UNITED STATES DEPARTMENT OF THE INTERIOR
RAY LYMAN WILBUR, Secretary
GEOLOGICAL SURVEY
GEORGE OTIS SMITH, Director

Water-Supply Paper 645

SURFACE WATER SUPPLY *of the* UNITED STATES 1927

PART V

HUDSON BAY AND UPPER MISSISSIPPI RIVER BASINS

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MINNESOTA, WISCONSIN, IOWA, ILLINOIS, and MISSOURI

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ILLUSTRATION

SURFACE WATER SUPPLY OF HUDSON BAY AND UPPER MISSISSIPPI RIVER BASINS, 1927

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1927.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L. 394):

Provided, That this officer [the Director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun in 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

For gaging the streams and determining the water supply of the United States, and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

Annual appropriations for the fiscal years ending June 30, 1895–1928

1895	$12, 500. 00	1918	$175, 000. 00
1896	24, 500. 00	1919	148, 244. 10
1897–1899	50, 000. 00	1920	175, 000. 00
1900	70, 000. 00	1921–1923	180, 000. 00
1901–1902	100, 000. 00	1924–25	170, 000. 00
1903–1906	200, 000. 00	1926	165, 000. 00
1907	150, 000. 00	1927	151, 000. 00
1908–1910	100, 000. 00	1928	147, 000. 00
1911–1917	150, 000. 00		

In execution of the work many private and State organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 9.

Measurements of stream flow have been made at about 5,330 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1927, 1,750 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made

at other points. In connection with this work data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute miner's inches, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, acre-feet, and millions of cubic feet. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

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

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

The following terms not in common use are here defined:

"Stage-discharge relation," an abbreviation for the term "relation of gage height to discharge."

"Control," a term used to designate the natural section or stretch of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1926, and ending September 30, 1927. At the beginning of January in most parts of the United States much of the precipitation in the preceding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored

water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a staff or chain gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter, by the general methods outlined in standard textbooks on the measurement of river dis-

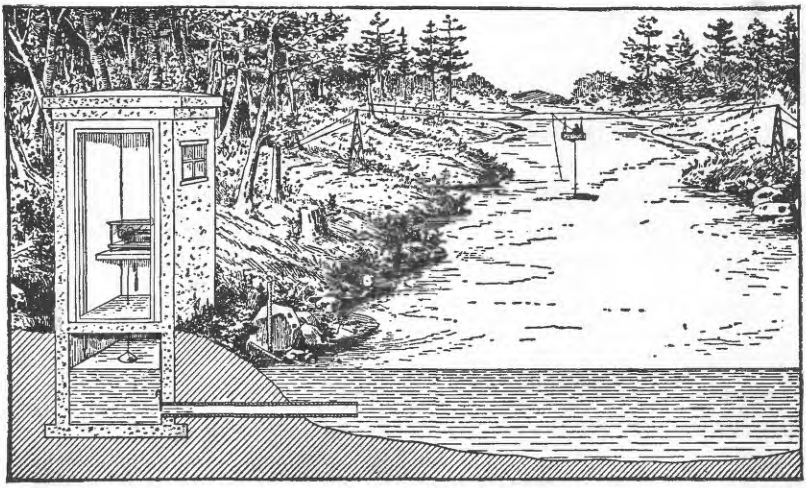

FIGURE 1.—Typical gaging station

charge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.

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

The data presented for each gaging station in the area covered by this report comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off.

The description of the station gives, in addition to statements regarding location and type of gage, information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records. The maximum discharge given under "Extremes" does not represent

the crest discharge unless a water-stage recorder was in operation or unless a nonrecording gage was read at the time of the crest.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the daily gage height, which may be a once-daily reading or the mean of twice-daily readings of a nonrecording gage or the mean daily gage height obtained from a water-stage recorder graph.

At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders, the mean daily discharge may be obtained by averaging discharge at regular intervals during the day or by using the discharge integrator, an instrument for obtaining mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and run-off in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies

of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

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

PUBLICATIONS

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

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

PART I. North Atlantic slope basins (St. John River to York River).
II. South Atlantic slope and eastern Gulf of Mexico Basins (James River to the Mississippi.
III. Ohio River Basin.
IV. St. Lawrence River Basin.
V. Hudson Bay and upper Mississippi River Basins.
VI. Missouri River Basin.
VII. Lower Mississippi River Basin.
VIII. Western Gulf of Mexico Basins.
IX. Colorado River Basin.
X. The Great Basin.
XI. Pacific slope basins in California.
XII. North Pacific slope basins, in three parts:
A, Pacific slope basins in Washington and upper Columbia River Basin.
B, Snake River Basin.
C, Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the United States Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey, as follows:

Augusta, Me., Statehouse.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 64 State Capitol.
Albany, N. Y., 506 Broadway-Arcade Building.
Trenton, N. J., 710 Trenton Trust Building.
Charlottesville, Va., Brooks Museum, University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 210 Post Office Building.
Ocala, Fla., Federal Building.
Chattanooga, Tenn., 630 Power Building.
Tuscaloosa, Ala., Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Chicago, Ill., 1503 Consumers Building.
Indianapolis, Ind., 315 Federal Building.
Lansing, Mich., 320 Old State Office Building.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 202 Old State Capitol.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 415 Power Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 751 South Figueroa Street, room 210.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at about 5,330 points in the United States, and the data obtained have been published in the reports tabulated below.

Stream-flow data in reports of the United States Geological Survey

[A=Annual Report; B=Bulletin; W=Water-Supply Paper]

Report	Character of data	Year
10th A, pt. 2	Descriptive information only	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept., 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	Mean discharge in second-feet	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893.
B 131	Descriptions, measurements, gage heights, and ratings	1893 and 1894.
16th A, pt. 2	Descriptive information only	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.

Stream-flow data in reports of the United States Geological Survey—Continued

Report	Character of data	Year
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895 and 1896.
W 15	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River, and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.

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

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1927. The data for any particular station will be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by Part III are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

Numbers of water-supply papers containing results of stream measurements, 1899–1927

[For basins included see p. 5]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII-A	XII-B	XII-C
1899 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900 [g]	47, [h] 48	48	48, [i] 49	49	49	49, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125 [p] 126	[p] 126, 127	128	129	[k] 128, 130	130, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166 [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332–A	332–B	332–C
1913	351	352	353	354	355	356	357	358	359	360	361	362–A	362–B	362–C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927	641	642	643	644	645	646	647	648	649	650	651	652	653	654

[a] Rating tables and index to Water-Supply Papers 35–39 contained in Water-Supply Paper 39. Tables for monthly discharge for 1899 in Twenty-first Annual Report, Part IV.
[b] James River only.
[c] Gallatin River.
[d] Green and Gunnison Rivers and Grand River above junction with Gunnison.
[e] Mohave River only.
[f] Kings and Kern Rivers and south Pacific slope basins.
[g] Rating tables and index to Water-Supply Papers 47–52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Tables of monthly discharge for 1900 in Twenty-second Annual Report, Part IV.
[h] Wissahickon and Schuylkill Rivers to James River.
[i] Scioto River.
[j] Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte.
[k] Tributaries of Mississippi from east.
[l] Lake Ontario and tributaries to St. Lawrence River proper.
[m] Hudson Bay only.
[n] New England rivers only.
[o] Hudson River to Delaware River, inclusive.
[p] Susquehanna River to Yadkin River, inclusive.
[q] Platte and Kansas Rivers.
[r] Great Basin in California, except Truckee and Carson River Basins.
[s] Below junction with Gila.
[t] Rogue, Umpqua, and Siletz Rivers only.

COOPERATION

In Montana, until March, 1927, the work was carried on under cooperative agreement with the United States Bureau of Reclamation, the work being done by the Geological Survey and the expense borne by the Bureau of Reclamation. After March, 1927, the work was carried on by funds furnished by the Department of State. All stations were maintained jointly with the Dominion Water Power and Reclamation Service, Department of the Interior, Canada.

In Minnesota, the work in the Red River Basin, except at the station on the Kawishiwi River near Winton, was carried on in cooperation with the Minnesota State Drainage Commission, E. V. Willard, commissioner. Cooperation in maintaining certain stations was furnished by the United States Engineer Corps, Ford Motor Co., and Prairie River Power Co.

In Wisconsin the work was carried on in cooperation with the Railroad Commission of Wisconsin, C. M. Larson, chief engineer, and at certain stations with the Northern States Power Co.; Libby, McNeil & Libby; and the Inter-County Park Commission.

In Iowa the work was carried on in cooperation with the Iowa Geological Survey, George F. Kay, director; the Iowa Highway Commission, F. R. White, chief engineer; and the Engineering Experiment Station of Iowa State College, Anson Marston, director. Cooperation in maintaining certain stations was furnished by the United States Weather Bureau, Mississippi River Power Co., and Interstate Power Co.

In Illinois the work was carried on in cooperation with the Illinois Department of Purchases and Construction, division of waterways, William F. Mulvihill, supervisor. Financial assistance was rendered by the Central Illinois Public Service Co.

In Missouri the work was carried on in cooperation with the Missouri Bureau of Geology and Mines, through H. A. Buehler, State geologist.

DIVISION OF WORK

The data for stations in the Hudson Bay Basin in Montana were collected and prepared for publication under the direction of W. A. Lamb, district engineer, assisted by A. H. Tuttle, C. S. Heidel, and Mrs. G. Thompson.

The data for stations in the Hudson Bay Basin in Minnesota were collected and prepared for publication under the direction of S. B. Soulé, district engineer, assisted by E. F. Chandler.

The data for stations in the Mississippi River Basin in Wisconsin and Minnesota were collected and prepared for publication under the direction of S. B. Soulé, district engineer, assisted by W. J. Parsons, jr., and G. W. Martin.

The data for stations in the upper Mississippi River Basin in Iowa were collected and prepared for publication by Karl Jetter, engineer in charge, under the general direction of J. B. Spiegel, district engineer.

The data for stations in the upper Mississippi River Basin in Illinois were collected and prepared for publication under the direction of H. E. Grosbach, district engineer, assisted by A. M. Wahl.

The data for stations in the upper Mississippi River Basin in Missouri were collected and prepared for publication under the direction of H. C. Beckman, district engineer, assisted by V. L. Austin, A. L. Hill, and C. H. Jennings.

The records were reviewed and the manuscript assembled by Warren Withee.

GAGING-STATION RECORDS

HUDSON BAY DRAINAGE BASIN

ST. MARY RIVER NEAR KIMBALL, ALBERTA

LOCATION.—Water-stage recorder in SW. ¼ sec. 25, T. 1 N., R. 25 W. fourth meridian, 1 mile south and 1 mile west of Kimball, Alberta, and 5 miles north of international boundary. During winter a chain gage on highway bridge 3 miles downstream was used.

DRAINAGE AREA.—497 square miles.

RECORDS AVAILABLE.—January, 1913, to September, 1927. September, 1902, to December, 1912, records were obtained at point half a mile north of international boundary. Records were also obtained by the Irrigation Branch, Department of the Interior, Canada, at a point half a mile below present station, from 1905 to 1912. Discharge at the three points is practically the same.

EXTREMES.—Maximum discharge during year, 7,770 second-feet June 11 (gage height, 7.43 feet); minimum, 84 second-feet March 25.

1902–1927: Maximum discharge (estimated), 18,000 second-feet June 5, 1908; minimum, 46 second-feet December 1, 1919.

REMARKS.—Records good except those for November 19 to April 16, which were estimated because of ice. St. Mary Canal diverts water near Babb, Mont., to North Fork of Milk River. Alberta Railway & Irrigation Co.'s canal diverts 2 miles below station. Regulation on tributary upstream. Station maintained in cooperation with the Department of the Interior, Canada.

Daily discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	442	723	336	190	167	164	161	2,280	4,540	3,380	1,300	1,100
2	427	684	336	187	172	161	161	2,390	3,980	3,060	1,190	1,120
3	427	652	336	187	175	181	161	2,370	3,900	3,060	1,130	1,210
4	437	628	336	184	175	178	158	2,030	3,540	3,300	1,090	1,260
5	427	591	336	184	167	201	153	1,810	3,480	3,480	1,030	1,290
6	437	550	328	181	164	201	148	1,640	3,640	3,360	992	1,280
7	506	522	328	178	156	167	143	1,450	4,040	3,200	956	1,360
8	591	500	328	175	153	178	138	1,360	5,090	3,140	942	1,330
9	634	473	328	172	150	178	133	1,300	6,290	3,060	913	1,280
10	678	452	328	170	148	167	128	1,320	6,950	3,020	927	1,260
11	710	432	319	167	143	158	122	1,340	7,480	2,900	920	1,290
12	736	432	311	164	140	158	138	1,290	7,410	2,670	906	1,290
13	736	418	300	156	138	167	156	1,230	6,890	2,400	886	2,020
14	756	413	300	150	136	164	170	1,230	6,420	2,300	963	2,630
15	756	404	300	145	133	158	349	1,310	6,230	3,270	985	2,370
16	756	392	300	140	131	150	636	1,670	6,180	2,350	934	2,220
17	1,030	380	300	136	131	143	918	2,260	6,180	2,080	1,050	2,050
18	1,430	354	300	131	131	136	943	2,820	6,090	1,970	1,070	1,950
19	1,580	318	296	131	136	131	271	3,440	5,900	1,940	1,050	1,810
20	1,630	310	281	131	140	126	271	4,020	5,720	1,950	1,060	1,720
21	1,570	303	266	131	145	115	279	4,250	5,430	1,970	1,200	1,600
22	1,490	300	252	131	150	104	271	4,230	5,150	1,950	1,130	1,510
23	1,360	300	242	131	156	93	291	4,020	4,940	1,870	1,100	1,440
24	1,260	300	232	138	158	84	279	4,360	4,900	1,780	1,130	1,470
25	1,150	300	219	145	164	84	1,000	4,340	4,690	1,670	1,090	1,400
26	1,060	311	210	156	164	102	1,040	4,120	4,480	1,600	1,070	1,330
27	981	319	201	156	164	119	1,000	3,700	4,380	1,520	1,050	1,260
28	890	328	190	156	164	140	1,190	3,540	4,210	1,440	1,120	1,200
29	818	340	190	172	-------	161	1,550	5,300	3,960	1,340	1,060	1,150
30	790	350	190	164	-------	178	1,940	4,570	3,780	1,290	1,070	1,140
31	763	-------	190	170	-------	172	-------	4,860	-------	1,400	1,030	------

Monthly discharge of St. Mary River near Kimball, Alberta, 1926–27

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,630	427	879	54,000
November	723	300	426	25,300
December	336	190	281	17,300
January	190	131	158	9,720
February	175	131	152	8,440
March	201	84	149	9,160
April	1,940	122	477	28,400
May	5,300	1,230	2,770	170,000
June	7,480	3,480	5,200	309,000
July	3,480	1,290	2,350	144,000
August	1,300	886	1,040	64,006
September	2,630	1,100	1,510	89,800
The year	7,480	84	1,290	929,000

ST. MARY CANAL AT INTAKE, NEAR BABB, MONT.

LOCATION.—Water-stage recorder and staff gage in NW. ¼ NE. ¼ sec. 27, T. 36 N., R. 14 W., 600 feet below intake of canal on Blackfeet Indian Reservation, 1 mile east of Babb.

RECORDS AVAILABLE.—Irrigation seasons 1918–1927.

REMARKS.—Records good. Recorder did not operate satisfactorily, and daily readings of staff gage were used. This canal diverts from west bank of St. Mary River near Babb and discharges into North Fork of Milk River. The water then flows in the natural channel of Milk River through Canada and is finally used for irrigation in Milk River Valley, east of Havre, Mont. Water may be returned to St. Mary River at St. Mary crossing. Station maintained in cooperation with the Department of the Interior, Canada.

Daily and monthly discharge, in second-feet, 1927

Day	June	July	Aug.	Day	June	July	Aug.	Day	June	July	Aug.
1		247	561	11		498	583	21		561	576
2		264	568	12		514	583	22		561	580
3		271	566	13		508	581	23	25	566	541
4		269	580	14		514	581	24		564	459
5		286	588	15		482	580	25		564	415
6		340	588	16		549	580	26		561	303
7		386	585	17		564	580	27		561	308
8		408	583	18		566	576	28		564	237
9		452	581	19		566	573	29		561	189
10		464	583	20		566	571	30	144	564	128
								31		564	73

Month	Maximum	Minimum	Mean	Run-off in acre-feet
July	566	247	481	29,600
August	588	73	496	30,500

ST. MARY CANAL AT ST. MARY CROSSING, NEAR BABB, MONT.

LOCATION.—Water-stage recorder in NE. ¼ sec. 30, T. 37 N., R. 13 W. Montana meridian, 500 feet east of outlet of St. Mary River siphon, 9 miles north of Babb, and 10 miles below intake.
RECORDS AVAILABLE.—Irrigation seasons, 1918–1927.
REMARKS.—Records good. Station maintained in cooperation with the Department of the Interior, Canada.

Daily and monthly discharge, in second-feet, 1927

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	------	218	456	4.0	11	------	432	470	------	21	------	470	474	------
2	------	223	464	.9	12	------	448	468	------	22	2.1	468	472	------
3	------	228	464	.5	13	------	446	466	------	23	7.0	470	460	------
4	------	231	464	------	14	------	448	460	------	24	15.5	466	380	------
5	------	232	474	------	15	------	440	468	------	25	6.6	464	368	------
6	------	288	474	------	16	------	402	470	------	26	5.8	460	317	------
7	------	335	472	------	17	------	476	474	------	27	4.4	456	315	------
8	------	342	470	------	18	------	478	464	------	28	3.8	462	215	------
9	------	392	470	------	19	------	476	460	------	29	3.1	460	196	------
10	------	400	470	------	20	------	474	464	------	30	27.5	452	122	------
										31	------	462	87	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
June 22–30	27.5	2.1	8.42	150
July	478	218	403	24,800
August	474	87	411	25,300
September 1–3	4.0	.5	1.80	11

ST. MARY CANAL AT HUDSON BAY DIVIDE, NEAR BROWNING, MONT.

LOCATION.—Water-stage recorder in sec. 5, T. 37 N., R. 11 W., on Blackfeet Indian Reservation, 3 miles above canal outlet and 30 miles north of Browning.
RECORDS AVAILABLE.—Irrigation seasons, 1917–1927.
REMARKS.—Records good. Station maintained in cooperation with the Department of the Interior, Canada.

Daily discharge, in second-feet, 1927

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	------	201	33	454	75	16	------	16.9	413	462	1.7
2	------	135	208	454	37.8	17	------	14.8	422	466	1.4
3	------	100	231	456	16.6	18	------	13.2	461	462	0
4	------	74	233	457	6.8	19	------	11.8	462	459	------
5	------	52	236	461	2.8	20	------	10.0	462	456	------
6	------	40.5	248	464	1.8	21	------	8.4	461	464	------
7	------	34.2	308	464	2.0	22	------	7.0	457	466	------
8	------	29.8	333	461	1.5	23	------	6.3	459	464	------
9	------	31.8	359	462	1.3	24	0	5.2	461	428	------
10	------	23.1	380	461	1.2	25	75	5.0	461	391	------
11	------	25.2	398	462	1.2	26	85	5.0	457	365	------
12	------	25.9	422	462	1.2	27	69	4.2	454	341	------
13	------	23.8	428	461	6.8	28	58	3.3	456	300	------
14	------	21.3	432	468	12.4	29	142	2.1	459	218	------
15	------	19.6	447	462	3.8	30	186	1.0	457	181	------
						31	175	------	464	119	------

Monthly discharge of St. Mary Canal at Hudson Bay divide, near Browning, Mont., 1926–27

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May 24-31	186	0	98.8	1,570
June	201	1.0	31.7	1,890
July	464	33	386	23,700
August	468	119	418	25,700
September 1–18	75	0	9.74	348
The period				53,200

SWIFTCURRENT CREEK AT MANY GLACIER, MONT.

LOCATION.—Water-stage recorder in sec. 12, T. 35 N., R. 16 W., at outlet of McDermott Lake at Many Glacier, in Glacier National Park, 14 miles southwest of Babb.

DRAINAGE AREA.—31.4 square miles.

RECORDS AVAILABLE.—June, 1912, to September, 1927.

EXTREMES.—Maximum discharge during year, 1,100 second-feet June 8 (gage height, 4.91 feet); minimum, 72 second-feet May 9 (gage height, 1.88 feet).

1912–1927: Maximum discharge, 1,550 second-feet June 17, 1916; maximum gage height, that of June 8, 1927; minimum discharge, 10 second-feet November 6 and 7, 1921 (gage height, 1.22 feet).

REMARKS.—Records good except those for estimated periods, which are fair. Observations discontinued during winter. No diversions or regulation. Station maintained in cooperation with the Department of the Interior, Canada.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	May	June	July	Aug.	Sept.	Day	Oct.	May	June	July	Aug.	Sept.
1	92	[a] 165	236	491	218	266	16		710	882	376	133	
2	94	[a] 160	260	421	209	344	17		806	855	370	186	
3	105	[a] 156	331	424	200	266	18		576	851	373	189	
4	123	152	373	510	206	218	19		414	764	379	177	
5	123	133	414	556	209	197	20		338	696	376	183	
6	178	121	640	501	203	177	21		272	664	347	189	
7	449	101	963	485	194	183	22		227	714	338	171	
8	422	85	1,060	510	186	171	23	[a] 130	186	783	328	155	[a] 236
9	299	74	1,020	530	171	149	24		209	959	315	144	
10	228	76	1,030	491	169	144	25		287	897	306	136	
11	[a] 188	94	1,020	456	163		26		379	768	299	133	
12	[a] 170	128	851	418	163		27		392	700	318	123	
13	[a] 158	183	644	379	155	[a] 236	28		354	606	272	111	
14	[a] 146	281	675	341	144		29		344	596	227	111	
15	176	398	951	354	144		30		306	603	221	126	
							31		254		230	128	

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
October	449	92	162	5.16	5.95	9,960
May	806	74	270	8.60	9.92	16,600
June	1,060	236	727	23.2	25.88	43,300
July	556	221	385	12.3	14.18	23,700
August	218	111	165	5.25	6.05	10,100
September	344		228	7.26	8.10	13,600

[a] Estimated.

SWIFTCURRENT CREEK AT SHERBURNE, MONT.

LOCATION.—Water-stage recorder in sec. 35, T. 36 N., R. 15 W., 800 feet below spillway of Sherburne Lake Dam at Sherburne.

DRAINAGE AREA.—64 square miles.

RECORDS AVAILABLE.—July, 1912, to September, 1927.

EXTREMES.—Maximum discharge during year, 1,670 second-feet June 8 (gage height, 6.90 feet); minimum, 10 second-feet October 17 (gage height, 0.80 foot).

1912–1927: Maximum discharge, 2,280 second-feet June 17, 1916 (gage height, 7.85 feet); no flow at various times when gates in dam were closed.

REMARKS.—Records good except those for April 1–27 and July 13, which were estimated. Observations discontinued during winter. No diversions. Flow regulated by gate operations at dam. Station maintained in cooperation with the Department of the Interior, Canada.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	11.8		1,170	758	32	326	263
2	11.8		1,170	754	193	394	288
3	11.6		1,170	639	502	424	309
4	11.4		360	591	696	421	309
5	11.2		360	591	723	421	306
6	11.0		249	595	735	419	304
7	10.8		206	975	731	416	304
8	10.8		206	1,580	731	413	302
9	10.8		206	1,660	731	484	300
10	11.2		205	1,650	731	508	298
11	11.4		176	1,530	588	496	296
12	11.2		149	1,470	419	487	298
13	11.0		150	1,340	419	487	320
14	10.6		199	1,130	419	478	346
15	10.2	5	389	1,070	421	463	363
16	10.2		723	1,070	421	451	368
17	10.2		1,020	1,080	424	448	368
18	10.2		1,210	1,090	481	442	368
19	10.4		1,310	1,090	588	433	366
20	10.6		1,340	1,000	574	427	360
21	10.6		1,220	906	588	427	356
22	10.8		762	620	584	448	350
23	11.2		662	317	550	451	343
24	11.0		389	29.5	436	463	336
25	11.0		306	29.5	436	463	331
26	11.0		309	31.0	433	511	320
27	11.0		222	31.5	358	508	315
28	11.2	373	178	31.0	324	366	309
29	11.2	1,070	260	31.0	322	300	300
30	11.4	1,170	557	31.5	322	286	296
31	11.4	------	762	------	324	265	------

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	11.8	10.2	11.0	676
April	1,170	5	91.6	5,450
May	1,340	149	568	34,900
June	1,660	29.5	791	47,100
July	735	32	491	30,200
August	511	265	430	26,400
September	368	263	323	19,200

CANYON CREEK NEAR MANY GLACIER, MONT.

LOCATION.—Water-stage recorder at edge of heavy timber area in Glacier National Park, half a mile above mouth and 2 miles southeast of Many Glacier, Glacier County.

DRAINAGE AREA.—7.0 square miles.

RECORDS AVAILABLE.—July, 1918, to September, 1927.

EXTREMES.—Maximum discharge during year, 262 second-feet June 9 (gage height, 2.17 feet); minimum, 12.6 second-feet May 10 (gage height), 0.75 foot).

1918–1927: Maximum discharge, estimated, 500 second-feet May 16, 1922 (gage height, 3.34 feet); minimum, 3.3 second-feet October 4, 1919 (gage height, 0.56 foot).

REMARKS.—Records good except those for estimated periods, which are fair. Observations discontinued during winter. No diversions. Station maintained in cooperation with the Department of the Interior, Canada.

Daily and monthly discharge, in second-feet, 1927

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	a 14.0	29.9	66	41.1	a 107	16	126	134	62	35.3	
2	a 14.0	39.2	80	39.2	77	17	115	105	58	72	
3	a 14.0	55	94	35.3	53	18	62	91	56	56	
4	a 14.0	55	91	33.4	46.6	19	46.6	96	55	44.2	
5	a 14.0	72	82	34.4	41.1	20	41.1	82	53	40.1	
6	a 14.0	167	80	34.4	38.2	21	33.4	89	49.0	41.1	
7	14.4	228	82	36.3	42.0	22	27.1	98	47.8	40.1	
8	14.0	235	a 78	38.2	41.1	23	23.8	120	44.2	36.3	a 50
9	13.0	214	a 74	36.3	a 43.0	24	30.6	144	43.0	33.4	
10	12.6	190	a 70	33.4	a 49.0	25	40.1	144	43.0	30.6	
11	14.4	167	a 66	32.0		26	47.8	140	44.2	25.9	
12	18.8	131	a 62	32.0		27	45.4	115	44.2	23.8	
13	24.2	96	a 58	30.0	a 50	28	40.1	98	36.3	22.3	
14	35.3	123	a 59	29.0		29	36.3	89	33.4	22.3	
15	55	153	60	30.0		30	33.4	72	34.4	a 20.6	
						31	29.2	-------	40.1	a 33.4	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off	
					Inches	Acre-feet
May	126	12.6	34.3	4.90	5.65	2,110
June	235	29.9	119	17.0	18.97	7,080
July	94	33.4	59.5	8.50	9.80	3,660
August	72	20.6	35.3	5.02	5.80	2,160
September	----------	----------	51	7.29	8.13	3,030

a Estimated.

BOIS DES SIOUX RIVER NEAR TENNY, MINN.

LOCATION.—Staff gage near center of sec. 22, T. 130 N., R. 47 W., at Soo Line Railway bridge 5 miles west of Tenney.
DRAINAGE AREA.—1,460 square miles.
RECORDS AVAILABLE.—April, 1919, to September, 1927.
EXTREMES.—Maximum discharge during year, 70 second-feet April 2 (gage height, 3.50 feet); no flow October 1 to February 22 and August 22–24.
1919–1927: Maximum discharge, 390 second-feet April 22, 1922; no flow during several long periods.
REMARKS.—Records poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0	0	0	4	a 63	a 16	a 11	a 32	a 10	4
2	0	0	0	0	0	a 4	70	16	a 12	32	a 10	a 4
3	0	0	0	0	0	a 4	a 68	a 15	a 12	a 31	9	4
4	0	0	0	0	0	a 4	a 65	a 14	a 13	a 29	a 7	a 4
5	0	0	0	0	0	a 4	a 63	a 14	a 13	a 27	a 6	a 4
6	0	0	0	0	0	a 4	a 60	a 13	a 14	25	4	4
7	0	0	0	0	0	4	58	13	a 14	a 25	a 4	a 6
8	0	0	0	0	0	a 4	a 55	a 13	a 15	a 25	a 4	a 7
9	0	0	0	0	0	a 5	a 51	a 13	a 15	25	4	a 9
10	0	0	0	0	0	a 5	a 47	a 13	a 16	a 25	a 4	11
11	0	0	0	0	0	a 6	44	a 12	16	a 24	a 3	a 9
12	0	0	0	0	0	a 7	a 44	a 12	a 16	a 24	a 2	a 8
13	0	0	0	0	0	a 8	44	a 12	a 16	a 23	2	a 6
14	0	0	0	0	0	a 9	a 43	a 12	16	a 22	a 2	4
15	0	0	0	0	0	a 9	a 42	a 11	a 17	a 22	1	a 4
16	0	0	0	0	0	a 10	a 40	a 11	a 18	22	a 1	a 4
17	0	0	0	0	0	11	a 39	11	19	a 22	a 1	4
18	0	0	0	0	0	a 13	a 37	a 11	19	a 22	a 1	a 4
19	0	0	0	0	0	a 16	36	a 11	a 22	22	a 1	a 4
20	0	0	0	0	0	a 18	a 35	11	25	a 21	1	a 4
21	0	0	0	0	0	a 21	a 34	a 10	a 26	a 20	a 1	4
22	0	0	0	0	0	a 23	a 33	a 10	a 27	a 20	0	a 4
23	0	0	0	0	1	25	32	9	a 27	19	a 0	a 4
24	0	0	0	0	a 1	a 28	a 29	a 9	28	a 16	a 0	4
25	0	0	0	0	a 2	a 31	a 26	9	a 29	13	a 1	a 4
26	0	0	0	0	a 2	a 35	a 22	a 9	a 30	a 13	a 1	a 3
27	0	0	0	0	a 3	a 38	19	a 9	32	a 12	1	3
28	0	0	0	0	a 3	a 41	a 18	a 10	a 32	a 12	a 2	a 3
29	0	0	0	0	-------	44	a 17	a 10	a 32	a 12	a 2	a 3
30	0	0	0	0	-------	a 50	16	a 11	a 32	11	a 3	a 3
31	0	-------	0	0	-------	a 56	-------	11	-------	a 11	a 3	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
February	3	0	0.43	July	32	11	21.3
March	56	4	17.5	August	10	0	2.94
April	70	16	41.7	September	11	3	4.77
May	16	9	11.6				
June	32	11	20.5	The year	70	0	10.1

a Estimated.

RED LAKE RIVER AT THIEF RIVER FALLS, MINN.

LOCATION.—Staff gage in sec. 33, T. 154 N., R. 43 W., one-third mile below dam at Thief River Falls and 1 mile below mouth of Thief River.

DRAINAGE AREA.—3,430 square miles.

RECORDS AVAILABLE.—July, 1909, to September, 1918; March, 1920, to September, 1927.

EXTREMES.—Maximum discharge during year, 5,960 second-feet April 12 (gage height, 11.3 feet); minimum, 46 second-feet January 22 (gage height, 3.86 feet).

1909–1918, 1920–1927: Maximum discharge, 7,040 second-feet April 19–21, 1916 (gage height, 12.2 feet); no flow July 17 and August 27, 1911, caused by regulation.

REMARKS.—Records fair except those for period of ice effect, November 11 to March 29, which are poor. At low water stage is subject to diurnal fluctuation caused by operation of power plant just above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	352	444	192	170	137	112	845	1,720	3,400	1,110	750	705
2	252	464	221	192	121	100	945	1,870	3,200	995	750	750
3	221	406	253	207	104	88	1,230	2,730	3,200	945	705	660
4	166	406	284	221	87	76	1,500	3,200	3,200	945	705	705
5	352	464	284	200	87	64	2,370	3,100	3,100	1,050	705	750
6	370	464	284	179	87	64	2,460	3,000	2,910	895	705	705
7	464	444	284	158	87	64	2,030	3,300	2,730	995	705	750
8	388	660	253	137	87	64	2,110	2,640	2,550	995	705	750
9	406	89	221	165	81	70	2,640	3,600	2,460	1,050	705	750
10	221	89	221	193	75	76	3,300	4,300	2,370	945	705	705
11	352	352	221	221	70	82	4,100	4,200	2,280	895	660	845
12	464	352	221	221	64	87	5,960	4,100	2,030	845	660	895
13	464	406	221	221	87	112	3,700	4,200	1,950	895	660	750
14	425	252	221	221	81	164	3,800	4,400	1,720	895	660	750
15	425	352	193	221	75	615	3,800	4,400	1,640	895	705	895
16	388	425	166	187	97	705	3,900	4,300	1,640	845	705	895
17	221	388	139	132	119	750	3,900	4,200	1,430	845	705	895
18	464	252	112	87	142	895	4,000	4,000	1,430	895	705	750
19	444	192	129	77	164	705	3,600	3,800	1,360	895	705	750
20	464	192	146	67	131	615	3,400	3,600	1,360	845	705	795
21	505	252	163	56	97	705	3,400	3,400	1,360	845	705	795
22	464	192	151	46	64	705	3,100	3,500	1,500	895	705	795
23	425	252	137	49	89	705	2,730	3,700	1,430	895	705	750
24	318	285	137	52	114	660	2,640	4,900	1,360	795	660	845
25	425	192	137	55	139	795	2,370	4,900	1,430	845	660	705
26	388	163	137	63	164	795	2,460	4,900	750	795	660	705
27	406	163	137	71	146	795	2,110	4,600	1,500	750	705	615
28	464	163	137	79	129	705	2,030	4,400	1,300	845	705	750
29	464	163	130	87	-------	795	1,800	3,900	1,300	705	705	705
30	464	163	124	87	-------	845	1,950	3,800	1,170	750	750	660
31	285	-------	147	112	-------	845	-------	3,600	-------	705	750	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	505	166	384	May	4,900	1,720	3,750
November	660	89	303	June	3,400	750	1,970
December	284	112	187	July	1,110	705	887
January	221	46	137	August	750	660	701
February	164	64	104	September	895	615	759
March	895	64	447				
April	5,960	845	2,810	The year	5,960	46	1,040

RED LAKE RIVER AT CROOKSTON, MINN.

LOCATION.—Chain gage in sec. 30, T. 150 N., R. 46 W., at highway bridge in Crookston, one-fourth mile below dam and power house of Crookston Light, Water & Power Co.

DRAINAGE AREA.—5,320 square miles.

RECORDS AVAILABLE.—May, 1901, to September, 1927.

EXTREMES.—Maximum discharge during year, 8,000 second-feet April 13 (gage height, 14.0 feet); minimum not determined.

1901–1927: Maximum discharge, 14,700 second-feet July 5, 1919; minimum, 5 second-feet August 6–8, 1925, caused by regulation.

REMARKS.—Records poor. Stage subject to diurnal fluctuation caused by operations at power plant just above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							940	2,980	4,550	1,260	890	710
2							940	2,980	4,640	1,320	890	890
3							1,090	3,350	4,470	1,320	800	845
4							1,260	4,550	4,390	1,200	800	a 860
5							2,760	4,390	4,230	1,200	800	a 875
6	a 325					a 150	3,510	4,640	4,070	1,260	845	890
7							3,350	4,230	3,910	1,380	845	940
8							3,350	4,150	3,430	1,090	845	940
9							3,120	3,990	3,280	940	890	940
10							3,200	5,820	3,200	1,200	890	800
11	325						5,740	6,680	3,120	1,260	890	845
12	325						6,930	6,420	3,050	1,260	890	890
13	325					a 550	7,280	5,910	2,900	1,200	845	940
14	395						5,570	5,910	2,550	1,140	845	890
15	510	a 440	a 320	a 240	a 180		5,400	5,820	2,340	1,140	845	890
16	510					1,090	5,480	5,820	2,020	1,040	890	845
17	510					1,820	5,400	6,080	2,020	1,040	845	845
18	510					a 1,610	5,400	5,570	1,950	1,090	755	940
19	290					1,200	5,570	4,980	1,950	1,040	800	1,040
20	395					a 1,170	5,320	5,060	1,950	1,040	845	990
21	360					1,140	4,980	4,070	1,950	a 1,030	845	990
22	395					990	4,720	4,150	2,210	a 1,020	800	990
23	470					890	4,390	4,150	2,410	a 1,000	710	940
24	430					845	3,990	6,680	a 2,170	990	940	940
25	470					800	3,750	7,370	a 1,930	990	800	940
26	510					800	3,750	7,370	1,690	940	800	a 925
27	550					a 780	3,750	7,010	1,200	940	800	a 905
28	550					755	3,350	6,680	1,140	990	940	890
29	550				-------	670	3,200	6,250	1,380	890	940	755
30	550				-------	470	2,980	5,480	1,200	845	940	845
31	a 550	-------			-------	710	-------	4,980	--------	845	800	------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	550	-------	411	May	7,370	2,980	5,270
November	-------	-------	440	June	4,640	1,140	2,710
December	-------	-------	320	July	1,380	845	1,090
January	-------	-------	240	August	940	710	847
February	-------	-------	180	September	1,040	710	898
March	1,820	-------	629				
April	7,280	940	4,020	The year	7,370	--------	1,430

a Estimated.

ROSEAU RIVER AT CARIBOU, MINN.

LOCATION.—Chain gate in sec. 34, T. 164 N., R. 45 W., at highway bridge in Caribou, 1 mile south of international boundary.

DRAINAGE AREA.—1,650 square miles.

RECORDS AVAILABLE.—April to October, 1917; April, 1920, to September, 1927.

EXTREMES.—Maximum discharge during year, 3,160 second-feet May 24 (gage height, 12.8 feet); minimum, 28 second-feet August 26 and 27.

1917, 1920–1927: Maximum discharge, that of May 24, 1927; minimum, 4 second-feet September 10–12, 29, and 30, 1917 (gage height, 3.15 feet).

REMARKS.—Records fair except those for period of ice effect, November 1 to April 5, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230						360	2,140	2,680	661	67	36
2	208						636	2,140	2,620	636	62	41
3	215						1,060	2,140	2,560	661	62	41
4	245						1,470	2,140	2,450	661	56	41
5	342						1,390	2,030	2,400	636	56	41
		430	291	146	101	56						
6	378						1,560	1,980	2,350	588	51	41
7	456						1,740	1,930	2,240	588	51	46
8	498						1,790	2,030	2,240	542	46	46
9	612						1,980	2,240	2,240	542	46	46
10	612						2,030	2,240	2,140	498	46	51
11	588						2,140	2,240	2,080	498	46	51
12	588						2,190	2,290	2,030	498	41	51
13	588						2,290	2,290	1,980	456	41	46
14	565						2,400	2,350	1,930	456	41	46
15	520					160	2,450	2,350	1,840	416	41	46
		377	221	138	70							
16	498						2,560	2,560	1,840	397	41	46
17	498						2,560	2,560	1,740	360	41	46
18	477						2,560	2,680	1,650	308	36	46
19	477					230	2,560	2,740	1,560	260	36	41
20	498					292	2,240	2,800	1,470	215	36	41
21	520					317	2,140	2,860	956	187	36	41
22	542					342	2,140	2,920	857	147	32	41
23	565					334	2,350	3,040	826	121	32	41
24	565					325	2,400	3,160	767	115	32	41
25	588				49	325	2,450	3,040	739	103	32	41
		339	172	119								
26	612					336	2,450	3,040	686	103	28	46
27	588					348	2,400	2,980	686	97	28	46
28	565					360	2,350	3,040	686	97	32	46
29	542				-------	342	2,350	2,980	686	91	32	46
30	498				-------	342	2,240	2,920	686	79	32	46
31	484	-------	-------	-------	-------	342	-------	2,800	-------	67	36	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	612	208	489	May	3,160	1,930	2,540
November	-------	-------	382	June	2,680	686	1,650
December	-------	-------	226	July	661	67	358
January	-------	-------	134	August	67	28	41.8
February	-------	-------	75.1	September	51	36	44.2
March	360	-------	196				
April	2,560	360	2,040	The year	3,160	28	683

KAWISHIWI RIVER NEAR WINTON, MINN.

LOCATION.—In lot 3, sec. 20, T. 63 N., R. 11 W., at power plant of Minnesota Power & Light Co., just above Fall Lake and 2½ miles east of Winton.

DRAINAGE AREA.—1,200 square miles.

RECORDS AVAILABLE.—June, 1905, to June, 1907; October, 1912, to September, 1919; September, 1923, to September, 1927.

EXTREMES.—Maximum mean daily discharge during year, 6,030 second-feet April 26; no flow January 30 and March 6.

1905–1907, 1912–1919, 1923–1927: Maximum mean daily discharge, that of April 26, 1927; no flow several times in 1905–1907 and 1923–1927.

REMARKS.—Records good except those for periods of high water, which are fair. Flow is entirely regulated by several reservoirs. Discharge obtained from power-house records furnished by Minnesota Power & Light Co.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,060	877	942	832	945	690	420	5,580	3,260	1,200	820	392
2	2,050	830	790	589	710	250	420	5,500	3,230	1,210	948	404
3	1,970	835	792	707	544	213	35	5,500	2,900	1,040	948	384
4	2,120	1,020	548	792	852	247	454	5,540	1,780	983	677	260
5	2,220	1,020	375	786	956	133	349	5,550	1,490	1,320	396	336
6	2,230	1,090	690	788	956	0	353	5,550	1,710	1,460	396	582
7	2,220	554	912	786	956	247	361	5,520	1,900	1,790	508	726
8	2,010	942	956	784	954	348	361	5,520	1,620	1,680	768	786
9	1,880	992	956	203	954	348	360	5,520	1,180	1,450	768	786
10	1,660	836	956	846	952	254	35	5,500	1,210	981	768	744
11	1,180	956	956	956	952	202	320	5,510	1,210	1,320	768	236
12	806	605	852	952	573	198	356	5,530	736	1,300	788	648
13	1,110	700	884	880	25	35	356	5,510	1,070	952	788	948
14	1,220	396	912	952	640	170	196	5,380	1,210	1,140	588	784
15	1,220	812	956	932	952	203	200	5,290	1,210	1,460	608	737
16	1,380	769	956	590	952	205	200	5,230	1,210	1,530	786	932
17	1,380	786	956	956	952	203	576	5,040	1,200	1,440	786	784
18	1,610	1,110	956	954	948	289	1,160	4,900	1,200	1,900	786	404
19	1,470	1,180	956	952	948	252	2,150	4,670	746	2,020	786	692
20	1,400	960	827	952	944	118	2,990	4,450	1,090	2,010	786	788
21	1,330	687	671	952	936	256	4,260	4,200	1,210	2,010	232	784
22	1,310	988	790	950	645	294	3,930	3,780	1,210	2,010	600	784
23	1,320	1,050	790	675	289	313	4,770	2,880	1,210	2,000	786	784
24	974	1,030	790	950	306	312	4,360	2,430	1,210	1,650	786	784
25	1,220	1,040	480	950	691	309	5,810	2,620	1,250	1,810	786	324
26	1,320	981	663	950	696	299	6,030	3,190	1,110	1,560	786	322
27	1,320	954	820	950	645	35	5,610	2,940	2,220	1,430	786	404
28	1,320	954	960	948	690	306	5,640	3,050	2,320	1,430	376	556
29	1,260	952	956	356	------	341	5,600	3,090	2,150	1,290	340	203
30	1,180	944	956	0	------	345	5,600	3,490	1,510	948	410	203
31	855	------	956	250	------	414	------	3,350	------	476	408	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,230	806	1,500	1.25	1.44
November	1,180	396	895	.746	.83
December	960	375	837	.698	.80
January	956	0	772	.643	.74
February	956	25	770	.642	.67
March	690	0	253	.211	.24
April	6,030	35	2,110	1.76	1.96
May	5,580	2,430	4,570	3.81	4.39
June	3,260	736	1,560	1.30	1.45
July	2,020	476	1,450	1.21	1.40
August	948	232	670	.558	.64
September	948	203	583	.486	.54
The year	6,030	0	1,340	1.12	15.10

UPPER MISSISSIPPI RIVER BASIN

MISSISSIPPI RIVER ABOVE SANDY RIVER, NEAR LIBBY, MINN.

LOCATION.—Water-stage recorder in SE. ¼ sec. 2, T. 50 N., R. 24 W., 4 miles north of Libby post office and 4 miles above mouth of Sandy River. Zero of gage is 1,200.00 feet above mean sea level.

DRAINAGE AREA.—4,560 square miles.

RECORDS AVAILABLE.—August, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 5,180 second-feet April 24 (gage height, 27.2 feet); minimum, 741 second-feet July 12 (gage height, 19.12 feet).

1925–1927: Maximum discharge, that of April 24, 1927; minimum, 411 second-feet August 17, 1926 (gage height, 18.20 feet).

REMARKS.—Records fair except those for period of ice effect, December 1 to March 31, which are poor. Flow regulated by three Government reservoirs upstream; total capacity, 82,000,000,000 cubic feet.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,370	1,420					2,550	3,320	2,220	1,320	2,010	2,550
2	1,370	1,370					2,600	3,020	2,490	1,320	1,910	2,550
3	1,370	1,370					2,780	3,020	2,430	1,230	1,860	2,550
4	1,510	1,320					2,960	3,080	2,220	1,320	1,810	2,550
5	1,810	1,320					3,440	3,020	2,110	1,180	1,810	2,550
6	1,910	1,370					4,220	2,960	2,220	996	1,810	2,490
7	1,910	1,370					4,100	2,840	2,010	909	1,810	2,430
8	1,860	1,370					4,220	2,720	1,960	1,130	1,810	2,370
9	1,810	1,080					4,220	2,060	1,910	996	1,710	2,370
10	1,710	1,080					4,280	2,490	1,910	1,040	1,810	2,370
11	1,610	1,320					4,760	2,840	1,910	1,080	2,010	2,370
12	1,660	1,510					4,580	3,020	1,810	824	2,110	2,370
13	1,910	1,420					4,520	3,140	1,760	909	2,060	2,370
14	2,060	1,230					4,220	3,200	1,510	996	2,010	2,430
15	2,060	1,270			680		3,980	3,080	1,420	1,040	2,060	2,430
16	1,960	1,610	960	750		2,000	3,920	3,020	1,420	996	2,170	2,370
17	1,960	1,760					3,920	2,900	1,230	1,130	2,270	2,430
18	1,910	1,660					4,100	2,840	1,180	1,320	2,370	2,370
19	1,710	1,560					4,280	2,720	1,230	1,040	2,370	2,430
20	1,710	1,560					4,700	2,550	1,270	1,420	2,320	2,370
21	1,710	1,610					5,000	2,490	952	2,010	2,270	2,320
22	1,710	1,610					5,120	2,550	1,130	2,110	2,320	2,320
23	1,660	1,560					5,120	2,490	1,370	2,110	2,370	2,320
24	1,660	1,510					5,180	2,370	1,270	2,110	2,370	2,270
25	1,610	1,510					5,060	2,370	1,320	2,060	2,430	2,270
26	1,510	1,470					5,000	2,550	1,420	2,010	2,430	2,270
27	1,510	1,420					4,820	2,600	1,420	1,960	2,490	2,270
28	1,510	1,470					4,580	2,550	1,370	1,860	2,550	2,270
29	1,470	1,470					4,220	2,550	1,320	1,860	2,550	2,270
30	1,470	1,470					3,800	2,490	1,320	1,910	2,550	2,270
31	1,420							2,370		2,010	2,550	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,060	1,370	1,690	0.371	0.43
November	1,760	1,080	1,440	.316	.35
December			960	.211	.24
January			750	.164	.19
February			680	.149	.16
March			2,000	.439	.51
April	5,180	2,550	4,210	.923	1.03
May	3,320	2,060	2,750	.603	.70
June	2,490	952	1,640	.360	.40
July	2,110	824	1,430	.314	.36
August	2,550	1,710	2,160	.474	.55
September	2,550	2,270	2,390	.524	.58
The year	5,180		1,840	.404	5.50

MISSISSIPPI RIVER NEAR ROYALTON, MINN.

LOCATION.—In lot 2, sec. 20, T. 39 N., R. 32 W., at power plant of Minnesota Power & Light Co., 5 miles northwest of Royalton and 5 miles below mouth of Swan River.

DRAINAGE AREA.—11,600 square miles.

RECORDS AVAILABLE.—March, 1924, to September, 1927.

EXTREMES.—Maximum mean daily discharge during year, 12,600 second-feet April 22; minimum, 1,110 second-feet January 24.

1924–1927: Maximum mean daily discharge, that of April 22, 1927; minimum, 351 second-feet January 4, 1925.

REMARKS.—Records good except those for periods of high water, which are fair. Flow largely regulated by Government reservoirs on the headwaters. Discharge obtained from power-house records furnished by Minnesota Power & Light Co.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,540	3,190	1,900	1,640	1,360	1,530	6,040	8,340	6,070	3,300	2,850	4,160
2	3,400	3,160	1,760	1,240	1,480	1,640	6,450	7,230	4,860	3,160	3,460	4,080
3	3,150	2,850	1,880	1,230	1,430	1,630	5,970	7,200	5,080	3,010	3,250	4,440
4	4,280	2,980	1,760	1,520	1,330	1,690	6,330	6,880	4,040	2,450	3,450	4,150
5	4,790	3,010	1,580	1,580	1,420	1,640	7,910	6,970	4,620	2,500	3,360	3,980
6	5,330	3,300	1,800	1,510	1,260	1,720	8,500	6,710	3,900	2,960	3,390	4,220
7	5,540	3,350	1,870	1,570	1,350	1,740	10,100	6,570	4,620	2,740	2,960	3,910
8	5,550	2,780	1,860	1,580	1,310	1,830	10,300	6,430	4,300	2,390	2,650	4,050
9	5,560	2,250	1,820	1,650	1,340	2,090	9,510	6,450	4,700	2,220	2,980	4,340
10	5,800	2,140	1,960	1,540	1,340	2,880	9,390	6,510	4,470	2,500	3,200	4,240
11	4,870	2,130	2,020	1,600	1,380	3,730	9,560	6,200	4,400	1,970	2,820	4,220
12	5,380	2,020	2,010	1,640	1,410	4,480	9,240	6,420	4,800	2,230	2,570	4,120
13	4,580	2,220	1,860	1,670	1,260	4,730	9,720	6,600	4,310	2,770	2,670	4,350
14	4,540	2,710	1,980	1,590	1,310	4,200	11,600	6,100	4,050	2,170	2,700	3,940
15	4,390	3,020	1,980	1,580	1,460	5,620	12,000	6,540	4,140	2,400	2,960	3,130
16	4,670	3,160	1,920	1,480	1,480	8,370	12,300	6,090	3,960	2,400	3,070	4,120
17	4,430	3,380	1,730	1,440	1,410	7,270	11,100	5,790	3,050	2,360	3,370	4,110
18	4,450	2,160	1,710	1,530	1,410	8,640	11,100	6,220	3,900	2,410	3,680	3,760
19	4,020	1,870	1,790	1,470	1,420	7,810	11,500	5,640	3,510	2,090	3,680	3,620
20	3,650	2,370	1,660	1,800	1,310	7,330	11,900	5,540	3,160	2,700	4,010	3,920
21	3,380	2,100	1,660	1,460	1,400	6,700	11,900	5,960	3,860	2,440	3,410	3,950
22	3,700	2,250	1,670	1,380	1,500	6,990	12,600	6,220	3,400	2,610	3,530	3,840
23	3,700	2,310	1,640	1,410	1,450	6,190	12,100	5,530	3,320	3,020	3,740	3,920
24	3,350	2,330	1,600	1,110	1,510	5,780	11,500	5,600	3,560	3,490	3,930	3,730
25	3,310	2,210	1,540	1,420	1,590	5,740	9,460	5,550	3,100	3,210	3,870	4,020
26	3,660	2,400	1,760	1,430	1,510	5,180	9,140	5,860	3,260	3,600	3,330	3,760
27	3,960	2,040	1,610	1,430	1,450	5,820	9,370	5,300	3,070	3,510	3,670	4,080
28	3,870	1,970	1,740	1,370	1,540	4,800	8,750	5,420	3,530	3,030	4,510	3,870
29	3,390	2,020	1,700	1,410	------	4,650	8,320	5,240	3,600	3,060	3,720	3,890
30	3,380	1,810	1,840	1,240	------	5,250	8,080	4,720	2,700	2,920	4,260	4,170
31	3,570	------	1,730	1,300	------	5,050	------	4,930	------	2,910	4,270	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,800	3,150	4,230	0.365	0.42
November	3,380	1,810	2,520	.217	.24
December	2,020	1,540	1,790	.154	.18
January	1,800	1,110	1,480	.128	.15
February	1,590	1,260	1,410	.122	.13
March	8,640	1,530	4,600	.397	.46
April	12,600	5,970	9,720	.838	.94
May	8,340	4,720	6,160	.531	.61
June	6,070	2,700	3,980	.343	.38
July	3,600	1,970	2,730	.235	.27
August	4,510	2,570	3,400	.293	.34
September	4,440	3,130	4,000	.345	.38
The year	12,600	1,110	3,840	.331	4.50

MISSISSIPPI RIVER AT ELK RIVER, MINN.

LOCATION.—Chain gage in sec. 3, T. 121 N., R. 23 W., at highway bridge in town of Elk River, 2,500 feet below mouth of Elk River.

DRAINAGE AREA.—14,500 square miles.

RECORDS AVAILABLE.—July, 1915, to September, 1927.

EXTREMES.—Maximum discharge during year, 16,700 second-feet April 9 (gage height, 7.8 feet); minimum discharge, 1,200 second-feet January 26; minimum gage height, 3.17 feet November 12.

1915–1927: Maximum discharge, 27,000 second-feet April 7, 1916 (gage height, 10.8 feet); minimum, 633 second-feet February 10, 1926.

REMARKS.—Records good except those for period of ice effect, November 21 to March 10, which are fair. Flow partly regulated by Government reservoirs on headwaters.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,800	4,080	2,790	2,150	1,640	2,420	8,240	12,400	7,930	5,500	5,200	6,400
2	5,800	3,610	1,900	2,010	1,650	2,530	9,840	12,100	7,310	4,910	4,620	7,310
3	5,500	3,610	2,060	2,090	1,410	2,790	9,520	11,400	6,700	5,200	4,620	6,700
4	4,910	3,400	2,290	2,080	1,660	2,710	9,840	11,100	6,700	4,620	5,200	6,700
5	6,700	3,400	2,040	1,900	1,760	3,010	11,400	11,100	7,620	4,620	5,200	7,000
6	7,000	3,400	1,970	2,040	1,660	2,800	12,700	10,800	6,400	4,340	5,500	6,400
7	7,000	3,610	2,110	2,060	1,790	3,110	13,400	10,500	5,800	4,620	5,200	6,400
8	7,930	3,610	2,160	2,150	1,680	3,190	14,700	9,840	5,800	4,910	5,200	6,400
9	7,620	3,610	2,450	2,040	1,700	3,440	16,400	10,200	6,700	4,620	4,620	6,100
10	7,930	3,210	2,560	2,060	1,600	4,140	14,700	10,200	6,700	4,620	4,340	6,700
11	7,620	3,030	2,720	2,090	1,800	6,700	14,700	10,200	7,310	4,080	4,620	6,700
12	7,310	2,860	2,410	1,980	1,900	8,240	14,300	10,200	8,560	3,840	5,200	6,700
13	6,400	3,030	2,580	2,030	1,840	9,520	13,000	9,840	7,000	3,610	4,080	7,000
14	6,400	3,030	2,090	1,880	1,850	8,240	14,000	9,840	7,620	3,840	4,080	7,000
15	6,100	3,030	2,080	2,020	1,570	13,000	14,300	9,520	7,000	4,620	4,340	6,400
16	6,100	3,610	2,190	1,920	1,500	10,800	14,700	9,200	7,000	4,620	4,620	6,700
17	5,800	3,610	2,230	1,980	1,640	13,000	14,700	9,200	6,400	4,910	5,200	7,000
18	5,500	3,400	2,510	1,930	1,850	14,700	14,300	8,880	5,800	4,910	5,500	6,400
19	5,200	3,400	2,190	1,780	1,640	14,300	14,000	7,620	5,200	4,620	5,800	6,100
20	5,200	3,400	2,260	1,800	1,580	11,800	15,000	8,240	4,080	4,620	6,400	5,800
21	4,620	1,910	2,160	1,860	1,890	12,100	16,000	8,240	5,500	4,620	5,800	5,800
22	4,620	2,770	2,170	1,990	1,730	11,400	15,000	9,200	5,200	5,200	6,100	5,500
23	4,620	2,860	2,150	1,760	1,680	11,400	15,000	8,560	5,500	4,910	5,800	5,800
24	5,200	2,550	2,050	1,750	2,060	10,200	15,000	8,560	5,500	5,800	6,100	5,800
25	4,910	2,880	2,120	1,810	1,980	9,520	14,700	9,200	5,500	5,800	5,800	5,800
26	4,340	3,600	2,060	1,200	2,250	8,880	14,300	8,240	6,100	5,500	6,100	5,500
27	4,620	2,940	2,050	1,440	2,360	7,310	14,000	8,880	6,100	6,100	5,800	5,800
28	4,620	2,210	2,100	1,770	2,480	8,240	13,400	8,240	5,200	6,400	6,100	5,800
29	4,340	2,710	2,130	1,830	-------	7,310	13,400	7,620	5,200	5,800	6,100	5,800
30	4,080	2,670	1,940	1,610	-------	7,620	12,700	7,930	6,100	5,200	6,700	6,100
31	4,340	-------	2,120	1,780	-------	8,560	-------	7,000	-------	5,500	7,000	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,930	4,080	5,750	0.397	0.46
November	4,080	1,910	3,170	.219	.24
December	2,790	1,900	2,210	.152	.18
January	2,150	1,200	1,900	.131	.15
February	2,480	1,410	1,790	.123	.13
March	14,700	2,420	7,840	.541	.62
April	16,400	8,240	13,600	.938	1.05
May	12,400	7,000	9,490	.654	.75
June	8,560	4,080	6,320	.436	.49
July	6,400	3,610	4,920	.339	.39
August	7,000	4,080	5,380	.371	.43
September	7,310	5,500	6,320	.436	.49
The year	16,400	1,200	5,740	.396	5.38

MISSISSIPPI RIVER AT ST. PAUL, MINN.

LOCATION.—Water-stage recorder 300 feet above Robert Street Bridge in St. Paul, 6 miles below mouth of Minnesota River. Zero of gage is 683.33 feet above mean sea level.

DRAINAGE AREA.—35,700 square miles.

RECORDS AVAILABLE.—March, 1887, to September, 1927.

EXTREMES.—Maximum discharge during year, 35,000 second-feet March 19 (gage height, 11.6 feet); minimum, 2,340 second-feet January 27; minimum gage height, −1.1 feet November 21.

1887–1927: Maximum discharge, 80,800 second-feet April 6, 1897 (gage height, 18.0 feet); minimum, 1,060 second-feet February 4, 1895.

Maximum known discharge, 117,000 second-feet July 22, 1867.

REMARKS.—Records good except those for period of ice effect, December 13 to March 7, which are fair. Flow regulated by operations at Ford power plant, 6 miles upstream, and by Government reservoirs on headwaters.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,600	6,620	4,620	3,180	2,780	3,800	19,000	24,500	18,700	11,100	6,090	6,260
2	11,300	6,620	4,620	3,300	2,740	4,000	18,500	23,200	18,500	10,400	6,090	6,440
3	11,100	6,090	3,770	3,310	2,620	4,400	18,000	22,000	18,000	10,000	5,580	6,440
4	11,300	6,260	3,770	3,450	2,620	5,200	19,200	21,000	17,200	9,220	5,750	6,090
5	10,600	5,920	4,040	2,980	2,520	6,500	20,000	20,000	16,500	8,460	5,580	5,920
6	11,800	5,920	4,470	2,920	2,680	8,300	20,500	19,500	15,800	8,650	5,750	6,260
7	12,100	5,580	4,620	3,220	2,880	9,790	21,500	18,700	14,800	8,080	5,750	6,440
8	12,400	6,090	4,620	3,180	2,900	11,100	22,600	18,000	14,400	6,980	5,750	7,160
9	12,600	6,260	4,470	3,120	2,820	11,100	24,100	18,000	16,500	6,620	5,580	6,980
10	12,600	4,930	4,320	3,040	2,740	10,800	26,100	17,500	17,000	6,440	5,250	6,260
11	12,600	4,180	4,620	3,340	2,610	10,900	26,100	17,500	17,200	6,090	4,620	6,620
12	12,400	3,510	4,320	3,210	2,830	11,100	25,300	17,500	18,000	5,920	4,770	6,620
13	11,400	4,620	3,850	3,070	2,720	11,800	25,300	17,200	18,200	6,620	5,090	6,800
14	11,300	5,580	3,540	3,330	2,890	17,200	25,300	17,000	17,500	5,580	4,320	6,800
15	10,400	5,580	3,190	2,850	2,700	24,500	25,300	16,800	17,000	5,580	4,320	6,800
16	10,000	5,920	3,450	2,860	2,570	29,500	25,700	16,300	16,100	5,920	4,470	6,800
17	9,410	6,090	3,780	2,860	2,700	30,000	26,100	16,100	15,200	5,920	5,410	6,620
18	9,800	5,750	3,540	2,950	2,670	33,000	27,000	15,600	14,400	6,620	5,090	6,620
19	9,030	4,320	3,580	2,870	2,570	34,300	27,500	14,800	13,200	5,920	5,250	6,260
20	8,650	4,180	3,430	2,940	2,470	33,600	28,500	14,600	13,200	5,920	5,580	5,750
21	8,840	3,510	3,680	2,750	2,950	32,400	30,000	15,400	13,200	6,260	5,750	5,750
22	8,080	3,510	3,360	2,750	3,160	31,200	31,200	17,500	13,400	6,260	5,580	5,750
23	7,700	4,620	3,410	2,730	2,860	29,000	31,800	18,500	13,200	6,620	5,920	5,580
24	7,340	4,320	3,370	2,780	2,970	26,100	32,400	19,500	13,200	6,620	5,580	5,750
25	7,700	4,470	2,960	2,830	2,870	23,800	32,400	20,000	13,600	6,800	5,920	5,580
26	8,080	4,930	3,220	2,570	3,780	22,000	32,400	20,500	13,600	6,980	5,410	5,580
27	7,520	5,250	3,180	2,340	3,530	20,500	32,400	21,000	13,600	6,800	5,580	5,410
28	7,520	4,620	3,190	2,680	3,660	19,000	31,200	21,000	12,800	7,160	5,580	5,580
29	6,980	4,320	3,300	2,720	-------	19,200	29,000	20,500	12,100	7,340	5,250	5,580
30	6,980	4,930	3,340	2,360	-------	19,000	27,000	20,000	11,300	6,800	5,920	5,920
31	6,260	-------	3,300	2,850	-------	18,700	-------	19,000	-------	6,090	5,920	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,600	6,260	9,850	0.276	0.32
November	6,620	3,510	5,150	.144	.16
December	4,620	2,960	3,770	.106	.12
January	3,450	2,340	2,950	.083	.10
February	3,780	2,470	2,850	.080	.08
March	34,300	3,800	18,400	.515	.59
April	32,400	18,000	26,000	.728	.81
May	24,500	14,600	18,700	.524	.60
June	18,700	11,300	15,200	.426	.48
July	11,100	5,580	7,090	.199	.23
August	6,090	4,320	5,440	.152	.18
September	7,160	5,410	6,210	.174	.19
The year	34,300	2,340	10,200	.286	3.86

MINNESOTA RIVER NEAR MONTEVIDEO, MINN.

LOCATION.—Chain gage in sec. 17, T. 117 N., R. 40 W., at highway bridge 500 feet below mouth of Chippewa River and 1 mile south of Montevideo.

DRAINAGE AREA.—6,300 square miles.

RECORDS AVAILABLE.—July, 1909, to September 30, 1927.

EXTREMES.—Maximum discharge during year, 2,180 second-feet March 18 (gage height, 9.1 feet); minimum, 41 second-feet September 24 (gage height, 1.64 feet).

1909–1927: Maximum discharge, 22,000 second-feet June 25, 1919 (gage height, about 18.85 feet); minimum, 6.8 second-feet February 9, 1921.

REMARKS.—Records good; discharge estimated March 1, 3, 5, 6, 8, 10, 12, and 13. Observations discontinued during winter.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	316	171		891	1,230	1,410	1,160	362	225	62
2	294	171		936	1,230	1,340	1,030	362	189	68
3	274	138		952	1,200	1,340	998	316	171	74
4	316	146		967	1,160	1,300	967	264	162	71
5	362	154		947	1,270	1,230	936	254	154	63
6	338	138		926	1,200	1,160	876	264	138	69
7	316	146		906	1,200	1,100	846	294	138	64
8	274	146		968	1,160	1,030	817	234	138	66
9	254	130		1,030	1,160	998	817	216	138	59
10	294	100		1,040	1,230	1,030	788	216	109	62
11	274	97		1,060	1,270	1,100	788	207	110	63
12	316			1,120	1,270	1,100	788	207	103	59
13	294			1,170	1,300	1,060	759	216	96	63
14	274			1,230	1,340	1,060	731	225	92	60
15	254			1,200	1,410	1,060	703	225	89	54
16	274			1,300	1,530	906	731	362	80	62
17	254			1,610	1,610	876	703	410	87	60
18	207			2,100	1,690	876	675	362	78	59
19	244			1,780	1,870	846	647	386	82	110
20	225			1,870	1,870	817	619	362	79	66
21	225			1,530	1,920	906	619	338	73	56
22	216			1,490	1,920	1,030	647	316	73	54
23	207			1,530	1,870	1,160	592	316	80	43
24	207			1,490	1,820	1,300	462	294	70	41
25	189			1,450	1,820	1,300	488	316	63	42
26	171			1,530	1,780	1,450	462	274	70	53
27	189			1,340	1,690	1,610	362	264	63	43
28	171		846	1,300	1,610	1,610	316	264	60	49
29	180			1,270	1,570	1,160	362	244	67	49
30	189			1,300	1,490	1,130	338	225	67	48
31	162			1,270		1,130		216	63	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	362	162	250	0.040	0.05
November 1–11	171	97	140	.022	.01
March	2,100	891	1,270	.202	.23
April	1,920	1,160	1,490	.237	.26
May	1,610	817	1,140	.181	.21
June	1,160	316	701	.111	.12
July	410	207	284	.045	.05
August	225	60	103	.016	.02
September	110	41	59.7	.0095	.01

MINNESOTA RIVER AT MANKATO, MINN.

LOCATION.—Water-stage recorder in sec. 7, T. 108 N., R. 26 W., at Main Street highway bridge in Mankato, 2 miles below mouth of Blue Earth River.

DRAINAGE AREA.—14,600 square miles.

RECORDS AVAILABLE.—March, 1922, to September, 1927, at present site; May, 1903, to October, 1921, at Sibley Park, 2 miles upstream. Drainage area practically the same at the two sites.

EXTREMES.—Maximum discharge during year, 12,100 second-feet March 14 (gage height, 14.50 feet); minimum, 267 second-feet September 28 (gage height, 3.20 feet).

1903–1927: Maximum discharge, 43,800 second-feet June 26, 1908 (gage height at old site, 21.2 feet); minimum, 89 second-feet August 31 to September 2, 1911.

A discharge of about 65,000 second-feet occurred in 1881 (gage height at old site, about 27 feet).

REMARKS.—Records poor. Observations discontinued during winter.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,230	832	765	-------	6,820	8,600	7,400	2,600	667	288
2	1,900	866	765	-------	6,710	7,880	6,710	2,230	699	288
3	2,230	832	667	-------	6,250	7,400	6,010	1,900	667	288
4	3,000	832	635	-------	6,010	6,820	5,660	1,900	635	267
5	3,100	798	798	-------	5,780	6,360	5,320	1,740	635	288
6	3,100	765	635	-------	5,320	6,010	4,880	1,740	604	405
7	3,100	765	765	6,250	5,100	5,320	4,540	1,580	604	543
8	2,800	765	699	6,360	5,100	4,430	4,320	1,420	543	380
9	2,600	832	573	6,820	5,210	4,100	4,650	1,420	543	356
10	2,410	635	573	7,640	5,430	4,000	4,880	1,260	543	405
11	2,140	573	573	8,120	5,900	4,210	4,880	1,110	513	356
12	1,980	573	573	8,850	5,900	4,430	4,880	1,180	485	356
13	1,740	667	-------	10,800	6,250	4,320	4,430	1,110	485	333
14	1,580	798	-------	11,800	6,480	4,100	4,000	1,110	513	288
15	1,580	832	-------	11,500	6,480	4,100	3,800	969	485	267
16	1,580	900	-------	11,000	6,710	3,800	3,400	969	457	380
17	1,500	900	-------	11,300	6,940	3,600	3,200	969	485	380
18	1,420	832	-------	11,000	7,880	3,300	3,000	866	457	405
19	1,340	732	-------	10,600	9,350	3,200	3,100	969	457	310
20	1,260	699	-------	9,850	10,300	3,000	3,200	866	405	310
21	1,110	832	-------	9,100	10,700	3,300	3,700	866	405	310
22	1,110	765	-------	8,360	10,600	3,800	4,430	900	356	310
23	1,110	765	-------	7,640	10,600	5,100	5,430	900	356	288
24	969	900	-------	7,170	10,300	6,250	5,900	969	356	288
25	969	969	-------	6,480	10,300	6,820	5,660	798	333	288
26	1,040	969	-------	6,250	10,600	7,280	5,210	798	333	310
27	969	969	-------	6,250	10,800	7,170	4,430	798	310	310
28	900	900	-------	6,710	10,600	6,820	4,000	798	310	267
29	900	699	-------	6,940	10,100	7,170	3,300	765	310	288
30	900	765	-------	6,940	9,100	7,640	2,900	732	310	310
31	832	-------	-------	6,940	-------	7,640	-------	732	310	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,100	832	1,720	0.118	0.14
November	969	573	799	.055	.06
December 1–12	798	573	668	.046	.02
March 7–31	11,800	6,250	8,430	.577	.54
April	10,800	5,100	7,790	.534	.60
May	8,600	3,000	5,420	.371	.43
June	7,400	2,900	4,570	.313	.35
July	2,600	732	1,190	.082	.09
August	699	310	470	.032	.04
September	543	267	329	.023	.03

ST. CROIX RIVER AT SWISS, WIS.

LOCATION.—Chain gage in sec. 33, T. 42 N., R. 15 W., at highway bridge near Swiss, 10 miles northeast of Danbury. Namakagon River enters 3½ miles above station.

DRAINAGE AREA.—1,550 square miles.

RECORDS AVAILABLE.—March, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 6,360 second-feet March 19 (gage height 5.65 feet); minimum, 639 second-feet September 19 and 20.

1914–1927: Maximum discharge, 8,480 second-feet April 22, 1916 (gage height, 6.73 feet); minimum, 518 second-feet several times during August, 1925 (gage height, 0.22 foot).

REMARKS.—Records fair except those for period of ice effect, December 1 to March 15, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	1,080	1,400	1,080	750	840	2,120	1,310	1,670	1,310	1,010	875
2	1,580	1,080	1,490	1,080	750	810	2,120	1,310	1,580	1,230	940	875
3	1,580	1,080	1,490	1,080	750	780	2,030	1,310	1,670	1,150	875	875
4	1,850	1,010	1,400	1,080	750	750	2,120	1,310	1,760	1,150	810	810
5	2,420	1,080	1,310	1,080	780	750	2,720	1,310	1,760	1,150	810	750
6	2,220	1,010	1,400	1,040	810	750	2,820	1,310	1,670	1,150	810	810
7	2,030	1,080	1,400	1,010	810	880	2,720	1,230	1,580	1,010	875	875
8	1,850	1,150	1,400	980	810	1,010	2,620	1,230	1,580	940	940	875
9	1,760	1,230	1,440	940	810	1,080	2,620	1,310	1,580	1,230	940	940
10	1,670	1,230	1,490	880	810	1,150	2,520	1,310	1,670	1,490	875	1,010
11	1,580	1,150	1,490	810	780	1,280	2,320	1,310	1,760	1,400	810	875
12	1,490	1,150	1,490	780	750	1,400	2,220	1,310	1,760	1,230	810	750
13	1,490	1,150	1,440	750	750	1,580	2,120	1,310	1,760	1,080	875	750
14	1,490	1,230	1,400	750	750	1,760	2,030	1,310	1,760	1,080	875	750
15	1,400	1,760	1,360	750	750	3,720	1,940	1,400	1,850	1,080	810	750
16	1,310	2,030	1,310	750	750	5,670	1,940	1,310	1,670	1,150	810	750
17	1,310	2,030	1,310	750	750	5,840	1,850	1,310	1,670	1,400	875	693
18	1,310	2,030	1,310	750	750	6,010	1,760	1,310	1,580	1,490	875	639
19	1,310	2,030	1,310	750	750	6,360	1,850	1,310	1,490	1,580	810	639
20	1,310	1,940	1,310	750	750	4,320	2,120	1,310	1,310	1,490	810	693
21	1,310	1,850	1,270	750	780	3,930	2,030	1,490	1,580	1,490	693	750
22	1,310	1,760	1,230	750	810	3,570	1,940	1,760	1,850	1,490	750	750
23	1,310	1,670	1,230	750	840	3,460	1,850	1,940	1,850	1,400	875	750
24	1,310	1,670	1,230	750	875	3,020	1,760	2,030	1,850	1,310	875	750
25	1,230	1,670	1,230	750	875	2,620	1,670	2,220	1,760	1,230	875	750
26	1,230	1,580	1,230	750	875	2,520	1,670	2,320	1,760	1,150	810	750
27	1,230	1,580	1,190	750	875	2,420	1,580	2,220	1,670	1,150	810	750
28	1,150	1,490	1,150	750	875	2,220	1,490	2,120	1,580	1,080	875	750
29	1,150	1,400	1,150	750	------	2,220	1,400	2,030	1,490	1,010	875	750
30	1,080	1,490	1,150	750	------	2,220	1,310	1,850	1,400	1,080	810	750
31	1,080	------	1,120	750	------	2,220	------	1,850	------	1,080	750	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,420	1,080	1,470	0.948	1.09
November	2,030	1,010	1,460	.942	1.05
December	1,490	1,120	1,330	.858	.99
January	1,080	750	842	.543	.63
February	875	750	792	.511	.53
March	6,360	750	2,490	1.61	1.86
April	2,820	1,310	2,040	1.32	1.47
May	2,320	1,230	1,550	1.00	1.15
June	1,850	1,310	1,660	1.07	1.19
July	1,580	940	1,230	.794	.92
August	1,010	693	846	.546	.63
September	1,010	639	783	.505	.56
The year	6,360	639	1,380	.890	12.07

ST. CROIX RIVER NEAR GRANTSBURG, WIS.

LOCATION.—Chain gage near center of sec. 30, T. 40 N., R. 18 W., at Norway Point ferry, half a mile below mouth of Sand Creek and 10 miles north of Grantsburg.

DRAINAGE AREA.—2,820 square miles.

RECORDS AVAILABLE.—April, 1923, to September, 1927.

EXTREMES.—Maximum discharge during year, about 13,300 second-feet March 18 (gage height, 11.4 feet); minimum, 985 second-feet February 15.

1923–1927: Maximum discharge, that of March 18, 1927; minimum (estimated), 695 second-feet December 6, 1925.

REMARKS.—Records fair except those for periods of ice effect, November 8–15 and November 26 to March 17, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,660	2,340	3,020	1,580	1,120	1,340	4,510	2,440	2,780	2,140	1,340	1,120
2	3,420	2,340	2,900	1,580	1,120	1,340	4,180	2,340	2,550	1,850	1,260	1,190
3	4,180	2,240	2,780	1,580	1,120	1,340	4,180	2,340	2,550	1,760	1,260	1,120
4	4,340	2,240	2,550	1,580	1,120	1,340	4,020	2,340	2,550	1,670	1,340	1,120
5	5,200	2,240	2,340	1,580	1,190	1,340	4,510	2,340	2,780	1,580	1,260	1,120
6	5,740	2,140	2,140	1,580	1,190	1,340	5,740	2,340	2,550	1,580	1,260	1,120
7	5,380	2,240	2,140	1,580	1,190	1,340	6,460	2,240	2,440	1,500	1,190	1,260
8	4,340	2,240	2,140	1,580	1,190	1,420	6,100	2,240	2,340	1,580	1,260	1,340
9	4,020	2,240	2,140	1,580	1,190	1,500	5,560	2,340	2,340	1,580	1,190	1,420
10	3,560	2,240	2,140	1,500	1,260	1,670	4,850	2,340	2,550	1,760	1,260	1,580
11	3,150	2,240	2,140	1,580	1,190	1,760	4,510	2,550	2,780	1,940	1,260	1,500
12	3,020	2,340	2,140	1,420	1,190	1,940	4,340	2,550	2,780	1,850	1,260	1,420
13	2,900	2,440	2,240	1,340	1,190	2,250	4,180	2,550	2,780	1,850	1,190	1,420
14	2,900	2,660	2,040	1,260	1,050	2,550	3,860	2,440	2,660	1,670	1,190	1,420
15	2,660	3,150	1,940	1,260	985	3,280	3,560	2,440	2,550	1,580	1,190	1,340
16	2,660	4,340	1,760	1,260	1,050	5,380	3,420	2,440	2,550	1,580	1,050	1,260
17	2,660	4,680	1,760	1,190	1,120	8,500	3,420	2,340	2,340	1,940	1,260	1,260
18	2,660	4,340	1,760	1,120	1,120	12,700	3,280	2,240	2,240	2,340	1,340	1,260
19	2,550	4,180	1,760	1,190	1,120	12,100	3,860	2,140	2,140	2,550	1,340	1,260
20	2,550	4,180	1,670	1,190	1,190	10,100	6,460	2,140	2,140	2,340	1,260	1,190
21	2,550	4,040	1,670	1,190	1,190	8,500	8,120	2,340	2,780	2,240	1,260	1,190
22	2,550	3,860	1,670	1,190	1,260	8,500	7,740	3,150	3,560	2,140	1,260	1,260
23	2,550	3,710	1,670	1,190	1,260	8,500	5,560	3,860	4,020	2,140	1,120	1,260
24	2,440	3,420	1,670	1,190	1,340	8,120	4,340	4,020	3,860	1,940	1,260	1,260
25	2,440	3,280	1,670	1,190	1,420	7,360	3,560	4,020	3,710	1,850	1,120	1,260
26	2,440	3,280	1,670	1,190	1,420	6,640	3,420	4,020	3,280	1,760	1,190	1,190
27	2,550	2,550	1,670	1,120	1,420	6,280	3,020	3,860	3,020	1,670	1,120	1,120
28	2,440	3,280	1,670	1,120	1,420	5,920	2,780	3,710	2,660	1,580	1,120	1,260
29	2,340	3,420	1,580	1,120	-------	5,560	2,780	3,560	2,440	1,500	1,190	1,260
30	2,340	3,150	1,500	1,120	-------	5,200	2,550	3,280	2,240	1,580	1,120	1,260
31	2,340	-------	1,500	1,120	-------	4,510	-------	3,020	-------	1,420	1,120	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,740	2,340	3,150	1.12	1.29
November	4,680	2,140	3,030	1.07	1.19
December	3,020	1,500	1,980	.702	.81
January	1,580	1,120	1,330	.472	.54
February	1,420	985	1,200	.426	.44
March	12,700	1,340	4,830	1.71	1.97
April	8,120	2,550	4,500	1.60	1.78
May	4,020	2,140	2,770	.982	1.13
June	4,020	2,140	2,730	.968	1.08
July	2,550	1,420	1,820	.645	.74
August	1,340	1,050	1,220	.433	.50
September	1,580	1,120	1,270	.450	.50
The year	12,700	985	2,490	.883	11.97

ST. CROIX RIVER NEAR RUSH CITY, MINN.

LOCATION.—Chain gage in SW. ¼ sec. 8, T. 37 N., R. 20 W., at Northern Pacific Railway bridge 5 miles east of Rush City and 10 miles below mouth of Snake River.

DRAINAGE AREA.—5,120 square miles.

RECORDS AVAILABLE.—April, 1923, to September, 1927.

EXTREMES.—Maximum discharge during year, about 26,700 second-feet March 18 (gage height, 10.2 feet); minimum, 1,190 second-feet January 23–26, February 17, and August 30.

1923–1927: Maximum discharge, that of March 18, 1927; minimum, 820 second-feet several days in August and December, 1925, and January and March, 1926.

REMARKS.—Records fair except those for period of ice effect, November 9 to March 15, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,760	2,780	3,330	1,800	1,380	1,480	9,860	6,280	5,060	4,470	2,270	1,380
2	5,360	2,780	3,610	1,800	1,380	1,480	9,860	5,660	4,760	3,890	2,030	1,380
3	7,220	2,780	3,050	1,800	1,580	1,480	9,860	5,060	4,180	3,890	1,800	1,380
4	7,220	2,780	3,050	1,800	1,580	1,480	9,530	4,760	4,470	3,890	2,030	1,380
5	8,540	2,780	3,050	1,800	1,580	1,480	9,860	4,470	4,760	3,330	2,030	1,380
6	9,530	2,520	2,780	1,800	1,580	1,480	10,200	4,760	4,760	2,920	1,800	1,380
7	9,200	2,520	2,780	1,800	1,580	1,480	13,000	4,760	4,470	2,650	1,580	1,380
8	8,210	2,520	2,520	1,800	1,580	1,800	16,300	4,470	4,180	2,650	1,580	1,580
9	6,900	2,520	2,520	1,800	1,580	2,520	15,200	4,470	3,890	2,650	1,580	2,270
10	5,970	2,520	2,520	1,800	1,580	3,610	14,100	4,760	4,180	2,650	1,580	2,270
11	5,660	3,050	2,520	1,800	1,580	4,760	12,600	5,060	4,470	2,650	1,580	2,030
12	5,060	3,050	2,270	1,800	1,580	5,970	11,200	5,060	5,060	2,650	1,380	2,030
13	4,760	3,050	2,030	1,800	1,580	7,550	10,500	5,360	5,060	2,650	1,380	2,030
14	4,470	3,890	2,030	1,580	1,580	9,860	10,500	5,060	4,760	2,650	1,380	1,800
15	4,180	4,180	2,030	1,380	1,580	12,600	9,860	4,760	4,470	2,650	1,380	1,800
16	4,180	5,060	1,800	1,380	1,380	18,200	9,530	4,470	4,180	3,330	1,380	1,800
17	3,890	5,060	2,030	1,380	1,190	25,100	9,200	4,470	3,890	3,890	1,580	1,580
18	3,610	5,060	2,030	1,380	1,580	26,300	8,540	4,180	3,610	3,890	1,580	1,580
19	3,330	5,060	2,030	1,380	1,580	24,300	8,540	3,890	3,330	4,470	1,800	1,580
20	3,330	5,060	2,030	1,380	1,580	21,200	12,300	3,610	3,330	4,470	1,580	1,380
21	3,330	5,060	2,030	1,380	1,580	19,000	15,900	4,470	4,180	3,890	1,580	1,380
22	3,330	4,760	2,030	1,380	1,580	17,100	20,800	6,280	4,760	3,890	1,580	1,380
23	3,610	4,180	1,800	1,190	1,580	14,800	20,100	8,210	5,060	3,890	1,580	1,380
24	3,330	4,180	1,800	1,190	1,580	13,700	19,300	8,870	5,360	3,890	1,580	1,380
25	3,330	5,060	1,800	1,190	1,580	11,900	15,900	8,540	5,660	3,890	1,380	1,380
26	3,330	4,760	2,030	1,190	1,580	10,200	11,900	7,880	5,970	3,330	1,380	1,380
27	3,050	4,180	2,030	1,380	1,800	8,870	9,860	7,220	6,280	3,330	1,380	1,380
28	3,050	3,890	2,030	1,380	1,580	8,210	8,870	6,280	5,970	2,650	1,380	1,380
29	3,050	3,610	2,030	1,580	------	7,880	7,550	5,970	5,660	2,400	1,380	1,380
30	2,780	3,330	2,030	1,380	------	8,870	6,900	5,660	5,060	2,400	1,190	1,380
31	2,780	------	2,030	1,380	------	9,530	------	5,660	------	2,400	1,380	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,530	2,780	4,850	0.947	1.09
November	5,060	2,520	3,730	.729	.81
December	3,610	1,800	2,310	.451	.52
January	1,800	1,190	1,540	.301	.35
February	1,800	1,190	1,550	.303	.32
March	26,300	1,480	9,810	1.92	2.21
April	20,800	6,900	11,900	2.32	2.59
May	8,870	3,610	5,500	1.07	1.23
June	6,280	3,330	4,690	.916	1.02
July	4,470	2,400	3,300	.645	.74
August	2,270	1,190	1,580	.309	.36
September	2,270	1,380	1,570	.307	.34
The year	26,300	1,190	4,380	.855	11.58

ST. CROIX RIVER NEAR ST. CROIX FALLS, WIS.

LOCATION.—In sec. 18, T. 34 N., R. 18 W., at power plant of Northern States Power Co., near St. Croix Falls.
DRAINAGE AREA.—5,930 square miles.
RECORDS AVAILABLE.—January, 1910, to September, 1927.
EXTREMES.—Maximum mean daily discharge during year, 27,600 second-feet March 18; minimum, 668 second-feet November 14.
1910–1927: Maximum mean daily discharge, 35,800 second-feet March 26, 1920; minimum, 75 second-feet July 17, 1910, caused by regulation.
REMARKS.—Records good. Discharge computed from power-house records. Low-water flow controlled by operation of gates of power plant and by operations at Never's dam, 10 miles upstream. Daily-discharge record furnished by Northern States Power Co.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,640	2,860	2,770	1,540	1,870	2,290	9,610	7,270	6,200	5,770	2,390	1,770
2	4,000	3,080	2,860	1,870	1,850	2,080	10,500	6,520	5,010	5,120	2,580	1,730
3	5,290	2,870	2,660	2,570	1,730	2,060	11,400	5,560	5,910	2,700	2,370	2,120
4	7,860	3,180	2,710	2,640	1,770	2,260	9,770	5,840	5,970	2,210	2,240	1,620
5	6,920	2,900	1,570	2,320	2,050	2,890	10,700	4,970	2,710	4,900	2,250	1,160
6	6,920	3,040	2,920	2,260	1,050	903	13,200	4,910	4,900	3,970	2,240	2,560
7	6,790	1,630	2,820	2,240	2,020	3,060	15,900	4,830	5,360	2,900	1,710	1,720
8	7,110	3,050	2,740	2,570	1,960	2,910	17,900	1,840	5,560	2,610	2,450	2,200
9	6,850	3,420	2,420	1,160	1,880	3,030	16,800	5,570	5,200	2,860	2,000	2,320
10	4,650	3,570	2,600	2,600	1,810	3,040	15,000	5,630	5,840	1,570	2,020	3,320
11	6,350	3,470	2,510	2,230	1,920	3,610	12,700	6,160	4,280	3,170	2,110	1,260
12	5,920	3,220	1,450	2,400	1,690	3,910	12,200	5,260	3,840	3,230	1,960	2,610
13	5,180	2,650	2,660	2,230	1,310	6,590	11,100	5,820	5,530	3,460	1,800	2,620
14	5,120	668	2,970	2,100	2,090	10,500	9,980	6,400	6,040	2,970	1,580	2,620
15	4,900	3,320	2,620	2,150	2,120	12,300	9,520	3,340	5,150	2,890	2,070	2,370
16	4,920	5,670	2,500	1,190	1,400	14,900	8,910	6,100	5,820	2,870	1,940	2,280
17	2,910	5,620	2,480	2,310	1,480	25,200	10,400	6,000	6,160	1,860	1,980	2,320
18	5,110	5,940	2,880	2,030	1,720	27,600	8,680	4,200	5,230	4,060	2,040	1,340
19	4,940	3,970	1,080	1,990	1,680	27,100	9,500	4,020	1,980	6,800	2,080	2,970
20	4,830	4,530	2,500	1,670	1,380	24,100	16,900	5,750	3,240	7,710	2,140	2,130
21	4,600	2,840	2,440	1,790	1,940	20,700	20,800	6,540	4,740	5,850	1,420	1,960
22	4,600	5,000	2,460	2,010	2,070	17,100	21,700	6,670	6,450	5,170	2,570	1,940
23	3,850	4,670	2,380	1,050	1,960	16,700	19,700	8,880	5,880	3,550	2,030	1,660
24	1,710	4,720	2,330	1,950	1,920	15,000	16,800	9,030	6,580	3,390	2,040	1,950
25	4,600	2,560	1,700	1,820	2,210	12,900	12,500	9,440	7,580	4,580	1,620	1,360
26	4,800	4,500	1,890	1,890	2,590	12,100	10,300	9,170	7,260	5,200	1,940	2,280
27	4,710	3,630	2,360	1,790	1,080	10,600	9,230	8,850	6,510	4,040	1,770	1,960
28	3,730	1,780	1,970	1,650	2,580	8,260	8,510	8,210	6,480	3,080	1,030	1,730
29	3,050	3,300	2,330	2,010	-------	6,700	7,780	7,850	6,580	3,400	2,180	1,910
30	3,130	3,060	2,150	1,050	-------	7,320	7,190	5,820	5,100	3,690	1,890	2,060
31	2,420	-------	2,420	1,840	-------	7,750	-------	6,860	-------	1,490	1,860	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,860	1,710	4,920	0.830	0.96
November	5,940	668	3,490	.589	.63
December	2,970	1,080	2,390	.403	.46
January	2,640	1,050	1,960	.330	.38
February	2,590	1,050	1,830	.309	.32
March	27,600	903	10,200	1.72	1.98
April	21,700	7,190	12,500	2.11	2.35
May	9,440	1,840	6,240	1.05	1.21
June	7,580	1,980	5,440	.917	1.02
July	7,710	1,490	3,780	.637	.73
August	2,580	1,030	2,010	.339	.39
September	3,320	1,160	2,060	.347	.39
The year	27,600	668	4,750	.801	10.87

NAMAKAGON RIVER AT TREGO, WIS.

LOCATION.—Staff gage in sec. 35, T. 40 N., R. 12 W., at Chicago & Northwestern Railway bridge at Trego.

DRAINAGE AREA.—420 square miles.

RECORDS AVAILABLE.—March, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 1,330 second-feet March 18 (gage height, 2.97 feet); minimum, 195 second-feet February 26.

1914–1927: Maximum discharge, 1,810 second-feet April 11, 1922 (gage height, 3.60 feet); minimum, 180 second-feet March 4, 1926.

REMARKS.—Records excellent except those for periods of ice effect, November 8–12, 20–25, and November 28 to March 7, and for periods of extremely low water in August and September, which are fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	472	417	595	415	280	220	664	502	564	472	392	322
2	472	444	595	415	270	225	664	502	532	472	392	303
3	532	417	595	415	270	250	630	502	502	444	392	322
4	564	417	595	415	270	270	630	502	532	444	366	322
5	597	417	595	415	270	305	698	502	532	444	366	303
6	564	417	595	400	270	320	768	472	564	472	366	322
7	564	444	595	390	280	365	733	444	564	444	344	366
8	564	445	595	370	285	444	698	444	564	444	366	366
9	532	445	560	345	280	444	698	472	564	502	366	366
10	502	470	530	330	270	502	664	502	630	502	366	392
11	502	470	490	320	270	502	630	532	630	472	366	366
12	502	500	445	320	270	532	630	502	630	472	392	366
13	502	532	380	320	260	564	630	502	630	417	444	344
14	502	564	320	300	250	564	597	502	630	444	417	344
15	502	698	340	285	260	664	564	502	597	417	366	322
16	502	803	365	295	270	1,170	564	472	564	444	344	322
17	472	838	380	305	260	1,250	564	472	564	502	366	344
18	532	803	390	305	250	1,330	564	444	532	472	417	322
19	502	768	400	305	240	1,250	564	444	532	472	392	322
20	502	735	415	305	225	1,170	597	472	502	472	366	322
21	502	735	415	305	255	1,020	597	597	630	502	366	322
22	502	700	415	305	285	908	564	768	698	502	344	322
23	502	665	415	305	260	838	564	803	664	472	344	322
24	502	630	415	295	240	803	564	838	630	472	344	322
25	472	630	430	285	220	768	532	838	630	444	344	322
26	472	597	445	285	195	733	532	838	630	444	322	322
27	472	597	445	285	205	698	532	803	564	417	322	322
28	444	595	445	285	215	698	532	768	564	417	322	344
29	444	595	445	285	------	698	532	733	502	417	322	322
30	417	595	445	285	------	698	502	630	502	392	322	344
31	417	------	430	285	------	664	------	597	------	392	322	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	597	417	501	1.19	1.37
November	838	417	579	1.38	1.54
December	595	320	468	1.11	1.28
January	415	285	328	.781	.90
February	285	195	256	.610	.64
March	1,330	220	673	1.60	1.84
April	768	502	607	1.45	1.62
May	838	444	577	1.37	1.58
June	698	502	579	1.38	1.54
July	502	392	455	1.08	1.24
August	444	322	363	.864	1.00
September	392	303	334	.795	.89
The year	1,330	195	478	1.14	15.44

APPLE RIVER NEAR SOMERSET, WIS.

LOCATION.—In sec. 21, T. 31 N., R. 19 W., at power plant of Northern States Power Co., 2 miles above mouth and 3½ miles below Somerset.
DRAINAGE AREA.—550 square miles.
RECORDS AVAILABLE.—January, 1901, to September, 1927.
EXTREMES.—Maximum mean daily discharge during year, 982 second-feet March 18; minimum, 7 second-feet August 21, caused by regulation.
1904–1927: Maximum mean daily discharge, 2,280 second-feet in June, 1905; minimum, that of August 21, 1927.
REMARKS.—Records fair. Discharge computed from power-house records. Some diurnal fluctuation caused by operation of several power plants above station. Daily-discharge record furnished by Northern States Power Co.

Daily and monthly discharge, in second-feet, 1926-27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	277	284	236	194	205	219	481	269	403	257	142	127
2	365	232	264	223	168	184	462	262	403	186	136	165
3	371	293	267	217	187	219	459	252	363	222	124	134
4	423	246	217	199	193	248	494	223	297	128	196	83
5	458	227	211	240	211	295	440	254	300	267	193	134
6	429	236	157	205	187	229	341	280	292	184	136	135
7	421	169	241	219	182	323	561	303	382	200	101	260
8	421	349	304	231	238	357	439	213	342	241	204	334
9	309	268	234	187	191	424	437	254	343	230	247	263
10	385	290	209	187	172	590	418	259	491	112	158	220
11	508	279	232	252	195	603	381	325	453	175	136	454
12	309	285	145	205	191	633	283	279	317	92	152	606
13	441	374	162	199	189	753	209	286	295	152	208	657
14	284	225	209	227	219	913	414	204	259	237	125	574
15	331	343	226	152	201	838	336	278	244	195	158	288
16	419	338	261	156	219	825	315	242	235	201	142	312
17	265	382	273	223	190	941	234	216	283	230	187	321
18	321	569	253	193	197	982	303	229	246	233	176	366
19	241	545	129	199	203	975	358	277	250	178	152	287
20	297	394	223	182	147	878	437	275	317	161	124	256
21	431	220	198	176	260	849	264	244	413	149	7	225
22	248	379	164	199	236	777	266	504	601	195	36	187
23	332	424	218	158	195	717	235	701	441	219	90	182
24	246	320	199	105	341	682	215	841	280	182	165	176
25	270	240	109	188	272	714	341	843	328	236	132	205
26	250	311	165	164	225	635	316	771	205	225	154	182
27	291	275	217	140	155	475	349	738	331	187	199	284
28	222	164	202	140	201	412	308	614	313	173	231	241
29	228	175	158	137	-------	484	357	522	207	181	142	244
30	327	236	187	205	-------	490	260	474	206	228	111	285
31	286	-------	217	164	-------	431	-------	430	-------	183	104	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	508	222	336	0.611	0.70
November	569	164	302	.549	.61
December	304	109	209	.380	.44
January	252	105	189	.344	.40
February	341	147	206	.375	.39
March	982	184	584	1.06	1.22
April	561	215	357	.649	.72
May	843	204	383	.696	.80
June	601	205	328	.596	.66
July	267	92	195	.355	.41
August	247	7	147	.267	.31
September	657	83	273	.496	.55
The year	982	7	293	.533	7.21

CHIPPEWA RIVER AT BISHOPS BRIDGE, NEAR WINTER, WIS.

LOCATION.—Chain gage in sec. 23, T. 39 N., R. 6 W., at highway bridge 3 miles below Chippewa Reservoir dam and 4 miles northwest of Winter.

DRAINAGE AREA.—775 square miles.

RECORDS AVAILABLE.—February, 1912, to September, 1927.

EXTREMES.—Maximum discharge during year, 3,220 second-feet November 17 (gage height, 7.50 feet); minimum, 44 second-feet July 18–20, caused by regulation (gage height, 3.6 feet).

1912–1927: Maximum discharge, 6,940 second-feet April 22, 1916 (gage height, 9.56 feet); minimum, 14 second-feet April 17–20 and May 1–5, 1925 (gage height, 3.25 feet).

REMARKS.—Records good except those for low stages, which are fair. Flow regulated by storage at Chippewa Reservoir and at another reservoir 16 miles above station; total capacity of both reservoirs, 10,500,000,000 cubic feet.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,550	790	1,350	915	1,450	1,870	93	1,100	2,090	915	960	675
2	1,550	790	1,350	915	1,450	1,980	87	1,150	1,550	1,150	960	640
3	1,550	790	710	870	1,450	1,980	87	710	1,100	1,250	960	640
4	1,550	790	710	870	1,450	1,980	87	495	1,100	1,250	1,050	640
5	1,550	790	710	870	1,450	1,980	101	495	1,100	1,250	870	640
6	1,550	790	710	870	1,450	1,980	101	495	675	1,250	960	640
7	1,450	830	675	870	1,450	1,980	87	495	520	1,250	1,050	640
8	1,250	830	675	915	1,450	1,980	87	580	420	1,250	1,050	640
9	1,250	830	710	915	1,550	1,050	87	750	470	1,250	1,050	640
10	1,250	830	710	915	1,550	74	87	1,350	675	580	1,050	640
11	1,250	830	675	915	1,550	61	101	1,450	870	870	1,100	580
12	1,250	830	675	915	1,550	61	115	1,650	870	1,250	1,150	520
13	1,250	790	710	915	1,450	180	198	1,870	790	1,250	1,150	520
14	1,250	830	675	1,050	1,450	290	290	1,870	710	1,250	1,150	520
15	1,100	1,250	870	1,250	1,450	290	290	1,870	750	1,050	1,150	520
16	960	2,320	915	1,250	1,450	180	520	2,090	790	915	1,150	520
17	870	3,220	750	1,250	1,450	250	870	915	790	330	790	520
18	610	2,440	750	1,250	1,550	215	870	710	790	44	520	520
19	398	1,870	750	1,200	1,550	250	870	870	790	44	520	520
20	330	1,450	750	1,250	1,450	290	915	1,000	790	44	520	520
21	330	1,650	750	1,450	1,450	270	960	1,650	1,000	115	215	520
22	550	1,980	750	1,450	1,550	215	1,000	2,440	1,250	115	1,050	520
23	550	1,980	710	1,450	1,650	115	1,100	3,080	1,250	115	1,050	520
24	580	2,200	710	1,450	1,650	87	1,100	2,820	1,250	87	1,050	520
25	580	2,320	710	1,450	1,650	74	1,100	2,820	1,250	61	1,050	520
26	1,100	2,090	710	1,450	1,650	145	1,100	2,820	1,250	420	1,050	520
27	1,100	1,870	710	1,450	1,650	130	1,100	2,560	1,250	1,150	1,050	520
28	1,100	1,870	710	1,450	1,760	101	1,100	2,320	1,100	1,250	1,050	520
29	1,100	1,450	790	1,450	-------	87	1,100	2,320	790	1,350	1,050	520
30	960	1,200	870	1,450	-------	74	1,100	2,320	710	1,050	1,050	520
31	790	-------	915	1,450	-------	87	-------	2,090	-------	960	870	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	1,550	330	1,050	May	3,080	495	1,590
November	3,220	790	1,430	June	2,090	420	958
December	1,350	675	780	July	1,350	44	810
January	1,450	870	1,170	August	1,150	215	958
February	1,760	1,450	1,520	September	675	520	563
March	1,980	61	655				
April	1,100	87	557	The year	3,220	44	1,000

CHIPPEWA RIVER NEAR BRUCE, WIS.

LOCATION.—Chain gage in sec. 4, T. 35 N., R. 7 W., at Soo Line Railway bridge just below mouth of Thornapple River and 1 mile east of Bruce.

DRAINAGE AREA.—1,600 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1927.

EXTREMES.—Maximum discharge during year, 10,800 second-feet March 17 (gage height, 10.7 feet); minimum, 680 second-feet July 25 and 26 (gage height, 1.80 feet).

1914–1927: Maximum discharge, 14,900 second-feet April 10, 1922 (gage height, 13.7 feet); minimum, 200 second-feet August 7–9, 1925 (gage height, 1.00 foot).

REMARKS.—Records good except those for period of ice effect, December 3 to March 11, which are poor. Flow is largely regulated by reservoirs above gaging station at Bishops Bridge.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,820	1,460	2,520	1,560	1,750	2,320	1,940	1,660	3,020	1,100	1,240	1,140
2	4,560	1,370	2,520	1,560	1,750	2,220	1,750	1,660	2,220	1,010	1,240	1,010
3	4,560	1,370	2,520	1,560	1,750	2,130	1,560	1,750	1,100	968	1,190	882
4	4,240	1,370	2,520	1,560	1,750	2,220	1,460	1,660	1,100	968	1,100	882
5	4,140	1,370	2,320	1,370	1,750	2,320	2,040	1,190	1,190	1,370	1,060	840
6	3,930	1,370	2,320	1,370	1,750	2,420	2,520	1,140	1,290	1,660	1,010	882
7	2,720	1,370	2,220	1,370	1,750	2,520	2,320	1,190	1,140	1,560	1,190	925
8	3,320	2,440	2,420	1,280	1,750	2,720	1,940	1,190	1,140	1,460	1,140	925
9	2,420	3,520	2,520	1,370	1,750	3,120	1,750	1,940	1,140	1,840	1,010	968
10	2,040	3,320	2,320	1,370	1,750	2,520	1,560	3,020	1,190	1,460	1,140	1,060
11	2,130	2,920	2,420	1,370	1,840	1,840	1,370	3,220	1,370	1,100	1,370	840
12	2,320	2,720	2,520	1,280	1,940	2,820	1,370	2,920	1,460	1,370	1,370	840
13	2,420	2,320	2,320	1,280	1,940	5,200	1,280	2,920	1,370	1,840	1,370	760
14	2,320	3,520	2,040	1,370	1,940	6,910	1,190	3,120	1,370	1,840	1,370	760
15	2,130	6,670	2,220	1,370	1,940	7,550	1,190	3,120	1,280	1,660	1,370	760
16	1,940	9,220	2,520	1,370	1,840	10,100	1,460	2,920	1,190	1,750	1,370	720
17	1,750	8,800	2,420	1,280	1,840	10,800	1,660	2,040	1,190	1,840	1,240	720
18	1,660	7,960	2,320	1,190	1,750	9,080	1,750	1,750	1,190	1,460	1,060	720
19	1,560	4,350	2,320	1,370	1,750	6,550	1,750	1,460	1,190	1,140	1,010	720
20	1,280	3,520	2,220	1,750	1,750	4,660	1,750	1,560	1,190	760	760	720
21	1,190	3,020	2,130	1,750	1,750	3,520	1,840	1,840	1,750	760	720	720
22	1,190	2,920	2,040	1,750	1,940	2,720	1,940	2,320	2,420	1,280	968	720
23	1,460	2,920	1,940	1,750	2,130	2,320	1,940	6,320	2,220	1,190	1,240	720
24	1,560	3,520	1,940	1,750	2,220	2,040	1,840	7,680	2,040	968	1,240	720
25	1,370	3,520	1,940	1,750	2,220	1,750	1,750	6,550	2,040	680	1,240	720
26	1,370	3,420	1,750	1,750	2,220	1,560	1,750	5,530	1,750	680	1,240	720
27	1,660	2,820	1,750	1,750	2,320	1,560	1,750	4,350	1,560	840	1,240	760
28	1,840	2,520	1,660	1,750	2,320	1,560	1,750	3,420	1,460	1,370	1,240	760
29	1,750	2,920	1,750	1,750	-------	1,560	1,750	3,520	1,370	1,560	1,240	760
30	1,750	2,620	1,660	1,750	-------	1,660	1,660	3,520	1,190	1,560	1,190	800
31	1,660	-------	1,660	1,750	-------	1,840	-------	3,320	-------	1,560	1,240	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,560	1,190	2,320	1.45	1.67
November	9,220	1,370	3,370	2.11	2.35
December	2,520	1,660	2,190	1.37	1.58
January	1,750	1,190	1,520	.950	1.10
February	2,320	1,750	1,900	1.19	1.24
March	10,800	1,560	3,620	2.26	2.61
April	2,520	1,190	1,720	1.08	1.20
May	7,680	1,140	2,900	1.81	2.09
June	3,020	1,100	1,500	.938	1.05
July	1,840	680	1,310	.819	.94
August	1,370	720	1,170	.731	.84
September	1,140	720	816	.510	.57
The year	10,800	680	2,030	1.27	17.24

CHIPPEWA RIVER AT CHIPPEWA FALLS, WIS.

LOCATION.—Water-stage recorder in SE. ¼ sec. 6, T. 28 N., R. 8 W., at highway bridge at Chippewa Falls, 2,500 feet below mouth of Duncan Creek.

DRAINAGE AREA.—5,600 square miles.

RECORDS AVAILABLE.—June, 1888, to September, 1927.

EXTREMES.—Maximum discharge during year, 52,100 second-feet March 16 (gage height, 13.4 feet); minimum, 100 second-feet August 4, 11, 18, and 25.
1888–1927: Maximum discharge, 78,000 second-feet March 27, 1920 (gage height, 17.0 feet); minimum, about 40 second-feet February 4, 1917.
Maximum stage known, 26.94 feet September 10, 1884.

REMARKS.—Records good except those for November 22 to December 30, January 16–29, February 1–26, March 1–12, 23–26, and September 1–30, which were estimated. Large diurnal fluctuation caused by operation of Wissota power plant, a few miles above station. Flow also regulated by storage reservoirs upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,270	4,590		1,660			11,200	4,580	7,650	5,330	2,360	2,960
2	12,400	5,120	4,300	1,200			7,200	6,870	7,730	4,370	2,360	4,130
3	13,700	4,810		4,900	4,070	5,200	8,180	4,500	5,740	596	2,360	4,970
4	16,000	4,080		4,160			12,200	6,060	5,380	384	2,360	100
5	15,500	3,290		4,160			6,870	5,540	4,370	2,210	2,360	1,610
6	14,200	3,290		4,060			10,500	4,810	6,210	3,830	2,500	4,430
7	12,300	1,170		3,950			12,200	5,280	5,130	2,300	226	4,240
8	10,400	8,700	4,200	4,410			11,800	1,870	3,540	2,530	1,980	3,940
9	8,890	13,700		1,370	4,260	7,330	8,810	5,070	5,540	4,820	2,080	4,730
10	5,890	11,600		4,970			6,870	7,800	5,540	1,620	2,080	4,870
11	10,300	11,600		4,210			7,730	10,100	4,810	2,080	3,310	100
12	6,000	11,600		4,210			4,850	12,200	2,080	2,080	2,830	3,750
13	8,420	10,100		4,590		22,100	5,430	11,800	5,890	2,410	5,050	3,730
14	7,460	10,800		3,900		27,200	5,700	10,300	1,810	6,080	1,160	2,920
15	8,070	14,700	3,950	3,800		39,000	6,610	8,180	4,550	3,830	2,000	2,500
16	8,150	23,000			4,360	45,400	6,510	10,300	4,550	7,380	2,500	2,510
17	4,130	26,700				44,100	6,410	9,260	4,550	1,960	3,880	2,460
18	8,980	23,300				42,800	6,090	8,720	2,870	9,430	2,530	100
19	6,740	19,300		4,000		37,800	6,610	7,200	577	11,500	3,380	2,030
20	6,740	14,400				29,000	5,230	6,540	4,220	10,600	2,530	2,100
21	7,800	9,440				20,000	6,610	4,970	3,970	8,720	227	2,210
22	7,270		3,720			15,600	6,870	3,110	4,500	7,530	2,180	2,210
23	8,070				4,620		7,130	13,700	4,230	7,380	2,880	2,140
24	2,150						5,580	16,600	4,500	4,640	2,880	1,810
25	5,750	7,850				10,200	6,870	19,700	2,920	8,260	2,760	100
26	7,010			4,200			6,610	18,300	2,710	4,820	3,380	1,940
27	7,200				5,310	7,650	4,760	16,600	6,090	3,540	3,760	1,990
28	6,940		4,070		4,980	10,600	3,110	14,400	5,640	3,090	328	2,100
29	5,230	5,550				8,530	6,600	10,300	4,850	4,370	3,010	2,110
30	4,970			4,160		9,350	4,500	10,300	5,330	6,080	3,370	2,230
31	2,050		6,870	4,830		9,800		9,080		1,570	3,690	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	16,000	2,050	8,260	1.48	1.71
November	26,700	1,100	9,970	1.78	1.99
December			4,110	.734	.85
January			3,930	.702	.81
February			4,400	.786	.82
March	45,400		15,700	2.80	3.23
April	12,200	3,100	7,190	1.28	1.43
May	19,700	1,660	9,160	1.64	1.89
June	7,730	577	4,580	.818	.91
July	11,500	384	4,690	.837	.97
August	5,050	226	2,520	.450	.52
September	4,970	100	2,570	.439	.51
The year	45,400	100	6,450	1.15	15.64

FLAMBEAU RIVER NEAR BUTTERNUT, WIS.

LOCATION.—Chain gage in lot 10, sec. 28, T. 41 N., R. 1 E., 6 miles southeast of Butternut and 7 miles upstream from Park Falls.

DRAINAGE AREA.—660 square miles.

RECORDS AVAILABLE.—July, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 2,020 second-feet July 17 (gage height, 5.0 feet); minimum, 370 second-feet October 1 (gage height, 1.63 feet).

1914–1927: Maximum discharge, 5,430 second-feet April 22 and 23, 1916 (gage height, 9.0 feet); minimum, 91 second-feet September 18 and 19, 1925 (gage height, 0.25 foot).

REMARKS.—Records good except those for period of ice effect, December 14–25 and January 15 to February 5, which are fair. Flow regulated by storage in Flambeau Reservoir, 9 miles above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	716	985	985	1,070	1,220	432	1,070	985	483	895	940
2	449	760	985	985	1,070	1,220	416	850	985	483	895	940
3	483	850	985	985	1,070	1,220	416	985	1,030	483	895	895
4	592	850	985	985	1,070	1,220	432	1,390	1,070	483	895	940
5	805	895	985	985	1,100	1,220	449	1,390	1,120	716	895	895
6	895	940	940	962	1,120	1,220	466	1,270	1,030	805	895	895
7	850	940	940	940	1,100	1,220	466	1,170	1,030	716	895	895
8	1,120	985	940	955	1,090	1,220	449	1,070	985	632	895	632
9	1,120	1,120	940	970	1,070	1,220	483	1,120	985	632	895	632
10	1,170	1,170	985	985	1,070	1,170	805	1,690	985	632	895	632
11	1,170	1,030	985	985	1,070	985	850	1,820	940	632	895	632
12	1,170	985	985	985	1,070	918	895	1,950	895	632	895	632
13	1,070	940	985	985	1,070	850	895	1,510	805	673	895	632
14	985	1,030	985	985	1,070	483	850	1,390	716	805	895	632
15	985	1,120	985	985	1,070	458	895	1,330	632	895	895	632
16	985	1,510	985	985	1,070	432	895	1,330	632	1,170	1,030	632
17	985	1,630	985	985	1,100	475	895	1,330	518	2,020	1,070	632
18	985	1,630	985	985	1,120	518	940	1,270	592	1,760	1,030	592
19	940	1,570	940	1,030	1,140	492	1,070	1,270	716	1,630	805	632
20	805	1,120	940	1,030	1,170	466	1,120	1,270	716	1,630	716	632
21	850	1,030	940	1,030	1,190	472	1,170	1,760	760	1,510	805	632
22	895	985	940	1,030	1,200	478	1,330	1,630	940	1,450	1,030	632
23	985	940	940	1,030	1,220	483	1,220	1,890	1,070	1,390	985	632
24	985	895	940	1,030	1,220	466	1,170	1,950	1,070	1,270	985	592
25	985	985	985	1,030	1,220	449	1,120	1,820	1,030	1,120	985	592
26	940	985	985	1,030	1,220	466	1,270	1,760	1,030	1,120	985	592
27	940	985	985	1,070	1,220	483	1,330	1,690	985	1,070	985	592
28	940	940	985	1,070	1,220	472	1,390	1,390	985	1,070	985	632
29	940	940	985	1,070	-------	460	1,390	1,330	985	985	985	632
30	940	985	985	1,070	-------	449	1,390	1,270	805	940	985	632
31	940	-------	985	1,070	-------	440	-------	1,170	-------	940	940	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,170	370	912	1.38	1.59
November	1,630	716	1,050	1.59	1.77
December	985	940	971	1.47	1.70
January	1,070	940	1,010	1.53	1.76
February	1,220	1,070	1,120	1.70	1.77
March	1,220	432	753	1.14	1.31
April	1,390	416	897	1.36	1.52
May	1,950	850	1,420	2.15	2.48
June	1,120	518	901	1.37	1.53
July	2,020	483	993	1.50	1.73
August	1,070	716	927	1.40	1.61
September	940	592	691	1.05	1.17
The year	2,020	370	970	1.47	19.94

FLAMBEAU RIVER NEAR LADYSMITH, WIS.

LOCATION.—In sec. 35, T. 36 N., R. 5 W., at Big Falls power plant of Lake Superior District Power Co., 14 miles northeast of Ladysmith.

DRAINAGE AREA.—1,910 square miles.

RECORDS AVAILABLE.—October, 1923, to September, 1927. January, 1914, to September, 1923, at a station 8 miles below present site. February, 1903, to December, 1906, at Ladysmith, 14 miles below present site.

EXTREMES.—Maximum mean daily discharge during year, 8,350 second-feet March 18 and 19; minimum, 370 second-feet July 4.

1914–1927: Maximum discharge, 19,500 second-feet April 11, 1922; minimum, 176 second-feet August 30, 1925.

REMARKS.—Records good. Discharge computed from power-house records. Regulation caused by operation of power plants and storage reservoirs above station. Daily-discharge record furnished by Lake Superior District Power Co.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,620	1,900	2,010	1,650	1,420	1,720	2,780	2,260	2,490	1,790	1,790	1,330
2	4,630	1,800	1,650	1,520	1,460	1,730	2,930	2,050	2,370	1,480	1,510	1,450
3	4,470	1,750	1,940	1,720	1,470	1,680	2,970	2,130	2,020	585	1,540	1,390
4	4,470	1,970	1,890	1,700	1,670	1,660	2,040	2,240	1,830	370	1,510	985
5	4,390	1,840	1,240	1,600	1,580	1,610	2,950	2,830	2,130	1,110	1,630	757
6	3,930	1,940	1,810	1,720	1,070	1,710	3,350	2,490	2,170	1,320	1,300	1,320
7	3,550	2,450	1,580	1,800	1,630	1,750	3,060	2,400	2,080	1,420	974	1,310
8	3,410	3,370	1,850	1,580	1,640	1,770	2,830	2,250	1,990	1,690	1,650	1,160
9	3,430	3,190	1,980	1,080	1,510	1,870	2,510	2,580	1,790	1,600	1,360	1,240
10	3,110	3,520	1,910	1,690	1,600	1,970	2,680	3,210	1,820	1,030	1,360	1,320
11	2,960	3,220	2,160	1,560	1,580	2,090	2,730	4,050	1,880	1,550	1,320	790
12	2,880	3,260	1,710	1,690	1,510	2,440	3,080	4,430	2,130	1,170	1,380	1,120
13	2,700	3,130	2,220	1,570	1,070	3,250	2,900	4,020	1,760	1,500	1,400	1,030
14	2,770	3,740	1,140	1,550	1,650	3,380	2,760	3,500	1,770	1,500	741	1,000
15	2,610	5,230	1,680	1,460	1,490	4,600	2,680	3,340	1,580	1,640	1,280	966
16	2,710	6,460	1,680	1,190	1,520	6,540	2,410	2,990	1,390	1,520	1,030	974
17	2,910	6,210	1,680	1,470	1,670	7,690	2,530	2,720	1,420	3,160	1,390	846
18	2,610	5,500	1,600	1,330	1,640	8,350	2,840	2,660	1,180	4,750	1,640	728
19	2,580	5,010	1,410	1,580	1,520	8,350	2,670	2,180	750	4,770	1,800	903
20	2,700	4,250	1,870	1,560	1,210	7,700	3,140	2,570	1,370	3,600	1,580	1,090
21	2,660	3,430	1,800	1,550	1,630	6,330	2,840	2,940	1,380	4,250	1,000	557
22	2,590	2,790	1,670	1,460	1,510	5,260	3,040	3,990	1,920	3,630	1,310	845
23	2,610	2,660	1,860	1,220	1,760	4,360	2,960	5,040	1,830	3,140	1,360	914
24	2,460	2,440	1,760	1,600	1,700	3,910	2,940	4,570	2,100	2,780	1,490	1,110
25	2,250	2,390	1,720	1,470	1,690	3,500	2,540	4,960	2,240	2,310	1,430	727
26	2,360	2,490	1,600	1,270	1,520	3,070	2,610	4,840	2,290	2,290	1,480	1,120
27	2,430	1,920	1,730	1,610	1,590	2,650	2,440	3,980	2,050	1,990	1,370	775
28	2,150	1,900	1,720	1,540	1,720	2,510	2,570	3,760	1,850	1,910	923	986
29	2,220	2,040	1,740	1,470	-------	2,550	2,410	3,370	1,800	1,960	1,330	888
30	2,180	2,040	1,800	993	-------	2,570	2,720	2,520	1,750	1,630	1,230	1,150
31	2,160	-------	1,460	1,680	-------	2,640	-------	2,580	-------	1,680	1,300	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,630	2,150	2,980	1.56	1.80
November	6,460	1,750	3,130	1.64	1.83
December	2,220	1,140	1,740	.911	1.05
January	1,800	993	1,510	.791	.91
February	1,760	1,070	1,530	.801	.83
March	8,350	1,610	3,590	1.88	2.17
April	3,350	2,040	2,760	1.45	1.62
May	5,040	2,050	3,210	1.68	1.94
June	2,490	750	1,840	.963	1.07
July	4,770	370	2,100	1.10	1.27
August	1,790	741	1,370	.717	.83
September	1,450	557	1,030	.539	.60
The year	8,350	370	2,240	1.17	15.92

JUMP RIVER AT SHELDON, WIS.

LOCATION.—Chain gage in sec. 26, T. 33 N., R. 5 W., at highway bridge in Sheldon, 11 miles above mouth.

DRAINAGE AREA.—510 square miles.

RECORDS AVAILABLE.—July, 1915, to September, 1927.

EXTREMES.—Maximum discharge during year, 10,900 second-feet March 16 (gage height, 9.94 feet); minimum, 24 second-feet September 21 (gage height, 2.80 feet).

1915–1927: Maximum discharge, 15,600 second-feet March 26, 1920 (gage height, 11.48 feet); minimum (estimated), 14 second-feet January 25–31, 1924.

REMARKS.—Records good except those for periods of ice effect, November 28 to March 11, and for extremely low water, which are fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	970	490	380	165	55	125	1,130	280	380	111	143	63
2	2,420	435	380	165	70	115	1,310	330	305	111	123	63
3	2,290	380	355	200	85	105	1,130	408	280	86	135	55
4	1,920	408	355	230	85	105	1,130	330	255	75	111	75
5	1,700	355	330	220	85	105	1,400	280	221	68	103	63
6	1,700	330	330	210	85	125	1,920	270	185	103	96	240
7	1,400	380	330	190	85	145	1,700	330	208	111	63	240
8	1,050	1,400	305	165	70	330	1,500	462	194	111	75	135
9	890	2,420	305	155	55	520	1,130	680	208	111	75	111
10	820	2,160	305	145	60	1,280	930	1,310	330	96	96	68
11	715	1,600	305	155	70	2,040	750	1,700	380	75	63	86
12	615	1,400	305	165	80	4,390	680	1,700	270	135	63	111
13	890	1,130	305	165	85	6,740	615	1,810	208	408	63	96
14	1,810	1,220	305	165	80	7,220	520	1,220	185	270	55	86
15	1,810	2,290	305	145	70	8,740	490	855	177	615	55	68
16	1,810	3,820	305	125	70	10,600	435	715	143	750	55	68
17	1,220	3,640	305	115	70	10,100	462	582	135	1,920	63	55
18	885	2,420	305	105	60	8,480	435	490	135	4,190	68	55
19	1,050	1,700	305	115	55	4,970	520	408	123	3,140	63	63
20	1,010	1,400	305	125	60	3,470	615	380	143	1,810	55	55
21	1,050	1,050	230	115	70	2,040	648	435	151	1,010	68	28
22	1,130	820	240	105	70	1,500	550	550	330	1,220	75	38
23	1,130	648	255	95	70	1,310	520	1,400	435	1,050	75	75
24	970	582	240	85	80	1,050	462	1,920	435	750	96	75
25	855	550	230	80	85	1,050	408	1,600	380	490	96	164
26	750	490	240	70	105	1,010	435	1,310	355	380	68	151
27	648	462	255	60	125	855	435	1,130	270	280	63	135
28	550	460	240	55	125	890	435	820	208	221	75	47
29	648	435	230	55	-------	930	355	615	164	135	75	38
30	680	410	200	55	-------	890	330	490	135	151	63	86
31	550	-------	165	55	-------	1,130	-------	435	-------	164	55	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,420	550	1,160	2.27	2.62
November	3,820	330	1,180	2.31	2.58
December	380	165	289	.567	.65
January	230	55	131	.257	.30
February	125	55	77.3	.152	.16
March	10,600	105	2,660	5.22	6.02
April	1,920	330	779	1.53	1.71
May	1,920	270	814	1.60	1.84
June	435	123	244	.478	.53
July	4,190	68	650	1.27	1.46
August	143	55	78.5	.154	.18
September	240	28	89.8	.176	.20
The year	10,600	28	685	1.34	18.25

RED CEDAR RIVER NEAR COLFAX, WIS.

LOCATION.—Water-stage recorder in sec. 27, T. 30 N., R. 11 W., at highway bridge, 4½ miles north of Colfax. Trout Creek enters 3½ miles above station.

DRAINAGE AREA.—1,100 square miles.

RECORDS AVAILABLE.—March, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 6,100 second-feet March 14 (gage height, 6.0 feet); minimum, 334 second-feet August 24 (gage height, 1 foot).

1914–1927: Maximum discharge, 7,610 second-feet March 26, 1920 (gage height, 6.95 feet); minimum, 218 second-feet November 23, 1925 (gage height, 0.55 foot).

REMARKS.—Records fair except those for period of ice effect, November 7 to March 8, which are poor, and for April 30 to May 6 and July 10–23, which were interpolated. Flow regulated by four storage reservoirs upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	671	2,010	920	960	1,040	1,500	590	1,000	599	510	638
2	1,310	804	1,310	665	842	960	1,400	582	1,000	568	568	664
3	1,000	768	1,900	880	1,040	920	1,310	574	960	538	568	3,110
4	1,140	804	1,400	1,040	1,080	920	1,310	566	960	538	599	1,530
5	1,600	732	1,310	1,130	1,040	1,130	1,400	558	960	538	605	671
6	1,500	732	1,130	920	880	1,400	1,220	550	732	543	510	812
7	1,400	730	380	920	960	1,800	1,130	543	645	486	538	1,130
8	1,310	730	630	920	880	2,460	1,040	664	568	568	538	960
9	1,040	730	1,220	805	700	1,500	1,130	776	739	568	379	960
10	960	730	1,500	730	770	1,800	1,130	842	1,220	584	379	1,040
11	732	730	840	730	700	2,120	1,000	732	739	600	515	1,040
12	1,310	730	1,130	805	630	2,230	1,080	632	574	615	543	664
13	1,000	730	880	770	920	3,610	842	664	568	631	474	698
14	960	730	840	665	700	5,750	698	671	664	649	510	638
15	880	730	960	630	570	5,310	599	638	732	664	428	543
16	920	730	880	700	480	4,470	664	632	698	680	481	543
17	1,130	730	1,130	405	630	4,170	632	599	664	696	510	632
18	804	730	1,310	600	665	3,610	454	568	664	710	632	732
19	1,220	770	1,000	840	630	3,210	632	568	804	725	605	538
20	1,040	770	880	805	480	2,580	880	599	568	741	481	599
21	960	805	730	770	555	2,120	842	739	1,000	757	510	605
22	1,130	840	880	665	600	1,900	804	1,730	970	772	428	698
23	1,080	880	1,000	770	920	1,700	804	2,580	1,040	798	543	732
24	920	920	920	840	960	1,700	768	1,620	1,040	804	379	632
25	632	920	805	1,000	840	1,500	632	1,700	960	538	481	664
26	804	960	665	1,000	805	1,310	842	1,700	664	842	538	664
27	768	960	630	960	920	1,130	880	1,130	568	804	599	698
28	768	960	1,000	920	1,000	1,040	768	1,130	599	671	698	698
29	732	960	960	840	-------	1,220	605	1,080	599	510	538	732
30	842	960	770	630	-------	1,310	597	842	543	605	574	768
31	1,010	-------	1,310	540	-------	1,400	-------	880	-------	698	638	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,600	632	1,030	0.936	1.08
November	960	671	799	.726	.81
December	2,010	380	1,040	.945	1.09
January	1,130	405	800	.727	.84
February	1,080	480	791	.719	.75
March	5,750	920	2,170	1.97	2.27
April	1,500	454	920	.836	.93
May	2,580	543	893	.812	.94
June	1,220	543	781	.710	.79
July	842	486	646	.587	.68
August	698	379	529	.481	.55
September	3,110	538	834	.758	.85
The year	5,750	379	939	.854	11.58

RED CEDAR RIVER AT MENOMONIE, WIS.

LOCATION.—Water-stage recorder in sec. 26, T. 28 N., R. 13 W., at Menomonie, 900 feet below power house of Northern States Power Co. and 1,000 feet below mouth of Wilson Creek.

DRAINAGE AREA.—1,810 square miles.

RECORDS AVAILABLE.—June, 1907, to September, 1908; May, 1913, to September, 1923; March, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 10,700 second-feet March 15 (gage height, 6.1 feet); minimum, 96 second-feet August 10, caused by regulation (gage height, 0.95 foot).

1907–1908, 1913–1923, 1925–1927: Maximum discharge, 14,000 second-feet March 26, 1920 (gage height, 8.0 feet); minimum, 88 second-feet May 9, 1926, caused by regulation (gage height, 0.93 foot).

REMARKS.—Records good except those for May 6 and 7, which were estimated. Considerable diurnal fluctuation caused by operation of power plants at Menomonie and Cedar Falls. Flow also regulated by storage in four reservoirs upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	1,050	1,320	1,230	1,230	1,680	2,240	410	1,710	1,160	1,040	989
2	1,940	1,110	1,680	1,370	1,160	1,680	1,760	1,040	1,340	1,150	798	1,160
3	875	1,110	1,740	1,590	1,160	1,680	1,790	1,310	1,620	434	814	1,350
4	1,040	928	1,640	1,100	1,160	1,300	2,180	1,450	2,160	296	814	2,310
5	1,440	1,300	1,180	1,100	1,100	1,820	1,980	1,380	577	892	814	1,860
6	2,070	1,110	1,180	1,370	989	640	2,240	1,220	1,230	1,180	937	1,230
7	2,160	980	1,250	1,230	919	1,610	1,310	1,070	1,130	1,180	296	1,220
8	2,240	1,380	1,040	1,240	1,100	1,980	1,730	394	748	858	892	1,420
9	2,240	1,610	790	1,230	1,100	2,240	1,640	1,070	1,050	1,040	526	1,710
10	1,450	1,900	858	1,100	1,100	2,420	400	1,330	910	612	830	2,170
11	1,610	1,590	496	1,100	1,100	3,210	1,440	1,070	1,590	919	830	2,150
12	1,740	1,590	751	1,100	1,100	4,060	1,770	1,010	1,440	919	1,040	2,150
13	1,590	1,660	1,100	1,030	806	4,300	1,790	867	1,100	919	989	2,310
14	1,370	2,240	1,040	1,100	980	8,130	1,680	1,030	1,050	919	336	1,570
15	1,370	2,790	1,230	1,100	1,100	9,850	1,740	240	1,210	919	703	1,280
16	1,300	3,610	1,300	806	1,100	8,050	1,380	1,170	1,210	980	762	1,290
17	1,370	5,050	1,300	919	1,100	6,300	285	1,170	1,180	299	703	1,280
18	1,370	5,050	1,230	1,030	1,100	5,550	1,040	1,240	1,310	956	762	1,050
19	1,440	4,060	1,160	1,030	1,100	5,050	1,470	1,240	647	1,150	822	919
20	1,440	3,390	1,230	1,030	606	3,830	1,400	1,170	946	1,150	611	1,030
21	1,660	2,980	1,100	1,100	884	3,830	1,400	1,310	1,300	1,220	446	970
22	1,440	2,600	1,160	1,100	1,100	3,010	1,330	1,900	1,450	1,150	312	1,050
23	1,370	2,420	1,740	980	1,160	2,240	1,470	1,680	1,450	1,290	536	1,090
24	1,440	2,240	1,370	1,100	1,160	2,260	364	2,160	1,610	892	805	749
25	1,440	1,410	910	1,100	1,610	2,280	1,230	2,240	1,250	946	830	600
26	1,370	1,010	1,030	970	1,740	2,600	1,400	2,160	767	1,150	884	892
27	1,230	1,070	1,100	919	1,170	1,230	1,240	2,160	1,100	1,150	374	1,030
28	1,230	693	1,230	1,040	1,610	2,700	1,310	1,840	1,160	1,150	261	1,030
29	1,370	956	1,300	1,160	-------	1,830	1,310	1,310	1,160	989	806	1,150
30	1,300	1,330	1,160	806	-------	2,600	1,160	496	989	1,170	806	1,280
31	970	-------	1,300	1,040	-------	1,830	-------	1,860	-------	669	919	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,240	875	1,490	0.823	0.95
November	5,050	693	2,010	1.11	1.24
December	1,740	496	1,190	.658	.76
January	1,590	806	1,100	.608	.70
February	1,740	606	1,130	.624	.65
March	9,850	640	3,280	1.81	2.09
April	2,240	285	1,450	.801	.89
May	2,240	240	1,290	.713	.82
June	2,160	577	1,210	.669	.75
July	1,290	296	958	.529	.61
August	1,040	261	719	.397	.46
September	2,310	600	1,340	.740	.83
The year	9,850	240	1,430	.790	10.75

BLACK RIVER AT NEILLSVILLE, WIS.

LOCATION.—Chain gage, installed November 16, 1926, in sec. 15, T. 24 N., R. 2 W., at new highway bridge in Neillsville. O'Neill Creek enters 1 mile above gage and Cunningham Creek 1½ miles below.

DRAINAGE AREA.—774 square miles.

RECORDS AVAILABLE.—April, 1905, to March, 1909; December, 1913, to September, 1927.

EXTREMES.—Maximum discharge during year, 9,190 second-feet March 13 (gage height, 12.33 feet); minimum, 32 second-feet August 15, 25–28, 31, and September 1 (gage height, 2.5 feet).

1905–1909, 1913–1927: Maximum discharge, 37,100 second-feet June 6, 1905 (gage height, 22.4 feet); minimum (estimated), 5 second-feet during February, 1918.

REMARKS.—Records good except those for October 1 to November 15, which were estimated, and for periods of ice effect, December 6 to March 2 and March 7 and 8, which are poor. Slight diurnal fluctuation caused by operations at several dams upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			293	260	200	820	2,460	112	229	71	160	32
2			260	295	215	770	1,630	148	214	68	126	38
3			244	295	230	928	1,160	214	186	56	97	38
4			260	330	245	873	1,160	214	173	43	85	43
5			214	330	245	873	2,280	244	148	34	71	116
6			215	330	260	984	2,100	214	126	38	59	110
7			230	275	275	1,490	1,630	186	106	41	56	71
8	1,400	800	245	260	295	2,100	1,220	173	97	53	50	106
9			260	260	295	2,730	928	1,630	620	43	43	116
10			275	275	295	3,550	768	2,550	1,780	43	41	126
11			295	260	260	3,660	574	2,550	1,160	50	43	346
12			310	275	275	5,900	444	1,630	717	59	43	384
13			345	275	260	8,680	424	1,100	444	186	41	260
14			385	260	260	8,340	384	873	293	574	38	186
15			345	245	260	7,700	310	668	200	668	32	148
16		2,640	310	230	260	4,960	310	529	173	1,940	38	106
17		2,370	260	245	275	5,090	328	424	148	3,440	34	92
18		1,560	185	245	275	4,100	365	365	200	2,280	43	56
19		1,040	260	245	260	3,030	346	293	1,940	1,420	43	46
20		717	310	245	230	1,940	328	229	668	873	43	80
21		486	330	230	230	1,350	310	229	574	2,730	34	59
22		384	330	215	260	1,100	293	200	668	1,700	34	56
23		328	330	185	385	984	276	276	574	928	34	46
24	740	293	295	200	575	984	260	668	486	574	38	50
25		328	295	175	820	1,040	244	873	404	384	32	50
26		328	295	160	985	984	260	717	260	293	32	64
27		260	295	135	985	873	293	620	214	229	32	80
28		260	310	135	985	873	310	574	160	365	32	85
29		260	310	160	------	1,280	310	444	126	465	38	85
30		276	310	160	------	1,780	276	365	97	229	34	148
31		------	295	160	------	2,830	------	293	------	173	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	------	------	1,060	1.37	1.58
November	2,640	260	784	1.01	1.13
December	385	185	287	.371	.43
January	330	135	237	.306	.35
February	985	200	371	.479	.50
March	8,680	770	2,660	3.44	3.97
April	2,460	244	733	.947	1.06
May	2,550	112	632	.817	.94
June	1,940	97	440	.568	.63
July	3,440	34	647	.836	.96
August	160	32	503	.065	.07
September	384	32	107	.138	.15
The year	8,680	32	672	.868	11.77

LA CROSSE RIVER NEAR WEST SALEM, WIS.

LOCATION.—Chain gage in sec. 32, T. 17 N., R. 6 W., at highway bridge 2 miles west of West Salem and 6 miles below mouth of Dutch Creek.
DRAINAGE AREA.—412 square miles.
RECORDS AVAILABLE.—December, 1913, to September, 1927.
EXTREMES.—Maximum discharge during year, 1,330 second-feet July 21 (gage height, 4.55 feet); minimum, 56 second-feet February 20.
1913–1927: Maximum discharge, 3,620 second-feet March 16, 1919 (gage height, 8.45 feet); minimum, that of February 20, 1927.
REMARKS.—Records fair except those for periods of ice effect, November 21–23, 27, 29, and December 6 to March 2, which are poor. Slight diurnal fluctuation is caused by operation of power plants a few miles above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	289	289	330	165	150	85	373	269	418	196	240	140
2	309	309	309	150	150	105	351	309	351	196	226	140
3	269	289	269	165	165	395	330	309	351	196	212	151
4	395	289	269	195	195	309	351	309	330	196	199	130
5	515	269	196	230	250	309	351	309	309	196	199	110
6	395	269	195	180	290	309	395	309	309	213	186	506
7	351	231	195	135	310	351	351	269	309	213	174	186
8	289	289	180	180	330	395	351	269	269	213	174	199
9	289	289	180	165	270	418	309	465	269	250	174	174
10	231	231	180	165	165	418	250	750	269	196	199	226
11	309	250	165	135	100	395	330	835	289	213	199	366
12	269	269	165	100	90	440	309	715	250	309	162	543
13	351	250	150	120	70	590	289	440	289	418	162	418
14	351	269	150	120	85	675	309	373	289	440	162	317
15	269	309	150	85	100	590	289	373	269	330	140	240
16	289	330	165	80	100	490	309	351	250	196	140	212
17	250	330	165	105	105	490	231	351	250	231	162	199
18	309	309	165	115	85	590	309	309	269	213	162	286
19	289	309	125	115	65	565	289	289	231	231	162	418
20	269	309	150	115	60	440	269	289	309	196	199	400
21	269	230	180	105	100	395	269	269	330	1,260	186	255
22	289	180	180	110	90	373	269	289	440	1,100	186	212
23	309	230	230	95	310	373	269	373	330	580	212	186
24	250	231	215	120	780	373	250	490	309	383	199	174
25	330	309	180	70	420	395	289	590	231	301	186	174
26	309	373	135	100	330	418	269	418	231	286	174	199
27	351	270	135	195	165	490	269	373	231	286	162	240
28	289	373	135	150	75	440	269	465	231	333	162	333
29	289	395	180	135	------	395	289	675	231	317	162	366
30	269	440	150	150	------	395	289	750	231	270	151	366
31	231	------	150	150	------	395	------	635	------	240	151	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	515	231	306	0.743	0.86
November	440	180	291	.706	.79
December	330	125	185	.449	.52
January	230	70	135	.328	.38
February	780	60	193	.468	.49
March	675	85	413	1.00	1.15
April	395	231	303	.735	.82
May	835	269	426	1.03	1.19
June	440	231	289	.701	.78
July	1,260	196	329	.799	.92
August	240	140	179	.434	.50
September	543	110	262	.636	.71
The year	1,260	60	276	.670	9.11

UPPER IOWA RIVER NEAR DECORAH, IOWA

LOCATION.—Water-stage recorder in sec. 13, T. 98 N., R. 8 W., 500 feet above highway bridge in Freeport, 3 miles below Decorah, and 4 miles above upper power plant of Interstate Power Co. Trout Run enters 1 mile above station.

DRAINAGE AREA.—560 square miles.

RECORDS AVAILABLE.—August, 1913, to November, 1914; May, 1919, to June, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 2,680 second-feet May 29 (gage height, 5.40 feet); minimum occurred during winter.

1913–1914, 1919–1927: Maximum discharge, 14,700 second-feet February 22, 1922 (gage height, 10.42 feet); minimum (estimated), 21 second-feet February 15, 1923.

REMARKS.—Records good except those for December 3 to February 3 and June 12–17, which are poor. Slight diurnal fluctuation caused by operation of several mills in Decorah.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	89	83	87		80	325	368	233	982
2	83	77	83		90	284	321	233	915
3	98	73			300	247	321	216	818
4	149	73		75	284	229	432	219	723
5	120	79			692	229	915	212	631
6	91	81			631	229	850	209	544
7	87	79		77	544	229	692	206	490
8	94	81		75	517	216	631	254	490
9	91	85	70		368	223	572	661	915
10	91	67			346	223	572	1,560	1,260
11	96	59			325	229	490	850	
12	98	73		60	304	304	464	601	
13	87	87			284	325	439	464	
14	81	96			247	304	464	415	500
15	85	103			206	304	544	368	
16	94	100			216	296	517	317	
17	83	91	50		222	277	490	277	
18	81	103			178	258	439	281	415
19	77	79			181	240	415	261	391
20	79	83			181	229	368	300	391
21	89	87			212	219	338	312	368
22	89	96	70	50	175	196	325	277	346
23	96	103			1,120	209	304	818	346
24	96	89			982	199	292	1,050	343
25	96	94			982	203	284	1,330	325
26	85	105			692	226	269	786	308
27	79	125			517	222	269	982	300
28	83	81	60		391	233	254	1,910	284
29	81	96				254	261	2,480	269
30	83	89		65		321	240	1,820	261
31	81					368		1,260	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	149	77	90.7	0.162	0.19
November	125	59	87.2	.156	.17
December			65.5	.117	.13
January			60.7	.108	.12
February	1,120	80	402	.718	.75
March	368	196	253	.452	.52
April	915	240	438	.782	.87
May	2,480	206	683	1.22	1.41
June	1,260	261	504	.900	1.00

WISCONSIN RIVER AT WHIRLPOOL RAPIDS, NEAR RHINELANDER, WIS.

LOCATION.—Water-stage recorder in sec. 4, T. 35 N., R. 8 E., at head of Whirlpool Rapids, 1 mile below outlet of Crescent Lake and 10 miles southwest of Rhinelander.

DRAINAGE AREA.—1,160 square miles.

RECORDS AVAILABLE.—September, 1915, to September, 1927. December, 1905, to September, 1915, at station 3 miles upstream.

EXTREMES.—Maximum discharge during year, 2,700 second-feet August 22 (gage height, 4.00 feet); minimum, 470 second-feet June 13 (gage height, 1.48 feet).

1915–1927: Maximum discharge, 5,250 second-feet April 22, 1916 (gage height, 5.61 feet); minimum, 165 second-feet July 7, 1918 (gage height, 0.65 foot).

REMARKS.—Records good. No record October 1 to April 2, April 25–30, and July 31 to September 30. Flow is regulated by 14 reservoirs and 3 power plants above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Apr.	May	June	July	Day	Apr.	May	June	July
1		1,070	1,800	1,240	16	1,420	1,800	1,070	1,700
2		1,420	1,800	1,330	17	1,240	1,800	1,070	1,800
3	1,600	1,600	1,800	985	18	1,420	1,800	900	2,010
4	2,010	1,510	1,700	645	19	1,510	1,420	785	2,120
5	1,900	1,420	1,240	900	20	1,510	1,420	820	2,010
6	2,010	1,420	1,510	1,330	21	1,510	1,420	1,420	2,230
7	2,120	1,420	1,600	1,330	22	1,800	1,240	1,800	2,460
8	2,010	1,070	1,510	1,240	23	1,800	1,600	1,800	2,460
9	2,010	1,070	1,420	1,330	24	1,240	1,800	2,010	2,010
10	1,420	1,700	1,240	1,070	25		1,800	2,010	2,460
11	1,700	1,800	1,330	1,070	26		1,800	1,900	2,230
12	1,800	1,800	680	1,240	27		1,800	2,010	1,800
13	1,800	1,420	985	1,420	28		1,800	2,010	2,120
14	1,420	1,600	1,330	1,420	29		1,420	1,800	2,230
15	1,420	1,240	1,070	1,510	30		2,010	1,420	1,600
					31		2,010		

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
April 3–24	2,120	1,240	1,670	1.44	1.18
May	2,010	1,070	1,560	1.34	1.54
June	2,010	680	1,460	1.26	1.41
July 1–30	2,460	645	1,640	1.41	1.57

WISCONSIN RIVER AT MERRILL, WIS.

LOCATION.—Water-stage recorder at highway bridge at east end of Merrill, Lincoln County, half a mile below mouth of Prairie River.

DRAINAGE AREA.—2,630 square miles.

RECORDS AVAILABLE.—November, 1902, to September, 1927.

EXTREMES.—Maximum discharge during year, 17,400 second-feet March 18 (gage height, 10.90 feet); minimum, 525 second-feet August 29 (gage height, 3.25 feet).

1902–1927: Maximum discharge, 45,000 second-feet July 24, 1914 (gage height, about 17.5 feet); minimum, about 90 second-feet September 26, 1908 (gage height, 2.45 feet).

REMARKS.—Records good except those for period of ice effect, December 13 to January 28, which are fair. Flow is regulated by 17 reservoirs and 8 power plants above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,460	2,640	3,320	2,300	2,440	2,320	4,950	2,320	2,460	2,440	2,080	1,880
2	5,880	2,300	2,920	1,950	2,590	2,170	5,410	2,320	2,590	2,230	2,080	1,930
3	6,680	3,130	3,320	2,040	a 2,550	a 2,310	5,180	2,060	2,300	2,300	1,930	2,040
4	5,940	2,750	3,320	2,320	a 2,500	a 2,450	4,650	2,750	2,950	1,000	2,320	1,500
5	6,180	2,210	3,130	2,980	2,460	2,590	5,940	2,440	2,040	2,080	2,060	a 1,770
6	6,180	2,170	2,590	2,980	2,620	2,320	6,360	2,300	2,190	2,440	1,950	2,040
7	5,000	1,790	2,460	2,620	2,060	2,620	6,360	2,440	2,620	2,170	1,830	1,370
8	4,780	4,120	2,920	2,440	2,190	3,390	5,880	2,300	2,780	2,040	1,720	1,950
9	4,160	4,080	2,920	2,590	2,590	3,320	5,410	2,950	2,810	2,980	1,700	1,750
10	a 4,150	3,320	2,950	2,060	2,590	3,920	4,510	4,560	2,920	3,550	1,590	2,060
11	a 4,130	3,130	2,440	1,840	2,590	4,120	4,120	5,000	2,300	a 2,820	1,390	1,620
12	4,120	2,780	2,590	2,440	2,300	4,950	a 4,290	4,080	1,910	2,080	2,320	1,950
13	5,940	2,920	2,370	2,340	2,080	6,360	a 4,260	4,080	1,950	3,320	1,930	1,930
14	5,000	4,160	2,950	2,340	2,190	7,890	a 4,240	3,360	1,930	3,290	1,370	2,080
15	3,750	6,420	a 2,860	2,300	1,930	8,980	a 4,210	3,550	2,040	3,100	1,790	1,610
16	4,160	8,430	a 2,760	2,590	2,460	9,540	a 4,180	2,560	2,040	3,720	1,790	1,400
17	4,780	6,680	2,670	2,120	2,440	14,400	a 4,160	2,950	1,910	6,860	1,790	948
18	3,720	5,000	2,490	1,790	2,590	15,700	a 4,130	3,100	1,910	6,610	1,930	1,210
19	4,160	5,940	2,300	2,300	2,060	13,800	4,510	3,290	1,690	6,360	1,860	1,520
20	4,120	4,780	2,040	2,440	2,080	10,700	3,680	2,590	2,190	4,950	1,700	1,790
21	4,730	4,080	1,950	2,440	1,970	7,890	4,080	2,440	4,330	4,950	1,560	1,790
22	4,510	3,360	2,640	2,920	2,300	6,860	3,480	2,640	5,410	5,410	1,790	1,670
23	4,080	3,100	2,810	2,590	a 2,460	a 6,380	4,080	3,320	5,460	4,510	2,300	1,590
24	4,730	3,100	2,370	2,170	2,620	a 5,890	3,360	3,320	5,180	4,510	1,690	1,500
25	3,720	3,320	2,080	2,300	2,350	5,410	3,160	4,080	5,410	3,680	1,610	1,210
26	3,720	3,130	1,610	3,010	2,320	4,950	3,390	3,510	5,410	4,080	1,930	1,810
27	4,080	3,920	2,420	3,480	2,060	4,730	2,920	3,320	3,150	3,680	1,560	1,910
28	2,950	3,720	2,350	3,290	1,790	5,460	2,590	2,590	3,720	2,950	948	1,790
29	2,980	3,130	2,300	2,590	-------	5,180	2,950	2,690	4,080	4,120	1,640	1,690
30	3,130	3,680	2,060	2,620	-------	5,460	2,590	2,260	2,810	2,640	1,880	1,910
31	2,980	-------	2,300	2,040	-------	5,460	-------	2,130	-------	2,350	1,410	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,680	2,950	4,510	1.71	1.97
November	8,430	1,790	3,780	1.44	1.61
December	3,320	1,610	2,590	.985	1.14
January	3,480	1,790	2,460	.935	1.08
February	2,620	1,790	2,330	.886	.92
March	15,700	2,170	6,050	2.30	2.65
April	6,360	2,590	4,300	1.63	1.82
May	5,000	2,060	3,040	1.16	1.34
June	5,460	1,690	3,020	1.15	1.28
July	6,860	1,000	3,520	1.34	1.54
August	2,320	948	1,790	.681	.79
September	2,080	948	1,710	.650	.73
The year	15,700	948	3,270	1.24	16.87

a Estimated.

WISCONSIN RIVER AT KNOWLTON, WIS.

LOCATION.—Water-stage recorder in N. ½ sec. 29, T. 26 N., R. 7 E., 50 feet below left end of combination railroad and highway bridge of Chicago, Milwaukee, St. Paul & Pacific Railway at Knowlton, 1½ miles below mouth of Big Eau Pleine River.

DRAINAGE AREA.—4,360 square miles.

RECORDS AVAILABLE.—July, 1921, to September, 1927.

EXTREMES.—Maximum discharge during year, 28,000 second-feet March 18 (gage height, 12.92 feet); minimum, 1,020 second-feet September 19 (gage height, 1.66 feet).

1921–1927: Maximum discharge, 49,800 second-feet April 10, 1922 (gage height, 19.5 feet); minimum, 670 second-feet August 15, 1921 (gage height, 1.0 foot).

REMARKS.—Records good except those for period of ice effect, November 27 to March 6, which are fair. Flow is regulated by many storage reservoirs and power plants above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,510	4,560	3,650	3,140	3,830	3,480	10,900	3,830	3,830	3,830	3,480	2,190
2	10,800	4,370	3,650	2,810	3,310	3,480	10,900	4,010	3,650	3,830	3,830	2,190
3	12,200	3,650	3,650	3,140	3,140	3,480	9,840	3,830	3,480	3,480	3,310	2,970
4	11,900	4,560	3,690	3,140	3,480	3,650	8,840	3,650	3,140	3,140	2,970	3,480
5	11,400	4,560	3,650	3,140	3,480	4,010	8,590	3,830	3,140	2,970	2,810	2,890
6	11,700	3,830	3,650	3,480	2,970	4,560	15,100	3,830	2,970	2,970	2,360	2,230
7	9,180	3,310	4,190	3,830	3,140	6,710	13,600	3,480	3,140	3,140	2,810	3,140
8	7,380	3,140	4,120	3,480	3,480	6,930	10,900	3,140	3,480	3,140	2,970	2,970
9	7,150	5,320	4,050	2,970	3,140	9,090	9,090	4,940	2,810	3,140	3,140	2,650
10	7,220	5,320	3,970	2,810	3,140	12,500	8,590	9,840	3,910	4,750	2,810	2,810
11	8,590	4,370	3,900	3,140	3,140	15,400	7,380	10,400	5,320	4,940	2,810	3,480
12	7,610	4,010	3,830	2,970	3,140	19,500	5,700	9,340	4,560	4,560	2,490	3,480
13	7,150	4,370	3,480	3,140	3,140	23,800	6,090	7,150	3,140	4,940	2,340	3,140
14	8,340	4,560	3,480	3,140	3,140	26,500	6,090	6,930	3,140	9,090	2,260	2,810
15	7,610	6,640	3,310	3,140	3,140	27,700	5,510	4,940	2,810	8,090	1,520	2,810
16	6,560	13,000	3,310	3,140	3,140	26,500	5,130	5,320	2,810	6,930	2,810	2,810
17	6,500	13,300	3,140	3,140	2,810	25,900	5,700	4,370	2,810	9,430	2,810	2,490
18	6,930	10,500	3,310	3,310	2,810	27,700	6,500	4,560	2,810	14,500	2,810	2,360
19	5,320	7,610	3,480	3,480	3,140	25,900	6,500	4,560	2,810	12,500	2,810	1,450
20	6,930	7,610	3,480	3,480	2,490	20,400	6,500	4,190	2,970	9,840	2,810	2,190
21	6,500	6,290	3,480	3,480	2,810	13,600	5,700	3,830	4,560	7,380	2,260	2,650
22	6,930	5,700	3,310	3,480	3,140	11,900	5,700	3,480	15,300	7,380	2,130	2,490
23	7,150	5,130	3,140	3,480	3,140	10,900	5,700	4,560	14,500	7,150	3,140	2,810
24	7,150	4,010	3,140	3,480	3,140	9,840	5,700	4,940	13,000	7,150	2,970	2,190
25	6,710	3,830	3,310	3,480	3,140	8,840	5,510	6,090	10,100	5,700	2,810	1,930
26	5,700	3,830	3,480	3,480	3,480	8,840	4,560	5,700	8,590	5,320	2,650	1,700
27	5,130	3,830	3,140	3,650	3,480	7,850	5,320	5,700	7,150	5,510	2,490	2,810
28	6,090	3,830	3,480	4,190	3,480	6,930	4,940	4,750	5,130	4,940	2,130	2,810
29	4,750	3,830	3,310	4,190	-------	7,380	4,560	4,370	4,940	4,190	1,510	2,810
30	4,750	3,650	3,480	3,650	-------	8,340	4,560	3,830	4,560	5,320	2,190	3,480
31	4,560	-------	3,140	3,830	-------	8,340	-------	3,830	-------	4,270	2,050	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,200	4,560	7,460	1.71	1.97
November	13,300	3,140	5,420	1.24	1.38
December	4,190	3,140	3,530	.810	.93
January	4,190	2,810	3,370	.773	.89
February	3,830	2,490	3,180	.729	.76
March	27,700	3,480	12,900	2.96	3.41
April	15,100	4,560	7,320	1.68	1.87
May	10,400	3,140	5,070	1.16	1.34
June	15,300	2,810	5,150	1.18	1.32
July	14,500	2,970	5,920	1.36	1.57
August	3,830	1,510	2,650	.608	.70
September	3,480	1,450	2,660	.610	.68
The year	27,700	1,450	5,410	1.24	16.82

WISCONSIN RIVER NEAR NEKOOSA, WIS.

LOCATION.—Water-stage recorder in sec. 15, T. 21 N., R. 5 E., 1½ miles below Nekoosa. Tenmile Creek enters 4 miles below station.

DRAINAGE AREA.—5,500 square miles.

RECORDS AVAILABLE.—May, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 38,800 second-feet March 15 (gage height, 13.10 feet); minimum, 1,090 second-feet September 18 (gage height, 0.55 foot).

1914–1927: Maximum discharge, 61,000 second-feet April 12, 1922 (gage height, 16.1 feet; minimum (estimated), 400 second-feet January 13, 1924, caused by regulation.

REMARKS.—Records good except those for period of ice effect, December 13 to March 5, which are fair, and for April 13–28, which were estimated. Flow is regulated by many storage reservoirs and power plants above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,380	5,830	5,410	3,640	3,680	3,730	18,100	4,680	4,580	4,790	4,580	2,490
2	9,600	5,200	5,100	3,200	4,380	4,000	18,400	4,790	4,790	4,000	3,470	2,490
3	13,600	4,580	4,580	3,560	4,000	4,790	16,900	4,380	4,190	4,190	3,560	2,920
4	14,800	4,380	4,730	3,560	3,730	4,680	15,700	4,280	4,000	2,970	3,560	2,842
5	13,600	5,460	3,770	3,200	3,300	4,990	14,200	4,480	3,160	4,040	3,300	3,230
6	13,600	4,790	5,100	3,200	3,560	3,860	20,100	4,480	3,380	3,160	2,970	2,650
7	13,000	3,800	4,580	3,200	3,380	4,480	22,500	4,380	3,380	2,780	2,090	3,110
8	10,500	2,840	4,190	3,910	2,890	5,200	19,400	3,470	3,680	3,380	3,200	3,300
9	8,780	6,780	3,820	3,160	3,560	6,270	16,000	4,580	3,470	2,970	3,300	2,970
10	8,300	6,490	4,190	4,040	3,560	9,020	14,500	7,610	3,560	3,770	2,970	3,050
11	7,610	5,830	4,100	3,380	3,050	11,000	13,000	12,000	6,050	6,050	2,970	2,870
12	10,200	4,480	3,730	3,050	3,560	13,300	12,300	12,500	5,620	5,300	2,970	4,000
13	9,260	4,790	2,810	3,560	2,920	16,600	11,600	9,750	5,100	4,990	2,890	3,820
14	9,500	4,790	4,380	3,640	4,140	23,200	10,800	8,780	3,730	7,690	1,820	3,130
15	10,000	6,170	3,640	3,080	3,300	37,000	10,100	7,150	3,730	9,020	2,700	2,970
16	8,540	10,600	3,380	3,470	3,300	37,000	9,360	6,270	3,470	8,300	1,910	2,680
17	7,450	14,800	3,560	4,190	3,300	37,000	7,500	5,830	3,200	6,710	3,130	3,050
18	8,300	13,600	3,820	3,820	3,300	36,500	7,890	4,900	3,050	12,000	2,970	1,910
19	7,000	11,000	3,470	4,100	3,200	34,400	7,150	5,200	3,130	14,200	2,970	2,490
20	6,930	9,260	3,950	4,380	3,000	29,900	8,070	4,990	4,100	12,500	3,130	2,260
21	8,070	7,000	3,130	3,640	3,380	23,200	7,150	4,790	6,110	9,260	2,280	2,340
22	7,610	6,110	3,730	3,470	3,300	15,700	6,710	4,280	15,700	8,540	2,310	2,650
23	8,540	5,620	3,470	3,730	3,470	15,700	6,930	5,200	19,700	8,070	2,810	2,890
24	8,070	5,830	3,260	4,420	3,130	16,000	6,110	6,270	18,100	8,070	3,640	3,190
25	8,070	4,990	2,840	3,640	3,380	15,400	7,150	7,840	14,500	7,380	3,130	1,980
26	6,710	5,200	3,600	4,280	3,560	14,800	6,270	7,150	11,300	6,270	2,420	2,560
27	6,270	5,620	5,250	4,480	2,890	13,600	6,050	7,150	9,020	6,710	2,650	2,420
28	6,490	4,680	3,910	4,280	4,100	13,000	6,930	7,150	7,150	6,710	2,410	3,300
29	6,270	5,200	3,860	4,230	-------	12,800	5,830	5,410	5,620	5,410	2,490	3,380
30	5,200	5,410	3,820	4,230	-------	14,800	5,410	5,300	5,410	4,480	1,910	3,730
31	4,990	-------	3,640	4,100	-------	15,400	-------	4,900	-------	5,830	2,190	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,800	4,990	8,850	1.61	1.86
November	14,800	2,840	6,370	1.16	1.29
December	5,410	2,810	3,960	.720	.83
January	4,480	3,160	3,740	.680	.78
February	4,380	2,890	3,440	.625	.65
March	37,000	3,730	16,000	2.91	3.36
April	22,500	5,410	11,300	2.05	2.29
May	12,500	3,470	6,130	1.11	1.28
June	19,700	3,050	6,400	1.16	1.29
July	14,200	2,780	6,440	1.17	1.35
August	4,580	1,820	2,860	.520	.60
September	4,000	1,910	2,890	.526	.59
The year	37,000	1,820	6,560	1.19	16.17

WISCONSIN RIVER AT MUSCODA, WIS.

LOCATION.—Chain gage in sec. 1, T. 8 N., R. 1 W., at highway bridge 1 mile north of Muscoda. Zero of gage is 664.3 feet above sea level (revised).

DRAINAGE AREA.—10,300 square miles.

RECORDS AVAILABLE.—December, 1902, to December, 1903; December, 1913, to September, 1927.

EXTREMES.—Maximum discharge during year, 43,000 second-feet March 20 (gage height, 8.20 feet); minimum, 3,510 second-feet September 5 (gage height, 0.64 foot).

1902–1903, 1913–1927: Maximum discharge, 72,100 second-feet April 16, 1922 (gage height, 10.60 feet); minimum (estimated), 1,600 second-feet December 20, 1921.

A stage of 11.1 feet on June 11, 1881, is reported by United States Weather Bureau (discharge not determined).

REMARKS.—Records fair except those for periods of ice effect, November 19–24 and December 14 to March 8, which are poor. Flow regulated by many storage reservoirs and power plants above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22,500	10,500	10,100	6,250	6,520	8,020	17,000	10,900	16,500	13,500	8,020	5,240
2	23,100	10,500	9,770	6,250	6,250	7,090	16,500	12,200	17,600	11,700	9,770	5,240
3	16,500	10,100	9,770	6,800	7,090	8,020	16,500	10,500	14,000	11,300	9,770	4,770
4	21,200	9,770	9,040	6,800	7,700	7,700	15,500	10,500	12,600	9,770	9,770	4,770
5	21,200	9,770	9,400	7,090	8,020	7,700	18,800	10,100	12,200	9,040	9,040	4,120
6	17,600	9,400	9,400	6,800	8,690	7,700	19,400	10,100	11,700	8,690	7,390	4,120
7	18,200	9,040	10,100	6,800	7,700	7,700	18,200	10,100	11,700	9,400	7,390	6,250
8	21,200	8,020	10,900	6,520	8,020	7,700	18,800	10,100	10,900	9,040	6,250	5,990
9	21,800	9,770	10,500	6,520	7,700	9,400	18,200	8,690	10,100	8,690	7,090	7,390
10	17,600	9,400	10,100	5,730	8,020	9,400	17,600	11,700	10,100	8,350	7,090	9,770
11	17,000	9,400	10,100	5,990	7,700	10,900	21,200	11,700	9,770	6,800	6,520	8,020
12	17,600	8,690	9,770	6,520	7,700	10,500	21,200	10,900	9,400	6,800	5,990	5,480
13	14,500	8,350	8,350	6,520	8,020	11,700	17,600	10,500	7,090	7,090	5,990	5,990
14	13,500	9,040	8,350	6,250	6,800	16,000	15,500	13,500	8,350	6,800	5,730	5,730
15	16,000	8,020	9,400	6,250	7,390	20,000	14,500	16,500	8,350	6,800	5,240	5,730
16	16,500	9,040	9,400	6,250	7,700	21,200	12,600	20,600	8,350	7,090	5,990	5,730
17	15,500	9,400	9,400	5,730	8,350	24,500	11,300	17,600	8,690	7,700	5,990	6,250
18	12,600	9,400	9,770	6,250	7,390	28,000	10,100	12,200	8,690	9,400	5,730	8,690
19	13,500	9,400	9,770	6,800	7,390	30,900	12,200	14,000	8,350	13,500	5,730	7,390
20	14,000	9,400	8,690	6,250	7,700	42,200	12,600	12,200	6,800	11,300	5,480	7,700
21	13,100	9,400	8,350	6,250	6,800	42,200	12,600	11,300	9,040	9,770	5,480	7,090
22	10,900	8,690	9,400	5,990	7,700	41,400	12,600	10,900	8,690	14,500	4,550	6,520
23	10,500	8,020	8,690	5,730	9,040	38,400	12,600	11,700	8,020	16,500	5,480	5,990
24	12,600	9,400	8,690	5,730	9,040	38,400	12,600	13,100	9,040	15,500	5,990	5,730
25	12,200	10,100	5,480	6,250	7,390	37,600	10,900	13,500	12,600	13,100	5,730	5,730
26	13,100	8,690	7,090	6,250	8,350	33,100	12,600	13,500	13,100	14,500	5,480	5,730
27	13,500	9,400	7,390	6,250	7,700	25,200	11,700	12,600	18,200	11,300	5,240	7,390
28	11,300	10,900	8,020	6,800	6,520	20,600	12,200	15,500	20,600	10,500	5,240	7,390
29	10,900	8,690	7,390	6,800	-------	17,000	12,600	20,000	17,600	11,300	4,550	7,390
30	12,200	9,770	6,800	6,800	-------	15,500	12,600	23,800	16,500	12,200	5,240	7,390
31	11,700	-------	10,100	6,520	-------	16,500	-------	18,200	-------	10,500	5,730	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	23,100	10,500	15,600	1.51	1.74
November	10,900	8,020	9,320	.905	1.01
December	10,900	5,480	9,020	.876	1.01
January	7,090	5,730	6,380	.619	.71
February	9,040	6,250	7,660	.744	.77
March	42,200	7,090	20,100	1.95	2.25
April	21,200	10,100	14,900	1.45	1.62
May	23,800	8,690	13,200	1.28	1.48
June	20,600	6,800	11,500	1.12	1.25
July	16,500	6,800	10,400	1.01	1.16
August	9,770	4,550	6,410	.622	1.72
September	9,770	4,120	6,360	.617	.69
The year	42,200	4,120	10,900	1.06	14.41

TOMAHAWK RIVER NEAR BRADLEY, WIS.

LOCATION.—Water-stage recorder in sec. 16, T. 36 N., R. 6 E., 2 miles west of Cassion, 4 miles north of Bradley, and 4 miles below mouth of Bearskin Creek.

DRAINAGE AREA.—422 square miles.

RECORDS AVAILABLE.—September, 1914, to September, 1927.

EXTREMES.—Maximum and minimum discharge during year not determined. 1914–1927: Maximum discharge, 2,200 second-feet April 24, 1916 (gage height, 6.9 feet); minimum occurred during 1927.

REMARKS.—Records fair; gage-height record fragmentary. Flow is regulated by several storage reservoirs above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				410			1,710	250			447	
2	650		700					220	800	320	421	540
3								220			421	
4		240			290	390		239			384	
5				280				244			372	
6							680	248		350	345	
7	755							246			280	
8											287	315
9			420						350		328	
10		440			400	145					308	
11	760						730	625			271	
12	760						780				271	
13	763			410			746				370	
14	763						604			1,270		
15	730		380				502		160			500
16	730				305	1,810	815					
17	746						815					
18	730	1,020					798				240	
19	730						763	350		886		
20	713			690			763			886		
21	713						746			886		
22	697						713			886		535
23	697		330				589			886		
24	666						544			886		
25	650	835			345	1,140	634		320	780	755	
26	634						460	120		730		
27	619			215			447			697		
28					390		408			619		655
29	560	700	410		-------		345			530		
30					-------	1,710	276	700		516	540	
31		-------		290	-------		-------		-------	516		-------

Month	Mean	Per square mile	Run-off in inches	Month	Mean	Per square mile	Run-off in inches
October	696	1.65	1.90	May	366	0.867	1.00
November	638	1.51	1.68	June	370	.877	.98
December	434	1.03	1.19	July	751	1.78	2.05
January	396	.938	1.08	August	434	1.03	1.19
February	339	.803	.84	September	496	1.18	1.32
March	995	2.36	2.72				
April	746	1.77	1.98	The year	557	1.32	17.93

PRAIRIE RIVER NEAR MERRILL, WIS.

LOCATION.—Chain gage on line between secs. 20 and 29, T. 32 N., R. 7 E., at highway bridge 4½ miles northeast of Merrill.
DRAINAGE AREA.—164 square miles.
RECORDS AVAILABLE.—January, 1914, to September, 1927.
EXTREMES.—Maximum discharge during year, 1,700 second-feet March 18 and 19 (gage height, 5.4 feet); minimum, 89 second-feet August 13 and 14 (gage height, 1.70 feet).
1914–1927: Maximum discharge, 3,580 second-feet August 21, 1926 (gage height, 7.4 feet); minimum (estimated), 55 second-feet January 21, 1925.
REMARKS.—Records good except those for period of ice effect, December 11 to February 20, which were estimated.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	207	182	130	135	148	342	182	170	126	122	97
2	207	182	170	135	135	142	325	170	170	115	118	97
3	234	170	170	135	135	137	293	170	159	112	110	94
4	248	170	182	135	135	137	278	170	159	118	102	94
5	248	159	182	135	135	137	342	159	159	159	99	94
6	248	148	194	135	130	137	342	159	159	159	94	97
7	263	148	182	130	130	148	325	159	148	159	94	102
8	263	148	170	120	130	148	309	159	133	159	99	102
9	263	148	159	120	125	159	309	234	137	182	102	105
10	263	159	159	120	120	207	263	263	159	234	102	108
11	263	159	150	120	115	325	248	431	148	376	99	105
12	263	159	150	125	110	342	234	394	133	431	94	105
13	278	170	150	130	110	431	234	376	122	509	89	102
14	278	234	150	135	110	863	234	359	112	509	89	101
15	278	325	150	130	115	1,010	234	293	112	469	92	99
16	278	325	150	130	120	1,110	234	263	108	509	94	97
17	278	431	150	130	120	1,350	263	207	105	550	94	97
18	325	394	150	135	120	1,700	278	194	112	509	99	94
19	309	309	145	135	115	1,700	293	194	129	450	99	92
20	293	309	135	135	116	863	278	194	137	394	97	92
21	309	278	135	130	118	635	278	194	770	359	94	97
22	309	234	135	125	124	550	263	234	960	309	102	97
23	293	220	135	130	129	431	248	248	960	293	112	94
24	293	207	135	130	144	359	234	263	816	263	108	94
25	293	182	130	130	159	325	234	293	469	248	108	92
26	278	170	130	125	154	234	207	263	431	248	108	94
27	293	159	130	130	148	293	207	263	576	234	105	97
28	278	170	130	135	148	278	207	234	434	220	105	102
29	263	170	130	135	------	278	207	207	293	194	102	133
30	263	170	125	135	------	278	207	207	170	137	101	137
31	234	------	130	135	------	263	------	182	------	126	97	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	325	207	271	1.65	1.90
November	431	148	214	1.30	1.45
December	194	125	151	.921	1.06
January	135	120	130	.793	.91
February	159	110	128	.780	.81
March	1,700	137	488	2.98	3.44
April	342	207	265	1.62	1.81
May	431	159	236	1.44	1.66
June	960	105	288	1.76	1.96
July	550	112	286	1.74	2.01
August	122	89	101	.616	.71
September	137	92	100	.610	.68
The year	1,700	89	222	1.35	18.40

RIB RIVER AT RIB FALLS, WIS.

LOCATION.—Chain gage in NW. ¼ sec. 27, T. 29 N., R. 5 E., at highway bridge in Rib Falls, 6 miles below mouth of Black Creek.

DRAINAGE AREA.—309 square miles.

RECORDS AVAILABLE.—May, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 5,730 second-feet March 14 and 17 (gage height, 7.6 feet); minimum, 25 second-feet August 12 (gage height, 1.68 feet).

1925–1927: Maximum discharge, about 12,500 second-feet August 21, 1926 (gage height, 10.10 feet); minimum, 10 second-feet February 25–27, 1926.

REMARKS.—Records good except those for period of ice effect, November 25 to March 8, which were estimated. Slight regulation caused by operation of small gristmill just above gage.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,060	206	160	120	85	75	422	178	135	66	62	35
2	1,260	178	130	130	65	85	885	124	104	27	55	40
3	829	135	120	120	65	85	720	118	94	94	52	291
4	1,340	178	130	120	65	85	1,000	146	94	55	49	94
5	1,060	140	105	85	65	85	1,500	124	81	55	46	94
6	829	178	130	85	65	120	1,680	124	73	52	46	55
7	615	291	105	75	55	195	1,340	108	73	73	43	73
8	445	565	105	65	55	310	942	108	62	62	46	94
9	400	540	120	75	50	516	565	377	73	135	43	94
10	615	355	130	85	55	1,420	422	774	422	146	46	516
11	516	312	130	75	55	1,880	377	885	271	94	37	206
12	615	251	130	65	65	1,980	377	615	165	94	25	135
13	516	251	120	65	55	5,080	146	400	118	1,880	37	94
14	492	312	180	75	55	5,730	291	355	104	667	37	73
15	468	2,420	130	75	55	5,080	333	291	86	333	37	62
16	400	1,880	145	85	55	4,870	400	251	73	312	37	55
17	377	1,120	130	75	65	5,730	422	206	66	2,300	40	46
18	333	774	130	95	65	5,290	377	172	73	1,190	55	62
19	333	565	130	75	55	4,470	291	135	108	422	43	59
20	377	516	130	75	50	3,740	271	140	94	291	40	59
21	377	251	130	75	55	1,680	185	146	333	232	40	55
22	422	232	145	75	65	565	99	146	400	377	43	55
23	516	213	130	85	65	565	232	232	829	165	40	52
24	445	213	130	105	65	540	271	377	468	146	40	46
25	377	195	130	85	65	492	291	291	291	135	40	46
26	333	195	145	75	55	132	251	333	178	52	37	55
27	291	180	130	65	65	377	271	291	165	55	37	59
28	271	180	130	75	65	377	185	196	104	73	40	62
29	251	160	145	85	-------	377	146	213	94	59	37	66
30	232	160	130	85	-------	377	118	165	73	59	37	445
31	232	-------	145	65	-------	829	-------	146	-------	62	37	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,340	232	536	1.73	1.99
November	2,420	135	438	1.42	1.58
December	180	105	132	.427	.49
January	130	65	83.7	.271	.31
February	85	50	60.7	.196	.20
March	5,730	75	1,710	5.53	6.38
April	1,680	99	494	1.60	1.78
May	885	108	263	.851	.98
June	829	62	177	.573	.64
July	2,300	27	315	1.02	1.18
August	62	25	42.1	.136	.16
September	516	35	106	.343	.37
The year	5,730	25	367	1.19	16.07

YELLOW RIVER AT SPRAGUE, WIS.

LOCATION.—Chain gage in NW. ¼ sec. 11, T. 19 N., R. 3 E., 1 mile southeast of Sprague and 10 miles above Necedah Dam.

DRAINAGE AREA.—436 square miles.

RECORDS AVAILABLE.—September, 1926, to September, 1927.

EXTREMES.—Maximum discharge during period, 2,020 second-feet March 15 (gage height, 12.2 feet); minimum, 44 second-feet several times during September, 1927 (gage height, 3.3 feet).

REMARKS.—Records good except those for period of ice effect, November 28 to February 22, and for extremely high stages, which are fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	460	206	205	a 95	75	386	1,010	a 206	460	180	168	46
2	-------	480	193	195	a 95	75	441	1,420	206	422	157	157	44
3	-------	a 716	180	180	90	75	422	a1,305	206	320	a 144	146	44
4	-------	952	168	180	90	80	422	1,190	193	261	a 130	126	a 44
5	-------	981	168	a 170	90	80	422	815	180	a 220	117	100	a 44
6	-------	1,160	168	155	90	a 80	a 451	692	168	180	108	92	44
7	-------	1,220	a 174	155	90	85	480	981	157	180	100	a 87	46
8	-------	1,070	180	145	90	90	581	1,100	a 182	168	92	82	46
9	-------	789	193	145	a 90	90	764	952	206	146	88	78	49
10	-------	a 706	180	145	90	90	952	a 726	352	146	a 85	78	54
11	-------	624	168	135	90	90	1,520	500	669	146	82	74	a 54
12	-------	520	157	a 135	90	90	1,990	404	868	a 266	78	71	54
13	-------	500	168	135	90	a 90	a1,935	336	1,040	386	82	65	52
14	-------	540	a 168	135	90	85	1,880	290	1,040	369	88	a 62	49
15	-------	560	168	125	85	85	2,020	261	a 770	261	88	59	49
16	-------	500	206	125	a 85	85	1,950	219	500	193	88	56	46
17	-------	a 434	422	125	80	80	1,720	a 233	386	157	a 174	56	44
18	-------	369	540	125	80	80	1,520	247	336	136	261	56	a 44
19	-------	320	560	a 125	80	75	1,420	290	261	a 184	480	54	44
20	-------	305	441	125	80	a 75	a1,355	290	219	233	602	54	44
21	815	305	a 405	125	80	75	1,290	275	193	320	520	a 55	46
22	669	305	369	125	80	a 115	1,010	261	a 213	460	352	56	46
23	716	320	336	125	a 80	157	764	247	233	692	369	54	46
24	981	a 344	305	135	80	180	624	a 233	352	1,010	a 424	52	44
25	1,100	369	a 290	a 130	80	233	581	219	500	1,160	480	52	a 48
26	a1,200	336	275	a 120	80	290	602	206	581	a 988	386	52	52
27	1,290	305	260	110	80	a 330	a 602	206	692	815	247	54	52
28	1,190	275	a 245	100	75	369	602	206	646	480	180	a 52	59
29	896	247	235	100	75	-------	669	206	a 597	320	206	49	59
30	624	233	220	100	a 75	-------	716	206	a 549	233	180	49	68
31	-------	a 220	-------	100	75	-------	841	-------	500	-------	a 174	49	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1926					
September 21–30	1,290	624	948	2.17	0.81
1926–27					
October	1,220	220	531	1.22	1.41
November	560	157	258	.592	.66
December	205	100	137	.314	.36
January	95	75	84.5	.194	.22
February	369	75	122	.280	.29
March	2,020	386	998	2.29	2.64
April	1,420	206	518	1.19	1.33
May	1,040	157	426	.977	1.13
June	1,160	136	377	.865	.97
July	602	78	217	.498	.57
August	168	49	74.0	.170	.20
September	68	44	48.7	.112	.12
The year	2,020	44	318	.729	9.90

a Interpolated.

KICKAPOO RIVER AT GAYS MILLS, WIS.

LOCATION.—Chain gage in sec. 28, T. 10 N., R. 4 W., at highway bridge just below dam and power plant of Interstate Power Co., in Gays Mills, 2 miles below mouth of Tainter Creek. Gage was moved to new bridge 30 feet downstream May 6, 1927.

DRAINAGE AREA.—629 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1927.

EXTREMES.—Maximum discharge during year, 2,620 second-feet May 11 (gage height, 9.25 feet); minimum (estimated), 149 second-feet December 7.

1913–1927: Maximum discharge, about 6,300 second-feet March 24, 1917 (gage height, 15.05 feet); minimum, about 100 second-feet during later part of January, 1915.

REMARKS.—Records poor. Discharge estimated or partly estimated because of obstructed channel conditions or ice October 1 to February 20. Flow is slightly regulated by operation of several small power plants upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	334	350	334	225	255	397	570	417	670	339	357	287
2	286	318	334	225	255	377	502	438	645	339	339	287
3	476	318	334	225	255	377	480	480	595	339	304	304
4	792	350	334	255	440	377	480	480	595	339	287	304
5	744	350	205	255	620	377	670	417	524	339	287	304
6	536	286	205	255	595	377	645	377	459	339	417	304
7	402	318	181	240	500	397	570	357	502	357	459	304
8	350	318	285	225	460	397	670	480	502	357	321	304
9	367	318	285	225	395	480	547	1,780	480	357	304	645
10	350	318	285	225	320	438	547	2,340	480	377	287	1,560
11	350	318	285	225	285	438	438	2,520	459	377	304	2,220
12	350	318	270	210	285	900	417	1,940	480	377	304	2,380
13	384	318	240	225	305	1,280	438	870	459	377	304	570
14	350	334	225	210	285	1,020	417	840	417	595	287	547
15	350	334	225	210	305	780	417	840	438	502	287	502
16	334	350	225	210	320	780	438	720	417	377	287	438
17	302	334	225	210	305	1,170	438	570	438	357	287	990
18	318	350	270	225	340	1,080	438	524	438	357	304	2,420
19	318	318	240	225	320	960	480	502	438	321	304	2,100
20	318	334	240	225	355	595	438	502	417	287	304	1,080
21	318	286	240	225	377	547	438	480	438	304	304	502
22	318	334	240	210	438	524	438	502	502	287	304	304
23	318	318	240	195	1,110	524	459	900	502	287	304	287
24	318	334	240	210	1,140	547	438	1,140	397	287	304	271
25	318	334	240	225	840	547	438	1,140	377	304	304	357
26	318	334	225	225	670	595	438	750	339	321	287	620
27	334	350	225	195	438	645	438	780	377	304	304	750
28	334	419	225	195	417	524	438	1,480	357	321	304	670
29	318	402	225	225	------	524	438	1,820	357	339	287	670
30	318	350	225	240	------	570	459	1,620	339	357	287	524
31	318	------	210	240	------	595	------	780	------	339	287	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	792	286	372	0.591	0.68
November	419	286	334	.531	.59
December	334	181	250	.397	.46
January	255	195	223	.355	.41
February	1,140	255	451	.717	.75
March	1,280	377	617	.981	1.13
April	670	417	482	.766	.85
May	2,520	357	929	1.48	1.71
June	670	339	461	.733	.82
July	595	287	350	.556	.64
August	459	287	310	.493	.57
September	2,420	271	760	1.21	1.35
The year	2,520	181	461	.733	9.96

TURKEY RIVER AT GARBER, IOWA

LOCATION.—Chain gage in sec. 36, T. 92 N., R. 4 W., at single-span highway bridge at Garber, 2,000 feet below mouth of Elk Creek.

DRAINAGE AREA.—1,530 square miles.

RECORDS AVAILABLE.—August, 1913, to November, 1916; May, 1919, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 11,400 second-feet October 3 (gage height, 15.35 feet); minimum, 154 second-feet September 23 and 24.

1913–1916, 1919–1927: Maximum discharge, about 26,600 second-feet February 23, 1922 (gage height, 28.06 feet); minimum, 88 second-feet September 5–7, 1922.

REMARKS.—Records fair. Observations discontinued during winter. Slight diurnal fluctuation caused by operation of electric-light plant and gristmill at Elkader.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,610	434	712		461	920	958	2,950	679	520	281
2	1,220	434	679		408	958	885	2,520	679	520	264
3	6,580	461	551		384	1,690	815	2,680	646	551	218
4	6,140	408	551		361	2,520	679	2,520	614	520	248
5	3,400	434	319		384	2,680	815	2,340	614	490	248
6	2,180	461	712		408	3,130	850	2,260	614	520	885
7	1,610	461	551		461	2,260	679	1,850	582	520	815
8	1,530	408	520		461	1,850	646	1,610	582	461	384
9	850	384	551		520	1,770	5,000	1,530	582	264	264
10	815	340	551		520	1,690	4,600	1,450	582	300	281
11	1,070	361	551		582	2,090	2,860	1,370	520	281	248
12	995	340	520		1,140	1,690	2,340	1,530	520	264	233
13	995	408	520		1,930	1,530	2,520	1,370	520	281	218
14	885	434			1,530	1,610	1,690	1,220	461	248	204
15	815	434			1,140	2,010	1,300	1,140	461	233	340
16	780	434			1,070	2,180	1,070	1,070	461	281	582
17	746	520			1,070	1,850	1,070	995	434	885	551
18	712	461			1,070	1,690	1,450	958	361	958	850
19	679	461			1,070	1,690	1,140	850	582	461	780
20	815	461		614	958	1,610	1,070	885	490	319	679
21	712	408		582	780	1,530	2,340	885	551	204	490
22	815	434		582	679	1,370	2,260	885	958	646	264
23	712	408		614	646	1,220	5,500	885	712	264	154
24	679	408		780	646	1,140	9,940	885	646	281	154
25	712	520		958	780	1,070	8,710	850	646	300	218
26	679	490		920	920	1,070	6,030	815	646	300	461
27	646	434		679	1,070	958	4,500	780	614	300	520
28	646	679		490	920	1,370	9,940	712	551	281	520
29	646	614			780	1,220	7,610	746	461	281	520
30	434	582			885	1,140	5,000	679	461	281	551
31	434				885		3,700		490	233	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,580	434	1,340	0.876	1.01
November	679	340	451	.295	.33
December 1–13	712	319	561	.367	.18
February 20–28	958	490	691	.452	.15
March	1,930	361	804	.525	.61
April	3,130	920	1,650	1.08	1.20
May	9,940	646	3,160	2.07	2.39
June	2,950	679	1,370	.895	1.00
July	958	361	572	.374	.43
August	958	204	395	.258	.30
September	885	154	414	.271	.30

MAQUOKETA RIVER BELOW NORTH FORK OF MAQUOKETA RIVER, NEAR MAQUOKETA, IOWA

LOCATION.—Water-stage recorder in SW. ¼ NE. ¼ sec. 17, T. 84 N., R. 3 E., 2 miles below North Fork of Maquoketa River, and 3 miles northeast of Maquoketa, Jackson County.

DRAINAGE AREA.—1,600 square miles.

RECORDS AVAILABLE.—September, 1913, to September, 1927.

EXTREMES.—Maximum discharge during year ending September 30, 1926, 8,190 second-feet September 21 (gage height, 12.8 feet); minimum, not determined, probably occurred during winter. Maximum discharge during year ending September 30, 1927, 12,900 second-feet May 24 (gage height, 15.9 feet); minimum, 309 second-feet December 31 (gage height, 1.74 feet).

1913–1927: Maximum discharge, 21,300 second-feet March 27, 1916 (gage height, 22.0 feet); minimum, 153 second-feet November 28, 1924 (gage height, 1.26 feet).

REMARKS.—Records good except those for periods of ice effect, which are fair, and those for other estimated periods, which are poor. Regulation due to operation of power plant 4 miles upstream causes large diurnal fluctuations.

Daily and monthly discharge, in second-feet, of Maquoketa River below North Fork of Maquoketa River, near Maquoketa, Iowa, 1925–1927

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1925-26												
1	2,430	573	523			[b] 6,930	632	906	586	528	3,290	573
2	1,260	703	633			[b] 2,750	574	725	573	650	2,020	678
3	1,870	552	646				747	860	533	1,010	1,340	[b] 1,120
4	2,070	638	703			[b] 1,300	541	593	557	1,270	1,170	[b] 1,190
5	1,420	659	1,120				870	618	551	1,100	1,020	[b] 1,070
6	1,220	659	883				1,270	634	469	920	862	[b] 1,120
7	1,020	747	552				1,650	575	461	804	758	[b] 1,020
8	860	616					2,640	617	448	812	605	[b] 2,440
9	792	594					2,950	566	440	656	848	[b] 4,340
10	556	638				[b] 800	1,750	624	445	565	825	[b] 2,540
11	725	703					1,380	570	519	527	929	[b] 1,680
12	544	810					1,220	546	1,790	482	834	[b] 1,630
13	594	1,120					1,170	699	1,620	551	722	[b] 1,320
14	638	860					1,050	830	2,020	527	901	[b] 1,140
15	573	814					1,000	633	2,310	490	730	[b] 1,420
16	594	725					952	612	1,770	449	814	[b] 1,320
17	[a] 560	659				[b] 700	929	519	1,370	440	588	[b] 1,470
18	531	703					883	527	1,050	442	571	[b] 1,270
19	489	681					883	497	1,000	452	518	[b] 3,240
20	531	620					976	534	703	440	728	[b] 5,410
21	460	616					952	499	[b] 792	404	2,860	[b] 7,180
22	489	616					929	510	[b] 703	420	1,720	[b] 3,420
23	460	531					929	523	[b] 616	430	1,400	[b] 2,220
24	514	523				[b] 900	929	448	[b] 659	442	1,320	[b] 4,450
25	456	535					1,460	1,190	[b] 531	398	[b] 1,140	4,490
26	616	556					1,840	1,170	[b] 616	450	[b] 952	4,100
27	591	594					1,580	1,070	510	456	[b] 747	2,340
28	681	424					1,320	906	476	426	[b] 725	1,880
29	552	354				814	1,170	759	559	542	616	1,630
30	531	428				794	1,000	582	503	1,320	616	1,420
31	527					560		573		3,010	594	

Daily and monthly discharge, in second-feet, of Maquoketa River below North Fork of Maquoketa River, near Maquoketa, Iowa, 1925–1927—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1926–27												
1	3,550	876	1,630	630	c 1,500	622	1,520	2,060	b 3,030		770	502
2	2,440	859	1,450	655	c 4,000	658	1,520	1,680	b 2,460		747	573
3	2,660	842	1,330	827	3,580	587	1,910	1,740	b 2,290		747	506
4	3,660	821	1,240	1,080	3,170	726	2,440	1,630	b 2,180		725	485
5	4,420	832	1,180	b 1,070	7,830	569	2,750	1,470	b 2,010		725	481
6	4,600	862	a 1,020	b 1,000	7,100	593	2,520	1,370	b 1,840		725	473
7	2,380	776	a 1,000	b 1,000	4,020	778	1,870	1,220	b 1,680		725	468
8	2,040	853	966	b 929	2,300	734	1,630	1,270	b 1,580		1,100	468
9	1,630	842	1,070	b 747	1,520	870	1,520	7,700	b 1,520		747	2,580
10	1,600	845	1,170	814	1,320	798	1,610	7,880	b 1,470		703	1,210
11	1,300	784	1,050	792		927	1,420	3,400	b 1,420		681	531
12	1,340	764	1,060	703		4,110	1,370	2,630	b 1,370		681	497
13	1,390	691			b 1,000	2,680	1,570	2,340	b 1,270		725	527
14	1,510	921		c 750		1,940	1,790	2,180	1,240		747	531
15	907	1,200				1,600	2,060	2,580	1,190		703	667
16	1,050	1,370	a 800		b 770	1,520	2,290	2,120	1,170		681	2,070
17	1,050	1,440		c 900	b 883	1,460	2,340	1,900	1,140		659	952
18	1,130	1,270			b 952	1,720	2,010	1,840	1,120		659	822
19	1,050	1,010		c 800		1,650	3,240	1,840	1,120		659	758
20	973	976			b 1,000	1,880	2,060	2,290	1,120		638	623
21	1,020	976	c 1,100			1,320	2,990	2,340	8,100		638	552
22	1,020	732	c 1,000		1,070	1,240	3,420	2,340	b 3,880		638	531
23	848	617	c 870	c 700	913	1,360	3,030	4,900	b 2,230		638	527
24	1,020	792	c 900		792	1,630	2,340	10,400	b 1,680	792	681	485
25	946	976			922	1,910	2,010	5,760	b 1,470	770	659	381
26	883	1,900			840	1,950	1,840	4,720	b 1,320	747	638	432
27	952	3,940		c 750	652	1,630	1,680	4,140	b 1,240	747	573	514
28	1,000	2,650	c 800		740	1,370	1,520	5,920	b 1,170	770	552	527
29	884	2,120		c 800		1,320	1,820	5,640	b 1,100	860	531	616
30	898	1,860		c 900		1,170	2,060	4,720	b 1,070	814	523	703
31	893		646	c 1,050		1,220		b 3,500		792	412	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
1925–26					
October	2,430	456	812	0.508	0.59
November	1,120	354	642	.401	.45
December 1–7	1,120	523	723	.452	.12
March	6,930	560	1,110	.694	.80
April	2,950	541	1,210	.756	.84
May	1,190	448	675	.422	.49
June	2,310	440	839	.524	.58
July	3,010	398	691	.432	.50
August	3,290	518	1,060	.662	.76
September	7,180	573	2,300	1.44	1.61
1926–27					
October	4,600	848	1,650	1.03	1.19
November	3,940	617	1,180	.738	.82
December	1,630	646	964	.602	.69
January	1,080	630	808	.505	.58
February	7,830	652	1,890	1.18	1.23
March	4,110	569	1,370	.856	.99
April	3,420	1,370	2,070	1.29	1.44
May	10,400	1,220	3,400	2.12	2.44
June	8,100	1,070	1,850	1.16	1.29
August	1,100	412	678	.424	.49
September	2,580	381	700	.438	.49

a Discharge estimated; gage-height record missing.
b Discharge estimated; based on one or two chain-gage readings daily.
c Discharge estimated because of ice effect.

ROCK RIVER AT AFTON, WIS.

LOCATION.—Chain gage on line between secs. 22 and 27, T. 2 N., R. 12 E., at highway bridge in Afton, three-fourths mile above mouth of Bass Creek.

DRAINAGE AREA.—3,190 square miles.

RECORDS AVAILABLE.—February, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 5,750 second-feet March 20 (gage height, 6.77 feet); minimum, 340 second-feet August 29 (gage height, 0.54 foot).

1914–1927: Maximum discharge, 12,700 second-feet March 26, 1918 (gage height, 10.51 feet); minimum, 274 second-feet December 9, 1922 (gage height, 0.08 foot).

REMARKS.—Records good except those for period of ice effect, December 6–11, 14–22, 24, December 26 to January 1, and January 11 to February 3, which are fair. Slight diurnal fluctuation caused by operation of power plants at Janesville.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,180	1,100	2,710	1,420	825	2,890	5,330	2,990	4,800	1,700	1,040	683
2	2,260	1,160	2,710	1,420	985	2,710	4,930	2,990	5,190	1,630	1,100	639
3	2,100	1,100	2,710	1,630	1,700	2,710	4,540	2,890	5,330	1,490	1,100	639
4	2,020	1,100	2,710	1,700	3,190	2,620	4,540	2,710	5,610	1,350	983	683
5	2,020	928	1,560	1,630	4,670	2,530	4,300	2,710	5,470	1,350	983	557
6	2,100	983	1,700	1,490	3,390	2,620	4,060	2,710	5,330	1,280	928	557
7	2,180	1,040	1,860	1,490	3,090	2,710	4,300	2,620	5,060	875	928	775
8	2,180	1,100	2,020	1,490	3,190	2,890	4,060	2,530	4,800	824	928	683
9	2,100	1,420	2,100	1,420	2,990	2,710	3,830	2,620	4,540	775	928	639
10	2,020	1,160	2,180	1,220	3,090	2,990	3,720	2,350	4,300	775	875	728
11	2,100	1,040	2,260	1,220	3,090	3,090	3,500	2,530	4,180	775	824	728
12	1,940	983	2,350	1,160	3,190	3,610	3,290	2,620	3,940	824	875	639
13	1,860	1,100	2,440	1,100	3,290	4,060	3,610	2,620	3,720	824	875	683
14	1,780	1,220	2,440	1,100	3,290	4,180	3,290	2,710	3,390	875	824	683
15	1,700	1,280	2,530	1,040	3,090	4,420	2,990	2,710	3,190	875	824	683
16	1,560	1,280	2,530	985	2,990	4,540	2,710	2,800	2,990	875	824	683
17	1,560	1,350	2,530	930	2,990	4,800	2,530	2,710	2,800	824	775	639
18	1,420	1,940	2,530	985	2,800	5,060	2,530	2,710	2,530	928	824	683
19	1,040	2,260	2,530	930	2,620	5,330	2,710	2,710	2,350	1,040	775	597
20	983	2,100	2,620	930	2,530	5,610	2,800	2,530	2,180	983	728	775
21	983	1,940	2,620	930	2,440	5,190	3,090	2,440	2,530	1,100	683	683
22	875	2,100	2,620	930	2,350	5,060	2,990	2,180	2,710	1,100	557	728
23	875	1,940	2,620	875	2,440	5,060	2,990	2,350	2,440	1,040	639	728
24	983	1,940	2,100	825	2,440	5,060	2,890	2,530	2,350	1,040	639	683
25	983	1,860	1,490	930	2,530	4,930	2,990	2,440	2,180	1,100	639	683
26	1,040	2,260	1,490	875	2,620	5,060	3,090	2,530	2,180	1,040	557	728
27	928	2,180	1,490	825	2,620	5,060	3,190	2,800	2,180	1,160	518	1,040
28	875	2,100	1,490	775	2,710	5,060	3,190	3,720	2,020	1,100	557	928
29	928	2,350	1,490	825	-------	4,930	3,290	4,930	1,940	1,100	597	928
30	928	2,530	1,490	730	-------	4,930	3,290	4,300	1,860	1,110	728	983
31	983	-------	1,490	730	-------	4,800	-------	4,540	-------	1,040	683	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,260	875	1,530	0.480	0.55
November	2,530	928	1,560	.489	.55
December	2,710	1,490	2,170	.680	.78
January	1,700	730	1,110	.348	.40
February	4,670	825	2,760	.865	.90
March	5,610	2,530	4,100	1.29	1.49
April	5,330	2,530	3,490	1.09	1.22
May	4,930	2,180	2,860	.897	1.03
June	5,610	1,860	3,470	1.09	1.22
July	1,700	775	1,060	.332	.38
August	1,100	518	798	.250	.29
September	1,040	557	716	.224	.25
The year	5,610	518	2,130	.668	9.06

ROCK RIVER AT LYNDON, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 21, T. 20 N., R. 5 E., at highway bridge in Lyndon, 14 miles above Rock Creek.

DRAINAGE AREA.—9,010 square miles.

RECORDS AVAILABLE.—November, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 31,400 second-feet February 7 (gage height, 15.07 feet); minimum, 2,110 second-feet September 2, 3, 8, and 9 (gage height, 5.15 feet).

1914–1927: Maximum discharge, 39,500 second-feet March 28, 1916; maximum gage height, 19.6 feet February 16, 1918, caused by backwater from ice; minimum discharge, 655 second-feet September 27, 1918 (gage height, 3.72 feet).

REMARKS.—Records good except those for estimated periods and for period of ice effect, December 15 to February 5, which are poor. About 100 second-feet is diverted at Sterling Dam to feed Illinois and Mississippi Canal. Flow is regulated by power plants at Sterling and above.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,950	3,080	10,800	8,200	7,950	7,450	11,400	13,300	16,600	5,750	3,260	2,420
2	6,950	3,640	11,900	8,200	8,980	4,230	11,400	15,400	17,200	5,070	3,260	2,260
3	14,500	3,640	[a]11,600	7,950	12,200	4,640	11,700	12,800	19,100	4,850	3,080	2,110
4	14,800	3,640	[a]11,400	7,700	16,200	5,750	11,400	11,400	19,700	5,070	2,910	2,420
5	14,500	3,640	11,100	7,200	25,400	6,470	12,800	10,600	19,400	4,640	2,910	2,420
6	14,500	3,830	8,720	6,710	26,200	5,520	13,600	10,000	18,400	4,430	2,910	2,420
7	13,600	3,830	7,950	5,990	31,000	5,520	13,300	9,500	17,800	4,030	2,740	2,260
8		3,830	7,450	5,520	27,800	5,750	12,800	9,500	17,800	4,230	2,580	2,420
9		3,830	8,200	5,290	26,600	5,750	11,400	10,000	16,200	3,450	2,740	2,420
10		3,830	7,950	5,070	20,100	6,230	10,000	11,100	14,200	3,260	2,910	2,580
11		3,640	7,700	5,070	15,600	8,720	10,300	10,800	13,100	3,080	2,910	2,580
12		4,430	7,700	5,070	15,400	10,600	9,500	10,800	10,300	3,450	2,740	2,420
13	[a]7,000	4,640	7,700	5,070	15,400	11,900	9,240	10,800	9,240	3,830	3,080	3,830
14		5,070	7,700	5,070	14,500	13,600	8,980	10,800	8,980	3,450	3,260	4,640
15		8,980	7,450	5,070	13,300	13,600	8,720	11,100	8,460	3,640	2,740	4,640
16		13,900	8,460	5,070		12,500	8,980	10,800	7,450	3,830	3,080	4,850
17		14,500	10,000	5,070		13,100	9,500	10,300	6,950	3,450	2,740	4,230
18		13,900	12,500	5,290		12,500	10,300	9,500	6,470	3,640	2,910	4,230
19	5,520	12,500	16,900	5,990		12,500	11,900	9,770	[a]6,550	3,640	2,420	4,030
20	5,070	11,400	15,100	5,990		12,200	13,100	8,980	[a]6,630	3,260	2,420	4,030
21	5,070	11,100	13,900	5,990	[a]8,750	12,500	14,800	9,240	6,710	[a]3,260	2,420	4,230
22	4,640	11,100	13,100	5,750		11,700	16,600	9,770	7,200	3,260	2,420	4,230
23	4,640	9,500	12,200	5,520		11,400	16,600	11,900	8,460	3,450	2,580	4,230
24	4,640	6,470	11,700	5,520		11,700	13,900	21,800	10,600	3,640	2,260	4,230
25	4,230	7,700	10,800	5,520		11,400	14,200	31,000	8,460	3,260	2,260	4,030
26	4,230	8,460	10,000	5,290		11,700	14,200	29,800	7,200	3,640	2,580	3,830
27	4,230	9,770	9,500	5,070		11,400	13,900	27,000	5,990	3,450	2,260	3,640
28	4,230	10,000	8,200	5,070	6,950	11,700	10,600	26,200	5,990	3,450	2,420	3,450
29	4,230	10,800	7,450	5,070	-------	10,800	11,400	23,800	5,990	3,260	2,260	3,830
30	3,640	10,800	7,950	5,520	-------	11,100	12,200	20,100	5,870	3,260	2,580	4,030
31	3,260	-------	8,200	6,710	-------	11,700	-------	19,400	-------	3,260	2,420	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,800	3,260	7,110	0.789	0.91
November	14,500	3,080	7,520	.835	.93
December	16,900	7,450	10,000	1.11	1.28
January	8,200	5,070	5,860	.650	.75
February	31,000	6,950	13,900	1.54	1.60
March	13,600	4,230	9,860	1.09	1.26
April	16,600	8,720	12,000	1.33	1.48
May	31,000	8,980	14,400	1.60	1.84
June	19,700	5,870	11,100	1.23	1.37
July	5,750	3,080	3,780	.420	.48
August	3,260	2,260	2,710	.301	.35
September	4,850	2,110	3,430	.381	.43
The year	31,000	2,110	8,430	.936	12.86

[a] Estimated.

WHITEWATER CREEK NEAR WHITEWATER, WIS.

LOCATION.—Staff gage in NW. ¼ sec. 26, T. 4 N., R. 15 E., at highway culvert 3,000 feet below Whitewater Lake and 4 miles south of Whitewater.

DRAINAGE AREA.—5.8 square miles.

RECORDS AVAILABLE.—March, 1926, to September, 1927.

EXTREMES.—Maximum discharge during year, 24.8 second-feet May 28 (gage height, 1.99 feet); minimum, 0.3 second-foot many times during August and September, caused by closure of dam upstream (gage height, 0.45 foot). 1926–27: Maximum and minimum discharge, same as for 1927.

REMARKS.—Records good. Flow reduced by closure of dam at outlet of Whitewater Lake in effort to raise level of lake.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.9	4.6	8.1	4.7	6.6	5.1	6.9	6.3	15.8	5.4	1.2	0.3
2	14.8	4.6	6.6	4.5	6.1	5.0	7.2	6.6	13.8	5.2	1.2	.3
3	14.8	4.7	6.1	4.5	11.9	4.7	7.4	6.6	11.9	5.3	1.1	.3
4	14.8	4.7	5.0	4.5	7.6	4.7	7.5	5.8	11.9	5.3	1.1	.3
5	13.8	5.2	7.2	4.6	16.8	4.6	7.8	5.5	10.1	5.4	1.1	.3
6	11.0	5.2	6.2	4.5	17.9	5.5	6.9	5.2	9.4	5.5	.8	.4
7	10.1	5.2	6.5	4.5	14.8	7.2	6.5	5.2	8.7	5.5	.9	.4
8	9.1	5.5	6.3	4.2	12.8	6.8	5.8	5.5	8.1	5.6	.8	.5
9	7.8	7.5	6.1	4.2	9.4	6.3	5.8	10.1	7.5	5.5	.5	.5
10	6.9	6.2	5.8	4.3	8.4	6.9	5.5	9.4	7.2	5.5	.5	.4
11	6.6	6.3	5.8	4.3	7.8	6.9	5.5	8.1	6.9	6.1	.5	.4
12	6.6	6.6	6.1	4.3	6.6	13.8	5.2	7.5	6.6	6.3	.4	.4
13	6.3	7.5	9.4	4.5	6.1	12.8	5.5	7.2	6.3	6.3	.4	.4
14	5.9	11.9	5.5	5.0	6.6	11.9	5.8	7.2	6.1	6.3	.4	.4
15	5.8	12.8	5.2	5.0	5.8	10.1	7.2	6.6	5.8	6.1	.3	.4
16	5.5	11.0	4.7	5.0	7.8	9.4	7.2	6.3	5.8	6.1	.3	.4
17	5.2	10.1	4.7	5.0	8.1	8.7	7.2	6.1	5.8	6.3	.3	.5
18	5.1	10.1	4.7	5.0	8.1	7.8	6.6	7.5	5.8	6.1	.3	.6
19	5.0	9.1	4.7	5.0	6.3	7.2	15.8	7.2	6.1	5.8	.3	.5
20	5.2	8.4	5.8	4.8	5.8	7.2	13.8	8.1	7.2	5.8	.3	.5
21	5.2	7.4	5.5	5.0	5.8	7.4	13.8	8.2	8.4	8.4	.3	.5
22	5.0	6.2	5.0	5.0	7.6	7.8	12.8	8.1	8.1	9.8	.4	.5
23	4.8	6.1	5.0	5.0	8.1	8.4	10.1	11.9	7.8	9.6	.3	.5
24	4.7	5.8	5.2	5.0	7.8	8.1	9.1	11.9	7.2	7.5	.3	.4
25	4.7	6.1	5.1	5.0	6.9	8.6	8.4	10.1	6.9	2.6	.3	.5
26	4.7	12.8	5.0	5.1	6.3	9.4	8.1	8.4	6.3	1.8	.3	1.3
27	4.7	11.9	4.7	5.2	5.8	8.7	7.5	7.8	6.1	2.0	.3	1.0
28	4.6	10.1	4.7	5.0	5.5	8.0	6.9	24.8	5.8	2.6	.3	1.5
29	4.6	9.1	5.0	5.2	-------	7.5	7.2	22.4	5.5	1.5	.3	1.5
30	4.6	8.1	4.8	5.5	-------	7.5	6.9	22.4	5.5	1.3	.3	.8
31	4.6	-------	4.7	5.0	-------	6.9	-------	21.2	-------	1.2	.3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	17.9	4.6	7.43	1.28	1.48
November	12.8	4.6	7.69	1.33	1.48
December	9.4	4.7	5.65	.974	1.12
January	5.5	4.2	4.79	.826	.95
February	17.9	5.5	8.40	1.45	1.51
March	13.8	4.6	7.77	1.34	1.54
April	15.8	5.2	7.93	1.37	1.53
May	24.8	5.2	9.52	1.64	1.89
June	15.8	5.5	7.81	1.35	1.51
July	9.8	1.2	5.28	.910	1.05
August	1.2	.3	.519	.089	.10
September	1.5	.3	.557	.096	.11
The year	24.8	.3	6.10	1.05	14.27

WHITEWATER CREEK AT WHITEWATER, WIS.

LOCATION.—Staff gage in SW. ¼ sec. 10, T. 4 N., R. 15 E., at highway bridge 1 mile southeast of Whitewater.

DRAINAGE AREA.—16.8 square miles.

RECORDS AVAILABLE.—June, 1926, to September, 1927.

EXTREMES.—Maximum discharge during year, about 330 second-feet May 28 (gage height, 4.20 feet); minimum, 10 second-feet December 20–29 and September 1–17.

1926–27: Maximum and minimum discharge, same as for 1927.

REMARKS.—Records good except those for period of ice effect, December 13 to January 31, which were estimated.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	16	28	13	18	22	33	22	82	15	11	10
2	140	16	22	13	22	22	29	22	49	14	11	10
3	62	16	22	13	27	21	29	20	40	14	11	10
4	52	16	20	13	43	15	29	19	38	14	11	10
5	58	16	32	13	164	15	31	18	31	14	11	10
6	46	16	29	13	146	15	26	18	29	14	11	10
7	36	16	27	12	62	18	26	18	26	14	11	10
8	29	16	23	12	49	21	24	18	23	14	11	10
9	25	28	19	12	49	21	20	43	22	14	11	10
10	22	28	18	12	46	22	19	38	20	14	11	10
11	21	24	18	12	33	24	18	38	19	14	11	10
12	20	18	19	12	22	112	17	26	18	14	11	10
13	22	22	18	12	19	87	16	23	16	14	11	10
14	20	43	16	12	20	62	16	27	16	14	11	10
15	18	82	16	12	23	43	16	23	16	14	11	10
16	18	55	16	12	38	38	32	22	16	14	11	10
17	17	36	14	12	33	38	25	21	16	14	11	10
18	17	31	13	12	33	33	22	21	16	14	11	14
19	17	31	12	12	20	30	58	21	16	14	11	12
20	18	28	10	12	20	26	55	19	16	14	11	11
21	17	26	10	12	20	26	66	30	22	17	11	11
22	17	30	10	12	20	26	55	28	21	22	11	11
23	16	24	10	12	26	40	40	40	20	18	11	11
24	17	20	10	12	24	36	32	55	18	18	11	11
25	16	20	10	12	24	31	28	43	18	17	11	11
26	16	55	10	12	22	36	28	40	18	12	11	11
27	16	107	10	12	28	33	28	29	17	12	11	12
28	16	38	10	13	21	28	27	330	15	12	11	14
29	16	38	10	14	------	26	28	202	15	12	11	12
30	16	28	12	16	------	26	27	118	15	12	11	11
31	15	------	12	18	------	26	------	82	------	11	11	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	140	15	29.0	1.73	1.99
November	107	16	31.3	1.86	2.08
December	32	10	16.3	.970	1.12
January	18	12	12.6	.750	.86
February	164	18	38.3	2.28	2.37
March	112	15	32.9	1.96	2.26
April	66	16	30.0	1.79	2.00
May	330	18	47.5	2.83	3.26
June	82	15	23.5	1.40	1.56
July	22	11	14.3	.851	.98
August	11	11	11.0	.655	.76
September	14	10	10.7	.637	.71
The year	330	10	24.7	1.47	19.95

PECATONICA RIVER AT FREEPORT, ILL.

LOCATION.—Chain gage in NW. ¼ sec. 32, T. 27 N., R. 8 E., at Hancock Avenue highway bridge in Freeport, 2 miles above mouth of Yellow Creek. Zero of gage is 739.52 feet above mean sea level.

DRAINAGE AREA.—1,330 square miles.

RECORDS AVAILABLE.—September, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 4,400 second-feet February 5; maximum gage height, 16.74 feet February 9, caused by backwater from ice; minimum discharge, 434 second-feet November 7 and 8 (gage height, 4.54 feet).

1914–1927: Maximum discharge, 17,000 second-feet March 28, 1916 (gage height, 19.4 feet); minimum discharge, 200 second-feet December 14, 1917.

REMARKS.—Records fair except those for December 14–18, January 14–31, and February 6–12, which are poor. Slight diurnal fluctuation caused by operation of power plant three-fourths mile above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,180	690	1,680	765	990	690	990	2,000	3,720	940	645	545
2	3,370	690	1,310	790	2,210	715	1,040	1,650	3,320	915	645	525
3	3,870	469	1,190	790	3,070	605	1,620	1,370	2,660	865	645	525
4	3,650	487	1,100	890	3,420	665	1,790	1,280	2,350	865	645	525
5	3,170	469	1,040	1,100	4,060	740	1,650	1,250	2,210	840	645	506
6	2,860	451	990	1,280	3,790	765	1,460	1,160	1,960	840	625	506
7	2,320	451	965	1,040	3,650	715	1,340	1,100	1,820	865	625	525
8	1,520	451	940	1,020	3,590	1,070	1,160	1,130	1,650	865	665	525
9	1,020	469	1,130	890	3,590	1,400	1,190	1,460	1,580	815	625	840
10	915	545	1,190	790	3,470	1,250	1,190	2,660	1,520	815	605	2,280
11	990	765	1,130	740	3,170	1,130	1,160	2,940	1,460	815	605	2,540
12	940	715	990	715	2,660	2,100	1,130	3,020	1,400	840	690	3,020
13	815	715	940	665	1,520	2,940	1,250	2,540	1,340	815	625	3,070
14	740	740	940	665	1,190	2,500	1,280	1,860	1,190	815	625	3,170
15	765	940	940	665	1,250	2,210	1,340	1,680	1,040	815	605	2,540
16	790	965	965	665	1,340	1,650	1,310	1,620	1,040	840	585	1,400
17	840	990	990	690	1,220	1,280	1,280	1,460	1,040	840	585	1,280
18	840	915	1,020	690	1,130	1,190	1,220	1,790	1,160	790	585	1,650
19	815	865	1,070	690	1,020	1,100	1,370	1,550	1,130	765	605	2,620
20	815	865	1,160	690	1,020	1,020	1,900	1,460	1,100	740	605	2,900
21	790	815	1,070	690	1,100	965	1,820	1,720	1,580	740	605	2,210
22	765	740	990	690	1,580	1,040	1,900	1,790	2,210	715	565	1,280
23	790	715	965	690	1,620	1,190	1,960	2,280	2,070	740	585	940
24	765	690	915	690	1,550	1,460	1,900	3,070	1,580	740	625	840
25	740	865	890	690	1,370	1,550	1,680	3,320	1,310	715	585	790
26	740	1,070	865	690	1,130	1,550	1,490	3,170	1,130	715	565	790
27	740	1,790	840	665	990	1,550	1,370	3,020	1,040	690	525	965
28	715	2,240	790	665	765	1,400	1,310	3,370	1,020	665	545	1,340
29	690	2,420	765	690	-------	1,250	2,040	3,790	990	665	525	1,580
30	690	2,280	740	765	-------	1,160	2,420	3,870	965	645	525	1,650
31	690	-------	765	815	-------	1,020	-------	3,870	-------	645	545	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,870	690	1,330	1.00	1.15
November	2,420	451	909	.683	.76
December	1,680	740	1,010	.759	.88
January	1,280	665	773	.581	.67
February	4,060	765	2,050	1.54	1.60
March	2,940	605	1,290	.970	1.12
April	2,420	990	1,490	1.12	1.25
May	3,870	1,100	2,200	1.65	1.90
June	3,720	965	1,620	1.22	1.36
July	940	645	786	.591	.68
August	690	525	603	.453	.52
September	3,170	506	1,460	1.10	1.23
The year	4,060	451	1,290	.970	13.12

SUGAR RIVER NEAR BRODHEAD, WIS.

LOCATION.—Chain gage in sec. 26, T. 2 N., R. 9 E., at highway bridge 2 miles southwest of Brodhead. Jordan Creek enters 2 miles below station.

DRAINAGE AREA.—529 square miles.

RECORDS AVAILABLE.—February, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 4,440 second-feet February 6 (gage height, 7.6 feet); minimum, 86 second-feet September 4 (gage height, 0.78 foot).

1914–1927: Maximum discharge, about 13,000 second-feet September 13, 1915 (gage height, 11.4 feet); minimum, about 47 second-feet August 26, 1923.

REMARKS.—Records good except those for period of ice effect, December 6 to February 4, which are poor. Flow is subject to slight diurnal fluctuation caused by operation of power plant in Brodhead.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	490	198	682	185	310	341	431	470	1,020	292	248	187
2	1,120	235	394	165	360	308	470	394	637	235	210	187
3	970	210	394	310	595	324	412	376	593	198	210	187
4	1,170	210	308	200	1,630	324	510	394	637	235	187	103
5	1,020	187	165	220	3,790	324	510	308	551	235	187	176
6	551	222	200	210	4,080	277	450	358	551	277	198	187
7	431	165	210	175	2,760	308	470	341	470	262	143	165
8	292	235	210	165	2,180	551	412	262	431	248	210	187
9	277	187	200	210	1,450	551	358	431	394	248	198	358
10	198	176	185	260	970	470	292	823	376	187	210	412
11	248	187	200	185	728	341	358	1,450	341	292	176	431
12	262	187	155	200	510	728	324	920	292	308	165	450
13	262	210	250	275	412	871	376	728	341	235	165	358
14	222	222	235	210	358	1,020	431	510	324	262	165	235
15	248	376	210	210	358	728	394	470	308	262	187	154
16	235	450	235	135	341	637	470	431	277	292	187	165
17	210	510	210	165	341	510	394	394	292	187	187	210
18	248	308	185	210	394	470	394	394	341	262	176	470
19	210	308	175	115	341	470	470	412	308	248	176	470
20	210	308	210	145	277	376	510	394	292	248	187	376
21	198	187	275	165	324	1,330	593	431	775	262	176	235
22	210	248	185	155	1,390	470	682	470	920	324	222	235
23	262	248	220	90	593	450	682	593	728	262	210	198
24	187	262	210	165	637	450	431	775	510	198	210	210
25	235	235	185	135	551	530	470	970	431	277	143	176
26	235	431	185	155	431	551	470	775	324	222	176	324
27	235	198	220	165	394	450	394	637	292	210	154	551
28	248	728	210	185	394	431	412	1,070	277	198	143	450
29	235	871	185	210	------	431	450	1,510	277	222	210	551
30	235	682	200	135	------	431	470	2,050	292	248	143	551
31	176	------	165	260	------	431	------	1,390	------	222	165	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,170	176	365	0.690	0.80
November	871	165	306	.578	.64
December	682	155	234	.442	.51
January	310	90	186	.352	.41
February	4,080	277	961	1.82	1.90
March	1,330	277	512	.968	1.12
April	682	292	450	.851	.95
May	2,050	262	675	1.28	1.48
June	1,020	277	453	.856	.96
July	324	187	247	.467	.54
August	248	143	185	.350	.40
September	551	103	298	.563	.63
The year	4,080	90	402	.760	10.34

SOUTH BRANCH OF KISHWAUKEE RIVER AT DE KALB, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 22, T. 40 N., R. 4 E., at Lincoln Highway bridge in De Kalb.

DRAINAGE AREA.—70 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 907 second-feet May 25 (gage height, 8.63 feet); minimum, 0.2 second-foot several days during August and September.

1925–1927: Maximum discharge, that of May 25, 1927; minimum, 0.1 second-foot several days during September and October, 1925.

REMARKS.—Records good except those for period of ice effect, December 15 to February 4, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	221	28	160	14	108	38	108	210	151	15	1.4	0.2
2	255	28	133	14	221	48	160	170	133	18	1.4	.2
3	279	27	124	16	328	38	142	133	116	11	1.2	.2
4	328	27	100	21	291	25	142	108	267	11	1.0	.2
5	380	25	93	24	568	36	170	93	180	9.8	.8	.2
6	267	25	79	23	436	24	133	82	142	9.0	.6	1.2
7	221	24	82	16	232	22	108	72	108	18	3.8	1.0
8	180	24	72	13	170	23	93	69	93	9.8	3.8	.7
9	160	42	69	13	124	23	100	116	79	9.8	3.8	.5
10	133	38	69	14	116	23	82	210	66	7.4	3.8	.3
11	116	34	69	12	116	24	69	170	60	8.2	2.7	.5
12	108	32	72	13	66	267	66	124	54	8.6	1.7	.3
13	100	42	100	14	63	243	72	108	45	5.7	1.7	.3
14	90	523	116	13	93	190	66	93	42	5.1	1.7	.3
15	79	628	54	12	45	170	72	82	37	7.0	1.5	5.7
16	79	508	38	12	90	151	210	72	35	7.0	1.2	.7
17	72	394	36	12	100	133	180	63	32	7.4	1.0	.5
18	63	341	25	14	76	116	303	69	29	6.0	1.2	1.4
19	54	291	28	8.2	72	100	450	72	28	4.8	.7	.3
20	57	255	30	5.7	69	116	464	66	26	4.3	.6	.2
21	54	221	28	5.7	45	133	341	63	133	3.5	.6	1.0
22	51	200	29	5.7	37	124	267	63	100	2.7	.2	.7
23	45	170	32	7.4	32	124	210	100	79	2.7	.3	.6
24	48	160	39	9.4	33	133	190	756	60	2.7	.2	.3
25	42	151	42	9.4	42	124	160	805	45	2.7	.2	.3
26	40	291	24	10	42	142	142	538	36	2.7	.2	1.4
27	38	279	19	13	45	116	116	354	32	2.7	.2	.4
28	34	232	17	11	36	100	100	315	26	2.3	.2	3.0
29	33	210	8.6	30	-------	86	367	255	22	1.9	.2	26
30	31	180	14	48	-------	82	303	210	21	1.5	.2	9.4
31	29	-------	14	79	-------	69	-------	190	-------	1.4	.2	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	380	29	119	1.70	1.96
November	628	24	181	2.59	2.89
December	160	8.6	58.6	.837	.96
January	79	5.7	16.5	.236	.27
February	568	32	132	1.89	1.97
March	267	22	98.2	1.40	1.61
April	464	66	180	2.57	2.87
May	805	63	188	2.69	3.10
June	267	21	75.9	1.08	1.20
July	18	1.4	6.76	.097	.11
August	3.8	.2	1.24	.018	.02
September	26	.2	1.93	.028	.03
The year	805	.2	87.6	1.25	16.99

IOWA RIVER AT MARSHALLTOWN, IOWA

LOCATION.—Chain gage in sec. 23, T. 84 N., R. 18 W., at Third Avenue Bridge, 1 mile north of Marshalltown. Asher Creek, 1 mile above station, and Burnett Creek, 1 mile below, enter from left.

DRAINAGE AREA.—1,380 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1927. Discontinued. February to August, 1903, at old dam site 1 mile above present station.

EXTREMES.—Maximum discharge during year, 7,120 second-feet June 9 (gage height, 12.7 feet); minimum, 132 second-feet August 6 (gage height, 1.96 feet).

1915–1927: Maximum discharge, 42,000 second-feet June 4, 1918 (gage height, 17.74 feet); minimum, about 2 second-feet November 24, 1917.

REMARKS.—Records fair. Observations discontinued during winter. Slight diurnal fluctuation caused by operation of power plant at Eldora.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	505	435	------	465	735	412	2,040	575	575	198
2	1,580	505	400	------	412	990	465	1,980	535	360	185
3	1,640	470	470	------	385	1,080	575	1,620	500	198	156
4	2,180	418	470	------	395	1,480	655	1,580	500	185	185
5	2,690	1,640	470	------	412	1,530	695	1,530	465	152	198
6	2,540	330	470	------	535	1,580	655	1,480	430	134	210
7	1,980	300	400	------	615	1,620	500	1,440	395	156	235
8	1,400	270	365	------	575	1,660	855	1,120	378	185	250
9	705	285	330	------	775	1,660	1,300	5,230	360	198	280
10	545	300	330	310	735	1,710	1,400	3,600	342	198	310
11	545	300	348	3,300	775	1,660	1,440	1,480	310	210	325
12	505	315	400	5,350	855	1,530	1,480	1,440	295	222	360
13	190	315	382	4,680	430	1,530	1,480	1,400	280	250	395
14	178	330	365	3,660	412	1,530	1,440	1,260	265	280	412
15	330	348	348	3,050	395	1,620	1,440	1,220	235	295	465
16	545	365	------	2,380	448	1,480	1,300	1,170	222	325	535
17	505	382	------	2,080	615	1,980	1,220	1,120	235	342	575
18	505	400	------	1,530	655	1,980	990	775	265	360	575
19	505	470	------	815	575	1,980	900	735	280	412	615
20	505	545	------	775	575	1,760	1,350	735	295	500	655
21	545	625	------	655	575	1,620	2,900	695	310	500	655
22	545	665	------	575	535	1,580	2,800	655	325	500	695
23	470	705	------	500	575	1,350	2,690	655	360	448	735
24	382	745	------	575	575	1,260	2,540	615	360	448	775
25	348	745	------	735	575	1,170	2,480	615	378	535	735
26	348	785	------	735	535	1,120	2,480	615	395	575	735
27	365	865	------	695	615	1,040	2,140	655	412	615	695
28	400	825	------	575	655	945	2,040	655	430	615	655
29	470	705	------	------	655	775	1,980	615	448	615	655
30	505	665	------	------	655	615	1,980	575	535	575	615
31	545	------	------	------	695	------	1,980	------	575	575	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,690	178	841	0.609	0.70
November	1,640	270	537	.389	.43
December 1-15	470	330	399	.289	.16
February 10-28	5,350	310	1,740	1.26	.89
March	855	395	571	.414	.48
April	1,980	615	1,420	1.03	1.15
May	2,900	412	1,500	1.09	1.26
June	5,230	575	1,310	.949	1.06
July	575	222	377	.273	.31
August	615	134	372	.270	.31
September	775	156	469	.340	.38

IOWA RIVER AT IOWA CITY, IOWA

LOCATION.—Water-stage recorder in sec. 15, T. 79 N., R. 6 W., 100 feet below Iowa State University hydraulic laboratory.

DRAINAGE AREA.—3,140 square miles.

RECORDS AVAILABLE.—November, 1921, to September, 1927. June, 1903, to July, 1906, at highway bridge 200 feet above present site; October, 1913, to November, 1921, at highway bridge 500 feet below Chicago, Rock Island & Pacific Railway bridge.

EXTREMES.—Maximum discharge during year, 10,900 second-feet May 24 (gage height, 11.8 feet); minimum, 102 second-feet September 2 (gage height, 0.35 foot).

1903–1906, 1913–1927: Maximum discharge, 36,200 second-feet June 7, 1918 (gage height, 19.45 feet); practically no flow at 5 p. m. September 3, 1925, caused by regulation.

REMARKS.—Records excellent except those for December 18 to February 3, which were estimated because of ice. Considerable diurnal fluctuation at low stages owing to operation of power plant above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,610	1,210	1,850	710	764	1,460	1,850	1,980	3,240	1,050	642	298
2	3,420	1,180	1,720	769	820	1,160	2,120	1,920	2,980	1,000	552	279
3	3,240	1,180	1,660	723	935	1,240	2,270	1,980	2,890	900	498	274
4	3,700	1,160	1,600	755	1,000	1,210	2,340	2,120	2,980	850	438	282
5	4,110	1,130	1,430	723	2,870	1,210	2,570	2,060	2,810	800	410	278
6	4,320	1,130	1,130	665	2,420	1,260	2,500	1,720	2,570	800	406	386
7	4,640	1,100	1,160	773	2,200	1,160	2,420	1,600	2,340	732	386	414
8	4,740	1,100	1,210	778	2,980	1,130	2,420	1,780	2,120	732	454	490
9	4,640	1,100	1,290	750	3,520	1,130	2,500	3,570	2,060	665	1,080	2,860
10	3,700	1,080	1,240	925	2,890	1,160	2,500	4,530	2,060	642	1,000	2,120
11	3,060	1,080	1,260	990	2,980	1,390	2,500	5,310	2,120	602	1,050	1,400
12	2,810	1,080	1,380	930	2,500	2,420	2,570	6,390	2,730	598	755	850
13	2,650	1,130	1,600	980	2,120	2,200	2,730	6,390	3,240	580	665	642
14	2,420	1,600	974	845	1,850	1,980	2,650	3,700	2,980	534	642	570
15	2,270	1,510	780	714	1,780	1,920	2,980	2,890	2,340	544	598	534
16	2,120	1,600	688	778	1,920	1,780	3,330	2,650	2,120	526	539	434
17	2,060	1,780	732	800	1,980	1,780	3,240	2,340	1,920	498	526	620
18	1,920	1,780	723	759	1,980	1,660	3,240	3,700	1,780	478	552	1,380
19	1,850	1,720	830	755	1,660	1,600	4,000	4,530	1,600	490	800	1,920
20	1,780	1,600	900	695	1,290	1,980	4,530	4,420	2,010	450	800	1,510
21	1,720	1,290	1,000	643	1,290	1,920	4,530	4,640	5,100	454	800	1,210
22	1,660	1,160	1,020	660	1,600	1,850	4,320	4,530	1,720	510	710	900
23	1,600	1,240	965	692	1,720	1,850	4,000	3,800	1,540	522	584	755
24	1,540	1,320	955	647	1,850	1,920	3,800	9,310	1,400	800	500	584
25	1,480	1,350	995	651	2,120	1,850	3,330	7,420	1,290	778	462	620
26	1,480	2,870	995	611	1,540	1,850	2,890	6,270	1,180	602	394	620
27	1,430	3,150	895	570	1,660	1,720	2,650	6,030	1,180	530	374	665
28	1,400	2,650	815	552	1,660	1,660	2,420	5,200	1,160	490	341	925
29	1,380	2,270	764	687	-------	1,600	2,340	4,420	1,130	620	306	1,210
30	1,290	1,920	728	769	-------	1,540	2,120	4,220	1,100	900	330	1,290
31	1,260	-------	719	714	-------	1,510	-------	3,610	-------	875	306	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,740	1,260	2,560	0.815	0.94
November	3,150	1,080	1,520	.484	.54
December	1,850	688	1,100	.350	.40
January	990	552	742	.236	.27
February	3,520	764	1,920	.611	.64
March	2,420	1,130	1,620	.516	.59
April	4,530	1,850	2,920	.930	1.04
May	9,310	1,600	4,030	1.28	1.48
June	5,100	1,100	2,190	.697	.78
July	1,050	450	663	.211	.24
August	1,080	306	577	.184	.21
September	2,860	274	877	.279	.31
The year	9,310	274	1,720	.548	7.44

IOWA RIVER AT WAPELLO, IOWA

LOCATION.—Chain gage in sec. 27, T. 74 N., R. 3 W., at highway bridge half a mile from railroad station at Wapello and 20 miles above mouth of river.

DRAINAGE AREA.—12,480 square miles.

RECORDS AVAILABLE.—February, 1915, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 34,200 second-feet May 26 (gage height, 10.1 feet); minimum, 1,800 second-feet September 4–7 (gage height, 0.40 foot).

1915–1927: Maximum discharge, 63,100 second-feet June 8, 1918 (gage height, 14.94 feet); minimum, about 400 second-feet December 15–17, 1916.

The flood of June, 1892, was probably much higher than the flood of 1918.

REMARKS.—Records poor. Discharge estimated December 14 to February 2, because of ice.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,000	5,390	8,820		4,000	6,500	9,100	10,900	18,000	6,040	3,510	2,380
2	16,500	5,180	8,000		5,000	6,500	13,200	10,300	18,000	5,600	3,340	2,380
3	18,500	5,180	8,000		6,040	6,500	13,600	11,500	20,100	5,180	3,000	2,080
4	15,700	5,180	7,740		7,480	6,740	12,900	9,980	23,200	4,980	2,680	1,800
5	16,500	5,180	6,740		21,000	6,270	12,200	9,390	20,100	4,780	2,680	1,800
6	17,200	4,980	6,500		15,700	6,040	12,500	8,820	15,700	4,590	2,530	1,800
7	18,000	4,980	6,270		15,000	6,270	11,500	8,270	13,200	4,780	2,380	1,800
8	18,000	5,180	6,040	3,600	12,900	6,500	11,900	9,100	11,900	4,220	2,530	2,380
9	16,500	5,180	6,040		12,900	6,270	12,200	9,980	10,900	4,040	3,340	2,530
10	15,000	5,180	5,820		13,600	5,600	13,600	16,100	10,300	4,040	4,780	5,390
11	12,900	5,180	5,820		14,600	6,040	13,900	19,700	9,980	3,860	3,860	5,600
12	12,200	5,180	5,600		13,200	11,500	13,200	19,300	10,300	3,860	3,680	5,180
13	10,900	4,980	5,600		12,500	13,600	13,200	19,700	10,300	3,680	3,340	4,220
14	10,600	6,500			10,900	12,200	13,900	18,900	10,900	3,680	3,170	3,510
15	10,300	8,540			9,100	11,500	15,700	17,600	10,600	3,510	3,000	3,170
16	9,680	9,100			8,000	10,300	17,600	13,600	9,980	3,510	3,000	3,000
17	9,100	7,480			8,000	10,300	17,200	11,200	9,100	3,340	3,000	2,680
18	8,540	7,740			8,000	10,300	16,500	11,500	8,820	3,340	3,000	2,680
19	8,540	7,480			6,980	10,300	25,500	17,200	8,270	3,340	3,000	4,400
20	8,000	6,740			6,500	12,500	31,700	20,600	7,740	3,170	3,000	4,980
21	7,740	6,500			5,820	13,200	29,700	19,700	13,900	3,000	3,000	4,980
22	7,480	6,040	4,500		6,980	11,500	25,100	21,900	24,600	3,000	3,340	4,400
23	6,980	5,600		3,200	8,000	11,500	22,800	23,700	11,900	3,170	3,000	3,860
24	6,980	5,600			7,480	10,300	19,700	23,700	8,820	3,860	2,680	3,510
25	6,980	5,600			8,000	10,900	16,500	26,900	8,000	3,860	2,530	3,340
26	6,740	5,600			9,100	10,900	15,000	33,700	7,480	3,860	2,380	3,170
27	6,270	5,600			7,230	10,300	13,900	32,200	7,230	3,680	2,230	3,170
28	6,040	5,390			6,500	9,390	12,900	26,900	6,980	3,340	2,230	3,340
29	5,820	12,200			-------	8,540	13,200	22,400	6,500	3,680	2,230	4,040
30	5,820	9,980			-------	8,270	12,200	19,300	6,270	3,680	2,230	4,590
31	5,600	-------			-------	8,000	-------	18,000	-------	3,680	2,380	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	18,500	5,600	11,100	0.889	1.02
November	12,200	4,980	6,290	.504	.56
December	8,820	----------	5,420	.434	.50
January	----------	----------	3,390	.272	.31
February	21,000	4,000	9,660	.774	.81
March	13,600	5,600	9,180	.736	.85
April	31,700	9,100	16,100	1.29	1.44
May	33,700	8,270	17,500	1.40	1.61
June	24,600	6,270	12,000	.962	1.07
July	6,040	3,000	3,950	.317	.37
August	4,780	2,230	2,940	.236	.27
September	5,600	1,800	3,410	.273	.30
The year	33,700	1,800	8,380	.671	9.11

CEDAR RIVER AT JANESVILLE, IOWA

LOCATION.—Chain gage in sec. 35, T. 91 N., R. 14 W., at highway bridge in Janesville, 3 miles above junction with Shellrock River.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—April, 1905, to September, 1906; May, 1915, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 5,600 second-feet May 28 (gage height, 6.2 feet); minimum, 119 second-feet September 5 (gage height, 1.54 feet).

1905–1906, 1915–1927: Maximum discharge, about 27,000 second-feet May 29, 1921; minimum, 28 second-feet October 21, 1922.

REMARKS.—Records fair. Observations discontinued during winter. Slight diurnal fluctuations during low-water periods owing to operation of power plant at Waverly, 9 miles above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	172	378	-------	1,480	1,420	630	1,920	384	200	154
2	402	264	420	-------	1,210	1,370	490	1,480	318	195	200
3	490	306	396	-------	1,110	1,420	630	1,210	378	246	210
4	1,020	324	455	-------	1,160	1,160	630	1,110	324	190	176
5	595	288	560	-------	1,160	1,260	525	1,020	288	210	154
6	710	300	-------	-------	835	1,590	462	925	312	190	[a] 177
7	630	235	-------	-------	750	1,700	476	880	288	168	200
8	490	195	-------	-------	790	1,480	525	750	312	145	210
9	490	186	-------	-------	710	1,320	2,790	750	294	220	300
10	408	210	-------	-------	790	1,260	1,700	790	276	230	630
11	312	240	-------	-------	790	1,260	1,700	835	306	[a] 196	630
12	384	205	-------	-------	1,110	1,320	1,700	1,590	264	163	483
13	402	220	-------	-------	1,110	1,260	1,210	1,810	288	220	372
14	348	186	-------	-------	1,210	1,320	970	1,160	276	220	252
15	312	240	-------	-------	1,810	[a] 1,560	925	1,020	312	230	294
16	342	225	-------	-------	1,810	1,810	790	970	294	252	288
17	300	324	-------	-------	1,370	1,540	750	925	288	240	264
18	324	455	-------	-------	1,020	1,370	790	835	220	240	294
19	348	630	-------	-------	970	1,020	880	790	252	210	294
20	360	490	-------	-------	1,020	970	630	490	246	230	324
21	360	455	-------	-------	790	1,020	790	670	252	200	448
22	354	390	-------	-------	750	1,260	1,020	710	240	215	525
23	318	414	-------	-------	750	1,420	1,260	1,060	230	246	300
24	312	402	-------	-------	790	1,210	1,540	880	288	235	276
25	235	384	-------	-------	750	1,110	1,020	880	[a] 276	220	276
26	294	396	-------	2,400	835	925	1,160	790	[a] 264	220	300
27	246	378	-------	2,530	710	835	1,810	525	252	181	336
28	282	[a] 400	-------	2,400	630	835	4,560	525	294	190	366
29	225	[a] 400	-------	-------	790	835	3,480	455	360	252	462
30	246	402	-------	-------	835	790	2,920	476	172	220	490
31	209	-------	-------	-------	970	-------	2,920	-------	240	195	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,020	209	392	0.236	0.27
November	630	172	324	.195	.22
December 1–5	560	378	442	.266	.05
February 26–28	2,530	2,400	2,440	1.47	.05
March	1,810	630	994	.599	.69
April	1,810	790	1,260	.759	.85
May	4,560	462	1,340	.807	.93
June	1,920	455	941	.567	.63
July	384	172	283	.170	.20
August	252	145	212	.128	.15
September	630	154	323	.195	.22

[a] Estimated.

CEDAR RIVER AT CEDAR RAPIDS, IOWA

LOCATION.—Water-stage recorder in sec. 28, T. 83 N., R. 7 W., in central part of Cedar Rapids, 1,000 feet above Eighth Avenue Bridge and half a mile below dam.

DRAINAGE AREA.—6,640 square miles.

RECORDS AVAILABLE.—February, 1903, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 11,800 second-feet May 25 (gage height, 6.77 feet); minimum, 650 second-feet August 8 (gage height, 2.63 feet).

1903–1927: Maximum discharge, 54,100 second-feet April 1, 1912, and March 26, 1917 (gage height, 17.2 feet); minimum, 190 second-feet September 9, 1921.

Maximum stage known, about 20 feet in June, 1851 (discharge, about 65,000 second-feet).

REMARKS.—Records good except those for estimated periods, which are fair. No record August 13–27. Considerable diurnal fluctuation during low-water periods caused by operation of power plant half a mile above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,370	1,870	3,280	1,260	1,630	4,020	3,840	3,760	10,500	2,300	1,400	1,070
2	3,590	1,790	3,230	1,280	1,790	4,300	4,450	3,590	9,120	2,240	1,240	1,060
3	3,870	1,790	2,810	1,260	2,000	3,530	5,050	3,370	8,150	2,080	1,250	1,050
4	5,650	1,900	2,830	1,420	2,280	2,990	5,200	3,040	6,740	1,980	1,140	976
5	7,040	1,940	2,600	1,530	6,120	3,040	5,200	3,040	5,960	1,940	1,190	1,110
6	7,200	1,960	2,460	1,560	4,750	2,990	5,350	2,880	5,350	1,830	1,160	1,240
7	6,270	1,920	1,480	1,580	5,200	2,990	5,650	2,760	4,900	1,760	1,240	1,240
8	5,200	1,920	1,560	1,650	7,830	2,910	6,420	4,380	4,600	1,700	1,630	1,140
9	[a] 4,680	1,870	1,720	[a] 1,550	9,450	2,860	6,270	7,360	4,300	1,760	1,450	1,670
10	4,160	1,740	1,900	[a] 1,550	8,150	2,860	5,960	7,360	4,020	1,650	1,400	2,110
11	3,840	1,700	2,020	[a] 1,500	5,700	2,960	5,650	8,470	3,840	1,600	1,240	2,170
12	3,590	1,600	1,900	1,390	4,900	4,020	5,650	7,360	4,160	1,560	1,210	1,830
13	3,370	1,650	2,190	1,500	4,600	4,750	5,650	6,580	4,600	1,530	-------	1,680
14	3,180	1,920	2,260	[a] 1,400	4,020	4,450	5,500	6,120	4,450	1,550	-------	1,550
15	3,040	2,440	1,830	[a] 1,300	3,700	4,300	5,500	5,350	4,450	1,580	-------	1,160
16	2,910	2,730	[a] 1,700	[a] 1,300	3,670	4,300	5,700	4,750	3,870	1,510	-------	2,060
17	2,810	2,660	[a] 1,550		3,480	4,600	6,120	4,300	3,530	1,430	-------	2,040
18	2,700	2,730	[a] 1,400		3,450	4,750	6,120	7,510	3,390	1,400	-------	2,040
19	2,600	2,730	[a] 1,430		3,040	4,300	6,740	8,470	3,200	1,400	-------	2,210
20	2,480	2,780	[a] 1,460		2,460	4,020	6,740	8,150	3,200	1,400	-------	2,020
21	2,480	2,300	1,700	[a] 1,460	2,530	3,760	6,890	7,670	3,260	1,670	-------	1,760
22	2,390	1,530	1,620		3,090	3,620	6,580	7,360	2,960	2,320	-------	1,620
23	2,390	1,340	1,530		3,310	3,870	5,650	8,790	3,040	2,000	-------	1,580
24	2,280	1,680			3,340	4,450	5,200	10,800	3,280	1,760	-------	1,530
25	2,260	1,980	[a] 1,550		2,660	4,600	5,200	11,500	3,650	1,740	-------	1,560
26	2,170	3,590		[a] 1,300	2,560	4,160	5,050	9,780	3,590	1,680	-------	1,790
27	2,130	4,900			3,090	3,870	4,750	7,990	3,280	1,500	-------	2,040
28	2,110	3,310	1,530		3,730	3,650	4,450	7,670	3,040	1,480	1,070	2,110
29	2,040	3,280	[a] 1,500		-------	3,620	4,160	7,990	2,730	1,560	1,050	2,170
30	2,020	2,960	[a] 1,400	[a] 1,400	-------	3,590	3,840	8,790	2,350	1,500	1,070	2,480
31	2,000	-------	1,340	1,620	-------	3,560	-------	9,780	-------	1,560	1,090	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,200	2,000	3,410	0.514	0.59
November	4,900	1,340	2,280	.343	.38
December	3,280	1,340	1,880	.283	.33
January	1,650	----------	1,410	.212	.24
February	9,450	1,630	4,020	.605	.63
March	4,750	2,860	3,800	.572	.66
April	6,890	3,840	5,480	.825	.92
May	11,500	2,760	6,670	1.00	1.15
June	10,500	2,350	4,450	.670	.75
July	2,320	1,400	1,710	.258	.30
September	2,480	976	1,670	.252	.28

[a] Estimated.

SHELLROCK RIVER NEAR CLARKSVILLE, IOWA

LOCATION.—Chain gage in T. 92 N., R. 16 W., at highway bridge 1¼ miles northwest of Clarksville and 25 miles above junction with Cedar River.

DRAINAGE AREA.—1,660 square miles.

RECORDS AVAILABLE.—May, 1915, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 4,310 second-feet May 28 (gage height, 6.5 feet); minimum, 64 second-feet August 29 (gage height, 0.57 foot).

1915–1927: Maximum discharge, 12,200 second-feet June 2, 1916; minimum, 43 second-feet September 3, 1925.

Maximum stage known, about 16.5 feet in April, 1907 (discharge, about 19,000 second-feet).

REMARKS.—Records fair. Observations discontinued during winter. Slight diurnal fluctuation during low water owing to operation of power plant at Greene, 10 miles upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	496	212	341	-------	842	782	1,730	282	172	116
2	427	263	496	-------	782	725	1,410	341	156	166
3	544	263	450	-------	842	725	1,260	282	163	198
4	725	246	405	-------	1,340	671	1,110	383	178	228
5	782	228	450	-------	2,860	619	971	341	148	166
6	619	208	427	-------	2,960	544	1,110	341	126	133
7	569	228	321	-------	2,050	544	842	321	321	169
8	594	225	301	-------	1,650	473	782	282	83	383
9	520	228	321	-------	2,390	1,650	842	282	135	450
10	450	246	246	1,110	2,050	2,050	1,180	263	133	321
11	473	301	263	1,110	1,810	1,570	1,040	263	143	301
12	473	301	450	1,110	1,490	1,570	725	228	140	130
13	496	301	-------	1,180	1,410	1,040	782	263	130	321
14	520	301	-------	1,260	2,300	905	619	263	321	301
15	301	301	-------	1,110	2,050	698	594	282	76	282
16	301	282	-------	1,110	2,300	725	594	221	133	246
17	405	301	-------	1,040	2,300	698	544	341	158	282
18	383	405	-------	1,040	1,970	725	520	341	110	341
19	362	383	-------	971	1,650	698	520	212	135	362
20	496	321	-------	842	1,410	905	645	228	161	172
21	496	215	-------	842	1,490	671	544	282	228	246
22	383	198	-------	782	1,650	842	1,110	246	246	228
23	405	725	-------	698	1,730	1,260	1,110	321	228	246
24	427	698	-------	645	1,570	971	905	301	186	301
25	427	569	-------	671	1,570	1,180	782	301	192	301
26	427	569	-------	782	1,340	971	698	282	186	341
27	218	619	-------	782	1,260	782	698	189	172	321
28	427	594	-------	971	1,110	3,760	520	172	321	301
29	321	450	-------	842	971	4,090	321	143	64	321
30	246	427	-------	842	842	2,860	496	156	150	263
31	246	-------	-------	842	-------	2,130	-------	301	135	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	782	218	450	0.271	0.31
November	725	198	354	.213	.24
December 1–12	496	246	373	.225	.10
March 10–31	1,260	645	936	.564	.46
April	2,960	782	1,670	1.01	1.13
May	4,090	473	1,220	.735	.85
June	1,730	321	833	.502	.56
July	383	143	273	.164	.19
August	321	64	169	.102	.12
September	450	116	265	.160	.18

SKUNK RIVER NEAR AMES, IOWA

LOCATION.—Water-stage recorder in sec. 23, T. 84 N., R. 24 W., at site of old county bridge 2½ miles north of Ames, 3½ miles below Kiegley Branch, and 5 miles above mouth of Squaw Creek.

DRAINAGE AREA.—320 square miles.

RECORDS AVAILABLE.—July, 1920, to August, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 2,460 second-feet February 5 (gage height, 7.35 feet); minimum occurred during winter.

1920–1927: Maximum discharge, about 3,540 second-feet September 17, 1921 (gage height, 9.2 feet); minimum, less than 1 second-foot July 20, 1926 (gage height, 1.54 feet).

REMARKS.—Records good except those for estimated periods, which are fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	344	95	95			91	188	95	159	11.5	2.4
2	358	91	98	a35	a85	74	306	91	139	11.0	2.3
3	410	90	112		135	69	364	84	128	10.0	2.3
4	930	90	93		291	74	413	78	116	10.0	2.3
5	679	91	a80		1,440	100	361	74	100	9.5	2.7
6	493	91	69	a100	1,160	186	293	72	90	9.0	-------
7	388	91	83		385	194	236	69	83	8.5	-------
8	328	93	90		207	189	214	79		8.0	-------
9	296	86	76		180	157	219	150	a70	7.5	-------
10	325	69	76		171	134	211	184		7.0	-------
11	296	91	78	a50	168	120	191	150		6.6	-------
12	262	84	86		120	186	173	128		6.2	-------
13	239	88	65		95	205	202	116	a55	5.8	-------
14	216	156			79	163	233	104		5.4	-------
15	197	338			72	141	346	88		5.0	-------
16	186	302	a30	a30	72	134	525	79	46	5.0	-------
17	171	271			58	128	392	78	46	4.6	-------
18	161				46	124	293	92	44	4.2	-------
19	147		a35		45	118	259	116	40	3.4	-------
20	141	a175			46	99	214	183	38	2.9	-------
21	134				58	106	208	a370	40	5.8	-------
22	130		a40		78	118	216	555	34	4.8	-------
23	122	137			81	124	194	620	30	2.9	-------
24	120	132		a25	100	145	171	517	25	2.8	-------
25	120	122			200	178	156	328	23	6.9	-------
26	120	120			207	200	145	222	19.0	5.0	-------
27	116	114	a30		103	176	130	184	16.9	3.0	-------
28	112	128			99	161	116	222	15.5	2.9	-------
29	106	134			-------	161	112	280	14.1	2.8	-------
30	100	110		a65	-------	163	102	236	12.0	2.6	-------
31	99	-------		a85	-------	152	-------	191	-------	2.5	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	930	99	253	0.790	0.91
November	338	69	136	.425	.47
December	112	-------	54.7	.171	.20
January	-------	-------	47.1	.147	.17
February	1,440	45	210	.656	.68
March	205	69	141	.441	.51
April	525	102	239	.747	.83
May	620	69	188	.588	.68
June	159	12.0	58.1	.182	.20
July	11.5	2.5	5.9	.018	.02
August 1–5	2.7	2.3	2.4	.008	.001

a Estimated.

SKUNK RIVER AT COPPOCK, IOWA

LOCATION.—Chain gage in sec. 1, T. 73 N., R. 8 W., at highway bridge one-eighth mile above Chicago, Burlington & Quincy Railroad bridge at Coppock and one-fourth mile above junction with Crooked Creek.

DRAINAGE AREA.—2,890 square miles.

RECORDS AVAILABLE.—October, 1913, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 11,800 second-feet April 19 (gage height, 15.42 feet); minimum, 76 second-feet September 17 (gage height, 2.53 feet).

1913–1927: Maximum discharge, 19,600 second-feet June 9, 1918 (gage height, 19.7 feet); minimum, 33 second-feet August 15, 18, and 25–27, 1914 (gage height, 2.10 feet).

Maximum stage known, about 22 feet on or about May 31, 1903 (discharge, about 25,000 second-feet).

REMARKS.—Records poor. Discharge estimated because of ice December 15 to January 31.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,400	1,270	1,840		818	1,390	3,530	2,560	1,980	465	395	121
2	9,810	1,210	1,700		870	979	5,260	2,260	1,840	447	299	117
3	8,950	1,210	1,640		979	870	3,960	2,720	2,190	412	228	115
4	8,130	1,150	1,510		1,090	818	3,120	2,120	6,020	378	203	109
5	7,360	1,150	1,450		8,260	768	2,880	1,770	3,360	378	180	101
6	6,740	1,090	1,330		10,400	2,190	2,720	1,640	2,340	346	180	96
7	6,500	1,090	1,270	625	4,940	3,120	2,490	1,510	1,770	412	168	94
8	6,500	1,090	1,390		3,530	2,050	2,260	1,580	1,510	346	157	113
9	6,140	1,150	1,330		3,360	1,580	2,190	5,150	1,390	330	157	125
10	5,580	1,150	1,270		2,120	1,450	2,120	5,360	1,450	299	191	111
11	5,360	1,150	1,390		1,390	1,330	2,340	4,340	1,510	284	768	105
12	4,840	1,150	1,640		1,040	4,540	2,420	4,060	3,120	284	447	96
13	4,060	1,040	1,700		924	3,880	2,960	3,360	2,420	255	346	90
14	3,360	2,340	1,580		979	2,800	2,800	2,420	1,640	255	314	86
15	3,040	2,420			924	2,340	6,020	2,120	1,510	241	299	79
16	2,720	2,050	1,050		979	2,050	6,500	1,910	1,210	241	299	78
17	2,560	2,260			1,510	1,980	5,580	1,770	1,090	228	346	76
18	2,420	2,340			1,090	1,840	5,580	1,640	979	215	465	96
19	2,260	2,190			719	1,580	11,600	3,780	924	215	362	90
20	2,120	1,910		400	768	3,440	11,300	2,420	870	255	378	82
21	2,050	1,580			818	3,200	10,600	2,800	2,260	241	346	80
22	1,910	1,450			1,270	2,420	9,380	2,190	1,330	255	314	83
23	1,770	1,450			1,640	2,120	7,740	2,260	1,150	672	255	97
24	1,700	1,330			1,700	1,980	5,800	4,540	870	465	203	109
25	1,700	1,390	870		2,490	1,840	4,340	6,140	768	412	168	90
26	1,640	3,280			1,980	1,840	3,440	5,690	672	314	168	96
27	1,580	4,740			1,700	1,700	3,040	4,540	584	255	146	101
28	1,510	3,700		775	1,450	1,580	2,640	3,780	584	241	146	101
29	1,450	2,420			-------	1,450	3,530	2,960	543	255	146	111
30	1,390	1,980			-------	1,390	3,280	2,720	503	248	135	180
31	1,330	-------			-------	1,330	-------	2,190	-------	241	125	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,400	1,330	4,090	1.42	1.64
November	4,740	1,040	1,790	.619	.69
December	1,840	-------	1,180	.408	.47
January	-------	-------	490	.170	.20
February	10,400	719	2,130	.737	.77
March	4,540	768	2,000	.692	.80
April	11,600	2,120	4,710	1.63	1.82
May	6,140	1,510	3,040	1.05	1.21
June	6,020	503	1,610	.557	.62
July	672	215	319	.110	.13
August	768	125	269	.093	.11
September	180	76	101	.035	.04
The year	11,600	76	1,810	.626	8.50

SKUNK RIVER AT AUGUSTA, IOWA

LOCATION.—Chain gage in sec. 26, T. 69 N., R. 4 W., at highway bridge one-third mile from Augusta post office and 12.2 miles above mouth. Zero of gage is 528.55 feet, Memphis datum.

DRAINAGE AREA.—4,290 square miles.

RECORDS AVAILABLE.—September to November, 1913; May, 1915, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 24,600 second-feet October 1 (gage height, 18.2 feet); minimum, 75 second-feet September 19 (gage height, 1.5 feet).

1913, 1915–1927: Maximum discharge, 32,000 second-feet September 16, 1926 (gage height, 20.4 feet); minimum, 26 second-feet September 8, 1919 (gage height, 1.29 feet).

Maximum stage known, about 21 feet on or about June 1, 1903 (discharge, 45,000 second-feet).

REMARKS.—Records fair. Slight regulation at extremely low stages caused by operation of power plant at Oakland Mills, 26 miles upstream.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,100	1,620	3,120	863	1,370	2,300	3,120	5,080	3,120	863	970	231
2	19,500	1,500	2,840	811	1,500	2,030	9,760	4,520	2,840	811	582	210
3	16,400	1,430	2,570	811	1,500	1,430	9,760	4,800	2,840	668	470	191
4	16,300	1,370	2,440	811	1,500	1,370	7,600	5,360	16,300	582	378	191
5	15,200	1,310	2,030	811	16,400	2,030	5,780	3,960	13,700	542	349	210
6	13,100	1,370	2,030	863	17,200	2,570	5,360	2,840	7,740	542	298	191
7	11,000	1,370	1,900	863	16,100	4,520	4,380	2,570	4,800	542	275	191
8	9,620	1,370	2,570	915	10,900	5,360	3,120	2,300	3,120	863	275	191
9	9,040	1,430	2,440	915	7,320	3,540	3,680	4,800	2,700	470	252	172
10	8,160	1,500	2,300	970	4,800	2,570	3,680	9,040	2,300	506	231	172
11	7,460	1,500	2,300	811	3,400	2,570	5,360	8,740	2,160	470	275	252
12	7,180	1,430	2,300	762	2,030	9,760	5,080	7,740	4,800	470	378	252
13	6,340	1,430		668	1,760	10,000	5,920	5,920	5,920	438	406	172
14	5,080	1,500		623	1,760	7,600	6,340	4,520	3,960	406	506	172
15	4,240	5,920		582	1,760	5,360	10,800	3,680	2,840	406	542	152
16	3,960	4,520	1,900	582	1,760	3,820	14,300	2,840	2,300	349	406	137
17	3,400	3,540		623	2,840	3,400	11,200	2,570	2,030	349	406	121
18	3,120	3,260		713	2,570	3,120	9,620	2,570	1,760	298	582	105
19	2,980	3,120		623	1,620	2,840	17,000	16,700	1,560	349	623	75
20	2,840	2,840		623	1,500	9,040	23,400	12,200	1,430	324	623	121
21	2,570	2,440		623	1,310	9,900	22,700	7,320	1,500	275	542	172
22	2,440	2,030		623	1,430	7,180	21,100	5,920	2,840	1,140	542	152
23	2,300	1,760		623	1,760	5,080	17,400	4,240	2,440	915	542	121
24	2,160	2,160	1,400	623	2,300	3,680	12,400	10,600	2,030	1,500	406	121
25	2,030	2,030		582	4,800	3,400	8,740	14,600	1,430	970	324	210
26	2,030	7,740		506	5,360	3,120	6,620	10,900	1,250	542	298	191
27	2,030	11,600		438	3,960	2,840	5,360	10,800	1,080	506	275	172
28	1,900	8,160		470	2,700	2,570	4,520	7,880	1,020	378	252	172
29	1,760	6,200	1,140	542	-------	2,300	4,660	5,640	915	1,140	252	152
30	1,760	4,100	1,020	915	-------	2,570	4,940	4,240	811	1,250	231	582
31	1,620	-------	1,020	1,310	-------	1,760	-------	3,960	-------	1,250	231	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	23,100	1,620	6,790	1.58	1.82
November	11,600	1,310	3,050	.711	.79
December	3,120	----------	1,870	.436	.50
January	1,310	438	726	.169	.19
February	17,200	1,310	4,400	1.03	1.07
March	10,000	1,370	4,180	.974	1.12
April	23,400	3,120	9,120	2.13	2.38
May	16,700	2,300	6,410	1.49	1.72
June	16,300	811	3,450	.804	.90
July	1,500	275	649	.151	.17
August	970	231	410	.096	.11
September	582	75	185	.043	.05
The year	23,400	75	3,420	.797	10.82

SQUAW CREEK AT AMES, IOWA

LOCATION.—Chain gage in sec. 3, T. 83 N., R. 24 W., at Lincoln Highway bridge in Ames, 2 miles above junction with Skunk River.

DRAINAGE AREA.—210 square miles.

RECORDS AVAILABLE.—May, 1919, to April, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 992 second-feet October 4 (gage height, 5.6 feet); minimum occurred during winter.

1919–1927: Maximum discharge, 3,920 second-feet July 17, 1922 (gage height, 10.4 feet); no flow August 26 to September 17, 1919.

Maximum stage in recent years, about 14.5 feet June 4, 1918 (discharge, about 6,900 second-feet).

REMARKS.—Records fair. Observations discontinued during winter.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.
1	361	86	83	------	65	134	16	104	232	------	------	98	475
2	293	83	81	------	63	221	17	104	151	------	------	98	280
3	475	81	80	------	63	221	18	104	134	------	------	91	200
4	958	79	77	------	47	210	19	104	118	------	------	90	190
5	565	77	66	------	84	190	20	98	118	------	------	78	160
6	389	79	79	------	268	170	21	98	126	------	------	91	180
7	280	79	72	------	160	134	22	98	111	------	------	91	180
8	221	80	70	------	134	142	23	98	98	------	------	91	151
9	190	78	68	------	98	160	24	91	98	------	71	111	126
10	151	70	75	------	89	134	25	91	104	------	142	134	111
11	126	71	77	------	87	126	26	91	98	------	180	142	104
12	118	66	75	------	126	118	27	91	79	------	111	111	91
13	111	66	74	------	151	142	28	91	91	------	68	98	91
14	104	134	58	------	111	170	29	87	86	------	------	98	91
15	104	347	47	------	98	389	30	85	80	------	------	98	77
							31	84	------	------	------	98	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	958	84	192	0.914	1.05
November	347	66	107	.510	.57
December 1–15	83	47	72.1	.343	.19
February 24–28	180	68	114	.543	.10
March	268	47	105	.500	.58
April	475	77	172	.819	.91

DES MOINES RIVER AT KALO, IOWA

LOCATION.—Water-stage recorder and chain gage in sec. 17, T. 88 N., R. 28 W., at Kalo, 1½ miles east of Otho, on Minneapolis & St. Louis Railroad, and 1½ miles above mouth of Holiday Creek. Recording gage used prior to June 19, 1927; chain gage thereafter.

DRAINAGE AREA.—4,170 square miles.

RECORDS AVAILABLE.—October, 1913, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 8,870 second-feet April 22 (gage height, 8.45 feet); minimum, 59 second-feet several times in August and September (gage height, 0.26 foot).

1913–1927: Maximum discharge, 18,500 second-feet May 30, 1915 (gage height, 14.0 feet); minimum, 14 second-feet October 15, 1922.

REMARKS.—Records fair prior to June 19 and poor thereafter. Observations discontinued during winter. Operation of city power plant at Fort Dodge, 7 miles upstream causes diurnal fluctuation during low-water periods.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,570	456	455	2,810	2,310	3,830	6,050	1,140	213	62
2	1,660	368	419	2,610	2,220	3,480	5,640	1,050	300	62
3	2,310	406	545	2,410	2,410	3,250	5,360	1,300	76	59
4	2,410	433	533	2,220	3,030	2,920	5,100	[a] 1,260	159	66
5	2,310	373	432	2,020	4,070	2,710	4,840	1,220	174	62
6	2,120	392	372	1,930	4,970	2,510	4,450	1,220	300	59
7	2,020	468	472	1,840	5,100	2,410	3,950	657	333	85
8	1,660	324	}	2,020	4,710	4,840	3,710	644	456	96
9	1,570	428	[a] 400	2,120	4,710	3,830	3,250	644	445	85
10	1,300	627	}	2,220	5,230	3,710	2,920	491	468	66
11	1,220	226		2,310	5,100	3,600	2,710	503	433	[a] 63
12	1,140	338		2,510	4,840	3,360	2,510	515	445	62
13	1,010	400		2,410	4,710	3,030	2,310	515	433	59
14	1,010	630		2,710	4,970	2,810	2,220	577	433	59
15	929	706		2,920	6,330	2,610	2,020	527	390	76
16	890	789		2,920	7,360	2,310	2,020	515	379	90
17	845	1,090		2,810	8,310	2,220	1,930	503	358	107
18	822	1,050		2,810	8,310	2,220	1,840	439	255	[a] 110
19	742	742		2,610	7,830	2,310	1,750	439	358	113
20	740	610		2,410	7,210	2,810	1,660	390	445	107
21	632	391		2,310	8,470	3,250	2,120	379	[a] 370	113
22	658	737		2,220	8,790	3,600	2,310	300	300	113
23	636	874		2,120	7,990	4,580	2,220	379	309	119
24	498	944		1,930	7,060	4,840	2,120	379	300	[a] 110
25	509	798		2,020	6,470	4,710	1,930	390	290	[a] 110
26	544	723		2,020	5,910	4,320	1,840	368	246	102
27	554	617		2,220	5,500	3,950	1,300	348	255	246
28	468	630		2,410	4,840	4,580	1,300	300	59	107
29	527	571		2,410	4,580	6,050	1,220	309	62	139
30	468	640		2,310	4,200	6,610	1,140	348	59	102
31	404			2,220		6,470		309	59	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,410	404	1,100	0.264	0.30
November	1,090	226	593	.142	.16
December 1–10			443	.106	.04
March	2,920	1,840	2,350	.563	.65
April	8,790	2,220	5,580	1.34	1.50
May	6,610	2,220	3,670	.880	1.01
June	6,050	1,140	2,790	.669	.75
July	1,300	300	592	.142	.16
August	468	59	296	.071	.08
September	246	59	93.6	.022	.02

[a] Estimated.

DES MOINES RIVER NEAR BOONE, IOWA

LOCATION.—Chain gage in sec. 13, T. 84 N., R. 27 W., at highway bridge near Boone waterworks, 2 miles northwest of Boone and 2 miles above Bluff Creek.

DRAINAGE AREA.—5,490 square miles at site used since October 9, 1924.

RECORDS AVAILABLE.—April, 1920, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 10,100 second-feet April 18 and 19 (gage height, 13.0 feet); minimum, 88 second-feet September 7 (gage height, 2.82 feet).

1920–1927: Maximum discharge, 16,900 second-feet July 11, 1920 (gage height, 13.39 feet); minimum, 39 second-feet July 23, 1926.

Highest stage since 1907, 20.54 feet June 6, 1918 (discharge, about 32,000 second-feet).

REMARKS.—Records good for high stages and fair for low stages. Observations discontinued during winter. Some diurnal fluctuation during low stages caused by operation of city power plant at Fort Dodge.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,110	660	955	2,900	2,480	4,500	7,900	1,480	450	108
2	2,040	525	715	2,640	2,640	4,050	7,150	1,410	405	132
3	2,260	550	500	2,560	2,820	3,840	6,140	1,340	405	123
4	3,160	550	605	2,180	3,260	3,440	5,880	1,280	428	123
5	3,070	550	605	2,110	4,160	3,160	5,360	1,080	360	144
6	2,900	550	632	2,180	5,620	2,980	4,980	895	428	159
7	2,560	550	500	2,180	6,700	2,820	4,500	895	428	88
8	2,260	578	450	1,900	6,280	2,980	4,160	895	382	132
9	1,900	405	475	1,970	5,620	5,490	4,620	835	382	106
10	1,830	300	605	2,110	5,750	6,010	3,740	835	500	248
11	1,690	300	578	2,340	6,140	5,360	4,380	775	382	165
12	1,620	360	550	2,560	5,880	4,860	4,160	688	360	231
13	1,550	228	450	2,730	5,620	4,160	3,160	745	340	194
14	1,340	525	-------	2,640	5,490	3,640	2,820	632	300	159
15	1,340	1,220	-------	2,980	6,420	3,260	2,560	632	300	144
16	1,150	1,410	-------	3,160	8,540	2,820	2,410	715	320	360
17	1,220	1,480	-------	3,160	9,500	2,640	2,260	775	320	219
18	1,150	1,690	-------	3,070	10,100	2,480	2,180	715	382	194
19	1,020	1,620	-------	3,070	10,100	2,730	2,040	632	405	126
20	835	1,410	-------	2,820	9,180	3,350	1,900	578	382	168
21	835	1,080	-------	2,560	8,380	4,620	1,900	450	300	108
22	715	550	-------	2,410	9,660	4,980	2,260	450	280	97
23	775	525	-------	2,410	9,820	6,420	2,260	428	256	132
24	835	955	-------	2,340	9,020	7,900	2,180	450	237	114
25	745	1,150	-------	2,260	7,750	6,850	2,110	475	320	174
26	660	1,220	-------	2,340	6,850	5,750	2,040	360	340	248
27	688	1,020	-------	2,340	6,140	5,230	1,900	360	244	240
28	715	632	-------	2,560	5,490	5,100	1,830	475	228	244
29	578	715	-------	2,640	4,980	6,420	1,690	340	216	340
30	605	688	-------	2,640	4,500	8,060	1,620	360	216	210
31	550	-------	-------	2,480	-------	8,220	-------	382	159	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,160	550	1,440	0.262	0.30
November	1,690	228	800	.146	.16
December 1–13	955	450	586	.107	.05
March	3,160	1,900	2,520	.459	.53
April	10,100	2,480	6,500	1.18	1.32
May	8,220	2,480	4,650	.847	.98
June	7,900	1,620	3,400	.619	.69
July	1,480	340	721	.131	.15
August	500	159	337	.061	.07
September	360	88	174	.032	.04

DES MOINES RIVER AT DES MOINES, IOWA

LOCATION.—Water-stage recorder in sec. 2, T. 78 N., R. 24 W., at Walnut Street Bridge in Des Moines, one-fourth mile below dam of Des Moines Electric Co. and one-third mile above mouth of Raccoon River. Zero of gage, 773.74 feet above mean sea level (incorrectly given in previous reports).

DRAINAGE AREA.—6,180 square miles.

RECORDS AVAILABLE.—October, 1902, to August, 1903; October, 1914, to September, 1927. Discontinued. May, 1905, to July, 1906, at Interurban Bridge, near Highland Park, 5 miles upstream.

EXTREMES.—Maximum discharge during year, 12,800 second-feet February 7 (gage height, 8.4 feet); minimum, 160 second-feet September 9 (gage height, 0.89 foot).

1914–1927: Maximum discharge, about 41,500 second-feet June 7, 1918; zero flow has occurred at times since construction of dam above gage.

REMARKS.—Records good except those for estimated periods, which are fair. Considerable diurnal fluctuation during low water is caused by operation of power plant above station. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		909	1,290	408	243	3,060	3,190	4,910	8,800	1,630	419	268
2	a4,000	900	1,040	393	544	3,190	3,330	4,550	8,300	1,520	398	257
3		846	1,040	419	666	3,120	3,540	4,220	7,060	1,440	382	246
4	5,100	838	1,010	430	761	3,060	3,680	3,910	6,140	1,290	348	230
5	5,100	821	909	494	1,630	3,190	4,220	3,610	5,710	1,230	382	211
6	4,730	829	753	544	3,400	3,330	4,910	3,400	5,500	1,180	388	197
7	4,380	838	585	599	5,920	4,220	6,140	3,190	4,910	1,120	441	208
8	3,760	918	673	673	12,200	3,330	7,060	3,910	4,730	1,060	651	174
9	3,470	855	673	a 600	9,600	2,740	6,820	4,220	5,500	992	512	184
10	3,120	812	696		5,710	2,740	6,360	5,500	6,140	918	470	186
11	2,930	728	681	a 500	4,380	2,860	6,360	6,140	7,550	855	452	236
12	2,600	728	a 700		3,910	3,000	6,820	5,710	6,590	855	613	230
13	2,350	761		a 400	3,910	3,190	6,820	5,100	5,300	829	464	214
14	2,230	795			3,680	3,330	6,590	4,380	4,380	778	512	220
15	2,040	1,220			3,470	3,400	7,060	4,060	3,910	761	470	217
16	1,920	1,980	a 480	a 300	2,930	3,540	8,550	3,680	3,470	728	447	268
17	1,800	2,540			2,540	3,610	11,000	3,400	3,190	688	481	544
18	1,680	2,480			2,420	3,680	12,200	3,260	3,000	704	424	353
19	1,570	2,540	487		1,860	3,610	12,500	3,120	2,860	643	419	325
20	1,460	2,100	500		1,280	3,400	12,200	3,260	2,670	599	419	268
21	1,400	1,280	494	a 230	1,020	3,260	10,700	3,760	2,600	578	424	253
22	1,340	1,020	475		1,520	3,120	8,050	4,910	2,600	572	363	243
23	1,270	964	506	240	2,040	3,000	8,800	6,140	2,740	519	367	211
24	1,200	974		268	2,350	3,000	11,300	7,300	2,740	558	334	208
25	1,180	1,180		250	2,540	2,930	10,200	a 9,200	2,600	538	304	276
26	1,170	1,520	a 450	246	3,000	2,800	8,300	a 9,000	2,480	519	317	279
27	1,030	1,370		230	3,470	2,860	7,300	8,800	2,350	565	321	
28	1,040	1,170		217	3,330	2,860	6,360	7,060	2,100	544	304	a 280
29	1,010	1,150		217	------	3,000	6,140	5,920	1,920	512	304	
30	954	1,210	393	236	------	3,060	5,300	6,820	1,800	487	304	
31	918	------	403	243	------	3,060	------	8,300	------	441	296	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,100	918	2,410	0.390	0.45
November	2,540	728	1,170	.189	.21
December	1,290	393	609	.099	.11
January	673	----------	356	.058	.07
February	12,200	243	3,230	.523	.54
March	4,220	2,740	3,180	.515	.59
April	12,500	3,190	7,390	1.20	1.34
May	9,200	3,120	5,180	.838	.97
June	8,800	1,800	4,320	.699	.78
July	1,630	441	828	.134	.15
August	651	296	411	.067	.08
September	544	174	254	.041	.05
The year	12,500	174	2,430	.393	5.34

a Estimated.

DES MOINES RIVER NEAR TRACY, IOWA

LOCATION.—Chain gage in sec. 19, T. 75 N., R. 17 W., at highway bridge in Bellefontaine, near Tracy, 3 miles above mouth of Cedar Creek and 6 miles below mouth of English Creek. Zero of gage is 671.78 feet above mean sea level.

DRAINAGE AREA.—12,400 square miles.

RECORDS AVAILABLE.—March, 1920, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 35,500 second-feet April 20 (gage height, 15.8 feet); minimum, 532 second-feet September 10–13 (gage height, 2.49 feet).

1920–1927: Maximum discharge, 37,500 second-feet September 24, 1926 (gage height, 16.3 feet).

Maximum stage since 1851, about 25 feet May 31, 1903 (discharge, about 100,000 second-feet).

REMARKS.—Records good. Observations discontinued during winter.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,320	2,250	2,650	-------	5,180	6,160	12,000	13,100	2,940	1,310	675
2	9,320	2,250	2,650	-------	4,610	8,840	10,800	14,000	2,650	1,100	630
3	10,300	2,120	2,380	-------	4,250	9,800	9,320	13,700	2,510	1,000	630
4	14,600	2,120	2,250	-------	4,250	9,080	8,120	12,900	2,380	1,000	630
5	17,100	2,120	2,250	-------	4,250	8,600	7,210	11,200	2,250	900	612
6	14,000	2,120	2,250	-------	5,370	8,840	6,580	9,800	2,120	900	558
7	12,300	2,120	1,880	-------	6,580	9,320	6,160	9,320	2,000	900	540
8	9,560	2,120	1,760	-------	7,000	10,300	5,960	8,360	1,880	1,000	540
9	7,880	2,250	1,760	-------	6,160	11,500	12,300	7,880	1,880	1,100	540
10	7,000	2,250	1,760	-------	4,990	12,000	10,300	7,430	1,760	1,420	532
11	6,580	2,120	1,760	-------	4,990	11,500	10,300	9,320	1,640	1,260	532
12	5,960	2,000	1,880	-------	5,370	11,000	11,200	11,500	1,640	1,100	532
13	5,370	2,000	1,880	-------	6,580	13,400	11,000	9,800	1,530	1,100	532
14	4,990	2,250	1,760	-------	6,160	15,200	9,800	8,360	1,530	1,200	540
15	4,800	2,510	1,640	-------	5,960	17,400	8,360	7,000	1,420	1,100	540
16	4,430	3,090	-------	-------	5,760	21,700	7,430	6,160	1,420	1,000	594
17	4,070	4,250	-------	-------	5,760	19,700	6,580	5,560	1,420	1,000	585
18	3,900	5,370	-------	-------	5,960	20,400	6,160	4,990	1,310	1,000	675
19	3,730	5,730	-------	-------	5,960	28,800	7,430	4,610	1,310	1,100	1,310
20	3,560	4,800	-------	-------	5,760	34,800	7,880	4,800	1,200	1,000	1,200
21	3,400	4,070	-------	2,650	5,560	30,300	6,790	5,370	1,260	950	1,150
22	3,240	3,240	-------	2,940	5,370	28,100	6,580	6,160	1,640	900	950
23	3,090	2,940	-------	3,400	5,180	23,800	11,200	5,560	1,200	900	765
24	2,940	2,650	-------	3,730	4,990	19,400	18,400	4,990	1,100	810	720
25	2,790	2,510	-------	4,610	4,800	18,400	13,400	4,990	1,100	810	675
26	2,790	2,940	-------	4,990	4,800	17,100	14,600	4,610	1,100	720	720
27	2,790	3,090	-------	4,800	4,800	14,600	15,800	4,250	1,100	720	810
28	2,650	2,940	-------	5,180	4,610	12,900	20,400	3,900	1,150	720	900
29	2,510	2,650	-------	-------	4,800	14,000	14,600	3,560	1,310	720	900
30	2,510	2,650	-------	-------	4,800	18,700	11,800	3,240	1,530	720	855
31	2,380	-------	-------	-------	4,800	-------	11,800	-------	1,420	720	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	17,100	2,380	6,120	0.494	0.57
November	5,370	2,000	2,840	.229	.26
December 1–15	2,650	1,640	2,030	.164	.09
February 21–28	5,180	2,650	4,040	.326	.10
March	7,000	4,250	5,340	.431	.50
April	34,800	6,160	16,200	1.31	1.46
May	20,400	5,960	10,300	.831	.96
June	14,000	3,240	7,550	.609	.68
July	2,940	1,100	1,640	.132	.15
August	1,420	720	974	.079	.09
September	1,310	532	712	.057	.06

DES MOINES RIVER AT OTTUMWA, IOWA

LOCATION.—Chain gage at Market Street Bridge in Ottumwa. No large tributary within several miles.

DRAINAGE AREA.—13,200 square miles.

RECORDS AVAILABLE.—March, 1917, to September, 1927. Discontinued. Fragmentary high-water observations, 1902–1916.

EXTREMES.—Maximum discharge during year, 37,200 second-feet April 21 (gage height, 12.7 feet); minimum, 585 second-feet September 12–19 (gage height, 1.4 feet).

1917–1927: Maximum discharge, 58,700 second-feet June 11, 1917 (gage height, 16.5 feet); minimum (estimated), less than 350 second-feet several days during December, 1917.

Maximum discharge known (estimated), 100,000 second-feet May 31, 1903.

REMARKS.—Records good except those for extremely low stages and for estimated periods, which are fair. Some diurnal fluctuation at low stages caused by operation of power plant a short distance above gage. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,900	2,560	3,440	1,600	1,200	6,250	7,100	16,300	12,500	3,440	1,670	690
2	10,900	2,560	3,210	1,520	1,210	5,710	11,600	11,900	13,500	3,210	1,670	805
3	10,600	2,560	3,210	1,520	1,360	5,180	12,800	11,600	14,200	3,210	1,360	690
4	16,600	2,370	2,980	1,520	1,520	5,180	11,200	9,730	17,400	2,770	1,210	690
5	19,900	2,370	2,980	1,520	21,800	5,180	10,000	8,550	13,500	2,560	1,210	690
6	17,400	2,370	2,770		9,730	8,550	9,430	7,970	11,600	2,370	1,060	690
7	14,200	2,370	2,770		10,600	7,970	9,430	7,390	10,300	2,180	1,060	805
8	12,500	2,370	2,560		9,130	7,970	10,000	7,100	9,730	2,180	930	690
9	9,730	2,370	2,770		14,900	8,840	11,600	9,730	8,840	2,180	1,060	690
10	8,550	2,370	2,770		16,000	6,810	12,200	12,800	8,260	2,180	1,210	690
11	7,970	2,370	2,980	1,400	12,500	5,710	12,500	10,300	9,430	2,000	1,830	690
12	7,100	2,180	2,560		8,840	9,430	11,600	10,900	10,000	1,830	1,520	585
13	6,810	2,180	2,560		7,100	8,840	13,500	11,600	11,600	1,830	1,360	585
14	6,250	2,180	2,560		6,810	8,260	15,200	10,900	10,000	1,670	1,360	585
15	5,710	2,370	2,000		6,810	7,680	19,900	10,000	8,550	1,670	1,360	585
16	5,440	3,210	2,000		6,250	7,100	22,600	8,550	7,390	1,520	1,520	585
17	4,920	3,210	1,670		6,810	6,810	21,400	7,680	6,530	1,520	1,360	585
18	4,660	2,980	1,670		5,980	6,810	19,600	7,100	5,980	1,520	1,360	585
19	4,150	2,980	1,670		4,660	6,810	27,700	14,200	5,710	1,520	1,060	585
20	3,670	5,440			3,210	7,390	32,400	10,300	5,180	1,520	1,360	1,360
21	3,670	5,440			4,920	7,390	37,200	8,550	5,980	1,360	1,210	1,360
22	3,670	2,980			4,660	7,100	32,800	7,680	6,530	1,520	1,060	1,360
23	3,440	3,910			3,670	6,530	27,700	7,970	6,810	2,000	1,210	1,360
24	3,210	3,670		1,100	4,400	6,250	22,200	24,500	5,980	1,670	930	1,060
25	2,980	3,210			5,440	5,980	18,800	18,400	5,710	1,360	950	690
26	2,980	3,210	1,600		5,980	5,980	18,100	14,900	5,440	1,360	930	805
27	2,980	7,390			5,710	5,440	16,300	15,200	5,180	1,360	805	690
28	2,980	4,920			5,710	5,440	14,200	17,700	4,920	1,210	690	930
29	2,980	4,150				5,440	13,900	18,800	4,400	1,360	805	930
30	2,770	3,670				5,440	18,400	13,900	3,910	1,670	805	1,360
31	2,770					5,440		11,900		1,670	805	

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	19,900	2,770	7,210	0.546	0.63
November	7,390	2,180	3,200	.242	.27
December	3,440		2,200	.167	.19
January	1,600		1,270	.096	.11
February	21,800	1,200	7,030	.533	.56
March	9,430	5,180	6,740	.511	.59
April	37,200	7,100	17,400	1.32	1.47
May	24,500	7,100	11,700	.886	1.02
June	17,400	3,910	8,500	.644	.72
July	3,440	1,210	1,920	.145	.17
August	1,830	690	1,180	.089	.10
September	1,360	585	814	.062	.07
The year	37,200	585	5,740	.435	5.90

DES MOINES RIVER AT KEOSAUQUA, IOWA

LOCATION.—Chain gage in sec. 36, T. 69 N., R. 10 W., at county bridge in Keosauqua, one-fourth mile above old dam site and Government locks. No important tributary enters Des Moines River for several miles up or down stream.

DRAINAGE AREA.—13,900 square miles.

RECORDS AVAILABLE.—May, 1903, to July, 1906; April, 1910, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 43,700 second-feet April 19 (gage height, 13.95 feet); minimum, 460 second-feet September 11 and 15–17 (gage height, 0.0 foot).

1903–1906, 1910–1927: Maximum discharge, about 97,000 second-feet June I, 1903 (gage height, 27.85 feet); minimum, 160 second-feet August 28 to September 6, 1911.

Flood of June 1, 1851, reached a stage of about 24 feet (discharge, about 80,000 second-feet).

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,000	3,210	3,960			5,760	8,420	20,100	11,500	3,460	1,620	755
2	12,900	2,840	3,460		[a]1,400	6,540	13,800	13,500	13,200	3,460	1,530	630
3	12,600	2,720	3,210	[a]1,800		6,020	14,700	14,100	13,800	[a] 2,970	1,440	690
4	17,500	2,600	3,460		[a] 1,570	4,980	12,600	11,500	24,800	2,480	1,190	[a] 660
5	20,400	2,480	[a] 3,210		18,800	5,500	10,900	9,520	16,000	2,720	960	630
6	20,800	2,360	2,960		14,400	8,690	10,100	8,420	12,600	2,480	1,110	630
7	16,300	[a] 2,420	2,960		10,100	9,240	9,800	7,610	10,900	2,250	[a] 1,000	630
8	13,800	2,480	3,710		8,960	8,150	9,800	7,610	10,100	2,250	890	755
9	11,500	2,600	3,460		11,500	8,150	11,500	14,100	9,240	1,820	890	630
10	[a]10,100	2,720	3,460		15,000	8,420	[a]12,000	15,000	[a] 8,700	[a] 1,870	1,040	570
11	8,690	2,600	3,210	[a]1,500	13,500	6,540	12,600	11,800	8,150	1,920	1,110	460
12	7,880	2,600	[a] 3,100		10,100	14,400	12,100	10,400	14,700	1,820	1,270	570
13	7,070	2,600	[a] 3,000		[a] 8,580	[a]11,800	13,200	11,500	13,200	1,720	1,360	515
14	6,540	[a] 3,280	[a] 2,800		7,070	9,240	15,600	11,500	10,900	1,530	[a] 1,280	482
15	6,280	3,960	[a] 2,600		6,280	8,150	21,400	10,400	10,400	1,620	1,190	460
16	6,020	3,710	[a] 2,400		7,070	7,610	25,500	9,240	7,610	1,440	1,360	460
17	[a] 5,500	3,460			7,070	7,610	23,100	8,150	7,070	[a] 1,440	1,530	460
18	4,980	4,460			6,800	7,070	20,100	7,610	6,020	1,440	1,360	[a] 515
19	4,720	6,020			5,500	7,070	43,700	18,800	[a] 5,760	1,440	1,110	570
20	3,960	6,020			[a] 4,730	12,400	39,600	11,800	5,500	1,270	820	515
21	4,210	[a] 5,500	[a]2,200		3,960	10,400	37,000	9,240	7,610	1,360	[a] 890	1,270
22	3,960	4,980			4,210	7,880	36,300	[a] 8,420	6,540	1,360	960	1,360
23	3,960	4,460			3,960	7,610	29,000	7,610	6,540	1,270	1,440	1,360
24	[a] 3,840	3,710		[a]1,200	3,960	6,800	24,100	24,100	6,280	[a] 1,440	1,110	1,270
25	3,710	3,460			6,540	6,540	19,800	26,900	5,500	1,620	890	[a] 1,010
26	3,460	10,100			6,800	6,280	18,800	16,000	[a] 5,110	1,270	755	755
27	3,210	7,610			[a] 6,410	[a] 6,020	17,200	14,700	4,720	1,270	755	755
28	3,080	[a] 6,160	[a]1,700		6,020	5,760	15,000	15,300	4,720	1,190	[a] 692	690
29	3,080	4,720			-------	5,760	15,600	[a]15,200	4,460	2,960	630	890
30	3,080	4,460			-------	5,760	15,600	15,000	3,960	1,360	755	1,040
31	[a] 3,140	-------			-------	5,500	-------	12,100	-------	[a] 1,490	755	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,800	3,080	8,140	0.586	0.68
November	10,100	2,360	4,010	.288	.32
December	3,960	----------	2,610	.188	.22
January	----------	----------	1,390	.100	.12
February	18,800	----------	7,250	.522	.54
March	14,400	4,980	7,670	.552	.64
April	43,700	8,420	19,000	1.37	1.53
May	26,900	7,610	12,800	.921	1.06
June	24,800	3,960	9,190	.661	.74
July	3,460	1,190	1,870	.135	.16
August	1,620	630	1,090	.078	.09
September	1,360	460	733	.053	.06
The year	43,700	460	6,280	.452	6.16

[a] Estimated.

RACCOON RIVER AT VAN METER, IOWA

LOCATION.—Water-stage recorder in SW. ¼ sec. 22, T. 78 N., R 27 W., at highway bridge one-third mile from railroad station at Van Meter, 1 mile below junction of North and South Raccoon Rivers, and 30 miles above junction of Raccoon and Des Moines Rivers.

DRAINAGE AREA.—3,410 square miles.

RECORDS AVAILABLE.—April, 1915, to November, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 6,750 second-feet February 8 (gage height, 9.6 feet); minimum, 50 second-feet September 12 (gage height, 1.63 feet).

1915–1927: Maximum discharge, 40,000 second-feet September 20, 1926 (gage height, 18.96 feet); minimum (estimated), 28 second-feet October 22, 1918 (gage height, 1.56 feet).

REMARKS.—Records good for medium and high stages and fair for low stages. Observations discontinued during winter.

Daily and monthly discharge, in second-feet, 1926-27

Day	Oct.	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	3,470	590	------	------	900	1,460	1,680	4,320	705	152	95	562	128
2	3,570	562	------	------	705	1,910	1,540	3,670	645	132	140	2,770	120
3	3,470	562	------	------	645	2,410	1,380	2,770	562	122	115	900	122
4	3,670	535	------	------	705	2,590	1,320	2,410	480	115	115	590	135
5	3,270	562	------	------	1,040	3,070	1,240	2,230	405	118	68	551	------
6	2,870	562	------	2,410	1,840	3,170	1,240	2,150	358	135	75	663	------
7	2,500	535	------	4,890	2,230	3,070	1,180	1,910	315	260	69	965	------
8	2,150	590	------	6,750	1,610	2,970	1,820	1,760	295	965	70	------	------
9	1,990	590	------	4,650	1,380	2,680	1,840	1,610	278	380	69	------	------
10	1,910	535	------	1,460	1,320	2,680	2,680	2,700	278	242	75	------	------
11	1,760	508	------	1,100	1,240	2,870	3,470	2,410	358	335	72	------	------
12	1,610	535	------	770	1,320	2,870	3,270	1,840	295	225	63	------	------
13	1,540	618	------	1,100	1,380	2,970	2,590	1,680	260	210	142	------	------
14	1,380	835	------	1,040	1,540	3,070	2,150	1,540	267	192	122	------	------
15	1,320	1,680	------	965	1,540	3,990	1,910	1,380	315	183	111	------	------
16	1,240	2,970	------	965	1,460	4,540	1,680	1,320	295	210	552	------	------
17	1,100	3,170	------	770	1,380	5,130	1,540	1,240	260	260	1,120	------	------
18	1,040	2,680	------	770	1,320	5,130	1,460	1,100	225	225	1,150	------	------
19	965	2,150	------	770	1,240	5,010	1,460	1,100	225	225	502	------	------
20	900	1,760	------	705	1,240	4,100	1,380	1,910	195	260	260	------	------
21	900	1,460	------	645	1,040	3,470	1,580	2,500	183	195	242	160	------
22	835	1,100	------	645	1,040	3,370	3,070	2,230	189	195	225	160	------
23	835	1,100	------	705	1,180	3,670	3,670	1,990	180	165	225	128	------
24	770	1,100	------	1,760	1,180	3,770	4,100	1,910	171	165	195	140	------
25	770	1,240	------	1,040	1,320	3,270	5,490	1,840	242	115	210	128	------
26	738	1,100	------	770	1,380	2,770	5,850	1,460	225	115	315	128	------
27	705	1,100	------	1,840	1,540	2,410	5,850	1,320	210	140	278	128	------
28	675	965	------	1,380	1,460	2,150	4,100	1,100	225	165	260	115	------
29	645	900	283	------	1,320	1,990	3,270	965	876	95	242	128	------
30	618	1,040	------	------	1,240	1,840	3,670	770	393	165	315	140	------
31	618	------	------	------	1,240	------	4,100	------	186	115	------	140	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,670	618	1,610	0.472	0.54
November	3,170	508	1,120	.328	.37
February 6-28	6,750	645	1,650	.484	.41
March	2,230	645	1,290	.378	.44
April	5,130	1,460	3,150	.924	1.03
May	5,850	1,180	2,630	.771	.89
June	4,320	770	1,900	.557	.62
July	876	171	326	.096	.11
August	965	95	212	.062	.07
September	1,150	63	250	.073	.08

FOX RIVER NEAR WAYLAND, MO.

LOCATION.—Chain gage in NE. ¼ sec. 25, T. 65 N., R. 7 W., at highway bridge 1 mile above Chicago, Burlington & Quincy Railroad bridge, 2½ miles northwest of Wayland, and 3 miles below Brush Creek.

DRAINAGE AREA.—392 square miles.

RECORDS AVAILABLE.—February, 1922, to September, 1927.

EXTREMES.—Maximum discharge during year, 7,300 second-feet April 20 (gage height, 18.30 feet); minimum, 2 second-feet September 3–6, 8, and 19–23.

1922–1927: Maximum discharge, that of April 20, 1927; minimum 0.6 second-foot November 7, 1923; minimum gage height, 1.97 feet September 22 and 23, 1927.

REMARKS.—Records fair except those for period of ice effect, December 11 to January 29, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,430	25	178	62	690	80	1,070	248	46	40	40	3
2	6,140	24	145	62	540	48	2,040	138	94	39	36	3
3	4,140	25	122	74	490	57	1,040	515	400	36	26	2
4	4,070	24	115	87	420	57	380	153	3,530	26	26	2
5	3,790	22	115	101	920	55	248	94	4,210	23	24	2
6	2,440	22	94	101	2,320	440	145	75	1,380	22	24	2
7	1,190	22	284	87	740	640	101	61	340	21	24	3
8	420	27	440	74	360	320	82	161	266	20	32	2
9	248	130	420	62	230	195	122	2,880	212	20	30	3
10	204	195	284	67	115	130	130	2,150	170	18	22	3
11	320	69	266	50	108	248	115	284	145	9	21	12
12	320	38	266	50	74	1,840	87	145	3,930	7	20	8
13	1,160	48	248	39	87	2,260	130	94	4,510	7	20	6
14	284	2,010	212	39	101	380	340	130	1,620	7	20	3
15	170	1,660	195	39	74	221	1,940	79	615	7	20	3
16	122	590	178	39	138	161	1,010	46	340	8	20	3
17	94	284	161	29	302	170	1,130	30	230	7	24	3
18	79	248	145	29	284	130	400	17	178	7	21	3
19	69	130	115	29	230	87	2,010	615	138	6	20	2
20	60	108	74	29	67	1,310	5,150	266	130	6	20	2
21	52	94	62	20	94	1,760	4,000	75	161	8	20	2
22	49	87	62	20	94	440	1,190	57	1,130	145	21	2
23	46	78	50	20	79	230	400	715	380	19	153	2
24	41	84	50	20	74	153	284	3,240	170	19	79	5
25	42	84	50	20	115	108	221	3,860	86	19	37	4
26	31	565	50	12	690	87	186	540	83	19	21	3
27	35	1,760	62	12	266	77	145	230	63	20	12	3
28	35	890	62	12	87	63	115	145	51	20	8	4
29	34	284	62	39	------	56	248	130	47	21	7	6
30	32	204	62	540	------	46	565	87	43	21	5	12
31	29	------	62	640	------	47	------	62	------	24	3	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,140	29	973	2.48	2.86
November	2,010	22	328	.837	.93
December	440	50	151	.385	.44
January	640	12	80.8	.206	.24
February	2,320	67	350	.893	.93
March	2,260	46	384	.980	1.13
April	5,150	82	834	2.13	2.38
May	3,860	17	559	1.43	1.65
June	4,510	43	823	2.10	2.34
July	145	6	21.6	.055	.06
August	153	3	27.6	.070	.08
September	12	2	3.77	.010	.01
The year	6,140	2	377	.962	13.05

WYACONDA RIVER NEAR CANTON, MO.

LOCATION.—Chain gage in SE. ¼ SW. ¼ sec. 33, T. 62 N., R. 6 W., at highway bridge three-fourths mile below Sugar Creek and 3 miles southwest of Canton.
DRAINAGE AREA.—447 square miles.
RECORDS AVAILABLE.—February, 1922, to September, 1927.
EXTREMES.—Maximum discharge during year, 6,700 second-feet October 3 (gage height, 17.95 feet); minimum, 1 second-foot September 15–19.
1922–1927: Maximum discharge, that of October 3, 1926; minimum (estimated), 0.5 second-foot January 8, 9, and 19–23, 1924.
REMARKS.—Records good except those below 20 second-feet, which are fair, and those for period of ice effect, December 15 to January 29, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,510	64	180	17	1,070	128	2,710	212	66	27	20	2
2	4,560	63	158	30	860	106	2,750	166	91	17	9	2
2	6,640	53	143	43	740	106	1,410	276	1,340	11	6	2
4	6,240	51	143	70	770	98	710	256	3,390	8	5	2
5	5,180	52	136	98	1,550	120	415	128	4,780	7	6	7
6	4,000	53	128	84	1,720	490	296	97	2,670	7	4	4
7	2,270	56	256	70	710	710	204	80	276	6	20	7
8	440	53	1,660	56	515	390	212	166	166	5	4	5
9	296	650	620	43	318	256	296	1,300	136	5	81	33
10	229	440	365	30	229	212	415	2,110	95	4	22	7
11	204	229	490	9	150	680	256	490	136	4	8	3
12	256	173	565	9	180	2,350	204	229	3,030	4	4	3
13	1,410	143	680	9	204	2,390	1,620	296	4,830	5	5	2
14	650	2,870	180	9	150	770	890	1,200	4,090	5	5	2
15	238	3,150	113	9	173	318	2,350	340	620	5	6	1
16	188	1,200	84	9	196	220	3,190	166	318	5	4	1
17	143	650	84	9	318	204	2,040	128	173	5	4	1
18	136	276	70	9	950	180	650	98	136	5	4	1
19	120	229	70	9	365	173	2,190	91	128	4	4	1
20	106	188	70	9	188	2,470	3,550	180	106	3	3	2
21	98	158	56	9	166	2,190	5,180	166	2,470	3	3	2
22	90	87	56	9	150	650	3,960	166	950	8	2	2
23	81	113	43	9	143	365	440	180	318	15	296	2
24	90	158	43	9	143	173	256	2,350	150	6	256	2
25	81	128	43	9	220	188	212	3,070	95	4	128	2
26	78	390	30	9	276	158	180	2,110	81	4	24	
27	76	1,410	17	9	296	143	158	390	59	6	8	3
28	71	565	17	9	180	98	150	180	46	4	5	4
29	76	365	17	43	-------	128	128	128	35	4	4	4
30	67	238	17	770	-------	120	256	106	27	59	3	4
31	67	-------	17	1,200	-------	113	-------	88	-------	62	3	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,640	67	1,180	2.64	3.04
November	3,150	51	475	1.06	1.18
December	1,660	17	211	.472	.54
January	1,200	9	87.6	.196	.23
February	1,720	143	462	1.03	1.07
March	2,470	98	539	1.21	1.40
April	5,180	128	1,240	2.77	3.09
May	3,070	80	547	1.22	1.41
June	4,830	27	1,030	2.30	2.57
July	62	3	10.2	.023	.03
August	296	2	30.8	.069	.08
September	33	1	3.83	.0086	.01
The year	6,640	1	483	1.08	14.66

NORTH FABIUS RIVER AT MONTICELLO, MO.

LOCATION.—Chain gage in SE. ¼ sec. 6, T. 61 N., R. 7 W., at highway bridge 1 mile south of Monticello and 22 miles above confluence with Middle Fabius River.

DRAINAGE AREA.—452 square miles.

RECORDS AVAILABLE.—February, 1922, to September, 1927.

EXTREMES.—Maximum discharge during year, 8,760 second-feet April 20 (gage height, 23.50 feet); minimum, 3 second-feet September 20 and 21.

1922–1927: Maximum discharge, that of April 20, 1927; minimum, 1 second-foot July 9, 1922.

REMARKS.—Records fair except those for period of ice effect, December 14 to January 29, which are poor. Discharge estimated March 2–5.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	4,580	50	214	44	850	148	3,520	184	155	53	17	6
2	6,070	45	162	44	652	120	3,090	134	148	41	18	6
3	6,070	45	141	44	586	110	850	229	1,160	34	16	6
4	5,020	40	120	54	630	100	586	148	4,210	29	11	7
5	2,320	40	162	65	2,610	120	460	83	1,780	26	10	6
6	1,950	45	244	54	1,480	340	276	76	608	23	10	7
7	1,810	45	608	54	500	542	214	64	308	21	9	7
8	480	45	850	35	420	420	244	608	65	21	9	21
9	380	630	520	27	276	340	380	3,370	33	19	64	14
10	340	260	460	20	244	192	360	1,080	30	18	19	11
11	480	214	420	20	176	176	292	542	27	17	13	9
12	324	101	520	14	148	3,280	214	229	4,910	16	9	8
13	360	214	480	14	162	1,750	1,950	155	6,140	16	9	6
14	292	2,430	340	10	176	674	2,520	292	2,170	18	8	5
15	244	2,260	244	10	148	324	3,690	440	630	19	8	5
16	162	942	184	10	199	199	5,260	155	308	18	8	5
17	134	564	141	10	828	169	1,210	58	214	16	7	4
18	127	440	127	10	586	169	480	48	184	13	7	4
19	108	380	114	10	308	674	3,220	48	162	12	6	4
20	95	292	101	10	214	2,490	8,760	39	148	11	6	3
21	83	214	89	10	134	1,160	5,320	34	340	10	6	3
22	72	176	77	10	148	480	1,370	48	480	10	7	5
23	66	176	77	10	148	276	520	76	360	15	17	5
24	77	162	77	10	162	276	360	1,210	244	19	276	4
25	72	244	77	10	192	176	214	2,200	214	18	17	5
26	72	586	65	14	162	162	162	480	192	16	17	5
27	66	440	65	20	148	134	134	340	95	13	10	10
28	61	360	65	27	148	120	120	324	83	11	9	73
29	55	324	54	44	-------	101	127	324	67	10	8	420
30	50	229	54	740	-------	101	276	260	53	11	7	1,160
31	50	-------	44	1,060	-------	95	-------	184	-------	16	6	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,070	50	1,030	2.28	2.63
November	2,430	40	400	.885	.99
December	850	44	222	.491	.57
January	1,060	10	81.1	.179	.21
February	2,610	134	444	.982	1.02
March	3,280	95	497	1.10	1.27
April	8,760	120	1,540	3.41	3.80
May	3,370	34	437	.967	1.11
June	6,140	27	851	1.88	2.10
July	53	10	19.0	.042	.05
August	276	6	20.8	.046	.05
September	1,160	3	61.1	.135	.15
The year	8,760	3	465	1.03	13.95

SALT RIVER NEAR NEW LONDON, MO.

LOCATION.—Chain gage in NE. ¼ NW. ¼ sec. 36, T. 56 N., R. 5 W., at bridge on State highway No. 61, 1¼ miles below Turkey Creek and 2 miles north of New London.

DRAINAGE AREA.—2,480 square miles.

RECORDS AVAILABLE.—February, 1922, to September, 1927.

EXTREMES.—Maximum discharge during year, 36,600 second-feet March 21 (gage height, 23.46 feet); minimum, 36 second-feet September 19, 20, 24, and 25 (gage height, 1.74 feet).

1922–1927: Maximum discharge, 49,800 second-feet September 6, 1926 (gage height, 26.0 feet); minimum (estimated), 12 second-feet August 20, 1922.

REMARKS.—Records good except those for December 13 to January 1 and January 10 to February 5, which were estimated.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,400	269	2,040	590	5,000	310	22,200	705	1,340	186	282	75
2	26,700	223	1,960	748	4,000	321	31,200	555	1,180	485	342	72
3	27,000	185	912	635	3,000	332	24,600	630	2,440	316	396	63
4	27,000	179	822	635	2,100	282	9,520	705	6,160	268	268	59
5	26,500	179	860	710	1,400	310	6,780	1,020	12,400	141	154	53
6	26,200	195	565	672	1,010	354	3,400	1,420	11,400	170	170	133
7	7,170	206	2,780	565	710	1,160	1,840	1,340	8,260	154	117	342
8	6,910	212	12,500	530	710	3,880	1,500	9,660	5,800	668	170	154
9	7,170	360	12,000	462	530	3,590	3,680	12,000	3,040	630	170	113
10	7,430	565	5,040	310	495	1,560	13,200	15,900	1,020	396	630	100
11	7,560	672	2,520	188	462	785	13,900	12,200	555	186	555	83
12	5,580	785	2,040	188	495	2,520	14,400	6,280	5,250	106	292	106
13	2,200	912	1,800	188	710	4,940	27,500	2,520	13,400	170	292	86
14	1,800	2,520	1,480	188	1,560	3,310	32,800	2,260	20,600	170	368	86
15	1,640	8,820	1,240	157	1,240	3,040	29,000	1,920	13,700	117	3,040	83
16	1,240	8,540	1,080	157	1,240	1,960	23,500	1,340	6,400	154	1,840	67
17	860	6,280	1,010	130	1,720	1,400	15,900	900	3,590	106	1,020	141
18	748	4,540	935	130	4,260	1,640	7,430	485	1,500	117	940	44
19	710	2,600	860	130	4,940	7,840	5,920	780	1,840	96	520	38
20	600	1,400	785	106	3,220	29,700	12,000	1,500	5,250	96	224	40
21	600	822	710	106	1,400	35,700	9,520	860	7,300	96	268	43
22	565	710	710	106	1,240	24,400	8,260	396	5,690	117	194	43
23	530	748	635	106	935	4,940	6,280	368	4,160	106	160	43
24	384	785	565	106	530	2,860	3,400	3,400	2,010	117	131	39
25	301	1,400	565	106	417	1,580	2,010	16,200	1,180	117	110	40
26	530	6,910	495	106	365	1,340	1,420	12,400	780	117	117	43
27	495	8,120	495	130	332	980	1,180	6,280	424	86	337	46
28	495	5,470	430	157	338	860	860	8,120	368	86	302	43
29	462	3,040	430	2,000	------	705	520	12,700	268	96	164	56
30	398	1,640	365	10,000	------	592	705	6,280	224	96	306	2,010
31	278	------	430	7,500	------	630	--------	2,010	--------	96	96	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	27,000	278	6,720	2.71	3.12
November	8,820	179	2,310	.931	1.04
December	12,500	365	1,910	.770	.89
January	10,000	106	898	.362	.42
February	5,000	332	1,580	.637	.66
March	35,700	282	4,640	1.87	2.16
April	32,800	520	11,100	4.48	5.00
May	16,200	368	4,620	1.86	2.14
June	20,600	224	4,920	1.98	2.21
July	668	86	189	.076	.09
August	3,040	96	451	.182	.21
September	2,010	38	145	.058	.06
The year	35,700	38	3,290	1.33	18.00

CUIVRE RIVER NEAR TROY, MO.

LOCATION.—Chain gage in SW. ¼ sec. 18, T. 49 N., R. 1 E., at Frenchman Bluff highway bridge, 1½ miles above Sugar Creek and 3 miles northeast of Troy. Zero of gage is 446.58 feet above mean sea level.

DRAINAGE AREA.—908 square miles.

RECORDS AVAILABLE.—February, 1922, to September, 1927.

EXTREMES.—Maximum discharge during year, 37,300 second-feet April 13 (gage height, 23.40 feet); minimum, 8 second-feet September 22–25.

1922–1927: Maximum discharge, about 50,000 second feet September 5, 1926 (gage height, 25.40 feet); minimum, 4 second-feet September 9–25, 1925.

REMARKS.—Records fair. Slight ice effect December 16–20, December 28 to January 2, and January 12–29.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,800	93	980	110	2,660	84	30,000	221	725	151	450	27
2	12,200	84	690	110	2,190	81	4,630	210	420	980	161	26
3	21,200	78	450	110	1,720	81	1,720	199	570	570	340	23
4	13,500	78	340	110	2,250	78	865	190	5,600	420	161	22
5	5,900	75	290	110	1,720	84	1,180	190	1,140	232	136	20
6	1,520	69	243	110	1,220	221	630	365	630	365	96	19
7	760	63	760	107	865	830	570	980	510	980	90	19
8	630	60	6,000	93	510	570	480	19,300	390	390	2,940	25
9	390	2,730	1,830	81	420	450	1,720	7,220	290	230	725	23
10	390	900	1,520	48	340	365	8,840	14,200	199	151	290	22
11	510	450	1,180	45	302	1,420	6,980	2,730	127	136	151	22
12	390	450	980	35	290	7,720	17,800	830	2,590	103	127	21
13	340	2,660	725	35	865	1,620	36,100	510	18,400	96	900	19
14	199	21,600	600	35	1,140	900	13,700	600	9,640	103	8,700	19
15	190	9,640	510	35	600	420	5,500	540	1,420	830	940	16
16	180	1,830	365	35	420	315	2,520	450	940	450	540	15
17	151	1,670	290	35	340	4,000	1,270	420	630	390	390	12
18	127	1,420	243	35	278	1,060	795	390	980	243	278	12
19	118	1,220	243	35	210	26,200	1,370	865	630	144	151	10
20	1,830	1,060	243	35	180	32,200	3,390	365	4,720	96	127	9
21	510	760	243	35	161	14,900	1,140	290	17,200	87	100	9
22	390	3,150	221	35	144	1,830	830	243	4,900	760	90	8
23	221	1,370	630	35	127	900	660	450	1,890	278	69	8
24	221	3,010	3,470	27	127	690	540	3,730	830	161	75	8
25	232	3,820	830	27	118	570	480	22,000	630	136	60	8
26	210	18,400	510	27	110	480	420	3,230	265	110	54	9
27	190	3,910	221	27	100	390	365	830	221	90	45	10
28	161	1,060	180	27	87	340	315	725	190	72	40	19
29	151	1,720	144	78	------	302	315	1,320	170	66	38	110
30	127	1,320	127	4,540	------	278	243	830	161	136	33	1,140
31	103	------	110	3,010	------	1,620	------	760	------	510	32	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	24,800	103	2,830	3.12	3.60
November	21,600	60	2,820	3.11	3.47
December	6,000	110	812	.894	1.03
January	4,540	27	297	.327	.38
February	2,660	87	696	.767	.80
March	32,200	78	3,260	3.59	4.14
April	36,100	243	4,850	5.34	5.96
May	22,000	190	2,750	3.03	3.49
June	18,400	127	2,570	2.83	3.16
July	980	66	305	.336	.39
August	8,700	32	591	.651	.75
September	1,140	8	57.0	.063	.07
The year	36,100	8	1,820	2.00	27.24

DES PLAINES RIVER AT LEMONT, ILL.

LOCATION.—Staff gage in NW. ¼ sec. 20, T. 37 N., R. 11 E., at highway bridge on Stephens Street, a quarter of a mile north of Lemont and 8 miles above junction with Chicago Sanitary Canal. Zero of gage is 584.10 feet above mean sea level.

DRAINAGE AREA.—705 square miles.

RECORDS AVAILABLE.—November, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 3,750 second-feet November 19 and 20 (gage height, 5.8 feet); minimum, 14 second-feet July 31 (gage height, 2.55 feet).

1914–1927: Maximum discharge, 5,520 second-feet March 18, 1919; no flow on days in September, 1919, July, 1921, and September, 1925.

REMARKS.—Records good except those for estimated periods, which are fair. During extremely high water part of flow spills over into Chicago Sanitary Canal at Willow Springs, 7 miles above station. Estimates of this overflow, in second-feet, for the year ending September 30, 1927, are given below:

Nov. 16 60	Nov. 24 360	Feb. 6 160
Nov. 17 430	Nov. 25 280	Feb. 7 280
Nov. 18 1,100	Nov. 26 280	Feb. 8 160
Nov. 19 1,470	Nov. 27 220	Feb. 9 60
Nov. 20 1,280	Nov. 28 150	Apr. 19 220
Nov. 21 850	Nov. 29 110	Apr. 20 220
Nov. 22 430	Nov. 30 60	Apr. 21 110
Nov. 23 360	Feb. 5 60	Apr. 22 60

Daily discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	245	2,170	[a] 422	700	460	[a] 768	1,450	580	118	21	21
2	970	231	2,030	[a] 118	[a] 835	[a] 422	790	1,450	540	106	27	27
3	1,250	217	1,900	[a] 90	970	385	835	1,020	540	90	27	27
4	1,450	210	1,900	[a] 90	[a] 1,650	[a] 378	880	880	745	90	27	27
5	1,780	210	1,060	[a] 90	2,330	371	970	790	620	80	27	27
6	1,670	210	700	[a] 90	[a] 2,500	[a] 396	1,020	745	540	90	27	27
7	1,400	231	540	[a] 90	2,680	422	1,100	745	540	178	27	27
8	1,150	315	540	[a] 90	[a] 2,500	[a] 441	1,100	700	500	148	44	27
9	1,060	280	500	[a] 90	2,330	460	1,060	745	500	118	90	27
10	970	280	500	[a] 90	[a] 2,180	[a] 480	970	1,450	500	118	90	44
11	925	315	540	[a] 118	2,030	500	925	1,900	385	118	90	65
12	790	315	540	[a] 118	[a] 1,740	[a] 520	880	1,780	350	106	65	65
13	745	350	540	[a] 90	1,450	540	790	1,450	315	90	65	44
14	700	580	540	[a] 90	[a] 1,260	[a] 710	745	1,250	315	90	44	27
15	660	1,060	500	[a] 148	1,060	880	745	1,060	280	65	27	27
16	620	2,330	500	178	[a] 970	[a] 1,060	880	790	266	90	27	27
17	580	2,870	460	[a] 163	880	1,250	1,900	745	245	75	33	27
18	540	3,510	500	148	[a] 1,120	[a] 1,110	2,170	700	245	65	44	65
19	422	3,750	[a] 520	[a] 133	1,350	970	2,500	700	178	65	44	90
20	385	3,750	540	118	[a] 1,620	[a] 925	2,500	660	280	56	44	90
21	385	3,280	[a] 580	[a] 112	1,900	880	2,500	660	280	44	27	75
22	371	2,870	[a] 620	106	[a] 1,300	[a] 880	2,330	660	245	44	27	65
23	350	2,870	[a] 660	[a] 112	700	880	2,170	620	210	56	27	56
24	350	2,870	[a] 700	118	[a] 620	[a] 835	1,670	1,350	210	65	44	44
25	336	2,680	[a] 700	[a] 124	540	790	1,450	1,900	178	65	56	65
26	315	2,680	[a] 700	130	[a] 540	[a] 790	1,400	1,780	148	44	44	118
26	315	2,500	[a] 700	[a] 110	540	790	1,150	1,400	118	44	44	178
28	315	2,500	[a] 700	90	[a] 500	[a] 790	1,100	1,020	106	27	44	245
29	280	2,500	[a] 700	[a] 315	-------	790	1,250	745	90	27	27	315
30	280	2,330	[a] 700	540	-------	[a] 768	1,450	620	90	27	27	371
31	245	-------	[a] 700	[a] 620	-------	745	-------	620	-------	14	21	------

[a] Estimated.

Monthly discharge of Des Plaines River at Lemont, Ill., 1926–27

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,780	245	730	1.04	1.20
November	3,750	210	1,610		
December	2,170	460	790	1.12	1.29
January	620	90	159	.226	.26
February	2,680	500	1,390		
March	1,250	371	69.7	.989	1.14
April	2,500	745	1,330		
May	1,900	620	1,040	1.48	1.71
June	745	90	338	.479	.53
July	178	14	77.8	.110	.13
August	90	21	41.2	.058	.07
September	371	21	78.0	.111	.12
The year	3,750	14	683		

DES PLAINES RIVER AT JOLIET, ILL.

LOCATION.—Water-stage recorder in NE. ¼ sec. 9, T. 35 N., R. 10 E., at Jackson Street Bridge in Joliet. Zero of gage is 524.31 feet above sea level.

RECORDS AVAILABLE.—December, 1914, to September, 1927. September to December, 1914, at Cass Street Bridge, 1,200 feet downstream.

EXTREMES.—Maximum mean daily discharge during year, 13,200 second-feet May 24; minimum not determined.

1914–1927: Maximum mean daily discharge, 18,400 second-feet March 18, 1919; minimum occurred in August, 1927.

REMARKS.—Records good except those for estimated periods, which are fair. Discharge includes flow of Chicago Sanitary Canal. An average of 400 second-feet is diverted by Illinois & Michigan Canal 100 feet above gage. Flow is regulated by operation of power plant of Chicago Sanitary District at Lockport, and by operation of power plant of Public Service Co. of Northern Illinois, 100 feet above gage.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a 9,100	8,660	10,500	a 9,000	8,830	8,470	a11,100	7,770	a 6,300	a 7,500	10,500	10,300
2	a 8,250	9,120	10,500	9,020	9,400	9,620	a10,500	8,570	a 6,250	a 7,500	10,400	10,200
3	7,970	8,780	a10,200	9,050	9,680	9,650		8,170	a 6,500	7,310	10,700	10,100
4	7,970	8,490	a10,400	9,100	9,960	8,950		7,520	a 9,800	7,090	10,500	10,400
5	8,380	7,970	10,100	9,200	a 10,000	8,930	a9,500	a 6,950	7,900	7,070	10,800	10,100
6	8,290	8,150	9,780	9,150		9,280		a 7,100	7,370	7,430	a10,500	10,100
7	8,170	8,420	9,450	a 8,700		9,350		a 7,200	7,030	7,020	10,200	10,200
8	8,170	8,810	9,620	a 8,500		9,450		7,230	6,730	6,910	10,500	10,500
9	a 7,950	10,100	9,620	8,690	a10,500	9,500	a 9,900	a 7,650	6,710	7,150	9,780	10,500
10	7,970	9,400	9,120	9,420		9,500	9,580	a 9,000	a 6,750	7,230	9,420	10,400
11	7,790	8,760	a 9,200	a 8,900		9,650	9,000	a 9,000	a 6,850	7,210	8,830	10,400
12	8,030	8,240	9,500		a 9,200	10,600	8,780	a 8,450	7,210	7,380	a 8,850	10,300
13	7,430	8,810	9,620		9,050	11,200	8,900	7,830	6,750	7,340		10,100
14	7,170	10,400	a 9,250		8,850	11,600	7,620		6,480	7,480		9,930
15	7,030	11,600		a8,750	8,290	11,500	a 7,650		6,750	7,900	a8,000	9,860
16	a 7,250	12,000	a8,750		8,170	11,300	a10,200		6,640	a 7,800		a 9,900
17	7,190	a12,500			8,360	10,900	9,000	a7,700	6,430			
18	7,210	a12,900			a 9,200	10,800	10,800		6,660			
19	7,520	13,100		a 8,850	a 8,800	10,900	12,900		6,870		a 6,400	a10,000
20	7,070	12,800	a 8,750	9,120	8,540	a 10,900	12,000		9,320	a7,750	a 6,150	
21	6,790	11,800	a 9,200	9,120	8,310		11,700	a 8,700	8,030			
22	7,130	11,200		9,320	7,830		9,200	8,330	6,680			a 9,900
23	a 7,300	11,400	a9,400		7,900	a10,200	8,590	9,120	6,680	a 7,900		10,200
24	7,770	10,900			7,830		7,920	13,200	6,640	7,580	a8,500	9,910
25	7,750	10,700	a 9,200		7,970		7,560	10,400	a 6,600	7,410		9,780
26	7,270	11,400	9,100	a8,500	7,940	a 9,950	7,620	a 9,000	6,660	7,430		10,400
27	6,970	11,700	8,810		7,770	9,880	7,660	a 7,500	6,560	7,480	a10,400	10,900
28	7,390	10,900	9,100		8,080	9,650	7,890	a 6,950	6,560	8,010	10,900	11,700
29	8,360	11,100	9,220	a 8,450		9,480	9,960	7,210	6,480	a 9,900	10,700	11,000
30	8,380	10,200	8,730	8,380		9,280	8,540	6,470	a 6,500	9,550	10,600	a 10,200
31	8,260		9,350	9,000		9,480		6,330		9,800	10,400	

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	9,100	6,790	7,720	May	13,200	6,330	8,050
November	13,100	7,970	10,300	June	9,800	6,250	6,960
December	10,500		9,360	July	9,900	6,910	7,710
January	9,420		8,810	August	10,900		9,210
February		7,770	9,030	September	11,700	9,780	10,200
March	11,600	8,470	10,000				
April	12,900	7,560	9,390	The year	13,200		8,900

a Estimated.

NOTE.—Daily discharge in the above table does not include flow in Illinois & Michigan Canal.

ILLINOIS RIVER AT MORRIS, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 9, T. 33 N., R. 7 E., at highway bridge in Morris, 7 miles below station formerly maintained near Minooka and 10 miles below mouth of Kankakee River. Zero of gage is 478.97 feet above mean sea level.

RECORDS AVAILABLE.—October, 1919, to September, 1927. January, 1903, to December, 1904, at station near Minooka.

EXTREMES.—Maximum discharge during year, 55,600 second-feet April 20; maximum gage height, 20.0 feet February 6; minimum discharge, 7,000 second-feet August 22 (gage height, 4.9 feet).

1919–1927: Maximum discharge, 60,600 second-feet April 12, 1922; maximum gage geight, 24.4 feet January 21, 1916; minimum discharge, that of August 22, 1927.

Maximum discharge known, 67,800 second-feet March 26, 1904, at station near Minooka.

REMARKS.—Records good for medium and high stages and fair for low stages. Discharge estimated because of ice January 16–19 and February 6–10. Flow at this station includes flow from Chicago Sanitary Canal. Operation of power plants at Lockport and Joliet above gage causes slight diurnal fluctuation at low and medium stages. Gage-height record furnished by United States Weather Bureau.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27,500	12,600	17,400	11,700	19,500	15,600	16,700	28,700	20,400	9,420	11,400	11,200
2	28,400	13,400	17,400	11,700	24,900	15,600	21,200	25,200	18,700	13,600	11,700	11,200
3	32,200	13,100	16,900	11,400	28,400	15,600	22,500	22,200	17,700	11,900	11,700	11,000
4	38,000	12,600	15,800	11,700	31,800	15,100	22,800	21,200	31,800	10,300	11,900	11,200
5	40,500	11,900	15,800	11,700	40,000	14,100	24,100	19,300	43,500	10,100	11,900	11,400
6	40,500	11,700	15,800	11,700	49,000	14,100	23,600	18,000	31,800	9,860	11,900	11,000
7	39,000	11,900	14,400	11,400	41,500	14,600	22,000	16,700	25,200	10,300	11,900	11,200
8	35,100	11,900	14,600	11,400	34,200	16,700	20,600	15,400	21,700	8,800	12,200	11,200
9	31,000	12,600	14,600	11,200	31,000	17,700	19,500	15,100	19,000	8,800	12,200	11,400
10	27,200	13,800	14,400	11,200	29,000	17,700	20,400	16,100	17,200	9,000	11,000	11,400
11	24,700	13,100	14,400	11,200	27,800	17,200	20,400	16,700	15,400	9,420	11,000	11,200
12	22,200	12,900	14,600	10,300	24,400	17,700	19,500	15,600	15,100	10,100	10,100	11,200
13	20,900	12,600	15,100	10,300	22,000	22,200	19,500	15,600	14,600	9,860	10,800	11,200
14	18,500	16,900	14,800	10,300	20,600	24,100	19,500	15,400	14,400	9,200	10,300	11,200
15	17,200	27,500	14,400	10,300	19,300	23,600	22,200	13,800	13,600	9,640	10,800	11,200
16	16,100	33,800	13,800	10,500	18,200	22,500	24,900	13,400	13,400	10,100	10,300	11,000
17	15,100	31,400	13,400	10,500	18,200	21,700	31,000	12,600	12,600	10,300	9,200	11,200
18	14,400	29,600	12,900	10,500	18,500	20,100	30,300	12,400	11,700	11,400	9,200	11,900
19	13,800	29,300	12,600	10,800	18,500	19,000	42,000	19,000	11,400	11,200	8,400	11,400
20	13,400	27,800	12,400	10,800	17,700	19,500	55,600	26,300	12,400	10,800	8,000	10,800
21	13,400	25,500	12,600	11,000	16,900	24,900	52,300	29,600	11,400	10,300	7,600	10,800
22	13,400	22,800	12,600	11,000	16,100	27,800	44,000	32,200	11,700	10,100	7,000	11,000
23	13,400	21,200	12,600	11,200	15,100	29,600	36,000	33,800	11,700	9,860	9,200	11,200
24	11,900	20,100	12,600	11,000	14,800	29,600	30,300	42,000	12,400	9,860	12,400	11,000
25	12,400	19,500	12,600	10,800	14,600	27,800	26,300	48,500	13,100	9,640	12,400	11,000
26	11,900	19,000	12,600	10,800	15,800	25,800	23,600	46,500	12,600	9,420	12,200	10,800
27	11,700	21,200	12,600	10,800	16,100	23,100	22,000	28,000	11,700	9,420	12,200	11,700
28	11,400	20,100	12,200	10,300	15,800	21,400	20,400	31,800	10,800	9,200	12,200	12,600
29	12,200	19,300	12,200	10,300	-------	19,500	21,200	28,700	10,300	10,800	12,200	13,400
30	12,600	19,000	11,900	11,200	-------	18,200	31,400	25,500	9,860	11,400	11,400	13,800
31	12,600	-------	11,700	13,800	-------	16,900	-------	22,500	-------	11,000	11,700	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	40,500	11,400	21,100	May	48,500	12,400	23,800
November	33,800	11,700	18,900	June	43,500	9,860	16,600
December	17,400	11,700	13,900	July	13,600	8,800	10,200
January	13,800	10,300	11,100	August	12,400	7,000	10,900
February	49,000	14,000	23,600	September	13,800	10,800	11,400
March	29,600	14,100	20,300				
April	55,600	16,700	26,900	The year	55,600	7,000	17,300

ILLINOIS RIVER AT PEORIA, ILL.

LOCATION.—Staff gage in NW. ¼ sec. 2, T. 8 N., R. 8 E., at foot of Grant Street in Peoria, 4½ miles above mouth of Kickapoo Creek. Zero of gage is 428.92 feet above mean sea level.

RECORDS AVAILABLE.—March, 1910, to September, 1927. March, 1903, to July, 1906, at Peoria & Pekin Union Railroad bridge 3½ miles downstream.

EXTREMES.—Maximum discharge during year, 58,300 second-feet October 8–10 (gage height, 25.0 feet); minimum, 11,300 second-feet August 23–25 (gage height, 10.8 feet).

1910–1927: Maximum discharge, that of October 8–10, 1926; minimum, less than 7,250 second-feet during period December 11, 1916, to January 10, 1917.

Maximum stage known, about 26.6 feet in 1844.

REMARKS.—Records good except those for January 15–30 and February 7–16, which were estimated because of ice. Flow at this station includes flow from Chicago Sanitary Canal. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42,400	25,800	37,800	20,200	18,000	27,900	32,400	46,900	47,400	21,200	12,700	12,000
2	44,200	25,200	36,200	19,800	19,500	27,300	32,000	46,400	45,600	20,500	12,700	12,000
3	45,600	24,600	35,800	19,500	21,200	26,400	31,300	46,000	44,200	20,500	12,700	12,000
4	47,400	24,000	35,000	19,000	23,200	25,800	32,000	44,600	46,000	19,800	12,700	12,200
5	51,800	23,000	34,200	19,000	27,300	24,900	32,400	43,300	48,800	18,800	12,700	12,200
6	55,000	22,500	32,700	18,800	32,000	24,600	32,700	41,500	50,800	18,200	12,700	12,000
7	56,600	22,500	31,300	18,500	34,200	24,300	33,400	39,800	51,800	18,000	12,700	12,000
8	58,300	22,000	31,000	18,000	37,000	24,000	33,400	38,200	49,800	17,600	13,000	12,000
9	58,300	22,500	30,000	17,800	39,000	23,800	33,400	35,800	47,800	17,100	13,000	13,400
10	58,300	21,500	29,100	17,800	40,200	23,500	33,000	34,600	46,000	16,600	13,000	13,400
11	57,200	20,800	28,800	17,300	39,800	23,500	32,700	35,800	44,200	16,200	13,000	13,400
12	55,600	20,200	27,900	16,900	39,400	24,300	32,400	35,000	42,400	15,800	13,000	13,000
13	54,400	20,000	27,600	16,600	39,000	24,900	32,700	33,400	40,600	15,300	13,200	13,200
14	52,800	20,800	27,000	16,400	38,600	25,800	32,000	32,700	39,000	15,100	13,200	13,000
15	50,800	23,800	26,700	15,500	38,200	26,700	31,600	32,000	37,400	14,900	13,200	13,000
16	48,800	27,300	25,800	15,300	37,800	27,600	32,000	30,600	35,400	14,500	13,000	13,000
17	47,400	31,300	25,500	15,100	37,400	28,200	32,000	29,400	33,800	14,500	13,000	13,000
18	45,100	33,400	24,600	15,100	38,200	28,800	34,200	30,000	32,700	14,300	13,000	13,000
19	43,800	36,600	24,600	15,100	35,800	29,100	36,200	33,400	31,000	14,100	12,700	12,700
20	41,500	38,200	24,000	15,100	35,000	29,400	42,000	34,200	29,700	14,100	12,300	12,700
21	39,800	39,400	24,000	15,100	32,700	28,800	47,800	36,600	28,800	13,700	12,000	12,700
22	38,200	39,000	23,500	15,300	31,300	29,400	52,800	38,600	27,900	14,100	11,600	12,700
23	36,600	39,400	23,200	15,500	30,600	30,300	56,100	39,400	27,600	13,700	11,300	12,700
24	35,000	39,000	23,000	15,500	30,000	32,000	56,100	41,500	26,400	13,700	11,300	12,500
25	33,400	38,200	22,800	15,500	29,700	33,000	55,000	45,600	25,200	13,400	11,300	12,300
26	32,000	38,200	22,200	15,500	28,800	33,400	53,900	48,800	25,200	13,400	11,500	12,700
27	30,300	38,200	21,800	15,500	28,500	34,200	51,800	51,800	24,000	13,000	11,600	12,700
28	29,400	37,400	21,500	15,800	28,200	34,200	49,300	52,800	23,000	12,800	11,800	12,700
29	28,800	38,200	21,000	15,800	-------	33,400	47,800	52,800	22,500	12,800	11,800	12,700
30	27,900	37,400	20,800	16,400	-------	33,400	46,900	51,300	22,000	12,700	12,000	13,000
31	26,700	-------	20,500	17,300	-------	32,700	-------	49,300	-------	12,700	12,000	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	58,300	26,700	44,300	May	52,800	29,400	40,400
November	39,400	20,000	29,700	June	51,800	22,000	36,600
December	37,800	20,500	27,100	July	21,200	12,700	15,600
January	20,200	15,100	16,800	August	13,200	11,300	12,400
February	40,200	18,000	32,500	September	13,400	12,000	12,700
March	34,200	23,500	28,200				
April	56,100	31,300	39,400	The year	58,300	11,300	27,900

ILLINOIS RIVER AT HAVANA, ILL.

LOCATION.—Staff gage in sec. 1, T. 21 N., R. 9 W., at highway bridge in Havana half a mile below mouth of Spoon River. Gage datum raised 0.29 foot September 1, 1926. Zero of present gage is 425.05 feet above mean sea level.

RECORDS AVAILABLE.—October, 1921, to September, 1927. Discontinued.

EXTREMES.—Maximum discharge during year, 74,600 second-feet October 11–14 (gage height, 23.1 feet); minimum, 13,600 second-feet September 8 (gage height, 8.8 feet).

1921–1927: Maximum discharge, that of October 11–14, 1926; minimum, 9,560 second-feet September 7–10, 1925 (gage height, 7.1 feet).

REMARKS.—Records fair; discharge estimated because of ice January 14 to February 1. Flow at this station includes flow of the Chicago Sanitary Canal. Gage-height record furnished by United States Engineer Corps.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45,600	35,000	43,000	26,000	22,300	34,000	40,800	57,600	57,600	30,200	16,300	13,800
2	47,600	34,300	42,200	25,700	24,100	33,300	41,600	56,200	57,600	29,200	16,300	13,800
3	50,500	33,300	41,900	25,700	25,700	33,300	41,600	54,900	56,900	28,600	16,000	13,800
4	54,300	32,900	41,600	25,400	27,600	32,300	41,600	53,100	57,600	27,600	15,800	13,800
5	59,800	31,600	41,200	24,700	30,600	31,600	41,900	51,000	59,000	26,700	15,800	13,800
6	60,600	30,900	40,500	24,100	32,600	31,200	41,900	49,500	60,600	26,000	15,500	13,800
7	63,000	30,200	40,200	23,800	34,600	29,500	41,900	47,600	62,200	25,400	15,500	13,800
8	64,800	29,200	39,100	23,500	37,400	30,200	41,900	46,400	62,200	25,100	15,800	13,600
9	71,500	28,600	38,800	23,200	39,800	29,900	42,200	45,600	61,400	24,400	15,800	15,800
10	69,500	27,900	38,000	22,900	40,800	29,200	42,200	45,200	59,000	23,500	15,800	17,600
11	74,600	27,900	37,400	22,600	41,900	28,900	42,200	44,400	56,900	22,900	15,800	17,900
12	74,600	27,300	36,700	22,000	41,900	29,500	42,200	43,600	56,200	22,300	16,000	17,600
13	74,600	26,700	36,300	21,700	42,200	30,900	42,200	13,000	54,900	21,700	16,000	17,300
14	74,600	27,600	35,700	20,800	42,600	31,600	42,200	41,900	54,300	21,100	17,100	16,800
15	72,500	29,200	34,600	20,500	42,600	31,900	42,600	41,200	52,000	20,500	17,100	16,300
16	69,500	30,900	34,600	20,500	42,200	32,300	43,000	40,200	50,500	19,900	16,800	16,000
17	65,700	32,600	33,600	20,000	41,600	32,300	44,000	39,100	49,000	19,600	16,800	16,000
18	63,000	35,300	32,600	20,200	41,200	32,600	44,000	38,400	47,200	19,600	16,600	15,500
19	59,800	37,000	31,200	20,200	41,200	32,600	46,000	40,200	45,600	19,300	16,300	15,500
20	56,200	39,100	31,200	20,200	40,200	33,300	48,000	42,200	44,000	19,300	16,000	15,300
21	53,700	39,800	30,200	20,200	39,100	35,300	51,000	46,000	43,000	18,700	15,800	15,000
22	50,500	40,500	29,900	20,200	38,400	36,300	54,900	46,800	41,600	19,900	15,300	14,800
23	48,500	40,800	29,500	20,200	37,700	37,400	58,300	46,800	40,200	19,600	15,000	14,800
24	46,800	41,200	29,200	20,500	36,700	38,400	61,400	47,600	38,800	19,000	15,000	14,500
25	45,200	41,200	28,600	20,500	36,000	39,100	63,000	50,000	37,400	18,700	14,800	14,300
26	43,600	41,600	28,300	20,500	35,700	39,800	63,900	52,500	36,000	18,500	14,300	14,300
27	42,200	42,200	27,900	20,500	35,300	40,500	63,900	54,300	34,600	18,200	14,300	14,300
28	40,800	43,000	27,600	20,500	34,600	41,200	62,200	56,200	33,600	17,600	14,300	15,000
29	39,100	43,300	27,300	20,500	-------	41,200	60,600	56,200	32,300	17,300	14,100	15,000
30	38,000	43,300	27,000	20,800	-------	41,200	59,000	56,900	31,200	17,100	13,800	15,500
31	36,700	-------	26,700	21,400	-------	40,500	-------	57,600	-------	16,600	13,800	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	74,600	36,700	56,700	May	57,600	38,400	48,100
November	43,300	26,700	34,800	June	62,200	31,200	49,100
December	43,000	26,700	34,300	July	30,200	16,600	21,700
January	26,000	20,200	21,900	August	17,100	13,800	15,600
February	42,600	22,300	36,700	September	17,900	13,600	15,200
March	41,200	28,900	34,200				
April	63,900	40,800	48,400	The year	74,600	13,600	34,700

ILLINOIS RIVER AT BEARDSTOWN, ILL.

LOCATION.—Staff gage in NE. ¼ sec. 15, T. 18 N., R. 12 W., at highway bridge on State Street in Beardstown, 9½ miles below mouth of Sangamon River. Zero of gage is 420.33 feet above mean sea level.

RECORDS AVAILABLE.—October, 1920, to September, 1927.

EXTREMES.—Maximum discharge during year, 105,000 second-feet October 9; maximum gage height, 26.2 feet October 11–13; minimum discharge, 12,500 second-feet January 14 and 15; minimum gage height, 9.0 feet September 6–8.

1920–1927: Maximum stage and discharge occurred in October, 1926; minimum discharge, 9,620 second-feet December 19–22, 1922, and September 10–12, 1925 (gage height, 7.7 feet).

Maximum discharge known, about 115,000 second-feet April 4, 1904.

REMARKS.—Records fair. Flow at this station includes flow of the Chicago Sanitary Canal. Gage-height record furnished by United States Weather Bureau. Results of some discharge measurements furnished by United States Engineer Corps and Sanitary District of Chicago.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61,500	48,800	64,300	32,200	21,900	47,300	61,700	78,700	86,000	41,700	19,500	15,000
2	60,100	46,900	64,300	31,900	22,100	45,700	60,600	75,500	86,000	39,900	18,700	15,000
3	65,400	44,800	63,300	31,600	30,100	45,000	60,300	77,700	83,500	38,100	18,700	15,000
4	68,700	42,900	62,300	31,400	33,300	42,800	61,000	73,500	82,100	36,300	18,400	14,700
5	79,000	40,900	60,300	29,900	39,000	42,200	58,700	72,300	82,500	35,000	18,000	14,700
6	84,400	40,000	58,900	29,600	42,700	41,500	57,800	70,000	88,100	33,400	18,000	14,300
7	92,300	39,100	57,000	29,800	50,800	39,800	59,700	71,100	88,500	33,300	18,000	14,300
8	102,000	38,100	56,000	28,800	53,900	39,500	60,400	65,800	89,000	31,900	18,000	14,300
9	105,000	36,100	54,000	28,200	58,200	38,900	62,100	64,000	87,600	30,800	18,000	15,000
10	96,000	36,500	53,800	26,600	61,500	38,600	62,800	61,100	83,300	30,400	18,000	16,900
11	96,900	35,000	53,100	25,900	64,300	37,800	63,400	61,700	81,200	29,500	17,600	18,700
12	96,500	33,600	50,700	22,500	6.,700	38,100	62,400	61,600	79,700	28,600	18,700	19,800
13	95,400	33,000	50,600	16,700	66,000	39,100	61,500	60,800	77,400	27,400	18,700	19,800
14	95,800	32,400	49,000	12,500	64,100	41,100	61,800	60,700	77,000	24,100	20,600	19,500
15	89,600	35,100	47,900	12,500	63,900	43,400	60,900	59,500	76,200	25,400	20,600	19,100
16	89,600	38,300	44,700	18,800	61,700	43,700	60,200	57,700	70,800	24,400	20,200	18,700
17	87,800	42,900	41,300	19,500	60,100	44,600	59,700	56,000	70,800	23,900	20,600	18,000
18	82,200	45,700	40,000	18,500	60,600	43,200	62,600	57,400	67,500	23,600	20,600	17,300
19	80,500	51,700	39,000	17,700	60,600	44,100	66,700	59,300	65,900	22,300	20,200	16,900
20	76,300	57,200	39,000	17,900	58,200	44,000	71,900	60,700	63,200	22,300	19,800	16,500
21	72,100	59,400	36,400	17,000	57,400	42,500	71,500	63,700	59,400	23,800	19,500	15,800
22	68,700	61,100	36,600	16,600	55,100	49,400	79,700	69,300	60,300	25,100	18,700	15,000
23	67,800	61,400	38,200	16,200	54,800	53,600	85,800	71,000	58,400	25,900	18,000	15,000
24	66,300	60,800	37,000	17,100	53,200	58,200	86,900	70,000	55,800	26,000	17,600	15,000
25	65,400	62,200	35,900	17,700	50,800	60,500	88,300	71,200	53,300	25,400	16,900	15,000
26	61,000	61,900	34,200	17,700	50,200	61,300	89,900	72,800	52,400	24,800	16,500	15,000
27	59,500	63,700	34,100	17,700	49,400	65,000	88,500	79,100	49,400	24,200	16,200	14,700
28	56,300	64,500	33,000	20,200	48,600	65,400	86,500	82,600	48,100	23,600	15,800	15,000
29	54,800	65,600	32,400	22,100	-------	63,600	83,400	83,900	46,800	22,500	15,400	15,000
30	52,800	65,000	32,700	18,300	-------	61,900	81,400	84,700	43,700	22,000	15,400	16,200
31	49,600	-------	32,100	19,700	-------	62,100	-------	86,300	-------	21,300	15,000	-------

Month	Maximum	Minimum	Mean	Month	Maximum	Minimum	Mean
October	105,000	49,600	76,800	May	86,300	56,000	69,000
November	65,600	32,400	48,200	June	89,000	43,700	70,500
December	64,300	32,100	46,200	July	41,700	21,300	28,000
January	32,200	12,500	22,000	August	20,600	15,000	18,300
February	66,000	21,900	52,000	September	19,800	14,300	16,200
March	65,400	37,800	47,900				
April	89,900	57,800	69,300	The year	105,000	12,500	46,900

SPRING CREEK AT JOLIET, ILL.

LOCATION.—Staff gage in SE. ¼ sec. 10, T. 35 N., R. 10 E., at Benton Street Bridge in Joliet, half a mile above mouth.

DRAINAGE AREA.—19.7 square miles.

RECORDS AVAILABLE.—July, 1925, to September, 1927.

EXTREMES.—Maximum discharge during year, 440 second-feet July 1 (gage height, 4.0 feet); minimum (estimated), 2.0 second-feet January 27.

1925–1927: Maximum discharge, 1,070 second-feet July 11, 1926 (gage height, 6.5 feet); minimum, 2.0 second-feet on days in August and September, 1926, and January, 1927.

REMARKS.—Records fair. Periods of estimated discharge because of ice and incorrect gage readings are as follows: October 2, 3, 14, 15, 17–31, November 1–7, 11–13, December 6–8, 10–31, January 1–7, 10–30, February 12–28, March 1–6, 9, 10, 24, 25, June 19, 25–28, July 9, 10, 16–31, August 5, 6, 25–27, 29–31, September 2–4, 23.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	4.5	24	2.4	24	11	45	45	18	440	7.2	4.2
2	7.1	4.5	18	3.0	51	10	45	42	30	108	6.9	4.0
3	8.6	4.5	18	3.4	77	9.8	45	37	37	49	5.8	3.8
4	30	4.5	18	3.6	30	9.8	37	30	256	27	5.5	3.5
5	51	4.2	18	3.6	151	9.4	36	24	136	13	6.2	3.0
6	24	4.0	16	3.8	91	9.8	24	13	81	18	8.0	5.5
7	18	4.0	13	3.8	45	30	24	9.0	45	24	13	5.8
8	16	6.5	11	4.0	37	24	24	9.0	30	21	9.0	5.5
9	14	14	14	4.0	34	20	34	24	28	12	8.0	5.5
10	12	6.5	13	4.8	34	17	28	53	24	8.6	7.2	8.6
11	14	5.8	11	5.0	24	18	24	24	21	7.2	5.5	7.2
12	14	4.8	10	5.2	20	148	18	13	24	5.5	13	5.5
13	9.5	4.5	7.1	4.5	16	81	30	18	23	7.2	9.0	5.2
14	8.6	96	6.0	3.0	13	81	22	24	21	13	5.5	5.2
15	7.1	188	5.2	2.8	18	62	24	21	21	9.0	5.0	5.0
16	6.5	30	4.5	2.8	17	53	242	13	13	6.9	4.0	5.0
17	6.2	77	4.5	3.0	15	37	113	13	11	8.6	5.0	5.0
18	6.0	68	5.2	3.0	14	24	256	53	9.0	7.2	5.5	9.0
19	5.8	59	5.8	3.0	13	21	285	37	8.3	6.9	4.2	5.5
20	5.2	44	7.4	3.0	12	34	148	27	9.0	6.2	3.0	5.0
21	4.8	36	8.0	3.0	12	30	102	13	30	5.2	3.0	4.2
22	4.5	36	8.0	3.0	12	27	102	13	26	5.0	3.0	4.2
23	5.0	34	6.5	2.8	11	21	81	86	18	4.8	30	3.5
24	5.2	30	5.8	2.6	11	11	53	345	13	4.8	27	3.0
25	5.2	38	5.0	2.4	13	8.3	37	200	8.3	4.5	10	3.0
26	5.0	51	4.5	2.4	12	9.0	37	91	7.6	4.2	6.9	8.6
27	5.0	37	4.0	2.0	12	24	30	62	6.9	4.2	5.8	11
28	4.8	30	3.4	4.0	11	20	35	58	6.2	7.2	5.2	53
29	4.8	30	2.8	6.5	------	14	136	45	5.5	9.4	5.0	102
30	4.8	24	2.4	14	------	13	71	37	5.5	8.6	4.5	37
31	4.8	------	2.2	30	------	13	------	28	------	8.0	4.5	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	51	4.5	10.8	0.548	0.63
November	188	4.0	32.7	1.66	1.85
December	24	2.2	9.11	.462	.53
January	30	2.0	4.66	.237	.27
February	151	11	29.6	1.50	1.56
March	148	8.3	29.0	1.47	1.70
April	285	18	72.9	3.70	4.13
May	345	9.0	48.6	2.47	2.85
June	256	5.5	32.4	1.64	1.83
July	440	4.2	27.9	1.42	1.64
August	30	3.0	7.79	.395	.46
September	102	3.0	11.2	.569	.63
The year	440	2.0	26.3	1.34	18.08

KANKAKEE RIVER AT MOMENCE, ILL.

LOCATION.—Chain gage in NE.¼ sec. 24, T. 31 N., R. 13 E., at highway bridge in Momence, 1½ miles above Tower Creek. Zero of gage is 610.32 feet above mean sea level.

DRAINAGE AREA.—2,340 square miles.

RECORDS AVAILABLE.—February, 1905, to July, 1906; December, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 7,210 second-feet April 20; maximum gage height, 5.77 feet February 1; minimum discharge, 708 second-feet September 17 (gage height, 1.88 feet).

1905–6, 1914–1927: Maximum discharge (estimated), 12,600 second-feet January 22, 1916 (gage height, 6.4 feet); minimum, 306 second-feet September 1, 16, and 17, 1919 (gage height, 1.37 feet).

REMARKS.—Records fair except those for December 15 to January 2 and January 12 to February 3, which were estimated because of ice.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,760	1,510	2,370	1,360	5,620	2,560	2,970	6,250	3,910	1,920	1,090	840
2	2,970	1,440	2,190	1,360	4,720	2,560	3,420	5,930	4,170	1,840	1,090	840
3	3,190	1,440	2,010	1,290	4,440	2,370	3,420	5,310	4,720	1,760	1,090	840
4	4,170	1,440	1,920	1,290	5,930	2,280	3,420	5,010	5,930	1,670	1,090	785
5	3,910	1,360	1,840	1,360	6,570	2,190	3,910	4,720	5,620	1,590	1,020	785
6	3,660	1,360	1,840	1,290	6,890	2,280	3,660	4,720	5,620	1,670	1,020	785
7	3,420	1,290	1,760	1,290	6,890	2,370	3,660	4,170	5,310	1,670	1,020	785
8	3,190	1,290	1,760	1,290	6,890	2,760	3,660	3,910	4,720	1,670	1,020	785
9	2,970	1,360	1,760	1,220	6,570	2,760	3,910	3,660	4,440	1,670	1,090	785
10	2,970	1,360	1,760	1,220	5,930	2,760	3,910	3,420	4,440	1,590	1,020	785
11	2,560	1,440	1,760	1,290	5,310	2,760	3,910	3,190	4,170	1,510	1,020	785
12	2,560	1,440	1,840	1,290	5,010	2,760	3,660	3,190	3,910	1,440	1,090	785
13	2,280	1,590	1,920	1,290	4,720	3,660	3,660	2,970	3,910	1,290	1,090	785
14	2,190	2,370	2,010	1,290	4,440	3,910	3,660	2,760	3,910	1,360	1,090	730
15	2,010	3,190	1,840	1,220	4,170	3,910	3,660	2,760	3,420	1,360	1,020	730
16	1,840	3,190	1,760	1,220	3,910	3,660	5,310	2,970	3,190	1,440	960	719
17	1,840	3,420	1,670	1,220	3,660	3,420	5,930	2,970	2,760	1,590	960	708
18	1,760	3,190	1,670	1,290	3,660	3,420	6,250	3,190	2,370	1,760	960	785
19	1,670	3,190	1,670	1,290	3,420	3,420	6,570	3,660	2,280	1,760	900	785
20	1,590	2,970	1,670	1,360	3,190	3,910	7,210	3,660	2,190	1,510	900	840
21	1,510	2,970	1,670	1,360	3,190	4,170	6,890	3,660	2,190	1,360	900	1,020
22	1,440	3,190	1,670	1,440	2,970	4,170	6,570	3,660	2,560	1,360	900	960
23	1,440	3,190	1,590	1,360	2,760	4,170	6,250	3,910	2,760	1,360	900	900
24	1,510	3,190	1,590	1,360	2,760	3,910	5,620	3,910	2,760	1,290	900	900
25	1,510	2,970	1,510	1,290	2,760	3,660	5,310	5,620	2,760	1,220	840	900
26	1,510	3,190	1,510	1,220	2,970	3,660	5,310	5,310	2,760	1,160	840	840
27	1,510	2,370	1,440	1,160	2,970	3,420	5,310	5,310	2,370	1,160	840	840
28	1,510	2,370	1,360	1,160	2,760	3,420	4,720	4,440	2,280	1,090	840	900
29	1,510	2,370	1,360	1,090	-------	3,190	5,010	4,440	2,190	1,090	840	1,020
30	1,510	2,370	1,360	1,670	-------	2,970	6,570	4,170	2,010	1,090	840	2,280
31	1,510	-------	1,360	3,190	-------	2,760	-------	4,170	-------	1,090	840	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,170	1,440	2,260	0.965	1.11
November	3,420	1,290	2,270	.970	1.08
December	2,370	1,360	1,720	.735	.85
January	3,190	1,090	1,360	.581	.67
February	6,890	2,760	4,470	1.91	1.99
March	4,170	2,190	3,200	1.37	1.58
April	7,210	2,970	4,780	2.04	2.28
May	6,250	2,760	4,100	1.75	2.02
June	5,930	2,010	3,520	1.50	1.67
July	1,920	1,090	1,460	.624	.72
August	1,090	840	968	.414	.48
September	2,280	708	874	.374	.42
The year	7,210	708	2,560	1.09	14.87

KANKAKEE RIVER AT CUSTER PARK, ILL.

LOCATION.—Chain gage in NW. ¼ sec. 19, T. 32 N., R. 10 E., at Wabash Railroad bridge in Custer Park, one-fourth mile above Horse Creek.

DRAINAGE AREA.—4,870 square miles.

RECORDS AVAILABLE.—November, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year (estimated), 27,400 second-feet February 5 (gage height, 14.92 feet); minimum, 720 second-feet September 24 (gage height, 5.25 feet).

1914–1927; Maximum discharge, 31,200 second-feet April 11, 1922 (gage height, 15.05 feet); minimum, 250 second-feet November 15, 1914 (gage height, 4.09 feet).

REMARKS.—Records good except those for period of ice effect, December 14 to February 5, which are poor. Operation of power plant at Kankakee causes slight fluctuation at gage.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,400	4,380	5,640	2,610	15,000	5,900	7,290	13,600	11,300	2,610	1,480	1,000
2	19,300	4,380	5,380	2,610	15,000	5,640	8,790	12,300	10,000	2,420	1,410	1,000
3	22,700	4,140	5,130	2,610	16,000	5,380	11,000	11,600	9,720	2,420	1,340	1,000
4	25,800	3,900	4,880	2,800	20,800	4,880	12,000	10,400	15,000	2,420	1,270	940
5	26,600	3,670	4,630	2,800	27,400	4,630	13,000	9,410	15,400	2,240	1,200	940
6	26,200	3,440	4,140	2,800	26,600	4,380	12,300	8,790	13,300	2,420	1,130	1,130
7	23,500	3,440	4,140	2,800	22,700	4,630	11,000	7,880	11,600	2,240	1,270	1,060
8	20,100	3,220	3,900	2,800	19,700	5,380	9,720	7,000	10,400	2,150	1,270	1,000
9	17,800	3,440	3,900	2,800	18,600	6,170	9,410	6,170	8,790	2,240	1,270	940
10	15,700	3,440	4,140	2,800	16,400	6,440	9,410	6,170	7,580	2,420	1,270	940
11	13,600	3,670	4,140	2,610	14,700	6,440	10,400	6,170	7,000	2,240	1,340	940
12	12,000	3,900	4,140	2,610	12,600	6,170	10,400	6,170	6,720	2,150	1,410	880
13	10,700	4,380	4,140	2,800	12,000	6,170	10,000	5,640	6,440	2,060	1,560	940
14	9,100	8,480	4,140	2,610	10,400	6,440	9,720	5,130	6,170	2,060	1,560	880
15	8,480	10,400	3,900	2,420	9,100	7,000	9,720	4,880	5,900	2,240	1,480	880
16	7,580	12,000	3,670	2,420	8,790	8,480	13,000	4,630	5,380	2,610	1,410	880
17	7,000	12,300	3,440	2,420	8,790	9,100	16,400	4,630	4,630	3,010	1,340	825
18	6,440	12,300	3,220	2,610	8,480	9,720	21,200	5,130	4,140	3,440	1,270	940
19	5,640	11,600	3,220	2,610	8,480	11,000	24,700	12,600	3,900	3,220	1,130	940
20	5,380	11,300	3,220	2,610	7,580	12,000	25,000	18,900	3,670	2,800	1,200	940
21	4,630	10,000	3,010	2,610	7,000	14,300	21,600	23,100	3,440	2,420	1,270	1,000
22	4,380	8,480	3,220	2,610	6,170	17,800	19,700	22,300	3,670	2,150	1,200	1,060
23	4,140	7,290	3,440	2,610	5,900	19,300	17,800	19,300	4,880	1,980	1,130	1,000
24	4,140	6,720	3,440	2,610	5,900	17,800	15,700	19,700	5,900	1,800	1,060	880
25	3,900	6,440	3,220	2,610	5,640	15,700	13,300	22,000	6,170	1,720	1,060	770
26	4,140	6,170	3,220	2,420	5,640	14,700	12,300	20,800	5,130	1,640	1,060	825
27	4,140	6,170	3,010	2,420	6,170	12,000	11,300	19,700	4,380	1,560	1,000	1,000
28	4,140	6,170	2,800	2,420	5,900	9,720	10,400	18,200	3,670	1,560	1,130	1,200
29	4,140	6,170	2,800	2,420	-------	8,480	11,000	15,700	3,220	1,480	1,060	1,340
30	4,140	5,900	2,800	3,440	-------	7,880	14,300	14,300	2,800	1,410	1,060	2,800
31	4,380	-------	2,610	7,880	-------	6,440	-------	12,600	-------	1,480	1,000	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	26,600	3,900	11,200	2.30	2.65
November	12,300	3,220	6,590	1.35	1.51
December	5,640	2,610	3,760	.772	.89
January	7,880	2,420	2,810	.577	.67
February	27,400	5,640	12,400	2.54	2.64
March	19,300	4,380	9,030	1.85	2.13
April	25,000	7,290	13,400	2.75	3.07
May	23,100	4,630	12,100	2.48	2.86
June	15,400	2,800	7,010	1.44	1.61
July	3,440	1,410	2,210	.454	.52
August	1,560	1,000	1,250	.257	.30
September	2,800	770	1,030	.211	.24
The year	27,400	770	6,850	1.41	19.09

IROQUOIS RIVER NEAR CHEBANSE, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 10, T. 29 N., R. 13 W., at highway bridge 3 miles below Beaver Creek, 4½ miles east of Chebanse, and 6 miles above junction with Kankakee River. Zero of gage is 598.27 feet above mean sea level.

DRAINAGE AREA.—2,120 square miles.

RECORDS AVAILABLE.—April, 1923, to September, 1927.

EXTREMES.—Maximum discharge during year, 21,400 second-feet October 5 (gage height, 16.1 feet); minimum, 36 second-feet September 22 (gage height, 0.74 foot).

1923–1927: Maximum discharge, that of October 5, 1926; minimum, 12 second-feet September 4, 1925 (gage height, 0.60 foot).

Maximum stage known, about 19.6 feet in the spring of 1913.

REMARKS.—Records good except those for extremely high stages, which are fair, and for estimated periods, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,800	2,280	2,480	975	11,600	2,380	3,530	5,790	6,190	530	173	62
2	13,800	2,180	2,280	910	12,900	2,280	6,050	4,250	5,010	505	159	45
3	17,300	2,090	2,090	785	13,600	2,000	7,590	3,650	4,620	480	145	50
4	19,700	1,910	1,570	785	10,200	1,730	7,450	3,420	5,920	432	125	56
5	21,400	1,730	1,570	845	13,200	1,570	7,450	2,880	6,330	365	119	56
6	[a] 21,000	1,650	1,490	910	13,600	1,330	6,470	2,380	5,660	325	119	50
7	20,600	2,000	1,490	975	12,700	1,490	5,400	2,000	4,130	285	119	56
8	17,300	1,820	1,410	1,040	12,000	1,820	4,490	1,820	3,420	305	119	62
9	13,200	1,650	1,490	1,110	10,700	2,380	4,750	1,730	2,680	480	112	74
10	10,400	1,570	1,570	1,180	9,090	2,880	5,530	1,650	2,280	261	112	80
11	8,630	1,650	1,650	1,180	7,880	2,880	5,660	1,570	1,820	[a] 257	112	86
12	7,310	2,000	1,730	1,410	6,610	2,880	5,400	1,820	1,570	[a] 252	125	86
13	6,470	2,980	1,570	1,330	5,920	2,980	5,270	1,730	1,570	[a] 249	173	80
14	5,530	3,650	1,330	1,180	5,660	3,530	4,880	1,650	1,570	245	180	80
15	4,880	5,270	1,180	1,040	5,270	4,010	4,620	1,410	1,410	269	208	68
16	4,250	6,050	[a] 1,150	[a] 910	5,140	3,530	6,470	1,250	1,330	281	201	62
17	3,770	6,330	[a] 1,110	[a] 910	3,770	2,980	9,090	1,180	975	975	180	50
18	3,090	6,330	[a] 1,080	[a] 845	4,010	2,980	12,000	2,090	910	910	145	41
19	2,580	6,330	[a] 1,040	[a] 845	3,530	4,010	12,500	12,000	725	638	132	41
20	2,480	5,920	[a] 1,010	[a] 910	3,310	6,050	12,300	16,300	785	480	125	45
21	2,280	5,270	[a] 980	[a] 910	2,580	8,780	11,600	18,700	845	388	119	50
22	1,910	4,250	[a] 945	[a] 910	2,380	14,200	10,900	15,900	2,000	305	112	36
23	1,730	3,890	910	[a] 910	2,480	14,000	9,570	11,800	2,780	285	106	41
24	1,730	3,310	910	[a] 910	2,480	[1]2,100	7,590	12,700	2,980	261	99	45
25	1,820	2,680	1,040	[a] 910	2,480	9,890	6,190	12,500	2,680	245	106	45
26	1,910	2,780	1,250	[a] 1,040	2,580	7,880	5,270	11,400	1,820	217	99	45
27	2,000	2,780	1,250	[a] 1,330	2,680	6,330	4,130	11,400	1,330	194	93	41
28	2,000	2,880	1,180	[a] 1,650	2,680	5,400	3,650	10,700	975	177	86	80
29	2,090	2,680	1,250	[a] 2,580	-------	3,890	4,880	9,570	785	177	80	180
30	2,180	2,580	1,180	[a] 5,400	-------	3,200	5,530	8,780	665	167	74	455
31	2,380	-------	1,040	7,030	-------	2,480	-------	7,450	-------	188	74	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21,400	1,730	7,660	3.61	4.16
November	6,330	1,570	3,280	1.55	1.73
December	2,480	910	1,360	.641	.74
January	7,030	785	1,410	.665	.77
February	13,600	2,380	6,820	3.22	3.35
March	14,200	1,330	4,640	2.19	2.52
April	12,500	3,530	6,870	3.24	3.62
May	18,700	1,180	6,500	3.07	3.54
June	6,330	665	2,530	1.19	1.33
July	975	167	359	.169	.19
August	208	74	127	.060	.07
September	455	36	74.9	.035	.04
The year	21,400	36	3,450	1.63	22.06

[a] Estimated.

FOX RIVER NEAR MUKWONAGO, WIS.

LOCATION.—Chain gage in SE. ¼ sec. 24, T. 5 N., R. 18 E., 1½ miles northeast of Mukwonago.
DRAINAGE AREA.—231 square miles.
RECORDS AVAILABLE.—April to September, 1927.
EXTREMES.—Maximum discharge during period, 603 second-feet April 23 (gage height, 3.84 feet); minimum, 23 second-feet September 2 (gage height, 0.62 foot).
REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1927

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	-------	a 246	364	83	53	26	16	170	212	75	50	34	26
2	-------	194	a 329	83	51	23	17	a 214	154	72	a 52	41	30
3	-------	170	a 294	a 80	43	29	18	257	132	73	53	35	a 34
4	-------	154	a 259	76	37	a 29	19	277	117	a 78	48	32	39
5	-------	146	a 224	64	35	29	20	412	103	83	44	43	28
6	364	124	a 189	57	48	33	21	518	124	103	56	a 39	28
7	364	117	154	60	a 44	56	22	574	a 164	124	90	35	29
8	341	a 144	139	57	40	35	23	603	203	139	96	63	27
9	277	170	117	63	33	31	24	a 560	298	146	a 96	57	35
10	a 228	298	117	a 61	31	41	25	518	298	139	96	29	a 42
11	178	388	117	59	28	a 36	26	490	277	a 132	69	28	50
12	154	388	a 100	60	43	31	27	437	220	124	58	31	68
13	170	341	83	52	46	31	28	388	212	103	60	a 30	96
14	154	319	79	51	a 44	24	29	341	a 300	96	58	30	103
15	146	a 266	76	50	41	25	30	298	388	90	59	30	154
							31	-------	412	-------	a 56	29	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
April 6–30	603	146	337	1.46	1.36
May	412	103	228	.987	1.14
June	364	72	141	.610	.68
July	96	44	64.4	.279	.32
August	63	28	38.8	.168	.19
September	154	23	42.3	.183	.20

a Interpolated.

FOX RIVER AT ALGONQUIN, ILL.

LOCATION.—Staff gage in NW. ¼ sec. 34, T. 43 N., R. 8 E., at Chicago Street Bridge in Algonquin, 300 feet above Crystal Lake outlet. Zero of gage is 729.75 feet above mean sea level.

DRAINAGE AREA.—1,340 square miles.

RECORDS AVAILABLE.—October, 1915, to September, 1927.

EXTREMES.—Maximum discharge during year, 2,720 second-feet February 16 (gage height, 3.01 feet); minimum, 85 second-feet July 23–26 (gage height, 0.81 foot).

1915–1927: Maximum discharge, 7,120 second-feet March 31, 1916 (gage height, 5.3 feet); minimum, 67 second-feet August 31, 1918 (gage height, 0.59 foot).

REMARKS.—Records good except those for period of ice effect, November 23–25 and December 3–28, and for estimated periods, which are fair. Stage is occasionally affected during low-water period by operation of flashboards on dam 16 miles above station.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,400	740	2,220	625	1,680	1,840	1,840	2,220	2,060	461	272	286
2	1,540	692	1,840	625	e1,680	1,910	1,840	2,060	2,060	520	234	286
3	1,910	692	1,540	e603	1,680	e1,690	1,840	2,060	2,060	480	222	272
4	2,220	647	1,400	581	e1,950	1,470	1,840	1,840	2,060	480	222	260
5	2,220	647	1,260	e581	2,220	e1,440	1,910	1,680	2,060	407	210	260
6	2,220	560	1,190	581	e2,220	1,400	2,060	1,680	1,840	389	210	260
7	2,220	647	1,190	e512	2,220	1,330	2,060	1,680	1,840	407	286	272
8	2,220	764	1,190	443	e2,300	1,330	2,060	1,680	1,680	407	272	272
9	2,060	764	1,260	e443	2,380	1,260	2,220	1,400	1,540	407	222	272
10	2,060	764	1,260	443	e2,460	1,190	2,220	1,260	1,400	407	222	272
11	2,060	647	1,330	e434	2,550	1,260	2,060	1,540	1,400	407	210	272
12	1,840	647	1,330	425	e2,490	1,260	2,060	1,680	1,400	389	222	260
13	1,840	1,400	1,190	e425	e2,440	1,260	2,060	1,840	1,260	372	272	234
14	1,840	1,260	985	425	2,380	1,540	1,840	1,840	1,260	358	272	234
15	1,540	1,400	920	389	e2,550	1,680	1,840	1,680	1,120	358	286	234
16	1,540	1,680	985	e389	2,720	1,680	1,680	1,680	1,120	328	260	260
17	1,400	2,060	985	389	e2,430	1,840	1,680	1,680	764	328	260	186
18	1,400	2,220	985	e389	e2,130	2,060	1,840	1,680	625	272	260	186
19	1,260	2,380	985	389	1,840	2,060	2,060	1,680	625	272	246	94
20	1,260	2,380	985	e407	e2,110	2,220	2,060	1,540	625	164	222	154
21	1,190	2,380	985	425	2,380	2,220	2,220	1,400	603	113	210	164
22	1,190	2,220	985	425	e2,220	1,910	2,220	1,400	540	113	132	198
23	1,050	2,060	985	e425	2,060	1,910	2,220	1,540	540	85	222	222
24	1,050	1,840	985	425	2,380	1,910	2,220	1,540	540	85	210	234
25	920	1,470	920	e425	e2,110	1,910	2,060	1,680	603	85	210	272
26	860	1,190	860	425	1,840	1,910	2,060	1,540	540	85	234	312
27	860	1,680	800	e450	e1,840	1,910	2,060	1,540	540	113	222	312
28	764	2,060	764	e475	1,840	1,910	2,060	1,540	480	143	222	389
29	764	2,060	692	500	-------	1,840	2,220	1,680	480	186	272	500
30	740	2,220	625	500	-------	1,840	2,380	1,680	461	198	286	443
31	740	-------	625	e1,090	-------	1,840	-------	1,840	-------	222	286	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,220	740	1,490	1.11	1.28
November	2,380	560	1,410	1.05	1.17
December	2,220	625	1,110	.828	.95
January	1,090	389	486	.363	.42
February	2,720	1,680	2,180	1.63	1.70
March	2,220	1,190	1,700	1.27	1.46
April	2,380	1,680	2,030	1.51	1.68
May	2,220	1,260	1,670	1.25	1.44
June	2,060	461	1,140	.851	.95
July	520	85	292	.218	.25
August	286	132	238	.178	.21
September	500	94	262	.196	.22
The year	2,720	85	1,160	.866	11.73

e Estimated.

FOX RIVER AT DAYTON, ILL.

LOCATION.—Float gages above and below dam in SE. ¼ sec. 29, T. 34 N., R. 4 E., at plant of North Counties Hydroelectric Co. in Dayton, 6 miles above mouth of river.

DRAINAGE AREA.—2,570 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1927. November, 1914, to February, 1925, at Wedron, 3 miles upstream.

EXTREMES.—Maximum mean daily discharge during year, 12,900 second-feet February 5; minimum, 232 second-feet August 3.

1925–1927: Maximum mean daily discharge, that of February 5, 1927; minimum, 168 second-feet June 22, 1925.

REMARKS.—Records fair. Daily discharge computed from electrical output of power plant and flow over dam. Power-house data furnished by North Counties Hydroelectric Co.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,960	1,220	4,300	1,320	2,350	1,890	2,330	4,080	2,540	837	252	440
2	4,430	1,330	4,510	1,240	3,540	1,870	3,520	3,560	2,540	844	254	419
3	4,630	1,180	2,000	1,240	4,890	1,870	3,290	3,000	10,200	663	232	463
4	4,670	1,190	3,130	1,160	8,310	1,870	2,760	2,780	10,200	512	438	469
5	5,000	1,120	2,770	1,310	12,900	1,850	2,990	2,600	4,540	748	363	373
6	4,970	1,050	2,050	1,100	7,930	1,920	3,000	2,330	3,550	704	419	330
7	4,460	936	2,220	953	4,140	1,860	2,540	2,180	2,990	772	460	398
8	4,160	936	2,540	1,080	3,850	1,890	2,540	1,990	2,770	684	642	499
9	3,830	1,330	2,770	872	3,560	1,870	2,540	2,270	2,250	687	504	424
10	3,670	1,510	2,540	822	3,010	1,820	2,540	4,880	2,060	507	499	424
11	3,240	1,500	2,540	618	3,010	1,870	2,280	3,270	1,960	527	523	426
12	3,260	1,400	2,750	864	3,300	2,330	2,150	2,760	1,940	573	428	420
13	2,970	1,520	2,540	620	3,290	3,290	2,350	2,240	1,870	682	400	443
14	2,980	5,980	1,620	502	3,020	3,000	2,350	2,390	1,920	549	431	438
15	2,760	10,600	696	568	2,780	2,750	4,860	2,340	1,830	502	345	484
16	2,540	8,580	1,080	660	3,020	2,540	3,550	2,190	1,920	682	374	398
17	2,320	6,350	1,650	677	3,310	2,520	4,170	2,170	1,780	504	442	400
18	2,100	5,970	2,180	726	2,780	2,500	4,190	2,170	1,480	469	482	499
19	2,220	6,040	2,360	839	1,940	2,320	6,480	2,550	1,360	444	398	610
20	2,030	5,240	2,040	866	1,940	2,480	6,000	2,280	992	572	425	424
21	2,000	5,030	2,180	733	2,230	2,710	4,830	2,210	1,340	471	372	453
22	1,960	4,120	2,180	728	2,490	2,610	4,220	2,180	1,380	454	357	469
23	1,880	4,170	2,040	664	2,280	2,430	3,880	2,060	1,340	444	373	388
24	1,680	4,150	2,180	658	2,070	2,330	3,440	6,490	1,090	405	440	372
25	1,750	4,120	2,180	770	2,030	2,320	3,030	7,980	1,060	333	424	342
26	1,830	5,070	2,120	684	2,030	2,420	3,020	5,170	976	255	385	298
27	1,500	5,590	1,610	638	2,020	2,420	3,030	3,540	920	280	387	322
28	1,460	4,310	1,320	680	1,940	2,260	2,790	3,550	1,010	280	340	682
29	1,340	4,030	1,170	817	-------	2,100	5,640	3,130	920	301	298	789
30	1,340	4,120	1,080	1,870	-------	2,120	5,550	3,010	901	342	330	1,100
31	1,050	-------	1,340	1,460	-------	2,030	-------	2,770	-------	303	408	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,000	1,050	2,770	1.08	1.24
November	10,600	936	3,660	1.42	1.58
December	4,510	696	2,180	.848	.98
January	1,870	502	895	.348	.40
February	12,900	1,940	3,570	1.39	1.45
March	3,290	1,820	2,260	.879	1.01
April	6,480	2,150	3,530	1.37	1.53
May	7,980	1,990	3,100	1.21	1.40
June	10,200	901	2,390	.930	1.04
July	844	255	527	.205	.24
August	642	232	401	.156	.18
September	1,100	298	467	.182	.20
The year	12,900	232	2,130	.829	11.25

VERMILION RIVER AT STREATOR, ILL.

LOCATION.—Chain gage in SE. ¼ sec. 2, T. 30 N., R. 3 E., at South Bloomington Street Bridge in Streator.

DRAINAGE AREA.—1,080 square miles.

RECORDS AVAILABLE.—July, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 12,400 second-feet October 2 (gage height, 19.4 feet); minimum, 3.8 second-feet September 18–20 (gage height, 1.32 feet).

1914–1927: Maximum discharge, 16,500 second-feet April 20, 1920 (gage height, 22.9 feet); no flow on days in August and September, 1920, and August and September, 1923.

REMARKS.—Records good except those for January 11 to February 1, which were estimated because of ice.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,480	575	2,270	405	2,700	1,370	1,220	2,700	1,970	202	37	12
2	12,400	545	1,850	405	4,670	1,220	2,210	2,330	3,710	920	27	11
3	11,800	515	1,790	380	7,010	1,000	3,190	2,030	3,120	485	12	9.4
4	11,400	515	1,670	355	5,070	880	3,400	1,730	9,650	405	11	9.4
5	9,250	485	1,320	355	12,200	760	3,120	1,320	5,570	270	11	8.2
6	8,750	485	1,120	310	8,270	960	2,770	1,170	4,430	220	37	7.0
7	7,550	455	1,170	310	6,560	1,420	2,510	960	3,870	183	48	6.2
8	5,840	430	1,170	290	6,290	1,850	2,150	840	2,910	156	45	6.2
9	5,310	575	1,170	290	6,110	1,850	2,150	760	2,090	156	43	5.4
10	4,590	575	1,170	270	4,350	1,730	1,910	1,370	1,670	130	27	6.2
11	3,870	545	1,120	260	3,400	1,620	2,210	1,220	1,220	122	11	6.2
12	3,470	515	1,170	260	2,630	2,270	2,090	1,120	1,220	104	54	6.2
13	3,120	485	1,370	270	2,510	2,510	2,030	960	1,670	73	37	5.4
14	2,700	3,400	1,370	260	2,330	2,630	2,210	800	1,220	49	37	5.4
15	2,330	10,000	1,370	220	2,270	2,510	2,510	680	920	28	37	4.6
16	2,090	8,090	1,270	220	2,330	2,210	5,230	610	800	73	27	4.6
17	1,850	6,380	1,220	202	2,210	1,730	4,830	545	680	430	85	4.6
18	1,670	5,070	1,120	211	2,090	1,470	7,460	7,640	610	220	77	3.8
19	1,520	4,750	1,040	211	1,970	1,420	11,800	10,400	545	202	64	3.8
20	1,420	4,510	920	211	1,620	4,510	10,800	9,050	455	183	52	3.8
21	1,270	4,190	760	211	1,420	4,990	9,050	8,180	920	183	41	4.6
22	1,040	3,400	680	211	1,320	4,670	7,820	7,370	720	202	31	4.6
23	920	3,050	645	211	1,170	4,190	6,290	11,000	610	148	31	4.6
24	880	2,700	575	270	1,170	3,710	4,430	10,600	455	148	21	4.6
25	800	3,050	545	290	1,370	3,120	3,710	9,750	405	114	13	48
26	760	4,350	515	310	1,670	2,700	2,510	7,190	355	90	13	31
27	720	3,330	485	330	2,030	2,150	2,150	4,750	310	81	13	16
28	680	2,980	430	355	1,620	1,670	1,730	4,510	260	87	15	25
29	680	2,630	380	355	-------	1,520	3,400	4,270	240	73	15	355
30	645	2,450	330	645	-------	1,270	2,980	2,700	220	60	21	515
31	610	-------	455	1,570	-------	1,120	-------	2,270	-------	49	18	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,400	610	3,720	3.44	4.09
November	10,000	430	2,700	2.50	2.79
December	2,270	330	1,050	.972	1.12
January	1,570	202	337	.312	.36
February	12,200	1,170	3,510	3.25	3.38
March	4,990	760	2,160	2.00	2.31
April	11,800	1,220	4,000	3.70	4.13
May	11,000	545	3,900	3.61	4.16
June	9,650	220	1,760	1.63	1.82
July	920	28	189	.175	.20
August	85	11	32.6	.030	.03
September	515	3.8	37.9	.035	.04
The year	12,400	3.8	1,930	1.79	24.34

MACKINAW RIVER NEAR GREEN VALLEY, ILL.

LOCATION.—Chain gage in sec. 15, T. 23 N., R. 5 W., at Chicago & Northwestern Railway bridge 3 miles north of Green Valley.

DRAINAGE AREA.—1,100 square miles.

RECORDS AVAILABLE.—March, 1921, to September, 1927.

EXTREMES.—Maximum discharge during year, 21,800 second-feet May 19 (gage height, 14.20 feet); minimum, 121 second-feet September 6, 7, 25, and 26 (gage height, 2.32 feet).

1921–1927: Maximum discharge, that of May 19, 1927; minimum, 30 second-feet September 28 to October 5, October 13 and 14, 1922.

REMARKS.—Records fair except those for December 14–18 and January 12–28, which were estimated because of ice.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,600	1,170	2,880	908	3,330	1,740	3,060	2,350	2,040	535	287	150
2	4,000	1,110	2,700	813	4,600	1,600	3,420	2,270	2,210	493	287	140
3	8,120	1,060	2,430	908	5,820	1,400	2,970	2,110	2,390	580	273	140
4	9,850	1,060	2,270	860	6,240	1,340	2,880	1,950	5,680	535	232	140
5	12,300	1,010	2,110	813	5,950	1,280	3,700	1,740	6,580	514	207	130
6	10,900	1,010	1,950	813	7,250	1,280	3,600	1,670	3,970	535	207	121
7	8,450	1,010	2,110	813	7,000	1,340	3,060	1,670	3,070	493	454	121
8	5,690	1,010	2,270	767	5,000	1,600	2,700	1,540	2,390	454	580	317
9	4,500	1,060	2,190	767	3,800	1,880	2,610	1,670	2,040	400	900	2,480
10	3,600	1,110	2,110	722	3,150	2,030	2,610	1,600	1,550	900	785	840
11	3,060	1,170	2,110	679	2,700	2,030	2,610	1,600	1,390	628	604	535
12	2,790	1,110	2,110	637	2,270	2,880	2,350	1,600	3,370	436	493	366
13	2,790	1,340	2,030	637	2,030	2,790	2,190	1,540	2,120	382	382	287
14	2,700	4,900	1,670	637	1,880	2,700	2,350	1,400	1,960	349	1,100	273
15	2,430	7,520	1,600	596	1,740	2,430	2,700	1,340	1,710	333	382	259
16	2,270	8,450	1,540	596	1,740	2,030	4,000	1,280	1,470	317	287	232
17	2,030	9,140	1,470	596	1,740	1,810	4,700	1,280	1,320	2,770	287	220
18	1,950	9,140	1,400	596	1,810	1,600	4,700	1,400	1,160	1,550	259	195
19	1,810	5,820	1,400	596	2,030	1,600	6,580	16,100	1,100	730	232	161
20	1,670	4,400	1,400	596	1,880	5,110	11,900	18,500	1,020	628	220	140
21	1,600	3,900	1,340	596	1,810	5,820	12,700	10,200	960	1,160	207	140
22	1,540	3,420	1,280	596	1,740	5,690	7,250	7,000	1,020	960	207	140
23	1,470	3,150	1,280	596	1,600	6,240	5,000	5,190	1,020	840	259	130
24	1,400	2,970	1,170	596	1,540	4,900	4,000	5,810	960	678	287	130
25	1,400	3,150	1,170	596	1,470	3,600	3,510	6,580	840	628	259	121
26	1,340	4,000	1,110	596	1,740	3,060	3,240	5,810	730	535	195	121
27	1,280	6,090	1,060	557	2,110	2,700	2,790	4,520	678	454	195	130
28	1,220	5,000	1,010	596	1,880	2,350	2,520	3,270	628	454	172	161
29	1,170	3,900	957	908	-------	2,110	2,430	2,770	604	382	161	349
30	1,170	3,330	860	1,170	-------	1,950	2,430	2,390	580	382	161	3,170
31	1,170	-------	860	2,190	-------	1,880	-------	2,120	-------	333	161	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,300	1,170	3,520	3.20	3.69
November	9,140	1,010	3,420	3.11	3.47
December	2,880	860	1,670	1.52	1.75
January	2,190	557	753	.685	.79
February	7,250	1,470	3,070	2.79	2.90
March	6,240	1,280	2,610	2.37	2.73
April	12,700	2,190	4,020	3.65	4.07
May	18,500	1,280	3,880	3.53	4.07
June	6,580	580	1,880	1.71	1.91
July	2,770	317	657	.597	.69
August	1,100	161	346	.315	.36
September	3,170	121	395	.359	.40
The year	18,500	121	2,180	1.98	26.83

SPOON RIVER AT SEVILLE, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 24, T. 6 N., R. 1 E., at Toledo, Peoria & Western Railway bridge a quarter of a mile east of Seville. Zero of gage is 467.78 feet above mean sea level.

DRAINAGE AREA.—1,600 square miles.

RECORDS AVAILABLE.—July, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 20,000 second-feet May 20 (gage height, 27.0 feet); minimum, 117 second-feet September 6 (gage height, 3.63 feet).

1914–1927: Maximum discharge, 28,900 second-feet August 22, 1914 (gage height, 30.5 feet); minimum, 3.8 second-feet July 31 and August 27–29, 1914 (gage height, 1.35 feet).

REMARKS.—Records good except those for December 26 to January 5 and January 10 to February 8, which were estimated because of ice.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,190	1,020	2,870	1,430	2,570	1,700	4,210	3,430	2,450	717	357	162
2	10,800	965	2,510	1,320	4,630	1,480	5,330	2,450	2,510	765	341	178
3	9,150	915	2,330	1,220	5,190	1,380	4,080	2,330	4,350	815	310	148
4	7,010	865	2,270	1,120	3,620	1,380	3,560	2,270	12,000	670	279	130
5	7,010	915	2,090	1,060	7,410	1,380	3,110	1,870	14,300	625	264	122
6	6,770	865	1,700	965	8,160	1,430	2,930	1,700	12,400	582	264	117
7	5,820	865	1,820	865	8,970	1,600	2,570	1,650	10,000	670	310	122
8	4,080	815	2,450	765	7,090	1,540	2,330	1,700	4,020	717	444	5,750
9	3,430	965	2,210	717	2,630	1,380	2,450	1,920	2,810	540	540	7,490
10	3,110	1,220	1,980	717	1,980	1,320	2,390	5,750	2,450	481	1,220	2,990
11	2,810	1,020	2,090	717	1,650	1,220	2,210	5,260	2,210	481	1,760	2,570
12	2,570	915	2,150	717	1,650	6,690	1,870	3,500	6,930	481	670	1,870
13	3,880	1,020	2,150	670	1,480	7,980	2,210	2,630	7,890	444	1,260	765
14	3,560	7,650	1,700	670	1,430	5,540	2,040	2,330	3,500	425	625	500
15	2,870	8,790	1,320	625	1,320	3,880	3,820	2,040	2,750	425	670	444
16	2,450	12,200	1,060	625	1,320	3,170	5,400	1,700	2,330	408	408	374
17	2,270	10,700	1,920	625	1,380	3,690	4,420	1,600	2,040	408	341	310
18	2,150	8,520	2,390	625	1,870	2,690	5,960	4,350	1,870	374	310	279
19	1,920	5,260	1,920	625	1,430	2,390	7,010	17,300	1,700	374	294	250
20	1,760	3,950	2,150	625	1,320	5,050	7,810	20,000	1,540	357	264	717
21	1,650	3,560	1,760	582	1,260	6,930	8,790	16,200	1,980	2,810	250	374
22	1,540	3,110	1,480	582	1,320	4,630	5,750	11,600	2,040	1,060	221	294
23	1,480	2,870	1,260	582	1,160	3,560	4,490	5,190	1,600	1,260	294	250
24	1,430	2,990	1,220	540	1,120	3,430	3,500	12,100	1,320	540	250	250
25	1,380	3,110	1,160	540	2,390	3,240	2,990	15,000	1,220	462	250	250
26	1,260	6,450	1,160	500	3,300	2,930	2,810	12,100	1,120	425	250	250
27	1,220	6,380	1,120	500	2,510	2,570	2,570	9,150	965	357	221	250
28	1,160	4,700	1,120	540	2,040	2,270	2,270	4,700	915	341	194	444
29	1,120	4,490	1,160	670	-------	2,090	2,450	3,500	865	374	194	1,600
30	1,060	3,170	1,430	915	-------	1,980	4,210	3,170	815	357	194	1,320
31	1,020	-------	1,540	1,540	-------	1,820	-------	2,750	-------	325	144	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,800	1,020	3,320	2.08	2.40
November	12,200	815	3,680	2.30	2.57
December	2,870	1,060	1,790	1.12	1.29
January	1,540	500	780	.488	.56
February	8,970	1,120	2,940	1.84	1.92
March	7,980	1,220	2,980	1.86	2.14
April	8,790	1,870	3,850	2.41	2.69
May	20,000	1,600	5,850	3.66	4.22
June	14,300	815	3,760	2.35	2.62
July	2,810	325	615	.384	.44
August	1,760	144	432	.270	.31
September	7,490	117	1,020	.638	.71
The year	20,000	117	2,580	1.61	21.87

SANGAMON RIVER AT MONTICELLO, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 12, T. 18 N., R. 5 E., at Illinois Central Railroad bridge half a mile west of Monticello.

DRAINAGE AREA.—550 square miles.

RECORDS AVAILABLE.—February, 1908, to December, 1912; June, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, about 15,400 second-feet October 4 (gage height, 18.4 feet); minimum, 17 second-feet September 21–27 (gage height, 2.14 feet).

1908–1912, 1914–1927; Maximum discharge, that of October 4, 1926; minimum, 1 second-foot July 31 to August 3, 1914 (gage height, 1.5 feet).

REMARKS.—Records good except those for extremely high stages and for periods of estimated discharge, which are fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	519	990	a 298	2,670	536	2,330	a 858	1,130	298	175	34
2	6,060	503	930	a 298	3,320	487	3,050	726	990	272	153	29
3	a10,700	487	845	a 311	3,600	455	a 3,180	664	1,630	a 259	142	29
4	15,400	487	795	311	3,050	425	3,320	624	2,020	246	132	a 32
5	10,300	455	a 730	298	2,670	395	2,550	588	a 2,120	210	127	34
6	7,420	440	664	366	a 2,500	a 425	2,120	553	2,220	186	117	29
7	4,780	a 432	644	338	2,330	455	1,630	503	1,700	164	a 410	25
8	3,320	425	624	311	2,120	536	1,400	a 626	1,450	164	704	46
9	2,550	410	624	a 285	1,770	644	1,630	748	1,350	153	366	52
10	a 2,200	440	606	259	1,350	606	a 1,740	1,450	1,020	a 148	259	39
11	1,850	503	664	246	1,250	588	1,850	1,350	726	142	175	a 48
12	1,630	519	a 654	210	1,170	664	1,630	1,300	a 928	127	153	58
13	1,510	503	644	a 210	a 1,060	a 730	1,850	1,170	1,130	108	175	46
14	1,350	a 732	624	a 210	960	795	2,020	1,090	1,210	153	a 192	34
15	1,300	960	588	a 210	930	900	2,330	a 857	1,170	770	210	34
16	1,250	1,510	570	a 218	900	960	3,320	624	1,020	1,130	164	29
17	a 1,140	2,220	553	a 226	870	795	a 4,450	553	870	a 1,030	142	29
18	1,020	3,320	536	a 234	820	704	5,580	570	726	930	132	a 25
19	930	3,050	a 504	a 210	770	1,250	5,260	1,350	a 657	664	127	21
20	870	2,440	471	a 186	a 717	a 2,420	5,740	1,770	588	536	108	21
21	820	a 2,070	440	a 175	664	3,600	6,400	3,880	990	471	a 94	17
22	770	1,700	410	a 153	606	6,060	4,780	a 2,700	1,300	570	81	17
23	704	1,570	395	a 148	570	4,780	3,320	1,510	1,210	726	73	17
24	a 694	1,300	487	a 142	553	3,320	a 2,480	1,400	930	a 583	66	17
25	684	1,250	536	a 164	519	2,330	1,630	1,930	684	440	58	a 17
26	664	1,170	a 488	a 153	553	1,250	1,400	2,330	a 586	338	52	17
27	644	1,130	440	a 142	a 570	a 1,250	1,210	2,670	487	285	52	17
28	606	a 1,170	395	a 175	588	1,250	1,130	1,930	410	246	a 49	34
29	553	1,210	352	a 222	-------	1,020	1,090	a 1,590	352	234	46	132
30	536	1,130	338	a 786	-------	960	990	1,250	324	222	39	644
31	a 528	-------	a 311	a 1,350	-------	a 1,640	-------	1,210	-------	a 198	34	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	15,400	528	2,710	4.93	5.68
November	3,320	410	1,140	2.07	2.31
December	990	311	576	1.05	1.21
January	1,350	142	285	.518	.60
February	3,600	519	1,410	2.56	2.67
March	6,060	395	1,360	2.47	2.85
April	6,400	990	2,710	4.93	5.50
May	3,880	503	1,300	2.36	2.72
June	2,220	324	1,060	1.93	2.15
July	1,130	108	387	.704	.81
August	704	34	155	.282	.33
September	644	17	54.1	.098	.11
The year	15,400	17	1,090	1.98	26.94

a Estimated.

SANGAMON RIVER AT RIVERTON, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 9, T. 16 N., R. 4 W., at Wabash Railroad bridge in Riverton, 5 miles below mouth of South Fork. Zero of gage is 503.15 feet above mean sea level.

DRAINAGE AREA.—2,560 square miles.

RECORDS AVAILABLE.—February, 1908, to December, 1912; August, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, about 30,200 second-feet October 4 (gage height, 32.04 feet); minimum, 208 second-feet September 27 (gage height, 8.61 feet).

1908–1912, 1914–1927: Maximum discharge, that of October 4, 1926; minimum, 3 second-feet October 3–15, 1915 (gage height, 6.9 feet).

REMARKS.—Records good except those for extremely high stages and for period of ice effect, January 12–27, which are fair. Flow during low-water periods is affected by storage in municipal reservoir at Decatur.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,900	1,820	6,170	1,780	7,240	1,740	7,110	3,700	10,900	1,500	2,060	485
2	18,500	1,820	5,660	1,460	7,780	1,700	9,470	3,320	9,140	1,580	1,500	412
3	26,600	1,740	4,890	1,400	9,470	1,580	10,300	2,770	8,510	1,460	1,260	341
4	30,200	1,700	4,120	1,360	9,470	1,540	10,700	2,520	8,820	1,290	1,040	318
5	27,200	1,580	3,760	1,360	9,810	1,540	11,500	2,300	9,140	940	850	318
6	24,200	1,580	3,320	1,320	9,980	1,660	12,500	2,140	7,780	940	760	388
7	23,600	1,620	3,370	1,290	9,810	1,580	12,300	2,340	7,780	880	790	318
8	23,100	1,460	3,420	1,290	8,980	1,900	11,100	2,720	7,110	910	1,360	535
9	19,800	1,620	3,420	1,290	8,360	1,980	11,500	4,000	6,740	850	1,740	1,900
10	16,300	1,780	3,320	1,120	8,060	2,060	9,470	4,970	6,390	790	1,500	2,220
11	13,100	1,700	2,970	1,080	6,980	2,220	8,510	7,500	6,620	790	1,430	1,540
12	10,700	1,500	2,620	1,010	5,660	2,570	7,780	7,110	6,390	730	1,260	1,120
13	9,140	1,540	2,340	910	5,660	2,380	8,360	7,110	7,110	700	1,430	910
14	7,780	2,670	2,180	850	5,130	2,570	9,300	6,980	8,510	910	2,970	730
15	6,860	4,730	1,980	850	4,970	2,670	9,470	5,860	7,640	1,900	2,870	610
16	5,960	5,960	1,860	880	4,730	2,970	11,500	3,820	7,370	1,740	2,620	535
17	4,970	6,170	1,780	940	4,520	2,970	13,300	3,120	7,110	1,430	2,340	436
18	4,380	6,860	1,780	975	4,180	3,170	13,100	3,370	7,110	1,290	2,020	388
19	3,940	6,620	1,740	975	3,880	3,940	12,700	6,620	5,960	1,580	1,740	364
20	3,580	6,740	1,700	940	3,420	8,660	13,300	6,740	4,970	1,620	1,500	318
21	3,420	6,860	1,700	910	2,820	13,500	13,300	6,390	5,050	1,940	1,220	295
22	3,370	7,110	1,700	910	2,620	13,100	12,900	6,500	4,970	2,180	1,120	295
23	3,700	6,980	1,940	880	2,380	13,100	11,700	7,240	4,890	2,180	940	262
24	3,170	6,740	2,670	880	2,220	11,700	10,900	8,820	4,380	1,900	760	251
25	3,170	6,620	2,820	850	2,100	10,900	9,140	10,300	4,060	1,740	610	240
26	3,070	6,980	2,670	850	2,060	10,200	8,210	12,300	3,580	1,430	585	218
27	2,100	7,370	2,470	1,010	1,940	9,300	6,740	14,200	3,070	1,260	560	208
28	1,980	7,240	2,340	975	1,820	7,920	5,860	12,900	2,570	1,010	535	2,060
29	1,940	7,780	1,980	1,040	-------	6,740	4,970	14,900	1,900	1,080	640	2,300
30	2,220	6,620	1,940	1,620	-------	5,860	4,060	12,900	1,660	1,500	510	3,520
31	2,100	-------	1,660	4,890	-------	5,760	-------	12,100	-------	2,180	510	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	30,200	1,940	10,400	4.06	4.68
November	7,780	1,460	4,380	1.71	1.91
December	6,170	1,660	2,780	1.09	1.26
January	4,890	850	1,220	.477	.55
February	9,980	1,820	5,570	2.18	2.27
March	13,500	1,540	5,140	2.01	2.32
April	13,300	4,060	10,000	3.91	4.36
May	14,900	2,140	6,700	2.62	3.02
June	10,900	1,660	6,240	2.44	2.72
July	2,180	700	1,360	.531	.61
August	2,970	510	1,320	.516	.59
September	3,520	208	794	.310	.35
The year	30,200	208	4,650	1.82	24.64

SOUTH FORK OF SANGAMON RIVER AT POWER PLANT, NEAR TAYLORVILLE, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 14, T. 13 N., R. 3 W., at Chicago & Illinois Midland Railway bridge 6 miles west of Taylorville and 6 miles below mouth of Bear Creek.

DRAINAGE AREA.—510 square miles.

RECORDS AVAILABLE.—May, 1917, to September, 1927.

EXTREMES.—Maximum discharge during year, 11,600 second-feet October 4 (gage height, 26.25 feet); minimum, 18 second-feet September 27 (gage height, 5.05 feet).

1917–1927: Maximum discharge, 11,800 second-feet March 15, 1922 (gage height, 26.6 feet); no flow August 29 and October 6–23, 1922.

A stage of about 27.3 feet occurred on January 31, 1916 (discharge, 11,300 second-feet).

REMARKS.—Records fair. An average of about 0.5 second-foot is used for boiler feed and other purposes at power plant just above gage.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,710	343	1,490	226	2,080	248	1,240	306	4,420	184	449	39
2	5,500	330	1,360	174	3,920	248	4,510	294	3,200	226	306	39
3	10,500	318	1,060	226	4,780	226	6,220	270	2,280	a 206	126	34
4	11,600	294	702	248	3,920	226	5,050	259	2,580	a 185	135	29
5	a 9,950	a 282	a 596	a 315	a 3,380	a 232	a 5,100	a 237	a 2,610	a 165	a 115	a 30
6	8,300	270	491	382	2,850	237	5,140	215	2,640	144	95	32
7	6,220	248	477	343	2,710	248	a 4,060	204	2,180	135	74	49
8	4,420	248	477	343	1,940	369	2,990	1,060	1,490	118	318	61
9	3,200	248	463	294	1,560	521	2,400	1,780	1,210	110	684	102
10	2,340	294	435	343	1,490	521	2,460	2,580	820	110	435	204
11	1,900	270	435	369	915	369	2,180	3,520	506	110	194	282
12	1,600	282	449	395	491	356	1,560	4,000	865	110	126	294
13	1,330	270	421	395	666	506	1,700	2,780	1,490	95	102	184
14	1,040	282	408		1,150	780	1,900	1,700	2,520	88	294	88
15	780	551	395		1,390	1,020	2,640	1,060	2,710	88	435	61
16	632	940	369		1,420	990	4,600	720	2,080	95	330	52
17	536	1,210	259		1,360	1,020	5,320	506	1,630	110	248	39
18	435	1,420	154		1,090	990	4,870	506	a 1,460	88	666	34
19	382	1,490	204		965	1,210	2,990	1,300	1,300	74	684	34
20	a 369	a 1,560	a 210		a 707	a 3,860	a 2,510	a 2,900	a 1,160	a 139	a 450	a 32
21	356	1,630	215	a 275	449	6,500	2,030	4,510	1,020	204	215	29
22	330	1,420	226		435	6,400	1,780	3,630	1,300	144	164	24
23	318	1,360	248		369	a 4,880	1,490	2,850	1,270	318	110	22
24	318	1,330	720		343	3,360	1,240	3,440	1,360	318	110	24
25	318	1,210	1,040		343	2,230	915	7,500	1,120	135	102	24
26	294	1,490	1,020		330	1,660	666	9,530	720	95	88	20
27	270	1,780	965		306	1,420	491	8,400	408	78	74	18
28	259	1,740	915	248	270	1,180	408	7,200	369	70	67	22
29	248	1,490	491	369	------	865	395	4,420	294	78	55	102
30	248	1,490	463	890	------	666	369	6,400	270	95	42	506
31	248	------	306	1,520	------	551	------	6,400	------	343	42	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,600	248	2,480	4.86	5.60
November	1,780	248	870	1.71	1.91
December	1,490	154	563	1.10	1.27
January	1,520	174	353	.692	.80
February	4,780	270	1,490	2.92	3.04
March	6,500	226	1,420	2.78	3.20
April	6,220	369	2,640	5.18	5.78
May	9,530	204	2,920	5.73	6.61
June	4,420	270	1,580	3.10	3.46
July	343	70	144	.282	.33
August	684	42	237	.465	.54
September	506	18	83.7	.164	.18
The year	11,600	18	1,230	2.41	32.72

a Estimated.

CROOKED CREEK AT RIPLEY, ILL.

LOCATION.—Chain gage in NE. ¼ sec. 33, T. 1 N., R. 2 W., at highway bridge one-fourth mile east of Ripley.

DRAINAGE AREA.—1,310 square miles.

RECORDS AVAILABLE.—March, 1921, to September, 1927.

EXTREMES.—Maximum stage during year, 21.0 feet October 7 (discharge not determined, owing to backwater); minimum discharge, 28 second-feet September 26 (gage height, 2.96 feet).

1921–1927: Maximum discharge, 12,500 second-feet July 25, 1924 (gage height, 25.0 feet); minimum, 9 second-feet September 8 and 9, 1922.

Old high-water marks are at a stage of about 26.0 feet.

REMARKS.—Records fair except estimates for periods of backwater from Illinois River or from ice, which are poor.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				[a] 350	[a] 970						124	43
2				[a] 350	1,970						130	40
3				[a] 350	3,080						165	40
4				[a] 350						[a] 309	210	88
5				350							485	97
6				375							455	230
7		[a] 442		325						275	515	240
8				300						182	1,110	230
9				300						173	515	210
10				275						165	455	200
11				97						143	102	30
12										150	130	80
13		1,720								143	515	72
14										136	515	68
15							[a] 2,400			136	250	68
16	[a] 2,270		[a] 785		[a] 2,010	[a] 2,050		[a] 2,340	[a] 2,160	136	375	62
17										173	97	58
18										200	97	52
19										515	43	49
20										455	72	40
21		[a] 3,320		[a] 101						275	76	33
22										1,480	68	34
23										1,440	68	34
24										1,440	65	35
25										1,140	72	30
26										725	72	28
27										262	72	30
28										182	65	35
29					-------					150	58	102
30					-------					143	58	102
31		-------			-------		-------		-------	130	49	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October			2,270	1.73	1.99
November			2,120	1.62	1.81
December			785	.599	.69
January			176	.134	.15
February			2,010	1.53	1.59
March			2,050	1.56	1.80
April			2,400	1.83	2.04
May			2,340	1.79	2.06
June			2,160	1.65	1.84
July	1,480	130	394	.301	.35
August	1,110	43	228	.174	.20
September	240	28	82.0	.063	.07
The year		28	1,410	1.08	14.59

[a] Estimated.

MACOUPIN CREEK NEAR KANE, ILL.

LOCATION.—Chain gage in sec. 7, T. 9 N., R. 11 W., at Chicago & Alton Railroad bridge 3 miles northwest of Kane.

DRAINAGE AREA.—865 square miles.

RECORDS AVAILABLE.—March, 1921, to September, 1927.

EXTREMES.—Maximum discharge during year, 22,200 second-feet October 4 (gage height, 22.5 feet); minimum, about 48 second-feet September 21 (gage height, 2.25 feet).

1921–1927: Maximum discharge, that of October 4, 1926; maximum gage height, 24.6 feet March 15, 1922; minimum discharge, 1 second-foot September 29, October 3, 5, and 15, 1922.

High water of 1915 reached a height of 29.5 feet on present gage.

REMARKS.—Records fair except those for low stages, which are poor. Discharge estimated because of ice January 13–15, 17–19, 21, and 22.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,000	394	982	273	6,270	240	11,400	310	2,220	122	351	76
2	12,000	394	762	240	5,260	256	10,400	256	685	117	256	76
3	15,900	351	535	256	5,360	240	9,070	225	872	117	535	72
4	22,200	310	610	273	4,400	273	8,550	210	1,090	117	240	72
5	19,900	273	486	273	2,970	273	14,200	196	1,240	108	183	66
6	15,900	256	394	273	2,860	291	19,400	240	585	95	127	63
7	10,800	291	610	273	1,840	1,120	12,700	225	416	132	183	210
8	3,330	256	1,270	225	1,060	2,100	3,750	5,160	273	122	660	210
9	1,560	394	1,040	240	1,120	1,120	4,400	4,580	256	95	535	112
10	1,210	462	439	183	685	585	5,910	5,160	225	87	240	95
11	900	351	845	196	585	462	3,330	5,580	196	87	122	83
12	790	291	660	183	535	2,710	6,270	4,760	330	80	112	80
13	710	291	510	183	1,360	2,220	8,220	955	3,750	80	273	76
14	585	2,020	416	171	2,460	1,010	12,200	610	3,820	132	1,360	66
15	535	5,260	256	137	1,840	685	12,200	462	2,970	196	2,020	66
16	462	4,760	273	99	1,010	535	13,300	330	1,040	104	439	63
17	462	3,210	273	127	790	462	12,200	310	462	91	1,270	63
18	394	2,910	240	137	560	394	9,070	291	1,040	87	1,150	66
19	685	1,980	225	148	486	10,800	5,910	1,150	982	685	560	60
20	928	1,770	240	137	394	12,200	5,470	1,300	394	225	273	54
21	535	1,600	291	159	351	14,200	4,860	416	1,010	510	210	48
22	462	1,300	351	171	351	11,000	1,490	735	710	1,240	183	60
23	416	1,240	982	159	351	5,160	1,520	685	462	585	148	60
24	486	2,260	3,540	159	310	1,560	735	6,390	273	351	122	60
25	439	4,220	2,860	171	310	1,300	660	10,400	225	225	112	57
26	372	7,600	1,840	159	310	955	535	11,200	225	159	108	54
27	372	5,580	635	183	256	845	486	10,400	159	91	99	54
28	351	4,760	486	159	240	685	416	5,160	159	87	91	1,700
29	351	2,220	394	351	------	845	351	4,960	137	80	87	1,300
30	394	1,630	310	2,510	------	560	351	5,580	137	439	83	4,220
31	710	------	291	5,580	------	790	------	3,610	------	610	80	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22,200	351	4,040	4.67	5.38
November	7,600	256	1,950	2.25	2.51
December	3,540	225	743	8.59	.99
January	5,580	99	445	.514	.59
February	6,270	240	1,580	1.83	1.91
March	14,200	240	2,450	2.83	3.26
April	19,400	351	6,650	7.69	8.58
May	11,200	196	2,960	3.42	3.94
June	3,820	137	878	1.02	1.14
July	1,240	80	234	.271	.31
August	2,020	80	394	.455	.52
September	4,220	48	311	.360	.40
The year	22,200	48	1,880	2.17	29.53

KASKASKIA RIVER AT VANDALIA, ILL.

LOCATION.—Chain gage in SE. ¼ sec. 16, T. 6 N., R. 1 E., at Gallatin Street Bridge in Vandalia, 3½ miles above Hickory Creek. Zero of gage is 456.23 feet above mean sea level.

DRAINAGE AREA.—1,980 square miles.

RECORDS AVAILABLE.—February, 1908, to December, 1912; August, 1914, to September, 1927.

EXTREMES.—Maximum discharge during year, 20,000 second-feet October 4; maximum gage height, 20.89 feet October 3; minimum discharge, 168 second-feet September 27 (gage height, 2.07 feet).

1908–1912, 1914–1927: Maximum discharge, that of October 4, 1926; maximum gage height, 23.0 feet June 5, 1917; minimum discharge, 3.5 second-feet August 22, 1911.

REMARKS.—Records good except those for October 4–18, December 26 to January 5, January 12–29, February 11, 12, and March 20 to April 28, which are approximate or estimated because of broken levee above gage, ice, or missing gage height.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,180	1,300	2,200	1,300	7,800	990	10,800	1,750	7,800	1,540	840	422
2	7,320	1,110	1,920	1,230	7,930	960	15,200	1,540	6,770	1,500	840	400
3	12,400	1,050	1,750	1,200	7,680	930	13,500	1,440	6,660	1,200	930	358
4	20,000	990	1,640	1,580	7,800	900	11,300	1,260	6,270	1,050	840	337
5	18,500	960	1,540	3,390	7,680	870	11,700	1,230	6,010	960	665	297
6	18,000	900	1,400	2,880	7,100	990	11,300	1,140	5,930	840	565	278
7	17,000	870	1,300	1,860	6,560	1,580	10,800	1,110	5,770	750	444	260
8	15,500	840	1,230	1,440	6,180	4,090	10,400	1,640	5,560	665	960	665
9	14,200	1,020	1,200	1,230	6,090	2,480	10,800	1,860	4,890	590	1,360	2,360
10	13,500	1,400	1,170	1,050	5,850	1,470	10,200	3,080	3,990	565	1,500	1,750
11	12,600	1,140	1,110	1,140	5,010	1,260	9,970	2,720	3,790	515	1,170	1,300
12	11,900	990	1,080	1,140	4,180	2,840	9,150	2,240	3,200	515	990	1,020
13	11,300	960	1,020	1,920	3,340	3,940	9,970	2,160	5,070	490	1,580	615
14	10,400	930	960	1,780	4,140	3,040	12,600	1,820	5,770	490	3,120	540
15	9,350	1,960	870	1,540	4,040	1,720	12,800	1,720	5,630	640	2,600	467
16	7,350	3,340	690	1,140	3,160	1,470	15,500	1,610	3,160	540	2,440	422
17	4,570	2,880	615	990	2,680	1,330	13,800	1,470	3,200	490	2,520	379
18	3,900	4,190	640	1,140	2,280	2,720	11,900	1,440	3,290	565	2,520	337
19	2,440	4,710	665	1,750	2,000	7,440	10,800	4,950	2,560	665	2,280	297
20	2,240	3,690	750	1,820	1,820	19,800	11,300	7,320	2,640	900	2,080	260
21	1,920	2,840	870	1,470	1,680	16,500	11,700	6,660	2,760	1,750	1,750	242
22	1,720	3,120	1,170	1,300	1,610	14,200	10,600	5,560	3,890	2,000	1,440	225
23	1,540	2,200	1,260	1,300	1,500	12,800	8,750	5,350	3,740	1,680	1,300	208
24	1,440	2,720	2,000	1,140	1,360	12,200	8,190	8,460	3,390	1,440	960	200
25	1,360	2,200	2,760	1,080	1,260	11,300	6,730	8,190	2,760	990	810	184
26	1,230	3,040	2,280	1,170	1,200	10,600	5,010	8,060	2,640	930	780	176
27	1,170	5,010	1,860	1,020	1,140	9,760	3,740	7,100	2,520	810	690	168
28	1,050	3,840	1,440	1,140	1,050	8,950	2,800	7,320	2,360	750	665	242
29	1,080	3,000	1,370	2,520	-------	5,610	2,320	7,100	2,160	615	665	840
30	1,170	2,680	1,300	5,140	-------	4,080	2,080	10,100	2,520	690	565	4,040
31	1,400	-------	1,300	6,010	-------	3,220	--------	9,500	-------	720	490	------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,000	1,050	7,540	3.81	4.39
November	5,010	840	2,200	1.11	1.24
December	2,760	615	1,330	.672	.77
January	6,010	990	1,770	.894	1.03
February	7,930	1,050	4,080	2.06	2.14
March	19,800	870	5,490	2.77	3.19
April	15,500	2,080	9,860	4.98	5.56
May	10,100	1,110	4,090	2.07	2.39
June	7,800	2,160	4,220	1.13	2.38
July	2,000	490	898	.454	.52
August	3,120	444	1,300	.657	.76
September	4,040	168	643	.325	.36
The year	20,000	168	3,610	1.82	24.73

BIG MUDDY RIVER AT PLUMFIELD, ILL.

LOCATION.—Chain gage in W. ½ sec. 20, T. 7 S., R. 2 E., at highway bridge at Plumfield, 1½ miles below mouth of Middle Fork.

DRAINAGE AREA.—753 square miles.

RECORDS AVAILABLE.—August, 1914, to September, 1927. June, 1908, to December, 1912, at Chicago, Burlington & Quincy Railroad bridge 2 miles upstream.

EXTREMES.—Maximum discharge during year, 10,900 second-feet April 17 (gage height, 26.0 feet); minimum, 4.8 second-feet September 27 (gage height, 1.17 feet).

1914–1927: Maximum discharge, 16,300 second-feet February 1, 1916 (gage height, 30.2 feet); no flow August 18–26, 1914.

REMARKS.—Records fair.

Daily and monthly discharge, in second-feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	545	1,730	a 1,790	456	5,090	60	2,780	1,900	2,520	17	75	8.6
2	870	1,860	1,920	456	5,010	54	5,250	2,650	3,130	13	128	7.6
3	970	1,980	1,500	575	4,690	52	6,800	2,750	5,590	102	70	8.0
4	990	1,890	950	a 860	4,230	60	7,200	2,360	6,310	108	200	6.7
5	930	1,190	470	1,150	3,690	96	6,600	1,720	5,950	48	545	7.3
6	870	650	a 422	1,460	3,150	114	5,580	1,200	5,050	24	680	7.8
7	a 637	a 379	a 375	1,560	2,580	a 212	4,450	1,160	3,900	15	680	7.5
8	a 404	108	a 327	1,500	1,890	309	3,950	1,400	2,750	11	309	11
9	171	680	a 279	1,130	1,480	665	2,930	a 1,960	1,880	8.6	274	8.6
10	75	870	a 232	545	910	710	2,680	2,520	1,140	10	590	8.8
11	50	1,090	a 184	190	515	485	2,780	4,730	560	a 31	725	7.8
12	34	990	136	162	309	263	3,450	5,500	252	52	755	8.0
13	24	830	128	128	297	442	4,690	5,140	1,340	24	456	20
14	18	a 740	108	a 419	372	830	7,300	4,330	1,600	54	136	13
15	13	650	90	710	560	1,050	9,500	3,430	2,240	29	530	8.8
16	9.2	870	70	950	770	1,050	10,800	2,480	2,700	34	725	7.3
17	8.6	1,190	65	990	770	695	10,900	1,700	2,400	44	a 1,210	6.6
18	7.6	1,380	40	1,190	a 540	1,730	10,500	a 1,120	1,850	38	1,700	5.9
19	6.6	1,190	29	1,980	309	2,500	9,700	545	1,160	23	2,130	5.2
20	810	1,480	30	2,540	230	3,630	8,900	359	a 868	16	2,160	4.8
21	725	1,360	128	4,090	171	4,770	7,800	309	575	13	1,900	16
22	605	910	650	5,670	153	5,490	6,700	252	442	70	1,400	12
23	333	456	1,010	6,600	153	5,760	5,490	263	359	58	650	8.0
24	274	386	1,150	7,200	153	5,410	4,370	530	190	54	180	6.6
25	171	346	1,300	7,200	128	4,690	3,270	1,260	96	75	136	5.8
26	128	910	1,360	6,900	108	3,810	2,260	1,500	54	60	121	5.1
27	114	a 1,160	a 1,030	6,210	85	2,880	1,580	2,070	38	40	58	4.8
28	102	1,400	695	5,670	75	2,130	1,030	2,200	28	26	29	8.8
29	790	a 1,530	485	5,330	-------	1,400	790	2,700	24	20	19	108
30	1,460	a 1,660	346	5,170	-------	770	1,560	2,750	20	19	13	414
31	1,600	-------	346	5,090	-------	1,780	-------	2,520	-------	17	10	-------

Month	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,600	6.6	443	0.588	0.68
November	1,980	108	1,060	1.41	1.57
December	1,920	29	569	.756	.87
January	7,200	128	2,710	3.60	4.15
February	5,090	75	1,370	1.82	1.90
March	5,760	52	1,740	2.31	2.66
April	10,900	790	5,390	7.16	7.99
May	5,500	252	2,110	2.80	3.23
June	6,310	20	1,830	2.43	2.71
July	108	8.6	37.2	.049	.06
August	2,160	10	600	.797	.92
September	414	4.8	25.3	.034	.04
The year	10,900	4.8	1,490	1.98	26.78

a Estimated.

BIG MUDDY RIVER AT MURPHYSBORO, ILL.

LOCATION.—Chain gage in SW. ¼ sec. 8, T. 9 S., R. 2 W., at South Twentieth Street highway bridge in Murphysboro, a quarter of a mile below mouth of Louis Creek. Zero of gage is 331.00 feet above mean sea level.

DRAINAGE AREA.—2,170 square miles.

RECORDS AVAILABLE.—December, 1916, to September, 1927.

EXTREMES.—Maximum stage during year, above 36.25 feet April 17–19, when gage was inaccessible; minimum discharge, 19 second-feet September 24 (gage height, 2.36 feet).

1916–1927: Maximum discharge determined, 15,600 second-feet January 10, 1917; minimum, 1.0 second-foot August 1, 1921.

Maximum stage known, 39.6 feet about February 2, 1916 (discharge, about 28,000 second-feet).

REMARKS.—Records fair. Gage-height record missing April 17–19 and May 20 to June 4. Stage-discharge relation affected by backwater from Mississippi River whenever height on United States Weather Bureau gage at Chester, Ill., is above about 10 feet; daily discharge not determined for periods of backwater.

Daily gage height, in feet, 1926–27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15.10	15.10	13.90	8.43	30.72	4.92	26.50	27.60	------	13.20	9.13	3.37
2	16.20	16.30	12.80	8.23	30.74	4.87	27.85	27.55	------	12.50	8.38	3.17
3	17.25	16.15	12.40	8.73	30.50	4.87	30.30	27.50	------	11.80	6.68	3.07
4	17.65	14.40	12.20	11.14	29.90	4.97	32.00	26.80	------	11.30	5.78	3.37
5	17.70	13.40	10.90	13.24	29.10	5.22	32.62	25.70	27.80	11.00	8.93	3.72
6	18.50	12.32	9.83	14.05	28.00	5.72	32.28	24.80	27.90	10.50	8.88	3.41
7	19.00	11.10	8.03	13.90	26.50	5.97	31.66	24.15	26.80	10.20	7.93	3.96
8	19.30	9.18	6.58	13.10	24.65	6.42	31.16	23.80	27.30	9.89	7.48	4.36
9	19.40	8.63	5.88	12.30	22.72	7.22	30.77	23.50	26.30	9.39	6.83	4.16
10	19.20	7.33	6.03	11.15	20.50	8.27	30.38	25.30	25.70	9.19	9.48	4.36
11	19.10	7.87	6.68	9.58	18.00	10.00	29.95	26.05	25.30	8.39	9.62	3.86
12	19.10	8.43	6.48	7.63	15.28	10.65	29.70	27.00	23.70	8.29	9.57	3.56
13	19.20	8.68	6.43	6.53	12.56	12.80	31.30	27.40	21.90	8.24	9.72	3.26
14	18.70	8.68	6.68	7.83	10.74	14.95	33.12	27.20	21.80	8.29	9.67	3.16
15	18.25	8.48	6.03	9.63	10.04	15.35	34.60	26.45	21.60	8.09	10.95	3.11
16	17.20	8.83	4.58	10.20	10.66	15.75	36.25	25.70	20.10	7.88	11.95	3.06
17	16.40	11.00	4.63	11.18	10.58	13.85	------	23.20	20.90	7.38	12.65	3.00
18	14.70	12.76	4.23	14.90	10.02	19.00	------	21.40	20.50	6.28	11.99	2.86
19	13.20	12.90	4.03	19.45	9.32	20.75	------	21.14	20.30	6.13	11.65	2.80
20	13.30	13.05	5.53	20.96	8.62	24.20	36.10	------	20.05	5.38	11.35	2.56
21	13.10	13.40	6.13	22.84	7.97	25.95	35.30	------	19.80	7.18	12.07	2.52
22	12.92	11.55	7.03	25.10	7.32	27.65	34.50	------	17.00	8.98	11.35	2.46
23	14.62	11.26	8.53	27.35	6.77	29.00	33.50	------	16.50	8.08	12.01	2.40
24	10.20	10.06	10.20	28.95	6.32	29.40	32.58	------	16.30	6.88	11.05	2.36
25	9.44	8.73	12.20	29.95	6.07	29.75	31.66	------	16.20	5.63	8.82	2.40
26	8.54	9.83	12.86	30.26	5.72	28.90	30.72	------	16.00	5.68	6.87	2.86
27	8.04	11.60	12.90	30.18	5.42	27.30	29.80	------	15.65	5.78	5.17	2.91
28	7.79	14.20	11.40	30.18	5.12	26.50	28.70	------	15.50	5.98	4.82	2.96
29	8.74	14.75	10.50	30.44	------	24.80	28.25	------	14.85	5.88	4.67	6.21
30	9.64	14.45	9.48	30.70	------	22.70	27.80	------	13.90	6.03	3.87	11.34
31	14.30	------	8.58	30.68	------	24.60	------	------	------	6.08	3.42	------

Daily discharge in second-feet, of Big Muddy River at Murphysboro, Ill., 1926–27

Day	Dec.	Jan.	Sept.	Day	Dec.	Jan.	Sept.	Day	Dec.	Jan.	Sept.
1		1,230		11		1,650	112	21	545		24
2		1,160		12		975	84	22	795		22
3		1,340	48	13		645	60	23	1,280	10,700	20
4		2,180	68	14		1,040		24	1,860	11,800	19
5		2,990	97	15		1,650		25	2,580	12,600	20
6		3,350	71	16				26	2,860	12,800	38
7		3,300	124	17				27	2,860	12,800	40
8		2,940	180	18			38	28	2,280	12,800	42
9		2,620	150	19			35	29	1,960	12,900	570
10		2,210	180	20	404		25	30	1,620	13,200	2,240
								31	1,300	13,200	

NOTE.—Stage-discharge relation affected by backwater from Mississippi River on days for which no discharge is given.

MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the upper Mississippi River Basin at points other than regular gaging stations are listed in the following table:

Miscellaneous discharge measurements in the upper Mississippi River drainage basin during the year ending September 30, 1927

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
May 11	Rock River	Mississippi River	Latham Park, Ill	1.40	7,010
Sept. 2	do	do	do	—.92	1,670
May 12	do	do	Grand Detour, Ill	4.94	10,600
Sept. 2	do	do	do	1.23	2,420
Nov. 5	Fox River	Illinois River	Serena, Ill	.90	949
Apr. 21	do	do	do	3.10	4,460
Aug. 18	do	do	do	.59	549

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