek, and 14.6 miles upstream from mouth.

Drainage area.--200 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 21, 1958; recording thereafter. Datum of gage is 1,092.38 ft above mean sea level, datum of 1929.

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)
1951	July 10, 1951	19.5	-	1960	Mar. 26, 1960	18.17	5,090
1958	June 25, 1958	12.88	4,840	1961	May 4, 1961	11.63	3,890
	July 11, 1958	12.08	4,210		May 22, 1961	17.74	22,800
	July 17, 1958	12.40	4,460				
				1962	Oct. 10, 1961	10.91	3,400
1959	Oct. 7, 1958	17.38	18,700		Oct. 30, 1961	10.28	3,020
	June 30, 1959	13.90	5,800		May 28, 1962	16.23	10,600
	July 14, 1959	14.62	6,710		Sept.21, 1962	11.76	3,980
					Sept.24, 1962	11.85	4,040
1960	Oct. 2, 1959	11.07	3,500				

8795. Kansas River at Ogden, Kans.

Location.--Lat 39°06'15", long 96°41'55", in SE¼SW¼ sec.7, T.11 S., R.7 E., at highway bridge three-quarters of a mile south of Ogden, 10 miles downstream from confluence of Smoky Hill and Republican Rivers, and at mile 166.8.

Drainage area.--45,240 sq mi, approximately, of which about 39,540 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to June 15, 1934; recording thereafter. Datum of gage is 1,020.83 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs and by slope-area measurement at 298,000 cfs.

Bankfull stage.--18 ft (U.S. Weather Bureau).

Remarks.--Storage from reservoirs upstream placed in operation since 1946 appreciably reduced only the floods of 1949 and 1951 but may have a significant effect in future years. Only annual peaks are shown for 1903, 1915, 1919, 1923, 1946-51. Base for partial-duration series, 11,000 cfs.

Peak stages and discharges of Kansas River at Ogden, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 30, 1903	a28.5	236,000
1915	June 22, 1915	b23.33	110,000
1918	June 8, 1918	11.4	11,400
1919	Mar. 16, 1919	15.85	25,300
1920	Aug. 20, 1920	11.9	12,600
1921	May 10,12,1921	10.4	8,310
1922	July 12, 1922	11.7	11,900
1923	June 10, 1923	18.2	32,600
1924	Aug. 22, 1924	14.22	18,700
1925	June 28, 1925	9.42	5,990
1926	Sept.12, 1926	12.92	12,500
	Sept.15, 1926	15.8	21,000
1927	Apr. 15, 1927	15.6	21,400
	Apr. 19, 1927	17.31	27,100
	June 4, 1927	13.3	14,800
	June 13, 1927	13.8	16,100
	June 17, 1927	17.8	28,700
	June 21, 1927	17.1	26,300
	July 21, 1927	13.4	15,100
	Aug. 13, 1927	17.7	28,400
	Aug. 25, 1927	15.65	21,600
	Sept. 7, 1927	12.86	13,700
1928	June 18, 1928	12.29	12,300
	June 25, 1928	14.5	18,100
	July 12, 1928	16.2	23,400
	July 26, 1928	12.75	13,400
	July 31, 1928	14.9	19,300
	Aug. 4, 1928	16.93	25,700
1929	Nov. 17, 1928	12.24	11,000
	Apr. 21, 1929	15.12	19,500
	May 12, 1929	16.45	23,100
	June 2, 1929	13.28	13,800
	June 11, 1929	13.8	15,400
	July 13, 1929	13.3	13,800
1930	May 8, 1930	16.14	23,700
	June 6, 1930	14.60	17,900
	June 15, 1930	13.45	14,400
1931	May 7, 1931	11.6	9,750
1932	July 6, 1932	13.54	14,200
	July 9, 1932	13.0	12,800
1933	Apr. 24, 1933	12.2	11,200
	Sept. 2, 1933	13.1	13,100
	Sept.13, 1933	14.7	17,800
1934	June 22, 1934	12.53	11,100
1935	May 28, 1935	18.78	37,500
	June 3, 1935	28.03	170,000
	June 22, 1935	17.10	26,700
	June 30, 1935	16.27	23,300
	Sept. 2, 1935	14.76	17,700
1936	May 12, 1936	11.46	8,890
1937	June 8, 1937	12.47	11,300
	July 12, 1937	13.37	13,600
1938	May 18, 1938	13.80	14,700
	June 11, 1938	16.51	24,300
	June 17, 1938	14.06	15,500
	June 23, 1938	14.05	15,400
1939	June 13, 1939	12.05	10,300
	June 19, 1939	16.03	22,300
	June 23, 1939	12.55	12,800
1940	June 12, 1940	10.7	7,580
1941	June 12, 1941	20.57	53,200
	Sept. 8, 1941	14.0	15,800
	Sept.17, 1941	13.38	14,100
1942	Oct. 10, 1941	17.3	28,400
	Oct. 22, 1941	20.55	53,200
	Apr. 22, 1942	12.22	12,100
	Apr. 28, 1942	12.63	13,100
	May 8, 1942	12.04	11,700
	May 12, 1942	13.86	16,400
	June 3, 1942	12.06	11,700
	June 15, 1942	12.86	13,600
	June 27, 1942	17.45	30,100
	Sept. 6, 1942	17.05	30,100
	Sept.16, 1942	12.45	12,400
1943	Oct. 4, 1942	12.37	13,300
	Apr. 13, 1943	12.54	13,700
	June 10, 1943	16.73	28,600
	June 16, 1943	19.50	46,400
	June 22, 1943	15.1	21,600
1944	Apr. 11, 1944	12.3	12,300
	Apr. 23, 1944	18.11	33,600
	May 3, 1944	18.74	37,800
	June 14, 1944	13.2	14,500
	July 17, 1944	12.1	11,800
	July 26, 1944	13.84	16,300
	Aug. 26, 1944	18.80	38,200
	Aug. 31, 1944	15.15	20,500
1945	Apr. 16, 1945	19.4	42,800
	May 16, 1945	15.5	21,800
	May 23, 1945	17.8	31,900
	May 27, 1945	15.8	23,000
	June 8, 1945	12.88	13,700
	June 16, 1945	15.4	21,400
	July 1, 1945	15.65	23,700
	July 18, 1945	18.5	39,200
	July 27, 1945	17.55	33,100
	Aug. 10, 1945	11.64	11,400
1946	Sept.16, 1946	16.28	c26,600
1947	June 27, 1947	20.10	c60,500
1948	July 20, 1948	21.98	c75,000
1949	June 15, 1949	-	d28,700
1950	July 19, 1950	20.18	c59,900
1951	July 12, 1951	30.53	298,000

a From information by Corps of Engineers.
b From information by U.S. Weather Bureau.
c Not appreciably affected by reservoir storage.
d Annual peak adjusted to natural conditions, determined by Corps of Engineers.

8797. Wild Cat Creek at Riley, Kans.

Location.--Lat 39°17'30", long 96°49'40", in SW¼SW¼ sec.1, T.9 S., R.5 E., on right bank at downstream side of bridge on U.S. Highway 77, at Riley.

Drainage area.--13 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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 16, 1957	10.42	130	1961	Sept.12, 1961	17.00	1,100
1958	Sept.15, 1958	18.00	1,400	1962	May 28, 1962	17.98	1,400
1959	Sept.24, 1959	11.92	270				
1960	Mar. 27, 1960	19.85	2,050				

8800. Lincoln Creek near Seward, Nebr.

Location.--Lat 40°55'00", long 97°08'40", in NE¼ sec.24, T.11 N., R.2 E., on left bank 2 miles west of Seward and 2½ miles upstream from mouth.

Drainage area.--446 sq mi.

Gage.--Recording. Datum of gage is 1,429.27 ft above mean sea level, datum of 1929.

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

Remarks.--Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Apr. 23, 1954	8.96	261	1959	May 6, 1959	11.50	503
	June 13, 1954	11.96	554		May 9, 1959	10.98	449
	June 18, 1954	18.15	2,540		May 13, 1959	8.75	266
					May 23, 1959	10.40	400
1955	June 19, 1955	9.77	346		June 28, 1959	10.45	405
					July 4, 1959	9.40	319
1956	June 28, 1956	7.89	204				
				1960	Mar. 29, 1960	18.59	3,300
1957	Apr. 26, 1957	10.27	376		May 21, 1960	10.55	426
	June 17, 1957	20.53	10,100		June 16, 1960	11.27	490
	June 22, 1957	16.56	1,860		June 20, 1960	16.47	1,740
	July 20, 1957	16.03	1,700		July 10, 1960	11.89	555
	July 28, 1957	10.61	399		July 13, 1960	11.76	541
	Aug. 4, 1957	11.34	493		Aug. 25, 1960	10.18	419
	Aug. 29, 1957	9.48	319		Aug. 29, 1960	11.15	488
	Sept. 1, 1957	9.09	288				
	Sept.12, 1957	11.13	516	1961	Sept.11, 1961	10.15	391
1958	Feb. 27, 1958	12.07	572	1962	Feb. 4, 1962	-	520
	Mar. 27, 1958	9.66	316		Mar. 21, 1962	12.93	778
	July 20, 1958	11.99	567		June 7, 1962	8.05	294
	July 24, 1958	12.53	646		June 9, 1962	14.23	984
	July 28, 1958	10.46	417		June 26, 1962	11.55	620
	July 30, 1958	9.80	363		July 15, 1962	10.28	495
	Sept. 7, 1958	12.68	676		July 20, 1962	11.78	643

8805. Big Blue River at Seward, Nebr.

Location.--Lat 40°54'10", long 97°06'40", in SE¼SW¼ sec.20, T.11 N., R.3 E., at downstream end of first pier from right abutment of bridge on State Highway 2 at west edge of Seward, 0.2 mile downstream from Lincoln Creek.

Drainage area.--1,099 sq mi.

Gage.--Recording. Datum of gage is 1,421.49 ft above mean sea level, datum of 1929.

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

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)
1954	June 13, 1954	6.27	666	1959	May 6, 1959	9.32	1,140
	June 18, 1954	13.92	2,800		June 30, 1959	8.38	998
	June 19, 1954	a14.17	-				
				1960	Mar. 30, 1960	19.70	8,200
1955	Feb. 18, 1955	b5.24	-		May 21, 1960	7.95	1,060
	June 19, 1955	-	378		June 20, 1960	14.98	3,660
					Aug. 29, 1960	10.60	1,590
1956	May 16, 1956	5.74	534				
				1961	Sept.11, 1961	6.22	800
1957	June 18, 1957	22.34	15,300				
	July 21, 1957	12.75	2,300	1962	Feb. 4, 1962	7.80	925
					Mar. 22, 1962	13.25	2,750
1958	Feb. 28, 1958	9.38	994		June 10, 1962	13.83	3,100
	July 20, 1958	11.70	1,660		June 26, 1962	8.78	1,210
	July 25, 1958	14.48	2,920		July 21, 1962	10.80	1,680
	Sept. 6, 1958	10.03	1,150		July 31, 1962	6.85	965

a Backwater from return of overflow.
b Backwater from ice.

8807.1. School Creek tributary near Harvard, Nebr.

Location.--Lat 40°35'00", long 98°04'00", in SW¼SW¼ sec.12, T.7 N., R.7 W., on downstream right pier of bridge on U.S. Highway 6, 0.9 mile west of junction with State Highway 14, and 3 miles southeast of Harvard.

Drainage area.--13.1 sq mi.

Gage.--Crest-stage gage. At datum 0.71 ft lower prior to Aug. 31, 1960. Altitude of gage is 1,760 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 85 cfs and by a contracted-opening measurement at 190 cfs.

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)
1952	July 14, 1952	11.2	40	1958	Sept. 6, 1958	12.14	220
1953	June 5, 1953	9.81	1	1959	May 20, 1959	11.78	143
1954	May 23, 1954	10.22	4	1960	June 9, 1960	12.17	300
1955	June 17, 1955	9.57	.5				
				1961	May 21, 1961	13.16	999
1956	June 6, 1956	11.19	40	1962	Mar. 20, 1962	11.84	198
1957	June 17, 1957	11.55	98				

8807.2. School Creek near Harvard, Nebr.

Location.--Lat 40°35'50", long 98°03'00", in NW¼NW¼ sec.7, T.7 N., R.6 W., on right downstream wingwall of bridge on black-top county road, 0.9 mile north of junction of U.S. Highway 6 and State Highway 14, and 3 miles southeast of Harvard.

Drainage area.--55.1 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,745 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 216 cfs and by indirect measurements at 1,240 and 2,690 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)
1953	June 5, 1953	13.17	54	1958	July 10, 1958	16.74	960
1954	Apr. 20, 1954	14.15	105	1959	May 20, 1959	15.65	370
1955	June 4, 1955	13.06	51	1960	Mar. 27, 1960	17.11	1,240
1956	June 6, 1956	15.33	287	1961	May 21, 1961	17.64	2,690
1957	June 17, 1957	15.70	387	1962	Mar. 20, 1962	15.33	393

8807.3. School Creek tributary No. 2 near Harvard, Nebr.

Location.--Lat 40°36'50", long 90°02'30", in SE¼SW¼ sec.31, T.8 N., R.6 W., on right downstream wingwall of culvert on east-west portion of black-top county road, 100 ft north of Chicago, Burlington & Quincy Railroad underpass, and 3 miles east of Harvard.

Drainage area.--14.0 sq mi.

Gage.--Crest-stage gage. Altitude of gage, 1,750 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 119 cfs and by indirect measurements at 218, 510, 584, and 1,120 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)
1953	Apr. 29, 1953	12.16	68	1958	July 10, 1958	16.17	510
1954	Apr. 29, 1954	12.20	70	1959	May 5, 1959	13.34	137
1955	June 4, 1955	12.42	81	1960	Mar. 27, 1960	16.83	584
1956	June 6, 1956	13.86	181	1961	June 6, 1961	18.80	1,120
1957	June 17, 1957	13.67	164	1962	Mar. 20, 1962	13.61	159

8807.4. School Creek near Saronville, Nebr.

Location.--Lat 40°35'00", long 97°57'20", in SW¼SW¼ sec.12, T.7 N., R.6 W., on downstream pier of county bridge, 50 ft north of U.S. Highway 6, and 1½ miles southwest of Saronville.

Drainage area.--89.4 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,705 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 886 cfs and by slope-area measurements at 2,330 and 3,720 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of School Creek near Saronville, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	July 14, 1952	17.6	1,280	1958	July 10, 1958	16.88	900
1953	May 27, 1953	9.99	35	1959	May 20, 1959	15.56	520
1954	May 23, 1954	12.95	153	1960	Mar. 27, 1960	19.29	3,720
1955	June 4, 1955	12.77	143	1961	May 22, 1961	19.86	2,330
1956	June 6, 1956	15.70	582	1962	Mar. 20, 1962	15.25	630
1957	June 17, 1957	17.45	1,190				

8808. West Fork Big Blue River near Dorchester, Nebr.

Location.--Lat 40°43'55", long 97°10'40", in NW¼SW¼ sec.23, T.9 N., R.2 E., on left bank at downstream side of bridge on county road, 6¼ miles northwest of Dorchester, and 19 miles upstream from mouth.

Drainage area.--1,206 sq mi.

Gage.--Recording. Datum of gage is 1,403.48 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 10,000 cfs and by an indirect measurement at 49,400 cfs.

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)
1950	July 10, 1950	24.8	a49,400	1960	May 22, 1960	11.63	1,890
					June 15, 1960	11.88	1,990
1958	Sept. 8, 1958	11.74	1,800		June 21, 1960	13.84	2,880
1959	May 9, 1959	11.65	1,840	1961	May 25, 1961	13.91	2,930
	May 24, 1959	14.08	2,670				
	July 5, 1959	13.97	2,630	1962	Feb. 4, 1962	11.64	1,700
	July 7, 1959	14.66	2,890		Mar. 22, 1962	13.04	2,710
1960	Mar. 30, 1960	20.28	11,200				

a Annual peak only.

8810. Big Blue River near Crete, Nebr.

Location.--Lat 40°35'40", long 96°57'35", in S½ sec.3, T.7 N., R.4 E., on downstream side of right pier of bridge on State Highway 82, 1.8 miles south of Missouri Pacific Railroad Co. station in Crete, 3.3 miles downstream from Walnut Creek, and 3.6 miles upstream from Squaw Creek.

Drainage area.--2,716 sq mi.

Gage.--Nonrecording prior to Jan. 20, 1954; recording thereafter. Datum of gage is 1,311.7 ft above mean sea level, datum of 1929.

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)
1945	May 16, 1945	17.68	3,640	1948	Feb. 20, 1948	17.98	3,840
	May 23, 1945	17.65	3,620		Mar. 1, 1948	22.00	7,400
	May 26, 1945	16.82	3,210		Mar. 20, 1948	25.86	15,800
	June 17, 1945	22.55	7,900				
	June 25, 1945	19.56	4,750	1949	Mar. 8, 1949	27.0	20,900
					June 10, 1949	22.0	7,410
1946	June 21, 1946	20.79	5,800		June 14, 1949	21.84	7,200
					June 24, 1949	18.00	3,950
1947	June 6, 1947	17.60	3,600		June 30, 1949	18.00	3,950
	June 14, 1947	23.57	8,820		Sept.11, 1949	17.85	3,880
	June 24, 1947	22.79	7,830				

Peak stages and discharges of Big Blue River near Crete, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 12, 1950	19.49	4,760	1957	June 24, 1957	22.55	7,840
	May 31, 1950	17.98	3,940				
	July 10, 1950	28.74	27,600	1958	July 11, 1958	19.12	4,540
	July 17, 1950	20.07	5,270		July 24, 1958	20.22	5,430
1951	June 3, 1951	28.3	25,500	1959	May 6, 1959	17.70	3,700
	June 19, 1951	22.10	7,540		May 25, 1959	17.60	3,660
					July 4, 1959	16.50	3,220
1952	June 27, 1952	24.00	10,600		July 6, 1959	16.00	3,020
	July 17, 1952	20.85	6,060		July 8, 1959	16.30	3,140
1953	July 21, 1953	11.41	1,530	1960	Mar. 30, 1960	28.00	23,000
					May 21, 1960	17.85	4,060
1954	June 10, 1954	16.85	3,290		June 22, 1960	21.60	6,540
	June 19, 1954	19.93	5,080		July 10, 1960	18.60	4,430
1955	June 19, 1955	12.03	1,600	1961	May 26, 1961	14.20	2,540
1956	July 2, 1956	9.31	922	1962	Mar. 24, 1962	19.92	5,830
1957	June 19, 1957	27.53	22,200				

8820. Big Blue River at Barneston, Nebr.
(Published as "at Hull, Kans.," prior to 1933)

Location.--Lat 40°03', long 96°35', in NE¼SW¼ sec.13, T.1 N., R.7 E., near left bank in tailrace of powerplant, three-quarters of a mile northwest of Barneston, 2 miles upstream from Plum Creek, and 5 miles upstream from Nebraska-Kansas State line.

Drainage area.--4,444 sq mi.

Gage.--Nonrecording prior to Mar. 18, 1931, and June 9 to Nov. 17, 1941; recording gage Mar. 18, 1931, to June 8, 1941, and since Nov. 18, 1941. At site 15 miles downstream at Hull, Kans., at datum 1,139.63 ft above mean sea level, datum of 1929, Aug. 23, 1919, to May 13, 1932. At site 1 mile downstream at datum 0.44 ft lower May 14, 1932, to June 9, 1941. Datum of gage is 1,164.2 ft above mean sea level, datum of 1929, Kansas City supplementary adjustment of 1943, revision of 1954.

Stage-discharge relation.--Defined by current-meter measurements below 49,000 cfs.

Historical data.--Flood of April 1897 was described as "3 ft higher than any mark yet" in the Barneston Star of Apr. 30, 1897. The flood of May 1903 was reported in the Beatrice Weekly Times of June 4, 1903, to be "the highest recorded in history at Barneston and to greatly exceed the flood of 1897."

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)
1903	May 1903	31.7	a39,000	1929	May 11, 1929	14.40	7,310
					June 2, 1929	16.00	8,980
1919	Sept.28, 1919	16.4	b10,000		June 20, 1929	11.60	4,860
					June 22, 1929	18.60	11,800
1920	Oct. 2, 1919	10.4	a4,480				
				1930	May 11, 1930	11.40	4,480
1921	July 4, 1921	17.5	a10,900		May 15, 1930	18.45	11,400
					Aug. 14, 1930	11.40	4,480
1922	July 10, 1922	13.5	a7,540		Aug. 17, 1930	13.10	5,980
					Aug. 19, 1930	15.10	7,940
1923	Apr. 23, 1923	17.10	a10,500		Sept.14, 1930	10.90	4,070
1924	Oct. 3, 1923	20.8	a14,500	1931	May 29, 1931	11.57	4,090
					Sept.25, 1931	20.5	13,100
1925	June 18, 1925	18.70	12,400				
				1932	Nov. 24, 1931	17.99	10,200
1929	Oct. 17, 1928	11.80	5,030		Feb. 12, 1932	11.72	4,190
	Mar. 6, 1929	c20.00	8,000		June 5, 1932	16.20	8,300
	Apr. 20, 1929	13.32	6,380		June 8, 1932	12.56	4,840

a Annual peak only.
b Maximum Aug. 23 to Sept. 30, 1919; probably was exceeded during period of no record.
c Backwater from ice.

Peak stages and discharges of Big Blue River at Barneston, Nebr.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Aug. 4, 1932	13.11	5,320	1950	May 10, 1950	25.67	21,300
	Aug. 31, 1932	12.88	5,110		July 13, 1950	-	16,400
1933	Aug. 23, 1933	13.28	5,550	1951	Oct. 2, 1950	26.74	23,900
					May 1, 1951	23.81	17,500
1934	Sept. 4, 1934	7.05	2,100		June 4, 1951	27.48	26,000
					June 15, 1951	25.47	20,800
1935	June 2, 1935	20.75	13,000		June 23, 1951	23.48	16,900
					June 26, 1951	24.87	19,500
1936	Feb. 25, 1936	20.15	12,400		July 7, 1951	24.54	18,900
					July 12, 1951	24.44	18,700
1937	July 25, 1937	9.30	3,240		July 18, 1951	20.93	12,900
					Aug. 15, 1951	22.00	14,500
1938	Sept.13, 1938	14.67	7,550		Sept.13, 1951	19.97	11,500
1939	Mar. 12, 1939	17.60	9,880	1952	Mar. 19, 1952	18.98	10,200
					June 30, 1952	23.47	17,100
1940	Aug. 27, 1940	10.00	4,000		July 15, 1952	18.50	10,100
1941	June 9, 1941	33.00	57,700	1953	June 9, 1953	8.55	2,210
	Sept.16, 1941	24.25	17,385				
				1954	June 9, 1954	23.73	17,600
1942	May 12, 1942	24.10	15,700		June 18, 1954	20.88	13,000
	June 20, 1942	21.10	11,080		Aug. 8, 1954	28.25	28,300
					Aug. 24, 1954	27.84	27,000
1943	June 12, 1943	-	23,600				
	June 16, 1943	-	15,700	1955	Feb. 19, 1955	14.20	6,170
1944	June 4, 1944	22.19	14,785	1956	July 3, 1956	22.55	17,700
	June 14, 1944	23.71	16,300				
	June 20, 1944	21.96	14,430	1957	June 22, 1957	23.20	16,700
	Aug. 30, 1944	21.44	13,660				
				1958	Feb. 28, 1958	20.00	13,700
1945	Apr. 16, 1945	-	11,800		July 11, 1958	25.72	22,200
	May 15, 1945	-	12,900		July 17, 1958	21.12	15,200
	May 22, 1945	27.93	26,900		July 25, 1958	23.47	18,600
					Sept. 4, 1958	20.22	14,000
1946	July 16, 1946	19.25	8,770		Sept. 6, 1958	22.52	17,200
1947	Apr. 11, 1947	-	13,500	1959	May 4, 1959	17.10	11,000
	June 6, 1947	-	13,200		May 7, 1959	19.70	14,500
	June 13, 1947	-	23,600		July 4, 1959	19.82	14,800
	June 23, 1947	29.76	34,400				
				1960	Mar. 28, 1960	27.60	29,400
1948	Feb. 28, 1948	-	15,000		June 21, 1960	18.00	12,900
	Mar. 19, 1948	-	13,000		July 12, 1960	16.45	10,200
	Mar. 22, 1948	24.29	17,200		Aug. 24, 1960	16.25	10,300
	Aug. 3, 1948	-	14,500				
				1961	Sept.13, 1961	19.70	12,200
1949	Mar. 9, 1949	-	22,500		Sept.30, 1961	19.10	11,600
	May 9, 1949	-	11,400				
	May 23, 1949	-	10,500	1962	Mar. 25, 1962	20.00	17,000
	June 28, 1949	27.80	26,900		May 29, 1962	19.15	15,300
	Sept. 7, 1949	-	12,100				
	Sept.12, 1949	-	11,700				

8830. Little Blue River near Deweese, Nebr.
(Published as "at Angus," 1950-52)

Location.--Lat 40°20'00", long 98°04'10", in NE¼ sec.11, T.4 N., R.7 W., on right bank about 1,500 ft above bridge on State Highway 14, 1 mile upstream from Walnut Creek, 3¾ miles southeast of Deweese, and 6 miles northwest of Angus.

Drainage area.--997 sq mi.

Gage.--Nonrecording prior to May 16, 1957; recording thereafter. At site 7 miles downstream at different datum prior to Feb. 1, 1953. At site 1,500 ft downstream at present datum Feb. 1, 1953, to May 16, 1957. Datum of gage is 1,632.67 ft above mean sea level, datum of 1929.

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

Historical data.--Flood of June 26, 1951, reached a stage of 14.9 ft at subsequent site from information by local resident (discharge, 16,000 cfs, based on records for former station at Angus).

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

Peak stages and discharges of Little Blue River near Deweese, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 2, 1950	7.86	6,920	1958	Aug. 16, 1958	9.07	2,810
	June 1, 1951	12.40	14,200		Sept. 6, 1958	7.48	1,500
	June 18, 1951	8.00	2,130				
	June 22, 1951	6.86	1,610	1959	May 6, 1959	8.68	2,570
	June 26, 1951	a13.40	a18,500		May 19, 1959	8.28	2,210
	July 11, 1951	10.50	7,060		May 21, 1959	8.68	2,570
					May 22, 1959	8.66	2,550
1952	June 27, 1952	8.90	3,600		July 4, 1959	10.86	4,940
	July 15, 1952	10.75	7,910		Sept.18, 1959	9.23	2,970
1953	June 7, 1953	5.25	1,360	1960	Mar. 27, 1960	14.45	11,800
					May 16, 1960	8.64	2,240
1954	Apr. 21, 1954	6.20	2,050		May 20, 1960	11.32	4,750
	May 23, 1954	6.34	2,070		June 11, 1960	8.72	2,270
	Aug. 18, 1954	6.30	1,820		June 16, 1960	8.30	2,000
					June 21, 1960	11.60	4,960
1955	June 6, 1955	5.96	1,800		July 6, 1960	8.15	1,900
	June 18, 1955	6.30	1,780				
	June 28, 1955	6.35	1,630	1961	May 22, 1961	11.28	4,690
					June 8, 1961	10.32	3,330
1956	June 26, 1956	7.01	2,210		June 15, 1961	8.47	1,780
1957	May 14, 1957	6.10	1,660	1962	Jan. 29, 1962	b8.76	-
	June 17, 1957	15.00	13,000		Jan. 30, 1962	7.54	1,570
	Aug. 16, 1957	7.96	1,840		Mar. 19, 1962	7.50	1,540
					Mar. 21, 1962	7.99	1,930
1958	June 12, 1958	7.71	1,660		July 17, 1962	8.16	2,070
	July 19, 1958	7.75	1,680		July 28, 1962	8.29	2,170

a Equivalent to 16,000 cfs at 14.9 ft at site used 1953-57.
b Backwater from ice.

8836. South Fork Big Sandy Creek near Edgar, Nebr.

Location.--Lat 40°20'10", long 97°58'20", in NW¼NW¼ sec.11, T.4 N., R.6 W., on left downstream corner of twin concrete box culvert on county gravel road, 0.1 mile south of east-west road, and 2 miles south of Edgar.

Drainage area.--15.2 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,690 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 230 cfs and by a culvert measurement of 600 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)
1953	June 7, 1953	11.41	23	1958	Mar. 26, 1958	12.32	83
1954	Apr. 21, 1954	10.93	5	1959	Sept.18, 1959	12.17	64
1955	Sept.21, 1955	11.57	27	1960	Mar. 27, 1960	13.57	600
1956	Aug. 18, 1956	12.92	245	1961	May 22, 1961	13.07	390
1957	Aug. 16, 1957	13.56	595	1962	Mar. 20, 1962	12.38	173

8837. South Fork Big Sandy Creek near Davenport, Nebr.

Location.--Lat 40°18'30", long 97°52'40", in SW¼SW¼ sec.15, T.4 N., R.5 W., on right downstream wingwall of bridge on dirt road, 50 ft north of State Highway 4, and 3½ miles west of Davenport.

Drainage area.--32.0 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,640 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 593 cfs and by a slope-area measurement at 1,870 cfs.

Bankfull stage.--15 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of South Fork Big Sandy Creek near Davenport, Nebr.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 9, 1950	17.3	1,400	1957	Aug. 16, 1957	15.89	540
				1958	July 10, 1958	15.02	270
1952	July 14, 1952	15.8	500	1959	July 4, 1959	14.48	180
1953	May 27, 1953	11.48	35	1960	Mar. 27, 1960	17.78	1,870
1954	May 16, 1954	11.77	50				
1955	June 17, 1955	13.30	95	1961	May 22, 1961	16.43	900
				1962	Mar. 20, 1962	12.08	92
1956	Sept. 4, 1956	12.37	54				

8838. South Fork Big Sandy Creek near Carleton, Nebr.

Location.--Lat 40°15'50", long 97°47'30", in NE¼NW¼ sec.5, T.3 N., R.4 W., on downstream end of center pile of wood bridge on east-west road, 3½ miles southeast of Davenport, and 7 miles southwest of Carleton.

Drainage area.--49.4 sq mi.

Gage.--Crest-stage gage. Altitude of gage is 1,600 ft (from topographic map).

Stage-discharge relation.--Defined by indirect and current-meter measurements below 643 cfs and by indirect measurements at 739 and 3,690 cfs.

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)
1952	July 14, 1952	16.4	1,740	1958	July 10, 1958	15.49	715
1953	May 27, 1953	13.72	220	1959	July 4, 1959	14.66	403
1954	May 2, 1954	13.76	255	1960	Mar. 27, 1960	17.02	3,690
1955	June 17, 1955	14.68	463				
				1961	May 22, 1961	16.21	1,380
1956	July 3, 1956	11.66	22	1962	Mar. 20, 1962	11.91	145
1957	Aug. 16, 1957	15.55	739				

8839. South Fork Big Sandy Creek near Hebron, Nebr.

Location.--Lat 40°13'30", long 97°34'30", in NW¼SW¼ sec.17, T.3 N., R.2 W., on downstream end of second pier from left end of concrete bridge on U.S. Highway 81, half a mile south of east-west road, and 4 miles north of Hebron.

Drainage area.--81.9 sq mi.

Gage.--Crest-stage gage. Altitude of gage, 1,490 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,060 cfs and indirect measurements at 318, 610, 1,120, and 3,220 cfs.

Bankfull stage.--16 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)
1952	June 27, 1952	21.8	3,160	1958	July 10, 1958	18.50	1,470
1953	May 27, 1953	15.36	640	1959	July 4, 1959	17.77	1,260
1954	May 2, 1954	15.42	653	1960	Mar. 27, 1960	21.90	3,220
1955	June 17, 1955	13.68	330				
				1961	May 23, 1961	18.48	1,150
1956	July 3, 1956	17.27	1,120	1962	July 28, 1962	13.35	295
1957	June 17, 1957	17.75	1,250				

8840. Little Blue River near Fairbury, Nebr.
(Published as "near Endicott," 1929-56)

Location.--Lat 40°06'56", long 97°10'23", in sec.26, T.2 N., R.2 E., on right bank 20 ft downstream from bridge on State Highway 15, three-quarters of a mile south of Fairbury, and 5¼ miles upstream from Rose Creek.

Drainage area.--2,350 sq mi.

Gage.--Nonrecording at different datum prior to Sept. 30, 1915; recording thereafter. At site 3½ miles downstream at various datums Apr. 26, 1929, to Sept. 24, 1957. Datum of gage is 1,282.19 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 26,000 cfs.

Historical data.--W.E. Lea reported in Fairbury Journal of June 12, 1941, that 1941 flood was the highest in 43 years and that the May 1903 flood was 8 inches lower than the 1941 flood. Also, J.C. Hotchkiss reported that the March 1881 flood was higher than the 1941 flood but this stage was caused by an ice gorge, melting snow, and rain. The gage reader reported that a stage of about 14 ft, datum of 1929-33, occurred in August 1927.

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)
1908	May 28, 1908	11.1	3,100	1937	July 27, 1937	5.86	1,540
	June 6, 1908	13.9	13,700				
	June 13, 1908	11.4	6,700	1938	June 22, 1938	8.76	2,640
	June 17, 1908	11.5	6,250				
	June 19, 1908	12.6	8,300	1939	June 21, 1939	11.90	8,650
	June 24, 1908	9.5	3,000				
	June 28, 1908	11.4	7,390	1940	May 22, 1940	3.04	474
	July 14, 1908	11.7	8,080				
	July 25, 1908	9.2	3,650	1941	June 9, 1941	16.23	31,000
	Aug. 21, 1908	12.9	11,100		Sept.16, 1941	12.49	11,400
1909	June 8, 1909	12.3	9,550	1942	May 12, 1942	9.84	3,810
	July 6, 1909	11.5	8,200		Aug. 28, 1942	14.23	14,600
	July 10, 1909	9.5	5,200		Sept. 6, 1942	12.24	9,210
	Sept. 4, 1909	9.2	3,650				
				1943	Feb. 4, 1943	10.70	5,370
1910	May 31, 1910	10.6	5,050		June 11, 1943	12.36	10,800
	June 9, 1910	11.6	6,300		June 12, 1943	13.05	13,500
					June 16, 1943	11.46	7,510
1911	Aug. 22, 1911	9.2	3,110				
				1944	June 4, 1944	10.28	4,130
1912	Oct. 1, 1911	9.5	3,340		June 13, 1944	11.87	8,080
	Mar. 21, 1912	12.6	8,800		Aug. 31, 1944	10.98	5,320
	Mar. 23, 1912	12.3	7,900		Sept. 1, 1944	10.98	5,320
	Mar. 27, 1912	11.6	4,860		Sept.21, 1944	10.87	5,100
1913	May 21, 1913	11.5	5,500	1945	Apr. 24, 1945	12.15	9,420
					May 15, 1945	12.35	10,200
1914	June 14, 1914	10.55	4,420		May 22, 1945	12.65	11,800
					May 27, 1945	14.17	18,400
1915	June 11, 1915	14.8	17,400		June 16, 1945	10.40	4,230
	June 20, 1915	10.4	5,170		July 20, 1945	10.88	4,920
	July 14, 1915	10.4	5,300				
	July 18, 1915	12.6	7,490	1946	June 21, 1946	8.63	2,520
	Aug. 4, 1915	13.0	7,610				
	Aug. 17, 1915	12.6	6,880	1947	Nov. 10, 1946	9.62	3,310
					Apr. 10, 1947	10.53	4,500
1929	June 21, 1929	4.62	1,440		May 29, 1947	9.09	3,300
					June 14, 1947	11.75	8,000
1930	May 12, 1930	9.20	3,360		June 19, 1947	10.84	4,850
					June 23, 1947	13.18	13,500
1931	May 30, 1931	6.98	2,440				
				1948	Feb. 28, 1948	12.80	11,900
1932	June 3, 1932	9.32	3,510		Mar. 21, 1948	11.54	8,060
1933	Aug. 22, 1933	7.56	2,710	1949	Feb. 27, 1949	-	6,000
					Mar. 6, 1949	12.38	14,400
1934	Sept.27, 1934	3.01	420		May 11, 1949	9.28	4,280
					May 22, 1949	14.22	24,400
1935	May 20, 1935	14.90	20,800		June 10, 1949	13.25	19,000
	May 29, 1935	12.29	11,800		June 14, 1949	14.84	28,500
	June 1, 1935	14.08	17,900		June 28, 1949	9.45	4,660
	June 29, 1935	10.93	7,380		Sept. 7, 1949	12.08	13,600
					Sept.12, 1949	8.57	3,060
1936	Feb. 24, 1936	9.12	2,920				

Peak stages and discharges of Little Blue River near Fairbury, Nebr.--Cortinued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 12, 1949	8.86	3,550	1957	June 19, 1957	15.17	19,400
	May 9, 1950	10.92	7,190		Aug. 18, 1957	11.25	6,610
	May 30, 1950	11.37	9,960		Aug. 28, 1957	8.44	3,960
	July 9, 1950	14.08	12,100				
	July 12, 1950	13.58	10,700	1958	July 12, 1958	10.80	7,280
	July 18, 1950	13.25	9,820		July 17, 1958	9.90	6,140
	Aug. 27, 1950	9.58	3,550		July 25, 1958	12.78	11,000
	Sept.21, 1950	14.28	12,700		Sept. 6, 1958	11.41	8,310
1951	Oct. 3, 1950	11.57	6,160	1959	May 6, 1959	11.17	7,880
	Apr. 26, 1951	10.43	4,460		May 10, 1959	9.05	5,180
	June 4, 1951	13.77	13,100		May 23, 1959	9.49	5,660
	June 23, 1951	10.71	4,800		July 6, 1959	11.68	8,790
	June 27, 1951	16.36	36,800				
	July 12, 1951	15.4	21,000	1960	Oct. 6, 1959	9.85	6,080
	Aug. 15, 1951	9.80	4,000		Mar. 28, 1960	15.80	31,700
	Sept.12, 1951	12.28	8,800		Apr. 3, 1960	9.35	5,500
					May 22, 1960	8.30	4,360
1952	June 28, 1952	14.62	18,700		June 12, 1960	10.33	6,660
	July 15, 1952	12.28	8,910		June 21, 1960	11.50	8,500
					June 24, 1960	10.90	7,430
1953	June 9, 1953	9.09	5,210				
				1961	May 24, 1961	12.78	12,200
1954	May 2, 1954	9.08	4,680		June 7, 1961	9.86	6,400
	June 9, 1954	6.99	3,120		Sept.30, 1961	7.80	3,900
	Aug. 23, 1954	7.36	3,150				
				1962	Jan. 30, 1962	7.34	3,440
1955	June 6, 1955	7.83	3,410		Mar. 24, 1962	7.90	3,700
	June 19, 1955	8.83	4,450				
1956	July 3, 1956	9.29	4,200				

8841. Mill Creek tributary near Haddam, Kans.

Location.--Lat 39°48'50", long 97°18'00", in NE¼NE¼ sec.10, T.3 S., R.1 E., on right bank 15 ft upstream from culvert on U.S. Highway 36, 3.0 miles south of Haddam, and 13.3 miles west of Washington.

Drainage area.--1.64 sq mi of which 0.84 sq mi (9 farm ponds) is controlled to some unknown degree.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 20 cfs, by computation of critical flow through culvert, and by flow through culvert measurement at 594 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. 15, 1957	11.30	50	1961	Sept.11, 1961	16.60	690
1958	Sept. 4, 1958	15.9	584	1962	Mar. 20, 1962	12.58	150
1959	May 30, 1959	12.13	110				
1960	Mar. 27, 1960	12.73	170				

8843. Mill Creek tributary near Washington, Kans.

Location.--Lat 39°48'50", long 97°00'40", in SW¼SW¼ sec.5, T.3 S., R.4 E., on left bank at downstream end of culvert on U.S. Highway 36, 2.2 miles east of Washington, and 6.0 miles northwest of Greenleaf.

Drainage area.--3 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 90 cfs and by slope-area measurements at 730 and 1,070 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Mill Creek tributary near Washington, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Aug. 15, 1957	10.99	140	1961	July 20, 1961	13.80	360
1958	Sept. 4, 1958	12.66	250	1962	June 22, 1962	13.19	300
1959	July 4, 1959	16.88	1,070				
1960	June 29, 1960	13.42	320				

8845. Little Blue River at Waterville, Kans.

Location.--Lat 39°46'40", long 96°51'40", on west line of sec.22, T.3 S., R.5 E., at bridge on State Highway 15 E., 0.4 mile downstream from Malone Creek, 9 miles northwest of Waterville, and 18 miles upstream from mouth.

Drainage area.--3,330 sq mi, approximately.

Gage.--Nonrecording at highway bridge 11.5 miles downstream at datum 1,110.87 ft above mean sea level, datum of 1929; recording thereafter. Datum of gage is 1,140.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs and by velocity-area study at 50,400 cfs.

Historical data.--Flood of May 31, 1903, reached a stage of about 28 ft, from information by local resident, obtained in 1922.

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)
1903	May 31, 1903	28	73,000	1939	Apr. 15, 1939	18.15	11,700
					June 22, 1939	17.50	11,000
1922	July 12, 1922	12.30	a6,120				
				1940	Aug. 27, 1940	9.92	3,600
1923	July 13, 1923	15.40	b8,910				
				1941	June 10, 1941	26.20	50,400
1924	Oct. 2, 1924	9.12	3,500		Sept.17, 1941	20.30	12,800
1925	June 17, 1925	13.43	c7,140	1942	Oct. 9, 1941	19.05	11,600
					May 12, 1942	12.30	4,920
1929	May 11, 1929	12.35	6,210		June 20, 1942	12.60	5,730
					June 24, 1942	13.25	6,260
1930	May 1, 1930	15.83	9,300		Aug. 30, 1942	17.00	9,500
	May 7, 1930	17.08	10,500		Sept. 7, 1942	15.30	8,000
	May 13, 1930	12.24	6,070				
	June 19, 1930	10.28	4,500	1943	Feb. 5, 1943	15.0	7,750
	June 26, 1930	11.50	5,510		June 8, 1943	13.6	6,560
	Aug. 16, 1930	12.52	6,320		June 13, 1943	22.2	25,400
1931	Sept. 1, 1931	16.70	10,100	1944	May 4, 1944	13.74	6,320
	Sept.25, 1931	14.00	7,650		June 5, 1944	17.44	9,900
					June 14, 1944	18.54	11,000
1932	Oct. 11, 1931	11.54	5,460		Aug. 20, 1944	18.0	10,400
	Nov. 25, 1931	12.54	6,340		Aug. 25, 1944	22.0	24,200
	June 4, 1932	10.40	4,520		Aug. 30, 1944	14.0	6,900
	Aug. 31, 1932	15.4	8,280				
				1945	Mar. 15, 1945	12.0	5,250
1933	Aug. 24, 1933	16.65	10,100		Apr. 16, 1945	17.0	9,500
	Sept.26, 1933	11.0	5,000		Apr. 25, 1945	16.23	8,810
					May 8, 1945	12.6	5,730
1934	May 15, 1934	7.66	2,490		May 16, 1945	21.07	20,500
					May 22, 1945	21.8	24,800
1935	May 12, 1935	12.99	5,990		May 28, 1945	24.4	40,900
	May 21, 1935	21.21	18,900		June 15, 1945	14.6	6,980
	June 2, 1935	21.90	23,500		June 18, 1945	13.0	5,650
	June 30, 1935	14.88	7,600		June 30, 1945	18.60	11,100
					July 21, 1945	12.2	5,410
1936	Feb. 24, 1936	14.45	7,190		July 26, 1945	16.40	8,960
1937	Mar. 4, 1937	7.22	2,030	1946	July 16, 1946	23.7	34,700
1938	May 17, 1938	11.56	4,870	1947	Nov. 11, 1946	12.10	5,650
	May 31, 1938	13.32	6,270		Apr. 12, 1947	16.9	11,500
	June 23, 1938	16.35	8,640		June 6, 1947	18.47	13,900
	July 17, 1938	18.0	10,400		June 14, 1947	17.3	12,000

a Maximum June 1 to Sept. 30; probably maximum for year.
b Annual peak only.
c Maximum Oct. 1 to June 30; probably maximum for year.

Peak stages and discharges of Little Blue River at Waterville, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 24, 1947	22.02	24,400	1953	June 9, 1953	10.50	4,550
1948	Feb. 27, 1948	18.7	14,500	1954	May 3, 1954	10.15	4,680
	Feb. 29, 1948	18.10	13,300		May 30, 1954	12.85	6,920
	Mar. 19, 1948	20.70	19,000		Aug. 8, 1954	11.55	5,800
	June 28, 1948	11.80	5,300		Aug. 24, 1954	17.3	12,000
	July 19, 1948	11.0	4,750	1955	June 6, 1955	10.3	4,720
1949	Feb. 27, 1949	21.95	10,000		June 20, 1955	10.1	4,560
	Mar. 7, 1949	15.30	9,460				
	May 23, 1949	17.75	12,700	1956	July 4, 1956	11.8	6,080
	June 11, 1949	17.80	12,800				
	June 15, 1949	19.70	16,000	1957	June 20, 1957	19.3	16,900
	June 25, 1949	14.41	8,390		Aug. 16, 1957	10.9	4,960
	June 28, 1949	20.50	17,800		Aug. 19, 1957	16.0	11,000
	Sept. 7, 1949	14.80	8,860				
	Sept.12, 1949	13.0	6,850	1958	May 17, 1958	10.57	5,320
					July 11, 1958	13.65	8,250
1950	May 9, 1950	19.21	17,000		July 18, 1958	14.55	9,150
	May 30, 1950	13.00	6,960		July 26, 1958	15.70	10,300
	July 10, 1950	18.85	14,400		Sept. 5, 1958	12.82	7,420
	July 13, 1950	16.65	11,100		Sept. 8, 1958	16.85	11,500
	July 17, 1950	20.48	17,800				
	July 19, 1950	24.5	37,500	1959	May 6, 1959	16.28	12,100
	Aug. 14, 1950	11.8	5,320		May 10, 1959	12.76	7,940
	Aug. 29, 1950	10.9	4,520		May 24, 1959	11.72	6,820
	Sept.20, 1950	18.50	14,100		May 30, 1959	11.50	6,600
	Sept.23, 1950	21.4	23,300		July 4, 1959	17.20	13,300
	Sept.28, 1950	14.8	8,480				
				1960	Oct. 6, 1959	13.84	8,520
1951	Oct. 2, 1950	21.6	24,100		Mar. 29, 1960	23.90	38,800
	Apr. 27, 1951	11.9	5,900		Apr. 3, 1960	13.47	8,060
	May 1, 1951	15.35	9,620		May 22, 1960	10.70	5,100
	June 5, 1951	16.2	10,600		June 13, 1960	12.93	7,420
	June 7, 1951	12.95	6,950		June 22, 1960	13.71	8,350
	June 15, 1951	12.7	6,700		June 24, 1960	14.35	9,120
	June 21, 1951	21.85	25,400				
	June 28, 1951	23.7	33,500	1961	May 6, 1961	10.28	4,700
	July 13, 1951	24.65	38,200		May 23, 1961	18.09	15,100
	July 22, 1951	13.0	6,700		June 8, 1961	14.90	9,780
	Aug. 15, 1951	14.0	8,100		Sept.12, 1961	14.37	9,140
	Sept. 4, 1951	14.0	8,100		Sept.30, 1961	15.50	10,600
	Sept. 9, 1951	11.8	5,800				
	Sept.13, 1951	16.6	11,200	1962	Oct. 11, 1961	10.15	4,650
					Jan. 30, 1962	11.59	6,090
1952	Apr. 13, 1952	13.25	7,280		Mar. 24, 1961	12.67	7,320
	Apr. 18, 1952	10.75	4,780		May 28, 1962	13.33	8,120
	Apr. 21, 1952	11.3	5,300		June 3, 1962	11.49	5,990
	June 29, 1952	17.25	12,000				
	July 16, 1952	12.85	6,850				

8849. Robidoux Creek at Beattie, Kans.

Location.--Lat 39°51'50", long 96°26'00", in SW¼NE¼ sec.20, T.2 S., R.9 E., near center of channel at downstream side of highway bridge, 0.8 mile northwest of Beattie, and 11.5 miles northeast of Marysville.

Drainage area.--40 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 2,600 cfs and by contracted-opening measurement at 6,200 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	Sept. 6, 1957	14.00	1,200	1961	May 5, 1961	16.12	1,800
1958	July 11, 1958	20.23	3,600	1962	May 28, 1962	20.12	3,300
1959	Sept.19, 1959	18.33	2,500				
1960	Mar. 27, 1960	22.46	6,200				

8855. Black Vermillion River near Frankfort, Kans.

Location.--Lat 39°40'50", long 96°26'40", on south line of sec.20, T.4 S., R.9 E., on right bank at downstream side of bridge on State Highway 9, a quarter of a mile downstream from Vermillion Creek, and 2.2 miles southwest of Frankfort.

Drainage area.--412 sq mi.

Gage.--Nonrecording prior to May 13, 1954; recording thereafter. Datum of gage is 1,106.91 ft above mean sea level, datum of 1929.

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

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)
1948	Aug. 3, 1948	30.2	-	1959	July 4, 1959	26.51	9,030
					Sept.19, 1959	20.35	2,730
1951	June 1951	28.6	30,400		Sept.27, 1959	23.57	4,870
1954	June 1, 1954	24.31	4,210	1960	Oct. 3, 1959	24.78	6,140
	Aug. 8, 1954	17.95	2,130		Jan. 13, 1960	22.65	4,020
					Mar. 28, 1960	28.52	25,100
1955	Feb. 19, 1955	20.40	2,840		May 16, 1960	17.72	1,980
					June 11, 1960	18.45	2,160
1956	June 28, 1956	17.06	1,890				
				1961	May 5, 1961	18.92	2,680
1957	May 25, 1957	15.05	1,400		May 8, 1961	17.10	2,130
					Sept. 3, 1961	24.21	4,760
1958	Feb. 28, 1958	18.74	2,350		Sept.13, 1961	23.22	4,120
	Mar. 8, 1958	16.82	1,820				
	July 12, 1958	25.64	5,480	1962	Oct. 11, 1961	21.62	3,170
	July 16, 1958	20.02	2,710		Oct. 30, 1961	21.40	3,080
	July 18, 1958	23.52	4,260		Nov. 3, 1961	16.78	1,960
	July 31, 1958	28.25	12,800		Nov. 16, 1961	17.85	2,170
	Sept. 5, 1958	22.46	4,590		Jan. 27, 1962	19.13	2,480
	Sept.10, 1958	20.43	3,440		Jan. 30, 1962	18.22	2,260
	Sept.15, 1958	17.95	2,460		Feb. 3, 1962	18.03	2,210
					Mar. 21, 1962	19.60	2,600
1959	Feb. 13, 1959	17.55	2,340		May 29, 1962	29.03	27,400
	Apr. 20, 1959	15.94	1,860		June 4, 1962	24.00	4,900
	May 5, 1959	21.19	3,820		June 24, 1962	20.80	2,900
	May 22, 1959	18.34	2,590		July 13, 1962	21.75	3,240
	May 30, 1959	29.40	38,300				

8860. Big Blue River at Randolph, Kans.

Location.--Lat 39°27', long 96°43', in SW¼ sec.12, T.7 S., R.6 E., at bridge on State Highway 16, half a mile upstream from Fancy Creek, three-quarters of a mile east of Randolph, and at mile 32.3.

Drainage area.--9,100 sq mi, approximately.

Gage.--Nonrecording Apr. 17, 1918, to May 14, 1934; recording thereafter. Datum of gage is 1,034.90 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 53,000 cfs and extended to 98,000 cfs by velocity-area studies. Relation occasionally affected for short periods by undefined amounts of backwater from Fancy Creek. Discharges shown for 1897-1912 based on rating curves of later periods.

Bankfull stage.--22 ft (U.S. Weather Bureau).

Historical data.--Gage heights 1897-1912 obtained from records of John Nord, resident of Randolph, Kansas. Flood of June 10, 1941, is probably the highest since at least 1897. Flood of May 31, 1903, is probably second highest.

Remarks.--Gage heights 1897-1912 adjusted to present datum. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges of Big Blue River at Randolph, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)
1897	Apr. 25, 1897	20.35	-
1899	May 21, 1899	20.50	-
1902	July 10, 1902	26.15	-
1903	May 31, 1903	30.6	-
1904	July 6, 1904	19.4	-
1905	Sept.17, 1905	18.75	-
1907	July 18, 1907	17.50	-
1908	June 7, 1908	29.85	-
1909	July 8, 1909	22.15	-
1910	Nov. 15, 1909	23.75	-
1912	Mar. 21, 1912	24.0	-
1918	May 23, 1918	14.0	13,300
	May 28, 1918	16.7	17,400
1919	Mar. 16, 1919	14.0	13,300
	Apr. 10, 1919	17.3	18,300
	June 4, 1919	14.8	12,700
	June 11, 1919	20.95	22,300
	Sept.22, 1919	15.8	14,200
1920	Apr. 12, 1920	12.9	9,970
1921	June 17, 1921	19.0	19,200
	July 2, 1921	21.52	22,000
	July 5, 1921	19.6	20,200
1922	July 12, 1922	16.00	14,500
1923	June 4, 1923	16.0	14,500
	June 9, 1923	20.75	22,200
	June 11, 1923	20.0	20,800
1924	Oct. 2, 1923	15.53	13,800
1925	June 3, 1925	19.75	18,700
	June 19, 1925	19.80	20,200
1926	Sept.15, 1926	17.84	16,100
1927	Oct. 10, 1926	15.1	12,500
	Apr. 15, 1927	17.4	15,500
	Apr. 19, 1927	21.41	23,700
	Apr. 30, 1927	14.7	12,000
	June 3, 1927	15.4	12,900
	Aug. 9, 1927	19.6	19,700
	Aug. 15, 1927	18.70	17,900
	Sept. 8, 1927	17.7	15,900
1928	Oct. 6, 1927	16.14	13,800
1929	Mar. 7, 1929	17.50	15,600
	May 12, 1929	15.76	13,400
	June 1, 1929	22.44	26,300
	June 23, 1929	16.56	14,400
1930	May 1, 1930	17.5	16,600
	May 8, 1930	22.79	29,900
	May 16, 1930	14.85	12,300
	June 5, 1930	19.8	21,600
1931	Sept. 1, 1931	17.2	16,000
	Sept.26, 1931	17.87	17,300
1932	Oct. 11, 1931	15.0	12,600
	Nov. 25, 1931	17.70	16,900
1933	Aug. 24, 1933	14.45	11,700
1934	May 15, 1934	5.96	2,200
1935	May 22, 1935	19.8	21,400
	June 3, 1935	25.25	42,800
1936	Feb. 25, 1936	16.77	15,300
1937	Feb. 13, 1937	11.92	8,080
1938	May 17, 1938	20.45	22,800
	June 23, 1938	16.35	15,300
	July 18, 1938	19.52	20,800
1939	Apr. 16, 1939	20.49	23,000
	June 22, 1939	16.44	14,500
	June 26, 1939	19.83	19,900
	July 2, 1939	15.94	13,400
1940	Aug. 27, 1940	12.63	8,980
1941	June 10, 1941	30.81	98,000
	Aug. 26, 1941	17.88	15,200
	Sept.19, 1941	24.05	30,000
1942	Oct. 4, 1941	17.98	15,500
	Oct. 9, 1941	28.00	47,100
	May 13, 1942	22.38	25,100
	June 22, 1942	22.35	25,100
	June 24, 1942	16.91	14,700
1943	June 9, 1943	21.63	25,700
	June 16, 1943	26.30	45,800
1944	Apr. 22, 1944	20.36	21,000
	May 3, 1944	21.42	22,900
	June 5, 1944	20.47	20,800
	June 15, 1944	21.76	23,300
	June 22, 1944	17.13	15,400
	Aug. 21, 1944	20.10	14,000
	Aug. 23, 1944	18.89	12,000
	Aug. 26, 1944	29.04	51,300
	Aug. 31, 1944	23.71	23,100
1945	Mar. 15, 1945	16.86	14,700
	Apr. 16, 1945	24.37	35,200
	Apr. 26, 1945	16.98	14,800
	May 8, 1945	15.42	12,300
	May 15, 1945	25.33	39,700
	May 23, 1945	26.73	55,400
	May 27, 1945	26.16	50,300
	June 10, 1945	15.99	12,800
	June 15, 1945	21.84	25,300
	June 21, 1945	16.23	13,000
	July 1, 1945	21.86	26,500
	July 9, 1945	19.29	19,300
	July 26, 1945	17.91	16,400
1946	July 17, 1946	24.50	33,700
	Sept.28, 1946	15.32	12,200
1947	Apr. 11, 1947	22.61	27,000
	June 7, 1947	22.90	27,900
	June 14, 1947	23.75	32,800
	June 21, 1947	24.14	34,000
	June 25, 1947	27.02	51,100
1948	Mar. 1, 1948	22.25	27,400
	Mar. 20, 1948	24.75	37,100
	July 4, 1948	16.76	14,500
	Aug. 4, 1948	23.08	28,500
1949	Jan. 24, 1949	22.43	-
	Feb. 12, 1949	21.69	27,200
	Feb. 28, 1949	23.43	-
	Mar. 11, 1949	20.41	23,600
	May 10, 1949	15.71	13,700
	May 24, 1949	19.10	20,200
	June 3, 1949	15.92	14,000
	June 8, 1949	16.39	14,900
	June 11, 1949	18.60	19,100
	June 16, 1949	19.71	21,800
	June 25, 1949	21.48	26,600

Peak stages and discharges of Big Blue River at Randolph, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 29, 1949	26.28	45,800	1954	June 2, 1954	14.59	13,200
	Sept. 8, 1949	21.33	25,800		June 10, 1954	16.90	17,400
	Sept.13, 1949	20.53	23,600		June 18, 1954	15.55	14,900
					Aug. 9, 1954	21.73	26,300
1950	May 10, 1950	23.79	32,900		Aug. 26, 1954	20.90	24,500
	May 30, 1950	16.63	15,000				
	July 11, 1950	20.28	22,800	1955	Feb. 19, 1955	13.5	11,300
	July 14, 1950	20.60	23,500				
	July 20, 1950	25.50	40,000	1956	July 4, 1956	17.84	18,000
	July 25, 1950	16.97	15,700				
	Sept.20, 1950	15.80	13,400	1957	June 20, 1957	20.40	23,400
	Sept.23, 1950	19.36	20,600		June 27, 1957	15.53	14,700
	Sept.29, 1950	16.56	15,000				
				1958	Mar. 1, 1958	15.90	15,300
1951	Oct. 4, 1950	26.70	46,700		May 18, 1958	12.90	10,600
	Apr. 28, 1951	15.84	13,600		July 13, 1958	22.70	28,600
	May 2, 1951	24.85	39,300		July 18, 1958	21.22	24,900
	June 8, 1951	25.77	47,400		July 26, 1958	20.82	24,200
	June 16, 1951	25.30	43,200		Aug. 1, 1958	14.26	12,600
	June 21, 1951	28.17	62,500		Sept. 5, 1958	24.02	24,500
	June 28, 1951	28.59	68,500		Sept. 7, 1958	21.04	24,600
	July 8, 1951	18.92	18,300				
	July 13, 1951	28.88	77,800	1959	May 7, 1959	-	24,100
	July 19, 1951	18.44	17,300		May 11, 1959	14.27	13,000
	July 23, 1951	17.27	15,200		May 24, 1959	12.87	10,800
	Aug. 16, 1951	19.65	19,800		May 31, 1959	23.05	30,100
	Sept. 5, 1951	21.77	24,600		July 5, 1959	23.99	32,500
	Sept.10, 1951	15.80	12,600		Sept.27, 1959	12.75	10,600
	Sept.13, 1951	21.74	24,600				
	Sept.16, 1951	18.59	17,700	1960	Oct. 3, 1959	18.03	19,700
					Oct. 7, 1959	18.47	20,400
1952	Mar. 20, 1952	16.73	15,800		Jan. 13, 1960	12.80	10,700
	Apr. 13, 1952	18.47	18,800		Mar. 30, 1960	29.76	74,000
	Apr. 22, 1952	17.37	16,900		May 16, 1960	14.85	11,900
	May 23, 1952	14.94	12,900		May 23, 1960	13.86	10,400
	June 30, 1952	19.81	21,300		June 13, 1960	13.91	10,500
	July 16, 1952	16.41	15,300		June 22, 1960	18.75	18,700
					July 13, 1960	15.87	13,500
1953	June 27, 1953	10.85	6,710				

8865. Fancy Creek at Winkler, Kans.

Location.--Lat 39°28'30", long 96°50'10", in SE¼ sec.2, T.7 S., R.5 E., on left bank at downstream side of highway bridge, 0.2 miles downstream from Otter Creek, and 0.4 mile south of Winkler.

Drainage area.--176 sq mi.

Gage.--Nonrecording prior to May 5, 1954; recording thereafter. Datum of gage is 1,101.17 ft above mean sea level (levels by Corps of Engineers).

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

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)
1944	August 1944	22.3	-	1959	July 21, 1959	8.62	1,870
					Aug. 31, 1959	6.85	1,260
1954	May 2, 1954	4.06	472		Sept.23, 1959	8.60	1,860
					Sept.26, 1959	6.60	1,180
1955	June 29, 1955	4.47	554				
				1960	Oct. 2, 1959	12.08	3,440
1956	June 17, 1956	5.60	880		Oct. 6, 1959	9.68	2,270
					Jan. 12, 1960	6.75	1,220
1957	June 27, 1957	6.98	1,290		Mar. 27, 1960	17.10	8,720
					Apr. 2, 1960	5.92	1,160
1958	May 17, 1958	7.13	1,350		Apr. 30, 1960	7.17	1,780
	July 3, 1958	7.86	1,600		May 6, 1960	8.86	2,630
	July 17, 1958	9.25	2,100		May 16, 1960	9.93	3,160
	Sept. 5, 1958	21.80	19,600		June 11, 1960	6.97	1,680
	Sept.10, 1958	7.55	1,490		June 16, 1960	8.92	2,660
	Sept.21, 1958	6.28	1,080		July 12, 1960	8.81	2,600
	Sept.23, 1958	6.05	1,020				
				1961	May 4, 1961	6.58	1,490
1959	Apr. 20, 1959	6.62	1,190		May 22, 1961	9.55	2,980

Peak stages and discharges of Fancy Creek at Winkler, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Sept. 3, 1961	9.36	2,880	1962	May 25, 1962	6.55	1,480
					May 28, 1962	21.21	19,200
1962	Oct. 29, 1961	9.50	2,950		June 2, 1962	9.59	3,000
	Jan. 26, 1962	-	1,200		June 7, 1962	-	2,500
	Jan. 29, 1962	7.75	2,080		June 23, 1962	5.80	1,100
	Mar. 20, 1962	7.16	1,780		June 24, 1962	9.48	2,940
	May 20, 1962	12.57	4,800				

8870. Big Blue River near Manhattan, Kans.

Location.--Lat 39°14'14", long 96°34'16", in S½ of sec.30, T.9 S., R.8 E., on right bank at downstream side of highway bridge, 4 miles north of Manhattan, and 7.3 miles upstream from mouth.

Drainage area.--9,560 sq mi, approximately.

Gage.--Nonrecording prior to Nov. 17, 1954; recording thereafter. At site above power dam 1 mile upstream at datum 5.34 ft higher May 1 to July 31, 1951. Datum of gage is 991.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 35,000 cfs and by slope-area measurement at 93,400 cfs.

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)
1903	May 31, 1903	35.85	-	1958	July 27, 1958	19.84	25,100
					Aug. 2, 1958	13.43	12,500
1941	June 1941	34.1	-		Sept. 6, 1958	22.05	30,400
					Sept.10, 1958	15.70	16,400
1951	June 12, 1951	33.04	93,400				
				1959	May 5, 1959	14.72	14,600
1955	Feb. 19, 1955	12.04	10,600		May 7, 1959	19.66	24,700
					May 11, 1959	13.65	12,800
1956	July 5, 1956	16.55	18,800		May 25, 1959	12.25	10,700
					May 31, 1959	21.60	29,300
1957	June 17, 1957	12.15	11,000		July 6, 1959	22.67	32,300
	June 21, 1957	19.22	23,900				
	June 27, 1957	16.93	18,900	1960	Apr. 5, 1960	23.05	31,400
	July 1, 1957	11.53	10,100				
				1961	Sept.14, 1961	16.60	18,100
1958	Mar. 1, 1958	14.57	14,400				
	July 13, 1958	21.12	28,100	1962	Mar. 26, 1962	19.10	24,600
	July 19, 1958	20.41	26,400				

8872. Cedar Creek near Manhattan, Kans.

Location.--Lat 39°15'40", long 96°33'40", in NE¼NE¼ sec.19, T.9 S., R.8 E., on left bank at downstream side of bridge on highway, 5.5 miles north of Manhattan, and 9.0 miles northwest of St. George.

Drainage area.--14.5 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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 26, 1957	15.83	1,600	1961	May 22, 1961	15.02	1,300
1958	July 10, 1958	18.97	3,000	1962	May 28, 1962	19.80	3,500
1959	May 5, 1959	17.62	2,300				
1960	Aug. 18, 1960	11.76	470				

8875. Kansas River at Wamego, Kans.

Location.--Lat 39°11'52", long 96°18'16", at center sec.9, T.10 S., R.10 E., at bridge on State Highway 99 at Wamego, 3 miles downstream from Antelope Creek, and at mile 129.1.

Drainage area.--55,240 sq mi, approximately, of which about 49,540 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 2, 1934; recording thereafter. At datum 3.00 ft higher prior to Oct. 1, 1955. Datum of gage is 950.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 170,000 cfs and by slope-area measurement and flood-routing studies at 400,000 cfs.

Bankfull stage.--19 ft (U.S. Weather Bureau).

Historical data.--Flood of July 13, 1902, was reported, "a foot above the highest previous record," according to Topeka Daily Capital on July 14, 1902 (date of earlier flood not indicated), and was exceeded by the 1903 flood which "rose 88 inches above high water of July 13, 1902" according to the Wamego Times of June 5, 1903.

Remarks.--Gage heights prior to Oct. 1, 1955, adjusted to present datum. Gage-height records for 1903-18 furnished by U.S. Weather Bureau. Peak discharges in period 1902-18 are annual peaks only, not previously published, based on subsequent rating and are approximate. Storage from reservoirs upstream placed in operation since 1946 appreciably reduced only the higher floods of 1951 but may have a significant effect in future years. 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)
1902	July 13, 1902	22.0	84,000	1931	Sept. 1, 1931	12.4	19,100
1903	May 30, 1903	29.3	280,000	1932	Nov. 25, 1931	13.2	22,200
1908	June 11, 1908	26.0	160,000	1933	Sept.14, 1933	12.6	19,800
1914	June 17, 1914	13.2	22,000	1934	June 24, 1934	10.2	11,400
1915	June 20, 1915	23.5	100,000	1935	May 28, 1935	16.40	37,200
					May 31, 1935	16.75	39,200
1916	Feb. 19, 1916	16.5	38,000		June 4, 1935	26.79	177,000
					June 22, 1935	15.62	33,300
1917	June 6, 1917	18.2	49,000		June 30, 1935	15.23	31,400
					Sept. 2, 1935	15.80	34,200
1918	May 30, 1918	12.3	18,000				
				1936	Feb. 26, 1936	11.49	15,400
1919	Mar. 16, 1919	16.5	38,200				
	Apr. 11, 1919	15.0	31,900	1937	Feb. 8, 1937	12.70	20,300
	June 12, 1919	17.6	43,000				
				1938	June 24, 1938	14.72	29,200
1920	Apr. 13, 1920	11.0	16,400				
				1939	June 23, 1939	13.98	26,000
1921	June 17, 1921	13.2	24,600				
				1940	Sept. 7, 1940	9.50	9,110
1922	July 13, 1922	13.3	25,000				
				1941	June 11, 1941	24.80	117,000
1923	June 5, 1923	15.6	33,400		Sept.19, 1941	15.21	33,000
	June 10, 1923	18.8	46,600				
				1942	Oct. 10, 1941	21.24	72,600
1924	Oct. 3, 1923	12.5	21,500		Oct. 23, 1941	19.77	60,000
					May 14, 1942	15.78	34,300
1925	June 20, 1925	13.3	24,400		June 22, 1942	17.92	46,500
					Sept. 6, 1942	15.74	34,200
1926	Sept.16, 1926	15.8	31,000				
				1943	June 17, 1943	23.85	90,700
1927	Apr. 15, 1927	16.2	35,500				
	Apr. 20, 1927	18.2	44,100	1944	Apr. 23, 1944	20.02	57,200
	June 17, 1927	15.7	33,300		May 4, 1944	20.18	60,600
	Aug. 14, 1927	17.3	40,200		June 15, 1944	15.03	31,200
					July 26, 1944	14.90	30,200
1928	July 11, 1928	14.6	28,200		Aug. 27, 1944	22.76	79,200
					Sept. 1, 1944	17.99	45,400
1929	Apr. 21, 1929	15.4	31,900				
	May 13, 1929	16.1	33,400	1945	Apr. 17, 1945	22.29	83,400
	June 2, 1929	16.7	38,600		May 16, 1945	20.15	63,200
					May 24, 1945	22.58	86,700
1930	May 8, 1930	19.3	53,400		May 28, 1945	20.91	69,900
	June 6, 1930	15.9	34,700		June 16, 1945	18.10	48,600

Peak stages and discharges of Kansas River at Wamego, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	July 1, 1945	17.75	47,100	1951	July 13, 1951	30.56	400,000
	July 19, 1945	17.45	44,700		Aug. 16, 1951	13.66	35,300
	July 27, 1945	16.88	41,300		Sept. 5, 1951	20.53	78,700
					Sept.14, 1951	19.41	70,900
1946	July 18, 1946	17.30	43,700				
				1952	Apr. 14, 1952	13.65	35,200
1947	Apr. 12, 1947	18.55	54,300		Apr. 23, 1952	14.85	39,200
	June 8, 1947	17.50	46,000				
	June 15, 1947	17.50	46,600	1953	May 30, 1953	10.50	19,500
	June 21, 1947	16.86	41,800				
	June 26, 1947	21.05	72,700	1954	June 3, 1954	12.37	27,200
1948	Mar. 2, 1948	15.08	36,500	1955	Feb. 20, 1955	8.33	11,700
	Mar. 20, 1948	18.70	56,600				
	June 29, 1948	14.20	32,100	1956	July 5, 1956	10.66	18,300
	July 21, 1948	19.75	64,400				
	Aug. 5, 1948	13.98	31,200	1957	June 21, 1957	15.90	46,000
					June 27, 1957	13.77	33,800
1949	Feb. 19, 1949	14.32	30,600				
	May 24, 1949	14.62	32,000	1958	July 13, 1958	13.78	32,200
	June 11, 1949	16.42	41,200		July 19, 1958	14.91	38,100
	June 16, 1949	16.32	40,600		Sept. 8, 1958	17.60	54,200
	June 26, 1949	15.26	35,500				
	June 30, 1949	18.63	54,000	1959	May 7, 1959	15.48	41,600
					May 31, 1959	13.77	33,000
1950	May 10, 1950	17.30	45,000		July 6, 1959	14.02	34,100
	July 12, 1950	18.21	52,400				
	July 20, 1950	21.78	85,500	1960	Mar. 29, 1960	19.04	69,400
	July 26, 1950	15.80	37,200		Apr. 15, 1960	13.41	34,000
	Aug. 15, 1950	14.97	32,800				
				1961	May 23, 1961	19.71	72,100
1951	Oct. 14, 1950	19.60	63,900		Sept.14, 1961	14.00	36,500
	May 1, 1951	18.35	55,100				
	May 19, 1951	14.17	30,000	1962	Jan. 31, 1962	13.95	36,200
	June 9, 1951	22.00	85,500		Mar. 26, 1962	13.60	34,500
	June 17, 1951	20.54	70,900		June 4, 1962	13.13	32,200
	June 23, 1951	24.56	120,000				
	June 30, 1951	25.88	146,000				

8876. Kansas River tributary near Wamego, Kans.

Location.--Lat 39°10'28", long 96°15'45", in SE¼SE¼ sec.14, T.10 S., R.10 E., on right bank at upstream end of culvert on county road, 3.0 miles southeast of Wamego, and 4.9 miles northeast of Wabaunsee.

Drainage area.--2.3 sq mi, approximately. Runoff from 1.3 sq mi controlled by stock pond.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 25 cfs by computation of critical flow through culvert and by flow-through-culvert measurement at 584 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)
1951	July 1951	16.9	563	1960	Mar. 27, 1960	9.10	23
1957	June 30, 1957	12.21	190	1961	May 5, 1961	11.90	170
1958	July 3, 1958	a18.55	1,290	1962	May 28, 1962	12.29	200
1959	Oct. 7, 1958	13.56	290				

a Backwater from debris.

8880. Vermillion Creek near Wamego, Kans.
(Published as "Red Vermillion Creek" prior to 1938)

Location.--Lat 39°21'00", long 96°13'10", in NW¼ sec.20, T.8 S., R.11 E., at highway bridge, 1 mile upstream from Indian Creek, 14 miles northeast of Wamego, and at mile 19.3.

Drainage area.--243 sq mi.

Gage.--Nonrecording prior to Dec. 3, 1956; recording thereafter. Datum of gage is 992.20 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 4,000 cfs and extended above by velocity-area study.

Historical data.--Flood of June 1915 reached a stage of 30.9 ft, the highest stage known since 1873, according to local resident in 1936.
Flood of July 13, 1951, reached a stage of 29.7 ft, from floodmarks.

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)
1915	June 1915	30.9	a38,500	1945	July 9, 1945	21.53	3,200
1936	May 1, 1936	20.10	b3,110	1946	Mar. 26, 1946	16.20	c1,070
1937	Feb. 12, 1937	17.39	2,300	1951	July 13, 1951	29.7	a26,500
	Mar. 4, 1937	17.35	2,290	1954	June 1, 1954	24.4	d4,700
1938	May 17, 1938	23.86	6,970	1955	Feb. 19, 1955	17.4	1,920
1939	Apr. 15, 1939	17.98	2,470	1956	June 28, 1956	10.9	451
	June 21, 1939	17.07	2,210	1957	May 25, 1957	20.00	2,170
	June 25, 1939	22.31	4,420		July 1, 1957	22.22	3,110
1940	Aug. 26, 1940	8.40	510	1958	June 14, 1958	20.35	2,180
1941	Apr. 4, 1941	16.67	2,100		July 12, 1958	24.84	3,560
	June 9, 1941	18.60	2,670		July 18, 1958	24.78	3,520
	Aug. 26, 1941	21.48	2,930		July 31, 1958	26.23	6,390
1942	Oct. 9, 1941	29.4	23,500	1959	Apr. 20, 1959	20.71	2,450
	Oct. 20, 1941	27.8	9,750		May 5, 1959	24.83	4,730
	May 3, 1942	20.74	2,730		May 21, 1959	19.58	2,040
	June 20, 1942	24.13	4,430		May 30, 1959	27.27	10,300
1943	Dec. 27, 1942	20.00	2,150		July 4, 1959	25.53	6,840
	Feb. 3, 1943	22.65	2,950	1960	Mar. 28, 1960	26.80	8,800
	June 7, 1943	22.04	4,050		June 12, 1960	19.12	2,490
	June 10, 1943	23.62	3,980		June 16, 1960	18.32	2,250
	June 16, 1943	25.55	5,600	1961	May 5, 1961	19.15	2,500
1944	Apr. 23, 1944	26.0	6,000		May 8, 1961	22.99	4,390
	May 3, 1944	24.2	4,390		May 17, 1961	18.28	2,230
	Aug. 27, 1944	28.09	12,100		May 23, 1961	18.24	2,220
	Aug. 30, 1944	22.40	3,640		June 14, 1961	19.36	2,580
1945	Dec. 5, 1944	21.4	2,730	1962	Oct. 11, 1961	22.15	3,890
	Apr. 16, 1945	25.9	5,900		Nov. 3, 1961	18.38	2,260
	May 14, 1945	21.3	3,500		May 29, 1962	28.51	13,600
	May 17, 1945	20.4	2,900		June 4, 1962	19.64	2,300
	May 27, 1945	25.4	5,200		June 24, 1962	24.42	5,020
	June 15, 1945	27.76	9,750				
	June 30, 1945	24.2	4,500				

a Annual peak only.
b Maximum Apr. 22 to Sept. 30; probably maximum for year.
c Maximum Oct. 1 to June 30; probably was exceeded during period of no record.
d Maximum Jan. 1 to Sept. 30; probably maximum for year.

8885. Mill Creek near Paxico, Kans.

Location.--Lat 39°03'15", long 96°10'52", in SW¼ sec.27, T.11 S., R.11 E., at downstream side of bridge on U.S. Highway 40, 1 mile southwest of Paxico, 2.0 miles downstream from Kuenzli Creek, and 16 miles upstream from mouth.

Drainage area.--316 sq mi.

Gage.--Nonrecording prior to Apr. 15, 1958; recording thereafter. Datum of gage is 965.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and by contracted-opening measurement at 77,200 cfs.

Remarks.--Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 12, 1951	34.7	77,200	1959	May 11, 1959	18.15	7,010
					June 28, 1959	14.00	4,630
1954	June 12, 1954	19.3	7,930				
				1960	Oct. 5, 1959	9.70	3,070
1955	Apr. 13, 1955	10.0	3,220		Mar. 27, 1960	22.54	11,100
					Apr. 29, 1960	9.42	2,910
1956	June 17, 1956	7.15	1,280		Aug. 26, 1960	13.19	4,310
					Sept.24, 1960	16.54	5,850
1957	May 16, 1957	19.6	8,170				
	May 25, 1957	12.5	5,900	1961	Feb. 18, 1961	9.72	2,930
	May 31, 1957	11.3	4,500		Mar. 13, 1961	11.50	3,800
	June 28, 1957	10.0	3,290		Mar. 27, 1961	10.71	3,460
	July 10, 1957	9.6	2,970		Apr. 9, 1961	13.83	4,730
					May 5, 1961	19.54	8,390
1958	Nov. 18, 1957	9.4	2,900		May 22, 1961	26.03	9,100
	Mar. 7, 1958	9.0	2,650		Sept.13, 1961	14.00	4,800
	June 25, 1958	15.17	5,120				
	July 3, 1958	16.65	5,920	1962	Oct. 10, 1961	15.55	5,580
	July 11, 1958	20.49	8,880		Oct. 29, 1961	11.29	3,720
	July 17, 1958	20.18	8,630		Nov. 16, 1961	12.53	4,210
	Aug. 21, 1958	22.58	11,100		Jan. 27, 1962	13.72	4,690
	Sept.17, 1958	12.86	4,190		Jan. 29, 1962	9.12	2,570
	Sept.23, 1958	9.50	2,960		Mar. 20, 1962	16.32	5,990
					May 29, 1962	14.97	5,280
1959	Oct. 7, 1958	24.38	14,000		Sept.24, 1962	10.90	3,550
	May 5, 1959	12.56	4,100				

8886. Dry Creek near Maple Hill, Kans.

Location.--Lat 39°03'06", long 96°01'14", in SE¼NE¼ sec.36, T.11 S., R.12 E., on left bank at downstream side of bridge, 2.1 miles southeast of Maple Hill, and 8.0 miles southeast of Paxico.

Drainage area.--15 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and extended above by logarithmic plotting.

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 25, 1957	12.92	1,300	1961	Apr. 8, 1961	12.55	1,200
1958	Aug. 21, 1958	18.42	-	1962	Mar. 20, 1962	11.13	720
1959	May 5, 1959	16.85	3,000				
1960	Aug. 18, 1960	15.71	2,500				

8889. Blacksmith Creek tributary near Valencia, Kans.

Location.--Lat 39°01'20", long 95°50'06", in SW¼NW¼ sec.11, T.12 S., R.14 E., on left bank at downstream side of highway bridge, 4.3 miles southeast of Valencia, and 8.6 miles southwest of Topeka.

Drainage area.--1.0 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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	July 10, 1957	12.20	590	1961	May 22, 1961	11.26	290
1958	July 11, 1958	11.96	460	1962	Oct. 29, 1961	10.73	120
1959	Oct. 7, 1958	11.61	350				
1960	May 20, 1960	10.38	60				

8890. Kansas River at Topeka, Kans.

Location.--Lat 39°04'00", long 95°38'58", in SW¼NW¼ sec.28, T.11 S., R.16 E., at Sardou Bridge in Topeka, 2.3 miles upstream from Soldier Creek, and at mile 84.0.

Drainage area.--56,710 sq mi, approximately.

Gage.--Nonrecording Apr. 24, 1904, to Apr. 3, 1918, May 31, 1918, to Oct. 1, 1918, and Oct. 1, 1927, to Sept. 30, 1934; recording Apr. 4 to May 30, 1918, Oct. 2, 1918, to Sept. 30, 1927, and since Oct. 1, 1934. At railroad bridge 8,000 ft upstream at datum about 7.4 ft higher Apr. 24 to Aug. 31, 1904, and at datum 3.66 ft higher June 12, 1917, to Apr. 3, 1918. At Melan Bridge 5,900 ft upstream at datum 2.91 ft higher September 1904 to June 11, 1917, and Oct. 1, 1927, to Sept. 30, 1934. At site 7,470 ft upstream at datum 3.66 ft higher Apr. 4, 1918, to Sept. 30, 1927. At old Sardou Bridge 300 ft upstream at datum 1.17 ft higher Oct. 1, 1934, to Sept. 30, 1939. At Topeka Avenue Bridge 7,600 ft upstream at datum 2.91 ft higher Oct. 1, 1939, to Feb. 27, 1961. Datum of present gage is 851.66 ft above mean sea level, datum of 1929.

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

Historical data.--Stage of July 13,1951, is maximum stage known since at least 1844. Flood of May 30, 1903 (second highest since 1844), reached a stage of about 33 ft, present site and datum, based on floodmarks at site 5,900 ft upstream (discharge, about 300,000 cfs).

A flood in the spring of 1844 is known to have been higher than that of 1903 and on the basis of legendary marks or deductions is believed to be the greatest known.

Remarks.--Natural flow of stream affected by reservoirs in Colorado, Nebraska, and Kansas and by numerous diversions for irrigation above stations. 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)
1869	1869	a21.3	72,000	1905	May 25, 1905	17.4	45,000
					June 2, 1905	14.4	31,000
1877	May 21, 1877	a23.3	96,000		July 10, 1905	17.7	46,000
					Sept.16, 1905	14.5	32,000
1885	July 1885	a23.0	92,000				
				1906	Aug. 5, 1906	12.5	24,000
1889	1889	a21.0	69,000				
				1907	June 13, 1907	11.2	19,000
1897	1897	a22.2	82,000		July 20, 1907	12.2	22,000
1902	July 13, 1902	a24.0	100,000	1908	May 24, 1908	14.6	32,000
					May 31, 1908	16.4	40,000
1903	May 30, 1903	a31.4	300,000		June 9, 1908	20.0	200,000
					June 13, 1908	24.8	120,000
1904	July 7, 1904	25.2	130,000		June 21, 1908	20.6	65,000

a Datum of 1939-61.

Peak stages and discharges of Kansas River at Topeka, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1908	July 1, 1908	17.2	44,000
1909	July 12, 1909	18.3	50,000
1910	Nov. 15, 1909	20.9	68,000
	Dec. 4, 1909	15.5	36,000
	May 30, 1910	15.4	35,000
	June 10, 1910	16.2	38,000
	Aug. 18, 1910	17.4	44,000
1911	Feb. 17, 1911	15.8	37,000
1912	Feb. 20, 1912	14.0	30,000
	Mar. 20, 1912	18.2	48,000
1913	May 13, 1913	14.4	31,000
1914	June 18, 1914	13.4	27,000
1915	May 28, 1915	18.6	51,000
	June 11, 1915	22.6	83,000
	June 20, 1915	23.8	96,000
	July 1, 1915	18.3	49,000
	July 17, 1915	21.9	76,000
	July 31, 1915	18.6	51,000
	Aug. 20, 1915	14.2	30,000
1916	Oct. 17, 1915	14.9	33,000
	Feb. 19, 1916	16.2	38,000
	May 15, 1916	15.8	37,000
	May 24, 1916	14.2	30,000
	June 14, 1916	14.3	31,000
1917	June 2, 1917	18.4	49,000
	June 6, 1917	18.9	52,000
1918	May 29, 1918	13.2	24,400
1919	Mar. 16, 1919	20.8	68,000
	Apr. 11, 1919	15.40	33,800
	June 12, 1919	18.10	49,300
1920	Apr. 13, 1920	11.8	18,900
	July 13, 1920	13.5	26,000
1921	May 10, 1921	17.05	43,100
	June 18, 1921	15.60	34,900
	July 3, 1921	14.83	30,700
1922	Apr. 9, 1922	15.30	33,300
	July 12, 1922	17.55	46,000
1923	June 6, 1923	15.42	33,000
	June 10, 1923	22.25	73,700
	July 5, 1923	15.80	34,900
1924	Aug. 23, 1924	11.8	18,600
1925	June 4, 1925	14.4	25,600
	June 18, 1925	14.4	25,600
1926	Sept.16, 1926	16.57	37,600
1927	Apr. 15, 1927	17.21	41,100
	Apr. 19, 1927	21.42	67,000
	June 18, 1927	17.95	45,300
	Aug. 14, 1927	17.89	45,000
1928	July 12, 1928	15.9	37,800
1929	Nov. 18, 1928	15.3	35,400
	Apr. 20, 1929	21.82	68,300
	May 13, 1929	15.2	35,000
	June 2, 1929	16.3	39,400
1930	May 8, 1930	21.9	69,000
	June 6, 1930	16.2	39,000
	June 16, 1930	15.0	34,200
1931	Sept. 2, 1931	13.7	26,700
1932	Nov. 24, 1931	12.7	25,600
1933	Aug. 26, 1933	10.1	16,400
1934	June 25, 1934	7.8	10,600
1935	May 9, 1935	20.40	58,500
	May 31, 1935	20.02	55,400
	June 5, 1935	26.65	154,000
	June 23, 1935	15.24	31,400
	July 1, 1935	14.76	30,600
	Sept. 2, 1935	16.60	37,600
1936	Feb. 25, 1936	10.69	17,000
1937	July 13, 1937	10.86	17,000
1938	May 19, 1938	15.70	33,800
1939	June 26, 1939	13.78	26,800
1940	Aug. 29, 1930	7.59	8,380
1941	June 12, 1941	25.83	102,000
1942	Oct. 10, 1941	24.64	90,800
	Oct. 21, 1941	24.47	89,600
	Oct. 24, 1941	20.66	59,900
	May 14, 1942	15.88	33,500
	June 21, 1942	22.56	73,000
	June 25, 1942	18.46	46,500
	Sept. 7, 1942	16.0	34,000
1943	June 11, 1943	25.29	97,700
	June 17, 1943	26.83	101,000
1944	Apr. 23, 1944	25.35	88,800
	Apr. 26, 1944	21.86	67,800
	May 3, 1944	24.05	85,800
	June 15, 1944	14.90	32,300
	July 26, 1944	15.00	32,700
	Aug. 27, 1944	24.10	86,200
	Sept. 1, 1944	18.54	48,200
1945	Dec. 5, 1944	16.68	41,000
	Apr. 17, 1945	24.57	96,500
	May 17, 1945	21.12	69,600
	May 25, 1945	23.66	88,200
	May 29, 1945	21.28	67,800
	June 7, 1945	15.25	32,400
	June 17, 1945	22.50	76,900
	July 1, 1945	22.28	75,200
	July 19, 1945	17.35	42,500
	July 28, 1945	17.17	41,500
1946	July 18, 1946	17.50	43,400
1947	Apr. 11, 1947	19.20	56,100
	June 8, 1947	18.23	49,900
	June 15, 1947	18.29	50,300
	June 21, 1947	19.50	58,200
	June 27, 1947	21.92	75,300
1948	Mar. 2, 1948	14.45	35,800
	Mar. 20, 1948	18.60	55,500
	June 30, 1948	14.33	31,300
	July 21, 1948	21.84	73,800
1949	Feb. 13, 1949	14.66	33,400
	Feb. 19, 1949	15.72	39,200
	Mar. 1, 1949	14.08	31,600
	Mar. 8, 1949	14.09	31,600
	May 25, 1949	14.87	33,300
	June 14, 1949	17.43	44,900
	June 26, 1949	15.43	35,500
	June 30, 1949	19.23	54,500
1950	May 11, 1950	16.70	44,000
	July 12, 1950	20.98	64,400
	July 19, 1950	24.81	94,200
	July 26, 1950	16.90	45,000
	Aug. 14, 1950	17.23	46,300
	Sept.24, 1950	13.60	30,200

Peak stages and discharges of Kansas River at Topeka, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 4, 1950	19.73	58,200	1957	June 28, 1957	15.13	39,200
	May 2, 1951	23.89	86,000		July 2, 1957	14.31	35,200
	May 20, 1951	16.12	41,400				
	June 10, 1951	22.60	74,400	1958	July 12, 1958	14.49	37,400
	June 18, 1951	20.86	63,700		July 18, 1958	17.72	55,300
	June 24, 1951	27.67	123,000		July 27, 1958	14.12	35,600
	June 30, 1951	28.92	138,000		Sept. 8, 1958	17.99	56,900
	July 5, 1951	20.72	63,000				
	July 13, 1951	36.34	469,000	1959	Oct. 7, 1958	13.14	31,100
	Aug. 17, 1951	13.77	33,000		May 8, 1959	16.08	45,500
	Aug. 26, 1951	14.77	37,800		May 31, 1959	14.22	36,100
	Sept. 5, 1951	24.80	101,000		July 6, 1959	14.06	35,300
	Sept.14, 1951	20.15	64,400				
				1960	Oct. 5, 1959	12.77	31,600
1952	Apr. 15, 1952	14.48	36,400		Mar. 30, 1960	21.00	74,000
	Apr. 23, 1952	17.07	47,600		Apr. 15, 1960	13.58	34,800
1953	May 30, 1953	10.32	16,800	1961	May 8, 1961	14.05	31,400
					May 23, 1961	21.70	77,400
1954	June 12, 1954	14.90	35,600		Sept.15, 1961	14.12	31,700
1955	Feb. 21, 1955	7.99	11,000	1962	Feb. 1, 1962	14.99	35,000
					Mar. 27, 1962	14.05	31,200
1956	July 6, 1956	10.44	17,800		May 30, 1962	17.24	46,400
					June 4, 1962	15.15	35,600
1957	June 22, 1957	16.61	47,300				

8895. Soldier Creek near Topeka, Kans.
(Published as "at Topeka," 1929-35)

Location.--Lat 39°06'00", long 95°43'27", in NW¼ sec.14, T.11 S., R.15 E., at highway bridge, 1½ miles upstream from Halfday Creek, 4 miles northwest of Topeka, and at mile 6.5.

Drainage area.--268 sq mi.

Gage.--Nonrecording prior to June 17, 1958, and May 25, 1960, to June 8, 1961; recording June 17, 1958, to May 24, 1960, and since June 9, 1961. At site 2 miles downstream at different datum May 23, 1929, to Sept. 30, 1932. At present site at datum 4.0 ft higher Aug. 1, 1935, to May 24, 1960. At site 1.1 miles downstream at datum 1.79 ft lower May 25, 1960, to June 8, 1961. Datum of gage is 862.95 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected at times by backwater from Kansas River.

Bankfull stage.--25 ft (U.S. Weather Bureau).

Historical data.--Flood of Apr. 20, 1929, reached a stage of 28.25 ft from floodmark in barn a quarter mile south of gage, identified by W.A. Baird in 1939. Flood data for 1933-35 are based on periodic readings of stage and a previous stage-discharge relation.

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)
1929	Apr. 20, 1929	a28.25	b10,000	1932	Nov. 17, 1931	19.36	5,780
					July 6, 1932	14.0	2,820
1930	Apr. 15, 1930	11.91	2,170				
	May 8, 1930	c18.10	3,270	1933	May 19, 1933	7.90	b800
	June 16, 1930	16.00	3,700				
	Sept.16, 1930	16.4	3,900	1934	Sept.27, 1934	11.0	b1,740
1931	Oct. 16, 1930	18.71	5,290	1935	May 28, 1935	23.06	b9,560
	Nov. 20, 1930	14.0	2,910				
	Aug. 2, 1931	11.2	1,810	1936	Feb. 24, 1936	15.91	2,780
	Aug. 9, 1931	12.0	2,080		Apr. 29, 1936	16.3	2,940
	Sept. 2, 1931	15.86	3,630		May 1, 1936	21.6	5,770
	Sept.22, 1931	16.0	3,700		May 9, 1936	16.4	2,980
					May 25, 1936	16.6	3,070
1932	Nov. 15, 1931	18.74	5,320		Sept.16, 1936	13.2	1,840

a From floodmark; present site and datum.
b Annual peak only.
c Backwater from Kansas River.

Peak stages and discharges of Soldier Creek near Topeka, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Sept.27, 1936	15.5	2,620
1937	Feb. 8, 1937	18.7	4,080
	Feb. 11, 1937	16.2	2,900
	Mar. 4, 1937	12.6	1,670
1938	May 4, 1938	17.4	3,430
	May 19, 1938	18.06	3,780
	July 17, 1938	17.8	3,630
1939	Mar. 11, 1939	16.2	2,900
	Apr. 15, 1939	22.58	6,420
	June 10, 1939	13.3	1,870
	June 19, 1939	15.0	2,440
	June 26, 1939	16.3	2,940
1940	May 21, 1940	10.64	1,180
1941	June 9, 1941	20.42	3,920
	Aug. 18, 1941	11.88	1,520
1942	Oct. 10, 1941	27.5	8,870
	Oct. 21, 1941	25.47	7,010
	Nov. 1, 1941	20.4	3,920
	Dec. 23, 1941	16.8	2,290
	Dec. 26, 1941	15.6	1,940
	May 3, 1942	13.6	1,570
	May 11, 1942	21.0	4,220
	June 19, 1942	26.85	8,120
	Sept. 3, 1942	20.3	3,870
	Sept. 6, 1942	17.9	2,860
1943	Dec. 27, 1942	20.0	3,720
	June 10, 1943	20.5	3,970
	June 16, 1943	24.75	6,340
1944	Mar. 15, 1944	13.8	1,620
	Apr. 10, 1944	15.7	2,140
	Apr. 23, 1944	28.2	9,910
	Apr. 26, 1944	25.6	7,100
	May 3, 1944	26.4	7,720
	Aug. 27, 1944	19.5	3,500
1945	Dec. 5, 1944	25.4	6,960
	Mar. 15, 1945	14.0	1,920
	Mar. 25, 1945	15.7	2,440
	Apr. 13, 1945	13.8	1,860
	Apr. 16, 1945	26.64	9,030
	Apr. 26, 1945	13.2	1,700
	May 17, 1945	14.0	1,920
	May 27, 1945	23.0	6,000
	June 7, 1945	23.8	6,540
	June 17, 1945	26.4	8,780
	July 1, 1945	18.6	3,570
1946	Mar. 26, 1946	14.4	2,040
1947	Mar. 13, 1947	13.7	1,600
	Apr. 4, 1947	14.0	1,670
	Apr. 11, 1947	16.0	3,090
	May 29, 1947	15.35	2,850
	June 6, 1947	17.0	3,490
	June 19, 1947	12.5	1,940
	June 23, 1947	20.13	4,910
1948	Mar. 16, 1948	11.0	1,560
	Mar. 19, 1948	14.4	2,510
	Mar. 26, 1948	13.8	2,320
	May 2, 1948	17.9	3,880
	June 24, 1948	18.36	4,110
	July 20, 1948	12.0	1,810
1949	Jan. 15, 1949	17.3	3,620
	Jan. 23, 1949	18.0	3,930
	Feb. 13, 1949	13.9	2,350
	Feb. 18, 1949	17.8	4,180
	Feb. 24, 1949	12.8	2,260
	May 29, 1949	23.8	7,850
	June 3, 1949	16.9	3,800
	June 14, 1949	12.63	2,200
	June 25, 1949	12.37	2,130
	June 29, 1949	13.1	2,360
	July 7, 1949	14.2	2,750
1949	Sept.12, 1949	16.5	3,640
1950	Oct. 21, 1949	12.0	2,040
	May 19, 1950	13.6	2,530
	July 10, 1950	15.0	3,050
	July 13, 1950	14.9	3,050
	July 19, 1950	24.71	8,580
	July 25, 1950	18.2	4,360
	Aug. 14, 1950	20.0	5,360
1951	May 2, 1951	21.63	6,420
	May 20, 1951	11.88	2,050
	June 15, 1951	11.20	1,850
	June 22, 1951	28.15	11,400
	June 26, 1951	25.20	8,840
	June 29, 1951	20.45	5,730
	July 3, 1951	14.70	3,040
	July 6, 1951	23.50	7,650
	July 12, 1951	c29.06	10,400
	Sept. 5, 1951	26.60	9,320
1952	Mar. 10, 1952	17.6	3,390
1953	Aug. 5, 1953	7.1	580
1954	June 12, 1954	16.46	2,960
1955	Feb. 20, 1955	d11.00	750
1956	Aug. 10, 1956	9.6	805
1957	May 17, 1957	15.5	2,190
	May 25, 1957	17.8	3,010
	July 10, 1957	21.6	4,690
1958	Oct. 15, 1957	19.8	3,200
	Oct. 24, 1957	16.0	2,120
	Nov. 18, 1957	18.0	2,620
	Feb. 28, 1958	15.0	1,870
	June 15, 1958	19.2	2,990
	July 3, 1958	16.72	2,300
	July 11, 1958	22.50	4,610
	July 18, 1958	21.35	3,880
	Aug. 1, 1958	17.93	2,600
	Aug. 11, 1958	20.55	3,490
	Aug. 21, 1958	13.44	1,510
	Sept.24, 1958	16.10	2,140
1959	Oct. 7, 1958	25.82	7,620
	Mar. 27, 1959	14.31	1,540
	Apr. 20, 1959	15.02	1,680
	May 5, 1959	23.55	5,540
	May 11, 1959	19.27	2,990
	May 31, 1959	15.78	1,840
	July 5, 1959	16.33	1,980
1960	Oct. 3, 1959	15.39	1,760
	Mar. 28, 1960	17.23	4,470
	May 20, 1960	9.26	1,670
	June 11, 1960	14.70	2,180
	Aug. 18, 1960	19.30	4,020
1961	Mar. 13, 1961	7.32	3,520
	Mar. 20, 1961	7.37	3,560
	Mar. 27, 1961	7.20	3,420
	Apr. 9, 1961	5.75	2,260
	May 5, 1961	7.05	3,300
	May 17, 1961	7.47	3,640
	May 23, 1961	-	-
	June 14, 1961	8.61	2,810
	Sept.13, 1961	12.49	6,090
1962	Oct. 11, 1961	11.47	5,100
	Oct. 13, 1961	8.83	2,980
	Oct. 30, 1961	11.51	5,130
	Nov. 2, 1961	8.73	2,900
	Nov. 16, 1961	6.95	1,710
	Jan. 31, 1962	7.46	2,020
	Feb. 3, 1962	6.67	1,540
	Mar. 21, 1962	7.72	2,330
	May 30, 1962	9.60	3,680
	June 4, 1962	8.94	3,160
	June 25, 1962	7.30	2,080

c Backwater from Kansas River.
d Backwater from ice.

8900. Little Delaware River near Horton, Kans.

Location.--Lat 39°41'50", long 95°33'50", in SW¼ sec.18, T.4 S., R.17 E., on left bank at downstream side of county highway bridge, 3 miles northwest of Horton and 4 miles upstream from Mission Creek.

Drainage area.--19 sq mi, approximately.

Gage.--Recording. Datum of gage is 1,026.22 ft above mean sea level, datum of 1929 (levels by U.S. Soil Conservation Service).

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

Remarks.--Flows are affected by detention dams and watershed treatment practices designed to minimize surface runoff. 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)
1951	July 1951	18	-	1957	May 24, 1957	12.14	644
				1958	July 31, 1958	14.63	893
1955	Feb. 18, 1955	12.36	673	1959	July 4, 1959	13.03	731
	June 24, 1955	12.36	673	1960	Mar. 27, 1960	12.70	804
1956	May 7, 1956	4.40	34	1961	Mar. 27, 1961	7.81	313

8903. Spring Creek near Wetmore, Kans.

Location.--Lat 39°38'10", long 95°50'40", in NE¼NE¼ sec.9, T.5 S., R.14 E., near left bank at upstream side of highway bridge, 1.8 miles northwest of Wetmore and 5.0 miles southeast of Goff.

Drainage area.--20 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 1,000 cfs and by contracted-opening measurement at 8,710 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 29, 1957	15.41	720	1961	May 5, 1961	13.66	540
1958	July 31, 1958	21.38	8,710	1962	Oct. 11, 1961	18.11	1,200
1959	May 30, 1959	18.85	1,700				
1960	May 27, 1960	18.01	1,150				

8905. Delaware River at Valley Falls, Kans.

Location.--Lat 39°21', long 95°27', in SW¼ sec.18, T.8 S., R.18 E., at highway bridge, 200 ft downstream from Walnut Creek, 300 ft upstream from Atchison, Topeka and Santa Fe Railway Co. bridge, a quarter of a mile north of Valley Falls, and at mile 30.6.

Drainage area.--922 sq mi.

Gage.--Nonrecording prior to Aug. 26, 1952; recording thereafter. Datum of gage is 885.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 46,000 cfs and by contracted-opening measurement at 94,600 cfs.

Bankfull stage.--22 ft (U.S. Weather Bureau).

Historical data.--Greatest flood known prior to 1951 occurred in 1865 according to U.S. Weather Bureau, Climatological Data of June 1925, which states "At Valley Falls the crest on the Delaware was 29.72 ft at midnight on June 16-17 (1925)--and, according to the memory of old settlers, the highest stage since 1865, which latter is believed to have been 2 feet higher".

The flood of May 27, 1915, according to the Valley Falls News Era of June 3, 1915, was "The greatest flood in the traditional history of the river valley for 60 years.--The records of 1903 and 1908 which one was the very highest, there being some question about it, was broken last Thursday (May 27, 1915) making a new mark 4 inches higher than ever before in the old boiler head, or the abutments of the Santa Fe bridge".

Remarks.--Peak discharges during period 1865-1915 are annual peaks only, not previously published, based on subsequent stage-discharge relation, and are approximate. 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)
1865	1865	a31.7	87,000	1936	Feb. 24, 1936	18.12	9,170
1903	May 31, 1903	b26.7	30,000	1937	Feb. 12, 1937	14.06	6,430
					Mar. 3, 1937	14.0	6,370
1904	1904	b25.5	24,000				
				1938	May 4, 1938	19.26	11,200
1908	June 1908	b26.9	31,000		May 17, 1938	18.0	10,200
					Aug. 21, 1938	18.02	10,200
1915	May 27, 1915	b27.2	33,000				
				1939	Mar. 11, 1939	18.0	10,200
1922	July 12, 1922	17.2	c6,060		June 26, 1939	19.30	11,200
1923	Nov. 12, 1922	15.8	5,360	1940	June 20, 1940	17.09	9,480
1924	June 26, 1924	14.28	4,630	1941	June 10, 1941	21.65	14,400
1925	June 4, 1925	b26.93	30,900	1942	Oct. 9, 1941	26.6	26,800
	June 16, 1925	b29.72	53,900		Oct. 21, 1941	22.4	15,800
					Nov. 1, 1941	20.2	12,400
1926	Apr. 11, 1926	10.56	2,930		June 20, 1942	22.0	15,100
					Aug. 27, 1942	21.1	13,600
1927	Apr. 1, 1927	19.9	10,800		Sept. 6, 1942	22.3	15,600
	Apr. 15, 1927	19.8	10,600				
	Apr. 19, 1927	21.2	12,900	1943	Dec. 27, 1942	d21.3	-
					June 9, 1943	27.28	30,600
1928	Oct. 7, 1927	22.80	16,200		June 16, 1943	24.2	22,300
1929	Nov. 18, 1928	22.4	15,200	1944	Apr. 23, 1944	25.2	30,600
	Apr. 20, 1929	28.41	41,800		Apr. 26, 1944	19.4	12,600
	June 23, 1929	24.0	19,300		May 3, 1944	27.5	44,000
					Aug. 27, 1944	21.6	16,600
1930	Sept.15, 1930	19.69	10,100				
				1945	Dec. 5, 1944	21.2	15,700
1931	Sept. 1, 1931	21.0	12,200		Mar. 25, 1945	21.0	15,300
					Apr. 16, 1945	25.2	30,600
1932	Nov. 15, 1931	21.0	12,200		May 16, 1945	19.6	12,900
	Nov. 17, 1931	23.13	16,700		May 27, 1945	17.45	10,100
	Nov. 24, 1931	21.97	14,100		June 16, 1945	27.35	45,900
1933	May 28, 1933	10.48	4,290	1946	June 29, 1946	13.50	6,960
1934	Sept.26, 1934	12.49	5,530	1947	Apr. 11, 1947	20.0	13,500
					May 29, 1947	17.0	10,300
1935	May 21, 1935	23.4	17,500		June 23, 1947	25.13	30,000
	May 28, 1935	23.96	18,900				
	June 2, 1935	21.2	12,600	1948	Mar. 19, 1948	16.8	10,900

a From information by U.S. Weather Bureau. b From floodmark. c Maximum June 16 to Sept. 30; probably maximum for year. d Backwater from log jam.

Peak stages and discharges of Delaware River at Valley Falls, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 2, 1948	16.9	11,000	1954	May 31, 1954	14.5	10,200
	June 23, 1948	20.13	16,000		Aug. 2, 1954	16.0	11,700
	Aug. 3, 1948	16.5	10,600				
				1955	Feb. 19, 1955	13.67	9,400
1949	Jan. 15, 1949	19.3	14,300				
	Jan. 23, 1949	16.8	11,000	1956	July 13, 1956	5.29	1,840
	Feb. 18, 1949	18.8	13,500				
	Feb. 24, 1949	18.0	12,400	1957	May 25, 1957	16.81	12,000
	June 3, 1949	23.08	21,000		June 8, 1957	18.74	14,300
	June 14, 1949	16.05	10,100				
	June 23, 1949	18.21	12,700	1958	Oct. 23, 1957	16.87	12,100
	June 28, 1949	21.30	17,100		July 12, 1958	25.12	24,800
	July 7, 1949	24.80	27,500		July 17, 1958	17.62	12,800
	Sept.12, 1949	22.9	20,600		Aug. 1, 1958	29.14	41,500
1950	Oct. 21, 1949	20.57	16,400	1959	May 5, 1959	19.23	14,400
	July 18, 1950	24.9	28,000		July 4, 1959	20.51	15,700
	Aug. 13, 1950	18.65	13,200				
				1960	Oct. 23, 1959	16.56	11,800
1951	Mar. 3, 1951	16.6	10,500		Mar. 28, 1960	24.73	23,700
	May 1, 1951	27.19	44,500		Aug. 18, 1960	15.21	10,400
	May 19, 1951	17.66	11,800				
	June 21, 1951	b32.08	94,600	1961	Mar. 13, 1961	17.49	12,700
	June 26, 1951	22.0	19,100		May 7, 1961	14.95	10,200
	June 29, 1951	22.8	21,100		Sept.13, 1961	20.55	15,800
	July 6, 1951	22.6	20,600				
	July 12, 1951	25.45	32,800	1962	Oct. 11, 1961	19.02	14,200
	July 18, 1951	17.25	11,200		Oct. 30, 1961	21.55	17,000
	Sept. 5, 1951	24.3	26,500		Nov. 16, 1961	16.77	12,000
					May 29, 1962	18.23	13,400
1952	Mar. 10, 1952	18.37	14,800		June 4, 1962	14.95	10,200
	Apr. 23, 1952	16.02	11,800				
1953	Apr. 1, 1953	4.61	1,220				

b From Floodmark.

8908. Slough Creek near Oskaloosa, Kans.

Location.--Lat 39°13'25", long 95°20'12", in SW¼NE¼ sec.31, T.9 S., R.19 E., on left bank at downstream side of bridge on State Highway K92, 1.3 miles northwest of Oskaloosa, and 5.8 miles east of Ozawkie.

Drainage area.--29 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs and by contracted-opening measurement at 11,900 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 8, 1957	14.62	4,100	1961	Aug. 1, 1961	12.79	2,800
1958	Oct. 23, 1957	14.84	4,300	1962	Oct. 12, 1961	22.31	11,900
1959	Oct. 7, 1958	12.01	2,200				
1960	Aug. 17, 1960	13.65	3,300				

8910. Kansas River at Lecompton, Kans.

Location.--Lat 39°02'57", long 95°23'31", in NE¼SE¼ sec.34, T.11 S., R.18 E., at downstream side of highway bridge at Lecompton, 0.6 mile downstream from Delaware River, and at mile 64.7.

Drainage area.--58,420 sq mi, approximately, of which about 52,720 sq mi contributes directly to surface runoff; about 57,280 sq mi prior to 1914.

Gage.--Nonrecording Mar. 16, 1936, to July 30, 1952; recording thereafter. Datum of gage is 821.84 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 120,000 cfs and by slope-area measurement at 483,000 cfs.

Bankfull stage.--17 ft (U.S. Weather Bureau).

Historical data.--Flood of 1844 was greatest known and that of August 1858 was 4 ft higher than 1877 in Lawrence, according to Lawrence Republican Journal of May 22, 1877.

Flood of May 22, 1877, was 7½ ft lower than that of 1903, according to comparative readings at flume wall in Lawrence.

Annual floods of 1891-99 at Lawrence are based on periodic stage readings by J. D. Bowersock at datum then in use and on stage-discharge relation defined by current-meter measurements below 61,000 cfs.

Floods of 1902-4 are from floodmarks and readings at present site and datum; that of 1903 is the highest from 1845 to 1950.

Floods of 1908, 1915, 1919, 1929-32 are based on stage reading of U.S. Weather Bureau gage at Lawrence, at datum of 799.1 ft above mean sea level, and on stage-discharge relation developed from subsequent concurrent stages at Lecompton.

Flood of June 6, 1935, from floodmark by U.S. Weather Bureau at present site and datum.

Remarks.--Only annual peaks are listed prior to 1936. Records at Lawrence and at Lecompton since 1914 are equivalent. Delaware River entered Kansas River below Lecompton gage site prior to 1914. Storage from reservoirs upstream placed in operation since 1946 appreciably reduced only the higher floods of 1951 but may have a significant effect in future years. Base for partial-duration series, 30,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)
1891	June 1, 1891	-	36,000
1892	May 17, 1892	-	62,000
1893	July 3, 1893	-	22,000
1894	June 25, 1894	-	30,000
1895	Aug. 21, 1895	-	29,000
1896	July 20, 1896	-	54,000
1897	Apr. 26, 1897	-	61,000
1898	June 10, 1898	-	30,000
1899	July 8, 1899	-	38,000
1900	Mar. 10, 1900	-	26,000
1901	Apr. 15, 1901	-	25,000
1902	July 15, 1902	-	81,400
1903	May 31, 1903	27.9	320,000
1904	July 7, 1904	20.8	130,000
1908	June 9, 1908	a25.3	230,000
1915	June 20, 1915	a21.0	110,000
1919	Mar. 17, 1919	a18.6	78,000
1929	Apr. 21, 1929	a19.0	78,000
1930	May 8, 1930	a18.5	70,000
1931	Sept. 2, 1931	a14.3	35,000
1932	Nov. 24, 1931	a15.3	41,000
1935	June 6, 1935	22.7	144,000
1936	May 2, 1936	10.9	b30,000
1937	July 13, 1937	8.78	19,200
1938	May 5, 1938	11.8	33,400
	May 19, 1938	14.54	52,200
1938	June 25, 1938	11.4	31,100
1939	Apr. 15, 1939	12.1	31,800
	June 26, 1939	12.25	32,400
1940	June 21, 1940	7.24	10,800
1941	June 13, 1941	20.98	103,000
	Sept.20, 1941	11.58	30,500
1942	Oct. 11, 1941	21.8	114,000
	Oct. 21, 1941	20.8	99,800
	Nov. 1, 1941	12.0	32,700
	May 13, 1942	12.5	36,200
	June 21, 1942	19.51	86,100
	June 25, 1942	14.3	45,800
	Sept. 7, 1942	14.6	47,700
1943	Dec. 27, 1942	11.6	31,200
	Feb. 4, 1943	11.5	30,200
	June 11, 1943	21.6	118,000
	June 17, 1943	22.68	144,000
1944	Apr. 11, 1944	12.8	43,800
	Apr. 24, 1944	22.1	129,000
	Apr. 27, 1944	18.6	82,400
	May 4, 1944	20.38	99,400
	June 7, 1944	10.6	31,000
	June 16, 1944	10.8	32,100
	July 27, 1944	11.2	34,300
	Aug. 27, 1944	19.8	93,400
	Aug. 31, 1944	14.2	52,300
1945	Dec. 5, 1944	16.8	68,900
	Mar. 25, 1945	11.3	31,600
	Apr. 17, 1945	22.54	139,000
	Apr. 26, 1945	11.8	34,200

a At Lawrence.
b Maximum Mar. 16 to Sept. 30; probably maximum for year.

Peak stages and discharges of Kansas River at Lecompton, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	May 17, 1945	17.93	80,800	1951	Aug. 26, 1951	11.23	31,000
	May 25, 1945	19.3	93,400		Sept. 5, 1951	21.16	123,000
	May 27, 1945	17.2	74,600		Sept.14, 1951	16.01	62,400
	June 7, 1945	12.0	35,300				
	June 10, 1945	11.8	34,200	1952	Mar. 11, 1952	11.2	30,100
	June 17, 1945	19.91	99,700		Apr. 15, 1952	12.15	35,000
	July 1, 1945	18.32	84,300		Apr. 23, 1952	15.25	56,300
	July 11, 1945	10.6	30,000				
	July 19, 1945	13.4	44,600	1953	May 31, 1953	8.55	17,700
	July 27, 1945	13.4	44,600				
				1954	June 3, 1954	11.58	32,000
1946	July 19, 1946	13.3	40,000		June 12, 1954	13.09	40,700
	Sept. 5, 1946	11.0	30,000		Aug. 27, 1954	11.20	30,100
1947	Apr. 5, 1947	12.0	32,700	1955	Feb. 19, 1955	7.47	13,600
	Apr. 11, 1947	17.3	75,400				
	June 8, 1947	14.9	54,900	1956	July 6, 1956	9.00	19,500
	June 15, 1947	15.0	55,700				
	June 27, 1947	17.60	77,200	1957	May 25, 1957	11.50	31,800
					June 22, 1957	13.68	44,900
1948	Mar. 2, 1948	11.80	32,200		June 30, 1957	12.73	39,200
	Mar. 20, 1948	15.99	58,500		July 2, 1957	12.52	37,900
	June 24, 1948	12.4	37,600		July 10, 1957	12.61	38,500
	July 21, 1948	17.62	71,500				
	Aug. 5, 1948	11.4	31,600	1958	July 13, 1958	15.10	52,800
					July 18, 1958	16.45	63,600
1949	Jan. 16, 1949	11.47	30,200		July 28, 1958	12.16	33,500
	Jan. 24, 1949	c17.83	40,000		Aug. 2, 1958	14.71	50,000
	Feb. 13, 1949	c14.0	32,000		Sept. 8, 1958	15.00	52,000
	Feb. 19, 1949	15.7	56,400				
	Feb. 24, 1949	12.5	37,100	1959	Oct. 8, 1958	13.23	39,600
	Mar. 9, 1949	11.25	30,700		May 8, 1959	13.82	43,700
	June 3, 1949	13.65	41,600		May 11, 1959	12.94	37,600
	June 12, 1949	13.8	42,800		June 1, 1959	12.54	35,200
	June 14, 1949	16.3	59,200		July 7, 1959	12.32	33,900
	June 29, 1949	15.97	58,500				
	July 7, 1949	13.41	38,200	1960	Oct. 5, 1959	12.78	34,900
					Mar. 29, 1960	19.70	95,500
1950	May 11, 1950	13.51	41,100		Apr. 15, 1960	11.48	35,500
	July 13, 1950	18.4	78,500				
	July 19, 1950	21.9	125,000	1961	May 8, 1961	13.90	45,400
	July 26, 1950	13.3	43,900		May 23, 1961	18.05	80,900
	Aug. 14, 1950	13.4	45,300		Sept.13, 1961	12.97	40,600
	Aug. 24, 1950	12.0	35,300				
				1962	Oct. 11, 1961	13.90	45,400
1951	Oct. 5, 1950	15.67	57,600		Oct. 13, 1961	13.01	40,800
	May 2, 1951	21.00	120,000		Oct. 30, 1961	13.33	42,400
	May 20, 1951	14.50	51,300		Nov. 3, 1961	11.55	33,600
	June 10, 1951	18.55	86,600		Jan. 31, 1962	22.22	-
	June 16, 1951	17.22	72,700		Mar. 21, 1962	11.54	33,500
	June 23, 1951	24.35	199,000		Mar. 27, 1962	11.89	35,200
	June 30, 1951	23.51	173,000		May 30, 1962	16.14	60,100
	July 6, 1951	18.50	86,000		June 4, 1962	14.32	47,900
	July 13, 1951	30.23	483,000		Sept.24, 1962	11.08	31,200
	Aug. 17, 1951	11.03	30,500				

c Backwater from ice.

8915. Wakarusa River near Lawrence, Kans.

Location.--Lat 38°54'40", long 95°15'37", in NW¼ sec.24, T.13 S., R.19 E., at downstream side of bridge on U.S. Highway 59, 4 miles south of Lawrence, and at mile 13.3.

Drainage area.--458 sq mi.

Gage.--Nonrecording prior to May 7, 1959; recording thereafter. Datum of gage is 799.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs and extended to 24,200 cfs by logarithmic plotting.

Historical data.--Flood of July 12, 1951, was greatest since at least 1880 according to information by local resident.

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

Peak stages and discharges of Wakarusa River near Lawrence, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)
1921	1921	a29.7	b16,000
1929	Nov. 17, 1928	a29.7	b16,000
1930	June 20, 1930	11.38	1,220
1931	June 16, 1931	10.90	1,100
1932	Nov. 15, 1931	18.60	4,380
	Nov. 18, 1931	21.00	5,580
	Nov. 24, 1931	27.82	10,500
	July 5, 1932	18.80	4,470
1933	Apr. 22, 1933	16.80	3,000
	May 21, 1933	17.20	3,150
1934	May 14, 1934	18.03	2,470
1935	May 14, 1935	15.60	3,220
	May 19, 1935	25.4	8,770
	May 27, 1935	29.36	14,100
	June 2, 1935	27.10	9,940
	June 11, 1935	17.90	4,240
1936	May 12, 1936	16.50	3,590
1937	Feb. 8, 1937	21.68	6,220
1938	May 19, 1938	16.50	3,510
	May 23, 1938	15.00	3,090
1939	June 20, 1939	18.81	3,240
1940	May 18, 1940	23.00	6,300
1941	June 10, 1941	16.00	2,490
1942	Oct. 21, 1941	27.00	9,540
	Nov. 1, 1941	24.35	6,690
	Apr. 6, 1942	24.00	6,410
	May 12, 1942	22.33	5,860
1943	Oct. 4, 1942	19.00	3,300
	Dec. 27, 1942	25.00	7,280
	May 17, 1943	21.60	4,730
	June 11, 1943	22.70	5,460
	June 17, 1943	29.05	13,200
1944	Mar. 16, 1944	28.10	11,400
	Apr. 11, 1944	28.40	11,900
	Apr. 23, 1944	30.00	18,500
	Apr. 27, 1944	21.75	4,830
1945	Dec. 5, 1944	29.45	15,600
	Mar. 25, 1945	28.80	13,000
	Apr. 11, 1945	20.25	3,920
	Apr. 16, 1945	29.70	16,800
	Apr. 26, 1945	20.80	3,830
	May 2, 1945	19.40	3,120
	May 25, 1945	29.00	13,600
	June 7, 1945	20.60	3,720
	July 1, 1945	29.65	16,000
	July 9, 1945	21.85	4,450
	July 13, 1945	27.90	11,000
1946	May 10, 1946	23.50	5,520
	May 18, 1946	21.20	4,060
	June 20, 1946	28.80	13,400
	Aug. 14, 1946	24.40	5,010
1947	Mar. 13, 1947	28.13	11,500
	Apr. 5, 1947	28.16	11,600
	Apr. 11, 1947	27.50	10,000
	Apr. 13, 1947	19.60	3,200
1948	May 3, 1948	24.40	5,520
	July 21, 1948	25.96	6,680
	Aug. 4, 1948	22.50	4,420
1949	Jan. 24, 1949	25.50	7,010
	Feb. 12, 1949	c25.80	3,700
	Feb. 18, 1949	c25.00	3,500
	July 7, 1949	28.35	12,100
1950	June 3, 1950	22.60	5,000
	June 9, 1950	19.30	3,200
	July 10, 1950	19.70	3,250
	July 13, 1950	25.50	7,010
	July 19, 1950	28.4	12,200
	Aug. 8, 1950	20.0	3,400
	Aug. 14, 1950	25.80	7,270
1951	May 2, 1951	23.3	5,730
	June 7, 1951	22.4	5,220
	June 24, 1951	21.2	4,560
	June 26, 1951	29.4	15,400
	July 7, 1951	22.0	5,000
	July 12, 1951	31.59	24,200
	Sept. 5, 1951	25.84	7,410
1952	Mar. 10, 1952	23.25	5,700
	Apr. 23, 1952	21.14	4,520
1953	May 27, 1953	11.65	1,000
1954	June 3, 1954	16.7	2,540
1955	July 6, 1955	24.0	4,950
1956	May 7, 1956	16.5	2,550
1957	May 17, 1957	23.0	4,750
	June 8, 1957	22.2	4,300
	July 11, 1957	29.76	12,300
1958	July 11, 1958	25.8	6,370
	July 17, 1958	25.4	6,090
	July 20, 1958	24.9	5,750
1959	Oct. 8, 1958	25.50	6,200
	Nov. 18, 1958	27.9	8,000
1960	Oct. 23, 1959	21.37	3,060
	Mar. 27, 1960	26.25	7,100
	Apr. 14, 1960	20.10	3,840
1961	Mar. 27, 1961	27.32	7,960
	Apr. 9, 1961	24.49	5,940
	May 6, 1961	27.30	7,940
	May 23, 1961	27.56	8,160
	Sept. 13, 1961	28.29	8,950
1962	Oct. 11, 1961	22.42	4,450
	Nov. 2, 1961	28.12	8,720
	Nov. 16, 1961	21.19	3,800
	Feb. 1, 1962	20.58	3,530
	Mar. 21, 1962	22.93	4,760
	Sept. 25, 1962	19.57	3,130

a From information by Kansas Highway Commission.
b Annual peak only.
c Backwater from ice.

8920. Stranger Creek near Tonganoxie, Kans.

Location.--Lat 39°06'59", long 95°00'39", on north line, sec.7, T.11 S., R.22 E., at bridge on U.S. Highway 40, 2.0 miles upstream from Tonganoxie Creek, 4 miles east of Tonganoxie, and at mile 18.4.

Drainage area.--406 sq mi.

Gage.--Nonrecording prior to June 2, 1939; recording thereafter. At site 1.3 miles downstream at datum 5.00 ft lower prior to June 2, 1960. Datum of gage is 801.95 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and by contracted-opening measurement at 33,100 cfs.

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)
1929	Apr. 21, 1929	27.31	a15,300	1946	June 29, 1946	21.99	2,650
1930	Apr. 17, 1930	21.5	2,920	1947	Mar. 13, 1947	23.0	3,200
	May 9, 1930	22.15	3,250		Apr. 5, 1947	25.00	5,500
					June 21, 1947	24.75	5,170
1931	Aug. 5, 1931	20.96	2,200		June 25, 1947	25.47	6,500
1932	Nov. 17, 1931	24.7	4,690	1948	Dec. 4, 1947	23.18	3,280
	Nov. 24, 1931	26.36	8,700		Mar. 19, 1948	22.33	2,850
	Jan. 2, 1932	21.9	2,670		July 22, 1948	22.36	2,850
	Apr. 24, 1932	22.4	2,860				
				1949	Feb. 26, 1949	24.43	4,660
1933	May 18, 1933	21.48	2,540		Mar. 31, 1949	21.47	2,720
					May 1, 1949	24.23	4,420
1934	Sept.28, 1934	11.55	618		June 15, 1949	21.19	2,620
					June 25, 1949	23.40	3,690
1935	May 20, 1935	23.20	3,860		July 8, 1949	b25.51	5,500
	May 29, 1935	25.85	7,050		July 14, 1949	23.3	3,610
	June 4, 1935	23.85	4,280		Sept.15, 1949	23.30	3,690
	June 13, 1935	24.4	4,800				
	Sept.17, 1935	23.6	3,960	1950	Oct. 23, 1949	22.35	3,070
					May 19, 1950	25.79	7,300
1936	Oct. 14, 1935	26.0	7,460		May 22, 1950	23.06	3,470
	Nov. 27, 1935	22.65	3,300		May 26, 1950	23.13	3,470
	May 3, 1936	20.8	2,740		June 3, 1950	23.82	4,010
					July 21, 1950	25.64	6,800
1937	Feb. 8, 1937	22.00	2,700				
				1951	May 3, 1951	24.41	3,650
1938	Aug. 23, 1938	22.25	3,340		June 24, 1951	25.55	11,300
					June 28, 1951	26.67	12,000
1939	Mar. 13, 1939	22.60	2,950		July 8, 1951	25.75	7,200
	Apr. 16, 1939	25.30	5,880		July 12, 1951	23.94	33,100
	June 21, 1939	22.57	2,700		Aug. 26, 1951	23.00	3,000
					Aug. 30, 1951	22.10	2,680
1940	June 20, 1940	23.95	3,330		Sept. 6, 1951	26.88	13,300
1941	June 11, 1941	25.35	6,300	1952	Mar. 12, 1952	24.35	3,610
	June 28, 1941	23.45	2,740		Apr. 22, 1952	21.88	2,620
					June 22, 1952	23.08	3,030
1942	Oct. 10, 1941	27.70	18,900				
	Oct. 21, 1941	24.10	3,200	1953	May 27, 1953	17.18	1,200
	Nov. 2, 1941	23.95	3,110				
	June 19, 1942	25.46	5,880	1954	Aug. 3, 1954	19.86	2,020
	Aug. 26, 1942	22.88	3,100				
				1955	Feb. 21, 1955	23.63	3,250
1943	Dec. 28, 1942	22.34	2,800				
	June 10, 1943	26.43	9,440	1956	May 30, 1956	19.47	2,170
	June 17, 1943	26.50	9,900				
	Aug. 1, 1943	24.65	4,870	1957	June 9, 1957	22.77	2,940
					June 30, 1957	25.85	5,270
1944	Mar. 15, 1944	23.18	3,280				
	Apr. 12, 1944	22.76	3,070	1958	May 6, 1958	24.45	4,070
	Apr. 23, 1944	26.70	11,000		June 15, 1958	23.62	3,610
	Apr. 28, 1944	24.10	4,240		June 25, 1958	21.87	2,850
					July 13, 1958	27.68	10,000
1945	Dec. 5, 1944	27.40	15,500		July 17, 1958	23.70	3,650
	Mar. 26, 1945	24.09	4,240		Aug. 1, 1958	29.46	19,100
	Apr. 16, 1945	27.23	14,000				
	May 18, 1945	23.73	3,830	1959	Nov. 17, 1958	25.68	4,120
	June 9, 1945	23.94	4,030		Mar. 26, 1959	23.43	3,070
	June 18, 1945	24.88	5,330		July 6, 1959	21.10	2,490
	July 2, 1945	23.69	3,830				
				1960	Oct. 5, 1959	23.35	3,380
1946	June 19, 1946	22.08	2,700		Mar. 29, 1960	26.71	9,540

a Annual peak only.
b Occurred on July 7, 1949.

Peak stages and discharges of Stranger Creek near Tonganoxie, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 15, 1961	22.40	3,720	1962	Oct. 13, 1961	28.70	20,600
	Mar. 27, 1961	24.39	5,690		Nov. 3, 1961	24.80	6,960
	May 8, 1961	23.78	5,080		Nov. 18, 1961	23.00	4,000
	June 15, 1961	20.69	2,730		Feb. 5, 1962	22.98	3,980
	July 26, 1961	22.34	3,670		May 30, 1962	24.38	6,040
	Aug. 2, 1961	21.74	3,240		July 21, 1962	21.00	2,760
	Sept.14, 1961	25.51	7,820				

8925. Kansas River at Bonner Springs, Kans.

Location.--Lat 39°03'37", long 94°52'21", SE¼SE¼ sec.29, T.11 S., R.23 E., on left bank at downstream side of bridge on State Highway 7, 0.6 mile east of Bonner Springs, 0.9 mile downstream from Wolf Creek, and at mile 20.3.

Drainage area.--59,890 sq mi, of which about 54,190 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 24, 1934; recording thereafter. At site 0.5 mile upstream at datum 6.00 ft higher prior to Nov. 26, 1961. Datum of gage is 741.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 230,000 cfs and by slope-area measurement at 510,000 cfs.

Bankfull stage.--21 ft (U.S. Weather Bureau).

Historical data.--Flood of June 1, 1903, reached a stage of about 39.5 ft, from information by Corps of Engineers. Flood of June 11, 1908, was "worse than 1904 flood--. Water was within 7 feet of the high-water mark of 1903" according to the Bonner Springs Chieftan, June 11, 1908. Gage height shown for June 11, 1908, determined from information at bridge 2,300 ft upstream from gage, furnished by Atchison, Topeka and Santa Fe Railway Co. Gage heights for floods of June 21, 1915, and June 3, 1917, determined from observations at Atchison, Topeka and Santa Fe Railway Co. bridge, furnished by Fred Schneider, Sr.

Remarks.--Storage from reservoirs upstream placed in operation since 1946 appreciably reduced only the higher floods of 1951 but may have a significant effect in future years. Only annual peaks are shown prior to 1924. Base for partial-duration series, 40,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	June 1, 1903	39.5	a337,000	1929	Nov. 19, 1928	17.4	63,300
					Apr. 21, 1929	22.2	110,000
1908	June 11, 1908	28.6	-		May 14, 1929	14.2	41,100
					June 3, 1929	18.7	73,700
1915	June 21, 1915	23.8	-		June 23, 1929	15.0	46,100
1917	June 3, 1917	18.8	76,000	1930	May 9, 1930	18.4	72,200
1918	May 30, 1918	15.35	48,600		June 7, 1930	14.5	44,200
1919	Mar. 17, 1919	22.2	109,000		June 17, 1930	13.6	41,100
1920	July 14, 1920	11.84	27,400				
				1931	Sept. 2, 1931	13.18	38,800
1921	May 11, 1921	19.0	76,500				
1922	Apr. 10, 1922	17.80	66,400	1932	Nov. 18, 1931	15.18	50,500
1923	June 11, 1923	20.3	88,600		Nov. 24, 1931	17.22	63,600
1924	Oct. 4, 1923	9.60	16,800	1933	Aug. 27, 1933	8.78	16,300
1925	June 6, 1925	14.4	42,300	1934	June 26, 1934	7.18	10,200
	June 19, 1925	18.3	70,700				
				1935	May 29, 1935	21.05	98,200
1926	Sept.18, 1926	13.82	39,200		June 6, 1935	23.05	122,000
					June 11, 1935	16.16	55,300
1927	Oct. 5, 1926	14.8	45,000				
	Apr. 2, 1927	15.6	51,300	1936	May 2, 1936	10.96	25,600
	Apr. 16, 1927	17.6	66,000				
	Apr. 20, 1927	20.85	92,700	1937	Feb. 8, 1937	11.64	28,400
	June 18, 1927	16.5	57,800				
	Aug. 15, 1927	16.0	54,200	1938	May 20, 1938	14.98	49,700
1928	Oct. 3, 1927	13.37	38,100	1939	Apr. 16, 1939	12.62	33,100

a Site and datum of 1962.

Peak stages and discharges of Kansas River at Bonner Springs, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	May 18, 1940	8.20	14,300	1950	May 11, 1950	11.98	40,600
					June 3, 1950	12.37	43,100
1941	June 14, 1941	20.20	101,000		July 13, 1950	16.62	74,900
					July 20, 1950	20.90	118,000
1942	Oct. 11, 1941	21.60	115,000		July 27, 1950	12.82	45,800
	Oct. 22, 1941	20.86	108,000		Aug. 15, 1950	15.56	66,300
	Nov. 1, 1941	13.82	45,400				
	May 13, 1942	13.22	44,900	1951	Oct. 5, 1950	14.40	60,100
	June 21, 1942	19.7	96,200		May 2, 1951	19.16	105,000
	Sept. 8, 1942	14.53	50,700		May 20, 1951	13.50	52,800
					June 10, 1951	17.00	84,000
1943	June 12, 1943	21.80	112,000		June 16, 1951	16.00	74,000
	June 18, 1943	25.23	147,000		June 24, 1951	25.30	176,000
	June 23, 1943	13.15	41,000		July 7, 1951	19.45	108,000
	Aug. 1, 1943	9.60	21,400		July 13, 1951	38.58	510,000
					Aug. 27, 1951	11.93	45,000
1944	Mar. 16, 1944	12.68	40,200		Sept. 6, 1951	22.20	148,000
	Apr. 11, 1944	15.65	59,800		Sept.15, 1951	15.33	74,300
	Apr. 24, 1944	24.35	144,000				
	Apr. 27, 1944	19.55	96,800	1952	Mar. 11, 1952	11.93	44,600
	May 5, 1944	20.64	107,000		Apr. 24, 1952	14.42	63,400
	Aug. 28, 1944	19.10	96,800				
	Aug. 31, 1944	14.02	50,700	1953	May 31, 1953	6.86	17,800
1945	Dec. 5, 1944	18.40	86,400	1954	June 13, 1954	10.64	35,800
	Mar. 25, 1945	12.62	41,500				
	Apr. 18, 1945	23.90	139,000	1955	July 7, 1955	6.95	17,000
	Apr. 26, 1945	12.87	43,100				
	May 17, 1945	19.25	94,000	1956	July 7, 1956	6.82	16,500
	May 25, 1945	20.45	105,000				
	May 28, 1945	18.08	83,500	1957	June 22, 1957	11.95	41,200
	June 8, 1945	14.78	56,400		June 30, 1957	14.66	60,300
	June 10, 1945	12.68	42,000		July 11, 1957	11.77	40,100
	June 17, 1945	19.62	97,400				
	July 1, 1945	19.40	95,400	1958	July 13, 1958	13.75	61,000
	July 20, 1945	12.85	43,100		July 19, 1958	14.70	68,600
	July 28, 1945	12.40	40,400		July 31, 1958	14.00	63,000
					Aug. 2, 1958	14.15	64,200
1946	July 19, 1946	12.47	38,700		Sept. 9, 1958	12.42	50,400
1947	Apr. 5, 1947	13.82	47,800	1959	May 9, 1959	10.73	44,800
	Apr. 12, 1947	17.00	72,700		June 1, 1959	10.13	40,000
	June 8, 1947	14.20	52,900				
	June 16, 1947	13.58	48,600	1960	Oct. 6, 1959	10.32	41,400
	June 23, 1947	17.75	81,900		Mar. 30, 1960	18.00	103,000
					Apr. 14, 1960	9.85	40,100
1948	Mar. 20, 1948	15.39	62,600				
	July 22, 1948	17.71	80,100	1961	Mar. 28, 1961	14.70	40,900
					May 6, 1961	16.27	52,200
1949	Feb. 12, 1949	13.00	43,300		May 24, 1961	20.30	91,300
	Feb. 19, 1949	14.96	58,000		Sept.14, 1961	16.75	56,000
	Feb. 25, 1949	12.30	40,700				
	June 4, 1949	12.75	42,700	1962	Oct. 12, 1961	16.28	52,200
	June 14, 1949	14.80	60,200		Nov. 2, 1961	16.13	51,000
	June 29, 1949	14.82	55,000		May 30, 1962	17.57	69,400
	July 7, 1949	15.53	60,100		June 5, 1962	15.48	52,600

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 prior to May 4, 1931, and May 16, 1947, to Feb. 28, 1948; recording 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	1946	June 20, 1946	15.75	123,000
				1947	June 25, 1947	27.01	-
1903	June 2, 1903	34.95	548,000		June 27, 1947	-	261,000
				1948	Mar. 21, 1948	21.25	208,000
1929	June 5, 1929	23.4	254,000	1949	Mar. 8, 1949	20.4	195,000
1930	May 9, 1930	16.7	149,000	1950	July 21, 1950	20.70	198,000
1931	June 24, 1931	12.0	64,000	1951	July 14, 1951	36.2	573,000
1932	June 21, 1932	20.90	178,000	1952	Apr. 24, 1952	30.63	400,000
1933	May 31, 1933	14.7	109,000	1953	May 8, 1953	-	128,000
1934	Mar. 7, 1934	13.45	87,100		June 29, 1953	14.98	-
1935	June 6, 1935	23.80	230,000	1954	June 23, 1954	16.03	122,000
				1955	June 25, 1955	15.15	111,000
1936	Mar. 12, 1936	16.30	117,000				
1937	June 30, 1937	15.55	102,000	1956	July 4, 1956	11.55	71,300
1938	July 19, 1938	19.30	137,000	1957	June 19, 1957	17.05	143,000
1939	Apr. 10, 1939	17.40	135,000	1958	July 31, 1958	20.80	193,000
1940	June 21, 1940	13.25	68,100	1959	May 31, 1959	16.74	155,000
				1960	Apr. 4, 1960	22.95	251,000
1941	June 13, 1941	24.66	215,000				
1942	June 22, 1942	24.25	206,000	1961	Sept.14, 1961	18.35	178,000
1943	June 18, 1943	29.1	366,000	1962	May 30, 1962	18.30	182,000
1944	Apr. 24, 1944	27.67	311,000				
1945	June 18, 1945	25.30	242,000				

BLUE RIVER BASIN

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.

Gage.--Nonrecording prior to July 1, 1939; recording 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 of Blue River near Kansas City, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 25, 1939	21.52	a8,140	1950	Aug. 27, 1950	20.93	7,180
1940	Apr. 27, 1940	17.66	5,990	1951	June 26, 1951	21.20	7,350
	May 18, 1940	18.20	6,250		June 29, 1951	19.80	6,580
	June 23, 1940	19.58	7,000		July 6, 1951	21.90	7,740
					July 11, 1951	38.30	31,100
1941	Apr. 4, 1941	18.65	6,460		Sept. 4, 1951	19.1	6,200
					Sept. 9, 1951	20.20	6,800
1942	Oct. 31, 1941	19.15	6,730				
	June 19, 1942	20.10	7,280	1952	Mar. 10, 1952	23.00	8,380
	July 25, 1942	21.2	7,890				
				1953	Apr. 30, 1953	9.48	1,760
1943	June 10, 1943	17.06	5,650				
				1954	Aug. 2, 1954	16.27	4,750
1944	Apr. 23, 1944	35.88	26,400				
	May 21, 1944	19.80	7,010	1955	Oct. 20, 1954	19.38	6,360
					May 28, 1955	26.33	8,560
1945	Mar. 24, 1945	17.89	6,000				
	Apr. 16, 1945	26.3	11,100	1956	Oct. 5, 1955	13.04	1,270
	May 16, 1945	22.40	8,460				
	June 30, 1945	22.90	8,740	1957	May 16, 1957	20.37	6,710
					June 30, 1957	29.65	14,300
1946	May 10, 1946	21.36	7,890				
				1958	July 17, 1958	23.16	9,180
1947	Mar. 13, 1947	21.15	7,780		July 20, 1958	19.00	6,160
	Apr. 3, 1947	20.9	7,620		July 25, 1958	19.70	6,640
	Apr. 5, 1947	27.35	12,100		July 31, 1958	37.80	21,700
	Apr. 10, 1947	20.00	7,120		Aug. 16, 1958	21.50	7,900
	June 21, 1947	21.80	8,120				
	June 23, 1947	28.98	14,100	1959	Apr. 27, 1959	17.36	5,120
1948	Mar. 19, 1948	22.32	7,970	1960	Apr. 16, 1960	21.59	7,980
	July 22, 1948	22.26	7,970		Apr. 30, 1960	21.54	7,900
	July 26, 1948	24.88	9,540				
				1961	May 6, 1961	26.49	8,200
1949	May 21, 1949	20.93	7,180		July 6, 1961	26.40	7,780
	June 6, 1949	23.74	8,800		Sept.13, 1961	44.46	41,000
	June 7, 1949	19.10	6,200		Sept.24, 1961	25.92	7,430
1950	Oct. 21, 1949	30.85	16,400	1962	Nov. 2, 1961	28.19	9,140
	July 12, 1950	19.13	6,200		Nov. 16, 1961	25.38	7,090

a Annual peak only.

LITTLE BLUE RIVER BASIN

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.

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

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

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	1951	June 30, 1951	19.9	2,200
	July 26, 1948	22.6	3,200		July 6, 1951	19.4	2,060
					July 11, 1951	26.1	6,400
1949	Jan. 16, 1949	19.4	2,060		Sept. 4, 1951	21.0	2,560
	Feb. 12, 1949	19.9	2,200				
	Mar. 31, 1949	19.4	2,060	1952	Oct. 6, 1951	19.4	2,060
	May 22, 1949	21.7	2,800		Mar. 10, 1952	23.2	3,690
	July 12, 1949	19.5	2,080				
	Sept.13, 1949	20.7	2,450	1953	Apr. 30, 1953	19.73	2,140
1950	Oct. 22, 1949	24.7	5,580	1954	Mar. 3, 1954	21.60	2,820

Peak stages and discharges of Little Blue River near Lake City, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 29, 1955	23.65	4,000	1961	Mar. 13, 1961	22.08	2,780
					Apr. 10, 1961	21.28	2,730
1956	July 2, 1956	11.0	408		May 6, 1961	24.30	4,740
					July 25, 1961	21.98	2,950
1957	July 1, 1957	18.16	1,680		Sept. 4, 1961	20.36	2,220
					Sept.14, 1961	27.94	9,460
1958	Aug. 1, 1958	24.02	4,350		Sept.25, 1961	23.62	4,100
1959	Apr. 28, 1959	16.27	1,290	1962	Oct. 31, 1961	21.00	2,460
					Nov. 3, 1961	24.18	4,640
1960	May 1, 1960	21.14	2,600				

FISHING RIVER BASIN

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 6¾ miles upstream from mouth.

Drainage area.--20.0 sq mi.

Gage.--Recording. Datum of gage is 758 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by slope-area measurement at 23,100 cfs.

Bankfull stage.--8 ft.

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.

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	1958	June 14, 1958	6.34	768
	June 28, 1951	9.20	2,780		July 11, 1958	10.95	6,370
	July 6, 1951	15.3	23,100		July 15, 1958	7.95	1,360
	July 8, 1951	9.00	1,620		July 30, 1958	8.70	2,020
	July 11, 1951	8.40	1,080				
	Aug. 9, 1951	10.90	5,710	1959	Oct. 7, 1958	8.40	1,730
	Aug. 28, 1951	12.00	9,880		Nov. 17, 1958	6.05	535
	Sept. 4, 1951	9.35	2,670		July 8, 1959	7.00	860
1952	Mar. 10, 1952	6.05	670	1960	Oct. 4, 1959	6.51	680
	June 21, 1952	5.80	597		Mar. 27, 1960	8.57	1,920
	Aug. 21, 1952	7.80	1,440		Apr. 29, 1960	7.30	985
					May 6, 1960	6.02	520
1953	Apr. 24, 1953	5.45	500		June 21, 1960	6.03	535
	May 5, 1953	6.28	750		June 30, 1960	8.08	1,480
1954	May 2, 1954	6.60	865	1961	Mar. 26, 1961	8.11	2,100
					May 5, 1961	6.05	704
1955	Feb. 18, 1955	6.30	742		May 7, 1961	9.81	4,480
	Mar. 14, 1955	5.90	620		July 23, 1961	6.72	1,000
	May 12, 1955	6.86	965		July 25, 1961	6.14	715
	June 25, 1955	7.87	1,480		Aug. 1, 1961	8.10	2,100
	Aug. 7, 1955	6.30	760		Sept.13, 1961	12.00	9,600
1956	Oct. 6, 1955	6.65	885	1962	Oct. 12, 1961	6.98	992
	July 4, 1956	8.15	1,710		Oct. 30, 1961	10.28	5,520
	July 13, 1956	10.05	4,210		Nov. 2, 1961	9.35	3,700
					Nov. 15, 1961	7.82	1,800
1957	May 16, 1957	6.10	685		Feb. 4, 1962	6.66	718
					Mar. 20, 1962	6.50	640
1958	Feb. 27, 1958	6.17	700				

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.

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

MISSOURI RIVER MAIN STEM

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 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 of Missouri River at Waverly, Mo.

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	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	-
1934	Mar. 8, 1934	13.6	82,600		Apr. 26, 1952	-	369,000
1935	June 8, 1935	22.02	215,000	1953	May 8, 1953	-	126,000
					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				
1939	Apr. 11, 1939	16.65	133,000	1956	July 5, 1956	14.42	67,500
1940	June 21, 1940	12.55	70,800	1957	June 19, 1957	20.50	142,000
				1958	July 13, 1958	23.10	-
1941	June 14, 1941	20.9	185,000		Aug. 1, 1958	-	184,000
1942	June 27, 1942	21.84	200,000	1959	June 1, 1959	19.60	154,000
1943	June 19, 1943	24.3	310,000	1960	Mar. 31, 1960	-	249,000
1944	Apr. 24, 1944	24.4	347,000		Apr. 4, 1960	25.80	-
1945	Apr. 18, 1945	22.4	240,000				
				1961	Sept.14, 1961	23.40	216,000
1946	June 21, 1946	15.7	116,000	1962	May 31, 1962	-	185,000
1947	June 26, 1947	25.1	273,000		June 29, 1962	21.83	-
1948	Mar. 22, 1948	21.60	215,000				
1949	Mar. 8, 1949	-	187,000				

WAKENDA CREEK BASIN

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.

Gage.--Nonrecording prior to May 21, 1958; recording 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	1952	Nov. 12, 1951	20.20	3,500
	June 23, 1948	20.8	4,190		Mar. 11, 1952	21.10	4,590
					Aug. 22, 1952	20.90	3,460
1949	Jan. 16, 1949	20.8	4,190				
	Feb. 19, 1949	20.3	3,610	1953	May 6, 1953	20.2	2,940
	May 9, 1949	20.2	3,180				
	May 21, 1949	20.1	3,110	1954	Mar. 25, 1954	17.9	1,930
	June 3, 1949	21.6	4,500				
				1955	Feb. 19, 1955	20.10	3,400
1950	June 23, 1950	19.7	3,040		Aug. 7, 1955	22.8	5,000
	July 20, 1950	21.65	5,320				
	Aug. 16, 1950	22.26	6,460	1956	Oct. 5, 1956	19.0	2,330
1951	June 22, 1951	21.0	4,450	1957	May 17, 1957	19.6	3,230
	June 27, 1951	20.56	3,950				
	June 29, 1951	21.52	5,170	1958	Oct. 24, 1957	20.05	3,550
	July 7, 1951	23.4	6,640		Dec. 20, 1957	19.30	3,110
	July 12, 1951	21.5	5,170		Feb. 28, 1958	20.50	3,950
	Aug. 10, 1951	21.1	4,590		June 15, 1958	19.47	3,230
	Aug. 15, 1951	20.32	3,610		July 12, 1958	19.38	3,170
	Aug. 29, 1951	21.2	4,730		July 20, 1958	20.20	3,710
	Sept. 5, 1951	21.2	4,730		July 31, 1958	19.95	3,550

Peak stages and discharges of Wakenda Creek at Carrollton, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 10, 1959	18.46	2,720	1961	Sept.14, 1961	23.07	6,460
					Sept.24, 1961	19.95	3,130
1960	Mar. 29, 1960	22.3	6,460				
	Apr. 30, 1960	21.8	5,630	1962	Oct. 13, 1961	19.95	3,130
	May 7, 1960	22.08	6,120		Oct. 31, 1961	22.60	5,660
	July 2, 1960	22.6	7,000		Nov. 3, 1961	22.25	5,020
					Nov. 17, 1961	22.24	5,020
1961	Mar. 27, 1961	21.27	4,870		Feb. 5, 1962	19.80	3,020
	May 6, 1961	19.53	3,230		Mar. 21, 1962	20.30	3,310
	May 8, 1961	22.27	6,460				

GRAND RIVER BASIN

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.

Gage.--Nonrecording prior to Aug. 6, 1959; nonrecording and supplemental recording gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs and by culvert 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	1959	Sept.22, 1959	17.49	275
				1960	June 5, 1960	17.99	320
1956	June 18, 1956	17.19	248				
1957	Apr. 3, 1957	13.61	30	1961	Sept.3,13,1961	17.18	246
1958	July 19, 1958	18.81	399	1962	Feb. 4, 1962	15.49	138

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.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 550 cfs, by slope-area measurements at 147 and 622 cfs, and by contracted-opening measurement at 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	1960	Oct. 6, 1959	8.47	953
1957	Apr. 3, 1957	5.08	148				
1958	May 3, 1958	11.32	1,630	1961	Mar. 5, 1961	9.69	1,250
1959	Sept.23, 1959	11.6	1,700	1962	May 28, 1962	6.69	528

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1959	May 18, 1959	16.24	250
				1960	June 30, 1960	15.00	160
1956	Apr. 28, 1956	13.46	60				
1957	Apr. 2, 1957	13.46	60	1961	May 5, 1961	18.68	520
	May 16, 1957	13.46	60	1962	May 19, 1962	20.05	720
1958	July 30, 1958	24.20	1,320				

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.

Gage.--Nonrecording prior to June 26, 1934; recording 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.

Bankfull stage.--13 ft.

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

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)
1909	July 6, 1909	23.8	-	1940	July 30, 1940	6.2	1,120
1934	June 23, 1934	4.17	590	1941	June 3, 1941	10.6	2,770
					June 9, 1941	11.00	2,950
1935	May 31, 1935	12.04	3,500				
	June 2, 1935	10.25	2,520	1942	Oct. 9, 1941	6.35	1,190
	June 6, 1935	5.80	1,130		Oct. 31, 1941	7.05	1,400
	June 18, 1935	10.40	2,610		Dec. 23, 1941	5.60	925
					Feb. 15, 1942	5.55	925
1936	Feb. 24, 1936	a9.65	-		Mar. 6, 1942	6.6	1,330
	Feb. 26, 1936	a7.87	860		Mar. 26, 1942	6.6	1,330
	May 23, 1936	5.27	980		June 21, 1942	14.3	5,320
					June 26, 1942	15.9	6,600
1937	Jan. 30, 1937	7.4	1,610				
	Feb. 13, 1937	a12.10	1,460	1943	Oct. 30, 1942	5.70	958
	Feb. 18, 1937	a10.55	1,460		Dec. 26, 1942	7.80	1,680
	Mar. 2, 1937	a10.20	1,400		Feb. 3, 1943	8.70	2,000
	Apr. 29, 1937	6.00	1,090		May 16, 1943	11.23	3,110
					May 19, 1943	5.6	925
1938	Aug. 21, 1938	3.01	210		June 5, 1943	10.0	2,470
					June 8, 1943	6.85	1,330
1939	Mar. 12, 1939	7.70	1,680		June 10, 1943	6.35	1,190
	June 21, 1939	6.00	1,090		June 11, 1943	9.4	2,240
	June 25, 1939	8.6	1,960		June 16, 1943	11.15	3,070
	Aug. 2, 1939	8.86	2,060				
				1944	Mar. 15, 1944	6.2	1,120
1940	May 8, 1940	8.09	1,780		Apr. 22, 1944	11.38	3,210

a Backwater from ice.

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)
1944	May 2, 1944	10.30	2,620	1953	Mar. 31, 1953	5.56	925
	June 9, 1944	9.2	2,170				
				1954	June 1, 1954	6.80	1,330
1945	Apr. 16, 1945	11.80	3,490				
	May 15, 1945	12.70	4,120	1955	Feb. 20, 1955	7.32	1,500
	June 16, 1945	9.60	2,310		June 25, 1955	9.35	2,240
	July 13, 1945	9.70	2,350		July 10, 1955	7.30	1,500
1946	Jan. 5, 1946	13.10	4,400	1956	July 2, 1956	10.97	1,560
	Mar. 16, 1946	7.50	1,580		Aug. 2, 1956	13.48	2,500
	June 19, 1946	7.90	1,720				
	June 30, 1946	16.10	6,770	1957	May 2, 1957	11.18	1,620
	Sept.27, 1946	8.60	1,960				
				1958	July 15, 1958	11.70	1,780
1947	Apr. 5, 1947	9.40	2,240		July 19, 1958	11.70	1,780
	June 6, 1947	17.65	8,120				
	June 13, 1947	11.00	2,970	1959	Oct. 9, 1958	16.28	3,800
	June 21, 1947	12.10	3,700		Nov. 17, 1958	14.60	3,000
	June 23, 1947	13.80	4,920		Mar. 26, 1959	10.08	1,500
					Apr. 20, 1959	13.07	2,660
1948	Mar. 15, 1948	6.60	1,260		May 30, 1959	16.97	5,100
	May 6, 1948	9.56	2,310		Aug. 5, 1959	15.07	3,660
					Sept.23, 1959	12.22	2,280
1949	Feb. 24, 1949	a10.9	b2,000		Sept.26, 1959	11.20	1,890
	Mar. 30, 1949	5.4	859				
				1960	Oct. 5, 1959	11.75	2,280
1950	Feb. 8, 1950	a7.67	-		Mar. 30, 1960	16.54	4,650
	May 9, 1950	6.34	1,160		May 6, 1960	10.86	1,960
	Sept.20, 1950	6.72	1,300		June 5, 1960	10.14	1,680
					June 30, 1960	16.58	4,740
1951	Feb. 19, 1951	5.43	859		July 1, 1960	11.10	2,040
	Mar. 3, 1951	6.11	1,090				
	May 1, 1951	10.92	2,920	1961	Feb. 18, 1961	9.70	1,760
	June 14, 1951	6.13	1,090		Mar. 6, 1961	-	-
	June 22, 1951	7.90	1,720		Apr. 12, 1961	8.95	1,520
	June 27, 1951	8.85	2,030		Sept. 3, 1961	13.30	3,100
	July 6, 1951	5.97	1,060		Sept.13, 1961	18.78	5,700
	July 22, 1951	5.80	991		Sept.30, 1961	11.17	2,300
1952	Nov. 12, 1951	7.07	1,440	1962	Nov. 2, 1961	13.00	2,630
	Mar. 10, 1952	7.65	1,610		Nov. 16, 1961	13.33	2,750
	Mar. 19, 1952	6.60	1,090		Feb. 5, 1962	10.30	1,760
	Apr. 23, 1952	6.52	1,230		Mar. 12, 1962	10.50	1,820
	June 21, 1952	11.0	2,970		June 11, 1962	15.86	3,880
	June 22, 1952	9.5	2,280				

a Backwater from ice.
b Daily discharge.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 50 cfs, by slope-area measurement at 283 cfs, and by contracted-opening measurement at 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	1959	Sept.26, 1959	12.48	3,250
				1960	Aug. 29, 1960	13.26	3,720
1956	Aug. 1, 1956	14.42	4,500				
1957	May 20, 1957	6.99	283	1961	Sept.13, 1961	11.31	2,500
1958	July 19, 1958	9.54	1,470	1962	Nov. 2, 1961	10.76	1,800

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.

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

a Determination by Corps of Engineers; annual peak only.

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)
1959	Nov. 19, 1958	19.75	18,700	1961	Mar. 14, 1961	21.50	22,600
	Mar. 27, 1959	21.4	21,700		Mar. 27, 1961	21.30	22,200
	Apr. 21, 1959	22.15	23,500		Apr. 12, 1961	20.70	21,000
	June 2, 1959	24.32	28,200		Sept. 4, 1961	20.10	19,800
	Sept.24, 1959	20.80	20,500		Sept.15, 1961	29.45	45,200
	Sept.28, 1959	22.20	23,500	1962	Nov. 4, 1961	23.30	27,300
1960	Oct. 7, 1959	22.05	23,000		Nov. 18, 1961	24.25	29,200
	Jan. 14, 1960	20.60	20,100		Feb. 5, 1962	20.70	22,000
	Mar. 31, 1960	30.45	49,300		Mar. 12, 1962	21.60	23,800
	June 6, 1960	21.55	22,900		May 30, 1962	20.35	20,400
	July 2, 1960	24.15	28,600				

8980. Thompson River at Davis City, Iowa

Location.--Lat 40°38'20", long 93°48'30", in SW¼SE¼ sec.35, T.68 N., R.26 W., on right bank 15 ft downstream from bridge on U.S. Highway 69 at Davis City, 5¼ miles upstream from Iowa-Missouri State line, and 9 miles downstream from Elk Creek.

Drainage area.--701 sq mi.

Gage.--Nonrecording prior to Feb. 25, 1942; recording thereafter. Datum of gage is 875.55 ft above mean sea level, unadjusted (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs and by velocity-area study at 21,300 cfs.

Historical data.--Flood of Aug. 8, 1885, reached a stage of 22.8 ft, from floodmark (discharge, 30,000 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)
1885	Aug. 8, 1885	22.8	30,000	1924	Mar. 1, 1924	14.4	4,720
					June 26, 1924	19.0	10,200
1897	Apr. 24, 1897	21.7	-	1925	June 3, 1925	13.1	3,860
1903	Aug. 27, 1903	21.0	-	1926	Sept. 9, 1926	19.1	10,800
1909	July 6, 1909	20.3	-	1941	Sept.17, 1941	9.4	4,440
1914	Aug. 16, 1914	20.2	-	1942	Oct. 9, 1941	12.0	6,700
1915	Mar. 28, 1915	19.6	-		Nov. 2, 1941	12.2	6,900
					June 20, 1942	13.5	8,380
1918	June 6, 1918	14.7	5,660		June 26, 1942	12.0	6,700
1919	Mar. 16, 1919	17.8	10,100	1943	May 15, 1943	11.5	6,420
	Apr. 22, 1919	14.6	5,580		June 13, 1943	12.1	6,910
	May 4, 1919	17.8	10,100				
	June 4, 1919	18.8	12,500	1944	Apr. 23, 1944	14.2	8,810
	Sept.30, 1919	14.2	5,260		May 3, 1944	11.7	6,590
					May 21, 1944	9.7	4,960
1920	Nov. 11, 1920	15.2	6,100				
	Mar. 24, 1920	16.9	8,350	1945	Mar. 17, 1945	11.5	6,620
	Mar. 26, 1920	16.0	7,000		Apr. 17, 1945	13.9	8,700
	Apr. 2, 1920	15.2	6,100		May 15, 1945	12.9	7,750
	Apr. 21, 1920	16.4	7,600				
	Apr. 27, 1920	13.7	4,890	1946	Jan. 6, 1946	-	11,500
	May 13, 1920	16.9	8,350		May 3, 1946	10.0	6,400
					June 19, 1946	11.1	7,610
1921	May 11, 1921	14.5	5,500				
	June 2, 1921	15.1	5,280	1947	Apr. 5, 1947	11.7	8,200
					Apr. 12, 1947	11.6	8,100
1922	May 23, 1922	15.0	5,200		May 30, 1947	8.9	5,300
	July 18, 1922	19.9	13,200		June 6, 1947	19.3	19,500
	July 30, 1922	15.5	5,600		June 14, 1947	20.1	21,300
	Sept. 1, 1922	17.6	8,040		June 23, 1947	12.6	9,320
1923	Nov. 13, 1922	17.4	7,760	1948	Mar. 20, 1948	8.6	4,860

Peak stages and discharges of Thompson River at Davis City, Iowa--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 26, 1949	7.8	4,190	1958	July 27, 1958	8.19	5,850
1950	May 10, 1950	11.8	12,000	1959	Mar. 26, 1959	7.67	5,430
	June 19, 1950	11.4	11,300		Apr. 20, 1959	9.18	6,900
					May 11, 1959	10.25	7,900
1951	Mar. 29, 1951	6.98	5,100		May 31, 1959	10.60	8,300
	May 2, 1951	13.75	15,200		July 1, 1959	8.04	5,700
	May 12, 1951	6.98	5,100		Aug. 6, 1959	18.42	17,500
	May 27, 1951	9.82	8,900		Sept.27, 1959	10.35	8,100
	July 5, 1951	7.26	5,490				
				1960	Jan. 14, 1960	11.92	9,690
1952	Nov. 13, 1951	6.61	4,620		Mar. 30, 1960	16.63	15,200
	Mar. 13, 1952	7.79	6,140		Apr. 17, 1960	6.97	4,800
					July 1, 1960	9.89	7,600
1953	Mar. 30, 1953	5.86	3,890				
				1961	Feb. 18, 1961	-	4,600
1954	June 15, 1954	4.56	2,520		Mar. 14, 1961	6.78	5,230
					Sept.13, 1961	8.22	6,820
1955	Mar. 3, 1955	4.81	2,760				
				1962	Nov. 3, 1961	6.61	5,050
1956	Aug. 9, 1956	4.70	2,670		Nov. 16, 1961	8.86	7,200
					Mar. 20, 1962	7.56	5,970
1957	Apr. 3, 1957	7.54	5,250		May 31, 1962	6.18	4,690
					June 10, 1962	6.27	4,780
1958	July 15, 1958	9.22	7,400				

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, 4¼ miles northwest of Mercer, and 5 miles upstream from Little River.

Drainage area.--246 sq mi.

Gage.--Nonrecording. 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.

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	a16,100	1945	Mar. 15, 1945	13.14	5,600
					Mar. 25, 1945	15.85	8,570
1940	May 7, 1940	15.7	8,460		Apr. 16, 1945	21.30	15,700
	July 27, 1940	20.9	15,200		May 14, 1945	22.0	16,700
	July 30, 1940	15.9	8,680		May 16, 1945	12.2	4,700
					June 15, 1945	12.5	5,000
1941	June 9, 1941	9.68	2,350				
				1946	Jan. 5, 1946	22.2	19,700
1942	Oct. 31, 1941	13.0	5,500		June 18, 1946	19.3	14,800
	June 20, 1942	23.81	19,400		Aug. 24, 1946	16.0	9,700
	June 26, 1942	18.8	11,200				
				1947	Mar. 13, 1947	13.2	6,220
1943	Dec. 26, 1942	13.7	6,240		Apr. 5, 1947	14.40	7,580
	Feb. 3, 1943	12.5	5,000		Apr. 20, 1947	12.05	4,920
	May 15, 1943	20.7	14,900		June 5, 1947	25.71	28,000
	May 19, 1943	14.6	7,210		June 13, 1947	16.8	10,900
	June 6, 1943	15.6	8,340		June 21, 1947	23.2	21,700
	June 11, 1943	16.59	9,520				
	June 16, 1943	12.2	4,700	1948	Feb. 27, 1948	15.11	8,580
					Mar. 19, 1948	11.27	4,320
1944	Apr. 23, 1944	16.8	9,760				
	May 2, 1944	17.7	10,900	1949	Feb. 18, 1949	b10.5	-
	June 8, 1944	14.0	6,550		Feb. 24, 1949	b16.5	-
	Sept.21, 1944	13.27	5,820		Sept.12, 1949	18.74	13,700

a Annual peak only.
b Backwater from ice.

Peak stages and discharges of Weldon River near Mercer, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 9, 1950	11.59	4,820	1955	July 9, 1955	10.4	4,580
	June 15, 1950	13.9	6,990				
	June 19, 1950	22.16	21,000	1956	Aug. 2, 1956	11.70	5,040
1951	Apr. 6, 1951	10.25	4,520	1957	Apr. 3, 1957	12.43	5,880
	May 1, 1951	12.36	6,940				
	May 10, 1951	11.20	5,620	1958	July 27, 1958	12.0	5,050
	June 21, 1951	10.4	4,740		July 30, 1958	17.0	11,200
	June 26, 1951	11.6	6,060				
	July 16, 1951	11.0	5,400	1959	Nov. 17, 1958	12.28	5,380
	July 22, 1951	14.0	8,800		Mar. 26, 1959	14.17	7,490
					Apr. 20, 1959	17.0	11,200
1952	Mar. 12, 1952	10.0	4,300		Apr. 28, 1959	12.40	4,840
	May 23, 1952	10.0	4,300		May 5, 1959	12.50	4,740
	June 21, 1952	12.0	6,500		May 11, 1959	12.0	5,100
					May 21, 1959	19.27	14,800
1953	Mar. 30, 1953	13.2	7,940		May 29, 1959	17.05	11,200
					Aug. 6, 1959	28.4	50,000
1954	June 11, 1954	10.4	4,580		Sept.26, 1959	14.0	7,250

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, 8¼ miles upstream from West Muddy Creek.

Drainage area.--494 sq mi.

Gage.--Nonrecording prior to Dec. 9, 1959, recording 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	1940	May 8, 1940	17.27	7,300
					July 31, 1940	16.32	6,240
1930	Oct. 29, 1929	13.08	2,910				
				1941	June 9, 1941	16.80	6,740
1931	Sept.26, 1931	13.94	3,320				
				1942	Nov. 2, 1941	18.00	8,750
1932	Nov. 24, 1931	19.70	11,200		June 21, 1942	22.0	18,000
	Jan. 1, 1932	18.58	8,020		June 26, 1942	20.50	14,100
	Aug. 2, 1932	20.1	12,400				
	Aug. 18, 1932	19.32	10,000	1943	Dec. 27, 1942	17.50	7,880
					May 16, 1943	21.8	17,400
1933	Sept.27, 1933	17.08	5,400		June 7, 1943	18.05	8,750
					June 12, 1943	18.03	8,750
1934	Apr. 4, 1934	11.73	2,280				
				1944	Apr. 22, 1944	19.00	10,800
1935	May 24, 1935	19.33	10,300		May 3, 1944	19.35	11,700
	June 3, 1935	20.5	13,200		June 9, 1944	17.30	7,560
	June 18, 1935	20.25	12,400				
				1945	Mar. 16, 1945	16.40	7,080
1936	Feb. 26, 1936	b15.06	2,900		Mar. 25, 1945	18.02	9,700
					Apr. 16, 1945	20.20	14,600
1937	Feb. 20, 1937	16.40	5,540		May 15, 1945	20.76	16,200
					June 16, 1945	18.25	10,100
1938	Aug. 16, 1938	10.50	2,380				
				1946	Jan. 6, 1946	21.6	23,800
1939	Mar. 12, 1939	20.75	14,000		Mar. 17, 1946	14.80	6,120

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

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)
1946	June 19, 1946	18.60	14,800	1958	July 30, 1958	12.8	9,180
	Aug. 25, 1946	15.00	6,320				
				1959	Oct. 9, 1958	11.03	6,560
1947	Mar. 13, 1947	14.80	6,120		Nov. 18, 1958	12.0	7,700
	Apr. 5, 1947	18.62	14,800		Mar. 26, 1959	14.35	10,700
	June 5, 1947	22.79	27,600		Apr. 20, 1959	16.6	13,900
	June 13, 1947	17.60	12,000		Apr. 28, 1959	11.94	7,580
	June 22, 1947	20.62	20,700		May 11, 1959	10.6	6,150
					May 21, 1959	15.22	11,700
1948	Feb. 28, 1948	15.7	7,600		May 29, 1959	14.3	10,500
					Aug. 7, 1959	26.02	46,000
1949	Feb. 24, 1949	14.56	6,910		Sept.26, 1959	13.22	9,140
	Sept.12, 1949	14.46	8,560				
				1960	Oct. 5, 1959	13.1	9,020
1950	Feb. 8, 1950	13.0	6,930		Dec. 28, 1959	13.15	9,140
	June 15, 1950	13.7	7,210		Jan. 12, 1960	12.87	8,780
	June 19, 1950	18.70	22,200		Jan. 15, 1960	11.05	6,560
					Mar. 29, 1960	17.95	17,100
1951	Feb. 20, 1951	11.53	8,360		Apr. 17, 1960	14.17	11,600
	Mar. 3, 1951	9.95	6,350		May 7, 1960	16.22	14,200
	Apr. 30, 1951	13.00	10,900		May 16, 1960	12.70	9,610
	May 10, 1951	13.17	11,300		May 20, 1960	10.16	6,480
	June 21, 1951	12.30	9,710		July 1, 1960	16.52	14,600
	June 24, 1951	11.28	8,050				
	June 26, 1951	10.40	6,830	1961	Oct. 31, 1960	10.20	6,860
	July 22, 1951	13.64	12,000		Feb. 18, 1961	13.50	12,000
					Mar. 6, 1961	14.45	13,500
1952	Mar. 10, 1952	10.02	6,350		Mar. 13, 1961	12.80	10,800
	Mar. 13, 1952	9.90	6,240		Mar. 27, 1961	10.45	7,120
	June 21, 1952	11.35	8,200		Apr. 12, 1961	10.25	6,860
					July 16, 1961	13.55	12,100
1953	Mar. 30, 1953	11.5	8,360		July 21, 1961	11.30	7,840
					Sept.14, 1961	19.40	19,900
1954	Apr. 27, 1954	11.2	7,900		Sept.30, 1961	16.80	15,100
1955	Oct. 5, 1954	8.2	4,580	1962	Oct. 11, 1961	10.67	7,100
					Oct. 13, 1961	10.04	6,240
1956	Aug. 2, 1956	12.51	8,700		Nov. 2, 1961	17.9	20,000
					Nov. 16, 1961	16.9	17,800
1957	Apr. 3, 1957	12.00	7,950		Mar. 12, 1962	11.4	8,860
	May 21, 1957	11.00	6,650		May 29, 1962	15.25	14,700
					June 11, 1962	18.40	21,300
1958	July 15, 1958	10.95	6,650				

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 1¾ miles downstream from Weldon River.

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

Gage.--Nonrecording prior to Dec. 8, 1959; recording 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 State 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 of Thompson River at Trenton, Mo.

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
1947	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
	Jan. 15, 1960	16.6	24,400
	Mar. 30, 1960	21.25	44,200
	Apr. 17, 1960	15.6	25,000
	May 6, 1960	19.65	41,600
	May 16, 1960	14.35	20,200
	May 20, 1960	14.0	18,600
	July 1, 1960	19.2	39,900
	Aug. 26, 1960	13.3	15,900
1961	Feb. 18, 1961	14.60	21,800
	Mar. 6, 1961	15.15	23,400
	Mar. 13, 1961	14.95	22,600
	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.

8996. West Fork Leakey 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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert measurements at 22.2, 273, 327, and 331 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 2, 1955	6.10	50	1959	Nov. 17, 1958	7.90	168
				1960	June 5, 1960	7.04	105
1956	Aug. 1, 1956	10.80	331				
1957	July 22, 1957	9.32	283	1961	Sept.13, 1961	6.70	82
1958	July 30, 1958	10.60	326	1962	June 6, 1962	7.32	125

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, 1¾ miles downstream from Panther Creek, and 6 miles north of Braymer.

Drainage area.--391 sq mi.

Gage.--Nonrecording Oct. 1 to Nov. 20, 1957, and Apr. 4 to Sept. 30, 1962; recording 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	1960	June 24, 1960	19.0	3,650
	June 15, 1958	-	3,000		July 2, 1960	25.6	7,840
	July 12, 1958	-	4,000				
	July 16, 1958	25.0	7,360	1961	Mar. 14, 1961	21.03	4,140
	Aug. 1, 1958	23.0	5,900		Mar. 28, 1961	21.37	4,370
					May 9, 1961	21.30	4,310
1959	Nov. 18, 1958	25.5	7,760		Sept.15, 1961	25.94	8,100
	Feb. 11, 1959	18.7	3,520				
	May 20, 1959	19.95	4,150	1962	Oct. 31, 1961	18.60	3,040
	Sept.24, 1959	-	4,000		Nov. 4, 1961	25.30	7,500
					Nov. 14, 1961	18.58	3,040
1960	Mar. 29, 1960	25.3	7,600		Feb. 6, 1962	-	4,000
	Apr. 15, 1960	21.0	4,650		Mar. 12, 1962	22.00	4,760
	June 12, 1960	17.7	3,060		June 8, 1962	20.00	3,620

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, 1¼ miles east of Galt, and 2 miles upstream from West Medicine Creek.

Drainage area.--225 sq mi.

Gage.--Nonrecording prior to Apr. 26, 1956; recording thereafter. At site 125 ft downstream prior to Dec. 3, 1934. At datum 6.97 ft higher prior to Oct. 1, 1924, at datum 4.97 ft higher Oct. 1, 1924, to Sept. 30, 1926, at datum 1.97 ft higher Oct. 1, 1926, to Dec. 2, 1934, and at datum 2.00 ft higher 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 of about 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	-	a8,000	1941	June 3, 1941	7.94	3,070
					June 9, 1941	12.84	10,000
1922	July 13, 1922	18.58	2,960				
				1942	June 26, 1942	14.3	12,400
1923	Nov. 15, 1922	18.00	2,230				
				1943	Dec. 27, 1942	7.93	3,070
1924	June 28, 1924	17.56	3,170		May 16, 1943	13.17	10,700
					June 8, 1943	8.55	4,120
1925	Apr. 25, 1925	17.20	3,000		June 16, 1943	8.75	4,360
1926	June 19, 1926	16.40	3,040	1944	Apr. 21, 1944	10.9	7,180
	Sept.14, 1926	17.64	3,700				
	Sept.17, 1926	19.00	4,640	1945	Oct. 2, 1944	7.40	3,390
					Apr. 15, 1945	8.46	4,460
1927	Apr. 19, 1927	14.60	3,720		May 14, 1945	10.30	6,510
					June 9, 1945	7.40	3,390
1928	June 18, 1928	14.18	6,260		June 16, 1945	10.52	7,010
	Sept.12, 1928	14.20	6,260				
				1946	Jan. 6, 1946	8.61	4,560
1930	Oct. 31, 1929	7.64	1,890				
				1947	Apr. 4, 1947	16.88	16,900
1931	Apr. 20, 1931	9.17	3,910		June 6, 1947	18.9	24,200
					June 12, 1947	8.90	7,110
1932	Oct. 7, 1931	8.90	3,280		June 18, 1947	10.40	9,300
	Nov. 14, 1931	10.40	5,400		June 23, 1947	8.40	6,410
	Nov. 17, 1931	9.05	3,400		July 6, 1947	8.00	5,850
	Dec. 31, 1931	11.68	7,440				
	Aug. 2, 1932	11.86	7,760	1948	Feb. 27, 1948	7.66	5,460
	Aug. 17, 1932	9.78	4,500		Mar. 19, 1948	11.53	11,000
1933	May 13, 1933	7.32	1,660	1949	Feb. 24, 1949	6.0	3,400
					June 14, 1949	12.6	12,700
1934	Sept.13, 1934	5.56	456		Sept.13, 1949	6.0	3,400
1935	May 20, 1935	9.75	4,440	1950	June 15, 1950	11.29	13,000
	June 1, 1935	11.00	6,340		June 19, 1950	7.5	8,300
	June 18, 1935	11.08	6,500				
	July 3, 1935	10.30	5,220	1951	Feb. 20, 1951	4.75	3,830
					Apr. 7, 1951	5.48	4,950
1936	Feb. 25, 1936	6.99	1,210		May 10, 1951	5.15	4,470
					June 22, 1951	5.85	5,430
1937	Feb. 13, 1937	9.05	3,280		June 25, 1951	4.80	3,830
	Feb. 21, 1937	11.0	6,340		June 28, 1951	4.80	3,830
					July 22, 1951	11.0	14,500
1938	June 2, 1938	6.81	1,090				
				1952	Apr. 22, 1952	5.22	4,470
1939	Mar. 12, 1939	12.9	12,300		June 22, 1952	6.63	6,430
	Apr. 15, 1939	8.12	3,720				
	June 21, 1939	9.60	6,250	1953	Mar. 31, 1953	5.94	4,840
					Apr. 30, 1953	5.8	4,680
1940	Aug. 18, 1940	7.4	2,820		May 5, 1953	5.49	4,200

a Determination by Corps of Engineers; annual peak only.

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)
1954	June 2, 1954	6.8	5,510	1960	Jan. 13, 1960	8.82	3,220
					Mar. 29, 1960	14.55	9,010
1955	May 12, 1955	5.6	4,360		May 6, 1960	12.65	6,750
					June 30, 1960	12.83	6,970
1956	July 3, 1956	7.86	3,490				
				1961	Mar. 27, 1961	9.30	3,820
1957	May 22, 1957	7.67	1,590		Sept.13, 1961	10.81	4,990
					Sept.23, 1961	9.12	3,680
1958	July 15, 1958	16.30	12,400				
	July 31, 1958	10.64	3,980	1962	Nov. 2, 1961	14.03	8,900
					Nov. 16, 1961	12.15	6,950
1959	Nov. 17, 1958	11.0	4,500		May 27, 1962	8.85	4,180
	Aug. 7, 1959	19.0	14,900		May 29, 1962	10.90	5,740
1960	Oct. 6, 1959	12.40	6,530				

9005. Medicine Creek near Sturgis, 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 Sturgis.

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

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.

Gage.--Nonrecording.

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

Bankfull stage.--18 ft.

Historical data.--Flood of 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 of Locust Creek near Milan, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	-	a8,000	1929	Nov. 2, 1928	19.92	3,820
					Nov. 18, 1928	20.07	3,880
1922	Apr. 8, 1922	15.00	2,240		Mar. 1, 1929	b17.10	2,400
	July 12, 1922	16.75	2,840		Mar. 8, 1929	15.30	2,380
	July 18, 1922	16.90	2,880		Apr. 20, 1929	19.40	3,650
					June 3, 1929	17.14	2,920
1923	Nov. 14, 1922	15.05	2,240				
				1930	Oct. 13, 1929	15.40	2,410
1924	June 10, 1924	15.40	2,360		Nov. 1, 1929	15.5	2,440
	June 27, 1924	15.75	2,490				
				1931	Apr. 22, 1931	14.80	2,230
1925	Apr. 25, 1925	17.70	3,200		June 6, 1931	15.97	2,650
1926	Jan. 5, 1926	b15.10	-	1932	Oct. 8, 1931	15.20	2,350
	Sept.11, 1926	16.50	2,740		Nov. 15, 1931	16.72	2,800
	Sept.17, 1926	18.10	3,260		Nov. 25, 1931	17.62	3,070
	Sept.22, 1926	15.20	2,300		Jan. 2, 1932	16.80	2,830
					Apr. 22, 1932	15.36	2,410
1927	Oct. 5, 1926	16.60	2,770		Aug. 3, 1932	18.00	3,200
	Apr. 3, 1927	15.95	2,580		Aug. 8, 1932	15.18	2,350
	Apr. 21, 1927	16.18	2,650		Aug. 18, 1932	18.12	3,230
	June 5, 1927	15.84	2,530				
				1933	Dec. 26, 1932	14.87	2,260
1928	June 19, 1928	17.30	2,980				
	Sept.12, 1928	17.20	2,950				

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

9013. Moffet Branch near Reger, Mo.

Location.--Lat 40°09'00", 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 3¾ miles east of Humphreys.

Drainage area.--0.13 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1959	Nov. 17, 1958	4.37	150
				1960	June 30, 1960	5.76	232
1956	Oct. 5, 1955	7.58	370				
1957	July 15, 1957	4.15	135	1961	Apr. 21, 1961	4.20	140
1958	July 15, 1958	7.40	349	1962	Nov. 2, 1961	5.88	240

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.

Gage.--Nonrecording prior to July 27, 1956; recording 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 slope-area measurement at 38,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Gage located on 24-mile reach of new channel, dug in 1921. Base for partial-duration series, 7,500 cfs.

Peak stages and discharges of Locust Creek near Linneus, Mo.

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

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

9020. Grand River near Sumner, Mo.

Location.--Lat 39°38'25", long 93°16'25", in NE¼ sec.29, 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.

Gage.--Nonrecording prior to July 10, 1939, and Aug. 9, 1952, to Nov. 12, 1953; recording July 10, 1939, to Aug. 8, 1952, and since Nov. 13, 1953. Datum of gage 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 of Grand River near Sumner, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	36.7	ab150,000
1922	July 1922	31.5	b51,000
1923	November 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	37.57	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

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

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 50 cfs and by slope-area measurements at 612 and 637 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Hamilton Branch near New Boston, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 2, 1956	6.81	612	1960	June 30, 1960	8.10	800
1957	July 29, 1957	6.33	520				
1958	July 15, 1958	7.45	693	1961	Apr. 21, 1961	7.35	675
1959	Feb. 9, 1959	4.55	203	1962	Oct. 29, 1961	5.90	414

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, in left bank upstream from culvert, 0.3 mile northeast of St. Catherine, 5 miles northeast of St. Catherine, and 5 miles northeast of Brookfield.

Drainage area.--1.04 sq mi.

Gage.--Nonrecording prior to Nov. 27, 1961; nonrecording and supplemental recording gage thereafter.

Stage-discharge relation.--Defined by culvert 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	1959	Sept.23, 1959	15.91	410
				1960	May 16, 1960	14.43	150
1956	Oct. 5, 1955	12.54	20				
1957	May 16, 1957	15.65	340	1961	July 25, 1961	16.71	725
1958	July 15, 1958	17.11	982	1962	Oct. 29, 1961	13.41	60

9030. Yellow Creek near Rothville, Mo.

Location.--Lat 39°38', long 93°05', on line between NW¼ sec.31, T.56 N., 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.

Gage.--Nonrecording prior to 1961; crest-stage gage thereafter. 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	1932	Nov. 19, 1931	20.6	3,920
					Nov. 25, 1931	21.16	7,400
1929	November 1928	b22.0	-		Jan. 3, 1932	20.7	4,400
1930	Oct. 12, 1929	17.6	1,900	1947	June 1947	b23.1	-
	Nov. 1, 1929	17.4	1,840				
	Feb. 9, 1930	17.9	1,970	1949	Jan. 16, 1949	17.4	1,810
	July 2, 1930	19.56	2,630		Feb. 26, 1949	17.4	1,810
					June 3, 1949	21.19	7,400
1931	Apr. 23, 1931	20.60	5,450		July 14, 1949	17.8	1,910
	June 9, 1931	20.4	3,700		Sept.14, 1949	17.7	1,880
	June 14, 1931	19.3	2,470				

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

Peak stages and discharges of Yellow Creek near Rothville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 2, 1950	18.8	2,230	1951	June 24, 1951	20.85	4,900
	June 4, 1950	17.7	1,880		June 29, 1951	21.26	8,200
	June 17, 1950	21.40	9,000	1961	Sept.14, 1961	22.23	b6,160
1951	Feb. 22, 1951	19.80	2,710				
	Apr. 9, 1951	20.52	3,640	1962	Nov. 5, 1961	20.95	b4,500

b Annual peak only.

CHARITON RIVER BASIN

9035. Honey Creek near Russell, Iowa

Location.--Lat 40°55'25", long 93°07'55", in SW¼NW¼ sec.26, T.71 N., R.20 W., on left bank 15 ft downstream from highway bridge, 0.7 mile upstream from Chariton River, and 5.5 miles southeast of Russell.

Drainage area.--13.2 sq mi.

Gage.--Recording and concrete control. Datum of gage is 901.73 ft above mean sea level, datum of 1929 (levels by Soil Conservation Service).

Stage-discharge relation.--Defined by current-meter measurements below 640 cfs and by contracted-opening and flow-over-road measurement at 4,100 cfs. Affected by backwater from Chariton River at times.

Remarks.--Base for partial-duration series, 250 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	June 21, 1952	9.86	586	1959	May 21, 1959	11.26	4,100
					May 30, 1959	8.89	645
1953	Feb. 20, 1953	7.12	250		Sept.27, 1959	7.06	270
	Mar. 30, 1953	8.37	388				
	June 10, 1953	7.32	265	1960	Dec. 28, 1959	-	260
					Jan. 12, 1960	8.51	669
1954	Apr. 26, 1954	7.10	245		Mar. 28, 1960	9.16	1,080
					Apr. 16, 1960	8.92	900
1955	Feb. 19, 1955	6.27	170		May 6, 1960	9.33	1,260
					May 16, 1960	-	1,000
1956	July 31, 1956	7.34	265		May 20, 1960	7.51	340
					May 24, 1960	7.28	303
1957	Apr. 22, 1957	7.17	263				
	May 21, 1957	7.11	254	1961	Feb. 18, 1961	-	450
					Mar. 6, 1961	9.51	1,390
1958	Feb. 24, 1958	7.20	273		Mar. 13, 1961	-	450
	July 2, 1958	8.86	638		Mar. 27, 1961	7.97	448
	July 4, 1958	8.32	418		Sept.13, 1961	-	1,000
	July 30, 1958	8.84	394		Sept.30, 1961	-	400
	Sept.23, 1958	7.12	264				
				1962	Nov. 2, 1961	-	1,000
1959	Mar. 19, 1959	-	470		Nov. 13, 1961	7.68	382
	Mar. 26, 1959	-	400		Nov. 16, 1961	-	1,100
	Apr. 1, 1959	8.48	669		May 29, 1962	-	300
	Apr. 20, 1959	-	450		June 11, 1962	7.27	296
	Apr. 27, 1959	7.26	296				

9039. Chariton River near Rathbun, Iowa

Location.--Lat 40°48'40", long 92°53'00", in NW¼NW¼ sec.1, T.69 N., R.18 W., on left bank 5 ft downstream from highway bridge, 0.8 mile northeast of Rathbun, 1.0 mile upstream from Walnut Creek, and 1.3 miles downstream from Buck Branch.

Drainage area.--551 sq mi.

Gage.--Nonrecording on upstream side of bridge prior to Nov. 16, 1960; recording thereafter. Datum of gage is 843.27 ft above mean sea level, datum of 1929.

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

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

Peak stages and discharges of Chariton River near Rathbun, Iowa

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 5, 1957	13.72	1,500	1960	Apr. 19, 1960	19.6	4,260
					May 7, 1960	22.0	9,400
1958	Aug. 4, 1958	17.3	2,070		May 19, 1960	19.0	3,300
1959	Mar. 21, 1959	19.51	4,100	1961	Mar. 9, 1961	19.18	3,620
	Apr. 3, 1959	18.9	3,160		Mar. 15, 1961	19.80	4,580
	Apr. 22, 1959	19.72	4,420		Sept.15, 1961	23.09	13,000
	May 22, 1959	24.0	16,600				
	May 31, 1959	21.1	7,100	1962	Nov. 4, 1961	23.10	12,200
					Nov. 18, 1961	22.25	10,000
1960	Jan. 15, 1960	20.0	4,900		Mar. 20, 1962	20.84	6,500
	Mar. 31, 1960	25.3	21,800				

9040. Chariton River near Centerville, Iowa

Location.--Lat 40°44'20", long 92°48'05", in NE¼NW¼ sec.34, T.69 N., R.17 W., on left bank 10 ft downstream from bridge on State Highway 2, 3 miles east of Centerville, and 3.5 miles downstream from Cooper Creek.

Drainage area.--708 sq mi.

Gage.--Recording. Datum of gage is 825.68 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended above by logarithmic plotting.

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)
1938	June 2, 1938	9.8	1,730	1947	June 7, 1947	23.9	20,300
					June 13, 1947	14.5	3,980
1939	Mar. 13, 1939	23.4	16,500		June 18, 1947	13.2	3,340
	Apr. 16, 1939	16.2	4,680		June 23, 1947	22.9	14,400
	Aug. 11, 1939	14.8	3,900				
				1948	Feb. 28, 1948	13.5	3,760
1940	May 10, 1940	10.5	2,150		Mar. 1, 1948	13.6	3,820
					Mar. 19, 1948	14.8	4,510
1941	June 3, 1941	13.9	3,380				
	June 9, 1941	15.2	4,080	1949	Feb. 24, 1949	-	3,600
					Feb. 27, 1949	-	4,010
1942	Nov. 1, 1941	13.9	3,530		June 25, 1949	14.9	4,790
	June 23, 1942	15.4	4,140		July 21, 1949	12.1	3,200
1943	Dec. 27, 1942	14.5	4,060	1950	June 14, 1950	11.9	3,100
	May 17, 1943	21.9	9,610		June 21, 1950	21.8	10,800
	June 13, 1943	19.8	7,100				
				1951	Feb. 19, 1951	12.11	3,500
1944	Apr. 15, 1944	14.5	3,980		Apr. 7, 1951	11.60	3,270
	Apr. 24, 1944	22.6	13,000		May 12, 1951	15.27	5,160
	May 3, 1944	14.1	3,790		June 24, 1951	11.41	3,180
	May 5, 1944	16.2	4,930				
	June 11, 1944	21.2	8,410	1952	Mar. 13, 1952	12.80	3,850
					June 3, 1952	13.25	4,050
1945	Oct. 3, 1944	13.4	3,450		June 21, 1952	15.18	5,110
	Feb. 14, 1945	14.2	3,820				
	Mar. 25, 1945	13.6	3,540	1953	Apr. 3, 1953	13.99	4,450
	Apr. 16, 1945	15.6	4,580				
	Apr. 18, 1945	19.8	7,080	1954	June 4, 1954	6.02	930
	May 17, 1945	22.6	12,600				
	June 16, 1945	14.7	4,080	1955	Oct. 5, 1954	10.03	2,550
1946	Jan. 5, 1946	18.7	6,240	1956	Aug. 2, 1956	10.2	2,640
	Jan. 7, 1946	23.2	14,000				
	Mar. 17, 1946	14.7	4,050	1957	July 29, 1957	11.37	3,180
	Mar. 23, 1946	15.9	4,730				
	June 20, 1946	24.2	21,700	1958	July 31, 1958	13.50	3,140
	July 17, 1946	23.4	17,100		Sept.10, 1958	13.10	3,040
	Aug. 25, 1946	13.0	3,240				
	Aug. 28, 1946	13.3	3,340	1959	Feb. 27, 1959	-	3,100
					Mar. 22, 1959	13.06	3,750
1947	Oct. 25, 1946	12.6	3,050		Mar. 26, 1959	12.59	3,510
	Mar. 14, 1947	12.7	3,110		Apr. 1, 1959	11.78	3,130
	Apr. 5, 1947	22.6	13,200		Apr. 20, 1959	13.99	4,200
	Apr. 20, 1947	12.5	3,020		May 22, 1959	23.20	14,100
	Apr. 23, 1947	12.8	3,160		June 1, 1959	17.90	6,810
	May 29, 1947	13.1	3,290				

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.

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 3½ 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 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	1937	Feb. 21, 1937	b23.84	6,820
1922	July 13, 1922	19.64	7,350	1938	June 4, 1938	11.89	1,690
	July 18, 1922	19.30	7,080	1939	Mar. 13, 1939	24.99	12,600
1923	Nov. 14, 1922	17.24	5,560		Mar. 17, 1939	25.09	12,900
1924	Mar. 29, 1924	16.00	6,000		Apr. 17, 1939	23.52	8,940
1925	Apr. 27, 1925	18.66	7,200	1940	Aug. 18, 1940	18.42	3,680
1926	Sept.21, 1926	24.56	18,700	1941	June 11, 1941	23.90	9,860
1927	Oct. 4, 1926	22.00	16,400	1942	Nov. 2, 1941	22.7	6,900
	Apr. 2, 1927	17.4	8,620	1943	Dec. 28, 1942	23.14	7,710
	Apr. 21, 1927	26.10	21,800		May 21, 1943	24.28	10,600
	June 4, 1927	19.1	11,300		June 17, 1943	24.07	10,000
1928	Oct. 2, 1927	22.67	17,800	1944	Mar. 17, 1944	22.69	6,640
	Oct. 11, 1927	17.3	8,480		Apr. 16, 1944	22.74	6,640
	June 18, 1928	20.0	12,800		Apr. 23, 1944	25.86	15,200
	July 11, 1928	16.2	7,060		June 14, 1944	23.32	8,060
	Sept.17, 1928	17.15	8,340	1945	May 20, 1945	25.37	13,700
1929	Nov. 17, 1928	24.06	22,500		June 10, 1945	23.12	7,540
	Mar. 5, 1929	15.4	8,200		June 17, 1945	26.34	16,400
	Apr. 22, 1929	20.6	16,900		June 21, 1945	23.66	9,020
	June 5, 1929	15.4	8,200	1946	Jan. 6, 1946	23.92	9,540
1930	Nov. 1, 1929	13.80	6,200		Jan. 11, 1946	24.25	10,300
1931	Apr. 21, 1931	22.17	6,500		Mar. 24, 1946	23.80	9,280
	June 7, 1931	22.60	7,160		June 23, 1946	26.0	15,500
1932	Nov. 24, 1931	26.03	15,400		July 21, 1946	23.93	8,720
	Aug. 17, 1932	25.47	14,000	1947	Apr. 6, 1947	24.95	12,000
1933	Dec. 25, 1932	22.02	6,500		June 7, 1947	28.50	22,900
1934	Sept.12, 1934	16.96	3,250		June 13, 1947	28.50	22,900
1935	May 21, 1935	22.17	6,500		June 19, 1947	25.37	12,300
	June 2, 1935	24.98	12,600		June 28, 1947	24.68	9,940
	June 22, 1935	24.04	10,100	1948	Mar. 20, 1948	25.23	11,600
	July 9, 1935	23.08	8,100	1949	Feb. 25, 1949	b23.85	-
					Feb. 27, 1949	23.10	6,510
					Apr. 1, 1949	23.10	6,510
					June 16, 1949	23.6	7,640
1936	Feb. 26, 1936	19.50	4,000				

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

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

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 15, 1950	26.22	15,000	1960	Oct. 7, 1959	22.35	10,100
	June 20, 1950	26.66	16,700		Jan. 15, 1960	19.77	7,250
					Apr. 2, 1960	26.65	22,000
1951	Feb. 20, 1951	24.12	8,020		Apr. 7, 1960	24.04	13,400
	Apr. 8, 1951	24.16	8,340		May 26, 1960	19.55	7,050
	July 23, 1951	24.32	8,660		July 1, 1960	23.98	13,400
					July 10, 1960	20.25	7,450
1952	Mar. 13, 1952	23.87	7,380				
				1961	Mar. 8, 1961	18.95	7,770
1955	Jan. 6, 1955	23.1	6,200		Mar. 13, 1961	20.70	9,560
					Mar. 27, 1961	19.85	8,570
1956	Oct. 6, 1955	18.18	-		Apr. 22, 1961	17.80	6,670
	July 4, 1956	-	2,400		Sept.13, 1961	19.55	8,370
					Sept.24, 1961	19.30	8,070
1957	July 29, 1957	20.60	4,940				
				1962	Nov. 3, 1961	20.53	8,680
1958	Aug. 2, 1958	23.10	7,900		Nov. 7, 1961	19.23	7,970
					Nov. 16, 1961	20.93	9,780
1959	Mar. 27, 1959	20.80	6,820		Nov. 22, 1961	19.20	7,970
	May 27, 1959	21.13	7,100		Feb. 5, 1962	19.30	8,070
	June 1, 1959	23.20	9,710		Mar. 12, 1962	18.50	8,000
	Aug. 8, 1959	22.03	9,300		Mar. 22, 1962	20.20	9,820

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 15 ft downstream from culvert, and 1 mile southwest of Novinger.

Drainage area.--0.96 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by slope-area measurement at 62.6 cfs and by culvert measurement at 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	1959	Oct. 7, 1958	13.41	65
				1960	June 12, 1960	15.01	550
1956	July 1, 1956	16.46	1,730				
1957	Apr. 3, 1957	13.25	52	1961	Sept.13, 1961	14.51	330
1958	July 30, 1958	15.36	770	1962	Oct. 29, 1961	14.33	270

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.

Gage.--Nonrecording prior to July 3, 1958, recording thereafter. At site 8¼ 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 of Chariton River near Prairie Hill, Mo.

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

a Annual peak only.
b Backwater from ice.

9057. Puzzle Creek near Salisbury, Mo.

Location.--Lat 39°26'30", long 92°47'30", 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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by slope-area measurement at 10? cfs and by culvert measurement at 556 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Puzzle Creek near Salisbury, Mo.

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

LAMINE RIVER BASIN

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.

Gage.--Nonrecording prior to Sept. 3, 1958, recording 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Sept.18, 1905	35.3	a90,000	1935	June 2, 1935	26.19	18,000
					June 21, 1935	22.36	12,200
1907	Jan. 20, 1907	33.2	a70,000		June 27, 1935	27.76	25,000
1922	Apr. 8, 1922	31.5	a55,000	1936	Nov. 5, 1935	23.20	13,200
					Sept.29, 1936	22.93	12,800
1923	July 4, 1923	19.9	9,300	1937	Mar. 20, 1937	22.00	11,700
1924	June 25, 1924	18.85	7,640		May 4, 1937	21.95	11,700
					May 23, 1937	27.30	22,200
1925	Mar. 19, 1925	20.60	10,100		June 10, 1937	22.20	11,900
					June 17, 1937	22.80	12,700
1926	Sept.10, 1926	21.64	11,300	1938	May 24, 1938	25.5	16,600
1927	Mar. 20, 1927	27.40	22,700				
	Apr. 1, 1927	27.85	25,000	1939	Apr. 16, 1939	29.86	40,200
	Apr. 13, 1927	22.70	12,500		May 9, 1939	21.57	11,200
	May 8, 1927	22.02	11,700				
				1940	June 12, 1940	13.5	4,280
1928	Oct. 3, 1927	18.11	7,620	1941	Apr. 20, 1941	26.5	18,600
1929	Nov. 18, 1928	22.60	12,400				
	Apr. 10, 1929	23.50	13,600	1942	Oct. 5, 1941	27.00	19,800
	May 3, 1929	24.35	14,800		Oct. 31, 1941	27.5	21,400
	May 13, 1929	27.60	23,800		Mar. 17, 1942	21.52	10,300
	May 19, 1929	29.00	33,000		June 27, 1942	24.70	14,700
	June 4, 1929	24.62	15,100				
				1943	Dec. 28, 1942	26.00	17,200
1930	Feb. 7, 1930	17.60	7,260		May 8, 1943	24.00	13,600
					May 18, 1943	32.0	60,000
1931	Sept.25, 1931	19.10	8,500		June 5, 1943	21.80	10,700
1932	Nov. 23, 1931	21.65	11,200	1944	Apr. 11, 1944	28.00	25,000
					Apr. 23, 1944	29.0	32,500
1933	Dec. 25, 1932	26.10	17,800				
	May 14, 1933	21.80	11,500	1945	Apr. 17, 1945	24.0	12,200
					June 11, 1945	23.6	11,800
1934	Sept.29, 1934	14.12	5,190				
				1946	Jan. 7, 1946	21.80	10,000
1935	Nov. 23, 1934	21.40	11,000		May 11, 1946	25.5	14,500
	May 29, 1935	26.38	18,600		Aug. 15, 1946	23.40	11,600

a Annual peak only.

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)
1947	Mar. 14, 1947	22.01	10,200	1953	Mar. 4, 1953	16.00	5,360
	Apr. 11, 1947	23.32	11,500				
	Apr. 26, 1947	25.4	14,300	1954	May 2, 1954	13.30	3,830
1948	June 19, 1948	28.14	25,600	1955	Aug. 31, 1955	20.71	8,260
	June 23, 1948	29.0	32,500				
				1956	Oct. 7, 1955	25.70	14,000
1949	Jan. 24, 1949	22.6	10,800				
	June 7, 1949	24.2	12,400	1957	May 26, 1957	18.66	6,740
	June 9, 1949	23.6	11,800				
				1958	Mar. 10, 1958	22.9	10,100
1950	Dec. 22, 1949	23.5	11,700		July 21, 1958	28.1	25,500
	May 31, 1950	23.0	11,200				
	June 4, 1950	24.0	12,200	1959	Feb. 11, 1959	22.82	9,980
1951	Feb. 21, 1951	24.25	12,400	1960	Apr. 17, 1960	26.3	15,800
	June 25, 1951	23.0	11,200		May 6, 1960	28.5	28,700
	June 29, 1951	32.5	65,500				
	July 4, 1951	22.0	10,200	1961	May 6, 1961	27.17	19,400
	July 7, 1951	28.85	30,900		May 9, 1961	25.30	13,100
	July 13, 1951	24.4	12,700		Sept.15, 1961	29.51	11,700
	Sept.10, 1951	23.0	11,200				
	Sept.13, 1951	22.0	10,200	1962	Mar. 21, 1962	27.02	18,400
1952	Nov. 13, 1951	21.50	9,750				

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.

Gage.--Crest-stage gage prior to Oct. 18, 1961; nonrecording gage and supplemental recording gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 107 cfs and by culvert 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	1959	Jan. 21, 1959	8.13	370
				1960	July 1, 1960	11.20	1,000
1956	May 29, 1956	8.13	370				
1957	June 29, 1957	8.26	390	1961	May 5, 1961	11.38	1,100
1958	July 19, 1958	11.85	1,600	1962	Nov. 15, 1961	7.05	250

9075. East Branch South Fork Blackwater River near Elm, Mo.

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.

Gage.--Recording 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 contracted-opening measurement at 5,600 cfs.

Bankfull stage.--7 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 of East Branch South Fork Blackwater River near Elm, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 1951	14.8	-	1959	Aug. 31, 1959	6.55	1,380
1954	May 2, 1954	6.68	a1,420	1960	Apr. 15, 1960	12.0	5,600
					Apr. 30, 1960	8.39	2,320
1955	May 27, 1955	8.50	2,380		May 6, 1960	8.08	2,140
1956	Apr. 28, 1956	3.92	447	1961	Mar. 26, 1961	8.74	2,500
					Apr. 23, 1961	5.98	1,130
1957	Sept.21, 1957	6.68	1,420		May 5, 1961	9.22	2,840
					July 24, 1961	7.90	2,020
1958	Oct. 23, 1957	8.01	2,080		July 25, 1961	7.20	1,650
	July 17, 1958	6.02	1,130		Sept.13, 1961	11.72	5,270
	July 25, 1958	6.41	1,290				
	July 31, 1958	8.06	2,140	1962	Nov. 15, 1961	6.80	1,460

a Annual peak only.

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.

Gage.--Nonrecording prior to Dec. 4, 1956; recording thereafter. At datum 0.10 ft lower prior to July 25, 1925. 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 above 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	September 1905	36	a26,000	1940	Apr. 20, 1940	25.0	5,300
1923	July 4, 1923	30.9	9,280	1941	Jan. 28, 1941	23.8	3,800
1924	June 30, 1924	29.05	10,800	1942	June 23, 1942	31.83	12,400
					June 29, 1942	32.2	13,400
1925	June 19, 1925	24.10	7,060				
				1943	May 20, 1943	36.45	27,900
1926	Apr. 8, 1926	28.05	10,000				
				1944	Mar. 18, 1944	31.50	12,600
1927	Mar. 22, 1927	32.01	17,400		Apr. 13, 1944	32.50	15,300
	Apr. 3, 1927	31.0	15,400		Apr. 24, 1944	37.0	32,400
	Apr. 16, 1927	30.25	14,000				
	Apr. 21, 1927	28.95	11,800	1945	June 10, 1945	31.85	12,600
	May 9, 1927	30.68	14,900				
				1946	Jan. 8, 1946	31.3	11,300
1928	Oct. 4, 1927	34.17	21,800				
	Feb. 9, 1928	28.60	11,200	1947	Mar. 16, 1947	30.76	10,200
					Apr. 7, 1947	31.9	12,900
1929	Nov. 18, 1928	41.25	54,000		July 3, 1947	31.05	10,800
	Apr. 2, 1929	31.30	16,000				
	Apr. 11, 1929	30.00	13,600	1948	June 25, 1948	32.80	15,600
	May 14, 1929	32.10	17,600				
	May 21, 1929	30.10	13,800	1949	June 10, 1949	30.6	9,760
	June 5, 1929	31.19	15,800				
				1950	Oct. 23, 1949	32.0	13,200
1930	Feb. 10, 1930	26.42	7,990				
				1951	July 1, 1951	-	18,000
1931	Sept.24, 1931	18.77	3,200		July 8, 1951	34.2	20,400
					July 14, 1951	35.06	23,900
1932	Nov. 26, 1931	27.85	9,680		Aug. 29, 1951	31.06	10,800
1933	May 14, 1933	25.88	6,900	1952	Nov. 15, 1951	28.48	7,100
1938	May 25, 1938	34.18	19,600	1953	Apr. 3, 1953	27.16	5,880
1939	Apr. 18, 1939	29.6	9,810	1954	June 4, 1954	22.90	3,290

a Annual peak only.

Peak stages and discharges of Blackwater River at Blue Lick, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb. 22, 1955	26.45	5,170	1960	Apr. 19, 1960	33.0	16,200
					May 9, 1960	30.7	10,600
1956	Oct. 10, 1955	24.40	3,960	1961	May 9, 1961	33.5	17,800
1957	June 29, 1957	22.25	3,150		Sept.16, 1961	36.5	30,000
1958	June 18, 1958	28.95	8,100	1962	Mar. 23, 1962	30.83	10,800
1959	Mar. 5, 1959	22.80	3,570				

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.

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

Stage-discharge relation.--Defined by current-meter measurement at 21.5 cfs and by culvert 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	1959	July 4, 1959	13.46	282
				1960	June 30, 1960	14.95	450
1956	Apr. 28, 1956	18.16	878				
1957	June 30, 1957	14.17	370	1961	Aug. 1, 1961	19.87	1,190
1958	June 14, 1958	16.59	660	1962	Sept. 8, 1962	13.80	320

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, 0.8 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.

Gage.--Recording 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 slope-area measurements at 713 and 873 cfs.

Bankfull stage.--7 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	1956	Oct. 5, 1955	2.60	336
1954	Aug. 1, 1954	5.64	741	1957	June 29, 1957	3.63	499
1955	Feb. 18, 1955	3.26	455	1958	June 14, 1958	3.13	424
	May 28, 1955	4.84	653		July 3, 1958	6.65	842
	June 2, 1955	6.92	871		July 15, 1958	7.04	880
	Aug. 29, 1955	3.61	499				

Peak stages and discharges of Shiloh Branch near Marshall, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Sept.23, 1959	4.56	630	1961	Apr. 24, 1961	3.26	455
					May 6, 1961	3.22	440
1960	Oct. 4, 1959	3.47	485		July 23, 1961	4.84	653
	Mar. 27, 1960	4.11	424		July 25, 1961	4.53	618
	Apr. 29, 1960	3.14	424		Aug. 1, 1961	3.79	527
	May 6, 1960	4.78	653		Sept.13, 1961	7.58	934
	July 1, 1960	4.31	594				
				1962	Oct. 30, 1961	2.97	400
1961	Mar. 27, 1961	3.13	424		Sept. 8, 1962	3.14	424

MISSOURI RIVER MAIN STEM

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

a Computed by Corps of Engineers.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1961	May 5, 1961	8.52	112
1959	Sept.24, 1959	6.55	71	1962	July 6, 1962	5.62	48
1960	June 30, 1960	6.37	68				

MONITEAU CREEK BASIN

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.

Gage.--Nonrecording prior to Aug. 14, 1957; recording 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	April 1944	22.9	-	1952	Mar. 10, 1952	16.64	1,790
					Mar. 18, 1952	17.30	2,080
1949	Jan. 16, 1949	16.5	1,750		Apr. 23, 1952	14.00	964
	Jan. 24, 1949	14.5	1,080		Aug. 21, 1952	14.10	986
	Feb. 13, 1949	14.4	1,060				
	May 9, 1949	14.0	964	1953	May 5, 1953	11.42	593
	May 24, 1949	13.98	964				
	June 1, 1949	18.16	2,570	1954	May 21, 1954	15.4	1,350
1950	Oct. 21, 1949	18.09	2,510	1955	Feb. 19, 1955	16.7	1,850
	Dec. 22, 1949	18.48	2,760		June 25, 1955	19.2	3,760
	Jan. 13, 1950	14.10	986		July 6, 1955	17.9	2,530
	Feb. 13, 1950	13.75	924		Aug. 30, 1955	17.5	2,290
	June 3, 1950	17.08	2,000				
	June 19, 1950	13.82	924	1956	Oct. 5, 1955	19.47	4,180
					Apr. 29, 1956	16.72	1,900
1951	Feb. 20, 1951	17.50	2,180		May 27, 1956	16.50	1,800
	Mar. 17, 1951	17.54	2,180				
	Mar. 29, 1951	18.06	2,510	1957	May 17, 1957	15.8	1,740
	June 26, 1951	16.10	1,600		May 25, 1957	16.8	2,170
	July 11, 1951	18.0	2,450		June 14, 1957	14.9	1,400
	Aug. 9, 1951	14.8	1,160		June 30, 1957	15.0	1,440
	Aug. 15, 1951	14.0	964		June 27, 1957	17.50	2,520
1952	Nov. 12, 1951	17.83	2,400	1958	Dec. 25, 1957	14.4	1,240

Peak stages and discharges of Moniteau Creek near Fayette, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Feb. 27, 1958	15.9	1,780	1960	July 1, 1960	18.43	3,050
	June 1, 1958	13.53	999				
	June 15, 1958	15.65	1,660	1961	Mar. 12, 1961	(a)	(a)
	July 15, 1958	18.75	3,370		Apr. 25, 1961	(a)	(a)
	July 19, 1958	14.73	1,340		May 6, 1961	18.70	3,200
	July 20, 1958	17.54	2,520		May 8, 1961	16.45	1,760
	July 31, 1958	17.90	2,740		July 23, 1961	16.40	1,760
					July 25, 1961	15.20	1,330
1959	Feb. 10, 1959	18.20	2,920		Aug. 2, 1961	17.50	2,280
	Mar. 5, 1959	18.05	2,800		Sept.13, 1961	19.6	4,330
	Apr. 20, 1959	14.10	1,160		Sept.24, 1961	17.65	2,340
1960	Mar. 27, 1960	17.72	2,640	1962	Oct. 30, 1961	17.10	2,080
	Apr. 16, 1960	18.39	3,050		Nov. 2, 1961	17.56	2,340
	Apr. 30, 1960	13.30	950		Nov. 16, 1961	17.57	2,340
	May 6, 1960	18.96	3,560		Mar. 21, 1962	18.05	2,600

a Gage height and discharge unknown.

PETITE SALINE CREEK BASIN

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 60 cfs and by culvert 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 year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	14.43	237	1959	July 30, 1959	13.22	108
				1960	May 6, 1960	14.19	210
1956	July 23, 1956	13.30	118				
1957	May 16, 1957	13.32	119	1961	May 5, 1961	17.25	573
1958	July 16, 1958	14.54	248	1962		(a)	(b)

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

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.

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, 2,000 cfs.

Peak stages and discharges of Petite Saline Creek near Boonville, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	June 1921	23.2	5,860	1956	Oct. 6, 1955	21.52	3,980
1949	Nov. 3, 1948	18.9	2,530	1957	May 26, 1957	17.98	1,560
	Jan. 24, 1949	18.3	2,110				
	June 7, 1949	19.1	2,670	1958	Feb. 28, 1958	18.80	2,170
	Sept.13, 1949	22.26	5,110		May 5, 1958	18.63	2,040
					June 15, 1958	20.74	3,700
1950	Oct. 21, 1949	23.50	6,120		July 18, 1958	19.10	2,340
	Dec. 21, 1949	20.90	4,000		July 31, 1958	19.50	2,680
	May 31, 1950	19.82	3,170				
	June 3, 1950	23.42	6,030	1959	Feb. 10, 1959	19.16	2,420
					Mar. 5, 1959	20.30	3,360
1951	Feb. 20, 1951	19.3	2,810				
	Mar. 11, 1951	18.25	2,040	1960	Mar. 28, 1960	19.70	2,980
	Mar. 17, 1951	21.48	4,470		Apr. 17, 1960	20.85	3,860
	June 25, 1951	18.4	2,180		May 6, 1960	23.10	5,810
	June 29, 1951	22.8	5,520				
	July 7, 1951	20.2	3,470	1961	Apr. 26, 1961	19.37	2,740
	July 12, 1951	20.0	3,320		May 6, 1961	21.60	4,500
	Aug. 29, 1951	20.6	3,770		May 9, 1961	20.70	3,780
	Sept. 4, 1951	18.55	2,320		July 6, 1961	22.07	4,910
					July 22, 1961	19.60	2,900
1952	Nov. 13, 1951	18.40	2,180		July 25, 1961	18.55	2,140
	Mar. 18, 1952	19.10	2,670		Sept.14, 1961	22.20	5,000
	Aug. 21, 1952	19.18	2,740		Sept.25, 1961	19.43	2,740
1953	Apr. 8, 1953	17.35	1,610	1962	Nov. 3, 1961	18.76	2,280
					Nov. 16, 1961	18.70	2,210
1954	June 2, 1954	17.01	1,460		Jan. 26, 1962	18.45	2,000
					Mar. 21, 1962	21.00	4,020
1955	Aug. 31, 1955	20.30	2,960				

PERCHE CREEK BASIN

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 3 cfs and by culvert 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	1959	Nov. 16, 1958	11.19	300
				1960	May 6, 1960	13.09	620
1956	Oct. 4, 1955	12.02	430				
1957	July 27, 1957	11.43	336	1961	May 5, 1961	12.89	582
1958	July 18, 1958	13.13	625	1962	Oct. 30, 1961	9.55	100

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 about 5½ miles south of Columbia.

Drainage area.--0.55 sq mi.

Gage.--Crest-stage gage prior to Aug. 15, 1960; nonrecording and supplemental recording gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 416 cfs and by culvert 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	1961	May 5, 1961	12.01	400
1959	Feb. 9, 1959	11.01	300	1962	Nov. 15, 1961	10.03	180
1960	May 25, 1960	12.60	419				

PEDEN BRANCH BASIN

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1961	Aug. 9, 1961	12.99	128
1958	June 25, 1958	13.21	140	1962	Oct. 30, 1961	11.48	45
1959	Feb. 9, 1959	11.66	50				
1960	Oct. 10, 1959	13.24	140				

BALDWIN BRANCH BASIN

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.

Gage.--Crest-stage gage.

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

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Baldwin Branch near Jefferson City, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Aug. 16, 1958	16.10	1,580	1961	Sept. 13, 1961	14.0	695
1959	Oct. 9, 1958	10.13	340	1962	Mar. 20, 1962	8.46	(a)
1960	Oct. 10, 1959	10.95	420				

a Less than 50 cfs.

MOREAU RIVER BASIN

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 5¾ miles downstream from confluence of North and South Moreau Creeks.

Drainage area.--531 sq 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	1953	Mar. 4, 1953	16.82	7,120
1949	Nov. 3, 1948	21.0	11,800	1954	May 2, 1954	10.0	2,790
	Jan. 24, 1949	23.0	15,100				
	June 7, 1949	23.75	16,500	1955	Feb. 20, 1955	21.0	11,800
	June 8, 1949	19.4	9,680				
				1956	Oct. 6, 1955	19.0	9,200
1950	Oct. 22, 1949	22.50	14,200				
	Jan. 3, 1950	18.0	8,200	1958	Feb. 28, 1958	18.57	8,800
	Jan. 14, 1950	18.0	8,200		Mar. 9, 1958	20.84	11,500
	Mar. 12, 1950	17.85	8,020		June 15, 1958	22.57	14,400
	Apr. 29, 1950	18.0	8,200		July 18, 1958	22.10	13,600
	May 20, 1950	17.5	7,750		July 31, 1958	17.90	8,110
1951	Feb. 21, 1951	23.00	15,100	1959	Feb. 10, 1959	20.62	11,200
	Mar. 11, 1951	18.25	8,400				
	June 24, 1951	17.75	8,020	1960	Oct. 11, 1959	20.85	11,500
	June 29, 1951	18.55	8,800		Apr. 17, 1960	18.80	9,000
	July 7, 1951	23.75	16,500		May 7, 1960	23.30	15,600
	July 13, 1951	22.57	14,400				
				1961	May 6, 1961	22.80	13,100
1952	Oct. 7, 1951	18.00	8,200		May 8, 1961	25.06	17,100
	Oct. 24, 1951	18.00	8,200				
	Nov. 13, 1951	17.66	7,930	1962	Mar. 21, 1962	26.40	19,800
	Feb. 4, 1952	17.90	8,110				

a Annual peak only.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements at 12.9, 15.4, and 16.2 cfs and by culvert 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	120	1961	May 5, 1961	11.88	192
1958	June 12, 1958	11.63	180	1962	June 9, 1962	10.01	95
1959	Feb. 9, 1959	9.08	53				
1960	July 13, 1960	9.48	70				

OSAGE RIVER BASIN

9110. Marais des Cygnes River at Melvern, Kans.
(Published as "Osage River at Melvern" prior to October 1948)

Location.--Lat 38°31'05", long 95°38'15", on west line at sec.3, T.18 S., R.16 E., at highway bridge, half a mile north of Melvern, 2.1 miles upstream from Long Creek, and at mile 441.3.

Drainage area.--363 sq mi.

Gage.--Nonrecording prior to Apr. 9, 1958; recording thereafter. Datum of gage is 939.11 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and by slope-area measurement at 68,500 cfs.

Bankfull stage.--23 ft.

Remarks.--Base for partial-duration series, 5,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Sept. 5, 1940	12.5	2,650	1946	May 10, 1946	19.0	6,430
					June 20, 1946	21.84	8,540
1941	June 1, 1941	21.9	8,620				
	Aug. 26, 1941	24.73	11,600	1947	Mar. 13, 1947	21.9	8,620
					Apr. 5, 1947	20.7	7,700
1942	Oct. 14, 1941	25.46	15,200		Apr. 10, 1947	21.8	8,580
	Oct. 20, 1941	23.3	9,820		June 7, 1947	21.7	8,500
	Oct. 31, 1941	18.7	6,220				
	Aug. 26, 1942	19.2	5,520	1948	July 21, 1948	25.6	19,400
1943	Dec. 27, 1942	17.4	5,320	1949	Jan. 16, 1949	19.8	7,150
	May 18, 1943	20.0	6,360		Feb. 12, 1949	18.4	5,990
	June 10, 1943	21.0	7,020		May 28, 1949	23.4	10,000
	June 17, 1943	21.35	7,770		June 8, 1949	17.4	5,340
	June 23, 1943	21.2	7,170				
				1950	June 3, 1950	24.0	10,400
1944	Mar. 16, 1944	21.0	7,940		Aug. 13, 1950	25.5	16,700
	Apr. 11, 1944	23.0	9,570				
	Apr. 23, 1944	26.7	29,000	1951	May 1, 1951	21.2	8,100
	Apr. 27, 1944	20.8	7,780		June 7, 1951	20.1	7,400
	Aug. 26, 1944	18.0	5,730		July 7, 1951	20.0	7,300
					July 11, 1951	30.8	68,500
1945	Dec. 5, 1944	25.84	19,300		Sept. 5, 1951	27.4	34,500
	Mar. 24, 1945	20.8	7,780				
	Apr. 16, 1945	26.6	24,200	1952	Mar. 10, 1952	18.1	5,380
	May 29, 1945	20.7	7,700				
	July 1, 1945	20.2	7,320	1953	May 19, 1953	5.83	142

Peak stages and discharges of Marais des Cygnes River at Melvern, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 2, 1954	11.0	1,630	1961	Mar. 28, 1961	21.80	7,700
					Apr. 10, 1961	20.18	6,730
1955	Aug. 6, 1955	9.8	1,210		May 6, 1961	23.31	11,300
					May 21, 1961	13.79	2,900
1956	May 9, 1956	6.8	310		May 23, 1961	25.60	16,400
					June 3, 1961	18.14	4,780
1957	May 17, 1957	23.7	8,100		July 23, 1961	15.57	3,430
	May 30, 1957	24.4	8,800		Sept.13, 1961	23.86	10,900
	June 29, 1957	21.8	6,850				
				1962	Oct. 11, 1961	20.81	6,450
1958	July 17, 1958	21.13	4,880		Oct. 13, 1961	14.71	2,900
					Nov. 2, 1961	22.21	7,990
1959	Oct. 8, 1958	14.61	2,400		Nov. 16, 1961	18.12	4,320
	Nov. 17, 1958	16.78	3,050		Jan. 28, 1962	13.94	2,780
	May 6, 1959	14.41	2,340		Jan. 31, 1962	16.42	3,810
					Mar. 22, 1962	21.05	7,670
1960	Oct. 5, 1959	19.78	5,850		May 29, 1962	21.67	7,470
	Mar. 28, 1960	17.58	4,450		Sept.19, 1962	16.50	3,850
	Mar. 30, 1960	12.73	2,310		Sept.22, 1962	18.31	4,890
	Aug. 26, 1960	21.53	7,330		Sept.25, 1962	17.74	4,540
	Aug. 29, 1960	16.76	3,980				
1961	Feb. 18, 1961	16.11	3,660				
	Mar. 22, 1961	13.34	2,540				

9115. Salt Creek near Lyndon, Kans.

Location.--Lat 38°36'40", long 95°38'20", in SW¼ sec.34, T.16 S., R.16 E., at downstream side of highway bridge, 2½ miles east of Lyndon, and at mile 12.6.

Drainage area.--111 sq mi.

Gage.--Nonrecording prior to Nov. 25, 1957; recording thereafter. Datum of gage is 955.78 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and by slope-area measurement at 36,400 cfs.

Historical data.--Flood of 1935 reached a stage a few feet higher than that of July 11, 1951, from separate information by three local residents.

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)
1940	May 21, 1940	6.78	945	1945	June 30, 1945	12.9	6,170
					July 13, 1945	12.9	6,170
1941	June 8, 1941	9.55	2,940				
				1946	Apr. 15, 1946	11.4	4,480
1942	Oct. 14, 1941	11.4	4,940		May 10, 1946	12.59	5,760
	Oct. 20, 1941	12.6	6,730		May 17, 1946	10.0	3,220
	Oct. 31, 1941	11.8	5,490		June 19, 1946	12.0	5,140
	May 12, 1942	11.0	4,420				
	Sept. 3, 1942	11.0	4,420	1947	Mar. 13, 1947	11.8	4,920
					Apr. 5, 1947	10.4	3,580
1943	Dec. 26, 1942	11.0	4,420		Apr. 10, 1947	10.0	3,220
	May 17, 1943	9.85	3,400				
	June 10, 1943	10.8	4,120	1948	July 20, 1948	12.9	6,440
	June 16, 1943	12.14	5,360		July 26, 1948	11.7	5,070
	June 22, 1943	11.4	4,700				
	June 28, 1943	11.7	4,920	1949	June 7, 1949	11.7	5,210
1944	Mar. 15, 1944	10.0	3,220	1950	June 3, 1950	11.1	4,400
	Apr. 11, 1944	14.0	7,700		Aug. 12, 1950	12.5	6,100
	Apr. 22, 1944	16.0	17,900				
	Apr. 26, 1944	10.6	3,760	1951	May 1, 1951	11.97	5,110
					July 6, 1951	12.10	5,250
1945	Oct. 4, 1944	11.0	4,120		July 11, 1951	17.0	36,400
	Dec. 5, 1944	13.3	6,690				
	Mar. 24, 1945	12.2	5,360	1952	Mar. 10, 1952	9.2	2,580
	Apr. 16, 1945	16.0	17,900				
	May 29, 1945	10.0	3,220	1953	Mar. 31, 1953	5.10	370

Peak stages and discharges of Salt Creek near Lyndon, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 2, 1954	7.0	1,240	1961	Feb. 18, 1961	-	-
					Mar. 12, 1961	7.71	1,480
1955	Feb. 18, 1955	5.00	335		Mar. 26, 1961	10.76	4,510
					Apr. 9, 1961	8.40	2,310
1956	June 18, 1956	4.0	108		May 5, 1961	10.52	4,270
					May 22, 1961	12.08	6,060
1957	May 16, 1957	12.5	6,100		June 2, 1961	7.10	1,320
	May 29, 1957	14.0	8,100		July 21, 1961	8.60	2,490
	June 28, 1957	11.2	4,540		Sept.13, 1961	13.08	7,260
1958	Aug. 11, 1958	8.78	2,180	1962	Oct. 10, 1961	9.65	3,520
					Oct. 12, 1961	9.62	3,500
1959	Nov. 17, 1958	9.41	2,690		Nov. 2, 1961	10.69	4,490
	July 4, 1959	7.61	1,420		Nov. 16, 1961	8.22	2,380
	Aug. 31, 1959	7.55	1,380		Mar. 20, 1962	11.16	4,960
					May 29, 1962	10.14	3,940
1960	Oct. 4, 1959	9.93	3,190		Sept.22, 1962	6.94	1,350
	Mar. 26, 1960	7.95	1,620		Sept.24, 1962	8.03	2,220
	Aug. 26, 1960	8.03	1,670				

9120. Switzler Creek at Burlingame, Kans.

Location.--Lat 38°45'13", long 95°49'43", on south line of sec.11, T.15 S., R.14 E., on right bank at upstream side of bridge on U.S. Highway 56 in Burlingame, 4.0 miles upstream from mouth.

Drainage area.--26.3 sq mi.

Gage.--Recording. Datum of gage is 1,036.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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 26, 1955	7.14	124	1959	Oct. 7, 1958	15.09	1,460
1956	Oct. 6, 1955	4.44	25	1960	Mar. 26, 1960	13.92	1,110
1957	July 10, 1957	13.98	966				
1958	July 20, 1958	18.65	4,800	1961	Mar. 26, 1961	15.56	1,680

9123. Dragoon Creek tributary near Lyndon, Kans.

Location.--Lat 38°41'30", long 95°41'20", in NW¼NW¼ sec.6, T.16 S., R.16 E., on left bank at downstream side of bridge on U.S. Highway 75, 5.8 miles north of Lyndon, and 8.0 miles southeast of Osage City.

Drainage area.--3.6 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs and extended above by logarithmic plotting.

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 10, 1957	14.71	2,000	1961	Sept.12, 1961	12.84	720
1958	Aug. 11, 1958	12.92	760	1962	Oct. 12, 1961	12.16	440
1959	Nov. 17, 1958	12.45	550				
1960	Mar. 27, 1960	12.52	580				

9125. Hundred and Ten Mile Creek near Quenemo, Kans.
(Published as "Dragoon Creek near Quenemo, Kans.," 1939-41)

Location.--Lat 38°38'28", long 95°32'48", in SE¼ sec.20, T.16 S., R.17 E., at county highway bridge, 2.7 miles downstream from Dragoon Creek, 4½ miles northwest of Quenemo, and 6.8 miles upstream from mouth.

Drainage area.--321 sq mi.

Gage.--Nonrecording prior to Sept. 5, 1940; recording thereafter. At site 1.8 miles upstream at datum 12.00 ft higher prior to Aug. 3, 1959. At site 2.1 miles downstream at datum 2.00 ft lower Aug. 4, 1959, to Sept. 30, 1961. Datum of gage is 910.77 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and by slope-area measurement at 38,600 cfs. Relation affected at times by backwater from Marais des Cygnes River. Slope used as factor in determining discharge.

Historical data.--Greatest flood known since 1919 is that of July 11, 1951, and second greatest flood (possibly November 1928) reached a stage nearly as high, from information by local resident.

Remarks.--Base for partial-duration series, 5,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	May 21, 1940	15.59	6,240	1950	June 3, 1950	18.85	6,580
1941	June 8, 1941	13.94	5,080	1951	May 1, 1951	21.35	7,670
					June 8, 1951	20.91	7,140
1942	Oct. 20, 1941	23.50	12,800		June 26, 1951	21.71	8,160
	Nov. 1, 1941	19.86	7,440		July 7, 1951	19.84	6,140
	Sept. 3, 1942	18.50	6,280		July 11, 1951	28.47	38,600
					Sept. 4, 1951	a24.60	13,300
1943	Dec. 27, 1942	19.19	6,820				
	May 17, 1943	18.57	6,350	1952	Mar. 10, 1952	18.85	4,650
	June 11, 1943	22.14	9,880				
	June 16, 1943	24.56	17,500	1953	May 17, 1953	6.47	1,060
	June 28, 1943	24.39	16,500				
				1954	June 2, 1954	16.57	6,140
1944	Mar. 16, 1944	22.60	10,600				
	Apr. 11, 1944	23.78	13,800	1955	May 26, 1955	5.44	642
	Apr. 22, 1944	27.34	34,700				
	Apr. 27, 1944	21.34	6,860	1956	June 18, 1956	4.95	495
	Aug. 26, 1944	18.85	5,410				
				1957	May 16, 1957	21.65	8,040
1945	Dec. 5, 1944	25.75	16,900		June 28, 1957	22.79	7,100
	Mar. 24, 1945	23.10	8,810		July 10, 1957	24.44	10,300
	Apr. 16, 1945	27.06	25,000				
	May 27, 1945	21.49	7,010	1958	July 21, 1958	21.78	6,900
	June 30, 1945	27.10	25,000		Aug. 11, 1958	23.40	7,870
	July 9, 1945	21.96	7,400				
	July 13, 1945	20.90	6,600	1959	Nov. 17, 1958	19.67	5,330
1946	May 10, 1946	22.56	8,000	1960	Mar. 27, 1960	28.65	5,550
	May 18, 1946	19.66	5,860				
	June 20, 1946	25.84	16,900	1961	Mar. 27, 1961	29.66	7,940
					Apr. 9, 1961	27.90	5,890
1947	Mar. 13, 1947	23.12	8,810		May 6, 1961	30.13	9,100
	Apr. 5, 1947	20.65	6,390		May 23, 1961	30.27	9,310
	Apr. 11, 1947	20.02	6,030		Sept.13, 1961	30.08	8,330
1948	July 21, 1948	23.33	9,140	1962	Oct. 11, 1961	30.68	6,500
	July 26, 1948	23.74	10,000		Nov. 2, 1961	31.68	8,660
					Mar. 21, 1962	31.34	7,980
1949	Jan. 24, 1949	18.41	6,200				

a Occurred on Sept. 5, 1951

9130. Marais des Cygnes River near Quenemo, Kans.
(Published as "Osage River near Quenemo, Kans.," 1922-38)

Location.--Lat 38°35', long 95°28', in NW¼ sec.12, T.17 S., R.17 E., at county highway bridge, 0.2 mile downstream from Atchison, Topeka and Santa Fe Railway bridge, 2½ miles downstream from Hundred and Ten Mile Creek, 3 miles east of Quenemo, and at mile 419.8.

Drainage area.--1,030 sq mi, approximately.

Gage.--Nonrecording. June 17, 1922, to Feb. 28, 1938, by the Geological Survey and thereafter during high water by U.S. Weather Bureau. Datum of gage is 891.36 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and extended to 131,000 cfs by logarithmic plotting and discharge-drainage area relation for flood of July 1951.

Bankfull stage.--28 ft (U.S. Weather Bureau).

Historical data.--Flood of June 13 or 14, 1844, reached a stage 2.4 ft higher than that of Nov. 17, 1928, at Ottawa, 22 miles downstream, according to U.S. Weather Bureau in Climate of Kansas.

"The three highest floods of record (in the Osage River Basin generally) grouped in order of their importance and maximum stage reached, for the period 1844 to 1900, inclusive, are as follows: 1844, 1882, and 1895.--The November flood of 1928 was about 3 feet higher in the vicinity of Quenemo, Kans., than that of 1909, the next highest of record," quoted information from Congressional Document; 73rd Cong., 1st Sess., H. Doc. 91, Osage River.

Remarks.--Base for partial-duration series, 2,000 cfs. Only annual peaks are shown subsequent to 1937.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 13, 1922	16.65	a3,680	1929	Dec. 14, 1928	20.0	4,980
					Dec. 17, 1928	21.4	5,560
1923	May 25, 1923	26.0	7,600		Jan. 10, 1929	c29.0	6,300
	June 1, 1923	24.0	6,700		Feb. 26, 1929	23.5	6,460
	June 11, 1923	34.65	17,600		Mar. 13, 1929	11.8	2,050
					Apr. 1, 1929	25.0	7,130
1924	Aug. 7, 1924	13.0	2,420		Apr. 11, 1929	19.1	4,620
					Apr. 21, 1929	30.7	10,000
1925	Apr. 4, 1925	13.6	2,620		May 2, 1929	13.1	2,450
	June 3, 1925	20.0	5,600		May 13, 1929	34.2	15,800
					May 19, 1929	14.8	3,020
1926	Apr. 5, 1926	13.4	2,550		June 4, 1929	22.7	6,110
	Apr. 12, 1926	17.0	3,810		June 8, 1929	14.0	2,750
	June 2, 1926	13.6	2,620		July 12, 1929	25.0	7,130
	Sept.13, 1926	17.18	4,230				
				1930	Nov. 1, 1929	19.0	4,580
1927	Oct. 4, 1926	31.4	10,600		May 8, 1930	18.6	4,770
	Oct. 13, 1926	16.3	3,550		June 15, 1930	13.2	2,490
	Oct. 20, 1926	18.4	4,350				
	Mar. 12, 1927	11.9	2,080	1931	May 31, 1931	12.1	2,140
	Apr. 1, 1927	31.3	10,500				
	Apr. 9, 1927	23.2	6,330	1932	Nov. 18, 1931	25.8	7,510
	Apr. 15, 1927	33.6	13,800		Nov. 24, 1931	35.0	19,800
	Apr. 19, 1927	34.98	19,900		June 10, 1932	11.8	2,050
	May 7, 1927	31.8	10,900		June 21, 1932	30.5	9,910
	June 3, 1927	25.4	7,320		June 28, 1932	18.0	4,190
	June 21, 1927	32.1	11,200		July 6, 1932	35.18	20,600
	July 29, 1927	19.0	4,580				
	Aug. 1, 1927	19.8	4,900	1933	Apr. 22, 1933	16.4	3,590
	Aug. 15, 1927	27.3	8,230		May 13, 1933	15.8	3,370
	Aug. 24, 1927	15.5	3,260		May 19, 1933	25.12	7,590
1928	Oct. 2, 1927	23.6	6,500	1934	May 15, 1934	26.22	7,140
	Feb. 7, 1928	20.0	4,980				
	Apr. 7, 1928	18.2	4,270	1935	Nov. 22, 1934	16.8	3,740
	June 2, 1928	32.7	12,200		May 15, 1935	19.6	4,820
	June 18, 1928	28.3	8,720		May 19, 1935	26.8	7,980
	June 24, 1928	12.4	2,230		May 29, 1935	34.2	15,800
	July 1, 1928	15.7	3,340		June 1, 1935	b36.6	36,000
	July 12, 1928	20.6	5,230		June 13, 1935	21.4	5,560
	Aug. 18, 1928	14.0	2,750		Aug. 27, 1935	14.7	2,990
					Sept. 3, 1935	15.4	3,230
1929	Nov. 17, 1928	b38.38	69,400				

a Maximum June 17 to Sept. 30; probably was exceeded during April.
b From floodmark.
c Backwater from ice.

Peak stages and discharges of Marais des Cygnes River near Quenemo, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Oct. 21, 1935	20.6	5,230	1944	Apr. 23, 1944	38.1	63,000
	Nov. 4, 1935	20.4	5,140	1945	Apr. 16, 1945	36.6	36,000
	Nov. 28, 1935	25.0	7,540				
	May 10, 1936	14.2	2,820	1946	June 21, 1946	32.0	11,100
				1947	Mar. 13, 1947	35.09	20,300
1937	Jan. 31, 1937	13.4	2,550	1948	July 21, 1948	35.3	22,000
	Feb. 8, 1937	26.22	8,140	1949	Jan. 24, 1949	29.4	9,290
	Mar. 24, 1937	14.4	2,890	1950	Aug. 13, 1950	34.15	15,600
	May 26, 1937	18.0	4,190				
				1951	July 11, 1951	40.35	131,000
1941	Aug. 27, 1941	33.6	13,800	1952	Mar. 11, 1952	32.65	11,900
1942	Oct. 22, 1941	35.4	23,000	1953	May 18, 1953	12.3	2,200
1943	June 11, 1943	34.9	19,200	1954	June 3, 1954	20.85	5,330

9135. Marais des Cygnes River near Ottawa, Kans.
(Published as "Osage River at, or near Ottawa, Kans.," prior to October 1948)

Location.--Lat 38°37', long 95°15', in NW¼ sec.6, T.17 S., R.20 E., 100 ft upstream from East 7th Street Bridge, half a mile east of Ottawa city limits, three-quarters of a mile downstream from Skunk Creek, and at mile 398.0.

Drainage area.--1,250 sq mi, approximately; 1,240 sq mi, approximately, at site 1¾ miles upstream.

Gage.--Nonrecording Aug. 26, 1902, to Oct. 31, 1905; recording since Oct. 27, 1918, by Geological Survey. Nonrecording 1911-15, by U.S. Weather Bureau. At Main Street Bridge 1¾ miles upstream at datum about 6 ft higher Aug. 26, 1902, to Oct. 31, 1905. U.S. Weather Bureau gage at Main Street Bridge 1¾ miles upstream at different datum 1911-15. Datum of present gage is 858.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 44,000 cfs and by slope-area measurement at 142,000 cfs. Relation affected by rate of change in stage. Discharges shown for 1895, 1897, 1898, 1909, and 1915, based on stage-discharge relation for adjacent periods.

Bankfull stage.--25 ft (equivalent to 23-ft flood stage at U.S. Weather Bureau gage at Main Street Bridge, 1¾ miles upstream).

Historical data.--"Mr. Warren J. Sheldon---reports his father, who settled near Ottawa in 1859, knew of a log left by the flood of June 13 or 14, 1844, near the present intersection of 7th and Poplar Street, and elevation---2.4 feet higher than the flood of 1928, (which was) the highest known since Ottawa was settled," (about 1864), according to Climate of Kansas, published June 1948.

Flood of May 30, 1904, was "6 feet more than 1898" according to May 31, 1904, issue of Ottawa Herald.

Flood of July 8, 1909, reached a stage approximately "1 foot above the 1904 flood" according to the July 8, 1909, issue of the Ottawa Daily Republican.

Remarks.--Gage-height record 1895-98, 1909-15, furnished by U.S. Weather Bureau. Peak discharges for this period not previously published and are approximate. Records at both sites considered equivalent. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges of Marais des Cygnes River near Ottawa, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)
1895	July 6, 1895	a26.87	b16,200
1897	June 7, 1897	a24.95	b13,600
1898	May 16, 1898	a29.1	b20,800
1902	Sept. 7, 1902	16.2	7,280
1903	Oct. 6, 1902	23.0	12,100
	May 24, 1903	24.2	13,400
	June 1, 1903	23.5	12,600
1904	Oct. 7, 1903	23.0	12,100
	Apr. 25, 1904	24.15	13,400
	May 17, 1904	24.25	13,400
	May 30, 1904	c34.35	56,800
	June 27, 1904	26.6	16,800
	July 8, 1904	30.8	29,100
1905	July 3, 1905	26.2	16,100
	Sept.16, 1905	23.8	13,000
	Sept.19, 1905	26.4	16,400
1909	July 8, 1909	c35.35	b67,600
1912	May 13, 1912	c18.5	b8,350
1913	Apr. 8, 1913	c19.5	b9,050
1915	June 12, 1915	a31.8	b31,100
1919	Mar. 18, 1919	22.35	9,510
1920	Sept.14, 1920	25.9	11,600
1921	May 10, 1921	25.1	11,200
	June 10, 1921	22.7	9,720
	Aug. 11, 1921	26.6	12,000
	Aug. 18, 1921	23.9	10,400
1922	Mar. 16, 1922	21.5	9,000
	Apr. 10, 1922	32.90	27,300
	Apr. 28, 1922	19.9	8,040
1923	May 25, 1923	-	9,000
	June 11, 1923	31.00	17,800
1924	Oct. 16, 1923	8.70	2,550
1925	June 4, 1925	14.2	5,320
1926	Apr. 12, 1926	11.16	3,710
1927	Oct. 5, 1926	22.85	9,810
	Apr. 2, 1927	23.2	10,000
	Apr. 21, 1927	31.38	19,500
	May 8, 1927	26.05	11,700
	June 21, 1927	24.4	10,700
	Aug. 15, 1927	21.53	9,020
1928	Oct. 2, 1927	24.92	10,900
	June 3, 1928	24.0	10,500
1929	Nov. 17, 1928	38.65	87,400
	Jan. 11, 1929	21.17	8,800
	Apr. 21, 1929	23.5	10,200
	May 14, 1929	27.12	12,500
1930	May 8, 1930	11.97	3,610
1931	June 12, 1931	7.41	1,690
1932	Nov. 25, 1931	29.67	14,800
	June 20, 1932	22.2	9,420
	July 8, 1932	29.56	14,500
1933	May 19, 1933	18.3	7,030
1934	May 15, 1934	17.78	7,160
1935	May 19, 1935	24.00	10,500
1935	June 2, 1935	34.31	43,200
1936	Nov. 28, 1935	19.37	7,620
1937	Feb. 8, 1937	20.94	8,490
1938	May 23, 1938	25.70	11,300
	June 13, 1938	31.03	17,700
1939	June 21, 1939	9.50	2,680
1940	May 21, 1940	16.80	6,480
1941	Jan. 17, 1941	20.32	8,640
	June 2, 1941	21.93	9,920
	June 10, 1941	21.8	9,840
	Aug. 28, 1941	25.38	11,300
1942	Oct. 7, 1941	20.29	8,640
	Oct. 16, 1941	29.11	15,600
	Oct. 22, 1941	32.8	26,600
	Nov. 2, 1941	27.11	14,400
	June 21, 1942	20.48	8,800
1943	Dec. 28, 1942	23.54	10,200
	May 19, 1943	28.33	13,000
	June 13, 1943	26.97	12,100
	June 18, 1943	29.18	13,800
	June 24, 1943	28.12	12,900
	June 30, 1943	24.36	10,700
1944	Mar. 17, 1944	22.51	9,380
	Apr. 12, 1944	32.50	27,900
	Apr. 23, 1944	37.50	73,000
	Aug. 27, 1944	22.86	9,600
1945	Dec. 6, 1944	35.32	49,800
	Mar. 26, 1945	30.63	16,800
	Apr. 12, 1945	21.01	8,710
	Apr. 16, 1945	37.26	70,100
	Apr. 26, 1945	22.9	10,500
	May 27, 1945	21.5	8,540
	May 29, 1945	25.55	11,400
	June 8, 1945	20.39	8,570
	July 2, 1945	31.30	19,200
	July 10, 1945	27.97	13,000
	July 14, 1945	24.78	11,000
1946	May 12, 1946	27.30	12,500
	May 18, 1946	20.90	8,640
	June 21, 1946	23.07	10,000
	Aug. 14, 1946	21.38	8,790
1947	Mar. 15, 1947	31.21	18,800
	Apr. 6, 1947	29.56	14,600
	Apr. 12, 1947	28.90	13,700
	June 7, 1947	28.10	13,000
	June 23, 1947	21.98	9,290
1948	July 23, 1948	30.0	15,300
	July 26, 1948	25.32	11,200
1949	Jan. 25, 1949	21.20	8,670
	Feb. 13, 1949	21.83	9,030
	May 30, 1949	20.07	8,000
	July 7, 1949	28.3	13,100
1950	June 5, 1950	24.20	11,500
	Aug. 15, 1950	29.69	14,800
1951	May 3, 1951	24.42	10,300
	May 10, 1951	23.14	9,500
	June 9, 1951	26.65	11,600
	June 27, 1951	25.94	11,200
	June 30, 1951	23.64	9,800
	July 9, 1951	23.06	9,460
	July 11, 1951	42.50	142,000
	Sept. 6, 1951	33.63	29,700
1952	Mar. 10, 1952	27.30	12,000

a From floodmark by U.S. Weather Bureau; datum of 1911-15.
b Annual peak only.
c Datum of 1902-5.

Peak stages and discharges of Marais des Cygnes River near Ottawa, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 27, 1953	10.86	2,690	1960	Oct. 5, 1959	25.82	9,860
					Mar. 27, 1960	28.38	12,200
1954	June 3, 1954	17.01	5,660				
				1961	Mar. 29, 1961	29.45	13,700
1955	May 28, 1955	16.29	5,240		Apr. 11, 1961	27.34	11,100
					May 7, 1961	32.63	19,600
1956	Oct. 6, 1955	8.09	1,590		May 25, 1961	30.95	15,900
					Sept.14, 1961	34.95	26,800
1957	May 19, 1957	28.60	11,200				
	June 30, 1957	24.05	8,170	1962	Oct. 13, 1961	28.78	12,700
	July 11, 1957	26.62	9,770		Nov. 4, 1961	31.30	16,600
					Nov. 16, 1961	26.93	10,700
1958	Mar. 10, 1958	24.00	8,140		Feb. 1, 1962	24.70	9,120
	July 11, 1958	26.35	8,930		Mar. 22, 1962	29.60	13,900
	July 18, 1958	26.60	9,130		May 30, 1962	24.40	8,940
1959	Nov. 18, 1958	24.96	9,170				

9136. Rock Creek near Ottawa, Kans.

Location.--Lat 38°33'10", long 95°16'10", in SW¼SW¼ sec.24, T.17 S., R.19 E., on right bank at downstream side of bridge on U.S. Highway 59, 3.7 miles south of Ottawa, and 4.2 miles north of Princeton.

Drainage area.--10 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined 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	July 10, 1957	16.86	600	1961	Sept.13, 1961	20.19	-
1958	July 31, 1958	16.03	450	1962	Nov. 2, 1961	17.38	700
1959	May 17, 1959	13.53	200				
1960	Oct. 2, 1959	17.20	670				

9137. Middle Creek near Princeton, Kans.

Location.--Lat 38°28'40", long 95°15'10", in SE¼SE¼ sec.13, T.18 S., R.19 E., on right bank at downstream side of bridge on U.S. Highway 59, 1.3 miles southeast of Princeton, and 5.0 miles north of Richmond.

Drainage area.--50 sq mi, approximately.

Gage.--Crest-stage gage.

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

Historical data.--Flood of 1951 reached a stage of 26.8 ft, from information by local resident (discharge, 7,300 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)
1951	-	26.8	7,300	1960	Oct. 2, 1959	18.42	2,700
1957	May 16, 1957	18.04	2,600	1961	Sept.13, 1961	29.73	10,000
1958	May 24, 1958	15.39	1,600	1962	Nov. 2, 1961	19.84	3,100
1959	Aug. 16, 1959	14.13	1,200				

9140. Pottawatomie Creek near Garnett, Kans.

Location.--Lat 38°20', long 95°15', in SW¼ sec.6, T.20 S., R.20 E., at bridge on U.S. Highway 59, 0.2 mile downstream from confluence of North Pottawatomie and Cedar Creeks, 0.4 mile upstream from Atchison, Topeka and Santa Fe Railway bridge, 4 miles north of Garnett, and at mile 40.7.

Drainage area.--334 sq mi.

Gage.--Nonrecording prior to Mar. 28, 1952; recording thereafter. Datum of gage is 873.0 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs and by contracted-opening measurement at 45,300 cfs. Relation affected by rate of change in stage.

Bankfull stage.--26 ft (U.S. Weather Bureau).

Historical data.--Flood of November 1928 "reached a crest the highest known since 1858 or 1844.--it was something like 2 feet higher than last fall at its highest.---last fall's flood was greater than any there have been in fifty year" at Lane, Kansas 25 miles downstream, according to the Nov. 23, 1928, issue of the Lane Gazette.

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)
1929	Nov. 17, 1928	a32.2	b44,000	1948	July 20, 1948	30.5	23,000
					Sept. 8, 1948	24.0	6,350
1940	Apr. 17, 1940	c19.6	5,060				
				1949	Jan. 24, 1949	24.53	6,780
1941	Jan. 17, 1941	26.8	9,860		Mar. 31, 1949	25.0	7,200
	Jan. 25, 1941	c22.5	6,320		July 7, 1949	28.5	13,400
	June 1, 1941	26.86	9,960				
	June 9, 1941	c25.47	8,030	1950	July 13, 1950	24.7	6,300
	Aug. 26, 1941	27.0	10,500		Aug. 13, 1950	29.0	13,600
	Sept. 6, 1941	c26.2	8,980		Aug. 27, 1950	24.35	6,020
1942	Oct. 14, 1941	30.42	22,400	1951	May 1, 1951	25.09	6,700
	Oct. 20, 1941	25.1	7,190		June 23, 1951	27.51	11,800
	Oct. 31, 1941	c27.1	10,100		June 30, 1951	28.44	12,500
	Mar. 16, 1942	23.0	6,730		July 11, 1951	32.30	45,300
	Apr. 10, 1942	26.0	9,200		Aug. 27, 1951	25.0	6,600
	Apr. 27, 1942	c25.5	8,470		Sept. 5, 1951	27.5	10,200
	June 19, 1942	23.01	6,220		Sept.10, 1951	24.8	6,400
					Sept.13, 1951	26.2	7,900
1943	Oct. 3, 1942	c23.6	6,630				
	Dec. 27, 1942	25.7	7,900	1952	Mar. 10, 1952	24.0	5,780
	May 18, 1943	28.6	13,700				
	June 24, 1943	28.5	12,200	1953	Mar. 31, 1953	17.20	3,060
1944	Apr. 10, 1944	30.0	18,800	1954	May 2, 1954	19.36	4,070
	Apr. 23, 1944	30.6	23,600				
	Aug. 26, 1944	28.76	12,900	1955	May 26, 1955	22.50	4,630
1945	Dec. 5, 1944	27.4	10,300	1956	Oct. 5, 1955	20.90	3,450
	Mar. 25, 1945	27.0	9,700				
	Apr. 16, 1945	30.3	21,800	1957	May 17, 1957	25.85	9,150
	Sept.28, 1945	27.5	10,400				
				1958	May 24, 1958	28.50	12,900
1946	Oct. 1, 1945	24.9	7,110		June 25, 1958	28.30	12,300
	Jan. 5, 1946	26.5	8,950				
	Apr. 23, 1946	27.7	11,300	1959	Apr. 8, 1959	-	4,110
					Apr. 9, 1959	20.94	-
1947	Mar. 13, 1947	25.5	7,700				
	Apr. 5, 1947	28.9	14,800	1960	Oct. 5, 1959	27.34	9,760
	Apr. 10, 1947	27.2	10,000				
	Apr. 13, 1947	25.4	7,600	1961	May 6, 1961	31.15	27,400
	June 6, 1947	23.7	6,140		Sept.13, 1961	35.38	57,000
1948	Mar. 19, 1948	28.6	12,400	1962	Nov. 2, 1961	29.38	18,500
	Mar. 23, 1948	24.8	7,020				

a From floodmark remembered by local resident in 1939.
b Annual peak only.
c Occurred on following day.

9150. Big Bull Creek near Hillsdale, Kans.

Location.--Lat 38°38'12", long 94°53'29", in SW¼SE¼ sec.20, T.16 S., R.23 E., 1.0 mile upstream from Ten Mile Creek, 3 miles southwest of Hillsdale, and 16.2 miles upstream from mouth.

Drainage area.--147 sq mi.

Gage.--Recording. Datum of gage is 854.49 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and by slope-area measurement at 45,200 cfs.

Historical data.--Flood of July 11, 1951, is maximum known since 1910, from information by local resident.

Remarks.--Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 31, 1958	16.90	7,400	1961	Mar. 27, 1961	11.20	3,190
	Aug. 11, 1958	15.99	5,640		Apr. 9, 1961	12.62	3,790
	Aug. 16, 1958	17.08	7,540		May 6, 1961	17.15	8,150
1959	May 18, 1959	18.20	12,000		May 8, 1961	9.70	2,520
					Aug. 2, 1961	11.98	3,540
1960	Oct. 4, 1959	11.97	3,200		Sept. 3, 1961	17.48	9,440
	Mar. 27, 1960	11.65	3,390		Sept.13, 1961	20.85	39,600
	Apr. 29, 1960	-	3,490	1962	Nov. 2, 1961	17.60	9,500
	Apr. 30, 1960	13.70	-		Nov. 16, 1961	15.82	5,930
1961	Mar. 13, 1961	11.66	3,400		Mar. 20, 1961	14.63	4,650

9160. Marais des Cygnes River at Trading Post, Kans.
(Published as "Osage River at Trading Post, Kans.," 1928-48)

Location.--Lat 38°15', long 94°41', in NE¼ sec.5, T.21 S., R.25 E., at bridge on U.S. Highway 69 at Trading Post, 1 mile upstream from Big Sugar Creek, and at mile 316.0.

Drainage area.--2,880 sq mi.

Gage.--Nonrecording prior to Feb. 5, 1935; recording thereafter. Datum of gage is 761.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 110,000 cfs and by velocity-area study to 148,000 cfs. Relation affected at times by backwater from Big Sugar Creek.

Bankfull stage.--24 ft (U.S. Weather Bureau).

Historical data.--Flood data of 1921-23 are based on periodic readings of stage and a stage-discharge relation based on later periods, and are approximate.

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)
1921	Aug. 14, 1921	25.15	a17,600	1929	Apr. 24, 1929	24.12	16,000
					May 16, 1929	25.70	19,400
1922	Apr. 12, 1922	27.13	b31,500		June 5, 1929	22.45	13,900
1923	June 12, 1923	27.05	b29,800	1930	Feb. 9, 1930	19.80	11,700
1924	Oct. 15, 1923	20.21	c11,900	1931	May 20, 1931	13.4	8,770
1929	Nov. 18, 1928	34.45	106,000	1932	Nov. 29, 1931	25.52	19,000
	Dec. 19, 1928	21.3	12,800		June 23, 1932	22.2	13,600
	Jan. 13, 1929	24.1	16,000		July 10, 1932	22.8	14,400

a Maximum Aug. 4, to Sept. 30, 1921; probably maximum for year.
b Annual peak only.
c Maximum Oct. 1, to Dec. 31, 1923; probably maximum for year.

Peak stages and discharges of Marais des Cygnes River at Trading Post, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	May 22, 1933	16.5	10,100	1945	July 12, 1945	25.53	18,600
1934	May 17, 1934	16.35	9,560	1946	Oct. 2, 1945	23.18	14,000
					Jan. 8, 1946	24.46	15,800
1935	Nov. 23, 1934	20.45	12,100		Apr. 25, 1946	22.95	15,300
	May 23, 1935	25.94	20,600		May 14, 1946	23.16	15,700
	June 5, 1935	28.46	40,800		Aug. 15, 1946	21.36	13,200
1936	Nov. 30, 1935	22.05	14,200	1947	Mar. 18, 1947	25.58	18,200
					Apr. 8, 1947	27.00	28,800
1937	Mar. 25, 1937	21.68	13,100		Apr. 26, 1947	20.57	12,200
	June 10, 1937	22.95	16,000		June 11, 1947	25.91	20,100
					June 26, 1947	25.48	18,500
1938	May 24, 1938	29.04	48,800				
	June 16, 1938	26.87	28,200	1948	Mar. 24, 1948	24.67	16,800
					June 26, 1948	21.27	12,700
1939	June 22, 1939	5.17	2,650		July 21, 1948	27.17	30,900
					July 27, 1948	28.21	41,100
1940	May 23, 1940	13.65	8,880				
				1949	Feb. 14, 1949	24.33	15,000
1941	Jan. 19, 1941	23.33	14,900		Apr. 2, 1949	21.50	12,500
	Jan. 27, 1941	20.41	12,100		May 23, 1949	21.18	12,200
	June 13, 1941	22.47	13,900		July 11, 1949	26.58	21,200
	Aug. 30, 1941	20.30	12,000				
				1950	Oct. 24, 1949	23.29	14,500
1942	Oct. 6, 1941	24.87	18,000		July 16, 1950	24.01	16,700
	Oct. 27, 1941	26.22	23,000		Aug. 20, 1950	26.59	25,700
	Nov. 5, 1941	25.70	20,700		Aug. 29, 1950	23.29	14,500
	Apr. 11, 1942	23.40	15,000				
	Apr. 28, 1942	21.89	13,300	1951	May 5, 1951	23.97	15,100
	June 22, 1942	23.00	14,500		June 12, 1951	23.59	14,500
	Sept. 5, 1942	20.40	12,100		July 1, 1951	30.39	55,300
					July 14, 1951	38.12	148,000
1943	Dec. 30, 1942	23.84	16,800		Aug. 29, 1951	22.63	13,100
	May 19, 1943	27.79	41,600		Sept.10, 1951	30.2	53,200
	June 13, 1943	21.36	12,800				
	June 20, 1943	22.52	14,300	1952	Mar. 14, 1952	26.5	20,400
	June 27, 1943	23.42	15,000				
				1953	May 19, 1953	11.12	-
1944	Mar. 19, 1944	25.10	20,400		May 28, 1953	-	7,590
	Apr. 15, 1944	26.57	30,100				
	Apr. 25, 1944	30.58	74,400	1954	May 3, 1954	25.10	12,500
	Aug. 27, 1944	26.18	26,600				
				1955	May 29, 1955	24.18	16,100
1945	Dec. 10, 1944	27.18	29,800		July 7, 1955	20.50	12,100
	Mar. 17, 1945	20.5	12,200				
	Mar. 22, 1945	22.05	13,500	1956	Oct. 7, 1955	16.35	10,000
	Mar. 29, 1945	24.4	15,600				
	Apr. 18, 1945	29.80	57,000	1957	May 20, 1957	d21.55	13,900
	Apr. 29, 1945	23.23	14,800		July 13, 1957	21.90	14,700
	May 3, 1945	20.58	12,200				
	May 27, 1945	23.04	14,600	1958	Mar. 12, 1958	d24.60	16,500
	June 2, 1945	25.7	19,000		July 14, 1958	e27.60	20,000
	June 10, 1945	21.04	12,500		July 22, 1958	d27.30	20,400
	July 6, 1945	25.15	17,000		Aug. 2, 1958	d27.70	15,300

d Occurred on following day.
e Occurred on July 18, 1958.

9165. Big Sugar Creek at Farlinville, Kans.

Location.--Lat 38°14'07", long 94°51'13", in SE¼ sec.11, T.21 S., R.23 W., at bridge on State Highway 7 at Farlinville, 5.2 miles upstream from Richland Creek, 14.0 miles upstream from Little Sugar Creek, and 21.1 miles upstream from mouth.

Drainage area.--198 sq mi.

Gage.--Nonrecording prior to June 3, 1952; recording thereafter. At datum 0.72 ft higher 1929-32. Datum of gage is 784.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,500 cfs and by contracted-opening measurement at 24,000 cfs. Relation affected by rate of change in stage and at times by backwater from Marais des Cygnes River.

Historical data.--Flood of 1898 was maximum known since 1875 and reached a stage of about 31 ft at fence near gage, from information by local resident in 1957. Flood of Nov. 17, 1928, reached a stage of about 30 ft, from floodmark.

Remarks.--Base for partial-duration series, 3,000 cfs. Gage heights 1929-32 adjusted to present datum.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	1898	31	-	1952	Mar. 10, 1952	24.5	5,250
					Apr. 5, 1952	20.0	3,500
1929	Nov. 17, 1928	30	-				
	Apr. 20, 1929	19.3	3,350	1953	May 23, 1953	18.84	3,530
	May 12, 1929	23.76	4,880				
	May 18, 1929	24.86	a5,430	1954	May 2, 1954	28.42	14,800
1930	May 11, 1930	19.1	3,290	1955	May 26, 1955	21.47	4,390
					July 6, 1955	23.72	5,450
1931	May 19, 1931	16.1	2,470		Sept.23, 1955	23.43	5,100
					Sept.27, 1955	25.80	6,020
1932	Nov. 24, 1931	20.3	b3,650				
				1956	Oct. 5, 1955	17.38	3,030
1949	Jan. 16, 1949	21.0	3,860				
	Jan. 24, 1949	21.6	4,020	1957	May 17, 1957	22.95	4,990
	Feb. 13, 1949	21.5	3,990		June 12, 1957	17.40	3,080
	Mar. 26, 1949	19.4	3,360				
	May 31, 1949	21.4	3,960	1958	Mar. 8, 1958	25.00	5,350
	July 7, 1949	25.0	5,500		Apr. 3, 1958	23.28	4,940
	July 10, 1949	25.0	c4,800		June 25, 1958	22.48	4,670
					July 17, 1958	27.05	6,080
1950	Apr. 29, 1950	27.0	7,200				
	June 3, 1950	22.4	4,720	1960	Oct. 5, 1959	20.03	4,270
	June 28, 1950	20.76	4,090		Mar. 24, 1960	19.52	3,700
	July 13, 1950	24.4	5,440		Apr. 30, 1960	27.32	6,610
	Aug. 8, 1950	19.0	3,240		May 6, 1960	24.35	5,190
	Aug. 12, 1950	27.7	8,800				
	Aug. 27, 1950	18.6	3,120	1961	Dec. 11, 1960	21.68	3,620
					Mar. 13, 1961	20.89	3,390
1951	June 20, 1951	19.65	3,120		May 6, 1961	29.88	30,000
	June 23, 1951	23.87	6,310		May 17, 1961	21.95	3,700
	June 26, 1951	22.98	5,420		Sept.13, 1961	30.28	37,600
	June 30, 1951	28.53	16,300				
	July 11, 1951	29.1	22,500	1962	Oct. 13, 1961	24.53	4,530
	Sept. 5, 1951	28.50	16,100		Nov. 2, 1961	27.37	6,580
	Sept.10, 1951	29.0	21,000		Nov. 16, 1961	24.40	4,480
	Sept.13, 1951	29.2	24,000		Mar. 21, 1962	26.33	5,250
1952	Nov. 12, 1951	-	-				

a Maximum Feb. 21 to Sept. 30, 1929; maximum for year occurred Nov. 17, 1928.
b Maximum Oct. 1, 1931, to June 30, 1932; probably maximum for year.
c Backwater from Marais des Cygnes River.

9170. Little Osage River at Fulton, Kans.

Location.--Lat 38°01'20", long 94°42'50", on east line sec.25, T.23 S., R.24 E., at bridge on U.S. Highway 69, three-quarters of a mile north of Fulton.

Drainage area.--295 sq mi.

Gage.--Nonrecording prior to May 29, 1952; recording thereafter. Datum of gage is 776.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected by rate of change in stage.

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)
1949	Jan. 15, 1949	22.7	7,600	1955	Sept.23, 1955	20.32	6,180
	July 8, 1949	25.23	10,000	1956	Oct. 5, 1955	23.15	8,210
1950	July 19, 1950	28.5	15,500	1957	May 17, 1957	21.28	6,370
1951	Apr. 6, 1951	26.4	11,600	1958	Mar. 8, 1958	a20.17	5,250
	June 24, 1951	21.95	6,660		July 17, 1958	28.43	15,300
	June 30, 1951	28.7	15,300	1959	May 17, 1959	10.31	1,550
	July 4, 1951	20.8	5,760	1960	Apr. 30, 1960	19.46	5,610
	July 12, 1951	28.75	15,400		May 6, 1960	18.77	5,680
	Aug. 27, 1951	20.8	5,760	1961	Apr. 25, 1961	20.88	5,940
	Sept. 5, 1951	24.5	9,200		May 1, 1961	20.25	5,620
	Sept.10, 1951	28.3	14,500		May 6, 1961	29.38	20,700
	Sept.12, 1951	22.6	7,240		May 9, 1961	25.70	9,150
1952	Feb. 2, 1952	26.2	11,000		Sept.14, 1961	27.08	11,600
	Feb. 4, 1952	20.7	5,800		Sept.24, 1961	22.41	6,700
1953	May 23, 1953	7.88	894	1962	Oct. 13, 1961	17.82	5,320
1954	May 2, 1954	28.93	18,200		Nov. 3, 1961	24.23	7,820
1955	Mar. 15, 1955	21.70	7,220		Nov. 15, 1961	18.88	6,040
	May 12, 1955	18.25	5,300		Mar. 20, 1962	22.85	7,170
	May 26, 1955	a19.35	5,230				

a Occurred on following day.

9174. Marmaton River tributary near Fort Scott, Kans.

Location.--Lat 37°47'30", long 94°47'50", in SW¼SW¼ sec.9, T.26 S., R.24 E., on left bank at downstream side of highway bridge, 6 miles southwest of Fort Scott.

Drainage area.--3 sq mi, approximately.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 150 cfs and by contracted-opening measurement at 1,600 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 9, 1957	12.47	620	1961	May 5, 1961	15.85	1,600
1958	June 16, 1958	15.80	1,550	1962	Oct. 30, 1961	15.00	1,300
1959	July 15, 1959	10.13	180				
1960	May 6, 1960	11.33	370				

9175. Marmaton River near Fort Scott, Kans.

Location.--Lat 37°51'17", long 94°42'20", in NE¼SW¼ sec.19, T.25 S., R.25 E., on right bank, 1 mile north of Fort Scott, 1.1 mile downstream from Mill Creek, and at mile 33.5.

Drainage area.--393 sq mi. 411 sq mi at site used prior to Oct. 1, 1960.

Gage.--Nonrecording prior to Dec. 4, 1934; recording thereafter. At site 3.3 miles downstream at same datum prior to Oct. 1, 1960. Datum of gage is 752.60 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 23,000 cfs and extended to 37,400 cfs by logarithmic plotting. Relations affected by rate of change in stage.

Bankfull stage.--30 ft (U.S. Weather Bureau).

Historical data.--"The highest flood of recent record occurred in September 1915 when the maximum stage exceeded that of 1904 by about 4 feet" according to Congressional Document, 73rd Cong., 1st Sess., H. Doc. 91, Osage River.

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)
1904	May 1904	a38	-	1937	Oct. 6, 1936	32.8	12,400
					Oct. 10, 1936	33.5	15,000
1915	Sept. 7, 1915	b42.34	-		Mar. 24, 1937	28.60	7,640
					June 14, 1937	33.97	16,900
1916	June 11, 1916	b40.6	-				
				1938	Mar. 29, 1938	25.19	5,970
1921	Sept.14, 1921	21.6	c4,140		May 20, 1938	27.76	6,690
					May 24, 1938	32.80	12,200
1922	Mar. 14, 1922	36.10	a28,700		May 30, 1938	25.60	6,170
					June 4, 1938	30.15	8,820
1923	June 10, 1923	33.16	a13,500		June 9, 1938	23.08	5,170
1924	July 12, 1924	29.72	a8,000	1939	Apr. 16, 1939	12.71	1,730
1925	Apr. 4, 1925	25.99	d5,900	1940	Apr. 17, 1940	21.49	4,440
1927	Aug. 14, 1927	b39.35	-	1941	Apr. 16, 1941	35.00	21,400
					Apr. 19, 1941	32.19	10,800
1929	Apr. 20, 1929	31.0	9,000		June 1, 1941	25.25	5,570
	Apr. 25, 1929	26.1	5,950		June 10, 1941	30.28	8,420
	May 6, 1929	29.0	7,500		Aug. 27, 1941	25.88	6,140
	May 12, 1929	37.04	e35,300		Sept. 7, 1941	36.88	34,200
	May 19, 1929	33.4	14,600		Sept.30, 1941	24.07	5,390
1930	June 12, 1930	27.0	6,400	1942	Oct. 5, 1941	35.12	22,800
					Oct. 14, 1941	23.70	5,380
1931	May 19, 1931	33.2	13,800		Oct. 20, 1941	f24.85	5,890
					Oct. 26, 1941	f23.22	5,130
1932	Nov. 23, 1931	29.0	7,500		Nov. 1, 1941	32.52	12,700
					Apr. 10, 1942	28.21	7,460
1933	May 13, 1933	25.73	5,790		June 21, 1942	33.99	17,100
	May 29, 1933	27.16	6,480				
	Sept. 3, 1933	25.00	5,500	1943	Dec. 27, 1942	28.66	7,210
	Sept.29, 1933	31.40	9,700		May 11, 1943	31.70	10,100
					May 18, 1943	36.90	34,200
1934	Apr. 5, 1934	24.1	5,140		June 4, 1943	f27.32	6,980
					June 9, 1943	f24.42	5,590
1935	Nov. 22, 1934	24.0	5,100		June 23, 1943	23.39	5,170
	May 19, 1935	31.44	9,460				
	May 28, 1935	37.30	37,400	1944	Mar. 19, 1944	29.34	7,630
	June 3, 1935	24.51	5,720		Apr. 11, 1944	33.49	14,000
	June 7, 1935	29.63	8,340		Apr. 23, 1944	33.30	13,400
	June 15, 1935	23.02	5,050		Apr. 27, 1944	30.17	8,380
	June 26, 1935	27.93	7,340		May 21, 1944	23.20	5,210
					June 21, 1944	28.44	7,010
1936	Nov. 4, 1935	33.68	15,700		Aug. 26, 1944	26.60	6,670
	Nov. 10, 1935	28.26	7,400		Sept.29, 1944	30.01	8,200
	Nov. 27, 1935	28.72	7,790				
	Feb. 26, 1936	23.12	5,070	1945	Oct. 3, 1944	28.97	7,420
	Sept.28, 1936	26.26	6,430		Dec. 5, 1944	25.16	5,930

a Annual peak only. b From floodmark obtained in 1929. c Maximum Aug. 5 to Sept. 30, 1921; probably was exceeded during period of no record. d Maximum Oct. 1, 1924, to June 6, 1925; probably was exceeded during period of no record. e Maximum Apr. 16 to Sept. 30, 1929; probably maximum for year. f Occurred on following day.

Peak stages and discharges of Marmaton River near Fort Scott, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Mar. 20, 1945	28.09	6,820	1952	Nov. 12, 1951	24.95	5,840
	Apr. 16, 1945	32.28	11,100		Feb. 2, 1952	33.92	16,700
	Apr. 21, 1945	25.97	6,280		Mar. 10, 1952	26.13	6,500
	Apr. 24, 1945	23.11	5,040				
	May 27, 1945	24.25	5,650	1953	May 18, 1953	8.53	849
	June 6, 1945	24.08	5,530				
	June 17, 1945	27.45	6,360	1954	May 2, 1954	34.26	18,300
	July 2, 1945	29.45	7,700				
	July 10, 1945	23.33	5,170	1955	Oct. 26, 1954	25.45	6,120
	Aug. 7, 1945	31.97	10,600		Jan. 5, 1955	23.06	5,030
					May 12, 1955	32.20	10,800
1946	Jan. 6, 1946	33.82	16,400		May 27, 1955	29.15	8,010
					June 27, 1955	f25.65	6,160
1947	Apr. 11, 1947	27.58	6,980				
	Apr. 25, 1947	27.79	7,060	1956	Oct. 5, 1955	25.76	6,250
	May 21, 1947	28.50	7,700				
	June 23, 1947	25.03	5,270	1957	May 17, 1957	30.94	8,960
1948	Mar. 23, 1948	23.55	5,220	1958	Mar. 9, 1958	28.98	7,620
	May 11, 1948	25.23	6,000		Mar. 23, 1958	28.78	7,590
	June 23, 1948	32.90	13,600		Apr. 3, 1958	27.25	6,640
	July 20, 1948	25.77	6,300		June 25, 1958	22.99	5,240
	July 27, 1948	35.20	23,400		July 12, 1958	32.20	10,200
					July 16, 1958	37.40	27,200
1949	Nov. 2, 1948	27.08	7,010				
	Jan. 16, 1949	32.35	12,500	1959	Apr. 8, 1959	16.64	2,730
	Jan. 24, 1949	29.59	8,760				
	Feb. 13, 1949	23.77	5,310	1960	Oct. 5, 1959	24.78	5,860
	May 19, 1949	24.59	5,700		Apr. 14, 1960	27.30	6,580
	May 24, 1949	23.08	5,260		May 6, 1960	28.48	7,560
	July 8, 1949	32.85	13,300				
	July 13, 1949	24.0	5,400	1961	Apr. 25, 1961	31.10	6,140
					May 1, 1961	33.36	7,080
1950	July 11, 1950	32.47	12,700		May 6, 1961	42.67	38,100
	July 19, 1950	32.98	13,800		Sept. 4, 1961	30.10	5,740
	Aug. 8, 1950	23.30	5,080		Sept.14, 1961	42.15	26,800
					Sept.25, 1961	30.04	5,720
1951	May 22, 1951	32.50	11,500				
	June 20, 1951	23.95	5,470	1962	Oct. 31, 1961	39.10	11,400
	June 24, 1951	33.90	16,600		Nov. 3, 1961	36.92	9,240
	June 30, 1951	35.96	27,800		Nov. 16, 1961	33.40	7,100
	July 4, 1951	30.77	9,020		Mar. 21, 1962	35.68	8,310
	July 11, 1951	34.84	21,200		June 3, 1962	28.40	5,060
	Aug. 28, 1951	29.18	7,840				
	Sept. 5, 1951	26.64	6,440				
	Sept.10, 1951	36.06	28,400				
	Sept.13, 1951	26.19	6,350				

f Occurred on following day.

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

Location.--Lat 38°11'47", long 94°05'05", in SW¼NW¼ 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.--0.03 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by estimation of flow at 2.4 cfs and by culvert 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)	30	1959	May 18, 1959	4.77	60
				1960	May 5, 1960	4.57	55
1956	Oct. 5, 1955	5.63	82				
1957	May 16, 1957	5.92	88	1961	June 20, 1961	4.15	44
1958	May 4, 1958	4.72	58	1962	-	(a)	(b)

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

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1959	Feb. 9, 1959	7.25	255
				1960	May 5, 1960	8.72	395
1956	May 30, 1956	6.16	165				
1957	June 4, 1957	7.65	300	1961	May 5, 1961	8.62	390
1958	July 16, 1958	8.67	392	1962	Oct. 30, 1961	6.08	160

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, 2.0 miles west of Republic.

Drainage area.--0.57 sq mi.

Gage.--Nonrecording prior to Nov. 22, 1961; nonrecording and supplemental recording gage thereafter.

Stage-discharge relation.--Defined by culvert 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	1961	May 8, 1961	8.58	178
1958	July 7, 1958	8.82	192	1962	-	(a)	(b)
1959	-	(a)	25				
1960	Aug. 4, 1960	7.99	145				

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

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.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs and by culvert 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	1961	Mar. 6, 1961	3.77	302
1958	Sept. 2, 1958	5.33	492	1962	Mar. 20, 1962	1.08	17
1959	Feb. 9, 1959	3.91	320				
1960	Oct. 4, 1959	2.87	196				

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 feet 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, approximately.

Gage.--Nonrecording prior to May 4, 1960; recording 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	Dec. 19, 1895	27.25	a72,000	1938	May 8, 1938	16.50	9,700
1909	July 1909	29.3	a92,000	1939	May 8, 1939	17.3	10,900
1922	May 14, 1922	18.00	9,440	1940	May 1, 1940	13.6	6,830
1923	May 24, 1923	15.80	7,930	1941	Apr. 15, 1941	19.10	14,400
					Apr. 19, 1941	26.5	57,000
1924	May 29, 1924	21.60	21,400				
	July 20, 1924	20.90	14,800	1942	Oct. 5, 1941	26.4	56,300
	Aug. 17, 1924	21.05	15,000		Oct. 31, 1941	22.50	21,600
					June 18, 1942	19.80	12,800
1925	Sept.22, 1925	22.30	23,900				
				1943	Dec. 28, 1942	22.20	20,300
1926	Nov. 8, 1925	15.40	8,600		May 11, 1943	23.03	23,600
					May 19, 1943	31.8	120,000
1927	Apr. 1, 1927	24.95	34,800				
	Apr. 10, 1927	24.60	33,200	1944	Aug. 27, 1944	22.0	27,000
	Apr. 16, 1927	22.00	22,800				
	Apr. 20, 1927	18.85	13,300	1945	Mar. 3, 1945	18.40	12,500
	June 21, 1927	18.95	13,700		Apr. 14, 1945	25.6	56,400
	July 21, 1927	24.45	32,300		June 7, 1945	20.30	14,000
	Aug. 9, 1927	21.50	21,000		Sept.23, 1945	19.70	12,600
	Aug. 18, 1927	23.10	27,000		Sept.26, 1945	23.70	26,900
1928	June 10, 1928	20.90	19,000	1946	Feb. 14, 1946	16.28	8,790
	June 29, 1928	20.98	19,300				
				1947	Apr. 11, 1947	21.00	16,000
1929	Apr. 9, 1929	20.70	18,400		Apr. 25, 1947	25.25	52,800
	May 6, 1929	20.70	18,400		July 1, 1947	20.00	13,200
	May 13, 1929	20.50	17,800				
	May 19, 1929	20.85	18,700	1948	June 22, 1948	24.6	47,400
					June 26, 1948	20.04	19,300
1930	Feb. 5, 1930	15.55	8,800				
				1949	Feb. 16, 1949	19.2	14,400
1931	May 20, 1931	19.80	15,700				
	Aug. 7, 1931	22.40	24,300	1950	Oct. 23, 1949	21.9	26,300
					Jan. 5, 1950	20.37	18,400
1932	June 28, 1932	24.00	30,700		Jan. 14, 1950	21.57	24,300
1933	Dec. 25, 1932	23.48	30,400	1951	Feb. 21, 1951	21.40	20,200
	May 14, 1933	20.30	20,000		July 1, 1951	22.00	23,300
	May 26, 1933	17.80	13,200		July 4, 1951	25.35	50,100
					Sept.10, 1951	20.16	15,600
1934	Sept.12, 1934	20.50	20,600				
				1952	Nov. 12, 1951	18.80	11,900
1935	Oct. 18, 1934	19.90	19,100				
	Mar. 12, 1935	22.59	36,200	1953	Apr. 24, 1953	11.85	4,860
	June 8, 1935	17.45	12,300				
	June 14, 1935	20.61	22,000	1954	May 2, 1954	9.80	3,610
	June 21, 1935	17.45	12,300				
				1955	Oct. 27, 1954	19.81	14,400
1936	Sept.28, 1936	17.06	11,800		Feb. 20, 1955	19.0	12,300
1937	Nov. 2, 1936	20.46	19,300	1956	July 14, 1956	10.50	4,040
	Jan. 15, 1937	19.30	15,200				
	Jan. 31, 1937	18.28	12,700	1957	May 24, 1957	21.78	23,000
	Apr. 30, 1937	19.50	15,800				
	June 9, 1937	21.40	23,300	1958	Mar. 24, 1958	20.35	17,700
	June 14, 1937	23.15	34,300		July 8, 1958	20.8	19,100

a Annual peak only.

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)
1958	July 17, 1958	25.3	45,000	1961	May 1, 1961	20.70	18,400
					May 6, 1961	23.38	38,400
1959	Feb. 10, 1959	16.30	8,660		May 9, 1961	25.30	55,500
1960	Oct. 5, 1959	20.8	16,800	1962	Mar. 20, 1962	17.75	9,350
	May 6, 1960	19.35	12,000				

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, 1¾ miles downstream from Alder Creek, and 5¾ miles upstream from mouth.

Drainage area.--420 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 18, 1952; recording 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 20, 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	-	1952	Nov. 12, 1951	21.50	8,160
					Feb. 2, 1952	14.70	3,580
1923	June 10, 1923	20.86	a7,310				
				1953	Apr. 24, 1953	10.67	2,190
1924	Dec. 13, 1923	16.75	4,460				
	Feb. 17, 1924	16.61	4,370	1954	May 2, 1954	8.63	1,570
	May 24, 1924	19.32	5,790				
	May 29, 1924	22.92	11,400	1955	Oct. 27, 1954	20.23	6,700
	June 10, 1924	16.60	4,370		Feb. 20, 1955	19.17	5,860
	June 21, 1924	20.11	6,430		Mar. 15, 1955	20.36	6,900
	July 12, 1924	24.00	16,000		Mar. 21, 1955	16.93	4,570
	July 21, 1924	14.77	3,620		June 27, 1955	19.20	5,860
	Aug. 16, 1924	15.70	3,980				
				1956	May 31, 1956	19.50	6,070
1925	Mar. 19, 1925	18.75	5,490				
	Apr. 4, 1925	16.10	4,140	1957	Apr. 4, 1957	14.79	3,620
	Sept.23, 1925	21.78	8,440		May 18, 1957	20.25	6,700
					May 23, 1957	20.37	6,900
1926	Nov. 8, 1925	19.12	5,660		May 26, 1957	22.40	9,900
	Aug. 21, 1926	15.00	3,700		June 2, 1957	15.94	4,100
	Sept. 6, 1926	17.40	4,750		July 1, 1957	18.07	5,180
1943	May 1943	24.7	a19,500	1958	Mar. 24, 1958	20.47	7,000
					July 17, 1958	27.35	33,900
1949	Jan. 24, 1949	20.2	6,530		July 25, 1958	17.98	5,120
	Feb. 17, 1949	15.5	3,900				
	June 10, 1949	15.7	3,980	1959	Feb. 10, 1959	17.31	4,770
	July 12, 1949	14.9	3,660		Mar. 6, 1959	19.28	5,930
1950	July 17, 1950	15.1	3,740	1960	Oct. 14, 1959	15.07	3,740
	July 19, 1950	22.38	9,900		May 7, 1960	20.82	7,300
	Aug. 28, 1950	15.7	4,020				
				1961	May 1, 1961	22.60	12,200
1951	Feb. 21, 1951	22.7	10,800		May 6, 1961	26.15	27,700
	June 23, 1951	17.0	4,620		Sept.14, 1961	16.35	4,470
	July 1, 1951	22.2	9,400				
	July 4, 1951	25.56	24,300	1962	Nov. 3, 1961	16.48	4,520
	July 11, 1951	19.75	6,320		Mar. 21, 1962	22.10	10,600
	Aug. 28, 1951	19.45	6,000		June 10, 1962	15.87	4,200
	Sept.10, 1951	24.29	17,500				
	Sept.13, 1951	19.0	5,720				

a Annual peak only.

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.

Gage.--Nonrecording at site 1¼ miles upstream at datum 3.67 ft higher prior to Oct. 1, 1928; recording thereafter. 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	1935	Mar. 14, 1935	21.32	37,500
					June 9, 1935	29.35	59,700
1896	December 1895	35.3	a90,000				
				1936	Sept.29, 1936	16.86	26,200
1918	Apr. 29, 1918	12.0	16,100				
				1937	Nov. 4, 1936	20.61	35,700
1919	May 21, 1919	18.9	31,100		June 12, 1937	24.04	44,500
					June 17, 1937	25.90	49,500
1920	Oct. 30, 1919	21.70	37,500				
	Mar. 28, 1920	23.4	41,800	1938	May 30, 1938	24.97	47,300
1921	Aug. 16, 1921	19.1	31,500	1939	May 9, 1939	14.55	20,200
1922	Mar. 20, 1922	23.80	42,300	1940	May 2, 1940	12.36	15,300
	Apr. 2, 1922	23.60	41,900				
	Apr. 10, 1922	30.8	65,000	1941	Apr. 21, 1941	30.22	62,600
	Apr. 18, 1922	29.7	61,200				
				1942	Oct. 7, 1941	30.00	61,600
1923	June 11, 1923	20.7	35,200		Nov. 2, 1941	31.78	71,100
	June 17, 1923	22.2	38,700		June 22, 1942	23.52	40,600
1924	May 31, 1924	21.40	36,800	1943	Dec. 30, 1942	24.96	44,600
	July 14, 1924	24.40	43,800		May 13, 1943	28.60	55,200
	July 21, 1924	20.80	35,400		May 21, 1943	41.48	146,000
					June 9, 1943	21.85	36,200
1925	Sept.24, 1925	19.31	32,000				
				1944	Mar. 23, 1944	21.36	35,400
1926	Nov. 9, 1925	18.9	31,100		Apr. 13, 1944	22.47	38,000
					May 1, 1944	31.56	69,500
1927	Oct. 7, 1926	22.00	38,200		Aug. 29, 1944	22.68	38,600
	Oct. 11, 1926	24.50	44,800				
	Mar. 22, 1927	23.40	41,800	1945	Mar. 21, 1945	21.18	35,200
	Apr. 2, 1927	27.30	53,200		Mar. 26, 1945	21.71	36,400
	Apr. 11, 1927	32.4	70,900		Apr. 17, 1945	31.11	66,800
	Apr. 17, 1927	32.10	69,800		Apr. 23, 1945	29.39	58,700
	June 22, 1927	26.10	49,500				
	July 23, 1927	23.80	42,900	1946	Aug. 14, 1946	20.30	33,100
	Aug. 9, 1927	30.25	62,900				
	Aug. 20, 1927	30.50	64,000	1947	Nov. 1, 1946	25.73	46,500
					Apr. 13, 1947	25.42	45,700
1928	Oct. 8, 1927	28.2	56,100		Apr. 27, 1947	27.95	53,000
	June 11, 1928	25.35	47,500				
	June 19, 1928	19.70	32,900	1948	June 24, 1948	29.03	56,900
	June 30, 1928	22.20	38,700		Aug. 2, 1948	23.80	41,700
1929	May 21, 1929	b32.4	a68,000	1949	Jan. 24, 1949	20.04	32,600
					Feb. 18, 1949	22.55	38,700
1931	May 21, 1931	17.35	27,700				
				1950	July 19, 1950	24.20	43,500
1932	June 30, 1932	16.40	25,300				
				1951	Feb. 22, 1951	23.85	42,500
1933	Dec. 26, 1932	20.66	36,000		June 24, 1951	20.38	34,300
	May 16, 1933	21.17	37,200		July 6, 1951	35.87	98,300
					July 20, 1951	35.07	92,300
1934	Sept.13, 1934	11.30	13,800		Sept.14, 1951	32.10	72,400

a Annual peak only.
b Furnished by U.S. Weather Bureau; affected by backwater due to dam construction.

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)
1952	Nov. 14, 1951	21.39	35,900	1958	Mar. 25, 1958	21.17	35,200
					July 20, 1958	33.50	81,200
1953	Apr. 25, 1953	12.43	16,100	1959	Feb. 11, 1959	15.92	22,900
1954	May 2, 1954	15.04	21,500	1960	May 6, 1960	22.82	39,200
1955	Feb. 22, 1955	19.20	30,800	1961	May 10, 1961	36.92	113,000
1956	May 31, 1956	19.12	30,500		Sept.22, 1961	24.78	44,200
1957	May 25, 1957	26.26	48,100	1962	Mar. 21, 1962	23.50	41,000

9208. Big Muddy Creek at Lowry City, Mo.

Location.--Lat 38°09'32", long 93°43'25", in SE¼NE¼ sec.12, T.39 N., R.26 W., on left bank just upstream from culvert under county road off State Highway 13, 1 mile north of Lowry City.

Drainage area.--0.31 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by culvert 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	1959	July 4, 1959	8.98	110
				1960	Oct. 10, 1959	10.08	180
1956	July 26, 1956	8.71	96				
1957	June 30, 1957	9.65	160	1961	May 5, 1961	9.95	175
1958	Sept. 2, 1958	10.05	180	1962	Feb. 18, 1962	8.99	110

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, 4¾ miles upstream from Hominy Creek, and 5½ miles east of Bolivar.

Drainage area.--225 sq 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	1952	Feb. 1, 1952	9.00	4,880
	June 30, 1951	13.7	9,560				
	July 4, 1951	11.0	6,780	1953	Apr. 24, 1953	6.98	3,250
	Aug. 28, 1951	12.06	7,880				
	Sept.24, 1951	13.00	8,790	1954	May 2, 1954	6.55	2,920

Peak stages and discharges of Pomme de Terre River near Bolivar, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 26, 1954	11.10	6,880	1958	July 8, 1958	12.70	8,860
	Feb. 20, 1955	11.80	7,580		July 11, 1958	10.62	6,660
					July 16, 1958	17.30	17,600
1956	May 31, 1956	9.80	5,640				
				1959	Feb. 10, 1959	10.58	6,440
1957	Apr. 3, 1957	11.77	7,580				
	May 17, 1957	10.87	6,680	1960	Oct. 4, 1959	11.45	7,320
	May 21, 1957	11.0	6,780				
	May 23, 1957	15.88	12,900	1961	Apr. 30, 1961	17.60	18,300
	May 25, 1957	10.99	7,120		May 5, 1961	17.15	17,300
	June 9, 1957	10.35	6,470		May 8, 1961	14.00	10,700
1958	Dec. 17, 1957	11.60	7,790	1962	May 30, 1962	8.40	4,230
	Mar. 23, 1958	13.30	9,740				

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1961	May 5, 1961	16.4	3,250
1958	July 16, 1958	9.33	590	1962	July 6, 1962	9.36	600
1959	June 11, 1959	10.65	770				
1960	Oct. 4, 1959	8.48	460				

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.

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 25.2 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)
1957	May 17, 1957	14.8	3,730	1958	Mar. 9, 1958	14.73	3,650
	May 22, 1957	14.2	3,270		Mar. 23, 1958	15.92	4,680
	May 25, 1957	15.5	4,320		July 12, 1958	16.30	5,090

Peak stages and discharges of Lindley Creek near Polk, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 16, 1958	19.16	12,000	1961	Mar. 6, 1961	14.01	3,120
	July 17, 1958	18.7	10,100		Apr. 30, 1961	16.67	5,570
	Sept. 2, 1958	17.8	7,580		May 5, 1961	23.60	28,000
					May 8, 1961	19.30	12,200
1959	Feb. 10, 1959	16.05	4,780				
	June 1, 1959	13.89	3,040	1962	Mar. 20, 1962	16.83	6,260
	June 12, 1959	15.29	4,140				
	July 17, 1959	14.77	3,730				
1960	Oct. 2, 1959	17.65	7,160				
	Oct. 4, 1959	17.41	6,760				
	Oct. 13, 1959	15.50	4,320				
	Dec. 18, 1959	15.97	4,780				
	May 6, 1960	17.07	6,200				

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert measurements at 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	1961	May 5, 1961	6.49	38
1958	Sept. 1, 1958	6.07	25	1962	June 25, 1962	5.9	20
1959	May 27, 1959	6.32	31				
1960	Oct. 3, 1959	6.99	56				

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.

Gage.--Nonrecording prior to July 29, 1937; recording thereafter. At site 1.6 miles upstream 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 of Pomme de Terre River at Hermitage, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	18.95	16,600
1923	June 4, 1923	12.38	7,600
1924	May 29, 1924	22.56	24,600
	June 10, 1924	20.00	18,800
1925	Sept.22, 1925	15.80	11,400
1926	Nov. 8, 1925	15.84	9,000
1927	Oct. 5, 1926	19.30	13,100
	Mar. 20, 1927	20.40	14,600
	Apr. 1, 1927	23.50	19,000
	Apr. 16, 1927	19.70	13,600
	June 1, 1927	23.60	19,100
	Aug. 8, 1927	36.45	70,000
1928	June 10, 1928	22.50	19,800
	June 29, 1928	19.30	13,100
	Aug. 2, 1928	21.16	15,700
1929	Apr. 9, 1929	19.72	13,600
	May 7, 1929	23.95	23,700
	May 13, 1929	20.90	15,300
	May 19, 1929	20.24	14,300
1930	Feb. 4, 1930	15.10	8,300
1931	May 20, 1931	21.46	16,100
	Aug. 6, 1931	19.40	13,200
1932	June 28, 1932	22.20	19,100
1933	Dec. 25, 1932	22.20	19,100
	May 14, 1933	19.95	14,000
1934	Apr. 16, 1934	12.14	5,530
1935	Mar. 12, 1935	23.76	23,200
	May 29, 1935	20.82	16,000
	June 15, 1935	29.38	42,200
1936	Sept.28, 1936	17.11	9,740
1937	Nov. 3, 1936	23.05	21,000
	Jan. 15, 1937	20.50	16,500
	Jan. 31, 1937	19.70	15,100
	June 10, 1937	25.97	29,900
	June 16, 1937	19.00	15,900
1938	May 24, 1938	15.50	9,120
1939	Apr. 6, 1939	21.28	17,100
	May 8, 1939	19.80	14,000
1940	May 1, 1940	15.70	8,060
1941	Apr. 16, 1941	21.72	16,700
	Apr. 19, 1941	29.44	39,100
1942	Oct. 5, 1941	30.70	44,300
	Oct. 31, 1941	23.20	19,800
	June 18, 1942	29.60	39,900
	June 21, 1942	21.10	15,600
1943	Dec. 27, 1942	24.58	23,800
	May 11, 1943	24.20	23,000
	May 19, 1943	29.48	39,900
1944	May 1, 1944	19.36	13,000
	Aug. 27, 1944	23.52	21,000
1945	Apr. 3, 1945	19.30	12,800
	Apr. 14, 1945	26.92	30,700
	Sept.23, 1945	20.29	14,400
	Sept.25, 1945	25.57	26,600
1946	Aug. 14, 1946	27.84	33,700
1947	Nov. 1, 1946	24.20	22,700
	Apr. 11, 1947	22.69	19,100
	Apr. 25, 1947	28.44	35,800
1948	June 22, 1948	29.06	38,400
	June 26, 1948	18.90	12,300
	July 20, 1948	20.11	14,100
1949	Feb. 15, 1949	19.87	13,800
	July 7, 1949	21.23	16,000
1950	Jan. 5, 1950	20.38	14,500
	Jan. 14, 1950	22.62	18,900
	May 31, 1950	19.41	13,000
1951	Feb. 21, 1951	19.98	13,900
	July 1, 1951	26.40	29,000
	July 11, 1951	20.3	14,400
	Sept.10, 1951	23.73	21,500
1952	Feb. 2, 1952	18.82	12,100
1953	Apr. 24, 1953	15.55	8,330
1954	May 3, 1954	11.01	4,450
1955	Feb. 20, 1955	20.03	13,900
	Mar. 15, 1955	22.05	17,600
	Mar. 21, 1955	20.05	13,900
1956	May 31, 1956	22.95	19,800
1957	May 17, 1957	21.66	17,000
	May 24, 1957	19.27	12,800
1958	Mar. 24, 1958	23.40	18,900
	July 18, 1958	27.34	28,000
	Sept. 3, 1958	19.95	13,500
1959	Feb. 10, 1959	18.03	10,800
1960	Oct. 5, 1959	21.6	15,900
	May 6, 1960	20.26	13,900
1961	May 5, 1961	18.67	a11,600
1962	Mar. 23, 1962	13.58	a6,250

a Annual peak only.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert measurements at 221, 345, and 839 cfs.

Remarks.--Reference gage changed from tailwater gage to headwater gage on Mar. 10, 1961. 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	1959	Aug. 31, 1959	12.29	200
				1960	Apr. 6, 1960	15.57	839
1956	Apr. 28, 1956	13.47	345				
1957	Sept.20, 1957	(a)	(b)	1961	Sept.13, 1961	17.46	700
1958	July 30, 1958	12.41	220	1962	Nov. 2, 1961	13.88	240

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

9218. Granddaddy Creek near Urich, Mo.

Location.--Lat 38°21'49", long 94°00'47", in NW½NW¼SW¼ 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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1961	Sept.13, 1961	9.64	710
1959	May 18, 1959	10.23	1,150	1962	Oct. 13, 1961	7.99	260
1960	May 5, 1960	8.28	290				

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.

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 57¼ 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	1942	Oct. 7, 1941	21.80	11,000
					Nov. 3, 1941	25.0	14,200
1922	Mar. 15, 1922	25.70	18,700		June 21, 1942	23.97	13,000
	Mar. 27, 1922	20.30	13,400				
	Apr. 9, 1922	28.0	21,100	1943	Dec. 29, 1942	23.15	12,100
					May 12, 1943	23.35	12,300
1923	June 13, 1923	24.65	17,500		May 20, 1943	37.88	52,700
					June 5, 1943	28.00	19,000
1924	June 29, 1924	18.20	11,500				
				1944	Mar. 18, 1944	24.92	14,100
1925	Apr. 6, 1925	20.25	13,300		Apr. 13, 1944	26.50	16,400
	June 3, 1925	17.15	10,600		Apr. 25, 1944	35.8	43,600
1926	Nov. 8, 1925	15.70	9,240	1945	Apr. 18, 1945	26.40	16,200
	Apr. 9, 1926	19.00	12,200		May 27, 1945	24.20	13,200
					May 31, 1945	24.70	13,800
1927	Mar. 22, 1927	27.25	16,500		June 12, 1945	21.35	10,500
	Apr. 3, 1927	25.75	14,300		July 3, 1945	21.50	10,600
	Apr. 17, 1927	-	14,900				
	May 10, 1927	22.49	10,900	1946	Jan. 8, 1946	24.4	13,500
	June 5, 1927	20.33	9,480		Aug. 15, 1946	23.30	12,200
1928	Oct. 5, 1927	28.52	18,600	1947	Mar. 15, 1947	24.75	14,000
	Feb. 9, 1928	22.57	11,000		Apr. 8, 1947	26.40	16,200
					Apr. 12, 1947	26.02	15,600
1929	Nov. 19, 1928	39.9	63,900		Apr. 27, 1947	23.20	12,100
	Apr. 9, 1929	20.10	9,340		June 10, 1947	24.34	13,400
	May 14, 1929	29.03	21,000		June 27, 1947	27.15	17,600
	May 20, 1929	25.73	15,200				
	June 5, 1929	20.56	9,740	1948	Mar. 22, 1948	20.15	9,420
	June 25, 1929	22.62	11,500		June 27, 1948	26.15	15,900
					July 24, 1948	27.40	17,900
1930	Feb. 11, 1930	15.32	6,880		July 29, 1948	30.8	25,900
1931	May 21, 1931	7.85	2,820	1949	Jan. 18, 1949	20.7	9,830
					Feb. 15, 1949	22.35	11,400
1932	Nov. 26, 1931	19.80	9,580		June 11, 1949	20.1	9,340
1933	May 13, 1933	11.94	4,840	1950	Oct. 24, 1949	22.05	11,000
					Aug. 30, 1950	27.20	17,600
1934	Sept.30, 1934	7.07	1,990				
				1951	July 1, 1951	32.60	31,600
1935	June 4, 1935	31.29	29,400		July 15, 1951	35.5	42,400
	June 29, 1935	24.95	14,200		Sept. 7, 1951	25.45	14,800
					Sept.10, 1951	25.90	15,500
1936	Sept.28, 1936	15.16	6,820				
				1952	Nov. 15, 1951	20.08	9,340
1937	Mar. 26, 1937	20.38	9,900		Mar. 13, 1952	20.78	9,920
	May 24, 1937	23.83	12,800				
	June 11, 1937	21.05	10,400	1953	May 3, 1953	19.16	8,620
1938	May 26, 1938	31.89	31,100	1954	May 5, 1954	14.24	5,440
1939	Apr. 17, 1939	17.8	8,040	1955	Jan. 7, 1955	20.25	9,420
1940	June 11, 1940	11.2	4,140	1956	Oct. 7, 1955	22.45	11,400
1941	Apr. 20, 1941	16.0	7,210	1957	July 4, 1957	20.1	9,340

a Annual peak only.

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)
1958	Mar. 11, 1958	24.50	13,600	1961	Apr. 12, 1961	23.95	13,000
	Apr. 6, 1958	23.25	12,100		May 9, 1961	35.00	40,400
	Aug. 4, 1958	28.25	19,400		Sept.17, 1961	34.70	39,200
1959	May 21, 1959	23.70	12,600	1962	Nov. 5, 1961	25.60	15,000
					Nov. 19, 1961	21.60	10,600
1960	Apr. 19, 1960	30.45	24,700		Mar. 23, 1962	27.70	18,500
	May 3, 1960	22.7	11,600				
	May 8, 1960	24.0	13,000				

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.

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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	44.46	a185,000	1926	Nov. 9, 1925	20.1	41,800
1855	1855	39.5	a112,000	1927	Oct. 5, 1926	24.0	53,000
					Oct. 11, 1926	24.7	55,200
1872	1872	33.1	-		Mar. 22, 1927	28.6	68,200
					Apr. 2, 1927	28.7	68,600
1874	1874	26.2	-		Apr. 17, 1927	34.45	88,300
					May 10, 1927	21.2	44,800
1896	December 1895	38.4	a108,000		June 3, 1927	26.7	61,800
					June 22, 1927	26.3	60,500
1905	April 1905	37.4	a104,000		July 24, 1927	20.4	42,600
					Aug. 10, 1927	31.8	79,200
1916	Feb. 1, 1916	35.5	-		Aug. 21, 1927	25.9	59,200
1918	Apr. 30, 1918	16.6	32,900	1928	Oct. 3, 1927	27.0	62,800
					Oct. 9, 1927	28.2	66,900
1919	May 20, 1919	23.3	50,800		June 11, 1928	23.7	52,000
					July 1, 1928	22.2	47,600
1920	Oct. 29, 1919	28.7	68,600				
	Mar. 27, 1920	28.9	69,300	1929	Nov. 24, 1928	28.1	66,500
	Sept.15, 1920	20.3	42,300		Apr. 9, 1929	26.2	60,200
	Sept.28, 1920	19.7	40,700		Apr. 22, 1929	19.7	40,700
					Apr. 25, 1929	19.6	40,500
1921	Sept.15, 1921	21.2	a44,800		May 8, 1929	23.0	49,900
					May 19, 1929	34.8	89,700
1922	Mar. 15, 1922	26.7	61,800				
	Mar. 20, 1922	25.7	58,500	1930	Feb. 9, 1930	16.4	32,400
	Apr. 1, 1922	25.5	57,800				
	Apr. 4, 1922	26.8	62,100	1935	June 3, 1935	34.1	a94,000
	Apr. 12, 1922	34.9	90,000				
				1941	Apr. 21, 1941	33.8	a80,000
1923	June 12, 1923	22.2	47,600				
	June 17, 1923	23.4	51,100	1942	Nov. 2, 1941	34.5	a88,600
1924	Dec. 15, 1923	19.7	40,700	1943	May 22, 1943	44.54	a220,000
	May 31, 1924	22.7	49,000				
	June 11, 1924	21.8	46,400	1946	Aug. 14, 1946	35.2	a76,000
	June 21, 1924	21.0	44,200				
	July 15, 1924	25.5	57,800	1947	Apr. 27, 1947	34.40	a78,300
	July 22, 1924	21.1	44,500				
				1951	July 7, 1951	40.1	ab120,000
1925	Apr. 6, 1925	17.8	35,900				

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.

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.

Gage.--Nonrecording.

Stage-discharge relation.--Defined by culvert measurement at 324 cfs and by slope-area measurement at 657 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	1961	May 5, 1961	19.52	880
1959	Nov. 16, 1958	19.68	900	1962	Mar. 20, 1962	18.35	550
1960	May 5, 1960	18.78	620				

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.

Gage.--Recording prior to Sept. 9, 1959; nonrecording 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 slope-area measurements at 176, 320, and 442 cfs.

Bankfull stage.--6 ft.

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

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	May 22, 1957	4.38	181
	Aug. 27, 1951	6.31	332		May 22, 1957	4.77	210
1952	Oct. 22, 1951	4.30	159		June 1, 1957	3.34	104
					June 4, 1957	4.25	164
1953	June 1, 1953	2.13	20.1		July 1, 1957	3.51	111
1954	May 2, 1954	3.06	87	1958	July 14, 1958	6.95	a396
1955	Oct. 11, 1954	3.81	139	1960	May 8, 1960	4.33	a178
1956	June 25, 1956	4.32	174	1961	Apr. 30, 1961	6.33	a330
1957	May 21, 1957	7.32	438	1962	-	(b)	(c)

a Annual peak only.
b Stage did not reach gage during year.
c Less than 100 cfs.

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; 698 sq mi prior to Oct. 1, 1930.

Gage.--Nonrecording at site 18 miles downstream and at datum 51.15 ft lower prior to Oct. 1, 1930; recording thereafter. 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 ft 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 12, 1923	3.75	1,810	1943	Dec. 28, 1942	20.27	28,700
					May 12, 1943	14.63	13,300
1924	May 30, 1924	13.30	15,200		May 19, 1943	21.84	33,400
	Aug. 12, 1924	11.30	11,100				
				1944	Apr. 12, 1944	13.90	11,600
1925	Dec. 21, 1924	11.90	12,800				
				1945	Mar. 4, 1945	13.15	10,300
1926	Nov. 9, 1925	8.52	7,180		Mar. 21, 1945	13.02	9,920
					Apr. 3, 1945	14.97	14,000
1927	Mar. 21, 1927	15.3	22,100		Apr. 14, 1945	19.46	26,200
	Apr. 2, 1927	15.1	21,500		Sept.26, 1945	17.17	19,600
	May 10, 1927	12.1	13,200				
	June 1, 1927	16.5	25,700	1946	Aug. 15, 1946	14.75	13,500
	June 22, 1927	11.2	13,400				
	Aug. 9, 1927	17.00	27,200	1947	Apr. 12, 1947	13.47	10,800
					Apr. 26, 1947	20.37	29,000
1928	Apr. 7, 1928	11.80	12,400				
	June 10, 1928	15.80	23,600	1948	June 23, 1948	16.33	17,200
					June 29, 1948	13.07	10,100
1929	May 7, 1929	13.12	15,900				
	May 19, 1929	10.6	9,520	1949	June 9, 1949	13.2	10,300
1930	Jan. 15, 1930	8.80	6,560	1950	Oct. 23, 1949	13.12	10,100
					Jan. 5, 1950	17.55	20,700
1931	Aug. 7, 1931	12.60	9,210		Jan. 14, 1950	14.4	12,700
					May 31, 1950	16.29	17,200
1932	June 28, 1932	17.00	19,000				
				1951	July 2, 1951	16.06	16,700
1933	Dec. 25, 1932	15.62	17,000				
	Apr. 17, 1933	13.70	11,800	1952	Feb. 3, 1952	10.23	6,220
	May 14, 1933	16.30	17,200				
				1953	Apr. 25, 1953	6.77	3,020
1934	Apr. 17, 1934	8.73	4,410				
				1954	May 4, 1954	5.32	1,720
1935	Mar. 13, 1935	17.12	19,300				
	May 29, 1935	12.70	9,730	1955	Mar. 22, 1955	12.67	9,380
	June 4, 1935	13.10	10,500				
	June 15, 1935	14.40	13,500	1956	June 1, 1956	4.94	1,450
	June 21, 1935	15.90	18,000				
				1957	May 18, 1957	13.15	10,300
1936	Sept.28, 1936	11.94	8,280		May 24, 1957	15.95	16,400
1937	Jan. 16, 1937	13.45	11,100	1958	Mar. 24, 1958	17.0	19,000
	June 9, 1937	13.40	11,100		July 13, 1958	15.0	14,000
					July 18, 1958	17.0	19,000
1938	May 24, 1938	11.26	7,320				
				1959	Feb. 11, 1959	11.38	7,330
1939	Apr. 6, 1939	12.40	9,170				
	Apr. 17, 1939	12.43	9,170	1960	May 6, 1960	10.70	6,440
1940	May 2, 1940	10.31	6,020	1961	May 2, 1961	17.18	19,600
					May 7, 1961	19.85	27,200
1941	Apr. 20, 1941	20.4	29,000		May 9, 1961	17.10	19,300
1942	Oct. 6, 1941	18.20	26,900	1962	Mar. 21, 1962	12.82	9,560
	Nov. 1, 1941	13.39	11,100				
	June 18, 1942	21.06	31,200				

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.

Gage.--Recording prior to Oct. 1, 1959; crest-stage gage thereafter.

Stage-discharge relation.--Defined by current-meter measurement below 140 cfs and by slope-area 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	1961	May 5, 1961	9.42	1,320
1958	July 31, 1958	6.70	498	1962	Sept. 9, 1962	7.74	741
1959	Feb. 9, 1959	7.01	562				
1960	May 6, 1960	8.22	870				

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 5.46 cfs and by culvert measurements at 167 and 447 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	1959	July 16, 1959	8.32	60
				1960	July 25, 1960	8.07	52
1956	June 24, 1956	8.23	57				
1957	May 22, 1957	10.42	167	1961	May 5, 1961	9.36	110
1958	July 16, 1958	8.13	53	1962	Mar. 20, 1962	9.1	95

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 State Highway 5, 2.4 miles south of Decaturville.

Drainage area.--1.48 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 2.05 cfs and by contracted-opening 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	1959	June 11, 1959	11.30	680
				1960	Oct. 4, 1959	10.36	350
1956	July 3, 1956	10.82	470				
1957	May 17, 1957	12.63	1,490	1961	May 8, 1961	12.57	1,450
1958	July 16, 1958	13.06	2,000	1962	Mar. 20, 1962	9.34	150

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by slope-area measurement at 274 cfs and by contracted-opening measurement at 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	1959	Sept.16, 1959	15.40	3,300
				1960	May 6, 1960	15.89	3,800
1956	Oct. 5, 1955	12.73	760				
1957	May 17, 1957	11.14	274	1961	May 8, 1961	13.79	1,350
1958	July 8, 1958	16.45	4,960	1962	Mar. 20, 1962	11.1	270

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.

Gage.--Nonrecording prior to Oct. 15, 1930; recording 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. Records prior to May 5, 1925, furnished by Union Electric Co. of Missouri and computed from rating defined by measurements made after May 1925; figures shown are annual maximum daily discharges. Figures shown subsequent to 1930 are computed annual maximum daily inflows into the Lake of the Ozarks.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	-	164,000	1899	Apr. 25, 1899	-	54,500
				1900	Mar. 8, 1900	-	48,200
1881	Feb. 10, 1881	-	31,500				
1882	Feb. 23, 1882	-	119,000	1901	Mar. 12, 1901	-	41,900
1883	Feb. 17, 1883	-	82,100	1902	May 27, 1902	-	52,600
1884	May 4, 1884	-	66,500	1903	Mar. 10, 1903	-	79,200
1885	Sept.15, 1885	-	86,500	1904	Apr. 28, 1904	-	122,000
				1905	Aug. 1, 1905	-	78,000
1886	May 9, 1886	-	44,100				
1887	Apr. 23, 1887	-	30,000	1906	Aug. 26, 1906	-	52,000
1888	Feb. 1, 1888	-	45,800	1907	May 17, 1907	-	66,200
1889	May 31, 1889	-	72,200	1908	Apr. 13, 1908	-	87,800
1890	Jan. 15, 1890	-	73,700	1909	May 13, 1909	-	78,000
				1910	June 11, 1910	-	103,000
1891	June 8, 1891	-	76,500				
1892	June 4, 1892	-	94,300	1911	Apr. 7, 1911	-	49,600
1893	May 1, 1893	-	91,000	1912	May 1, 1912	-	108,000
1894	May 8, 1894	-	69,800	1913	Mar. 27, 1913	-	89,600
1895	July 9, 1895	-	54,900	1914	Sept.17, 1914	-	55,000
				1915	Sept.24, 1915	-	89,600
1896	Dec. 22, 1895	-	126,000				
1897	Jan. 5, 1897	-	102,000	1916	Feb. 1, 1916	-	118,000
1898	Mar. 24, 1898	-	66,500	1917	June 24, 1917	-	27,400

Peak stages and discharges of Osage River near Bagnell, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	Apr. 30, 1918	-	42,300	1941	Apr. 19, 1941	-	145,000
1919	May 19, 1919	-	60,600	1942	Oct. 5, 1941	-	152,000
1920	Oct. 30, 1919	-	101,000	1943	May 19, 1943	-	219,000
				1944	May 1, 1944	-	116,000
1921	Mar. 31, 1921	-	57,600	1945	Apr. 16, 1945	-	128,000
1922	Apr. 17, 1922	-	120,000				
1923	June 18, 1923	-	54,000	1946	Aug. 14, 1946	-	214,000
1924	July 17, 1924	-	64,300	1947	Apr. 25, 1947	-	140,000
1925	Apr. 7, 1925	-	40,900	1948	June 22, 1948	-	139,000
				1949	Feb. 17, 1949	-	71,400
1926	Nov. 10, 1926	21.81	52,400	1950	June 10, 1950	-	79,400
1927	Apr. 17, 1927	36.61	106,000				
1928	Oct. 11, 1927	27.51	70,600	1951	July 6, 1951	-	134,000
1929	May 21, 1929	36.6	106,000	1952	Feb. 4, 1952	-	64,500
1930	Feb. 10, 1930	18.36	39,000	1953	Apr. 25, 1953	-	31,700
				1954	May 3, 1954	-	35,900
1931	May 20, 1931	-	55,500	1955	Feb. 20, 1955	-	56,100
1932	Nov. 27, 1931	-	42,600				
1933	May 13, 1933	-	85,200	1956	Oct. 6, 1955	-	41,000
1934	Sept.14, 1934	-	19,300	1957	May 25, 1957	-	84,500
1935	June 3, 1935	-	117,000	1958	July 31, 1958	-	91,000
				1959	Feb. 10, 1959	-	57,000
1936	Sept.28, 1936	-	82,400	1960	May 6, 1960	-	116,700
1937	June 10, 1937	-	90,300				
1938	May 24, 1938	-	85,300	1961	May 8, 1961	-	154,500
1939	May 9, 1939	-	65,800	1962	Mar. 21, 1962	-	102,000
1940	June 24, 1940	-	37,300				

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.

Gage.--Recording prior to Oct. 1, 1959; crest-stage gage thereafter. Altitude of gage is 650 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 14.7 cfs and by culvert 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	1961	May 5, 1961	c5.2	577
1958	June 10, 1958	b4.48	490	1962	Mar. 20, 1962	1.93	50
1959	Aug. 31, 1959	1.99	55				
1960	Oct. 10, 1959	2.42	92				

a Outside gage height, 7.45 ft.
b Outside gage height, 5.55 ft.
c Outside gage height, 6.31 ft.

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 8 cfs and by culvert measurements at 97.4 and 365 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Long Branch near Vienna, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 22, 1957	9.98	365	1961	May 5, 1961	6.66	90
1958	June 15, 1958	6.71	97	1962	Apr. 30, 1962	7.43	135
1959		(a)	(b)				
1960	July 22, 1960	7.38	130				

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

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 1¼ miles downstream from Little Maries Creek.

Drainage area.--257 sq mi.

Gage.--Nonrecording at site 200 ft downstream at present datum prior to June 8, 1951; recording 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.

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)
1937	June 8, 1937	a22.8	-	1956	June 25, 1956	9.53	5,600
1948	June 22, 1948	15.15	14,000	1957	Feb. 26, 1957	12.6	9,340
	June 27, 1948	12.2	8,730		Mar. 25, 1957	10.63	6,870
					Apr. 4, 1957	10.03	6,100
1949	June 3, 1949	15.31	14,200		May 17, 1957	18.21	20,000
	June 14, 1949	13.58	11,200		May 23, 1957	17.63	19,000
	Sept.13, 1949	10.23	6,320		June 28, 1957	10.03	6,100
					June 30, 1957	14.10	11,900
1950	Oct. 20, 1949	10.5	6,650				
	Jan. 4, 1950	16.0	15,600	1958	Mar. 9, 1958	11.60	7,930
	Jan. 13, 1950	10.9	7,090		June 11, 1958	12.60	9,340
	May 19, 1950	10.8	6,980		June 12, 1958	12.76	9,660
	May 27, 1950	14.0	11,800		June 15, 1958	10.16	6,320
1951	Feb. 20, 1951	12.9	9,830	1959	Feb. 10, 1959	13.12	10,300
	Mar. 11, 1951	11.04	7,200		May 17, 1959	11.74	8,060
	May 22, 1951	9.87	6,000				
	June 9, 1951	10.58	6,760	1960	Apr. 30, 1960	10.27	6,730
	June 30, 1951	13.22	10,300		May 6, 1960	11.73	8,380
	July 13, 1951	13.14	10,200				
	Aug. 27, 1951	10.98	7,320	1961	May 6, 1961	13.73	11,300
	Sept.10, 1951	9.94	6,100		May 8, 1961	14.61	12,900
					June 9, 1961	10.05	6,420
1952	Oct. 6, 1951	11.63	7,930		July 23, 1961	11.03	7,500
	Feb. 2, 1952	9.86	6,000				
				1962	Jan. 26, 1962	b11.45	7,170
1953	Apr. 24, 1953	10.00	6,100		Mar. 21, 1962	15.40	14,400
					May 1, 1962	11.03	7,500
1954	June 9, 1954	9.58	5,700				
1955	Feb. 20, 1955	11.13	7,320				

a From information by local residents.
b Backwater from ice.

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 at site 2 miles downstream at datum 2.49 ft lower prior to Nov. 11, 1931; recording thereafter. Datum of gage is 511.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined 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)
1929	June 8, 1929	21.1	399,000	1934	Mar. 10, 1934	10.1	80,700
1930	June 19, 1930	13.9	166,000	1935	June 6, 1935	27.05	417,000
1931	May 20, 1931	10.5	92,600	1936	Feb. 27, 1936	13.00	-
1932	Nov. 29, 1931	19.44	265,000		Mar. 15, 1936	-	128,000
1933	May 27, 1933	15.5	142,000				

AUXVASSE CREEK BASIN

9271. Doane Branch near Kingdom City, Mo.

Location.--Lat 38°56'20", long 91°49'40", in NE¼ sec.17, T.48 N., R.8 W., on left bank just upstream from culvert on U.S. Highway 40, 0.9 mile east of Auxvasse Creek and 6 miles east of Kingdom City.

Drainage area.--0.54 sq mi.

Gage.--Nonrecording prior to July 21, 1959, and subsequent to July 10, 1962; nonrecording and supplemental recording gage July 21, 1959, to July 10, 1962.

Stage-discharge relation.--Defined by culvert measurements at 53.6, 72.5, 136, and 623 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	5.11	54	1959	Feb. 9, 1959	6.71	125
				1960	Oct. 10, 1959	7.14	140
1956	July 16, 1956	5.69	73				
1957	June 30, 1957	14.20	623	1961	May 5, 1961	6.23	93
1958	May 31, 1958	7.54	155	1962	Mar. 20, 1962	5.18	55

9272. 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, 2.0 miles south of Fulton.

Drainage area.--4.05 sq mi.

Gage.--Recording prior to Oct. 1, 1959; crest-stage gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 27.2 cfs and by culvert measurements at 530, 611, and 936 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Big Hollow near Fulton, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 29, 1957	4.28	616	1961	May 5, 1961	4.62	686
1958	Aug. 1, 1958	5.80	936	1962	Feb. 8, 1962	3.90	526
1959	Oct. 9, 1958	5.81	936				
1960	Oct. 10, 1959	4.45	629				

GASCONADE RIVER BASIN

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., just downstream from bridge on County Road D, three-quarters of a mile southwest of Mountain Grove.

Drainage area.--1.34 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 50 cfs, by slope-area measurements at 262 and 549 cfs, and by contracted-opening measurement at 880 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	3.87	262	1959	Jan. 21, 1959	3.47	165
				1960	July 25, 1960	4.15	330
1956	May 14, 1956	4.95	549				
1957	May 25, 1957	3.99	299	1961	May 7, 1961	6.26	930
1958	June 16, 1958	6.32	940	1962	June 9, 1962	3.69	220

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.

Gage.--Nonrecording prior to Aug. 21, 1958; recording 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 of Gasconade River near Hazlegreen, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	30.4	a86,000
1916	January 1916	30.6	a90,000
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
1953	Apr. 24, 1953	10.0	7,100
1954	May 3, 1954	6.78	3,460
1955	Feb. 21, 1955	16.0	16,000
	Mar. 22, 1955	15.75	15,600
1956	May 16, 1956	22.08	35,900
1957	Feb. 27, 1957	12.45	11,300
	Apr. 5, 1957	18.85	24,800
	May 19, 1957	11.85	10,300
	May 24, 1957	22.82	38,600
	May 26, 1957	18.50	23,800
	June 3, 1957	19.85	27,800
	June 6, 1957	11.80	10,300
1958	Dec. 18, 1957	25.77	49,000
	Mar. 10, 1958	12.43	10,000
	Mar. 24, 1958	21.33	30,900
	July 9, 1958	18.00	21,000
	July 13, 1958	15.65	15,800
	July 18, 1958	25.30	46,500
1959	May 29, 1959	12.50	10,200
1960	Nov. 6, 1959	12.60	10,300
	Dec. 19, 1959	15.06	14,800
1961	May 2, 1961	17.65	20,100
	May 6, 1961	15.70	16,000
	May 9, 1961	23.60	39,400
1962	Mar. 21, 1962	13.30	11,400

a Annual peak only.

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.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by culvert measurements at 519 and 825 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	1961	May 5, 1961	b5.09	825
1959	May 17, 1959	a4.09	519	1962	Apr. 30, 1962	4.19	550
1960	Dec. 17, 1959	2.88	185				

a Outside gage height, 4.92 ft.
b Outside gage height, 6.44 ft.

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.

Gage.--Nonrecording prior to Oct. 3, 1958; recording thereafter. Datum of gage is 738.60 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	1926	Nov. 9, 1925	9.80	10,500
	Aug. 28, 1915	14.1	20,300				
				1927	Apr. 2, 1927	17.50	30,800
1916	Jan. 14, 1916	16.7	26,800		Apr. 16, 1927	16.85	24,500
	Feb. 1, 1916	23.0	77,000		June 1, 1927	16.00	22,900
					Aug. 10, 1927	15.00	20,900
1917	May 2, 1917	8.35	8,600		Aug. 16, 1927	14.70	20,200
					Aug. 18, 1927	15.25	21,300
1918	Apr. 28, 1918	13.1	18,200				
	May 14, 1918	15.4	23,100	1928	Apr. 7, 1928	17.00	27,800
					Apr. 24, 1928	13.85	18,500
1919	May 17, 1919	12.35	16,700		June 10, 1928	18.20	36,300
1920	Oct. 28, 1919	15.75	24,000	1929	Apr. 10, 1929	13.80	18,100
	Nov. 3, 1919	14.8	20,500		May 7, 1929	15.35	21,400
	Sept.15, 1920	14.25	19,300				
				1930	Jan. 15, 1930	13.20	16,800
1921	Mar. 29, 1921	15.0	20,900				
	Apr. 28, 1921	16.1	23,100	1931	May 20, 1931	7.25	5,380
1922	Mar. 31, 1922	14.14	19,200	1932	June 29, 1932	15.01	20,600
1923	Mar. 13, 1923	9.10	9,110	1933	Apr. 17, 1933	14.60	19,900
					May 15, 1933	19.95	52,200
1924	May 29, 1924	13.00	16,900				
				1934	Apr. 18, 1934	6.35	3,940
1925	Dec. 21, 1924	17.50	30,800				

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)
1935	Mar. 13, 1935	21.62	69,000	1949	Feb. 17, 1949	15.6	21,900
	June 4, 1935	15.00	20,700				
	June 18, 1935	16.55	25,900	1950	Oct. 13, 1949	16.3	23,700
	June 22, 1935	16.50	25,500		Oct. 23, 1949	19.15	40,600
					Jan. 4, 1950	17.50	29,200
1936	Nov. 12, 1935	8.01	6,400		June 15, 1950	14.95	19,200
					May 12, 1950	18.66	36,600
1937	May 4, 1937	14.42	19,400		June 10, 1950	14.90	18,900
1938	Feb. 20, 1938	16.44	24,600	1951	May 20, 1951	14.4	17,700
	May 9, 1938	14.74	17,800		July 2, 1951	17.95	32,000
	May 25, 1938	15.11	19,100				
				1952	Nov. 13, 1951	12.5	13,700
1939	Apr. 19, 1939	14.9	18,500				
				1953	Apr. 24, 1953	10.0	9,060
1940	Mar. 12, 1940	11.8	10,600				
				1954	May 4, 1954	6.0	3,200
1941	Apr. 20, 1941	20.4	57,700				
				1955	Mar. 21, 1955	13.8	16,300
1942	Nov. 2, 1941	15.4	20,700				
	June 19, 1942	17.8	33,200	1956	May 17, 1956	16.45	26,600
					May 31, 1956	14.15	18,000
1943	Dec. 29, 1942	20.7	59,400				
	May 12, 1943	19.25	44,700	1957	Apr. 6, 1957	16.0	24,600
	May 20, 1943	21.2	64,700		May 23, 1957	19.3	44,500
					May 27, 1957	15.23	21,100
1944	Mar. 1, 1944	10.5	8,470		June 4, 1957	16.02	24,600
1945	Feb. 23, 1945	16.35	25,300	1958	Dec. 19, 1957	18.90	37,600
	Mar. 4, 1945	16.08	23,900		Mar. 25, 1958	18.0	31,900
	Mar. 8, 1945	16.8	27,200		July 9, 1958	14.40	18,100
	Mar. 21, 1945	15.0	18,800		July 19, 1958	19.80	45,100
	Apr. 4, 1945	17.0	28,100				
	Apr. 14, 1945	23.5	81,600	1959	May 28, 1959	12.26	12,900
	June 19, 1945	14.25	17,400				
				1960	Dec. 19, 1959	13.25	15,000
1946	Feb. 15, 1946	16.30	24,800				
	Aug. 15, 1946	17.57	31,600	1961	May 3, 1961	14.90	19,500
					May 9, 1961	19.60	43,300
1947	Nov. 12, 1946	14.40	18,000				
	Apr. 26, 1947	20.6	55,700	1962	Mar. 21, 1962	14.72	18,900
1948	June 19, 1948	15.4	21,200				
	June 22, 1948	15.2	21,200				
	June 29, 1948	14.2	17,400				

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.

Gage.--Recording prior to July 1, 1955; nonrecording thereafter. 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 slope-area measurement at 640 cfs. Subsequent to Mar. 10, 1959, defined by current-meter measurements below 20 cfs and by culvert 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, 100 cfs. Only annual peaks are shown subsequent to 1955.

Peak stages and discharges of Coyle Branch at Houston, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 5, 1949	1.84	151	1953	Mar. 3, 1953	1.80	135
	Jan. 3, 1950	1.71	117				
	Apr. 2, 1950	2.46	279	1954	July 24, 1954	1.22	36
	May 10, 1950	1.95	166				
	June 10, 1950	2.40	265	1955	Mar. 20, 1955	1.81	137
1951	Apr. 6, 1951	3.77	646	1959	May 27, 1959	2.62	90
	June 29, 1951	2.61	315	1960	Aug. 18, 1960	4.01	280
	June 30, 1951	5.02	1,030				
				1961	May 7, 1961	5.00	460
1952	Mar. 10, 1952	1.56	87	1962	Sept. 3, 1962	2.53	85

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 14¾ miles upstream from Spring Creek.

Drainage area.--560 sq mi, approximately.

Gage.--Nonrecording. 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)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 17, 1922	10.00	7,300	1935	Mar. 11, 1935	19.62	28,800
	Apr. 28, 1922	10.26	7,630		June 3, 1935	13.30	11,200
					June 16, 1935	11.22	8,550
1923	May 16, 1923	10.10	7,410				
				1936	Nov. 10, 1935	8.91	5,780
1924	Sept.20, 1924	6.65	3,700				
				1937	Jan. 15, 1937	12.83	10,600
1925	Dec. 20, 1924	12.00	9,650		Jan. 31, 1937	10.22	7,340
					May 3, 1937	12.24	9,800
1926	Oct. 17, 1925	8.40	5,900				
				1938	Feb. 18, 1938	14.73	13,000
1927	Apr. 1, 1927	15.50	15,600		May 8, 1938	12.33	9,920
	Apr. 14, 1927	14.50	12,700		May 24, 1938	14.65	12,900
	May 25, 1927	10.10	7,420				
	June 2, 1927	12.00	9,600	1939	Nov. 8, 1938	11.15	8,550
	Aug. 15, 1927	14.20	12,300		Feb. 20, 1939	11.53	8,920
	Aug. 18, 1927	12.00	9,600		Apr. 17, 1939	12.40	10,000
1928	Dec. 14, 1927	14.20	12,300	1940	Apr. 12, 1940	10.10	7,220
	Apr. 6, 1928	11.10	8,560				
	Apr. 22, 1928	11.10	8,560	1941	Apr. 17, 1941	13.74	11,300
	June 9, 1928	17.00	20,200		Apr. 19, 1941	12.64	9,280
1929	Mar. 16, 1929	10.05	7,300	1942	Apr. 9, 1942	11.00	6,690
	Apr. 10, 1929	10.50	7,880				
	May 6, 1929	10.66	8,100	1943	Dec. 27, 1942	20.7	32,700
	May 13, 1929	10.30	7,640		May 11, 1943	18.30	24,400
					May 19, 1943	15.80	16,500
1930	Nov. 1, 1929	12.20	9,840		June 24, 1943	12.60	9,280
	Jan. 14, 1930	12.10	9,720				
				1944	Feb. 29, 1944	9.0	4,660
1931	Nov. 21, 1930	7.93	5,100				
				1945	Feb. 22, 1945	16.81	19,600
1932	Jan. 17, 1932	7.70	4,770		Feb. 27, 1945	11.60	7,600
					Mar. 7, 1945	14.60	13,300
1933	Dec. 25, 1932	10.50	7,880		Mar. 20, 1945	11.80	7,920
	Apr. 16, 1933	14.60	13,300		Mar. 31, 1945	13.00	10,000
	May 14, 1933	17.50	21,800		Apr. 3, 1945	12.25	8,590
					Apr. 15, 1945	19.08	27,000
1934	Mar. 28, 1934	4.05	1,240		June 18, 1945	16.00	17,100
	Sept.16, 1934	4.10	1,240				

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)
1946	Feb. 14, 1946	17.75	21,800	1952	Apr. 13, 1952	12.5	9,100
	Mar. 7, 1946	11.20	6,990				
	May 17, 1946	13.10	10,200	1953	Mar. 4, 1953	11.2	6,990
	May 25, 1946	19.53	27,500				
	Aug. 14, 1946	15.40	15,200	1954	May 29, 1954	6.42	2,680
1947	Nov. 10, 1946	19.00	25,700	1955	Feb. 20, 1955	11.6	7,600
	Apr. 26, 1947	16.80	18,800		Mar. 21, 1955	15.58	15,700
1948	Jan. 2, 1948	15.0	14,200	1956	May 16, 1956	19.8	28,600
	June 19, 1948	15.08	14,500		May 31, 1956	14.7	14,100
	June 28, 1948	14.2	12,400				
				1957	Apr. 4, 1957	13.6	11,600
1949	Jan. 19, 1949	12.65	9,280		Apr. 27, 1957	12.6	9,670
	Jan. 25, 1949	15.0	14,200		May 23, 1957	16.3	17,900
	Jan. 28, 1949	12.1	8,420		June 2, 1957	12.1	8,860
	Feb. 15, 1949	15.6	15,700				
	July 8, 1949	16.70	18,600	1958	Dec. 18, 1957	16.38	18,200
					Mar. 24, 1958	15.60	16,200
1950	Oct. 21, 1949	11.6	7,600		July 18, 1958	17.00	19,700
	Jan. 4, 1950	18.5	24,000		Sept.17, 1958	10.70	6,880
	Jan. 14, 1950	15.5	15,400				
	Feb. 13, 1950	11.2	6,990	1959	May 28, 1959	8.80	4,910
	Apr. 3, 1950	11.5	7,290				
	May 11, 1950	18.6	24,300	1960	Dec. 28, 1959	10.05	6,050
	June 10, 1950	12.0	8,250				
				1961	Mar. 7, 1961	10.70	6,880
1951	Feb. 19, 1951	13.0	10,000		May 8, 1961	18.10	22,800
	July 1, 1951	17.00	19,400				
	July 10, 1951	13.0	10,000	1962	Mar. 21, 1962	10.83	7,000
1952	Mar. 11, 1952	12.4	8,930				

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.

Gage.--Recording prior to Aug. 19, 1958; crest-stage gage thereafter. 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 above by logarithmic plotting.

Bankfull stage.--6 ft.

Remarks.--Base for partial-duration series, 1,500 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)
1949	Feb. 14, 1949	3.85	1,860	1953	Apr. 23, 1953	4.06	1,870
	Sept.12, 1949	4.40	2,050				
				1954	June 9, 1954	2.93	924
1950	Oct. 11, 1949	5.45	3,080				
	Oct. 21, 1949	4.44	2,100	1955	Mar. 20, 1955	3.92	1,890
	Jan. 3, 1950	5.40	3,560				
	Jan. 13, 1950	4.17	2,180	1956	May 30, 1956	5.3	3,620
	May 10, 1950	3.50	1,500	1957	May 21, 1957	4.2	2,220
	May 19, 1950	3.98	2,020	1958	Dec. 17, 1957	3.0	980
	May 29, 1950	3.61	1,600				
	June 9, 1950	5.61	3,800	1960	Dec. 17, 1959	4.46	2,500
1951	June 30, 1951	4.47	2,280	1961	May 6, 1961	5.13	3,400
				1962	Sept.24, 1962	4.29	2,330
1952	Mar. 10, 1952	3.43	1,280				

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.

Gage.--Recording. Altitude of gage is 790 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs, by slope-area and contracted-opening measurements at 5,000 cfs, and extended above by logarithmic plotting.

Bankfull stage.--2½ 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	1955	July 7, 1955	4.60	950
	June 22, 1948	4.08	1,020	1956	May 30, 1956	5.17	1,320
1949	June 2, 1949	4.41	1,230				
	July 22, 1949	4.37	1,200	1957	May 17, 1957	5.70	1,820
					May 21, 1957	5.80	1,940
1950	Oct. 4, 1949	4.35	1,240		May 21, 1957	7.57	5,040
	Oct. 11, 1949	6.05	3,130		June 29, 1957	5.25	1,340
	Oct. 20, 1949	4.27	1,160				
	Jan. 3, 1950	4.77	1,570	1958	June 10, 1958	7.20	4,240
	Jan. 13, 1950	4.55	1,400		July 16, 1958	5.78	1,920
	Apr. 4, 1950	4.33	1,240		July 17, 1958	8.57	7,420
	May 19, 1950	4.79	1,610				
	June 9, 1950	6.66	4,180	1959	Feb. 9, 1959	3.93	524
1951	June 30, 1951	5.32	2,110	1960	May 6, 1960	4.81	1,060
	Aug. 9, 1951	5.15	1,950				
				1961	May 5, 1961	5.02	1,210
1952	Oct. 22, 1951	3.00	456				
				1962	June 9, 1962	3.94	529
1953	Apr. 23, 1953	5.3	2,110				
1954	June 9, 1954	4.30	740				

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.

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 slope-area 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 of Little Piney Creek at Newburg, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	16.7	a30,000	1948	Oct. 31, 1947	5.82	1,660
1929	May 6, 1929	10.22	8,860	1949	Feb. 15, 1949	9.00	7,030
1930	Feb. 25, 1930	9.26	6,700	1950	Oct. 6, 1949	9.20	7,390
					Oct. 11, 1949	11.60	13,100
1931	May 19, 1931	6.14	1,110		Oct. 21, 1949	11.00	11,300
					Jan. 3, 1950	12.00	14,400
1932	Dec. 31, 1931	6.38	1,390		Jan. 13, 1950	8.60	6,350
					May 10, 1950	8.00	5,330
1933	May 13, 1933	10.58	7,840		May 19, 1950	8.00	5,330
					June 10, 1950	13.60	20,300
1934	Sept.13, 1934	9.98	6,700				
				1951	June 30, 1951	12.00	14,400
1935	Mar. 11, 1935	11.54	10,100		July 10, 1951	10.00	8,950
	June 16, 1935	9.98	6,520		July 13, 1951	8.00	5,330
	June 21, 1935	12.40	13,100				
	June 26, 1935	16.26	28,000	1952	Mar. 11, 1952	6.30	2,680
1936	June 7, 1936	9.12	4,660	1953	Apr. 23, 1953	5.50	1,730
1937	July 19, 1937	14.35	20,500	1954	June 9, 1954	6.0	2,260
1938	May 23, 1938	10.04	6,050	1955	Mar. 20, 1955	7.3	4,420
1939	Apr. 16, 1939	13.00	15,200	1956	May 31, 1956	9.80	7,000
1940	Apr. 17, 1940	7.05	2,540	1957	May 21, 1957	10.00	6,900
					May 23, 1957	11.91	11,100
1941	Apr. 19, 1941	12.50	15,000				
				1958	Dec. 17, 1957	8.88	5,280
1942	June 25, 1942	8.81	4,820		Mar. 23, 1958	9.3	5,790
					June 10, 1958	9.6	6,230
1943	Oct. 20, 1942	9.50	6,070		July 16, 1958	11.0	9,000
	Dec. 27, 1942	11.30	10,800		July 17, 1958	12.8	13,500
	May 18, 1943	9.40	5,870				
				1959	May 17, 1959	8.9	5,280
1944	Feb. 28, 1944	5.94	1,320				
				1960	May 6, 1960	8.10	4,380
1945	Apr. 2, 1945	11.50	11,500				
	Apr. 14, 1945	13.20	19,200	1961	May 6, 1961	9.84	6,550
	June 8, 1945	15.00	26,000		May 8, 1961	9.0	5,400
1946	Aug. 14, 1946	16.20	32,500	1962	Mar. 20, 1962	7.70	3,970
1947	Apr. 24, 1947	11.23	11,800				

a Annual peak only.

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.

Gage.--Nonrecording prior to Jan. 18, 1939; recording thereafter. At site 4,000 ft downstream at different datum prior to July 26, 1904. At site 2,600 ft upstream at datum about 0.85 ft higher July 26, 1904, to July 21, 1906. At site 400 ft downstream at datum 0.14 ft lower 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 of Gasconade River at Jerome, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)
1897	Jan. 6, 1897	a29.0	b120,000
1904	Jan. 23, 1904	11.5	16,400
	Mar. 26, 1904	16.5	29,900
	Apr. 26, 1904	18.0	33,900
	June 26, 1904	14.5	24,500
1905	Mar. 9, 1905	13.5	24,200
	July 23, 1905	20.3	45,000
	July 30, 1905	19.1	41,100
	Sept.19, 1905	16.5	32,900
1915	Aug. 22, 1915	a28.6	b114,000
1923	Mar. 17, 1923	10.30	15,500
1924	May 29, 1924	15.80	30,400
	Aug. 12, 1924	11.85	19,400
1925	Dec. 20, 1924	18.20	38,600
	Sept.29, 1925	12.75	22,000
1926	Nov. 8, 1925	9.80	13,900
1927	Mar. 22, 1927	12.55	21,300
	Apr. 2, 1927	21.06	45,500
	Apr. 15, 1927	19.0	39,300
	Apr. 21, 1927	15.26	28,700
	May 26, 1927	15.45	29,000
	June 3, 1927	19.85	41,600
	June 22, 1927	11.75	19,200
	Aug. 11, 1927	13.6	24,000
	Aug. 16, 1927	17.9	36,100
	Aug. 19, 1927	16.2	31,300
1928	Nov. 16, 1927	11.4	18,100
	Dec. 15, 1927	13.89	24,800
	Apr. 7, 1928	20.0	42,200
	Apr. 23, 1928	15.7	29,900
	May 24, 1928	11.59	18,600
	June 10, 1928	23.25	61,100
	June 20, 1928	12.65	21,300
1929	Mar. 16, 1929	11.00	17,000
	Apr. 11, 1929	14.20	25,700
	May 7, 1929	16.60	32,700
	May 24, 1929	13.45	23,500
1930	Jan. 15, 1930	15.52	29,300
1931	May 20, 1931	6.80	7,500
1932	Jan. 24, 1932	8.50	11,100
1933	Apr. 17, 1933	16.80	31,700
	May 16, 1933	23.40	62,600
1934	Sept.13, 1934	7.28	8,530
1935	Mar. 13, 1935	25.80	76,800
	June 4, 1935	15.70	28,400
	June 21, 1935	20.60	46,900
	June 26, 1935	23.50	62,600
1936	Nov. 11, 1935	7.30	8,480
1937	Jan. 16, 1937	13.96	23,900
	Feb. 2, 1937	11.16	17,000
	May 3, 1937	15.10	27,000
1938	Feb. 19, 1938	18.70	37,900
	May 10, 1938	12.65	19,900
	May 24, 1938	16.2	29,300
1939	Apr. 16, 1939	13.67	22,600
	Apr. 18, 1939	16.19	29,300
1940	Mar. 13, 1940	10.44	14,500
1941	Apr. 21, 1941	22.64	54,600
1942	Nov. 2, 1941	13.33	20,700
	Apr. 11, 1942	13.03	20,000
	June 13, 1942	12.84	19,500
	June 20, 1942	17.4	31,600
1943	Dec. 28, 1942	25.63	74,000
	May 12, 1943	20.57	43,700
	May 21, 1943	24.7	67,800
	June 23, 1943	13.9	22,200
	June 25, 1943	11.76	17,200
1944	Mar. 1, 1944	9.57	12,500
1945	Feb. 23, 1945	15.91	27,400
	Mar. 7, 1945	17.20	31,300
	Mar. 21, 1945	14.35	23,500
	Apr. 3, 1945	17.77	33,300
	Apr. 15, 1945	27.7	101,000
	June 8, 1945	20.01	41,300
	June 19, 1945	14.67	24,200
1946	Feb. 15, 1946	18.06	34,300
	May 26, 1946	17.75	33,300
	Aug. 14, 1946	26.55	87,500
1947	Nov. 11, 1946	16.9	30,400
	Apr. 27, 1947	23.53	60,000
1948	June 20, 1948	16.50	29,200
	June 29, 1948	12.95	20,000
1949	Jan. 26, 1949	13.0	20,000
	Jan. 29, 1949	13.4	21,000
	Feb. 16, 1949	17.3	31,700
	June 3, 1949	13.6	21,500
	June 9, 1949	13.6	21,500
	July 9, 1949	13.9	22,200
1950	Oct. 6, 1949	13.4	21,000
	Oct. 12, 1949	17.3	31,700
	Oct. 24, 1949	18.88	37,100
	Jan. 5, 1950	21.03	45,600
	Jan. 15, 1950	16.73	29,800
	May 13, 1950	21.6	48,700
	May 21, 1950	12.24	18,100
	June 10, 1950	19.14	37,900
1951	Feb. 21, 1951	14.25	23,000
	Mar. 13, 1951	11.78	17,200
	May 21, 1951	12.39	18,600
	June 29, 1951	11.55	16,800
	July 2, 1951	20.08	41,700
	July 6, 1951	12.08	17,900
	July 11, 1951	14.90	24,700
	July 14, 1951	13.70	21,700
1952	Nov. 14, 1951	13.08	20,300
	Nov. 17, 1951	12.42	18,600
	Feb. 4, 1952	11.80	17,200
	Mar. 12, 1952	12.45	18,600
	Apr. 14, 1952	13.00	20,000
1953	Apr. 24, 1953	9.50	12,300
1954	May 5, 1954	4.87	4,320
1955	Feb. 21, 1955	11.35	16,300
	Mar. 22, 1955	15.01	25,000
1956	May 16, 1956	16.35	28,900
	June 1, 1956	16.94	30,400
1957	Feb. 27, 1957	12.22	18,100
	Apr. 5, 1957	15.40	26,100
	May 24, 1957	23.12	57,400
	June 5, 1957	14.76	24,500
1958	Dec. 20, 1957	17.55	32,600
	Mar. 25, 1958	19.65	39,700
	July 19, 1958	21.26	47,100

a Present datum.
b Annual peak only.

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)
1959	May 29, 1959	11.03	15,400	1961	May 10, 1961	23.90	62,800
1960	Dec. 20, 1959	10.65	14,600	1962	Mar. 22, 1962	14.65	24,500
1961	May 3, 1961	13.15	20,600				

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, 5.0 miles north of Rolla.

Drainage area.--0.27 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 20 cfs and by culvert 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	1960	May 6, 1960	15.75	80
1957	May 21, 1957	18.52	276				
1958	July 17, 1958	17.10	161	1961	May 6, 1961	16.18	102
1959	-	(a)	(b)	1962	Mar. 20, 1962	15.66	75

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

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.

Gage.--Nonrecording prior to Mar. 10, 1934; recording 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	1927	Mar. 23, 1927	14.10	20,900
	Apr. 19, 1922	13.70	20,700		Apr. 3, 1927	21.63	41,000
	Apr. 29, 1922	14.40	22,300		Apr. 9, 1927	13.14	18,700
					Apr. 17, 1927	20.38	37,400
1923	Mar. 17, 1923	11.20	15,200		Apr. 21, 1927	15.48	24,000
					May 26, 1927	16.13	25,300
1924	May 30, 1924	17.20	27,700		June 3, 1927	20.78	38,600
					Aug. 12, 1927	15.40	23,800
1925	Dec. 21, 1924	18.00	29,600		Aug. 17, 1927	17.75	29,800
	Sept.30, 1925	13.22	18,900		Aug. 20, 1927	16.70	26,800
1926	Nov. 9, 1925	10.48	13,500				

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)
1928	Dec. 16, 1927	14.55	21,700	1946	Feb. 16, 1946	18.21	29,900
	Apr. 8, 1928	19.95	36,000		May 27, 1946	17.18	27,000
	Apr. 25, 1928	15.90	24,800		Aug. 16, 1946	25.18	67,400
	May 25, 1928	12.86	18,200				
	June 11, 1928	22.83	51,000	1947	Nov. 12, 1946	16.93	26,200
	June 20, 1928	14.30	21,100		Apr. 28, 1947	24.10	59,700
1929	Apr. 12, 1929	15.65	24,000	1948	June 23, 1948	16.64	25,400
	May 9, 1929	17.15	27,900		June 30, 1948	14.23	19,500
	May 15, 1929	14.70	21,900				
	May 18, 1929	13.40	19,200	1949	Jan. 27, 1949	14.85	21,300
					Jan. 30, 1949	14.6	20,400
1930	Jan. 16, 1930	16.30	25,700		Feb. 18, 1949	17.4	27,600
					June 4, 1949	15.6	22,800
1931	May 20, 1931	9.60	11,900		June 10, 1949	14.16	19,500
					July 10, 1949	14.5	20,200
1932	Jan. 25, 1932	9.55	11,900				
				1950	Oct. 7, 1949	13.5	18,000
1933	Apr. 18, 1933	17.21	27,900		Oct. 13, 1949	18.6	31,100
	May 17, 1933	24.05	60,600		Oct. 25, 1949	19.5	35,000
	May 24, 1933	13.80	20,000		Jan. 7, 1950	20.5	40,400
					Jan. 16, 1950	17.7	29,100
1934	Sept.12, 1934	12.67	17,700		May 14, 1950	22.09	46,400
					May 20, 1950	14.8	21,400
1935	Mar. 14, 1935	26.85	86,000		June 11, 1950	19.3	34,300
	June 5, 1935	16.85	26,900				
	June 22, 1935	21.74	43,800	1951	Feb. 22, 1951	15.30	22,600
	June 27, 1935	21.38	42,200		May 22, 1951	15.0	21,900
					July 3, 1951	20.50	38,700
1936	Nov. 12, 1935	7.92	7,890		July 7, 1951	13.48	18,600
					July 12, 1951	16.85	26,600
1937	Jan. 17, 1937	14.86	22,400				
	May 4, 1937	16.61	26,400	1952	Nov. 14, 1951	14.28	20,300
	June 9, 1937	18.17	30,600		Mar. 13, 1952	13.80	19,500
					Apr. 15, 1952	13.80	19,500
1938	Feb. 20, 1938	19.00	32,400				
	May 11, 1938	13.73	18,300	1953	Apr. 24, 1953	10.59	13,800
	May 25, 1938	16.76	25,900				
	June 11, 1938	16.13	24,100	1954	May 22, 1954	5.94	5,660
1939	Apr. 19, 1939	17.38	27,300	1955	Mar. 23, 1955	15.73	24,800
1940	Mar. 13, 1940	11.70	14,000	1956	May 18, 1956	15.50	24,300
					June 2, 1956	16.75	27,700
1941	Apr. 22, 1941	22.80	51,000				
				1957	Feb. 28, 1957	13.5	18,600
1942	Oct. 5, 1941	14.40	19,900		Apr. 7, 1957	16.48	25,800
	Nov. 3, 1941	14.60	20,300		May 18, 1957	16.47	25,800
	Apr. 12, 1942	14.50	20,100		May 25, 1957	23.7	56,900
	June 14, 1942	14.45	19,900		June 6, 1957	15.59	23,400
	June 21, 1942	19.10	32,700				
				1958	Dec. 21, 1957	17.30	28,000
1943	Dec. 29, 1942	25.60	74,500		Mar. 26, 1958	20.60	38,500
	May 13, 1943	20.60	38,500		July 20, 1958	21.70	43,900
	May 22, 1943	25.30	71,700				
	June 8, 1943	14.70	20,600	1959	May 30, 1959	11.83	16,100
	June 23, 1943	14.80	20,800				
				1960	Dec. 21, 1959	11.70	15,900
1944	Mar. 2, 1944	10.69	12,600				
				1961	May 4, 1961	14.01	20,800
1945	Feb. 24, 1945	16.04	23,800		May 11, 1961	24.2	60,400
	Mar. 6, 1945	17.31	27,300				
	Mar. 9, 1945	18.34	30,200	1962	Mar. 23, 1962	15.83	25,300
	Mar. 22, 1945	15.76	23,300				
	Apr. 3, 1945	19.88	35,600				
	Apr. 16, 1945	29.13	96,400				
	June 9, 1945	20.58	38,500				

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 Mar. 28, 1932, to June 12, 1945, and subsequent to Apr. 2, 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	1946	Aug. 15, 1946	20.3	209,000
				1947	June 29, 1947	31.20	487,000
1903	June 7, 1903	29.5	a676,000	1948	June 25, 1948	25.2	333,000
				1949	June 5, 1949	22.8	239,000
1929	June 8, 1929	24.6	407,000	1950	July 22, 1950	23.10	-
1930	Feb. 7, 1930	b16.8	-		Aug. 17, 1950	-	265,000
	June 19, 1930	15.0	164,000				
				1951	July 19, 1951	33.33	618,000
1931	May 20, 1931	13.5	123,000	1952	Apr. 28, 1952	27.10	368,000
1932	Nov. 29, 1931	20.9	269,000	1953	May 9, 1953	18.70	177,000
1933	May 14, 1933	19.4	183,000	1954	June 5, 1954	16.82	145,000
1934	Mar. 10, 1934	11.28	85,000	1955	Feb. 21, 1955	19.35	186,000
1935	June 7, 1935	29.15	473,000				
				1956	Oct. 7, 1955	17.45	144,000
1936	Feb. 27, 1936	15.85	145,000	1957	May 26, 1957	21.50	196,000
1937	June 10, 1937	19.85	194,000	1958	July 23, 1958	29.15	339,000
1938	May 25, 1938	21.80	231,000	1959	June 3, 1959	21.30	190,000
1939	Apr. 18, 1939	22.75	247,000	1960	Apr. 7, 1960	28.44	330,000
1940	June 12, 1940	14.03	111,000				
				1961	May 10, 1961	30.6	405,000
1941	Apr. 20, 1941	23.66	256,000	1962	Mar. 23, 1962	25.30	278,000
1942	June 28, 1942	29.62	435,000				
1943	May 21, 1943	31.20	550,000				
1944	Apr. 28, 1944	30.90	577,000				
1945	Apr. 20, 1945	27.74	398,000				

a Computed by Corps of Engineers.
b Backwater from ice.

LOUTRE RIVER BASIN

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.

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 slope-area measurement at 220 cfs, and by a calculated estimate at 350 cfs.

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

Peak stages and discharges of Rumbo Branch at Danville, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 8, 1954	3.33	101	1958	June 10, 1958	4.04	178
					June 12, 1958	3.94	166
1955	Apr. 4, 1955	4.43	222		June 15, 1958	4.86	266
	Apr. 12, 1955	4.09	183		July 4, 1958	4.45	222
	July 6, 1955	6.34	434		July 19, 1958	4.09	183
					July 19, 1958	4.44	222
1956	May 18, 1956	4.16	188		Sept. 2, 1958	5.98	398
	May 29, 1956	3.95	166				
	May 31, 1956	4.02	172	1959	Feb. 9, 1959	4.34	209
	July 2, 1956	4.47	222		May 18, 1959	3.92	161
	July 16, 1956	5.62	350				
				1960	Mar. 27, 1960	4.46	223
1957	June 29, 1957	5.72	362				
				1961	May 5, 1961	4.44	220
1958	Apr. 5, 1958	4.17	188	1962	Mar. 20, 1962	4.26	201

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 1¼ miles downstream from new U.S. Highway 40.

Drainage area.--202 sq mi.

Gage.--Nonrecording prior to Aug. 29, 1951; recording 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 of 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	Oct. 5, 1955	16.40	6,710
	Mar. 23, 1948	16.6	6,950		Oct. 6, 1955	16.04	6,230
	July 4, 1948	15.1	5,190		July 3, 1956	15.74	5,870
	July 26, 1948	17.2	7,670		July 4, 1956	16.28	6,590
					July 16, 1956	17.85	8,420
1949	Jan. 23, 1949	17.33	7,820		July 19, 1956	16.85	7,190
	Mar. 26, 1949	15.43	5,800				
	June 2, 1949	17.89	8,550	1957	Mar. 25, 1957	15.81	5,990
	Sept.13, 1949	19.98	11,500		Apr. 28, 1957	15.40	5,510
					June 30, 1957	20.88	12,900
1950	Oct. 21, 1949	18.50	9,330				
	Dec. 21, 1949	15.5	5,800	1958	June 15, 1958	17.27	7,790
	Jan. 3, 1950	14.8	5,100		July 20, 1958	18.98	10,000
	Jan. 13, 1950	17.1	7,580		July 31, 1958	18.60	9,470
	Mar. 11, 1950	15.0	5,280		Sept. 2, 1958	19.55	10,900
	June 3, 1950	17.7	8,300		Sept.17, 1958	17.45	7,910
1951	Feb. 20, 1951	18.0	8,680	1959	Feb. 10, 1959	19.60	10,900
	Mar. 17, 1951	19.6	10,900		Mar. 9, 1959	16.28	6,590
	Sept.22, 1951	14.7	5,010		May 17, 1959	14.88	5,000
1952	Mar. 18, 1952	14.78	5,100	1960	Oct. 4, 1959	15.25	5,290
	Apr. 12, 1952	14.66	5,010		Oct. 11, 1959	18.99	10,000
					Mar. 28, 1960	17.70	8,290
1953	May 5, 1953	14.45	4,770				
				1961	May 6, 1961	18.35	9,200
1954	June 8, 1954	8.65	1,750		May 8, 1961	17.60	8,160
1955	Apr. 5, 1955	14.04	4,220	1962	Mar. 21, 1962	19.90	11,400

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.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert 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	1959	June 15, 1959	18.82	340
				1960	-	(a)	(b)
1956	Feb. 24, 1956	14.70	62				
1957	June 29, 1957	22.31	576	1961	May 7, 1961	14.68	60
1958	Aug. 9, 1958	18.15	300	1962	June 7, 1962	13.84	(c)

a Stage did not reach gage during year.
b Less than 60 cfs.
c Less than 50 cfs.

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U. S. GOVERNMENT PRINTING OFFICE : 1968 O - 307-932