UNITED STATES DEPARTMENT OF THE INTERIOR

SURFACE WATER SUPPLY *of the* UNITED STATES 1936

PART 5

HUDSON BAY AND UPPER MISSISSIPPI RIVER BASINS

Prepared in cooperation with the States of
ILLINOIS, INDIANA, IOWA, MINNESOTA, MISSOURI
NORTH DAKOTA, AND WISCONSIN

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 805

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

Water-Supply Paper 805

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NATHAN C. GROVER, Chief Hydraulic Engineer
C. L. BATCHELDER, H. C. BECKMAN, H. E. GROSBACH, R. G. KASEL
W. A. LAMB, J. H. MORGAN, and S. B. SOULÉ
District Engineers

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ILLUSTRATION

SURFACE WATER SUPPLY OF HUDSON BAY AND UPPER MISSISSIPPI RIVER BASINS, 1936

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, 1936. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1936, 3,160 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. 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 7.

DEFINITION OF TERMS

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

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

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the 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 its 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.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours.

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

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

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either

from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually 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. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by shifting-control method or by use of slope or other special methods.

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

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily or the mean of twice-daily readings of the gage. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the 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 "Second-foot-days" gives the sum for each month of the discharge given in the table of daily 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.

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, in general, the daily records are accurate within

A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLEN TANGY RIVER, DELAWARE, OHIO.

B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.

5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent 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 depth 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.

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 station must first be satisfied.

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, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

PUBLICATIONS

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

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

Water-supply papers and other publications of the Geological Survey containing data 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, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N. Y., 526 Federal Building.
Trenton, N. J., 228 Federal Building.

Harrisburg, Pa., 490 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 220 Post Office Building.
Columbia, S. C., 119 United States Courthouse.
Atlanta, Ga., Georgia School of Technology.
Ocala, Fla., Post Office Building.
Montgomery, Ala., Post Office Building.
Chattanooga, Tenn., 442 Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Urbana, Ill., 14 Post Office Annex.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 808 New Post Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 906 Customhouse, 1114 Market Street.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N. Mex., 3 United States Courthouse.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo, 230 Customhouse.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 412 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 512 Eighth and Figueroa Building.
Honolulu, Hawaii, 225 Federal Building.

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

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

Stream-flow data in reports of the Geological Survey

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

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

Note.- The reports which contain records after 1901 are given in the table on page 6.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report 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 1936. The data for any particular station will, in general, 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 3 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. Special papers containing compilation of records previously published and also records not contained in the annual series of water-supply papers have been published for some States and drainage basins. For example, stream-flow records for the New-Kanawha River Basin in part 3 from 1895 to 1920 are contained in Water-Supply Paper 536.

Numbers of water-supply papers containing results of stream measurements, 1899-1936

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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	m 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, n 100	99	k 98, 99	99	100	100	100	100	100	100
1904.....	o 124, p 125, q 126	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905.....	o 165, p 166, q 167	q 167, 168	169	170	171	172	k 169, 173	174	175, t 177	176, s 177	177	178	178	u 177, 178
1906.....	o 201, p 202, q 203	q 203, 204	205	206	207	208	k 205, 209	210	211, t 213	212, s 213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s 251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s 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
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814

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

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the year ending September 30, 1936, by agencies other than the Geological Survey. The records for these stations are not contained in the publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Operated by	Remarks
Mississippi River..	St. Cloud hydroelectric plant, St. Cloud, Minn.	1925-36	Northern States Power Co.	Unpublished
Do.....	Coon Rapids hydroelectric plant near Anoka, Minn.	1918-36	.....do.....	Do.
Do.....	Lower Dam hydroelectric plant, Minneapolis, Minn.	1900-36	.....do.....	Do.
Do.....	Twin City Lock and Dam, St. Paul, Minn.	1925-36	Ford Motor Co.....	Do.
Do.....	Cassville, Wis.....	1930-36	U. S. Engineer Office	Do.
Do.....	Dubuque, Iowa.....	..do...	.....do.....	Do.
Do.....	Sabula, Iowa.....	..do...	.....do.....	Do.
Do.....	Rock Island, Ill.....	..do...	.....do.....	Do.
Do.....	Muscatine, Iowa.....	..do...	.....do.....	Do.
Do.....	New Boston, Ill.....	..do...	.....do.....	Do.
Do.....	Burlington, Iowa.....	..do...	.....do.....	Do.
Do.....	Canton, Mo.....	..do...	.....do.....	Do.
Do.....	Quincy, Ill.....	..do...	.....do.....	Do.
Do.....	Hannibal, Mo.....	..do...	.....do.....	Do.
Minnesota River....	Minnesota Falls hydroelectric plant near Granite Falls, Minn.	1928-36	Northern States Power Co.	Do.
Blue Earth River...	Rapidan hydroelectric plant near Rapidan, Minn.	1911-36	Northern States Power Co.	Do.
Cannon River.....	Cannon Falls hydroelectric plant near Cannon Falls, Minn.	1921-36	Northern States Power Co.	Do.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In Illinois with the Department of Registration and Education, J. J. Hallihan, director; in Indiana with the Department of Public Works, V. M. Simmons, administrative officer; in Iowa with the University of Iowa Institute of Hydraulic Research, Professor F. T. Mavis, associate director, and B. J. Lambert, acting dean of the College of Engineering, the Iowa Geological Survey, A. C. Trowbridge, director, State Conservation Commission, M. L. Hutton, director, State Planning Board, R. H. Matson, director, State Department of Health, A. H. Wieters, director, Division of Engineering; in Minnesota with the Department of Conservation, Division of Drainage and Waters, W. S. Olson, director; in Missouri with the Missouri Geological Survey, H. A. Buehler, State geologist, and with the State Highway Department, T. H. Cutler, chief highway engineer; in North Dakota with the State

engineer, E. J. Thomas; in Wisconsin with the Public Service Commission, G. P. Steinmetz, chief engineer.

Acknowledgments are also due the Corps of Engineers, U. S. Army and the United States Soil Conservation Service for financial assistance in collecting records published herein. Several stations in Hudson Bay basins were maintained from funds appropriated by the U. S. Department of State.

Full cooperation exists between this organization and the Dominion Water and Power Bureau, Department of Mines and Resources, Canada. On waters adjacent to the international boundary certain stations are maintained jointly by the United States and Canada under the terms of the Boundary Waters Treaty of 1909, and others are maintained under a subsequent agreement between the two Governments. The records from all these stations are obtained in such a manner as to be equally acceptable and available in both countries. These stations are herein designated international gaging stations.

Assistance in collecting records was also rendered by the following municipalities, organizations, and corporations: In Iowa by the Mississippi River Power Co., Interstate Power Co., Iowa Electric Co., Des Moines Waterworks, City of Ottumwa, Decker Packing Co., Boone Water Department, and Iowa State College; in Minnesota by the Ford Motor Co.; in Wisconsin by the Northern States Power Co., Lake Superior District Power Co., Wisconsin Public Service Corporation, Wisconsin Power & Light Co., and Wisconsin Hydroelectric Co.; and in Illinois by the North Counties Hydroelectric Co.

DIVISION OF WORK

The data for stations in the several States were collected and prepared for publication under supervision of district engineers as follows: In Illinois (except the Mississippi River at Alton, Ill., and the Galena, Apple, Plum, Edwards, and Henderson Rivers and Pope Creek), J. H. Morgan; in Indiana, H. E. Grosbach; in Iowa (except the Mississippi River at Clayton) and the Grant and Platte Rivers in Wisconsin, Galena, Apple, Plum, Edwards, and Henderson Rivers and Pope Creek in Illinois, South Fabius River near Taylor, Mo., and North River at Palmyra, Mo., R. G. Kasel; in Minnesota and North Dakota (except the St. Croix River near Rush City, Minn.), for all stations on the Mississippi River between its head and Clayton, Iowa, and for the Whetstone River near Big Stone, S. Dak., C. L. Batchelder; in Missouri (except the South Fabius River near Taylor and the North River at Palmyra) and for the Mississippi River at Alton, Ill., H. C. Beckman; in Montana, W. A. Lamb; in Wisconsin (except the Mississippi River at Prescott and La Crosse and the Grant and Platte Rivers) and the St. Croix River near Rush City, Minn., S. B. Soule'.

HUDSON BAY BASIN

ST. MARY RIVER BASIN

Upper St. Mary Lake at St. Mary Chalet, Mont.

Location.- Water-stage recorder, lat. 48°44', long. 113°26', in NE¼ sec. 4, T. 34 N., R. 14 W., at St. Mary Chalet, 0.5 mile above outlet in Glacier National Park.

Records available.- May 1929 to September 1936 (incomplete).

Extremes.- Maximum stage recorded during year, 5.71 feet June 2; minimum, 0.80 foot Sept. 30.
1929-36: Maximum stage observed, 6.70 feet June 17, 1933; minimum, 0.02 foot Dec. 16, 29, 30, 1929, and Jan. 1, 1930.

Remarks.- Records excellent. No diversion. No records Oct. 1 to May 28, June 23-28.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	5.58	3.29	2.06	1.26
2								-	5.68	3.20	2.01	1.24
3								-	5.41	3.17	2.00	1.26
4								-	5.02	3.13	2.00	1.26
5								-	4.65	3.06	1.98	1.31
6								-	4.46	3.04	1.95	1.40
7								-	4.30	3.01	1.93	1.38
8								-	4.14	2.96	1.91	1.37
9								-	3.98	2.91	1.86	1.35
10								-	3.93	2.86	1.82	1.29
11								-	3.93	2.84	1.82	1.21
12								-	4.00	2.75	1.82	1.20
13								-	4.09	2.69	1.80	1.15
14								-	4.13	2.65	1.78	1.10
15								-	4.15	2.59	1.75	1.04
16								-	4.18	2.55	1.75	1.00
17								-	4.20	2.53	1.74	.94
18								-	4.16	2.52	1.68	.90
19								-	4.01	2.49	1.69	.88
20								-	3.84	2.46	1.68	.83
21								-	3.71	2.45	1.65	.85
22								-	3.64	2.45	1.59	.85
23								-	-	2.44	1.58	.85
24								-	-	2.42	1.56	.84
25								-	-	2.38	1.49	.88
26								-	-	2.30	1.43	.90
27								-	-	2.22	1.43	.88
28								-	-	2.18	1.38	.85
29								4.95	3.86	2.14	1.36	.84
30								5.02	3.42	2.11	1.34	.80
31								5.30		2.10	1.31	-

Lower St. Mary Lake near Babb, Mont.

Location.- Water-stage recorder, lat. 48°50', long. 113°25', in NE¼ sec. 3, T. 35 N., R. 14 W., 0.5 mile above outlet and 3 miles southeast of Babb.

Records available.- May 1929 to September 1936 (incomplete).

Extremes.- Maximum stage recorded during year, 3.90 feet June 3; minimum, -0.03 foot Sept. 15.
1929-36: Maximum stage recorded, 5.09 feet June 9, 1934; minimum, that of Sept. 15, 1936.

Remarks.- Records excellent. No diversions. Stage increased by inflow of Swiftcurrent Creek. No records Oct. 1 to Apr. 20. Recorder not operating May 6-30; gage heights are mean of engineers' readings twice daily to hundredths.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	1.06	3.44	2.06	1.60	0.07
2							-	1.05	3.78	1.98	1.58	.04
3							-	1.05	3.88	1.99	1.62	.06
4							-	1.11	3.67	2.01	1.62	.05
5							-	1.23	3.20	2.03	1.61	.07
6							-	1.50	2.89	2.03	1.60	.14
7							-	1.70	2.70	2.02	1.60	.11
8							-	1.75	2.55	2.00	1.57	.12
9							-	1.80	2.41	1.96	1.55	.09
10							-	1.88	2.31	1.93	1.53	.06
11							-	2.00	2.28	1.92	1.53	.05
12							-	2.15	2.26	1.90	1.53	.03
13							-	2.35	2.26	1.86	1.53	.01
14							-	2.40	2.28	1.85	1.53	.00
15							-	2.55	2.42	1.85	1.54	-.02
16							-	3.00	2.52	1.81	1.45	.00
17							-	3.10	2.55	1.80	1.26	.00
18							-	3.10	2.57	1.80	1.07	.02
19							-	2.90	2.50	1.80	.95	.04
20							-	2.90	2.35	1.79	.80	.09
21							0.52	2.90	2.20	1.77	.69	.10
22							.64	2.72	2.12	1.76	.58	.13
23							.81	2.55	2.14	1.76	.50	.16
24							.94	2.40	2.20	1.75	.40	.19
25							1.05	2.20	2.24	1.75	.36	.15
26							1.11	2.20	2.30	1.74	.30	.15
27							1.15	2.30	2.33	1.72	.27	.16
28							1.12	2.50	2.33	1.70	.21	.18
29							1.10	2.70	2.30	1.68	.19	.17
30							1.06	2.98	2.20	1.64	.14	.13
31							-	3.12	-	1.62	.10	-

St. Mary River near Babb, Mont.

Location.- Water-stage recorder, lat. 48°52', long. 113°24', in SE¼ sec. 27, T. 36 N., R. 14 W., 600 feet below headworks of St. Mary Canal on the Blackfeet Indian Reservation and 1 mile east of Babb.

Drainage area.- 278 square miles (includes area of Swiftcurrent Creek above point of diversion into St. Mary Lake since Oct. 1, 1915).

Records available.- April 1902 to September 1925, May 1929 to September 1932, October 1934 to September 1936 (summer records only).

Extremes.- Maximum discharge recorded during year, 2,340 second-feet June 3 (gage height, 5.48 feet); minimum, result of discharge measurement, 41 second-feet Dec. 23 (gage height, 1.35 feet).
1902-25, 1929-32, 1934-36: Maximum discharge observed, 7,980 second-feet June 5, 1908 (gage height, estimated, 9.4 feet); minimum, 30 second-feet Apr. 3-7, 1904.

Remarks.- Records good except those for Aug.27 to Sept.6, which are fair and were computed by comparison with station at Kimball, Alberta. Discharge interpolated Apr. 19-21. Storage in Sherburne Reservoir, on Swiftcurrent Creek. Intake for St. Mary Canal at left end of dam. Records show only water passing over crest; diversion by canal not included.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209						-	587	1,960	610	250	
2	201						-	620	2,220	566	238	
3	192						-	660	2,340	560	253	
4	183						-	711	2,120	576	253	185
5	172						-	843	1,660	588	250	
6	169						-	1,020	1,340	593	247	
7	161						-	1,160	1,170	571	244	187
8	153						-	1,120	1,010	550	230	187
9	155						-	1,010	878	530	227	183
10	151						-	882	775	510	216	176
11	145						-	937	727	486	216	167
12	140						-	1,160	720	463	213	157
13	140						-	1,380	727	440	213	149
14	136						-	1,420	925	436	210	141
15	131						-	1,520	1,340	422	208	129
16	125						-	1,740	1,210	397	213	122
17	134						-	1,790	1,120	384	202	115
18	124						147	1,660	1,030	372	204	112
19	115						†148	1,470	925	376	226	102
20	115						†150	1,340	782	372	183	94
21	194						†152	1,380	675	356	201	92
22	120						153	1,250	615	356	236	91
23	122		*41				174	1,080	627	353	231	88
24	127						216	885	669	360	214	88
25	122						284	754	720	345	204	88
26	118						375	701	775	341	199	87
27	113						484	761	803	319		86
28	113						576	909	818	301		86
29	100						592	1,080	803	291	195	83
30	98						614	1,340	714	275		83
31	95						-	1,560	-	256		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,297	209	95	139	8,520
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 18-30	4,065	614	147	313	8,060
May	34,730	1,790	587	1,120	68,890
June	32,198	2,340	615	1,073	63,860
July	13,355	610	258	431	26,490
August	6,758	253	183	218	13,400
September	4,003	187	83	133	7,940
Water year					

*Discharge measurement.

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St. Mary River near Kimball, Alberta

(International gaging station)

Location.- Water-stage recorder, lat. 49°3', long. 113°18', in SW¼ sec. 25, T. 1 N., R. 25 W. fourth meridian, 1⅛ miles south of Kimball and 5 miles north of international boundary. Zero of gage is 3,917 feet above mean sea level. Chain gage 3 miles downstream was used Nov. 2 to Apr. 10.

Drainage area.- 497 square miles.

Records available.- January 1913 to September 1936; September 1902 to December 1912 at point 0.5 mile north of international boundary. Comparable records from 1905 to 1912 obtained by the Irrigation Branch, Department of the Interior, Canada, 0.5 mile below present station.

Average discharge.- 34 years, 845 second-feet.

Extremes.- Maximum discharge during year, 2,950 second-feet June 3 (gage height, 4.94 feet); minimum, 30 second-feet Feb. 21 (ice present).
1902-36: Maximum discharge (estimated), 18,000 second-feet June 5, 1908; minimum, 27.8 second-feet Dec. 18, 1930.

Remarks.- Records excellent except those for period of ice effect, Oct. 29 to Apr. 13, which are good. 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 Swiftcurrent Creek at Sherburne Lake Reservoir. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	283	55	88	101	55	101	115	819	2,350	776	382	215
2	268	51	81	100	51	111	114	826	2,720	709	374	210
3	261	58	74	99	50	123	113	841	2,900	709	394	212
4	246	66	73	98	49		122	910	2,560	722	394	212
5	232	74	72		48		130	1,120	1,920	735	386	242
6	220	88	66		46	138	168	1,280	1,610	742	382	264
7	218	101		93	45		206	1,360	1,390	735	374	245
8	220	92			44		254	1,380	1,230	715	361	242
9	218	84			42		302	1,250	1,130	689	349	239
10	213	88	61	92			402	1,140	1,070	663	338	233
11	209	90		90	41	136	398	1,190	1,040	650	338	224
12	204	93		88		133	484	1,400	1,020	625	342	215
13	202	93	60	86		134	437	1,560	1,020	588	338	207
14	199	93	59	83	39		416	1,750	1,050	582	334	196
15	194	86	60	80	38		342	1,890	1,700	564	338	185
16	193	80	61	81	36		287	2,120	1,390	535	334	180
17	196	93	63	83	35	136	274	2,100	1,380	529	357	189
18	187	97	65	84	34		308	1,970	1,200	512	345	164
19	194	101	70	90	32		345	1,750	1,120	524	403	160
20	200	103	78	95	31		394	1,620	1,020	518	315	158
21	193	107	78	97	30		464	1,630	925	507	270	154
22	190		82	99	31	134	564	1,500	856	501	361	149
23	194	111	84	94	32	133	682	1,300	856	501	334	145
24	199		84	90	34	132	770	1,180	886	507	290	141
25	189		86	84	35	130	826	1,040	910	490	290	140
26	187	108	87	78	32	128	878	982	966	485	277	138
27	186	106	90	72	32	126	878	1,060	991	464	264	134
28	182	102	95	70	56	125	886	1,170	982	449	256	133
29	100	97	100	67	84	124	863	1,290	957	430	245	129
30	75	92	106	63	-	123	834	1,540	863	416	239	128
31	59	-	104	59	-	180	-	1,780	-	394	227	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,111	283	59	197	12,120
November	2,742	-	51	91.4	5,440
December	2,330	106	59	75.2	4,620
Calendar year 1935	195,715	2,990	51	536	388,200
January	2,686	101	59	86.6	5,330
February	1,207	84	30	41.6	2,390
March	4,032	-	101	130	8,000
April	13,236	886	113	441	26,250
May	42,728	2,120	819	1,378	84,750
June	40,012	2,900	856	1,334	79,360
July	17,966	776	394	580	35,640
August	10,233	403	227	330	20,300
September	5,563	264	128	185	11,030
Water year 1935-36	148,846	2,900	30	407	295,200

St. Mary Canal at intake, near Babb, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°52'30", long. 113°24'30", in NW¼NE¼ sec. 27, T. 36 N., R. 14 W., 600 feet below intake of canal on Blackfeet Indian Reservation and 1 mile east of Babb.

Records available.- Irrigation seasons, 1918-36.

Remarks.- Records good except those for period Nov. 2-5, which were estimated because of ice and are fair. 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. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, 1935-36

Day	Oct.				Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	21.4				-	33.0	782	861	859	102	62	47.0
2	21.0				-	33.4	862	861	859	102	62	40.0
3	20.6				-	34.2	866	862	861	95	62	35.0
4	21.0				-	34.2	859	864	859	90	62	35.0
5	21.0				-	34.6	842	868	859	91	59	35.0
6	21.0				-	35.0	830	869	861	91	49.5	6.4
7	20.2				-	35.0	813	868	859	90	49.5	-
8	20.6				-	116	793	866	856	90	50	-
9	19.8				-	277	803	864	852	86	50	-
10	19.4				-	450	830	862	847	82	49.5	-
11	19.0				-	520	839	864	849	82	48.5	-
12	19.0				-	567	845	864	849	81	48.5	-
13	18.1				-	608	847	866	845	81	48.5	-
14	18.4				-	615	704	864	845	81	48.5	-
15	18.1				-	689	307	862	845	81	48.5	-
16	17.5				-	710	594	862	760	80	48.0	-
17	16.9				-	742	643	864	610	80	47.0	-
18	16.9				4.4	762	842	866	455	75	48.0	-
19	17.5				3.8	794	869	866	359	70	47.5	-
20	17.2				14.5	811	859	866	355	70	45.5	-
21	17.2				34.6	813	849	862	263	68	44.5	-
22	16.9				36.6	815	847	862	172	64	44.0	-
23	16.0				36.2	830	852	864	168	63	43.5	-
24	16.0				35.8	825	856	864	156	63	44.0	-
25	16.0				35.4	837	859	862	142	63	43.5	-
26	16.3				34.6	871	862	862	135	63	43.5	-
27	16.3				34.2	871	866	864	129	63	44.5	-
28	17.8				33.8	868	868	862	122	63	43.0	-
29	18.7				33.8	866	866	859	111	63	43.5	-
30	18.4				33.4	864	861	856	105	63	44.5	-
31	18.4				-	869	-	859	104	-	46.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
1935					
October	572.6	21.4	16.0	18.5	1,140
1936					
April 18-30	371.1	36.6	3.8	28.5	736
May	17,229.4	871	33.0	556	34,170
June	24,217	869	307	807	48,030
July	26,765	869	856	863	53,090
August	16,951	861	104	547	33,620
September	2,336	102	63	77.9	4,630
October	1,518.5	62	43.0	49.0	3,010
November 1-6	198.4	47.0	6.4	33.1	394
The period					177,700

Note.- Canal not in operation Nov. 1, 1935, to Apr. 17, 1936, and after Nov. 6, 1936.

St. Mary Canal at St. Mary crossing, near Babb, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°57', long. 113°21', in NE¼ sec. 30, T. 37 N., R. 13 W., 500 feet east of outlet of St. Mary River siphon, 9 miles northeast of Babb, and 10 miles below intake.

Records available.- Irrigation seasons, 1918-36.

Remarks.- Records good. Discharge interpolated Oct. 26. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, 1936

Day	May	June	July	Aug.	Sept.	Oct.
1	-	662	752	748	92	55
2	-	756	752	750	92	55
3	-	761	752	756	90	54
4	-	756	752	756	81	55
5	-	741	759	756	84	53
6	-	734	759	754	84	43.4
7	-	726	759	754	81	40.8
8	-	704	756	752	81	40.2
9	171	706	756	752	80	40.8
10	351	723	754	748	75	40.8
11	437	732	754	748	74	40.8
12	493	737	754	750	74	40.2
13	538	737	752	750	74	40.8
14	539	717	752	750	74	40.2
15	598	274	752	750	73	40.8
16	622	502	750	719	73	41.4
17	656	585	750	574	73	40.8
18	660	732	752	457	72	40.2
19	691	767	752	329	65	41.4
20	712	765	752	318	64	38.4
21	715	756	752	273	64	37.8
22	712	750	752	160	57	19.1
23	723	754	752	156	57	.3
24	728	756	754	148	57	.5
25	726	759	752	130	58	.9
26	754	761	750	122	57	1.1
27	761	763	750	120	56	1.3
28	761	767	752	112	55	.7
29	756	754	750	105	55	36.0
30	752	752	745	98	55	35.0
31	748	-	748	96	-	30.0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 9-31	14,604	761	171	635	28,970
June	21,389	767	274	713	42,420
July	23,328	759	745	753	46,270
August	15,191	756	96	490	30,130
September	2,127	92	55	70.9	4,220
October	1,045.7	55	.3	33.7	2,070
The period					154,100

Note.- Canal not in operation Oct. 1, 1935, to May 8, 1936, and after Oct. 31, 1936.

St. Mary Canal at Hudson Bay divide, near Browning, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°59', long. 113°4', 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 1917-36.

Remarks.- Records excellent except those for Sept. 5-16, which were computed by comparison with records at St. Mary crossing and are fair. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, 1936

Day	May	June	July	Aug.	Sept.	Oct.
1	-	704	742	730	88	48.6
2	-	706	742	728	86	49.2
3	-	739	744	733	86	48.0
4	-	744	742	733	83	48.6
5	-	735	737	735	80	45.6
6	-	730	742	735	80	45.0
7	-	726	744	735	80	36.5
8	-	706	737	733	77	32.6
9	14	695	737	733	75	33.8
10	234	700	735	728	73	35.0
11	376	713	739	728	72	35.5
12	462	722	730	730	70	33.8
13	508	719	737	733	70	35.5
14	534	724	735	728	70	35.5
15	561	484	733	728	70	34.2
16	594	336	730	733	67	34.2
17	618	515	733	662	65	37.0
18	640	636	730	544	65	33.4
19	664	724	733	414	62	33.4
20	693	751	730	324	56	37.0
21	689	746	726	311	57	33.4
22	689	739	733	230	53	33.4
23	695	737	733	164	49.2	3.2
24	704	742	733	152	49.2	0
25	704	742	730	138	52	0
26	715	744	730	128	51	0
27	728	744	730	119	48.6	0
28	726	748	733	111	48.0	0
29	726	742	733	102	47.4	0
30	735	737	730	97	46.8	0
31	742	-	730	90	-	0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
May 9-31	13,751	742	14	598	27,270
June	20,930	751	336	698	41,510
July	22,773	744	726	735	45,170
August	15,287	735	90	493	30,320
September	1,977.2	88	46.8	65.9	3,920
October	842.4	49.2	0	27.2	1,670
The period	-	-	-	-	149,900

Note.- Canal not in operation Oct. 1, 1935, to May 8, 1936, and after Oct. 23, 1936.

Swiftcurrent Creek at Many Glacier, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°48', long. 113°38', in sec. 12, T. 35 N., R. 16 W., at outlet of McDermott Lake at Many Glacier, Glacier National Park, 14 miles southwest of Babb.

Drainage area.- 31.4 square miles.

Records available.- June 1912 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 1,040 second-feet May 16 (gage height, 4.43 feet); minimum, 23.6 second-feet Sept. 21 (gage height, 1.58 feet).
1912-36: Maximum discharge, 1,550 second-feet June 17, 1916; minimum, 10 second-feet Nov. 6, 7, 1921 (gage height, 1.22 feet).

Remarks.- Records good. No records during winter. No diversions or regulation. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.6	25	3.0	377
1.8	46	3.3	494
2.0	80	3.6	626
2.2	126	3.9	767
2.4	182	4.2	917
2.6	243	4.5	1,076
2.8	308		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46.0						-	212	922	185	104	56.0
2	48.4						-	259	841	188	100	56.0
3	49.6						-	305	559	197	98	56.0
4	48.4						-	449	366	197	95	58.0
5	48.4						-	743	298	194	89	65.0
6	-						-	626	†315	191	89	70.0
7	-						-	437	†332	185	89	70.0
8	-						-	418	†349	176	87	65.0
9	-						-	445	†366	168	84	55.0
10	-						-	559	403	162	80	49.0
11	-						-	*568	422	162	84	46.0
12	-						-	*577	434	150	84	44.8
13	-						-	586	457	140	87	40.0
14	-						-	644	426	140	91	35.2
15	-						-	943	396	142	87	34.0
16	-						-	917	407	145	82	31.3
17	-						-	672	407	145	76	27.7
18	-						-	516	414	150	74	26.8
19	-						-	465	342	148	74	25.9
20	-						-	457	288	148	67	25.9
21	-						360	410	269	148	63	25.9
22	-						-	346	285	148	63	27.7
23	-						-	315	311	145	63	31.3
24	-						-	318	342	142	61	31.3
25	-						237	399	388	131	60	36.4
26	-						194	528	384	119	58	36.4
27	-						168	654	349	109	58	33.1
28	-						153	710	325	104	58	30.4
29	-						140	753	249	100	58	27.7
30	33.0						168	846	203	102	58	28.6
31	-						-	892	-	104	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January							
February							
March							
April							
May	16,969	943	212	547	17.42	20.08	33,660
June	11,949	922	203	395	12.58	14.04	23,500
July	4,665	197	100	150	4.78	5.51	9,250
August	2,379	104	58	76.7	2.44	2.81	4,720
September	1,246.4	70	25.9	41.5	1.32	1.47	2,470
Water year							

*Interpolated. †Estimated.

Sherburne Lake Reservoir at Sherburne, Mont.

Location.- Water-stage recorder, lat. 48°50', long. 113°31', in gate house in sec. 35, T. 36 N., R. 15 W., at Sherburne Dam, about 6 miles southwest of Babb. Zero of gage is 4,700.0 feet above mean sea level.

Drainage area.- 64 square miles.

Records available.- May to June 1915, May 1917 to September 1918, June 1921 to September 1936.

Extremes.- Maximum contents during year, 59,520 acre-feet June 17-18 (water-surface elevation, 4,784.07 feet).
1915, 1917-18, 1921-36: Maximum contents, 60,420 acre-feet June 20, 1925 (water-surface elevation, 4,784.8 feet).

Remarks.- Records good. No records during periods for which no contents is given. Some gage-height records furnished by U. S. Bureau of Reclamation.

Contents, in acre-feet, 1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,380	3,700		5,930	6,572	7,152		-	54,930	56,340	22,300	-
2		3,700		-	-	-		-	55,590	55,780	21,100	-
3		3,700		-	-	-		-	55,750	55,060	19,850	-
4		3,700		-	-	-		-	55,590	54,180	18,550	-
5		3,700		-	-	-		-	55,880	53,220	17,250	-
6		3,700		-	-	-		24,030	56,210	52,180	15,880	-
7		3,700		-	-	-		-	56,610	51,220	14,540	-
8		3,700		-	-	-		-	56,980	50,230	13,680	-
9		3,700		-	-	-		-	57,170	49,240	11,900	-
10		4,358		-	-	-		31,180	57,480	48,240	10,560	-
11		4,358		-	-	-		33,260	57,920	47,180	9,178	-
12		4,358		-	-	-		35,160	58,380	46,160	7,852	-
13		4,358		-	-	-		36,680	59,720	44,320	6,442	-
14		4,358		-	-	-		38,440	59,400	43,860	5,168	-
15		4,358		-	-	-		40,780	59,400	42,680	4,204	-
16		4,358		-	-	-		41,820	59,260	41,620	2,832	730
17		4,358		-	-	-		42,880	59,520	40,550	2,260	418
18		4,358		-	-	-		44,000	59,520	39,400	1,906	418
19		4,358		-	-	-		45,350	59,430	38,190	1,686	418
20		4,358		-	-	-		46,480	59,450	37,020	1,665	-
21		4,358		-	-	-		46,900	59,470	35,860	1,555	-
22		4,358		-	-	-		47,100	59,400	34,700	1,400	-
23		4,358		-	-	-		47,200	59,140	33,470	1,280	-
24		4,425		-	-	-		47,500	58,860	32,320	1,180	-
25		4,425		-	-	-		47,950	58,670	31,040	1,180	-
26		4,425		-	-	-		48,620	58,520	29,710	1,135	-
27		4,425		-	-	-		49,540	58,300	28,450	1,000	-
28		4,425		-	-	-		50,640	57,920	27,200	1,045	-
29		4,492		-	7,152	-		51,880	57,480	26,020	1,090	0
30		4,492		-	-	-		52,820	56,850	24,850	955	0
31		-		6,572	-	7,740		53,940	-	23,570	910	-

Swiftcurrent Creek at Sherburne, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°50', long. 113°31', 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 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 866 second-feet Aug. 13 (gage height, 5.26 feet); no flow Oct. 3.
1912-36: Maximum discharge, 2,280 second-feet June 17, 1916 (gage height, 7.83 feet); no flow at various times when gates in dam were closed.

Remarks.- Records good. No records during winter. No diversions. Flow regulated by gate operation at dam. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

Oct. 1-31		May 1 to Sept. 30					
1.2	12	0.6	1	1.8	41	3.0	185
1.4	19	.8	3	2.0	55	3.5	290
1.6	28	1.0	6	2.2	72	4.0	416
1.8	39	1.2	12	2.4	93	4.5	569
2.0	54	1.4	20	2.6	119	5.0	757
		1.6	30	2.8	150	5.5	972

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26.5							*10.8	757	533	782	69
2	14.3							*10.8	757	586	786	68
3	0							10.8	569	663	798	68
4	14.5							10.8	290	733	806	70
5	31							10.8	290	765	802	71
6	31							11.4	290	753	798	74
7	32							11.4	290	745	790	80
8	33.6							11.4	290	737	786	82
9	31.5							4.8	290	737	782	85
10	32.5							2.4	290	729	790	84
11	33							1.8	290	737	798	80
12	33							†1.5	290	753	802	76
13	37.8							†14.4	290	798	823	72
14	37.8							14.8	290	790	827	66
15	37.2							14.8	569	769	769	68
16	37.8							14.8	569	769	498	68
17	39.7							14.8	569	786	321	56
18	42.5							16.4	572	806	220	48
19	42.5							17.6	444	811	176	43.8
20	41.8							†283	373	794	148	40.4
21	40.4							416	371	790	131	41.7
22	41.1							416	482	798	118	38.6
23	14.6							267	580	802	112	34
24	36							267	590	811	109	39.2
25	28							267	604	811	101	37.4
26	22.6							267	611	815	97	41
27	18.1							267	615	806	92	43.1
28	17.8							267	611	786	95	42.4
29	17.5							267	604	778	84	43.1
30	*17.2							416	536	782	79	39.8
31	*17							416	-	786	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	930.3	44.6	0	30.0	1,850
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May	4,022.3	416	1.5	130	7,980
June	13,973	757	290	466	27,720
July	23,559	815	533	760	46,730
August	14,393	827	73	464	28,550
September	1,769.5	85	34	59.0	3,510
Water year					

*Estimated. †Partly estimated.

Canyon Creek near Many Glacier, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°46', long. 113°37', at edge of heavy timber area, Glacier National Park, 0.5 mile above mouth and 2 miles southeast of Many Glacier.

Drainage area.- 7.0 square miles.

Records available.- July 1918 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 109 second-feet June 1 (gage height, 1.75 feet); no flow Sept. 24.
1918-36: Maximum discharge (estimated), 500 second-feet May 16, 1922 (gage height, 3.34 feet): no flow Sept. 24, 1936.

Remarks.- Records good except those for periods of missing gage heights, Oct. 12-31, June 3-9, 18-28, July 1-12, 14-22, 25-28, computed on basis of comparison with adjacent streams and are fair. No records during winter. No diversions. This is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3							-	107	34	17.4	8.4
2	9.3							-	104	36	16.4	8.9
3	9.0							-	100	40	16.9	9.3
4	8.6							-	82	40	15.5	9.3
5	8.6							-	57	38	15.0	13.2
6	8.6							-	58	36	15.0	15.9
7	8.2							-	60	33	15.0	15.9
8	8.2							-	63	31	15.0	14.6
9	9.0							-	65	28	14.1	12.7
10	8.2							-	66	27	13.6	11.4
11	7.9							-	68	26	14.1	9.3
12								-	81	23	14.6	8.9
13								-	83	22	15.0	8.0
14								-	72	22	15.5	7.6
15								-	69	23	15.0	6.9
16								-	74	24	14.1	6.2
17								-	73	25	13.2	5.1
18								-	75	25	13.2	4.7
19								-	64	25	13.2	4.7
20								-	56	24	12.7	4.7
21	8.0							-	50	23	11.8	4.4
22								49.6	57	23.1	11.4	4.7
23								49.6	61	22.8	11.4	4.7
24								61	60	22.e	11.4	2.5
25								77	70	22.0	10.5	5.1
26								89	68	20.0	9.7	4.7
27								95	56	19.0	9.3	4.7
28								97	48	18.0	8.9	5.1
29								96	41.2	17.4	8.9	5.1
30								101	37.5	17.4	8.9	5.8
31								104	-	18.0	8.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	254.9	9.3	7.9	8.22	1.17	1.35	506
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year							
January							
February							
March							
April							
May 22-31	819.2	104	49.6	81.9	11.7	4.35	1,620
June	2,025.7	107	37.5	67.5	9.64	10.76	4,020
July	805.5	40	17.4	26.0	3.71	4.28	1,600
August	405.6	17.4	8.9	13.1	1.87	2.16	804
September	232.5	15.9	2.5	7.75	1.11	1.24	461
Water year							

Pine Lake near Perham, Minn.

Location.- Staff gage, lat. 46°35'34", long. 95°30'25", in sec. 17, T. 136 N., R. 38 W., at outlet of lake, 3 miles east of Perham.

Records available.- June 1934 to September 1936 (fragmentary).

Extremes.- Maximum water-surface elevation observed during year, 1,331.74 feet May 26, 1936; minimum, 1,330.52 feet Sept. 30, Oct. 3, 6, 1935.
1934-36: Maximum water-surface elevation observed, that of May 26, 1936; minimum, that of Sept. 30, Oct. 3, 6, 1935.

Remarks.- A temporary staff gage in sec. 6, T. 136 N., R. 38 W., referred by water levels to gage at outlet, was used July 18, 1935, to Sept. 30, 1936. All readings have been reduced to mean sea level on basis of levels by Emergency Conservation Work engineers. Elevation of lake regulated by dam at outlet. Gage readings furnished by Bowen's Resort.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-							-	-	-	-	
2	-							-	-	-	-	
3	30.52							-	31.62	-	-	
4	-							-	-	-	-	
5	-							-	-	-	-	
6	30.52							-	-	-	-	
7	30.54	30.66						-	-	31.34	30.80	
8	-							-	31.66	31.28	30.76	
9	-							-	-	-	-	
10	-							-	31.61	-	-	
11	-							-	-	-	-	
12	-							-	-	31.26	-	
13	-							-	-	31.24	-	
14	-							-	-	31.24	-	
15	-							-	-	31.22	30.68	
16	-							-	-	31.22	-	
17	-							-	-	-	-	
18	-							-	-	-	-	
19	-							-	31.54	31.18	-	
20	-							-	-	31.16	-	
21	-							-	31.41	31.14	-	
22	-							31.72	31.40	31.12	30.78	
23	-							-	31.38	-	-	
24	30.56							-	-	-	-	
25	-							31.70	-	-	-	
26	-							31.74	31.38	-	-	
27	-							31.72	-	31.04	-	
28	-							31.71	-	-	-	
29	-							-	31.34	-	-	
30	-							31.68	-	-	-	
31	-							31.66	-	-	-	

Note.- Add 1,300.00 feet to obtain elevations above mean sea level.

Rush Lake near Otter Tail, Minn.

Location.- Staff gage, lat. 46°28'35", long. 95°34'25", in sec. 26, T. 135 N., R. 39 W., at outlet of lake, about 3½ miles northwest of Otter Tail post office.

Records available.- June 1934 to September 1936 (fragmentary).

Extremes.- Maximum water-surface elevation observed during year, 1,321.53 feet June 10, 1936; minimum, 1,319.91 feet Nov. 7, 1935.
1934-36: Maximum water-surface elevation observed, that of June 10, 1936; minimum, that of Nov. 7, 1935.

Remarks.- Gage heights have been reduced to mean sea-level datum on basis of levels by Emergency Conservation Work engineers. Gage readings furnished by Mr. R. Krone.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	21.49	21.27	20.41	
2								-	21.48	21.27		
3								-	21.51	21.25		
4								-	-	21.23		
5								-	21.51	21.23		
6								-	21.49	21.21		
7		19.91						-	21.51	21.19		
8								-	21.49	21.13		
9								-	21.50	21.11		
10								-	21.53	21.11		
11								-	21.51	21.05		
12	20.03							-	21.50	21.02		
13								-	21.51	20.93		
14								-	21.51	20.91		
15								-	21.49	20.89		
16								-	21.47	20.87		
17								-	21.45	20.85		
18								-	21.45	20.83		
19								-	21.43	20.81		
20								-	21.41	20.79		
21								-	21.43	20.79		
22								21.38	21.41	20.77		
23								21.43	21.41	20.73		
24								21.38	21.39	20.71		
25								21.43	21.37	20.65		
26								21.48	21.35	20.63		
27								21.47	21.33	20.61		
28								21.51	21.33	20.55		
29								21.48	21.31	20.51		
30								21.51	21.29	20.47		
31								21.51	-	20.43		

Note.- Add 1,300.00 feet to obtain elevation above mean sea level.

Otter Tail Lake near Battle Lake, Minn.

Location.- Staff gage, lat. 46°21'35", long. 95°43'55", in sec. 4, T. 133 N., R. 40 W., at outlet of Otter Tail Lake, about 5 miles northwest of village of Battle Lake.

Records available.- September 1933 to September 1936 (fragmentary).

Extremes.- Maximum water-surface elevation observed during year, 1,319.65 feet May 31 and June 14; minimum, 1,318.25 feet Sept. 29.
1933-36: Maximum water-surface elevation observed, that of May 31 and June 14, 1936; minimum, 1,317.94 feet Oct. 15, 1934.

Remarks.- Records good. Discharge from lake regulated at dam just below gage. Gage heights have been reduced to mean sea level datum on basis of levels by Emergency Conservation Work engineers.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18.72	-	18.40	-	-	18.33	-	-	-	-	18.90	18.67
2	18.68	-	-	-	18.42	-	-	-	-	-	-	18.69
3	18.68	-	-	-	-	-	-	19.05	-	-	18.99	18.65
4	18.66	-	-	-	-	-	-	-	-	-	18.91	-
5	18.64	-	-	18.38	-	-	18.71	-	-	-	18.91	-
6	-	-	-	-	-	-	-	-	-	-	18.89	-
7	-	18.46	-	-	-	-	-	-	19.61	-	18.85	-
8	-	-	18.40	-	-	18.36	-	-	-	-	-	18.65
9	-	-	-	-	18.42	-	-	-	-	-	-	18.57
10	-	18.46	-	-	-	-	-	19.41	-	-	18.85	18.63
11	-	-	-	-	-	-	-	-	-	-	18.83	-
12	-	-	-	18.40	-	-	18.81	-	-	-	18.75	-
13	-	-	-	-	-	-	-	-	-	-	18.75	-
14	-	-	-	-	-	-	-	-	19.65	-	-	18.55
15	-	-	18.38	-	-	18.43	-	-	-	19.45	-	18.55
16	-	-	-	-	18.44	-	-	-	-	19.45	-	18.55
17	-	18.44	-	-	-	-	-	19.47	-	-	18.87	18.45
18	-	-	-	-	-	-	-	-	-	-	18.87	-
19	-	-	-	18.40	-	-	18.85	-	-	-	18.87	-
20	-	-	-	-	-	-	-	-	-	19.35	18.87	-
21	-	-	-	-	-	-	-	-	19.61	19.35	-	18.45
22	-	-	18.36	-	-	18.57	-	19.63	-	19.29	-	18.45
23	-	-	-	-	18.30	-	-	-	-	19.27	-	18.45
24	-	18.42	-	-	-	-	-	19.63	-	19.27	-	18.39
25	-	-	-	-	-	-	-	-	-	-	18.75	18.39
26	-	-	-	18.40	-	-	18.91	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	19.15	18.65	-
28	-	-	-	-	-	-	-	-	-	19.15	18.75	18.39
29	-	-	18.36	-	-	18.65	-	-	-	19.15	-	18.25
30	-	-	-	-	-	-	-	-	-	19.05	-	18.27
31	-	-	-	-	-	-	-	19.65	-	19.05	18.69	-

Note.- Add 1,300.00 feet to obtain elevations above mean sea level.

Otter Tail River below Pelican River, near Fergus Falls, Minn.

Location.- Water-stage recorder, lat. 46°13'45", long. 96°7'0", in SW¼ sec. 20, T. 132 N., R. 43 W., 500 feet below Dayton Hollow Dam, 5 miles southwest of Fergus Falls, and 5 miles below mouth of Pelican River.

Records available.- October 1930 to September 1936.

Extremes.- Maximum discharge during year, 468 second-feet Apr. 14 (gage height, 2.97 feet); minimum discharge, 1.8 second-feet Oct. 2 (gage height, 0.94 foot); minimum daily discharge, 3.7 second-feet Oct. 4.
1930-36: Maximum discharge, 810 second-feet Dec. 11, 1930 (gage height, 2.19 feet, at former site); minimum discharge, 1 second-foot May 2, 1934, Sept. 30, 1935; minimum daily discharge, 2.2 second-feet Apr. 29, 1934.

Remarks.- Records good except those for Feb. 5 to Mar. 6, July 2-5, which were computed from record of power-plant operation at Dayton Hollow Dam and are fair. Flow regulated throughout the year by power plants upstream. Stage-discharge relation affected by aquatic growth June 21 to Sept. 26.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 21 to Sept. 26)

1.0	3.0	1.7	67
1.1	6.5	1.8	86
1.2	10.5	1.9	108
1.3	17	2.0	133
1.4	26	2.2	189
1.5	37	2.4	253
1.6	51		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	13	28	33	26	16	46	46	11	20	17	18
2	15	11	26	31	25	20	47	58	29	17	7.7	23
3	13	12	37	31	25	24	65	53	28	22	18	23
4	3.7	12	41	32	27	21	58	29	20	7	18	22
5	13	10	40	32	27	21	56	64	18	7	18	24
6	4.8	15	35	32	27	16	30	62	28	17	17	7.3
7	4.0	11	46	33	26	25	36	78	19	7.3	17	22
8	14	9.4	36	31	25	16	60	50	18	6.9	18	23
9	10	6.5	48	30	25	18	60	33	18	7.3	17	22
10	17	15	46	31	25	21	63	45	29	7.7	17	22
11	11	11	52	28	25	16	90	63	29	7.3	17	22
12	15	10	45	22	26	16	72	54	22	7.3	17	27
13	5.1	12	46	27	25	16	68	31	20	7.3	22	11
14	15	11	36	27	25	27	197	37	20	6.9	17	22
15	15	13	44	24	27	15	202	46	20	6.2	36	21
16	11	14	35	22	26	19	61	38	19	6.5	29	23
17	5.8	13	35	21	25	17	46	30	25	6.2	36	26
18	5.8	12	36	24	24	16	61	24	21	19	17	24
19	5.8	15	37	23	25	31	43	26	50	21	17	24
20	5.1	24	30	24	24	48	78	28	19	17	6.9	8.9
21	12	27	28	25	25	52	57	23	19	24	16	24
22	12	28	28	20	25	45	35	19	20	18	22	28
23	12	25	27	23	25	59	42	40	19	16	28	8.1
24	12	18	29	21	25	140	45	36	19	17	25	6.9
25	13	24	24	22	25	46	38	48	18	17	22	8.9
26	16	25	34	22	25	38	60	48	18	7.3	17	65
27	6.5	16	34	31	20	34	62	28	25	16	18	23
28	12	26	37	26	21	44	55	25	20	16	28	18
29	12	26	32	25	21	46	61	54	18	16	21	24
30	11	45	32	23	-	57	55	29	18	18	16	27
31	13	-	32	25	-	26	-	30	-	8.1	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	325.6	17	3.7	10.5	646
November	509.9	45	6.5	17.0	1,010
December	1,116	52	24	36.0	2,210
Calendar year 1935	13,933.0	303	3.7	38.2	27,630
January	821	33	20	26.5	1,630
February	722	27	20	24.9	1,430
March	1,006	140	15	32.5	2,000
April	1,949	202	30	65.0	3,870
May	1,275	78	19	41.1	2,530
June	657	50	11	21.9	1,300
July	397.2	24	6.2	12.8	788
August	609.6	36	6.9	19.7	1,210
September	648.0	65	6.9	21.6	1,290
Water year 1935-36	10,036.3	202	3.7	27.4	19,910

Red River at Fargo, N. Dak.

Location.- Staff gage, lat. 46°52'10", long. 96°47'0", in sec. 7, T. 139 N., R. 48 W., just above Island Park Dam, Fargo, and 10 miles above mouth of Sheyenne River. Zero of gage is 870.00 feet above mean sea level (general adjustment of 1912).

Drainage area.- 6,420 square miles.

Records available.- May 1901 to September 1936.

Average discharge.- 34 years (1902-35), 444 second-feet.

Extremes.- Maximum discharge observed during year, 1,050 second-feet Apr. 14 (gage height, 9.90 feet); no flow for many days; minimum gage height, 3.94 feet Sept. 23. 1901-36: Maximum discharge observed, 7,740 second-feet July 11, 1916 (gage height, 21.04 feet, present datum); maximum gage height observed, 23.6 feet (present datum) Apr. 6, 1916, affected by ice; no flow for many days in each year 1932-36.
Maximum stage known, 40.1 feet Apr. 7, 1897, U. S. Weather Bureau gage, on which zero is 863.5 feet above mean sea level (general adjustment of 1912).

Remarks.- Records good above 20 second-feet; fair below. Stage-discharge relation affected by ice or moss on control Dec. 30 to Mar. 22, Apr. 1-8, May 2 to June 8; discharge computed on basis of seven discharge measurements, gage heights, and weather records. Discharge estimated Oct. 1-11, Nov. 14-30, June 17-22. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	7.8	0	*10	7.8	*8.9	386	128	0.4			
2	.2	5.7	0	11	*7.8	8.9	347	138	2.5			
3	.2	*6.2	0	9.9	7.8	8.9	309	*130	8.9			
4	.2	6.8	0	9.9	7.8	8.9	272	122	8.9			
5	.2	5.7	0	*9.9	6.8	8.9	228	109	5.7			
6	.2	2.5	0	11	5.7	11	224	106	9.9			
7	.2	.4	0	11	4.6	11	214	98	*9.9			
8	.2	1.5	0	15	4.6	*12	200	89	9.9			
9	.2	4.6	0	15	*4.6	12	328	103	.4			
10	.2	*4.6	0	15	4.6	12	425	148	2.5			
11	.2	*4.6	0	17	4.6	15	565	151	9.9			
12	.4	4.6	0	*18	3.6	15	810	151	8.9			
13	*4.6	.4	0	18	3.6	14	870	165	6.8			
14	8.9	.3	0	18	3.6	14	1,050	151	.3			
15	11	.3	0	18	2.5	*14	990	132	.3			
16	9.9	.3	0	18	*3.0	14	930	112	.2			
17	6.8	.2	0	18	3.6	15	930	106	.2			
18	6.8	.2	0	18	3.6	15	750	98	.2			
19	5.7	.2	0	*18	4.6	16	590	78	.1			
20	*5.7	.2	0	18	5.7	30	490	68	.1			
21	5.7	.1	0	18	6.8	44	366	63	.1			
22	7.8	.1	0	18	5.7	118	290	46	.1			
23	8.9	0	0	17	*6.2	246	224	54	0			
24	8.9	0	0	15	6.8	540	200	40	0			
25	8.9	0	0	14	6.8	695	175	34	0			
26	8.9	0	0	*12	8.9	590	148	24	0			
27	*8.9	0	0	9.9	8.9	615	141	19	0			
28	8.9	0	0	7.8	8.9	590	125	12	0			
29	8.9	0	1.5	7.8	8.9	445	132	7.8	0			
30	6.8	0	7.8	7.8	-	445	132	4.6	0			
31	6.8	-	8.9	7.8	-	405	-	1.5	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	151.4	11	0.2	4.88	300
November	57.3	7.8	0	1.91	114
December	18.2	8.9	0	.59	36
Calendar year 1935	30,121.7	930	0	82.5	59,760
January	431.8	18	7.8	13.9	856
February	168.4	8.9	2.5	5.81	334
March	4,999.5	695	8.9	161	9,920
April	12,841	1,050	125	428	25,470
May	2,688.9	165	1.5	86.7	5,330
June	86.2	9.9	0	2.87	171
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	21,442.7	1,050	0	58.6	42,530

*Interpolated.

Red River at Halstad, Minn.

Location.- Wire-weight gage, lat. 47°21', long. 96°51', on line between secs. 24 and 25, T. 145 N., R. 49 W., on highway bridge about 0.5 mile west of Halstad and 2½ miles below mouth of Wild Rice River.

Records available.- March to September 1936.

Extremes.- Maximum discharge observed during period, 7,670 second-feet Apr. 15 (gage height, 16.33 feet); minimum, 5.8 second-feet Aug. 25-27.

Remarks.- Records excellent Apr. 12 to May 22; others poor. Discharge during period of ice effect, Mar. 15 to Apr. 11, computed on basis of summation of discharge for stations on Red River at Fargo, N. Dak., Sheyenne River at West Fargo, N. Dak., Buffalo River at Dilworth, Minn., and Wild Rice River at Twin Valley, Minn., gage heights, and weather records. Discharge for period of aquatic growth, May 23 to Sept. 30, computed on basis of four discharge measurements, summation of records listed above, gage heights, and weather records. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	1,660	1,400	411	122	15	12
2						-	1,610	1,460	385	142	14	12
3						-	1,560	1,410	359	153	13	12
4						-	1,360	1,360	283	136	12	14
5						-	1,170	1,310	271	120	11	14
6						-	980	1,260	259	110	11	14
7						-	890	1,170	247	105	12	13
8						-	800	1,070	247	103	8.0	12
9						-	800	935	235	103	8.0	11
10						-	935	912	235	86	8.0	9.5
11						-	1,460	890	211	66	8.0	9.5
12						-	3,040	800	199	63	7.0	7.2
13						-	4,770	710	187	60	10	7.3
14						-	6,560	710	182	58	8.0	7.4
15						39	7,580	710	176	48	7.0	7.4
16						39	6,960	755	176	39	7.1	10
17						39	6,560	710	164	32	7.2	32
18						39	5,730	626	164	27	7.0	28
19						45	5,060	588	142	24	7.0	26
20						48	4,250	588	140	21	7.2	18
21						58	3,500	570	136	18	7.4	10
22						78	2,990	553	131	17	7.4	10
23						99	2,990	553	127	16	7.2	9.5
24						120	2,500	463	118	16	7.0	8.0
25						153	2,330	558	124	16	5.8	7.2
26						307	2,180	520	118	17	5.8	6.6
27						333	1,970	490	97	18	5.8	6.6
28						1,360	1,810	490	99	20	6.6	6.6
29						1,760	1,660	437	101	18	7.8	6.6
30						1,860	1,310	437	101	18	9.4	6.6
31						1,760	-	437	-	16	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 15-31	8,137	1,860	39	479	16,140
April	86,975	7,580	800	2,899	172,500
May	24,882	1,460	437	803	49,350
June	5,825	411	97	194	11,550
July	1,808	153	16	58.3	3,590
August	268.7	15	5.8	8.67	533
September	354.0	32	6.6	11.8	702
The period					254,400

Red River at Grand Forks, N. Dak.

Location.- Water-stage recorder, lat. 47°56', long. 97°3', in sec. 34, T. 152 N., R. 50 W., in Grand Forks, 2 miles below mouth of Red Lake River. Zero of gage is 778.42 feet above mean sea level (general adjustment of 1929).

Drainage area.- 25,500 square miles.

Records available.- May 1901 to September 1936 in reports of U. S. Geological Survey; April 1882 to November 1912 in report of Minnesota State Drainage Commission.

Average discharge.- 54 years, 2,199 second-feet.

Extremes.- Maximum discharge during year, 24,500 second-feet Apr. 18; maximum gage height, 25.00 feet Apr. 18, from graph based on gage readings; minimum discharge, 12 second-feet Sept. 29 (gage height, 1.16 feet, affected by vegetation).
1882-1936: Maximum discharge, 43,000 second-feet Apr. 10, 1897 (gage height, 50.2 feet); minimum, that of Sept. 29, 1936.

Remarks.- Records good except those for period of ice effect, Dec. 16 to Apr. 15 (computed on basis of five discharge measurements, gage heights, and weather records), and those for Apr. 17-18, which are fair. Stage-discharge relation affected by aquatic growth Oct. 1 to Dec. 15, June 1 to Sept. 30; discharge computed on basis of eight discharge measurements, gage heights, and weather records. Graph based on readings of outside staff gage by engineer at times of discharge measurements about every third day used Apr. 13-21.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	100	80	63	62	58	336	2,960	606	148	44	34
2	103	95	78	62	61	58	824	2,860	559	144	46	34
3	100	91	77	62	60	60	1,180	2,760	544	134	46	33
4	103	89	73	64	58	61	1,220	2,590	470	134	42	28
5	104	89	72	66	57	63	1,220	2,450	428	124	40	27
6	108	84	71	66	56	63	1,220	2,320	400	135	38	27
7	106	86	71	61	56	63	1,180	2,250	387	136	36	27
8	106	86	69	62	56	64	1,050	2,120	442	124	32	26
9	94	88	71	62	55	64	897	1,930	374	117	32	25
10	94	89	72	61	54	64	842	1,840	312	117	29	24
11	94	84	72	62	52	67	842	1,750	266	107	30	25
12	91	78	72	60	51	61	1,310	1,620	215	97	31	23
13	90	80	72	58	50	60	3,150	1,480	180	91	30	18
14	91	81	72	58	50	60	5,330	1,220	205	89	29	17
15	100	81	72	58	50	58	7,640	1,100	255	85	30	16
16	86	76	72	57	51	58	10,300	1,180	234	80	29	16
17	90	74	71	55	51	52	13,200	1,100	205	73	26	16
18	95	74	72	52	52	54	14,500	1,050	186	72	28	17
19	98	76	72	51	52	60	13,400	1,010	153	71	29	17
20	103	77	71	50	52	64	11,300	994	152	69	27	17
21	107	80	69	50	52	72	9,600	935	142	67	27	17
22	111	80	67	50	52	72	8,250	878	161	67	28	16
23	114	80	68	50	52	71	6,830	860	175	64	28	16
24	117	80	68	51	52	73	5,790	878	171	60	28	15
25	122	80	67	56	54	76	4,970	1,010	163	54	29	14
26	121	80	68	58	54	72	4,320	994	171	51	29	13
27	118	85	68	61	58	68	3,930	897	173	51	29	13
28	108	88	67	63	58	66	3,700	789	168	52	30	13
29	110	85	66	62	58	63	3,410	754	170	50	31	13
30	104	82	64	63	-	62	3,130	720	163	46	31	13
31	104	-	64	63	-	68	-	654	-	44	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,195	122	86	103	6,340
November	2,498	100	74	83.3	4,950
December	2,188	80	64	70.6	4,340
Calendar year 1935	163,425	2,750	22	448	324,140
January	1,817	66	50	58.6	3,600
February	1,576	62	50	54.3	3,130
March	1,975	76	52	63.7	3,920
April	144,871	14,500	336	4,829	287,300
May	45,953	2,960	654	1,482	91,150
June	8,230	606	142	274	16,320
July	2,753	148	44	88.8	5,460
August	995	46	26	32.1	1,970
September	610	34	13	20.3	1,210
Water year 1935-36	216,661	14,500	13	592	429,700

Red River at Oslo, Minn.

Location.- Staff gage, lat. 48°11', long. 97°9', in sec. 31, T. 155 N., R. 50 W., at Minneapolis, St. Paul & Sault Ste. Marie Railway bridge in Oslo.

Records available.- April to September 1936.

Extremes.- Maximum discharge observed during period, 14,500 second-feet Apr. 18; maximum gage height observed, 18.18 feet Apr. 19; minimum discharge observed, 14 second-feet Sept. 18-22.

Remarks.- Records good Apr. 20 to June 15, others fair. Discharge during period of ice effect, Apr. 1-18, computed on basis of two discharge measurements, gage heights, weather records, and comparison with record at Grand Forks. Stage-discharge relation affected by aquatic growth June 16 to Sept. 30, discharge computed on basis of four discharge measurements, gage heights, weather records, and comparison with record at Grand Forks. Gage read twice daily during April and once daily May 1 to Sept. 30.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							75	3,370	640	167	38	28
2							318	3,190	562	148	36	28
3							1,070	3,130	562	146	34	27
4							1,330	2,950	525	134	31	30
5							1,330	2,710	456	128	32	26
6							1,330	2,590	424	126	34	23
7							1,240	2,470	408	130	33	22
8							1,110	2,350	424	134	34	20
9							1,020	2,170	424	138	34	19
10							890	2,000	362	130	31	21
11							804	1,900	304	122	29	20
12							978	1,750	250	114	27	20
13							1,600	1,600	214	107	27	17
14							3,250	1,510	167	98	31	22
15							6,500	1,240	190	93	34	21
16							10,800	1,200	226	87	33	18
17							13,500	1,200	238	81	31	15
18							14,500	1,150	214	76	31	14
19							14,300	1,070	202	74	30	14
20							12,800	1,070	167	75	29	14
21							11,400	1,020	146	68	28	14
22							9,800	934	140	64	44	14
23							8,400	890	144	60	37	15
24							7,100	890	167	58	31	15
25							6,100	934	190	58	28	15
26							5,300	1,070	167	55	26	15
27							4,730	1,020	167	50	27	15
28							4,310	934	167	43	27	15
29							3,890	804	178	40	27	15
30							3,550	804	167	38	26	15
31							-	720	-	37	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	153,325	14,500	75	5,111	304,100
May	50,640	3,370	720	1,634	100,400
June	8,592	640	140	286	17,040
July	2,879	167	37	92.9	5,710
August	967	44	26	31.2	1,920
September	567	30	14	18.9	1,120
The period					430,300

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Red River at Drayton, N. Dak.

Location.- Wire-weight gage, lat. 48°34', long. 97°10', in sec. 28, T. 159 N., R. 51 W., on highway bridge in Drayton.

Records available.- April to September 1936.

Extremes.- Maximum discharge observed during period, 16,600 second-feet Apr. 19; maximum gage height, 24.26 feet Apr. 20; minimum discharge, 14 second-feet Sept. 30.
Maximum stage known, about 41 feet in 1897, from floodmarks furnished by local residents.

Remarks.- Records good Apr. 18 to June 8, others fair. Discharge during period of ice effect Apr. 1-17 computed on basis of gage heights, engineer's and observer's notes, weather records, and record for station at Grand Forks. Stage-discharge relation affected by aquatic growth June 9 to Sept. 30, discharge computed on basis of five discharge measurements, gage heights, weather records, and record for station at Grand Forks.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							78	4,000	770	183	65	38
2							78	3,780	680	180	60	36
3							78	3,440	650	180	54	34
4							78	3,260	620	174	50	32
5							78	3,020	592	177	46	33
6							78	2,840	538	180	44	32
7							384	2,660	538	174	36	33
8							1,400	2,540	565	161	44	32
9							1,340	2,420	592	174	40	32
10							1,460	2,300	620	161	43	32
11							1,460	2,180	620	151	54	30
12							1,340	2,000	510	144	46	31
13							1,400	1,820	407	132	48	31
14							1,760	1,700	361	123	52	32
15							2,720	1,580	339	117	56	32
16							8,500	1,400	317	111	56	31
17							12,500	1,200	276	107	50	30
18							15,800	1,220	258	100	51	29
19							16,600	1,160	276	93	49	27
20							16,200	1,160	276	86	51	26
21							15,600	1,100	276	78	53	24
22							13,200	1,040	258	73	53	22
23							12,500	980	240	72	54	21
24							11,000	980	224	72	54	20
25							9,440	920	204	66	54	19
26							8,060	920	201	68	54	18
27							6,630	1,040	198	65	52	17
28							5,820	980	198	63	51	17
29							4,930	980	186	64	49	16
30							4,520	980	177	60	44	14
31							-	920	-	64	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	173,032	16,600	78	5,768	343,200
May	56,600	4,000	920	1,826	112,300
June	11,967	770	177	399	23,740
July	3,653	183	60	118	7,250
August	1,554	65	36	50.1	3,080
September	821	38	14	27.4	1,630
The period					491,200

Red River at Emerson, Manitoba

(International gaging station)

Location.- Chain gage, lat. 49°0'30", long. 97°13', on Canadian National Railway bridge in Emerson.
Drainage area.- 34,600 square miles.
Records available.- March to November 1902, October 1929 to September 1936 in reports of U. S. Geological Survey; May 1912 to September 1929 in reports of the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.
Average discharge.- 23 years (1913-36), 2,052 second-feet.
Extremes.- Maximum discharge observed during year, 18,000 second-feet Apr. 21; maximum elevation, 767.68 feet Apr. 21; minimum discharge, 29.2 second-feet Sept. 30 (elevation, 743.87 feet).
1929-36: Maximum discharge observed, 20,800 second-feet Apr. 10, 1930; minimum (estimated because of ice effect), 12.0 second-feet Jan. 3-5, 1935.
Maximum elevation known, 785.16 feet Apr. 24, 1916 (discharge, 46,200 second-feet).
Remarks.- Records good except those for periods of ice effect, Oct. 31 to Apr. 18, which were computed on basis of 16 discharge measurements, gage heights, and weather records and are fair. Gage read once daily. This is one of the international gaging stations maintained by Canada under agreement with the United States.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Changing-slope method used Apr. 18-23)

Oct. 1 to Apr. 14						Apr. 15 to Sept. 30					
744.0	30	745.2	254	748.0	1,210	743.8	25	745.5	390	748.5	1,530	757.0	6,350
744.2	54	745.6	356	749.0	1,645	744.0	40	746.0	555	749.0	1,730	759.0	7,880
744.4	84	746.0	465	750.0	2,140	744.2	64	746.5	730	750.0	2,180	761.0	9,550
744.6	122	746.4	585	751.0	2,665	744.4	97	747.0	930	751.0	2,680	763.0	11,300
744.8	163	746.8	730	752.0	3,220	744.6	141	747.5	1,130	753.0	3,800	765.0	13,400
745.0	207	747.4	970			745.0	240	748.0	1,330	755.0	5,000	766.5	15,100

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	110	56	63	46	68	63	5,590	1,180	180	81	67
2	132	110	56	63	45	72	66	5,080	1,100	175	81	63
3	118	108	56	64	45	72	67	4,680	1,030	168	81	67
4	118	105	56	64	45	68	67	4,350	970	165	83	81
5	118	103	55	63	45	66	67	4,100	902	160	81	81
6	118	96	55	62	46	63	67	3,870	842	155	78	112
7	118	92	57	62	46	62	66	3,700	810	160	78	114
8	118	90	58	61	46	60	66	3,500	794	153	78	92
9	106	88	57	60	46	60	66	3,330	730	153	79	83
10	106	84	56	60	46	59	100	3,180	706	153	76	76
11	122	80	58	60	47	58	210	3,000	706	148	72	60
12	122	78	60	59	49	58	1,420	2,860	702	132	70	60
13	132	76	61	58	52	56	2,100	2,700	695	127	70	60
14	132	73	61	58	55	54	3,200	2,560	653	116	81	70
15	132	72	61	58	56	50	4,200	2,410	615	114	79	72
16	132	71	61	58	59	48	5,300	2,260	548	110	72	60
17	112	70	60	57	59	48	10,700	2,090	503	105	72	63
18	112	70	58	56	60	50	14,600	1,930	450	99	72	103
19	112	70	58	56	60	52	17,100	1,820	405	95	75	103
20	112	68	58	55	60	52	17,800	1,750	357	95	76	76
21	102	67	58	54	60	53	18,000	1,670	354	93	84	60
22	102	66	59	54	60	54	17,800	1,590	339	93	93	56
23	102	64	59	54	60	55	16,400	1,560	309	92	93	46.6
24	102	62	60	53	60	56	15,100	1,510	309	92	95	51
25	112	62	61	52	61	58	13,600	1,450	309	90	97	43.3
26	116	62	62	51	62	58	11,800	1,390	273	90	86	43.3
27	110	61	63	50	62	58	10,100	1,350	249	86	76	42.2
28	112	60	63	50	63	58	8,550	1,360	235	86	76	34.6
29	126	59	64	49	64	58	7,210	1,390	223	86	76	36.4
30	114	57	64	48	-	59	6,280	1,380	200	86	76	29.2
31	110	-	63	48	-	62	-	1,310	-	81	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,622	142	102	117	7,180
November	2,334	110	57	78	4,630
December	1,834	64	55	59	3,640
Calendar year 1935	239,006.8	5,470	12.0	655	474,100
January	1,760	64	48	57	3,490
February	1,565	64	45	54	3,100
March	1,805	72	48	58	3,580
April	202,165	18,000	63	6,740	401,000
May	80,670	5,590	1,310	2,600	160,000
June	17,498	1,180	200	583	34,710
July	3,738	180	81	121	7,410
August	2,457	97	70	79	4,870
September	2,005.6	114	29.2	67	3,980
Water year 1935-36	321,453.6	18,000	29.2	878	637,600

Twin Lakes near Amor, Minn.

Location.- Staff gage, lat. 46°24'45", long. 95°46'20", in sec. 18, T. 134 N., R. 40 W., about 1¼ miles west of Amor.

Records available.- July 1935 to September 1936 (fragmentary).

Extremes.- Maximum gage height observed during year, 0.97 foot May 22, 26; minimum, -0.42 foot Sept. 30.
1935-36: Maximum gage height observed, 1.45 feet July 18, 1935; minimum, that of Sept. 30, 1936.

Remarks.- Records good. Gage readings furnished by Mr. Henry C. Erickson.

Gage height, in feet, of water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-						-	0.87	-	0	-0.12
2	0.53	-						-	-	0.54	-	-
3	.51	0.43						-	.82	.52	-.05	-.14
4	.50	-						-	.80	.50	-.07	-
5	.49	.43						-	-	-	-	-.16
6	-	.42						-	-	.49	-	-.16
7	.47	.41						-	-	-	-.12	-
8	-	-						-	.87	-	-	-
9	-	-						-	-	.38	-	-
10	-	.46						-	.83	.36	-	-.18
11	.47	-						-	.81	-	-.25	-.18
12	-	-						-	.79	.34	-	-.19
13	.48	-						-	.77	-	-	-
14	.48	-						-	-	-	-.20	-
15	-	-						-	-	.29	-	-
16	.49	-						-	.75	-	-	-
17	.49	-						-	.75	-	-.24	-
18	.48	-						-	.73	.21	-	-
19	.47	-						-	.71	.23	-	-.27
20	-	-						-	.69	-	-	-.28
21	.46	-						-	.69	.18	-.14	-
22	-	-						0.97	.68	-	-	-.30
23	.45	-						-	.68	-	-.16	-
24	-	-						.95	-	-	-	-
25	.44	-						-	.64	.09	-.19	-.33
26	-	-						.97	.63	.09	-.20	-
27	.43	-						-	.62	.08	-	-
28	.43	-						-	.61	-	-.10	-.39
29	.42	-						-	-	-	-.11	-
30	-	-						.91	.58	.03	-.12	-.42
31	.44	-						-	-	-	-	-

Bois des Sioux River near Fairmount, N. Dak.

Location.- Staff gage, lat. 46°3'25", long. 96°33'20", near center of sec. 22, T. 130 N., R. 47 W., at Minneapolis, St. Paul & Sault Ste. Marie Railway bridge 2 miles east of Fairmount, 5 miles west of Tenney, Minn., and 15 miles below Lake Traverse.

Drainage area.- 1,460 square miles.

Records available.- April 1919 to September 1936.

Average discharge.- 16 years (1920-36), 6.73 second-feet.

Extremes.- 1919-36: Maximum discharge, 390 second-feet Apr. 22, 1922 (gage height, 5.7 feet); no flow in several different years.

Remarks.- No flow from Lake Traverse during water year 1935-36. There was a little local run-off when the snow melted; discharge estimated as 1.6 second-feet on engineer's visit of Apr. 12. Observed no flow on Mar. 27 and Apr. 17.

Mustinka River above Wheaton, Minn.

Location.- Chain gage, lat. 45°49', long. 96°29', on line between secs. 7 and 8, T. 127 N., R. 46 W., 1 mile upstream from Chicago, Milwaukee, St. Paul & Pacific Railroad bridge, 1½ miles northeast of Wheaton, and 8 miles above mouth.

Drainage area.- 776 square miles.

Records available.- March to September 1917, June 1919 to September 1924, March 1931 to September 1936. June to November 1916 at a point 3½ miles downstream.

Extremes.- Maximum discharge observed during year, 354 second-feet Mar. 23 (gage height, 10.51 feet, affected by ice); no flow during several periods.
1917, 1919-24, 1931-36: Maximum discharge, about 2,340 second-feet Apr. 1, 1917 (gage height, 14.7 feet, former datum); no flow during several periods.

Remarks.- Records poor. Stage-discharge relation affected by ice Mar. 9 to Apr. 13 and by aquatic growth Apr. 27 to June 22. Discharge during period of flow computed on basis of seven discharge measurements, gage heights, and weather records. Gage read once daily Mar. 9 to June 26.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	62	6.0	2.3			
2						0	40	6.2	2.0			
3						0	26	6.3	1.8			
4						0	24	6.6	1.6			
5						0	14	6.3	1.5			
6						0	9.5	6.2	1.6			
7						0	7.1	5.7	1.5			
8						0	6.6	5.6	1.4			
9						0	7.7	6.0	1.1			
10						2.7	15	6.4	.8			
11						5.5	34	6.5	.6			
12						4.2	52	6.4	.3			
13						1.8	52	6.5	.3			
14						1.1	55	7.0	.3			
15						6.6	52	7.0	.2			
16						4.8	42	6.8	.2			
17						5.0	28	6.5	.2			
18						6.9	26	5.8	.2			
19						11	20	4.7	.2			
20						23	15	4.0	.1			
21						70	9.2	3.7	.1			
22						312	8.6	4.1	0			
23						342	8.3	4.4	0			
24						246	7.7	4.1	0			
25						135	7.1	3.7	0			
26						140	6.4	3.5	0			
27						110	6.0	2.6	0			
28						90	5.7	2.3	0			
29						65	5.4	2.2	0			
30						80	5.7	2.0	0			
31						70	-	2.5	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	2,764.1	120	0	7.57	5,480
January	0	0	0	0	0
February	0	0	0	0	0
March	1,732.6	342	0	55.9	3,440
April	660.0	62	5.4	22.0	1,310
May	157.6	7.0	2.0	5.08	313
June	18.3	2.3	0	.61	36
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	2,568.5	342	0	7.02	5,100

Wild Rice River near Abercrombie, N. Dak.

Location.- Chain gage, lat. 46°28'15", long. 96°46'50", in SE¼ sec. 25, T. 135 N., R. 49 W., 2 miles northwest of Abercrombie.

Records available.- April 1932 to September 1936.

Extremes.- Maximum discharge observed during year, 415 second-feet Mar. 22 (gage height, 8.00 feet, affected by ice); no flow for several months.
1932-36: Maximum discharge observed, 513 second-feet Mar. 16, 1935 (gage height, 10.21 feet, affected by ice); no flow for periods each year.

Remarks.- Records fair. Discharge during period of ice effect, Mar. 20 to Apr. 15, computed on basis of three discharge measurements, gage heights, and weather records. Discharge during period of backwater from debris, Apr. 22 to May 3, computed on basis of one discharge measurement and gage heights. Gage read twice daily Mar. 20 to June 30.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	93	13	1.9			
2						0	81	13	1.8			
3						0	76	12	1.4			
4						0	71	10	1.1			
5						0	56	14	.8			
6						0	48	17	.8			
7						*0	40	16	.5			
8						0	48	22	.8			
9						0	66	32	.6			
10						0	76	38	.4			
11						0	93	35	.2			
12						0	125	26	.1			
13						0	132	19	0			
14						0	111	18	0			
15						0	93	18	0			
16						0	71	16	0			
17						0	58	15	.1			
18						1	50	13	.2			
19						5	42	11	0			
20						14	36	8.3	0			
21						181	30	5.7	0			
22						389	28	3.8	0			
23						389	24	2.4	0			
24						311	23	2.7	0			
25						287	20	4.5	0			
26						241	17	5.1	0			
27						190	16	5.2	0			
28						155	15	2.4	0			
29						125	15	1.4	0			
30						111	14	1.9	0			
31						93	-	2.6	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	2,492	389	0	80.4	4,940
April	1,668	132	14	55.6	3,310
May	404.0	38	1.4	13.0	801
June	10.7	1.9	0	.36	21
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
The period					9,070

*Field observation.

Note.- No records Oct. 1 to Feb. 29; little or no flow during this period. Discharge estimated Mar. 8-19.

Sheyenne River at West Fargo, N. Dak.

Location.- Water-stage recorder, lat. 46°53'20", long. 96°54'55", in sec. 31, T. 140 N., R. 49 W., about 0.5 mile north of West Fargo, formerly called Haggart.

Records available.- September 1929 to September 1936; at station a quarter of a mile upstream March 1902 to June 1907, March to August 1919.

Extremes.- Maximum discharge during year, 718 second-feet Apr. 21 (gage height. 9.74 feet); minimum, 4.8 second-feet Aug. 9 (gage height, 2.13 feet).
1902-7, 1919, 1929-36: Maximum discharge, 2,260 second-feet, by discharge measurement, Apr. 28, 1919; minimum, 4.2 second-feet Aug. 27, Nov. 10, 1934 (gage height, 2.11 feet).

Remarks.- Records good except those for periods of ice effect, Nov. 2-6, 11-15, 19-25, 28, 29, Dec. 1, 2, 7-11, Dec. 16 to Apr. 20 (computed on basis of eight discharge measurements, gage heights, and weather records), and those for July 23 to Sept. 30, which are fair.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	18	21	18	15	15	151	552	73	77	7.2	8.8
2	22	16	21	18	14	14	139	524	69	68	6.8	9.0
3	26	16	21	17	14	14	120	470	68	58	7.2	8.5
4	26	16	21	17	15	14	106	406	65	51	7.2	7.8
5	25	16	21	18	14	14	96	346	62	45	6.2	7.2
6	24	17	21	18	15	15	87	301	61	39	5.8	7.0
7	24	20	21	18	14	16	78	274	58	35	5.8	10
8	24	21	20	17	15	16	74	253	54	31	5.4	11
9	25	21	21	17	15	15	81	233	52	25	5.0	14
10	26	22	20	18	15	15	100	213	50	23	5.8	14
11	26	21	19	17	14	16	117	199	47	20	5.8	14
12	26	20	20	16	15	16	139	190	44	18	5.8	12
13	30	19	20	17	15	16	172	181	42	17	5.8	10
14	32	18	20	17	15	15	190	168	40	14	6.4	9.8
15	34	18	20	17	15	15	204	159	40	14	6.4	8.5
16	40	18	20	17	15	15	223	155	37	14	6.6	8.0
17	34	18	19	16	15	16	243	143	35	14	8.0	7.8
18	26	18	20	16	15	16	253	131	38	12	7.8	7.8
19	26	16	18	15	15	17	274	120	37	12	7.0	7.2
20	30	16	18	15	14	18	312	117	33	12	7.2	6.2
21	28	16	18	14	14	18	566	114	31	12	7.5	7.2
22	26	15	19	15	15	18	625	110	31	11	8.0	7.0
23	25	15	18	15	15	19	686	110	28	10	12	6.4
24	25	16	19	15	14	26	718	106	25	9.5	11	6.4
25	24	16	19	14	15	166	670	103	33	9.2	9.5	6.4
26	24	18	20	15	14	241	610	96	93	9.0	9.5	6.0
27	24	20	18	15	14	191	566	93	114	9.8	10	5.4
28	24	20	18	14	15	141	552	81	110	9.0	9.2	5.8
29	25	21	18	14	15	141	552	93	96	8.8	8.8	5.8
30	24	21	18	15	-	186	552	84	84	8.8	7.8	6.0
31	26	-	18	15	-	190	-	77	-	8.5	8.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	822	40	21	26.5	1,630
November	543	22	15	18.1	1,080
December	605	21	18	19.5	1,200
Calendar year 1935	26,422.4	285	6.8	72.4	52,410
January	500	18	14	16.1	992
February	425	15	14	14.7	843
March	1,645	241	14	53.1	3,260
April	9,256	718	74	309	18,360
May	6,202	552	77	200	12,300
June	1,650	114	25	55.0	3,270
July	704.6	77	8.5	22.7	1,400
August	231.3	12	5.0	7.46	459
September	251.0	14	5.4	8.37	498
Water year 1935-36	22,834.9	718	5.0	62.4	45,290

Devils Lake near Devils Lake, N. Dak.

Location.- Lat. 48°4'10", long. 98°56'5", at Lakewood, 0.5 mile from the main lake on east bank of entrance to Creel Bay, an arm of Devils Lake 2 miles long and 0.5 mile wide on north side of the lake, and 6 miles southwest of city of Devils Lake.
Records available.- 1901-36 (fragmentary). Single gage heights in 1867, 1879, 1883, 1887, 1890, 1896.
Remarks.- All gage heights published previous to 1921 refer to a gage on which zero was 1,412.21 feet above mean sea level according to levels run by topographic branch of the United States Geological Survey in 1928. Elevation of lake determined by levels from benchmark.

Elevation, in feet, water year 1935-36

Oct. 19	1,406.70	July 22	1,405.99
May 2	1,407.22	Sept.24	1,405.29

Buffalo River near Dilworth, Minn.

Location.- Chain gage, lat. 46°57'40", long. 96°39'40", on line between secs. 6 and 7, T. 140 N., R. 47 W., about 6 miles north of Dilworth.
Records available.- March 1931 to September 1936 (winter months incomplete).
Extremes.- Maximum discharge observed during year, 1,460 second-feet Apr. 16 (gage height, 14.56 feet); no flow on many days during July, August, and September.
1931-36: Maximum discharge, that of Apr. 16, 1936; no flow on many days during 1936.
Remarks.- Records good Apr. 12 to Sept. 30; others fair except those estimated, which are poor. Stage-discharge relation affected by debris on control Oct. 1-29, Sept. 13-30. Discharge for period of ice effect, Oct. 30 to Nov. 15, Mar. 17 to Apr. 11, computed on basis of four discharge measurements, gage heights, and weather records. Discharge for period when gage was not read, Nov. 16 to Mar. 16, estimated on basis of two discharge measurements and weather records. Discharge Sept. 12 estimated on basis of observer's notes.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	11					380	197	25	9.5		
2	9.3	9.5					286	189	24	8.6		
3	9.3	8.1					205	189	20	7.6		
4	11	9.5					157	181	19	7.2		
5	12	12	8	4		1	128	173	18	5.7		
6	13	12					149	173	18	4.8		0
7	12	11					142	157	20	4.5		
8	13	11					142	142	18	4.5		
9	14	10				*1.1	181	142	16	4.0		
10	14	10					350	135	19	3.2		
11	18	9.6					540	121	20	2.8		
12	18	10				1	769	121	20	1.4		.5
13	18	10					1,030	100	22	1.7		1.0
14	20	10					1,180	100	22	1.0		.8
15	22	11	6	3		2	1,440	88	24	.7		1.2
16	26					2	1,460	88	20	.6		1.0
17	29					3.6	1,360	76	22	.3		1.8
18	25					3.9	1,240	70	17	.3		1.8
19	22					5.1	1,000	65	17	.2		1.6
20	20	10				11	890	60	19	.1		1.8
21	18					12	758	52	17	.1		1.4
22	18					14	681	50	15	0		1.7
23	16					18	571	48	16	0		1.8
24	18					29	500	48	13	0		1.0
25	18		5	2		145	410	48	12	0		1.2
26	16	9				145	370	43	13	.3		1.0
27	22	*9.1				133	331	50	11	.1		.7
28	18					276	268	41	9.0	0		.9
29	18	9				358	241	37	11	0		1.1
30	14				-	428	214	33	10	0		1.4
31	13	-			-	414	-	31	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	521.8	29	7.2	16.8	1,030
November	299.8	12	-	9.99	595
December	195	-	-	6.29	387
Calendar year 1935					
January	92	-	-	2.97	182
February	29	-	-	1.00	58
March	2,013.7	428	-	65.0	3,990
April	17,373	1,460	128	579	34,460
May	3,048	197	31	98.3	6,050
June	527.0	25	9.0	17.6	1,050
July	69.2	9.5	0	2.23	137
August	0	0	0	0	0
September	23.7	1.8	0	.79	47
Water year 1935-36	24,192.2	1,460	0	66.1	47,990

*Discharge measurement.

Rice Lake near Bagley, Minn.

Location.- Staff gage, lat. 47°23', long. 95°29', in sec. 16, T. 145 N., R. 38 W., about 10 miles southwest of Bagley.

Records available.- July 1935 to September 1936 (incomplete).

Extremes.- Maximum gage height observed during period, 1.38 feet May 21; minimum, -0.84 feet Sept. 2.
1935-36: Maximum gage height observed, 1.98 feet July 17, 1935; minimum, that of Sept. 2, 1936.

Remarks.- Stage partly regulated by manipulation of loose-rock dam in outlet. The following measurements of discharge were made at the lake outlet: Oct. 30, 1935, gage height, 0.30; discharge, 17.0 second-feet; May 20, 1936, gage height, 1.31; discharge 159 second-feet; Aug. 4, 1936, gage height, -0.55. No flow.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-							-	-	-0.33	-	-
2	-							-	-	-.33	-	-0.84
3	-0.02							-	0.38	-	-0.55	-
4	-							-	-	-	-	-
5	-							-	-	-	-	-
6	-							-	-	.16	-	-
7	-							-	-	-	-	-
8	-							-	-	.06	-	-
9	-							-	.00	-	-	-
10	-							-	.50	-	-	-
11	.28							-	.27	-.04	-	-
12	-							-	.50	-	-	-
13	-							-	-	-.17	-	-
14	-							-	-	-	-	-
15	-							-	-	-	-	-
16	-							-	-	-	-	-
17	-							-	-	-	-	-
18	-							-	.48	-.17	-	-
19	-							-	-	-	-	-
20	-							1.31	-.25	-	-.72	-
21	-							1.38	-.29	-	-	-
22	-							1.06	-.33	-	-	-
23	-							.94	-	-	-	-
24	-							-	-	-	-.76	-
25	-							-	-.17	-	-	-
26	-							-	-	-	-	-
27	-							.86	-.17	-	-	-
28	-							-	-	-	-	-
29	-							-	-	-	-	-
30	.30							-	.10	-	-	-
31	-							-	-	-	-	-

Wild Rice River at Twin Valley, Minn.

Location.- Water-stage recorder, lat. 47°16', long. 96°14', in SE¼ sec. 22, T. 144 N., R. 44 W., three-quarters of a mile northeast of Twin Valley.

Drainage area.- 805 square miles.

Records available.- July 1930 to September 1936. June 1909 to September 1917 at a station a quarter of a mile downstream.

Extremes.- Maximum discharge during year, 2,490 second-feet Apr. 14 (gage height, 9.27 feet); minimum discharge, 2.6 second-feet Aug. 24, Sept. 1, 6-8.
1909-17, 1930-36: Maximum discharge (computed by slope-area method), 9,200 second-feet July 22, 1909 (not referred to present gage); minimum, 1 second-foot Aug. 13, 1932 (gage height, 0.34 foot, at former site).

Remarks.- Records good except those for periods of ice effect, Nov. 4-6, 10-12, Nov. 15 to Jan. 21, Mar. 15, 16, Mar. 24 to Apr. 10, which are fair and are computed on basis of six discharge measurements, gage heights, and weather records, and those for periods of no gage height record, which are poor. Discharge for periods when recorder did not operate, Jan. 22 to Mar. 14, Sept. 9-30, computed on basis of recorded range of stage, weather records, and discharge measurement on Mar. 15. Discharge for periods when stage was below intake to well, Aug. 1-3, 9, 10, 14-23, Sept. 4-6, computed on basis of weather records and knowledge that the stage was lower than intake. Stage-discharge relation affected by aquatic growth July 22 to Sept. 30.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	38	25	24			42	378	144	43	4	2.6
2	48	28	26	18			42	367	132	41	4	4.2
3	41	36	30	20		12	40	367	123	41	3	2.8
4	40	39	30	20			41	345	110	38	3.0	2.8
5	41	36	26	20			42	334	102	34	4.2	2.7
6	36	40	26	18			40	323	102	31	4.8	2.6
7	37	42	34	16			42	312	102	27	5.0	2.6
8	36	38	33	16			44	312	115	24	4.8	2.6
9	33	34	27	17			154	278	113	21	3.8	
10	38	33	28	16		14	690	209	112	21	3.7	
11	40	33	25	14			1,150	190	123	18	3.5	
12	43	35	34	15			1,900	209	103	14	3.4	
13	46	36	27	16			2,020	257	90	13	3.4	
14	52	35	25	15			2,120	274	92	11	3	
15	46	33	28	16		15	1,350	274	94	10	3	
16	48	38	18	16		15	1,080	261	98	9.2	3	
17	48	36	33	15		14	930	255	89	8.2	3	
18	46	38	24	14		13	765	245	77	6.2	3	
19	46	36	26	12		14	666	237	84	7.5	3	
20	55	33	24	12		14	618	224	74	7.2	3	3
21	48	33	20	11		18	570	208	65	14	3	
22	40	32	20			13	512	203	69	6.5	3	
23	40	31	21			12	490	222	59	5.5	3	
24	36	33	18			18	455	227	52	12	2.6	
25	38	31	20			30	433	229	49	6.8	2.7	
26	34	30	21	10		42	411	214	49	6.8	2.7	
27	33	29	26			46	400	195	45	7.0	2.7	
28	35	28	30			38	389	190	43	12	3.8	
29	35	28	24			42	389	172	46	8.6	3.6	
30	36	28	25		-	42	389	162	44	6.5	3.0	
31	40	-	24		-	42	-	156	-	5.5	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,284	55	33	41.4	2,550
November	1,020	42	28	34.0	2,020
December	798	34	18	25.7	1,580
Calendar year 1935	24,610.4	216	4.0	67.4	48,800
January	441	24	-	14.2	875
February	290	-	-	10.0	575
March	614	46	-	19.8	1,220
April	18,214	2,120	40	607	36,130
May	7,829	378	156	253	15,530
June	2,600	144	43	86.7	5,160
July	516.5	43	5.5	16.7	1,020
August	104.4	5.0	2.6	3.37	207
September	88.9	4.2	2.6	2.96	176
Water year 1935-36	33,799.8	2,120	2.6	92.3	67,040

Goose River at Hillsboro, N. Dak.

Location.- Chain gage, lat. 47°24', long. 97°3', in NE¼ sec. 5, T. 145 N., R. 50 W., at footbridge on north edge of Hillsboro. Prior to Mar. 21, 1935, chain gage at highway bridge 300 feet downstream and at same datum.

Records available.- March 1931 to September 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 1,060 second-feet Apr. 16 (gage height, 13.06 feet); no flow Mar. 26 to Apr. 7.
1931-36: Maximum discharge, that of Apr. 16, 1936; no flow Mar. 26 to Apr. 7, 1936.

Remarks.- Records fair except those for period of ice effect, Mar. 15 to Apr. 16 (computed on basis of two discharge measurements, gage heights, and observer's and engineers' notes), and those estimated for Aug. 18 to Sept. 30, which are poor. During periods May 2-8, July 6 to Aug. 9, the observer's readings appear low from comparison with those by engineer; discharge has been adjusted on basis of three discharge measurements. Gage read twice daily Mar. 15 to Aug. 17. No records Oct. 1 to Mar. 14.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	0	36	6.2	1.8	0.1	
2						-	0	34	6.2	1.8	.1	
3						-	0	31	5.6	1.8	.1	
4						-	0	29	5.6	1.4	.1	
5						-	0	27	5.6	1.4	.1	
6						-	0	25	5.6	1.2	.1	
7						-	0	23	5.0	1.2	.1	
8						-	0	21	5.0	1.0	.1	
9						-	1	20	2.8	1.0	.1	
10						-	3	19	2.2	.8	.1	
11						-	8	17	2.8	.6	.1	
12						-	125	14	2.8	.4	.1	
13						-	300	13	2.5	.4	.1	
14						-	350	11	2.2	.2	.1	
15						1	621	10	1.8	.2	.1	
16						1	951	9.2	1.8	.2	.1	
17						1	643	6.8	1.4	.2	.1	
18						1	390	5.3	1.0	.2		
19						1	270	7.4	1.0	.2		
20						2	180	6.2	.6	.2		
21						4	134	5.6	1.0	.2		
22						4	107	5.0	1.2	.2		
23						5	84	5.6	1.4	.2		
24						3	71	5.9	1.4	.2		
25						2	58	7.4	1.2	.2	.1	
26						0	50	6.8	1.6	.2		
27						0	47	6.8	2.2	.1		
28						0	46	7.4	1.8	.1		
29						0	43	7.4	1.8	.1		
30						0	39	7.1	1.8	.1		
31						0	-	6.8	-	.1		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 15-31	25	5	0	1.5	50
April	4,521	951	0	151	8,970
May	436.7	36	5.0	14.1	866
June	83.1	6.2	.6	2.77	165
July	17.9	1.8	.1	.58	36
August	3.1	-	-	.1	6.1
September	3.0	-	-	.1	6.0
The period					10,100

Red Lake near Red Lake, Minn.

Location.- Water-stage recorder, lat. 47°57', long. 95°17', in NW¼ sec. 28, T. 152 N., R. 36 W., just above dam at outlet and about 18 miles northwest of Red Lake, Minn. Zero of gage is 1,170 feet above mean sea level.

Drainage area.- 1,950 square miles.

Records available.- May 1933 to September 1936 at present site. April 1930 to September 1933 at Waskish, June 1930 to November 1932 at Redby.

Extremes.- Maximum water-surface elevation during year, 1,173.65 feet June 16; minimum, 1,171.22 feet Sept. 23.
1930-36: Maximum water-surface elevation, 1,174.85 feet (at Waskish) June 2, 1930; minimum 1,171.10 feet Sept. 19, 1933.

Remarks.- Records excellent. Gage heights have been reduced to mean sea level datum. Water level subject to fluctuation caused by change in direction and velocity of wind and by seiches.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.07	1.67	2.06	-	2.20	-	-	2.70	3.00	2.63	2.21	2.05
2	1.88	1.82	2.07	-	2.20	-	-	2.72	2.90	2.68	2.21	2.00
3	1.92	1.96	2.07	-	2.20	-	-	2.74	2.83	2.74	2.16	1.94
4	2.00	1.86	2.07	-	2.19	-	-	2.75	2.77	2.77	2.17	1.93
5	2.08	1.93	2.08	-	2.18	-	-	2.78	2.80	2.71	2.12	1.97
6	1.92	1.96	2.09	2.11	-	-	-	2.78	2.93	2.71	2.10	1.93
7	1.92	1.87	2.09	2.13	-	-	-	2.75	2.95	2.60	2.12	1.96
8	2.00	2.02	2.09	2.13	-	-	-	2.78	2.85	2.58	2.03	1.89
9	1.80	2.01	2.08	2.12	-	-	-	2.80	2.85	2.64	2.08	1.97
10	2.00	1.96	2.09	2.12	-	-	-	2.81	2.85	2.71	2.12	1.98
11	2.00	2.02	2.10	2.12	-	-	-	2.81	2.80	2.66	2.06	2.02
12	2.00	2.03	2.10	2.16	-	-	-	2.78	2.78	2.63	2.08	2.08
13	2.03	2.02	2.10	2.17	-	-	-	2.80	2.75	2.59	2.12	2.23
14	2.01	2.01	2.10	2.15	-	-	-	2.78	2.80	2.64	2.10	1.93
15	2.20	2.02	2.09	2.16	-	-	-	2.96	3.00	2.60	2.03	1.79
16	1.93	2.02	2.09	2.17	-	-	-	2.80	2.95	2.63	2.08	1.75
17	1.87	2.01	2.09	2.17	-	-	-	2.75	2.96	2.68	2.09	1.74
18	1.93	2.02	2.08	2.18	-	-	2.50	2.78	2.82	2.64	1.99	1.82
19	1.89	2.02	2.08	2.18	-	-	2.51	2.85	2.68	2.57	2.05	1.87
20	2.20	2.02	2.10	2.18	-	-	2.52	2.95	2.75	2.50	2.09	1.78
21	2.06	2.03	2.10	2.17	-	-	2.53	2.94	2.74	2.43	2.03	1.79
22	2.01	2.03	2.11	2.17	-	-	2.56	2.85	2.73	2.45	2.04	1.82
23	1.80	2.04	2.10	2.18	-	-	2.58	2.90	2.68	2.46	1.96	1.60
24	1.90	2.02	2.11	2.18	-	-	2.60	2.88	2.70	2.52	2.29	1.80
25	1.79	2.02	2.10	2.19	-	-	2.60	2.95	2.75	2.49	2.30	1.76
26	1.87	2.03	2.11	2.18	-	2.37	2.62	2.98	2.77	2.36	2.03	1.86
27	1.84	2.03	2.12	2.18	-	2.37	2.63	3.00	2.67	2.30	2.05	1.76
28	1.96	2.04	2.12	2.19	-	2.67	2.64	3.03	2.76	2.27	2.07	1.75
29	2.18	2.07	2.12	2.20	-	2.36	2.65	3.04	2.83	2.38	1.94	1.78
30	1.92	2.04	2.12	2.19	-	2.35	2.67	2.98	2.74	2.25	1.95	1.58
31	1.80	-	-	2.19	-	-	-	2.98	-	2.16	2.02	-

Note.- Add 1,170.00 feet to obtain elevation above mean sea level.

Red Lake River near Red Lake, Minn.

Location.- Water-stage recorder, lat. 47°57', long. 95°17', in NW¼ sec. 28, T. 152 N., R. 36 W., just below dam at outlet of lower Red Lake, about 18 miles northwest of Red Lake, Minn. Zero of gage is 1,170 feet above mean sea level.

Drainage area.- 1,950 square miles.

Records available.- May 1933 to September 1936.

Extremes.- Maximum discharge during year, 52 second-feet Sept. 14; maximum gage height, 3.11 feet (affected by aquatic growth) June 29; no flow May 16-17, 19-22.
1933-36: Maximum discharge, about 140 second-feet June 13, 1935; no flow Sept. 19, 1933, Aug. 31 to Sept. 10, Oct. 1, 1935, May 16-17, 19-22, 1936.

Remarks.- Records good except those for Dec. 26 to Jan. 5, Feb. 6 to Mar. 25, Mar. 31 to Apr. 13, which were estimated and are fair. Stage-discharge relation affected by backwater from ice or weeds for the entire year except periods May 20 to June 19 and Sept. 15-30; discharge computed on basis of 12 discharge measurements, gage heights, and engineers' notes. Flow completely regulated by dam at outlet of Red Lake.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	3.6	7.2	4	1.5			2.0	1.5	17	4.2	1.0
2	3.0	6.5	7.4	4	1.5			2.0	1.7	18	4.2	1.0
3	4.0	11	7.6	3	1.5			1.9	1.7	20	3.4	1.0
4	6.0	7.4	7.6	3	1.4			1.7	1.8	21	3.6	1.0
5	8.3	9.2	7.4	3	1.3			1.7	2.0	18	3.6	1.0
6	5.4	9.8	6.9	3.2				1.7	2.3	18	3.3	1.2
7	5.6	7.6	6.9	3.0			2.0	1.5	2.3	14	3.6	1.6
8	7.8	10	6.9	3.0				1.3	1.8	14	3.0	1.6
9	4.0	10	6.7	2.7				1.0	1.9	16	3.7	1.6
10	6.3	8.6	6.5	2.9				1.1	2.2	18	4.4	1.6
11	8.3	8.9	6.0	2.7				.9	2.4	16	3.9	1.6
12	8.9	8.9	6.0	2.7				.7	2.7	15	3.4	1.7
13	9.8	8.6	6.0	2.9		.5		.8	3.4	14	3.0	15
14	9.8	8.3	6.0	2.6			4.4	.3	3.7	16	2.9	17
15	16	7.8	5.8	2.6			5.6	.1	3.7	14	3.0	14
16	8.3	7.8	5.6	2.6			7.8	0	2.9	15	2.7	12
17	7.2	7.6	5.4	2.8			9.8	0	2.7	17	2.9	12
18	8.6	7.6	5.0	2.4	1.0		9.8	.1	2.5	16	2.6	15
19	7.8	7.6	4.6	2.2			7.8	0	2.5	13	2.4	17
20	18	7.6	4.0	1.9			7.6	0	12	11	2.7	14
21	13	7.6	4.0	1.8			7.6	0	35	9.2	2.9	14
22	12	7.6	4.2	1.7			6.2	.2	32	9.8	2.7	15
23	6.0	7.8	4.0	1.8			5.0	.5	29	10	2.5	8.3
24	8.3	7.4	4.2	1.8			4.2	.3	27	12	2.4	14
25	5.8	7.2	4.0	1.9			4.0	.5	28	11	1.5	13
26	7.6	6.9	4	1.8		1.0	3.6	.6	29	7.4	1.2	17
27	6.7	6.5	4	1.8		1.0	3.3	.9	24	6.0	1.2	13
28	10	6.7	4	1.7		1.0	2.6	.9	25	5.4	1.1	13
29	17	7.4	4	1.7		1.0	2.4	1.0	27	7.8	.9	14
30	8.9	6.7	4	1.6	-	1.0	2.2	1.0	22	5.0	.9	7.8
31	6.2	-	4	1.6	-	1.0	-	1.4	-	3.4	.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	262.6	18	3.0	8.47	521
November	236.2	11	3.6	7.87	468
December	169.9	7.6	4.0	5.48	337
Calendar year 1935	4,790.3	60	0.7	13.1	9,500
January	76.2	-	1.6	2.46	151
February	51.2	1.5	-	1.08	62
March	18.5	1.0	-	.60	37
April	119.9	9.8	-	4.00	238
May	26.1	2.0	0	.84	52
June	335.7	35	1.5	11.2	666
July	408.0	21	3.4	13.2	809
August	84.7	4.4	.9	2.73	168
September	261.0	17	1.0	8.70	518
Water year 1935-36	2,030.0	35	0	5.55	4,030

Red Lake River at Highlanding, near Goodridge, Minn.

Location.- Staff gage, lat. 48°3', long. 95°48' on line between secs. 28 and 29, T. 153 N., R. 40 W., at bridge at Highlanding, 7 miles south of Goodridge.

Records available.- October 1930 to September 1936.

Extremes.- Maximum discharge observed during year, 236 second-feet (result of discharge measurement) Apr. 17 (gage height, 3.77 feet, affected by ice); no flow on many days.

1930-36: Maximum discharge (estimated because of ice effect), 254 second-feet Apr. 3, 1931; maximum gage height, 3.90 feet Mar. 28, 1935 (affected by ice); no flow for occasional periods in 1931-34, 1936.

Remarks.- Records fair. Stage-discharge relation affected by ice or weed growth Oct. 1 to Feb. 3, Apr. 9-29, June 16, 17, July 1 to Sept. 30; discharge computed on basis of 12 discharge measurements, gage heights, and weather records. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	6.8	3.0	1.4			0	29	2.7	8.7	1.0	.3
2	6.0	6.8	3.0	1.4			0	30	*2.6	23	.7	.3
3	6.8	*6.6	2.8	1.4			0	42	2.4	22	.5	.2
4	7.6	6.4	2.8	1.2			0	31	2.1	20	.5	.2
5	6.8	*6.2	*2.9	1.2			0	26	1.9	18	.4	.1
6	6.8	6.0	3.0	1.2			0	25	2.1	14	.4	0
7	6.0	5.4	3.3	*1.2			0	20	*2.4	12	.4	0
8	5.4	*5.1	3.3	1.2			0	19	2.7	9.8	.4	0
9	4.2	4.8	3.3	*1.1			.7	17	1.8	8.0	*.3	0
10	3.6	*4.6	3.0	1.0			1.5	15	1.6	6.4	.3	0
11	3.3	4.5	3.3	.7			3.5	14	1.3	5.1	.3	0
12	3.3	*5.1	3.6	*.6			9.0	12	1.0	*5.0	.3	0
13	3.3	5.7	3.9	.5			43	11	.7	4.9	.2	0
14	4.5	*5.6	3.9	*.4			81	9.0	*.6	4.2	.4	0
15	4.8	5.4	3.9	.2			115	7.1	.3	4.0	.4	.1
16	5.7	4.2	3.3	*.2			176	6.4	.3	4.2	*.4	0
17	6.4	*3.9	3.0	.2			199	*5.4	.1	4.4	.4	.3
18	5.4	*3.6	2.8	0			176	4.4	0	4.2	.4	.6
19	4.2	3.3	2.6	*0			*159	3.5	0	3.2	.4	.7
20	5.1	3.3	2.4	0			142	3.2	0	4.0	.3	.8
21	5.7	3.3	2.2	*0			153	2.7	0	4.6	.5	.8
22	6.0	3.0	2.2	0			164	2.1	0	4.2	.4	.7
23	6.8	3.0	2.0	*0			153	2.4	0	5.1	.4	.9
24	8.4	3.0	1.8	0			110	2.1	0	5.8	.4	1.1
25	9.2	3.0	1.8	0			84	1.9	0	5.3	*.3	1.5
26	10	3.0	*1.8	*0			*78	2.1	0	5.6	*.3	4.9
27	12	3.0	1.8	0			64	1.9	0	3.4	.3	9.0
28	12	3.0	1.8	*0			49	1.8	0	2.0	.3	9.8
29	12	3.0	1.6	0			40	1.9	0	1.7	.3	12
30	11	3.0	1.6	*0			31	2.7	4.5	1.4	*.3	11
31	6.8	-	1.6	0			-	2.9	-	1.2	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	205.9	12	3.3	6.64	408
November	133.6	6.8	3.0	4.45	265
December	83.3	3.9	1.6	2.69	165
Calendar year 1935	5,986.4	102	.1	16.4	11,874
January	15.1	1.4	0	.49	30
February	0	0	0	0	0
March	0	0	0	0	0
April	2,031.7	199	0	67.7	4,030
May	354.5	42	1.8	11.4	703
June	31.1	2.7	0	1.04	62
July	225.4	23	1.2	7.27	447
August	12.2	1.0	.2	.39	24
September	55.3	12	0	1.84	110
Water year 1935-36	3,148.1	199	0	8.60	6,244

*Interpolated.

Red Lake River at Crookston, Minn.

Location.- Water-stage recorder, lat. 47°47', long. 96°36', in sec. 30, T. 150 N., R. 46 W., at highway bridge in Crookston, a quarter of a mile below dam and power house of Crookston Light & Power Co. Zero of gage is 833.03 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,320 square miles.

Records available.- May 1901 to September 1936.

Average discharge.- 35 years, 936 second-feet.

Extremes.- Maximum discharge during year, 4,540 second-feet Apr. 18 (gage height, 11.33 feet, affected by ice); minimum, 2.5 second-feet Sept. 29 (gage height, 2.21 feet, affected by weed growth).
1901-36: Maximum discharge, 14,700 second-feet July 5, 1919; minimum, that of Sept. 29, 1936.

Remarks.- Records good except those for periods when recorder did not operate, Jan. 18 to Mar. 5, June 28 to July 15, July 18-20, which were computed on basis of recorded range of stage and weather records and are poor. Stage-discharge relation affected by weed growth Oct. 1 to Nov. 3, May 25 to Sept. 30 and by ice Apr. 14-19; discharge computed on basis of nine discharge measurements, gage heights, and weather records. Flow regulated by power plants above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	28	26	31			24	1,200	320		18	16
2	51	32	26	30			24	1,020	158		18	17
3	52	31	26	30		20	26	894	172	40	16	18
4	50	30	27	31			26	967	171		13	16
5	48	37	27	34			26	801	160		12	16
6	46	36	27	34		22	27	818	200		12	24
7	35	35	27	34		21	28	774	40		12	21
8	32	32	28	36		21	31	696	29	35	18	18
9	34	30	29	56		21	35	723	149		20	16
10	31	29	29	56		21	50	610	141		16	13
11	30	29	29	46		23	79	512	135		16	8.8
12	31	28	30	37		25	418	466	109		15	6.5
13	37	28	31	31		23	548	302	154	25	14	6.0
14	37	29	29	29		22	1,410	353	27		12	8.8
15	29	30	27	29		22	3,040	412	24		11	8.2
16	35	31	27	29		23	3,640	268	23	22	12	6.5
17	24	28	27	29		23	3,440	282	23	21	14	6.5
18	22	28	27			24	4,060	308	25	21	13	7.0
19	21	32	29	29		24	3,880	320	27	22	12	6.0
20	22	34	28			26	2,980	285	116	22	11	6.5
21	22	49	28			26	2,720	259	51	22	11	7.0
22	22	42	28			30	2,320	177	58	21	13	6.5
23	22	34	37	28		37	1,980	170	59	20	12	7.6
24	22	30	37			37	1,760	237	63	19	12	7.6
25	22	28	35			35	1,640	279	63	18	11	8.8
26	21	28	32			31	1,440	220	56	18	9.4	10
27	21	30	29			29	1,580	228	50	18	9.4	8.2
28	22	29	28	26		28	1,340	291		17	9.4	3.5
29	23	27	28			29	1,200	271	45	16	11	2.5
30	26	26	22		-	26	1,210	225		17	11	4.5
31	28	-	29		-	24	-	209	-	17	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	969	52	21	31.3	1,920
November	940	49	26	31.3	1,860
December	895	37	26	28.9	1,780
Calendar year 1935	49,133	1,910	8.5	135	97,440
January	985	56	-	31.8	1,950
February	725	-	-	25.0	1,440
March	773	37	-	24.9	1,530
April	40,982	4,060	24	1,366	81,290
May	14,577	1,200	170	470	28,910
June	2,738	320	23	91.3	5,430
July	811	-	16	26.2	1,610
August	408.2	20	9.4	13.2	810
September	312.0	24	2.5	10.4	619
Water year 1935-36	65,115.2	4,060	2.5	178	129,100

Thief Lake near Middle River, Minn.

Location.- Staff gage, lat. 48°29', long. 95°57', in SE¼ sec. 20, T. 158 N., R. 41 W., on dam at outlet of Thief Lake, 10 miles east of Middle River.

Records available.- April 1933 to June 1936 (fragmentary).

Extremes.- Maximum gage height observed during period, -2.59 feet May 5-8; minimum observed, -4.16 feet Nov. 21.
1933-36: Maximum observed gage height, that of May 5-8, 1936; minimum, -5.20 feet Sept. 11, 13, 1934.

Remarks.- Zero of gage is at crest of dam. No outflow during entire year.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-					-	-2.61	-2.75			-
2		-					-	-2.61	-			-
3		-					-	-2.61	-2.76			-
4		-					-	-2.61	-			-3.64
5		-					-	-2.59	-2.78			-
6		-					-	-2.59	-2.79			-
7		-					-	-2.59	-			-
8		-					-	-2.59	-2.81			-
9		-					-	-2.61	-			-
10		-					-	-2.61	-2.83			-
11		-					-	-2.63	-			-
12		-					-	-2.63	-2.85			-
13		-					-	-2.65	-			-
14		-					-	-	-2.85			-
15		-					-	-	-			-
16		-					-	-	-2.87			-
17		-					-	-	-2.89			-
18		-					-	-2.67	-			-
19		-					-	-	-			-
20		-					-2.93	-2.68	-2.91			-
21		-4.16					-2.93	-	-2.91			-
22		-					-2.93	-2.69	-2.93			-
23		-					-2.81	-	-			-
24		-					-2.73	-	-2.95			-
25		-					-2.73	-2.71	-2.96			-
26		-					-	-2.71	-2.99			-
27		-					-2.71	-	-			-
28		-					-	-2.73	-			-
29		-					-2.65	-	-3.01			-
30		-					-2.63	-2.73	-3.03			-
31		-					-	-	-			-

Thief River near Thief River Falls, Minn.

Location.- Staff gage, lat. 48°11', long. 96°10', in sec. 3, T. 154 N., R. 43 W., 5 miles north of Thief River Falls.

Drainage area.- 1,010 square miles.

Records available.- July 1909 to September 1917, April 1920 to September 1921, October 1922 to September 1924, October 1928 to September 1936.

Average discharge.- 18 years (1909-17, 1922-24, 1928-36), 73.3 second-feet.

Extremes.- Maximum discharge observed during year, 890 second-feet Apr. 19; maximum gage height observed, 8.14 feet Apr. 15 (affected by ice); no flow for several months.

1909-1917, 1920-21, 1922-24, 1928-36: Maximum discharge observed, 4,080 second-feet Apr. 23, 1916 (gage height, 14.5 feet); no flow in fall and winter of several years.

Remarks.- Records good. Stage-discharge relation affected by ice Apr. 9-17 and weed growth May 11 to June 26; discharge computed on basis of three discharge measurements, gage heights, and weather records. Gage read once daily Oct. 1 to Nov. 10, Apr. 22 to July 1 and twice daily Apr. 9-22. Gage readings Apr. 26 to May 2 in error, adjusted on basis of engineer's readings Apr. 29.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	190	8.5			
2							0	179	6.5			
3							0	137	5.6			
4							0	124	5.6			
5							0	110	4.8			
6							0	98	4.8			
7							0	91	5.6			
8							0	87	6.5			
9							.2	87	5.6			
10							3.3	122	4.8			
11							1.3	108	4.4			
12							.2	87	3.7			
13							16	67	2.9			
14							100	50	2.9			
15							480	36	.5			
16							662	28	.5			
17							694	23	.8			
18							856	18	.4			
19							856	18	.3			
20							822	17	.3			
21							662	15	.3			
22							540	14	.3			
23							480	13	.4			
24							396	13	.2			
25							396	12	.3			
26							342	11	.1			
27							316	10	0			
28							290	10	0			
29							238	11	0			
30							214	11	0			
31							-	10	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	5,228.6	318	0	14.3	10,360
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	8,365.0	856	0	279	16,590
May	1,807	190	10	58.3	3,580
June	76.6	8.5	0	2.55	152
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	10,248.6	856	0	28.0	20,320

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Clearwater Lake near Leonard, Minn.

Location.- Staff gage, lat. 47°44', long. 95°13', in E½SW¼ sec. 12, T. 149 N., R. 36 W., on abutment of dam 8 miles northeast of Leonard. Zero of gage is 3.00 feet below crest of dam.

Records available.- June 1934 to September 1936.

Extremes.- Maximum stage observed during year, 4.30 feet Apr. 19; minimum, 2.76 feet Sept. 30.
1934-36: Maximum stage observed, that of Apr. 19, 1936; minimum, 2.54 feet Feb. 11, 12, 1935.

Remarks.- Records excellent. Discharge from lake regulated at dam. Gage read once daily.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.28	3.36	3.36	3.34	3.32	3.32	3.38	3.82	3.42	3.34	3.12	3.18
2	3.28	3.36	3.36	3.34	3.32	3.32	3.38	3.82	3.40	3.34	3.12	3.18
3	3.28	3.34	3.36	3.34	3.32	3.34	3.38	3.78	3.40	3.34	3.10	3.18
4	3.28	3.34	3.36	3.34	3.32	3.34	3.38	3.76	3.38	3.32	3.10	3.14
5	3.28	3.34	3.36	3.34	3.30	3.32	3.38	3.74	3.36	3.30	3.10	3.12
6	3.28	3.32	3.36	3.34	3.30	3.32	3.38	3.74	3.38	3.28	3.10	3.08
7	3.28	3.32	3.36	3.34	3.30	3.32	3.38	3.74	3.38	3.26	3.10	3.04
8	3.28	3.34	3.36	3.34	3.30	3.32	3.38	3.74	3.38	3.26	3.10	3.00
9	3.28	3.34	3.36	3.34	3.32	3.32	3.40	3.72	3.38	3.24	3.12	3.00
10	3.28	3.36	3.36	3.34	3.32	3.32	3.42	3.70	3.36	3.24	3.12	3.06
11	3.28	3.36	3.34	3.34	3.32	3.32	3.46	3.70	3.36	3.24	3.10	3.04
12	3.28	3.36	3.34	3.36	3.32	3.34	3.54	3.68	3.34	3.24	3.10	3.02
13	3.32	3.34	3.34	3.36	3.32	3.34	3.64	3.66	3.34	3.24	3.10	3.00
14	3.34	3.34	3.34	3.36	3.32	3.34	3.80	3.64	3.32	3.24	3.10	3.00
15	3.34	3.34	3.34	3.36	3.32	3.32	3.98	3.62	3.32	3.24	3.14	3.02
16	3.34	3.34	3.34	3.36	3.32	3.32	4.06	3.60	3.30	3.22	3.14	3.00
17	-	3.34	3.34	3.36	3.30	3.32	4.10	3.58	3.30	3.22	3.14	2.96
18	3.34	3.36	3.34	3.36	3.30	3.32	4.20	3.56	3.30	3.20	3.12	2.96
19	3.34	3.38	3.34	3.36	3.30	3.32	4.30	3.54	3.30	3.18	3.12	2.94
20	3.32	3.38	3.34	3.36	3.30	3.32	4.28	3.52	3.28	3.16	3.12	2.94
21	3.32	3.38	3.34	3.36	3.30	3.32	4.20	3.50	3.28	-	3.12	2.94
22	3.32	3.36	3.34	3.36	3.30	3.32	4.16	3.50	3.28	3.18	3.12	2.92
23	3.32	3.36	3.34	3.34	3.30	3.34	4.08	3.54	3.26	3.20	3.12	2.90
24	3.30	3.36	3.34	3.34	3.30	3.34	4.00	3.54	3.26	3.20	3.16	2.88
25	3.30	3.36	3.34	3.34	3.32	3.36	3.96	3.54	3.26	3.16	3.16	2.84
26	3.30	3.36	3.34	3.32	3.32	3.36	3.88	3.56	3.24	3.18	3.14	2.80
27	3.30	3.38	3.34	3.32	3.32	3.36	3.84	3.56	3.24	3.18	3.14	2.80
28	3.32	3.38	3.34	3.32	3.32	3.36	3.84	3.54	3.24	3.16	3.14	2.78
29	3.32	3.38	3.34	3.32	3.32	3.36	3.80	3.52	3.30	3.16	3.16	2.78
30	3.34	3.38	3.34	3.32	-	3.36	3.80	3.50	3.34	3.14	3.16	2.76
31	3.36	-	3.34	3.32	-	3.38	-	3.46	-	3.14	3.16	-

Clearwater River near Leonard, Minn.

Location.- Staff gage, lat. 47°44', long. 95°13', in E½SW¼ sec. 12, T. 149 N., R. 36 W., 300 feet below dam at outlet of Clearwater Lake and 8 miles northeast of Leonard.

Records available.- June 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 275 second-feet Apr. 19 (gage height, 2.06 feet); minimum, 3.2 second-feet Aug. 12-14 (gage height, 0.52 foot, affected by aquatic growth).
1934-36: Maximum discharge observed, that of Apr. 19, 1936; minimum, that of Aug. 12-14, 1936.

Remarks.- Records good. Stage-discharge relation affected slightly by aquatic growth on control June 8 to Aug. 26. Discharge interpolated Oct. 17, July 21. Flow regulated at dam above. Gage read once daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used June 8 to Aug. 26)

Oct. 1 to Apr. 10		Apr. 11 to Sept. 30			
0.8	19	0.5	3.2	1.3	72
.9	26	.6	7.6	1.4	86
1.0	35	.7	13	1.5	100
1.1	46	.8	19	1.6	118
		.9	27	1.7	142
		1.0	36	1.9	210
		1.1	47	2.1	292
		1.2	59		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	35	31	30	28	28	37	111	45	28	5.0	9.8
2	22	31	31	30	28	28	39	111	36	28	5.0	9.8
3	20	31	31	30	28	30	39	100	34	26	4.1	9.8
4	20	31	31	31	28	30	39	97	34	26	4.1	38
5	20	31	31	31	28	28	39	104	32	23	4.1	36
6	20	30	31	31	28	28	39	104	34	21	4.1	25
7	20	30	31	31	26	28	39	100	34	21	4.1	24
8	19	31	33	30	26	28	39	99	35	21	4.1	22
9	19	33	33	30	30	28	42	97	33	20	4.1	26
10	20	33	33	30	30	28	44	97	32	20	5.0	27
11	20	33	31	31	28	30	54	94	32	18	4.1	27
12	20	33	31	31	28	30	69	89	30	18	3.2	25
13	22	31	30	35	28	30	83	86	26	17	3.2	25
14	26	31	30	35	28	30	111	83	25	15	3.2	25
15	31	31	30	35	28	28	142	80	23	15	5.0	25
16	30	30	30	35	28	28	173	78	23	14	5.8	25
17	28	30	31	35	28	26	195	72	25	12	5.8	24
18	26	32	31	35	26	26	254	69	23	12	5.0	24
19	26	35	31	35	26	28	275	66	20	11	5.0	24
20	26	35	31	35	26	28	267	64	18	9.2	5.0	24
21	26	35	31	35	26	28	218	59	18	9.0	5.0	23
22	26	33	31	35	26	28	203	59	18	8.7	5.0	22
23	25	33	31	33	26	30	173	67	17	8.7	5.0	22
24	26	33	31	31	26	31	154	67	17	8.7	9.2	21
25	26	33	31	31	28	31	142	67	16	7.6	7.2	21
26	26	33	31	30	28	35	128	69	15	9.8	5.4	19
27	26	35	31	30	28	35	118	69	15	9.8	27	19
28	26	35	31	30	28	35	118	67	15	9.8	8.7	18
29	28	35	31	30	28	35	107	59	20	8.7	8.7	18
30	30	35	31	30	-	35	104	57	26	7.6	8.7	18
31	35	-	31	28	-	37	-	52	-	5.8	9.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	757	35	19	24.4	1,500
November	977	35	30	32.6	1,940
December	963	33	30	31.1	1,910
Calendar year 1935	14,468.0	98	9.5	39.6	28,700
January	989	35	28	31.9	1,960
February	798	30	26	27.5	1,580
March	928	37	26	29.9	1,840
April	3,484	275	37	116	6,910
May	2,493	111	52	80.4	4,940
June	771	45	15	25.7	1,530
July	469.4	28	5.8	15.1	931
August	188.7	27	3.2	6.09	374
September	876.4	38	9.8	22.5	1,540
Water year 1935-36	13,494.5	275	3.2	36.9	26,760

Clearwater River at Red Lake Falls, Minn.

Location.- Water-stage recorder, lat. 47°53', long. 96°17', in sec. 22, T. 151 N., R. 44 W., at Great Northern Railway bridge at Red Lake Falls, about 1½ miles above mouth and 2 miles below nearest tributary, which enters from the left.

Drainage area.- 1,310 square miles.

Records available.- June 1909 to September 1917, November 1934 to September 1936.

Extremes.- Maximum discharge during period, 1,260 second-feet, by current-meter measurement, Apr. 17; maximum gage height, 8.50 feet Apr. 18 (ice jam); no flow Sept. 15.
1909-17, 1934-36: Maximum discharge observed, 3,990 second-feet Apr. 15, 16, 1916; minimum, that of Sept. 15, 1936.

Remarks.- Records excellent Apr. 20 to June 25, others fair. Discharge for periods of ice effect, Dec. 1-6, Dec. 9 to Feb. 20, Feb. 23 to Mar. 3, Mar. 18 to Apr. 19, computed on basis of five discharge measurements, gage heights, and weather records; for Feb. 21-22, Mar. 4-17, Apr. 13 computed on basis of two discharge measurements and comparison with records for station near Leonard and Red Lake River at Crookston. Stage-discharge relation affected by aquatic growth Oct. 1 to Nov. 29, June 26 to Sept. 30. Diurnal fluctuation caused by operation of mill 600 feet upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	34	27	31	28	9	21	665	146	22	9.4	0.6
2	12	31	40	31	12	25	27	642	132	28	.9	.6
3	26	7.6	22	30	27	35	25	642	119	22	9.4	.6
4	30	30	21	21	14	22	27	620	92	22	2.2	.6
5	26	31	30	27	25	20	13	620	100	14	.8	.5
6	24	26	23	22	27	20	37	598	95	1.0	.9	.4
7	16	16	37	39	32	21	37	575	84	6.4	1.0	.4
8	40	13	26	44	30	22	31	539	95	21	1.0	.4
9	39	14	22	46	35	24	31	498	93	20	.9	.3
10	39	26	37	37	31	23	39	454	82	12	1.0	.5
11	35	18	43	27	20	22	40	407	76	5.8	.9	.3
12	28	14	22	39	24	21	68	360	74	.8	.9	.3
13	3.7	35	16	27	20	20	200	324	62	1.3	.9	.3
14	28	27	40	30	22	20	1,120	301	59	3.1	1.0	.4
15	32	39	11	22	23	20	1,120	274	67	2.2	1.6	.1
16	30	30	20	20	26	20	1,010	249	67	4.0	1.3	.2
17	27	5.8	34	36	27	20	1,240	235	64	4.6	1.3	.2
18	30	37	21	18	28	21	1,240	211	58	3.7	1.3	.2
19	32	31	27	26	31	34	1,120	202	59	4.6	1.0	.3
20	3.7	35	26	30	17	32	985	186	56	4.0	1.0	.3
21	28	36	27	28	20	28	910	176	34	5.2	.9	.8
22	32	27	36	22	20	10	835	176	44	5.8	.9	.5
23	12	34	22	36	22	40	810	179	34	5.8	.9	.6
24	39	10	22	31	31	22	785	182	31	2.8	.8	.7
25	54	32	35	22	27	19	760	215	33	.5	.8	.6
26	37	32	37	24	23	36	760	246	32	3.7	.7	.5
27	13	39	19	40	18	30	760	239	40	9.4	.6	8.5
28	50	31	4.6	16	19	18	735	228	32	5.2	.5	20
29	43	34	14	37	24	22	710	211	43	3.7	.5	25
30	45	42	39	26	-	21	688	186	30	4.0	.4	23
31	32	-	31	16	-	25	-	170	-	10	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	923.4	54	3.7	29.8	1,830
November	817.4	42	5.8	27.2	1,620
December	831.6	43	4.6	26.8	1,650
Calendar year 1935	29,502.2	594	2.5	80.8	58,520
January	901	46	16	29.1	1,790
February	703	35	12	24.2	1,390
March	722	40	9	23.3	1,430
April	16,184	1,240	13	539	32,100
May	10,810	665	170	349	21,440
June	2,033	146	30	67.8	4,030
July	258.6	28	.5	8.34	513
August	46.2	9.4	.4	1.49	92
September	87.7	25	.1	2.92	174
Water year 1935-36	34,317.9	1,240	.1	93.8	68,060

Forest River near Minto, N. Dak.

Location.- Chain gage, lat. 48°16', long. 97°24', on line between secs. 1 and 12, T. 155 N., R. 53 W., 3 miles southwest of Minto.

Records available.- March 1932 to September 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 576 second-feet Apr. 15 (gage height, 11.88 feet, affected by ice); no flow on many days.
1932-36: Maximum discharge, 700 second-feet Apr. 2, 1933 (gage height, 12.95 feet, affected by ice); no flow on many days each year, 1932-34, 1936.

Remarks.- Records good. Discharge for period of ice effect, Apr. 13-18, computed on basis of two discharge measurements, gage heights, and notes by observer and engineer. No records Oct. 1 to Mar. 31, when there was little or no flow. Gage read twice daily during period of flow except on a few scattered days and June 30 to July 13, when it was read once a day.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.2	0	1.8	20	4.0	107
.4	1.1	2.0	25	5.0	165
.6	3.0	2.2	30	6.0	225
.8	5.2	2.4	36	7.0	294
1.0	7.8	2.6	43	8.0	364
1.2	10.5	2.8	51	9.0	440
1.4	13.5	3.0	59	10.0	520
1.6	16.5	3.5	82	10.7	576

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	34	8.8	4.8		
2							0	30	8.8	4.7		
3							0	29	8.6	4.5		
4							0	28	8.3	7.8		
5							0	26	7.8	4.0		
6							0	25	8.4	3.7		
7							0	24	8.6	3.4		
8							0	22	10	2.9		
9							0	21	9.8	2.7		
10							0	20	9.8	2.2		
11							0	20	10	1.6		
12							0	19	9.1	.8		
13							200	18	10	.2		
14							536	17	14	0		
15							552	16	11	0		
16							460	16	10	0		
17							364	16	9.8	0		
18							213	15	9.1	0		
19							165	15	8.6	0		
20							135	14	7.9	0		
21							102	14	8.1	0		
22							82	14	7.5	0		
23							72	14	7.3	0		
24							63	13	6.8	0		
25							55	13	5.5	0		
26							49	12	5.5	0		
27							43	12	5.5	0		
28							39	11	5.0	0		
29							36	10	5.1	0		
30							34	9.1	5.1	0		
31							-	8.6	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,200	552	0	107	6,350
May	555.7	34	8.6	17.9	1,100
June	249.8	14	5.0	8.33	495
July	43.3	7.8	0	1.40	86
August	0	0	0	0	0
September	0	0	0	0	0
The period					8,030

Park River at Grafton, N. Dak.

Location.- Chain gage, lat. 48°25', long. 97°24', in NE¼ sec. 13, T. 157 N., R. 53 W., at Grafton.

Records available.- April 1931 to June 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 1,140 second-feet Apr. 15; maximum gage height observed, 13.68 feet Apr. 14 (affected by ice); no flow on many days.
1931-36: Maximum discharge observed, 2,010 second-feet Apr. 2, 1933 (gage height, 15.18 feet, affected by ice); no flow at times.

Remarks.- Records good. Stage-discharge relation affected by ice Apr. 13-16, discharge computed on basis of two discharge measurements, gage heights, and notes by engineer and observer. Discharge estimated for Apr. 12. Gage read once daily Apr. 11 to Aug. 19. Probably little or no flow during period of no record, Oct. 1 to Mar. 31.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.6	0	4.4	71	6.5	351
3.7	3.5	4.6	93	7.0	430
3.8	11	4.8	117	7.5	513
3.9	20	5.0	142	8.0	600
4.0	30	5.2	168	8.5	690
4.1	40	5.4	194	9.0	784
4.2	50	5.6	220	10.0	980
4.3	60	6.0	276	11.0	1,180

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	38	1.0	0.7		
2							0	35	1.0	0		
3							0	32	.7	0		
4							0	28	.7	0		
5							0	23	1.4	0		
6							0	25	16	0		
7							0	20	36	0		
8							0	19	42	0		
9							0	14	148	.4		
10							0	11	54	0		
11							0	11	32	0		
12							40	14	16	0		
13							513	9.5	9.5	0		
14							1,120	9.5	8.0	0		
15							1,140	9.5	6.5	0		
16							1,060	8.8	5.0	0		
17							860	9.0	3.2	0		
18							547	8.0	2.8	0		
19							336	7.2	1.4	0		
20							262	5.8	1.4	0		
21							207	5.8	.7	0		
22							155	5.0	1.0	0		
23							117	5.0	.4	0		
24							99	3.5	0	0		
25							82	3.5	0	0		
26							68	3.5	0	0		
27							56	2.4	0	0		
28							59	2.4	0	0		
29							43	2.4	0	0		
30							42	2.1	.7	0		
31							-	1.4	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	6,811	1,140	0	227	13,510
May	373.3	38	1.4	12.0	740
June	389.4	148	0	13.0	772
July	1.1	.7	0	.04	2.2
August	0	0	0	0	0
September	0	0	0	0	0
The period					15,020

South Fork of Two Rivers at Pelan, Minn.

Location.- Chain gage, lat. 48°39', long. 96°23', in SW¼ sec. 30, T. 160 N., R. 44 W., a quarter of a mile west of Pelan. Prior to Mar. 24, 1936, a chain gage on bridge 500 feet upstream was used.

Records available.- August 1928 to September 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 171 second-feet Apr. 20 (gage height, 3.22 feet); no flow for several months.
1928-36: Maximum discharge observed, 1,810 second-feet May 13, 1930 (gage height, 10.18 feet); no flow frequently.

Remarks.- Records fair. Discharge for period of ice effect, Apr. 14-18, computed on basis of two discharge measurements and gage heights. Discharge estimated June 10-12, gage not read. Discharge partly estimated May 18-20, 22-28, observer's readings inconsistent with that of engineer on May 21. Gage read once daily.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge in second-feet)

0.5	0	1.4	14	2.4	74
.6	.2	1.6	21	2.6	94
.8	1.5	1.8	31	2.8	117
1.0	4.0	2.0	43	3.0	143
1.2	8.0	2.2	57	3.2	171

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	28	0.5			
2							0	24	.4			
3							0	21	.4			
4							0	20	.4			
5							0	16	.3			
6							0	14	.2			
7							0	13	.2			
8							0	8.9	.3			
9							0	6.5	1.0			
10							0	6.5	3			
11							0	6.5	1			
12							0	5.6	.4			
13							1	5.6	0			
14							50	5.3	0			
15							50	4.2	0			
16							105	3.9	0			
17							143	2.5	0			
18							157	2.0	0			
19							171	1.7	0			
20							171	1.3	0			
21							171	1.1	0			
22							143	1.1	0			
23							105	1.0	0			
24							79	1.0	0			
25							54	1.0	0			
26							37	1.0	0			
27							36	.9	0			
28							36	.9	0			
29							30	.9	0			
30							28	.7	0			
31							-	.6	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	3,838.1	210	0	10.5	7,620
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,567	171	0	52.2	3,110
May	206.7	28	.6	6.67	410
June	8.1	3	0	.27	16
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	1,781.8	171	0	4.87	3,540

South Fork of Two Rivers at Bronson, Minn.

Location.- Chain gage, lat. 48°44', long. 96°40', in SW¼ sec. 30, T. 161 N., R. 46 W., a quarter of a mile west of Bronson. Zero of gage is 930.46 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- September 1928 to September 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 338 second-feet Apr. 19 (gage height, 4.52 feet, affected by ice); minimum, 0.3 second-foot July 27, 28.
1928-36: Maximum discharge observed, 1,820 second-feet May 15, 1930 (gage height, 8.90 feet); minimum, that of July 27, 28, 1936.

Remarks.- Records poor. Stage-discharge relation affected by ice Mar. 31 to Apr. 19 and by debris on control during remainder of period except Apr. 20 to May 8. Discharge for periods Oct. 10-21, 23, Oct. 25 to Nov. 15, when observer's readings are inconsistent, computed on basis of two discharge measurements and weather records; for Oct. 1-9, 22, 24, Mar. 31 to Apr. 19, May 9 to Sept. 30 computed on basis of nine discharge measurements, gage heights, and weather records. Gage read once daily. No records Nov. 16 to Mar. 30. Flow partly regulated during summer by construction of a dam about 2 miles upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	3.7				-	2.9	54	3.6	1.4	3.0	1.2
2	3.4	3.7				-	4.3	53	3.0	.6	1.2	2.1
3	3.0	3.7				-	3.6	59	3.6	1.1	.4	1.5
4	2.7	3.7				-	2.5	43	2.7	5.9	.9	1.9
5	2.4	3.7				-	3.6	36	3.6	2.2	.7	1.2
6	2.4	3.7				-	4.3	33	3.7	2.9	1.2	1.8
7	3.7	3.7				-	3.6	26	2.9	.8	3.0	2.1
8	3.0	3.7				-	4.3	20	4.9	1.4	3.4	1.5
9	2.7	3.7				-	2.9	24	4.7	1.4	2.7	1.5
10	3	3.7				-	2.5	21	2.2	2.5	2.4	1.5
11	3	3.7				-	2.9	21	2.2	2.2	1.8	.7
12	3	*3.7				-	3.9	18	2.5	2.2	1.8	.6
13	3	3.7				-	4.9	18	1.8	1.1	2.1	.7
14	3	3.7					5.9	17	1.5	2.2	5.7	14
15	3	3.7					9.3	14	2.1	2.9	5.7	9.6
16	3	-				-	94	17	3.9	4.7	6.2	5.7
17	3	-				-	106	12	4.7	3.6	5.7	2.7
18	3	-				-	248	25	5.5	2.2	12	1.5
19	3	-				-	338	13	5.9	1.8	10	1.5
20	3	-				-	278	10	3.9	1.5	6.2	1.8
21	3	-				-	205	6.4	3.9	1.5	3.7	2.1
22	*2.9	-				-	213	5.1	3.2	1.5	8.3	2.1
23	3.5	-				-	205	3.4	1.4	.7	8.3	2.4
24	4.3	-				-	173	4.5	.8	.6	7.2	2.1
25	4	-				-	143	4.9	1.6	.7	3.7	1.5
26	4	-				-	113	5.9	2.2	.6	3.0	2.1
27	4	-				-	94	5.3	2.2	.3	3.7	2.5
28	4	-				-	94	3.9	.8	.3	2.1	1.9
29	4	-				-	68	3.4	1.4	.6	1.2	2.2
30	4	-				-	68	3.2	1.4	.7	1.8	2.5
31	3.9	-				*3.0	-	3.4	-	.4	2.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	100.9	4.3	2.4	3.25	200
November 1-15	55.5	3.7	3.7	3.7	110
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,501.4	338	2.5	83.4	4,960
May	583.4	59	3.2	18.8	1,160
June	87.8	5.9	.8	2.93	174
July	52.5	5.9	.3	1.69	104
August	121.2	12	.4	3.91	240
September	76.5	14	.6	2.55	152
Water year					

*Discharge measurement.

Middle Fork of Two Rivers near Hallock, Minn.

Location.- Staff gage, lat. 48°46', long. 96°53', in SE¼ sec. 17, T. 161 N., R. 48 W., 1⅛ miles above mouth and 2⅛ miles southeast of Hallock.

Records available.- April 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 93 second-feet Apr. 14 (gage height, 3.38 feet, affected by ice); no flow for several months.
1931-36: Maximum discharge observed, 265 second-feet Apr. 19, 1932; no flow for several months each year.

Remarks.- Records fair. Discharge for period of ice effect Apr. 13, 14 computed on basis of gage heights, observer's notes, and weather records. Gage read twice daily during period of flow.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.7	0	1.5	4.8
.8	.05	1.6	6.9
.9	.1	1.7	9.0
1.0	.2	1.8	11
1.1	.3	2.0	17
1.2	.7	2.2	25
1.3	1.5	2.4	34
1.4	2.9	2.6	44
		2.8	55

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	1.3	0.1			
2							0	1.3	.1			
3							0	1.8	.1			
4							0	1.5	.1			
5							0	1.3	.1			
6							0	1.3	.2			
7							0	1.0	.2			
8							0	.7	.5			
9							0	.7	.3			
10							0	1.0	.2			
11							0	.9	.2			
12							0	1.2	.2			
13							10	1.0	.1			
14							52	.9	.1			
15							15	.7	.1			
16							15	.6	.1			
17							15	.5	.1			
18							9.4	.5	.1			
19							6.9	.3	.1			
20							5.8	.3	0			
21							4.2	.3	0			
22							4.4	.3	0			
23							3.3	.2	0			
24							2.2	.2	0			
25							2.1	.4	0			
26							2.1	.3	0			
27							2.1	.2	0			
28							1.8	.2	0			
29							1.3	.2	0			
30							1.3	.1	0			
31							-	.1	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	129.7	6.0	0	.36	257
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	153.9	52	0	5.13	305
May	21.4	1.8	.1	.69	42
June	3.0	.5	0	.10	6.0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	178.3	52	0	.49	353

North Fork of Two Rivers near Lancaster, Minn.

Location.- Staff gage, lat. 48°53'21", long. 96°40'1", in NW¼ sec. 6, T. 162 N., R. 46 W., 8 miles northeast of Lancaster. Zero of gage is 963.50 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1929 to September 1936.

Extremes.- Maximum discharge observed during year, 7.5 second-feet Apr. 14 (gage height 1.20 feet); no flow for several months.
1929-36: Maximum discharge observed, 212 second-feet May 12, 1930 (gage height, 3.00 feet): no flow for several months each year.

Remarks.- Records poor. Gage read about every third day while river was flowing. Discharge estimated for days when no reading was made. Stage-discharge relation affected by shifting control throughout year.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	*0.3				
2							0	*.3				
3							0	*.2				
4							0	*.2				
5							0	*.2				
6							0	.2				
7							0	*.2				
8							0	*.2				
9							0	.3				
10							0	*.3				
11							0	*.4				
12							0	*.4				
13							.1	*.5				
14							7.5	*.5				
15							*6.5	*.6				
16							*5.0	.6				
17							*3.5	*.5				
18							2.6	*.4				
19							*1.8	.4				
20							1.4	*.3				
21							.9	*.2				
22							*.9	.2				
23							*.9	.3				
24							.9	.2				
25							*.8	*.2				
26							*.7	*.1				
27							.6	*.1				
28							*.5	*0				
29							.4	0				
30							.3	0				
31							-	0				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	115.2	12	0	.32	229
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	35.3	7.5	0	1.18	70
May	8.3	.6	0	.27	16
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	43.6	7.5	0	.12	86

*Estimated.

State Ditch 85 near Lancaster, Minn.

Location.- Staff gage, lat. 43°52'2", long. 96°40'1", in southwest corner of sec. 6, T. 162 N., R. 46 W., 7 miles northeast of Lancaster. Zero of gage is 969.03 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1929 to September 1936.

Extremes.- Maximum daily discharge during year (estimated), 22 second-feet Apr. 25; maximum observed gage height, 2.84 feet Apr. 14 (affected by ice); no flow several months of year.

1929-36: Maximum discharge observed, 202 second-feet Apr. 18, 1932; no flow for several months most years.

Remarks.- Records poor. Gage read once a day on occasional days.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

0.1	0		1.0	5.0
.2	.1		1.1	6.4
.3	.4		1.2	8.0
.4	.8		1.3	9.9
.5	1.2		1.4	12
.6	1.6		1.5	15
.7	2.1		1.6	18
.8	2.8		1.7	21
.9	3.8		1.8	24

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	*18	*0.5			
2							0	*17	*.5			
3							0	*16	*.4			
4							0	*15	*.3			
5							0	*14	*.2			
6							0	13	.1			
7							0	*12	*.1			
8							0	*11	*.5			
9							0	9.5	*1.0			
10							0	*8	*.6			
11							0	*6	*.3			
12							0	*4.5	*.2			
13							0	*3.5	.1			
14							0	*3.0	*.1			
15							0	*2.5	*.1			
16							*1	2.2	*.1			
17							*4	*2.5	*.3			
18							9.1	*2.4	*.2			
19							*15	2.2	*.1			
20							17	*2.0	*.1			
21							13	*1.8	0			
22							*12	1.4	0			
23							*15	1.3	0			
24							21	1.1	0			
25							*22	*1.0	0			
26							*20	*.9	0			
27							18	*.8	0			
28							*20	*.8	0			
29							21	.7	0			
30							19	*.6	0			
31							-	*.5	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	536.2	47	0	1.47	1,060
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	227.1	22	0	7.57	450
May	175.2	18	.5	5.65	348
June	5.8	1.0	0	.19	12
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	408.1	22	0	1.12	810

*Estimated.

Pembina River near Manitou, Manitoba

Location.- Chain gage, lat. 49°8'50", long. 98°33'30", on bridge near Lea's farm, 9 miles south of Manitou.

Drainage area.- 2,340 square miles.

Records available.- October 1929 to September 1936 (incomplete) in reports of U. S. Geological Survey; April 1921 to September 1935 in reports of the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Extremes.- Maximum daily discharge observed during year, 634 second-feet Apr. 16; minimum daily discharge, 8.0 second-feet Oct. 30, 31.
1921-36: Maximum daily discharge, 1,620 second-feet Apr. 19, 1923 (gage height, 99.75 feet); no flow on many days in October 1934.

Remarks.- Records furnished by the Dominion Water and Power Bureau, Department of Mines and Resources, Canada. No records Nov. 1 to Apr. 15.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13.5						-	456	199	78	21.4	18.9
2	13.6						-	444	193	73	20.5	18.1
3	13.7						-	441	186	68	19.3	17.3
4	13.9						-	431	176	66	18.1	16.5
5	13.9						-	422	160	65	17.4	18.5
6	13.9						-	415	144	64	16.7	18.5
7	14.0						-	409	203	62	16.1	18.5
8	14.1						-	407	262	59	15.3	17.9
9	14.2						-	405	290	52	14.5	17.2
10	14.2						-	402	232	45.0	14.3	16.5
11	14.2						-	395	212	42.2	14.1	18.1
12	14.2						-	383	191	39.4	13.3	19.7
13	14.2						-	368	170	36.5	12.5	21.3
14	13.6						-	350	149	35.7	12.2	22.8
15	13.0						-	336	147	34.9	11.8	23.2
16	12.3						634	324	145	34.0	11.1	23.6
17	12.1						529	312	137	33.5	10.3	24.1
18	11.9						492	322	132	33.0	9.4	23.9
19	11.7						475	315	127	32.0	13.4	23.7
20	11.4						452	307	122	32.2	17.3	23.2
21	11.1						441	314	117	32.5	17.9	21.9
22	11.1						437	321	112	31.3	18.5	20.5
23	11.1						433	314	110	30.1	17.3	20.1
24	10.7						431	308	103	29.0	17.2	19.7
25	10.3						435	302	103	27.5	17.1	19.7
26	9.9						441	296	97	26.0	17.0	19.7
27	8.7						446	289	92	25.4	16.9	19.7
28	8.4						448	282	87	24.8	17.6	19.4
29	8.1						451	259	84	24.1	18.3	19.1
30	8.0						453	235	81	23.2	19.0	18.9
31	8.0						-	217	-	22.3	19.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	373.0	14.2	8.0	12.0	0.005	0.006	740
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April 16-30	6,998	634	431	467	.200	.112	13,880
May	10,781	456	217	348	.149	.172	21,380
June	4,563	290	81	152	.065	.073	9,050
July	1,281.6	78	22.3	41.3	.018	.021	2,540
August	495.5	21.4	9.4	16.0	.007	.008	985
September	600.2	24.1	16.5	20.0	.009	.010	1,190
Water year							

Pembina River at Neche, N. Dak.

Location.- Chain gage, lat. 48°59', long. 97°33', in sec. 36, T. 164 N., R. 54 W., 0.5 mile north of Neche.

Drainage area.- 2,960 square miles.

Records available.- May 1903 to September 1915, April 1919 to September 1936.

Average discharge.- 17 years (1919-36), 118 second-feet.

Extremes.- Maximum discharge observed during year, 2,530 second-feet Apr. 15 (gage height, 17.34 feet); no flow Feb. 10 to Apr. 9.
1903-15, 1919-36: Maximum discharge observed, 3,870 second-feet May 2, 1904 (gage height, 20.9 feet); no flow on many days in 1932-36.

Remarks.- Records good except those for Oct. 1 to Apr. 14, which are poor. Stage-discharge relation affected by ice or debris on control Oct. 1 to Apr. 14, Aug. 5 to Sept. 30, discharge computed on basis of six discharge measurements, gage heights, and weather records.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	8.2	3.6	1.0	0.2		0	516	315	93	31	20
2	14	6.2	3.8	1.0	.2		0	516	289	92	31	18
3	15	5.6	3.5	1.0	.1		0	516	276	89	29	16
4	14	6.4	3.4	1.0	.1		0	516	252	84	28	22
5	13	7.2	3.3	.9	.1		0	497	239	83	27	25
6	13	8.0	2.9	.9	.1		0	497	227	79	26	26
7	13	8.6	3.0	.8	.1		0	497	227	74	24	28
8	13	8.4	2.8	.8	.1		0	497	227	72	24	26
9	14	8.4	2.7	.7	.1		0	497	239	68	22	22
10	14	7.0	2.5	.7	0		1.2	477	252	68	21	21
11	13	5.8	2.7	.7	0		1.6	457	252	66	19	21
12	13	4.8	2.1	.7	0		469	457	252	62	18	21
13	14	4.4	1.8	.7	0		1,170	457	252	58	18	20
14	17	4.1	2.0	.6	0		1,840	437	239	55	18	26
15	16	3.8	2.1	.6	0		2,530	437	215	54	19	34
16	14	3.5	2.1	.6	0		2,230	437	204	51	18	53
17	14	3.4	2.0	.6	0		1,780	416	192	51	16	58
18	14	3.4	2.2	.5	0		1,600	416	180	48	20	40
19	14	3.5	2.0	.5	0		1,360	395	169	47	19	35
20	14	3.8	2.2	.4	0		1,070	369	169	47	16	28
21	15	4.1	2.2	.4	0		902	369	158	45	17	26
22	14	4.0	2.0	.4	0		782	369	148	43	18	22
23	15	4.0	1.7	.4	0		702	369	138	43	19	20
24	15	4.1	1.5	.3	0		638	369	128	41	18	20
25	16	3.5	1.4	.3	0		622	369	124	40	17	19
26	15	3.5	1.2	.2	0		570	355	117	38	16	18
27	14	3.1	1.1	.2	0		552	355	113	37	18	18
28	14	3.1	1.0	.2	0		552	369	107	35	18	19
29	14	3.0	1.0	.2	0		534	369	101	35	18	19
30	12	3.5	1.1	.1	-		534	355	95	35	19	19
31	9.9	-	1.1	.2	-		-	328	-	33	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	433.9	17	9.9	14.0	861
November	150.4	8.6	3.0	5.01	298
December	68.0	3.8	1.0	2.19	135
Calendar year 1935	13,711.3	364	0	37.6	27,214
January	17.6	1.0	.1	.57	35
February	1.1	.2	0	.04	2.2
March	0	0	0	0	0
April	20,439.8	2,530	0	681	40,540
May	13,280	516	328	428	26,340
June	5,896	315	95	197	11,690
July	1,766	93	33	57.0	3,500
August	641	31	16	20.7	1,270
September	760	58	16	25.3	1,510
Water year 1935-36	43,453.8	2,530	0	119	86,181.2

Roseau River at Malung, Minn.

Location.- Staff gage, lat. 48°47', long. 95°43', in sec. 18, T. 161 N., R. 39 W., 0.5 mile north of Malung.

Records available.- August 1928 to September 1936 (incomplete during winter).

Extremes.- Maximum discharge observed during year, 660 second-feet, by current-meter measurement, Apr. 19 (gage height, 10.25 feet, affected by ice); no flow at times. 1928-36: Maximum discharge observed, that of Apr. 19, 1936; no flow during several periods.

Remarks.- Records fair. Stage-discharge relation affected by ice or by debris on control during entire period; discharge computed on basis of 12 discharge measurements, gage heights, and weather records. Gage read once daily. No records Nov. 17 to Mar. 31. Discharge estimated Apr. 1-8.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	5.9					1	185	14	2.3		0
2	5.7	5.2					1	178	14	2.2		0
3	6.5	5.2					1	164	8.8	2.0		0
4	5.3	5.9					1	150	6.9	1.8		0
5	5.2	5.3					1	144	9.1	1.7		0
6	5.9	6.1					1	132	8.2	1.6		0
7	6.3	4.6					1	120	5.9	1.6		0
8	6.9	5.0					1	114	10	1.0		0
9	6.3	5.7					2.0	108	10	1.0		0
10	6.7	5.3					2.6	96	9.5	1.0		0
11	6.7	5.0					2.7	90	9.1	1.0		0
12	5.7	5.0					5.0	85	8.8	.7		0
13	5.7	4.4					6.1	75	8.6	.6		0
14	4.3	4.6					32	70	8.2	.7		.1
15	4.6	5.3					75	58	5.3	1.1		.2
16	5.2	5.0					192	55	8.2	1.1		.3
17	5.3	-					292	48	10	1.1		.1
18	5.0	-					457	48	12	.8		0
19	5.2	-					659	48	12	.7		0
20	4.3	-					593	45	10	.5		0
21	4.1	-					425	42	9.1	.4		0
22	5.2	-					366	42	7.9	.4		0
23	4.6	-					308	42	7.3	.3		0
24	4.6	-					268	42	6.9	.2		0
25	4.6	-					236	42	5.3	.1		0
26	4.1	-					220	42	4.3	.2		0
27	5.0	-					199	38	3.6	.2		0
28	5.0	-					192	32	3.3	0		0
29	5.3	-					185	28	2.7	0		0
30	5.7	-					178	22	2.8	0		0
31	5.3	-					-	16	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	165.6	6.9	4.1	5.34	328
November 1-16	83.5	6.1	4.4	5.22	166
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	4,903.4	659	1	163	9,730
May	2,401	185	16	77.5	4,760
June	241.8	14	2.7	8.06	480
July	26.3	2.3	0	.85	52
August	0	0	0	0	0
September	.7	.3	0	.02	1.4
Water year					

Roseau River near Roseau, Minn.

Location.- Staff gage, lat. 48°55'24", long. 95°46'2", in SW¼ sec. 24, T. 163 N., R. 40 W. fourth principal meridian, on steel highway bridge 5½ miles north of Roseau.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum water-surface elevation observed during year, 1,032.93 feet Apr. 19; minimum, 1,023.00 feet Sept. 2.
1930-36: Maximum water-surface elevation observed, 1,034.86 feet Apr. 9, 1932; minimum, that of Sept. 2, 1936.

Remarks.- Records good. Gage heights have been reduced to mean sea-level datum. No record during periods omitted.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-						-	29.21	-	-		-
2	-						-	29.04	-	-		23.00
3	-						-	28.84	-	-		-
4	-						-	28.65	-	-		-
5	-						-	28.48	-	-		-
6	-						-	28.16	-	-		-
7	-						-	27.90	-	-		-
8	-						-	27.58	-	-		-
9	-						-	27.26	-	-		-
10	-						-	26.98	24.13	-		-
11	-						-	26.58	-	-		-
12	-						-	26.33	-	-		-
13	-						-	26.03	-	-		-
14	-						24.98	25.78	-	-		-
15	-						25.08	25.50	-	-		-
16	-						29.76	25.23	-	-		-
17	-						32.34	24.93	-	-		-
18	-						32.60	24.82	-	-		-
19	-						32.90	24.76	-	-		-
20	-						32.71	24.73	-	-		-
21	-						31.67	24.71	-	-		-
22	-						31.06	24.67	-	-		-
23	-						30.82	24.64	-	-		-
24	-						30.46	24.66	-	-		-
25	23.82						30.20	24.68	-	-		-
26	-						29.98	24.56	-	-		-
27	-						29.83	-	-	-		-
28	-						29.70	-	-	-		-
29	-						29.54	-	-	23.62		-
30	-						29.34	24.13	-	-		23.27
31	-						-	-	-	-		-

Note.- Add 1,000 feet, to obtain elevation above mean sea level.

Roseau River at Ross, Minn.

Location.- Water-stage recorder, lat. 48°54'37", long. 95°55'18", in SE¼ sec. 27, T. 163 N., R. 41 W., a quarter of a mile north of Ross. Zero of gage is 1,018.44 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Drainage area.- 1,030 square miles.

Records available.- July 1928 to September 1936.

Extremes.- Maximum discharge during year, 1,250 second-feet Apr. 23-25, maximum gage height, 10.48 feet Apr. 23 (affected by ice); minimum discharge, 2.0 second-feet Aug. 12.

1928-36: Maximum discharge, 1,550 second-feet Apr. 13, 1932 (gage height, 11.40 feet, affected by ice); minimum, that of Aug. 12, 1936.

Remarks.- Records good Apr. 27 to June 7, others fair. Discharge during period of ice effect, Nov. 2-30, Apr. 16-26, computed on basis of three discharge measurements, gage heights, engineer's notes, and weather records. Discharge during periods of backwater from weed growth, Oct. 1 to Nov. 1, June 8 to Aug. 4, Aug. 14 to Sept. 30, computed on basis of gage heights and six discharge measurements. Gage heights during period July 9 to Aug. 21, when water was below intake, determined from record near Badger, Minn. Discharge estimated Dec. 1 to Apr. 15 on basis of three discharge measurements and weather records.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	27	19					1,030	81	18	2.5	5.3
2	32	26						1,000	71	19	2.5	5.0
3	34	26		13				960	66	19	2.6	4.8
4	33	24	18					920	61	17	2.7	4.8
5	30	24					10	882	55	15	2.8	6.6
6	30	23		12	9			844	47	12	2.7	14
7	28	22						790	47	12	2.6	20
8	27	22		*12				756	81	9.6	2.7	22
9	29	22				9		705	156	7.4	2.5	21
10	26	21	17				*11	641	198	5.7	2.3	18
11	25	21		12			12	595	193	4.8	2.1	16
12	25	22					15	550	170	3.9	2.0	14
13	27	21					20	508	143	3.3	2.2	10
14	28	21					35	467	105	3.5	2.7	14
15	25	21	16				80	417	78	4.6	2.8	22
16	28	21					288	382	68	5.5	3.0	44
17	30	21		11			536	338	71	4.8	3.5	47
18	28	22					739	298	81	4.2	4.0	38
19	28	23			8		940	278	87	3.8	4.3	29
20	23	23				*9.5	1,030	253	78	3.8	4.5	23
21	22	21	15				1,100	228	64	3.9	4.5	18
22	23	20					1,190	228	50	4.0	4.6	15
23	24	20					1,250	228	42	3.6	8.4	16
24	24	19		10			1,250	218	36	3.4	9.8	12
25	25	20					1,250	208	30	2.8	8.2	9.2
26	26	20	14			10	1,220	184	24	3.4	7.2	8.6
27	25	20					1,190	166	21	3.4	6.8	8.2
28	24	20			9		1,160	143	18	3.4	6.4	7.8
29	22	19					1,100	123	15	2.9	6.2	7.8
30	24	19	13	9	-		1,080	105	15	2.6	6.4	8.6
31	26	-			-		-	93	-	2.5	5.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	832	34	22	26.8	1,650
November	651	27	19	21.7	1,290
December	491	-	-	15.8	974
Calendar year 1935	34,044.1	621	7.2	93.3	67,520
January	346	-	-	11.2	686
February	245	-	-	8.4	486
March	291.5	-	-	9.4	578
April	15,566	1,250	-	519	30,870
May	14,538	1,030	93	469	28,840
June	2,252	198	15	75.1	4,470
July	212.8	19	2.5	6.86	422
August	131.2	9.8	2.0	4.23	260
September	489.7	47	4.8	16.3	971
Water year 1935-36	36,046.2	1,250	2.0	98.5	71,500

*Discharge measurement.

Roseau River near Badger, Minn.

Location.- Water-stage recorder, lat. 48°54'42", long. 96°0'24", in SW¼ sec. 30, T. 163 N., R. 41 W., 9 miles north of Badger. Zero of gage is 1,016.90 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- August 1928 to September 1936.

Extremes.- Maximum water-surface elevation during year, 1,026.99 feet Apr. 23; minimum, 1,017.99 feet Aug. 15.
1928-36: Maximum water-surface elevation, 1,027.97 feet Apr. 14, 1932; minimum, 1,017.73 feet and Sept. 2, 1929, July 22, 1932.

Remarks.- Records excellent. Gage heights have been reduced to mean sea-level datum. No records Nov. 16 to Apr. 10, Sept. 20-30.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19.62	18.68					-	26.03	19.52	18.74	18.13	18.51
2	19.60	18.74					-	25.90	19.38	18.79	18.12	18.50
3	19.62	18.78					-	25.73	19.20	18.82	18.11	18.47
4	19.60	18.77					-	25.60	19.13	18.91	18.09	18.48
5	19.55	18.74					-	25.41	19.04	18.75	18.08	18.52
6	19.50	18.72					-	25.22	18.92	18.67	18.07	18.69
7	19.45	18.71					-	25.02	18.87	18.63	18.06	18.90
8	19.38	18.70					-	24.79	19.33	18.58	18.07	19.02
9	19.38	18.70					-	24.52	20.46	18.49	18.05	19.05
10	19.32	18.74					-	24.23	21.06	18.42	18.03	19.01
11	19.27	18.77					20.65	23.92	21.09	18.37	18.01	18.94
12	19.20	18.81					20.62	23.66	20.92	18.32	13.00	18.87
13	19.21	18.87					20.62	23.38	20.69	18.27	18.00	18.77
14	19.21	18.89					20.77	23.08	20.28	18.29	13.04	13.86
15	19.17	18.89					21.90	22.77	19.88	18.34	18.07	18.96
16	19.14	-					24.15	22.42	19.62	18.39	18.09	19.35
17	19.15	-					26.00	22.12	19.63	18.37	18.13	19.57
18	19.09	-					26.79	21.76	19.81	18.34	18.27	19.46
19	19.06	-					26.82	21.52	19.94	18.30	18.30	19.29
20	18.95	-					26.87	21.30	19.85	18.30	18.40	-
21	18.87	-					26.94	21.08	19.64	18.30	18.46	-
22	18.83	-					26.96	21.01	19.43	18.31	18.49	-
23	18.81	-					26.97	21.04	19.27	18.29	18.56	-
24	18.78	-					26.92	20.99	19.14	18.26	18.58	-
25	18.78	-					26.82	20.87	19.02	18.23	18.69	-
26	18.77	-					26.70	20.70	18.92	18.27	18.64	-
27	18.76	-					26.53	20.51	18.87	18.27	18.62	-
28	18.71	-					26.42	20.30	18.78	18.26	18.58	-
29	18.63	-					26.28	20.06	18.70	18.24	18.58	-
30	18.65	-					26.15	19.85	18.68	18.20	18.56	-
31	18.71	-					-	19.70	-	18.17	18.54	-

Note.- Add 1,000 feet to obtain elevation above mean sea level.

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Roseau River near Haug, Minn.

Location.- Water-stage recorder, lat. 48°55'28", long. 96°12'20", in SE¼ sec. 21, T. 165 N., R. 43 W., 9¼ miles northwest of Haug and 5 miles south of international boundary. Zero of gage is 1,014.08 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1932 to September 1936 (incomplete).

Extremes.- Maximum water-surface elevation during period, 1,022.41 feet Apr. 26; minimum, 1,015.41 feet July 31.
1932-36: Maximum water-surface elevation observed, 1,023.19 feet Apr. 14, 1932; minimum, 1,014.74 feet Aug. 8, 1933.

Remarks.- Records excellent. Gage heights have been reduced to mean sea-level datum. No records Nov. 15 to Apr. 8, Sept. 8-30.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.92	16.16					-	22.28	16.80	16.20	15.68	16.65
2	16.92	16.14					-	22.23	16.66	16.21	15.87	16.70
3	16.86	16.21					-	22.16	16.52	16.25	15.98	-
4	16.87	16.24					-	22.11	16.44	16.27	16.06	-
5	16.87	16.21					-	22.04	16.41	16.26	16.14	-
6	16.84	16.17					-	21.95	16.36	16.22	16.17	-
7	16.80	16.17					-	21.82	16.32	16.14	16.21	-
8	16.75	16.17					-	21.65	16.48	16.09	16.24	-
9	16.71	16.13					-	21.47	17.18	16.06	16.22	-
10	16.67	16.11					17.66	21.23	17.72	16.01	16.21	-
11	16.64	16.13					17.66	20.94	18.11	15.94	16.25	-
12	16.61	16.17					17.33	20.62	18.08	15.88	16.28	-
13	16.59	16.24					17.63	20.34	17.95	15.85	16.33	-
14	16.56	16.30					17.68	20.04	17.71	15.86	16.36	-
15	16.54	-					17.94	19.76	17.40	15.81	16.35	-
16	16.51	-					18.74	19.44	17.18	15.77	16.34	-
17	16.44	-					20.31	19.19	17.04	15.79	16.38	-
18	16.44	-					21.31	18.87	17.07	15.79	16.48	-
19	16.41	-					21.83	18.60	17.19	15.76	13.49	-
20	16.41	-					22.11	18.37	17.23	15.74	16.53	-
21	16.33	-					22.18	18.16	17.12	15.69	16.60	-
22	16.26	-					22.25	18.01	16.96	15.66	13.67	-
23	16.22	-					22.33	18.00	16.81	15.63	16.70	-
24	16.16	-					22.36	17.98	16.70	15.61	16.74	-
25	16.12	-					22.38	17.91	16.61	15.58	16.76	-
26	16.12	-					22.39	17.76	16.50	15.56	16.39	-
27	16.11	-					22.37	17.61	16.40	15.53	16.51	-
28	16.11	-					22.37	17.45	16.33	15.48	16.65	-
29	16.12	-					22.35	17.25	16.31	15.46	16.68	-
30	16.05	-					22.33	17.07	16.24	15.43	16.55	-
31	16.10	-					-	16.93	-	15.44	16.62	-

Note.- Add 1,000 feet to obtain elevation above mean sea level.

Roseau River at head of State Ditch 51, near Oak Point, Minn.

Location.- Staff gage, lat. 48°56'53", long. 96°22'56", in NE¼ sec. 18, T. 163 N., R. 44 W. fourth principal meridian, 2½ miles south and 3 miles east of Caribou. Zero of gage is 1,007.88 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1933 to September 1936 (incomplete).

Extremes.- Maximum water-surface elevation observed during year, 1,016.11 feet May 1; minimum, 1,009.74 feet Aug. 5, 9.
1933-36: Maximum water-surface elevation observed, 1,016.24 feet Apr. 23, 1933; minimum, 1,009.86 feet Aug. 11, 12, 1933.

Remarks.- Records fair. Gage heights have been reduced to mean sea-level datum.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-						11.42	16.11	-	10.44	9.78	9.97
2	-						11.42	16.07	11.29	10.40	9.76	-
3	-						11.42	16.05	-	-	-	9.93
4	-						11.42	16.01	-	10.36	-	-
5	-						11.42	15.99	11.03	10.34	9.74	-
6	-						11.42	15.97	11.01	-	-	-
7	-						11.42	15.95	-	10.30	-	-
8	-						11.42	15.91	11.59	-	9.76	-
9	-						11.52	15.81	-	10.28	9.74	-
10	-						11.98	15.71	-	-	-	-
11	-						12.00	15.57	12.41	10.24	-	-
12	-						12.04	15.49	12.35	10.20	9.75	-
13	-						12.18	15.25	12.15	10.18	-	-
14	-						12.22	15.09	-	-	-	-
15	-						12.34	14.97	11.81	10.10	9.75	-
16	-						12.49	14.71	-	-	9.77	-
17	-						14.01	14.65	-	10.06	-	-
18	-						14.11	-	11.56	10.04	9.79	-
19	-						14.33	-	-	10.00	-	-
20	-						14.55	-	11.34	-	9.83	-
21	-						14.91	-	11.28	9.96	10.03	-
22	-						15.81	12.76	11.08	-	-	-
23	10.52						16.01	12.71	-	9.90	9.87	-
24	-						15.91	12.63	10.80	-	-	-
25	-						15.95	-	-	9.88	-	-
26	-						15.97	-	-	9.88	10.07	-
27	-						16.01	-	10.66	-	-	-
28	-						16.05	-	10.50	9.84	-	-
29	-						16.07	-	-	-	10.03	-
30	-						16.09	11.67	10.46	9.82	10.01	-
31	-						-	11.63	-	-	-	-

Note.- Add 1,000 feet to obtain elevation above mean sea level.

Roseau River at Oak Point, Minn.

Location.- Staff gage, lat. 48°56'48", long. 96°24'19", in SE¼ sec. 36, T. 164 N., R. 45 W., 2 miles east of Caribou. Zero of gage is 1,005.30 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1933 to September 1936 (incomplete).

Extremes.- Maximum water-surface elevation observed during year, 1,012.95 feet May 1: minimum, 1,006.21 feet Aug. 11, 13.
1933-36: Maximum observed water-surface elevation, 1,013.17 feet Apr. 19, 1933; minimum, that of Aug. 11, 13, 1936.

Remarks.- Records good. Gage heights have been reduced to mean sea-level datum. No records Oct. 1-22, Oct. 24 to Apr. 30, Sept. 3-30 and other days for which no elevations are given.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-							12.95	-	-	6.31	-
2	-							12.93	-	-	-	6.43
3	-							-	-	6.65	6.25	-
4	-							-	7.19	-	-	-
5	-							12.93	-	-	-	-
6	-							-	-	-	-	-
7	-							-	-	-	-	-
8	-							12.53	-	-	-	-
9	-							12.45	7.57	6.63	-	-
10	-							-	-	-	-	-
11	-							-	-	-	6.21	-
12	-							-	-	6.57	-	-
13	-							-	-	-	6.21	-
14	-							-	-	-	-	-
15	-							10.80	-	-	-	-
16	-							10.44	7.89	-	-	-
17	-							-	-	-	6.31	-
18	-							-	7.37	-	-	-
19	-							-	-	-	-	-
20	-							-	-	6.51	-	-
21	-							-	-	6.47	-	-
22	-							9.03	-	-	-	-
23	6.82							-	-	-	-	-
24	-							-	6.95	6.35	-	-
25	-							8.94	-	-	6.39	-
26	-							-	-	6.35	6.39	-
27	-							-	-	-	6.47	-
28	-							-	-	6.33	-	-
29	-							-	-	-	-	-
30	-							-	6.71	-	-	-
31	-							-	-	6.31	6.43	-

Note.- Add 1,000 feet to obtain elevation above mean sea level.

Roseau River below Cut-off Ditch, near Caribou, Minn.

(International gaging station)

Location.- Water-stage recorder, lat. 48°58'54", long. 96°27'46", in SW¼ sec. 34, T. 164 N., R. 45 W., 1 mile west of Caribou and 200 yards below mouth of State ditch 51, locally known as "Caribou Cut-off Ditch". Zero of gage is 1,002.14 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1929 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 1,020 second-feet Apr. 27 to May 3; maximum gage height, 5.99 feet May 1; no flow Aug. 13.
1929-36: Maximum discharge, 1,880 second-feet Apr. 13, 1932 (gage height, 8.90 feet, affected by ice); minimum, that of Aug. 13, 1936.

Remarks.- Records good except those during period of ice effect, which are fair. Discharge during period of backwater from ice, Apr. 1-22, computed on basis of two discharge measurements, weather records, and comparison with record at Ross. Discharge during period of backwater from aquatic growth, Oct. 1 to Nov. 13, May 16 to Sept. 30, computed on basis of gage heights and seven discharge measurements. No record Nov. 14 to Mar. 31. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	16						1,020	91	21	1.6	4.9
2	33	20						1,020	81	19	1.6	4.3
3	31	19						1,020	72	18	1.4	4.0
4	31	21						985	64	15	1.0	5.5
5	31	21					11	985	59	18	.8	6.1
6	31	20						985	55	17	.6	8.2
7	30	18						950	57	16	.5	8.6
8	28	18						920	53	14	.5	7.8
9	30	18						890	69	12	.4	9.8
10	27	16					12	850	135	11	.2	16
11	27	16					14	770	186	10	.2	17
12	27	16					18	710	190	8.2	.1	16
13	27	17					*24	658	176	7.8	.1	15
14	27	-					40	606	151	7.4	.4	21
15	23	-					70	556	119	7.8	.7	20
16	26	-					150	508	97	6.7	.6	17
17	26	-					300	448	83	5.5	.5	16
18	25	-					500	400	73	5.5	1.7	25
19	26	-					750	352	76	5.8	1.7	31
20	26	-					800	307	78	6.1	1.5	31
21	28	-					*890	274	76	5.5	2.0	27
22	26	-					920	243	66	5.5	5.5	23
23	25	-					950	232	55	4.3	4.6	21
24	24	-					985	230	46	3.8	3.2	18
25	23	-					985	226	40	3.4	3.0	17
26	22	-					985	206	35	3.8	3.0	16
27	22	-					1,020	188	30	3.8	4.3	14
28	23	-					1,020	164	26	3.2	6.4	14
29	23	-					1,020	140	24	2.6	6.1	12
30	26	-					1,020	121	22	2.2	5.5	12
31	22	-					-	104	-	1.9	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	827	33	22	26.7	1,640
November 1-13	236	21	16	18.2	468
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	12,572	1,020	11	419	24,940
May	17,048	1,020	104	550	33,810
June	2,388	190	22	79.6	4,740
July	274.8	21	1.9	8.86	545
August	64.9	6.4	.1	2.09	129
September	458.2	31	4.0	15.3	909
Water year					

*Discharge measurement.

Roseau River at international boundary, near Caribou, Minn.

Location.- Water-stage recorder, lat. 48°59'57", long. 96°30'20", near center of sec. 29, T. 164 N., R. 45 W., about 400 feet upstream from last international-boundary crossing and about 3 miles northwest of Caribou. Zero of gage is 1,002.59 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- May 1933 to September 1936 (fragmentary).

Extremes.- Maximum water-surface elevation observed during period, 1,006.79 feet Apr. 20 (affected by ice); minimum not recorded.
1933-36: Maximum water-surface elevation recorded, that of Apr. 20, 1936; minimum, 1,001.97 feet Aug. 14, 1933.

Remarks.- Records good. Gage heights have been reduced to mean sea-level datum. No records Nov. 3 to Nov. 12, Nov. 14 to Apr. 20, Aug. 25 to Sept. 30. Water surface below intake to well (elevation 1,002.4 feet) July 21 to Aug. 24.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.91	2.74					-	5.41	3.37	2.76	-	
2	2.90	2.80					-	5.41	3.31	2.72	-	
3	2.90	-					-	5.40	3.27	2.71	-	
4	2.90	-					-	5.40	3.20	2.71	-	
5	2.91	-					-	5.39	3.18	2.72	-	
6	2.91	-					-	5.38	3.16	2.71	-	
7	2.90	-					-	5.31	3.17	2.68	-	
8	2.89	-					-	5.22	3.12	2.65	-	
9	2.89	-					-	5.15	3.19	2.64	-	
10	2.88	-					-	5.05	3.45	2.60	-	
11	2.87	-					-	4.91	3.59	2.58	-	
12	2.87	-					-	4.80	3.60	2.53	-	
13	2.89	2.44					-	4.64	3.58	2.52	-	
14	2.89	-					-	4.49	3.53	2.50	-	
15	2.88	-					-	4.38	3.43	2.49	-	
16	2.87	-					-	4.26	3.35	2.47	-	
17	2.87	-					-	4.15	3.27	2.45	-	
18	2.86	-					-	4.06	3.22	2.42	-	
19	2.87	-					-	3.97	3.23	2.41	-	
20	2.89	-					6.25	3.89	3.25	2.42	-	
21	2.90	-					5.89	3.84	3.24	-	-	
22	2.89	-					5.55	3.78	3.18	-	-	
23	2.87	-					5.47	3.77	3.10	-	-	
24	2.86	-					5.42	3.77	3.03	-	*2.37	
25	2.83	-					5.45	3.77	2.97	-	-	
26	2.84	-					5.42	3.72	2.93	-	-	
27	2.85	-					5.43	3.68	2.87	-	-	
28	2.86	-					5.42	3.64	2.82	*2.35	-	
29	2.88	-					5.41	3.57	2.80	-	-	
30	2.88	-					5.40	3.49	2.79	-	-	
31	2.85	-					-	3.42	-	-	-	

*Staff gage reading.

Note.- Add 1,000 feet to obtain elevation above mean sea level.

South Fork of Roseau River near Malung, Minn.

Location.- Staff gage, lat. 48°47', long. 95°44', in center of sec. 7, T. 161 N., R. 39 W., 1 mile northwest of Malung.

Drainage area.- 265 square miles.

Records available.- May 1911 to September 1914, July 1928 to September 1936.

Extremes.- Maximum discharge observed during year, 465 second-feet Apr. 20 (gage height, 8.99 feet, affected by ice); no flow for several months.
1911-14, 1928-36: Maximum discharge observed, 1,040 second-feet Oct. 1, 1912 (gage height, 10.3 feet, present datum); maximum gage height, 12.00 feet Apr. 7, 1932; no flow at times.

Remarks.- Records fair. Stage-discarge relation affected by ice or debris on control throughout year; discharge computed on basis of five measurements, gage heights, and weather records.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	44	0.5			
2							0	41	9.8			
3							0	39	8.2			
4							0	33	7.8			
5							0	33	2.6			
6							0	27	1.2			
7							0	21	.8			
8							0	17	.8			
9							0	17	.4			
10							0	14	.5			
11							0	20	.2			
12							1.2	15	.4			
13							3.0	11	.4			
14							6.2	17	.2			
15							84	9.5	.2			
16							258	5.2	.4			
17							330	4.5	.7			
18							356	3.0	.4			
19							395	4.3	.3			
20							437	4.3	.2			
21							356	3.6	.1			
22							234	3.3	.1			
23							155	3.3	.1			
24							127	3.3	0			
25							87	3.3	0			
26							68	3.0	0			
27							59	.6	0			
28							48	.8	0			
29							46	.7	0			
30							44	.6	0			
31							-	.8	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	1,993.1	198	0	5.46	3,949.1
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	3,094.4	437	0	103	6,140
May	403.3	44	.6	13.0	800
June	36.3	9.8	0	1.21	72
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	3,534.0	437	0	9.66	7,012

Mud Creek near Sprague, Manitoba

(International gaging station)

Location.- Water-stage recorder, lat. 48°59'33", long. 95°39'43", in NE¼ sec. 34, T. 164 N., R. 39 W., 0.5 mile south of international boundary, 3½ miles south of Sprague, Manitoba, and 14 miles northeast of Roseau, Minn. Zero of gage is 1,038.4 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Drainage area.- 182 square miles.

Records available.- September 1928 to September 1936 (incomplete).

Extremes.- Maximum discharge during year, 612 second-feet Apr. 20 (gage height, 10.90 feet, affected by ice); no flow several days in August and September.
1928-36: Maximum discharge, 1,040 second-feet May 13, 1930 (gage height, 12.34 feet); no flow Aug. 8-10, 1934, and several days in August and September 1936.

Remarks.- Records good except those estimated, which are fair. Stage-discharge relation affected by ice or debris on control all year; discharge computed on basis of seven discharge measurements, gage heights, and weather records. Discharge estimated Nov. 1-14, Apr. 1-12 on basis of two discharge measurements and weather records. No records Nov. 15 to Mar. 31. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	6					1	234	20	4.1	0.1	1.1
2	14	6					1	219	17	3.8	.2	.1
3	14	6					1	206	14	3.3	.2	0
4	14	6					1	195	12	3.0	.1	.2
5	14	5					1	185	10	2.5	0	.7
6	8.6	5					2	175	8.8	2.2	.1	2.0
7	12	5					2	170	11	2.0	0	2.5
8	12	5					2	160	46	1.8	0	1.3
9	12	4					*2	148	86	1.5	0	1.4
10	12	4					4	140	74	1.2	0	2.2
11	11	4					6	132	62	1.2	0	3.2
12	11	4					8	124	48	1.0	0	1.7
13	9.8	4					10	120	36	.9	0	1.4
14	9.6	*4.0					40	112	29	2.2	0	10
15	8.8	-					88	104	24	1.2	0	23
16	8.8	-					152	96	21	.9	0	7.6
17	8.3	-					242	88	27	.7	0	5.0
18	8.1	-					310	83	36	.7	.6	4.2
19	7.5	-					406	83	30	.7	.1	3.5
20	6.8	-					550	78	23	.8	.2	3.3
21	6.3	-					596	74	18	.9	.7	2.5
22	5.7	-					520	88	16	.6	1.0	2.3
23	5.4	-					420	84	12	.6	1.9	2.3
24	5.4	-					342	76	9.0	.6	.7	1.8
25	5.5	-					290	64	7.5	.6	.6	1.6
26	5.7	-					260	55	6.3	.4	.8	2.0
27	5.7	-					251	46	5.1	.4	.6	1.3
28	6.0	-					251	39	4.2	.5	1.0	2.1
29	5.9	-					226	33	3.9	.2	0	1.4
30	6.0	-					242	28	3.7	.2	.2	1.2
31	6.2	-					-	24	-	.1	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	279.1	14	5.4	9.00	554
November 1-14	68.0	-	-	4.86	135
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	5,227	596	1	174	10,370
May	3,463	234	24	112	6,870
June	720.5	86	3.7	24.0	1,430
July	40.8	4.1	.1	1.32	81
August	9.5	1.9	0	.31	19
September	92.9	23	0	3.10	184
Water year					

*Discharge measurement.

Pine Creek near Pine Creek, Minn.

(International gaging station)

Location.- Water-stage recorder, lat. 48°59'35", long. 95°55'4", in NW¼ sec. 35, T. 164 N., R. 41 W., 0.5 mile south of international boundary and 2 miles northeast of Pine Creek. Zero of gage is 1,038.42 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Drainage area.- 76 square miles.

Records available.- August 1928 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 516 second-feet Apr. 17 (gage height, 8.57 feet); minimum, 1.6 second-feet Aug. 4.
1928-36: Maximum discharge, that of Apr. 17, 1936; minimum, that of Aug. 4, 1936.

Remarks.- Records poor. Stage-discharge relation affected by ice, debris on control, beaver dam, or shifting control throughout year; discharge computed on basis of eleven discharge measurements, gage heights, and weather records. Discharge estimated Apr. 1-10. No records Nov. 16 to Mar. 31. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.1						57	14	9.3	2.1	3.4
2	12	10						54	14	8.5	2.1	3.9
3	12	8.7					4	51	16	8.7	1.9	4.7
4	12	9.5						50	16	8.3	2.0	5.4
5	12	9.5						48	16	6.9	2.2	11
6	11	8.7						48	13	6.7	2.0	17
7	12	8.7						48	25	6.0	2.0	18
8	12	8.9					5	46	52	5.7	2.0	14
9	12	9.3						44	62	5.4	1.9	8.5
10	12	9.5						42	58	4.6	2.0	7.4
11	11	9.5					10	40	52	4.1	2.3	8.9
12	12	9.5					30	39	40	4.0	2.4	8.5
13	11	9.8					34	39	28	4.0	2.7	10
14	11	9.8					112	37	22	6.1	2.8	12
15	12	9.3					200	34	18	4.7	3.4	21
16	12	-					320	31	18	3.9	3.6	20
17	11	-					450	29	22	3.8	3.1	11
18	10	-					427	31	26	3.8	4.2	8.3
19	11	-					347	31	20	3.7	4.8	6.9
20	12	-					274	29	15	3.6	3.5	6.1
21	11	-					204	26	14	3.4	2.8	5.9
22	11	-					150	27	13	3.4	5.7	5.5
23	11	-					112	26	12	3.2	7.5	5.0
24	11	-					88	25	12	3.2	4.1	4.1
25	11	-					76	22	12	3.6	2.9	5.1
26	10	-					68	21	11	3.2	2.9	5.6
27	10	-					64	19	8.7	3.2	3.2	5.6
28	10	-					63	16	9.5	2.8	3.6	6.2
29	11	-					58	14	10	2.3	4.4	6.4
30	10	-					60	14	10	2.5	4.2	6.5
31	10	-					-	14	-	2.2	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	347	12	10	11.2	688
November 1-15	139.8	10	8.7	9.32	277
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,192	450	-	106	6,350
May	1,052	57	14	33.9	2,090
June	659.2	62	8.7	22.0	1,310
July	144.8	9.3	2.2	4.67	287
August	97.9	7.5	1.9	3.16	194
September	261.9	21	3.4	8.73	519
Water year					

Badger Creek near Badger, Minn.

Location.- Staff gage, lat. 48°48'15", long. 96°1'44", in NE¼ sec. 2, T. 161 N., R. 42 W., 1 mile northwest of Badger. Zero of gage 1,047.5 feet above mean sea level (adjustment of 1928 by Geodetic Survey of Canada).

Records available.- April 1929 to September 1930, October 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 28 second-feet Apr. 19; maximum gage height, 4.02 feet Apr. 14 (affected by ice); no flow for several months.
1929-30, 1931-36: Maximum discharge observed, 146 second-feet May 11, 1930 (gage height, 4.88 feet); no flow for several months of each year.

Remarks.- Records fair. Stage-discharge relation affected by ice and debris for the entire period of flow. Discharge computed on basis of two discharge measurements, gage heights, observer's notes, and weather records. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	3.2				
2							0	2.7				
3							0	1.8				
4							0	1.2				
5							0	1.1				
6							0	1.0				
7							0	.8				
8							0	.5				
9							0	.4				
10							0	.3				
11							0	.3				
12							0	.2				
13							0	.3				
14							10	.2				
15							19	.2				
16							22	.1				
17							18	.3				
18							15	.2				
19							28	.2				
20							20	.2				
21							16	.2				
22							13	.3				
23							14	.2				
24							14	.2				
25							9.4	.2				
26							5.7	.2				
27							4.9	.1				
28							3.2	0				
29							2.5	0				
30							3.8	0				
31							-	0				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	504.2	51	0	1.38	1,000
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	218.8	28	0	7.29	434
May	16.6	3.2	0	.54	33
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	235.4	28	0	.64	467

Souris River near Sherwood, N. Dak.

(International gaging station)

Location.- Water-stage recorder, lat. 48°59', long. 101°58', in NE¼ sec. 33, T. 164 N., R. 87 W., 16 miles northwest of Sherwood and three-quarters of a mile south of international boundary.

Records available.- March 1930 to September 1936.

Extremes.- Maximum discharge during year, 1,270 second-feet Apr. 25 (gage height, 10.82 feet); no flow for several months.
1930-36: Maximum discharge observed, 1,370 second-feet Mar. 31, 1933 (gage height, 13.10 feet, affected by ice); no flow for several days of each year.

Remarks.- Records good except those for period of ice effect and those less than 100 second-feet, which are fair. Discharge during period of ice effect, Nov. 12-15, Apr. 8-15, computed on basis of gage heights, weather records, and observer's notes. Discharge estimated Nov. 16-30. Once-daily staff-gage readings used Oct. 18 to Nov. 15. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 7

0.5	0	0.7	0	1.2	19	2.0	101	7.0	690
.6	.2	.8	.7	1.3	29	3.0	201	8.0	835
.7	1.0	.9	3.0	1.4	43	4.0	311	9.0	985
		1.0	7.0	1.5	58	5.0	431	10.0	1,140
		1.1	12	1.6	69	6.0	556	11.0	1,300

Apr. 8 to Sept. 30

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4					0	419	54	5.4		
2	0	.4					0	371	50	5.4		
3	0	.2					0	347	46	5.4		
4	0	.2					0	311	43	4.6		
5	0	.2					0	289	40	3.8		
6	0	.2					0	267	36	3.0		
7	0	.2					0	256	35	2.8		
8	0	.2					0	234	30	2.5		
9	0	.2					5	218	29	2.5		
10	0	.2					170	218	27	2.3		
11	0	.2					206	218	26	2.1		
12	0	.2					306	206	25	1.8		
13	0	.2					530	185	23	1.4		
14	0	.2					805	170	19	.9		
15	0	.2					895	155	18	.9		
16	0						1,160	145	18	1.2		
17	0						1,080	140	18	1.2		
18	.1						970	128	17	.9		
19	.1						1,000	118	16	.7		
20	.2						1,040	108	15	.7		
21	.2						1,110	109	13	.6		
22	.2						1,160	109	13	.5		
23	.2	.1					1,200	105	12	.4		
24	.2						1,250	106	10	.2		
25	.4						1,270	93	9.5	.1		
26	.4						1,190	83	9.0	.1		
27	.4						955	75	8.0	0		
28	.4						704	72	6.6	0		
29	.5						569	68	5.8	0		
30	.5						479	64	5.4	0		
31	.5	-					-	59	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4.3	0.5	0	0.14	8.5
November	4.9	.4	-	.16	9.7
December	0	0	0	0	0
Calendar year 1935	4,437.3	165	0	12.2	8,800
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	18,054	1,270	0	602	35,810
May	5,446	419	59	176	10,800
June	677.3	54	5.4	22.6	1,340
July	51.4	5.4	0	1.66	102
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	24,237.9	1,270	0	66.2	48,070

Souris River above Minot, N. Dak.

Location.- Water-stage recorder, lat. 48°14'45", long. 101°22'15", near center of sec. 17, T. 155 N., R. 83 W., about 3½ miles west of Minot. Zero of gage is 1,745.75 feet above mean sea level (general adjustment of 1929).

Drainage area.- 10,270 square miles.

Records available.- October 1934 to September 1936 at present site; May 1903 to March 1924, April 1927 to September 1928, October 1929 to September 1934 at Minot, 10 miles downstream, in reports of U. S. Geological Survey; May 1903 to September 1930 in reports of State engineer. Records collected at or above Minot are comparable except at extreme low water, when appreciable industrial and sanitary waste water enters river at Minot.

Average discharge.- 23 years (1913-36), 133 second-feet.

Extremes.- Maximum discharge during year, 356 second-feet Apr. 14; maximum gage height, 6.45 feet Apr. 13 (backwater from ice); no flow during several months.

1903-24, 1927-28, 1929-36: Maximum discharge, 12,000 second-feet Apr. 20, 1904 (gage height, 21.9 feet, at Minot); maximum gage height known at present site, about 23 feet in April 1904; no flow at times during February 1930, several months 1934, 1935, 1936.

Remarks.- Records good except those for June 11 to July 21, which were computed on basis of records for station at Towner and record of range of stage and are fair. Stage-discharge relation affected by ice Apr. 13. Flow of Souris River and Des Lac River completely regulated by operation of U. S. Biological Survey dams upstream.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

4.03	0	4.5	40	5.0	143	5.5	266
4.1	.5	4.6	56	5.1	166	5.6	292
4.2	6.0	4.7	75	5.2	190	5.7	320
4.3	16	4.8	97	5.3	215	5.8	350
4.4	27	4.9	120	5.4	240		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	13	73	25	40	32
2							0	5.2	71	23	51	26
3							0	3.8	67	21	66	25
4							0	9.8	73	20	79	24
5							0	25	79	18	84	23
6							0	8.7	79	15	82	15
7							0	3.8	77	12	79	8.7
8							0	1.5	79	10	79	3.8
9							0	1.0	77	17	77	2.6
10							3.6	1.0	77	25	75	1.5
11							25	2.6	77	23	75	.7
12							51	6.0	77	22	75	.3
13							232	5.2	80	16	75	.3
14							326	3.8	100	30	75	.5
15							279	3.2	120	45	75	.4
16							220	2.0	120	50	73	.2
17							154	1.0	110	60	75	0
18							111	1.0	90	70	75	0
19							75	.7	95	75	75	0
20							62	.7	95	80	75	0
21							51	3.2	100	90	75	0
22							45	1.5	100	95	75	0
23							36	2.6	100	99	75	0
24							27	3.2	100	99	71	0
25							24	63	100	99	64	0
26							19	208	70	97	62	0
27							18	118	50	93	58	0
28							17	84	40	71	58	0
29							17	79	40	54	58	0
30							17	75	35	45	56	0
31							-	73	-	39	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	3,235.3	428	0	8.86	6,410
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,809.6	326	0	60.3	3,590
May	809.5	208	.7	26.1	1,610
June	2,451	120	35	81.7	4,860
July	1,538	99	16	49.6	3,050
August	2,154	84	40	69.5	4,270
September	164.0	32	0	5.47	325
Water year 1935-36	8,926.1	326	0	24.4	17,700

Souris River near Towner, N. Dak.

Location.- Water-stage recorder, lat. 48°18', long. 100°27', in NE¼ sec. 29, T. 156 N., R. 76 W., about 4 miles southwest of Towner. Zero of gage is 1,443.50 feet above mean sea level (general adjustment of 1929).

Records available.- March 1935 to September 1936 at present site; March 1933 to September 1934 at Towner, 5 miles downstream.

Extremes.- Maximum discharge during year, 905 second-feet Apr. 15; maximum gage height, 9.53 feet Apr. 15; minimum discharge, 0.1 second-foot Sept. 29 (gage height, 1.81 feet).

1933-36: Maximum discharge observed, 1,080 second-feet Apr. 10, 1933 (gage height, 9.02 feet, former site and datum); no flow for several days June to September 1934.

Remarks.- Records good except those for period of ice effect, Apr. 9-12 (computed on basis of one discharge measurement, gage heights, and weather records), and those for Apr. 13-19, July 6-12, which are poor. No records Oct. 19 to Apr. 8. Flow of Souris River and Des Lac River completely regulated by operation of U. S. Biological Survey dams upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8						-	64	73	98	58	48
2	3.1						-	58	66	62	44	46
3	1.9						-	53	61	46	42	44
4	2.2						-	49	59	51	37	42
5	2.5						-	41	59	44	32	43
6	2.8						-	39	59	40	29	46
7	2.8						-	38	69	37	29	38
8	2.5						-	35	84	34	36	33
9	2.5						12	32	75	31	46	30
10	2.8						40	31	72	28	54	25
11	2.2						100	31	72	25	56	22
12	3.1						300	31	72	22	54	22
13	4.0						649	30	72	18	54	21
14	3.7						880	27	70	18	56	22
15	4.0						903	25	67	28	58	19
16	4.0						880	23	70	32	58	18
17	4.0						820	20	58	26	58	24
18	4.0						670	18	54	21	58	22
19	-						515	18	99	20	58	18
20	-						400	18	119	44	58	14
21	-						310	19	119	48	59	11
22	-						250	20	105	62	58	9.2
23	-						208	19	87	56	58	7.6
24	-						163	20	80	58	58	5.2
25	-						130	19	87	67	58	3.7
26	-						105	19	93	72	57	2.5
27	-						90	18	97	72	58	1.6
28	-						82	16	94	72	61	.6
29	-						76	15	94	80	60	.4
30	-						69	18	99	94	57	.6
31	-						-	63	-	83	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1-18	54.9	4.0	1.9	3.05	109
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 9-30	7,652	903	12	348	15,180
May	927	64	15	29.9	1,840
June	2,385	119	54	79.5	4,730
July	1,489	98	18	48.0	2,950
August	1,610	61	29	51.9	3,190
September	639.4	48	.4	21.3	1,270
Water year					

Souris River near Westhope, N. Dak.

(International gaging station)

Location.- Chain gage, lat. 48°54', long. 100°58', on line between secs. 30 and 31, T. 163 N., R. 79 W., 2½ miles east of Westhope. Zero of gage is 1,404.72 feet above mean sea level.

Records available.- July 1929 to September 1936.

Extremes.- Maximum discharge observed during year, 139 second-feet Apr. 14, (gage height, 4.94 feet, backwater from ice); no flow during much of year.
1929-36: Maximum discharge observed, 1,130 second-feet Mar. 31 to Apr. 2, 1930, Apr. 19, 1933; maximum gage height observed, 7.25 feet Apr. 19, 1933; no flow for several periods.

Remarks.- Records fair. Stage-discharge relation affected by ice or aquatic growth throughout the year; discharge computed on basis of four discharge measurements, once daily gage readings, and weather records. Flow of Souris River and Des Lac River completely regulated by operation of U. S. Biological Survey dams upstream. This station is one of the international gaging stations maintained by the United States under agreement with Canada.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8						0	0	0	16		
2	1.4						0	0	0	12		
3	.6						0	0	0	5.7		
4	.4						0	0	0	5.3		
5	.2						0	0	0	1.4		
6	.2						0	0	0	2.4		
7	.2						0	0	0	6.3		
8	.2						0	0	0	6.7		
9	.2						0	0	0	4.7		
10	.1						1.0	0	0	6.7		
11	.4						42	0	0	2.7		
12	.2						57	0	0	7.5		
13	0						88	0	0	2.4		
14	.2						139	0	0	2.4		
15	1.0						130	0	0	.4		
16	1.6						130	0	0	5.1		
17	.4						112	.1	0	6.3		
18	.2						66	.2	0	3.0		
19	.2						51	0	0	3.3		
20	.4						48	0	0	1.3		
21	.2						33	.1	0	1.8		
22	.1						18	0	0	2.5		
23	0						14	0	14	1.6		
24	.1						12	0	26	1.9		
25	0						9.5	0	24	1.6		
26	.1						4.5	0	42	.9		
27	.1						4.2	0	40	1.1		
28	.1						4.0	0	35	.4		
29	0						1.0	0	26	.4		
30	.1						.5	0	24	.3		
31	0						-	0	-	.1		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9.7	1.6	0	0.31	19
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year					
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	962.7	139	0	32.1	1,909
May	.4	.2	0	.01	.8
June	231	42	0	7.70	458
July	113.9	16	.1	3.67	226
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	1,317.7	139	0	3.61	2,612.8

Basswood River near Winton, Minn.

Location.- Staff gage, lat. 48°3', long. 91°45', in sec. 9, T. 64 N., R. 11 W., on Jackfish Bay of Basswood Lake, used to determine discharge at outlet (lat. 48°6', long. 91°39', in sec. 19, T. 65 N., R. 10 W. on international boundary, about 18 miles northeast of Winton). Zero of gage is 1,299.80 feet above mean sea level.

Drainage area.- 1,920 square miles above outlet of Basswood Lake.

Records available.- January 1931 to September 1936 in reports of U. S. Geological Survey; March to June 1924, August 1925 to December 1930 in reports of Corps of Engineers, U. S. Army.

Extremes.- Maximum discharge observed during year, 6,630 second-feet May 20-22; maximum gage height observed, 3.80 feet May 20; minimum discharge, 280 second-feet Sept. 28-30; minimum gage height, -0.50 foot Sept. 30.

1931-35: Maximum discharge observed, 6,680 second-feet May 18-23, 1934; maximum gage height observed, 3.84 feet May 21, 1934; minimum discharge observed, 233 second-feet Nov. 16-19, 1954; minimum gage height observed, -0.76 foot Nov. 19, 1934.

Remarks.- Records good. Gage readings furnished by Corps of Engineers, U. S. Army. Gage read three times a week and discharge interpolated between readings. Flow affected by storage on Kawishiwi River.

Rating table, water year 1935-36 (gage height, in feet, and discharge in second-feet)

-0.5	280	0.4	856	2.0	3,020
-.4	320	.6	1,050	2.5	3,940
-.2	418	.8	1,260	3.0	4,950
.0	540	1.0	1,490	3.5	6,000
.2	686	1.5	2,190	3.8	6,630

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	810	*686	727	*727	635	508	*508	*2,190	*5,160	*1,490	601	392
2	*812	686	*727	727	623	*508	492	2,410	4,850	1,490	555	*366
3	812	686	706	*727	*610	508	*476	2,630	*4,540	*1,490	*508	366
4	*812	*686	*686	727	610	*508	476	*2,850	*4,340	1,450	508	*366
5	797	686	686	727	*610	508	476	3,200	*4,140	1,410	*508	366
6	783	*686	*686	*727	592	*508	*476	*3,560	4,040	*1,370	492	366
7	*768	686	700	727	*575	508	476	3,850	*3,940	1,280	*476	*366
8	768	*686	713	*727	563	508	*476	*4,140	*3,750	*1,200	487	354
9	*768	700	*727	727	552	*508	476	4,410	3,480	1,200	497	*343
10	748	713	727	*727	*540	508	*476	4,680	*3,200	*1,200	*508	343
11	*727	*727	*727	727	540	*508	487	*4,950	3,110	1,180	492	*343
12	727	727	727	727	*540	524	497	5,260	*3,020	1,170	*476	*343
13	727	*727	*727	*727	524	*540	*508	*5,580	2,910	*1,150	476	343
14	*727	727	713	706	*508	540	524	5,790	2,790	1,100	*476	*343
15	727	*727	700	*686	508	540	*540	*6,000	*2,680	*1,050	466	332
16	*727	727	*686	686	508	*540	575	6,140	2,600	1,020	457	*320
17	727	727	686	*686	*508	540	*610	6,280	*2,510	*1,000	*447	320
18	*727	*727	*686	686	508	*540	663	*6,420	2,350	983	420	*320
19	741	727	686	686	*508	540	715	6,520	*2,190	967	*392	320
20	754	*727	*686	*686	508	*540	*768	*6,630	2,090	*950	392	320
21	*768	727	686	686	*508	540	859	6,630	1,990	926	*392	*320
22	748	*727	686	*686	508	540	*950	*6,630	*1,890	*903	392	310
23	*727	713	*686	686	508	*540	1,020	6,560	1,820	903	392	*300
24	706	700	686	*686	*508	540	*1,100	6,490	*1,750	*903	*392	300
25	*686	*686	*686	673	508	*540	1,190	*6,420	1,680	873	368	*300
26	686	686	706	661	*508	540	1,280	6,210	*1,620	842	*343	293
27	686	*686	*727	*648	508	*540	*1,370	*6,000	1,580	*812	380	287
28	*686	706	727	648	*508	529	1,560	5,900	1,530	770	*418	*280
29	686	*727	727	*648	508	519	*1,750	*5,790	*1,490	*727	418	280
30	*686	727	*727	648	-	*508	1,970	5,580	1,490	688	418	*280
31	686	-	727	*648	-	508	-	5,370	-	*648	*418	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22,940	812	686	740	0.385	0.44
November	21,256	727	686	709	.369	.41
December	21,880	727	686	706	.368	.42
Calendar year 1935	427,001	4,060	289	1,170	.609	8.25
January	21,591	727	648	696	.362	.42
February	15,642	635	508	539	.281	.30
March	16,276	540	508	525	.273	.31
April	23,744	1,970	476	791	.412	.46
May	161,070	6,630	2,190	5,196	2.71	3.12
June	84,530	5,160	1,490	2,818	1.47	1.64
July	33,145	1,490	648	1,069	.557	.64
August	13,965	601	343	450	.234	.27
September	9,882	392	280	329	.171	.19
Water year 1935-36	445,921	6,630	280	1,218	.634	8.62

*Gage read on this day; discharge interpolated for intervening days.

Namakan River at outlet of Lac La Croix, Ontario

(International gaging station)

Location.- Staff gage, lat. 48°24', long. 92°11' at Campbell's camp (previously known as Richardson's Island), 2⅝ miles west of outlet.

Drainage area.- 5,165 square miles.

Records available.- October 1934 to September 1936 in reports of U. S. Geological Survey; August 1921 to September 1936 in reports of Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Average discharge.- 14 years (1922-36), 2,829 second-feet.

Extremes.- Maximum discharge observed during year, 12,000 second-feet May 26, 27 (gage height, 1,188.05 feet); minimum, 1,080 second-feet Sept. 29, 30 (gage height, 1,182.30 feet).

1921-36: Maximum discharge observed, 16,700 second-feet May 20, 1927 (gage height, 1,189.77 feet); minimum, 535 second-feet during February, March, and April, 1924 (gage height, 1,181.50 feet).

Remarks.- This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,510	2,060	2,060	1,880	1,710	1,550	1,550	2,780	11,400	5,900	2,640	1,550
2	2,510	2,060	2,060	1,880	1,710	1,490	1,550	3,060	11,200	5,860	2,570	1,490
3	2,440	2,060	2,060	1,880	1,710	1,490	1,550	3,360	11,000	5,860	2,510	1,490
4	2,440	2,060	2,060	1,880	1,710	1,490	1,490	3,680	10,800	5,760	2,440	1,440
5	2,380	2,120	2,060	1,880	1,710	1,490	1,490	4,020	10,800	5,660	2,380	1,440
6	2,340	2,120	2,060	1,880	1,710	1,490	1,490	4,370	10,800	5,480	2,310	1,440
7	2,310	2,120	2,060	1,880	1,710	1,490	1,490	4,930	10,800	5,270	2,250	1,380
8	2,250	2,120	2,000	1,880	1,710	1,490	1,490	5,340	10,700	5,130	2,180	1,380
9	2,250	2,120	2,000	1,880	1,710	1,490	1,490	5,900	10,500	4,970	2,180	1,380
10	2,180	2,120	2,000	1,880	1,660	1,490	1,490	6,520	10,200	4,790	2,120	1,380
11	2,180	2,120	2,000	1,880	1,660	1,490	1,490	6,910	10,000	4,590	2,060	1,330
12	2,180	2,120	2,000	1,880	1,660	1,490	1,490	7,210	9,720	4,460	2,060	1,330
13	2,180	2,120	2,000	1,880	1,660	1,550	1,490	7,670	9,500	4,370	2,000	1,330
14	2,120	2,120	2,000	1,820	1,600	1,550	1,490	8,360	9,240	4,280	2,000	1,330
15	2,120	2,120	2,000	1,820	1,600	1,550	1,550	8,760	9,020	4,190	1,940	1,280
16	2,120	2,120	1,940	1,820	1,600	1,550	1,550	9,070	8,760	4,100	1,880	1,280
17	2,120	2,120	1,940	1,820	1,600	1,550	1,550	9,560	8,540	3,960	1,820	1,230
18	2,120	2,120	1,940	1,820	1,600	1,550	1,570	10,100	8,290	3,790	1,820	1,230
19	2,120	2,120	1,940	1,820	1,600	1,550	1,600	10,400	8,080	3,680	1,770	1,180
20	2,120	2,060	1,940	1,820	1,600	1,550	1,680	10,600	7,830	3,550	1,710	1,230
21	2,120	2,060	1,880	1,820	1,600	1,550	1,770	10,900	7,620	3,440	1,680	1,230
22	2,120	2,060	1,880	1,820	1,550	1,550	1,820	11,200	7,440	3,440	1,600	1,180
23	2,120	2,060	1,880	1,820	1,550	1,550	1,820	11,400	7,330	3,360	1,550	1,180
24	2,120	2,060	1,880	1,820	1,550	1,550	1,900	11,700	7,210	3,280	1,490	1,130
25	2,120	2,060	1,880	1,770	1,550	1,600	2,020	11,900	7,100	3,210	1,490	1,130
26	2,120	2,060	1,880	1,770	1,550	1,600	2,120	12,000	6,980	3,130	1,440	1,130
27	2,120	2,060	1,880	1,770	1,550	1,600	2,180	12,000	6,800	3,060	1,380	1,130
28	2,120	2,060	1,880	1,770	1,550	1,600	2,270	11,900	6,670	2,990	1,460	1,130
29	2,060	2,060	1,880	1,770	1,550	1,600	2,510	11,900	6,230	2,920	1,550	1,080
30	2,060	2,060	1,880	1,770	-	1,550	2,670	11,800	6,010	2,780	1,550	1,080
31	2,060	-	1,880	1,710	-	1,550	-	11,600	-	2,710	1,550	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	68,130	2,510	2,060	2,200	0.43	0.50
November	62,700	2,120	2,060	2,090	.40	.45
December	60,800	2,060	1,880	1,960	.38	.44
Calendar year 1935	1,326,040	10,100	1,490	3,630	.71	9.57
January	56,790	1,880	1,710	1,830	.35	.40
February	47,230	1,710	1,550	1,630	.32	.35
March	47,640	1,600	1,490	1,540	.30	.35
April	51,620	2,670	1,490	1,720	.33	.37
May	260,900	12,000	2,780	8,420	1.63	1.88
June	266,470	11,400	6,010	8,880	1.72	1.92
July	129,960	5,900	2,710	4,190	.81	.93
August	59,380	2,640	1,380	1,920	.37	.43
September	38,520	1,550	1,080	1,280	.25	.28
Water year 1935-36	1,150,140	12,000	1,080	3,140	.61	8.30

Rainy Lake at Ranier, Minn.

(International gaging station)

Location.- Staff gage, lat. 48°37', long. 93°21', in sec. 30, T. 71 N., R. 23 W., near fish hatchery at Ranier.

Records available.- January 1910 to September 1917, October 1934 to September 1936 in reports of U. S. Geological Survey; August 1911 to September 1935 in reports of Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Extremes.- Maximum water-surface elevation observed during year, 1,107.76 feet Oct. 1-3; minimum, 1,104.33 feet Apr. 9-11.

Remarks.- This station is one of the international gaging stations maintained by Canada under agreement with the United States.

Elevation, in feet water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.76	7.43	7.58	7.26	6.60	5.56	4.46	4.78	6.13	6.81	6.85	6.36
2	7.76	7.48	7.59	7.25	6.59	5.55	4.43	4.81	6.16	6.86	6.82	6.31
3	7.76	7.54	7.58	7.22	6.57	5.46	4.39	4.93	6.16	6.91	6.78	6.23
4	7.71	7.48	7.56	7.18	6.52	5.43	4.37	4.96	6.01	6.94	6.78	6.21
5	7.73	7.54	7.54	7.16	6.47	5.41	4.39	5.04	5.99	6.98	6.76	6.21
6	7.67	7.57	7.52	7.15	6.42	5.39	4.39	5.06	6.09	7.01	6.71	6.19
7	7.65	7.42	7.55	7.15	6.39	5.36	4.36	5.06	6.12	6.98	6.63	6.21
8	7.66	7.56	7.53	7.13	6.37	5.33	4.35	5.11	6.16	7.01	6.61	6.19
9	7.58	7.66	7.51	7.08	6.32	5.29	4.33	5.16	6.11	7.06	6.61	6.19
10	7.61	7.66	7.51	7.04	6.31	5.25	4.33	5.23	6.13	7.09	6.61	6.17
11	7.56	7.58	7.51	7.01	6.26	5.21	4.33	5.26	6.14	7.11	6.59	6.16
12	7.48	7.65	7.49	7.02	6.22	5.17	4.37	5.29	6.15	7.11	6.57	6.19
13	7.57	7.61	7.46	7.04	6.19	5.15	4.41	5.31	6.16	7.11	6.56	6.21
14	7.56	7.58	7.43	7.00	6.14	5.11	4.36	5.33	6.21	7.16	6.55	6.17
15	7.58	7.66	7.43	6.99	6.10	5.04	4.41	5.36	6.26	7.18	6.49	6.13
16	7.52	7.61	7.44	6.94	6.06	5.07	4.41	5.41	6.24	7.18	6.46	6.11
17	7.45	7.62	7.42	6.92	6.05	5.02	4.43	5.46	6.34	7.18	6.44	6.13
18	7.41	7.64	7.40	6.88	6.01	4.98	4.49	5.51	6.36	7.16	6.41	6.03
19	7.40	7.57	7.39	6.87	5.96	4.91	4.51	5.53	6.39	7.16	6.40	6.11
20	7.41	7.61	7.36	6.85	5.92	4.86	4.55	5.57	6.41	7.16	6.41	6.11
21	7.41	7.62	7.36	6.84	5.88	4.81	4.55	5.59	6.46	7.11	6.39	6.13
22	7.45	7.62	7.36	6.79	5.84	4.75	4.60	5.61	6.53	7.11	6.37	6.13
23	7.36	7.62	7.36	6.75	5.81	4.78	4.61	5.61	6.58	7.13	6.31	6.11
24	7.42	7.61	7.34	6.73	5.78	4.71	4.63	5.76	6.58	7.09	6.37	6.09
25	7.34	7.60	7.36	6.71	5.74	4.68	4.63	5.85	6.61	7.07	6.29	6.06
26	7.36	7.61	7.36	6.71	5.73	4.66	4.67	5.86	6.67	7.03	6.26	6.03
27	7.36	7.61	7.37	6.70	5.68	4.61	4.71	5.91	6.71	7.01	6.23	5.93
28	7.42	7.61	7.35	6.69	5.63	4.59	4.73	5.95	6.71	6.96	6.31	5.90
29	7.45	7.61	7.33	6.67	5.61	4.56	4.76	5.99	6.75	6.94	6.33	5.93
30	7.40	7.56	7.31	6.63	-	4.52	4.76	6.03	6.78	6.92	6.31	5.91
31	7.42	-	7.30	6.62	-	4.46	-	6.08	-	6.89	6.33	-

Note.- Add 1,100 feet to obtain elevation above mean sea level.

61009 O—38——6

Rainy River at Manitou Rapids, Minn.

Location.- Water-stage recorder, lat. 48°38', long. 93°54', in sec. 36, T. 160 N., R. 26 W., at Manitou Rapids, 3½ miles east of Manitou Post Office and 4 miles west of Indus.
Records available.- October 1934 to September 1936; comparable records at station near Birchdale, 7 miles downstream, October 1932 to September 1934 in reports of U. S. Geological Survey; October 1911 to October 1924 (gage height only), June 1928 to December 1930 in reports of Corps of Engineers, U. S. Army.
Extremes.- Maximum discharge during year, 23,200 second-feet Apr. 20 (gage height, 10.04 feet); minimum daily discharge, 4,060 second-feet Sept. 8.
1932-36: Maximum discharge observed, 33,900 second-feet Apr. 22, 1933 (gage height, 8.40 feet, Birchdale gage); minimum, 3,570 second-feet Nov. 13, 1933.
Remarks.- Records excellent except those for period of ice effect, Nov. 16 to Apr. 4 (computed on basis of four discharge measurements, gage-height graph based on gage readings at Birchdale for period Jan. 23-26, Jan. 30 to Mar. 20, weather records, and comparison with power plant record at Fort Frances) and those for periods when recording gage did not operate, May 12-17, May 22 to June 8, June 15 to July 5, Aug. 29 to Sept. 16 (computed on basis of graph based on three readings a week of chain gage at Birchdale and shape of graph at Manitou Rapids when recorder operated), which are good. Gage readings at Birchdale furnished by Corps of Engineers, U. S. Army. Flow partly regulated by power plant at Fort Frances and by storage in Rainy, Namakan, and many other smaller lakes.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.9	4,040	4.5	8,220
2.0	4,140	5.0	9,340
2.2	4,350	5.5	10,540
2.4	4,580	6.0	11,740
2.6	4,830	7.0	14,400
3.0	5,390	8.0	17,200
3.5	6,230	9.0	20,200
4.0	7,180	10.0	23,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,220	10,500	9,580	9,100	8,780	9,880	8,220	18,400	10,400	7,260	7,580	6,130
2	10,100	9,820	8,440	9,340	7,020	8,260	7,780	19,600	11,300	8,000	6,980	6,120
3	10,500	9,100	8,660	9,340	4,200	8,260	7,780	19,900	12,900	8,520	5,710	6,790
4	10,500	8,220	9,100	9,340	5,500	9,320	8,440	18,400	12,900	8,000	6,600	7,260
5	10,100	9,820	9,820	8,440	8,260	9,600	7,350	20,800	12,900	7,260	7,180	7,260
6	8,130	10,300	10,100	5,240	9,050	9,600	4,650	21,100	12,600	6,410	7,580	6,560
7	5,400	10,500	9,340	6,790	9,320	9,600	4,940	20,500	11,300	7,380	8,000	4,800
8	8,270	10,500	8,220	8,660	9,320	8,780	4,830	19,600	9,600	8,000	7,780	4,060
9	10,500	10,300	7,580	9,100	7,750	7,260	6,230	19,000	11,000	8,000	7,180	4,640
10	10,800	9,820	7,780	9,340	5,310	7,750	6,230	17,500	10,500	8,000	5,880	5,700
11	10,800	9,100	8,880	9,100	8,340	9,320	6,600	14,100	9,820	8,000	6,230	5,910
12	10,300	10,100	9,340	7,180	8,780	9,880	8,440	14,400	9,340	7,580	7,180	5,910
13	8,880	10,300	9,820	4,580	9,600	9,880	9,820	15,700	9,340	6,790	7,180	5,310
14	5,980	10,300	9,820	6,230	9,880	9,050	11,300	15,700	8,440	6,790	7,180	4,140
15	7,310	10,300	8,440	8,440	9,880	7,750	13,600	15,400	8,000	6,980	7,380	4,490
16	10,100	10,100	5,390	9,100	8,520	6,560	16,600	15,100	9,050	7,380	6,980	5,910
17	10,800	8,880	6,790	9,580	5,910	6,790	18,100	13,500	9,050	7,580	5,710	6,600
18	10,800	7,780	8,660	9,580	6,340	8,520	19,900	10,800	9,050	7,380	6,410	6,790
19	10,300	8,880	8,660	7,380	8,780	10,200	22,000	12,800	8,780	7,180	7,380	6,980
20	10,100	9,580	8,220	4,960	9,880	10,400	23,200	13,800	8,780	5,710	7,780	6,600
21	7,380	10,300	8,440	6,790	10,200	10,300	22,900	13,800	7,750	6,600	7,780	4,630
22	8,880	10,500	8,440	8,880	9,600	9,100	21,100	14,100	6,340	7,380	7,780	5,460
23	10,500	10,500	6,230	9,600	8,260	7,180	19,300	14,100	7,750	7,380	6,980	6,600
24	11,000	9,580	7,580	9,880	6,560	8,660	17,800	13,500	8,520	7,580	5,710	7,180
25	11,000	8,220	6,050	9,580	7,500	9,580	16,600	11,900	8,520	7,580	6,050	6,980
26	11,000	8,660	4,460	7,500	9,600	9,820	15,200	13,200	8,520	7,380	6,600	6,790
27	10,100	9,340	6,790	5,240	10,200	10,100	13,000	14,800	8,520	6,600	6,980	6,790
28	7,580	9,820	8,220	6,050	10,400	9,820	15,200	15,100	8,000	6,790	7,180	4,970
29	8,880	10,100	8,660	6,980	10,400	9,580	16,100	14,800	7,500	7,380	6,790	5,600
30	10,300	10,800	7,580	8,520	-	7,580	16,900	14,800	7,260	7,580	5,910	6,790
31	10,500	-	7,580	8,780	-	8,000	-	13,200	-	7,780	4,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	295,010	11,000	5,400	9,516	
November	292,020	10,800	7,780	9,734	
December	252,670	10,100	4,460	8,151	
Calendar year 1935	4,231,580	30,500	4,460	11,590	
January	248,920	9,880	4,580	8,030	
February	241,140	10,400	4,200	8,315	
March	276,380	10,400	6,560	8,915	
April	390,110	23,200	4,650	13,000	
May	489,400	21,100	10,800	15,790	
June	285,750	12,900	6,340	9,458	
July	228,230	8,520	5,710	7,362	
August	212,440	8,000	4,800	6,853	
September	178,750	7,260	4,060	5,958	
Water year 1935-36	3,388,800	23,200	4,060	9,259	

Kawishiwi River near Winton, Minn.

Location.- Lat. 47°56', long. 91°46', 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.- 1,300 square miles.

Records available.- June 1905 to June 1907, October 1912 to September 1919, September 1923 to September 1936.

Average discharge.- 19 years (1913-19, 1923-36), 777 second-feet.

Extremes.- Maximum daily discharge during year, 7,350 second-feet May 15; minimum, 7 second-feet Sept. 26.
1905-7, 1912-19, 1923-36: Maximum daily discharge, that of May 15, 1936; no flow a number of times 1905-7, 1923-28, 1934.

Remarks.- Records good except those for periods of high water, which are fair. Flow is entirely regulated by several reservoirs. Records collected by Minnesota Power & Light Co., under general supervision of the U. S. Geological Survey in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	667	629	508	471	367	202	272	2,480	2,900	992	249	224
2	731	639	508	668	226	252	177	2,760	2,450	1,090	68	224
3	635	508	476	514	314	277	333	2,770	2,340	799	281	224
4	764	470	508	607	339	374	219	3,200	2,160	702	234	224
5	635	466	508	470	339	309	129	3,750	2,010	518	347	39
6	363	466	565	351	307	277	304	4,590	1,700	617	376	97
7	612	434	495	518	339	309	310	5,290	1,660	596	487	32
8	538	499	463	582	133	262	306	5,790	1,540	725	423	218
9	570	508	565	615	364	252	241	6,370	1,500	725	133	224
10	667	605	565	456	236	277	274	6,480	1,410	725	277	246
11	699	583	565	536	342	363	306	6,790	1,530	693	324	224
12	524	504	533	258	411	459	306	7,100	1,470	558	321	289
13	290	565	449	399	488	406	365	7,230	1,390	584	321	129
14	579	564	495	456	439	342	300	7,220	1,280	666	289	132
15	602	503	547	553	331	97	642	7,350	1,330	505	135	224
16	571	573	601	533	129	349	468	7,190	1,220	735	65	160
17	505	634	672	553	341	211	594	7,150	1,150	618	185	224
18	408	420	672	466	348	308	623	7,080	1,080	623	367	192
19	343	521	672	300	374	389	872	6,940	891	536	224	100
20	466	526	698	468	342	355	1,050	6,660	766	643	225	65
21	463	510	667	533	341	399	850	6,440	605	695	224	186
22	507	482	583	533	284	173	717	6,050	731	734	104	224
23	499	482	601	565	97	251	1,180	5,660	863	527	96	160
24	434	482	639	442	381	554	1,230	5,280	887	580	316	192
25	499	436	518	551	309	319	1,220	5,180	860	361	329	224
26	506	610	583	266	309	307	1,580	4,930	794	292	128	7.0
27	476	738	607	417	374	242	1,320	4,880	826	322	224	65
28	438	567	639	474	309	122	1,360	4,570	826	414	418	300
29	402	476	462	442	342	32	1,570	3,860	826	300	104	156
30	465	508	558	381	-	370	1,790	3,600	893	428	97	86
31	586	-	667	404	-	473	-	3,390	-	367	251	-

Month	Observed				Gain or loss from storage	Adjusted for storage*		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	16,443	764	290	530	+106	636	0.489	0.56
November	15,908	738	420	530	+110	640	.492	.55
December	17,589	698	449	567	-253	314	.242	.28
Calendar year 1935	327,553	4,330	65	897	+25	922	.709	9.62
January	14,780	666	268	477	-202	275	.212	.24
February	9,257	488	97	319	-134	185	.142	.15
March	9,292	564	32	300	-46	254	.195	.22
April	20,908	1,790	129	697	+499	1,196	.920	1.03
May	168,030	7,350	2,480	5,420	+316	5,736	4.41	5.08
June	39,888	2,900	605	1,330	-140	1,190	.915	1.02
July	18,670	1,090	272	602	-296	306	.235	.27
August	7,622	487	65	246	-208	38	.029	.03
September	5,091.0	300	7.0	170	-42	128	.098	.11
Water year 1935-36	343,478.0	7,350	7.0	938	-25	913	.702	9.54

*Adjustments have been made for storage in the following lakes, the regulation from same being artificial and from others natural: Garden Farm, Little Farm, White Iron, Birch, Gabbro, Little Gabbro, Bald Eagle, and Camp Six.

Vermilion River below Lake Vermilion, near Tower, Minn.

Location.- Staff gage, lat. 47°58', long. 92°28', in sec. 2, T. 63 N., R. 17 W., just below dam at outlet of Lake Vermilion, 4 miles above Twomile Creek, which enters from the west, and about 18 miles across Lake Vermilion from Tower.

Drainage.- 530 square miles.

Records available.- May 1911 to September 1917, June 1928 to September 1936.

Average discharge.- 14 years, 268 second-feet.

Extremes.- Maximum discharge observed during year, 1,160 second-feet May 11-14; maximum gage height, 3.00 feet May 11; minimum discharge observed, 44 second-feet Sept. 30 (gage height, 0.02 foot).

1911-17, 1928-36: Maximum discharge observed, 2,050 second-feet Apr. 29 to May 7, 1916 (gage height, 3.8 feet); minimum discharge, 34 second-feet Oct. 24, 25, 1929, Sept. 21, 1934, several days in October and November 1934.

Remarks.- Records good. Gage read three times a week; discharge estimated for days when gage was not read.

Rating table, water year 1935-36 (gage height, in feet, and discharge in second-feet)

0	42	1.6	394
.2	62	1.8	477
.4	83	2.0	571
.6	114	2.2	673
.8	154	2.4	783
1.0	202	2.6	900
1.2	258	2.8	1,020
1.4	322	3.0	1,160

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	*229	229	*190	154	140	*144	*960	*900	*376	132	55
2	*216	225	*229	190	154	*144	144	960	900	376	130	*52
3	209	220	229	*190	*154	138	*144	960	*900	*376	*129	51
4	*202	*216	*229	190	149	*133	144	*960	870	364	112	*50
5	202	216	229	190	*144	133	144	1,020	*841	352	*96	49
6	202	*216	*229	*190	144	*133	*144	*1,090	841	*340	94	48
7	*202	222	225	190	*144	137	144	1,090	841	314	*93	*47
8	202	*229	220	*190	144	140	*144	*1,090	*841	*289	92	46
9	*202	234	*216	190	144	*144	138	1,110	784	289	91	*46
10	196	239	216	*190	*144	144	*133	1,140	*727	*289	*90	48
11	*190	*244	*216	190	144	*144	140	*1,160	727	279	88	*50
12	199	244	216	190	*144	149	147	1,160	*727	268	*86	51
13	207	*244	*216	*190	144	*154	*164	*1,160	700	*258	82	*52
14	*216	244	211	190	*144	154	154	*1,160	674	251	*78	*60
15	209	*244	207	*190	144	154	*154	*1,090	*647	*244	77	54
16	*202	244	*202	184	144	*154	166	1,090	634	236	75	*47
17	178	244	202	*177	*144	160	*177	1,090	*621	*229	*74	48
18	*154	*244	*202	177	144	*166	209	*1,090	596	*229	68	*48
19	166	236	202	177	*144	160	242	1,090	*571	216	*63	48
20	178	*229	*202	*177	144	*154	*274	*1,090	547	*202	59	49
21	*190	229	202	177	*144	151	325	1,090	524	190	*55	*49
22	190	*229	202	*177	140	147	*376	*1,090	*500	*177	54	50
23	*190	229	*202	172	137	*144	405	1,090	488	172	52	*52
24	190	229	202	*166	*133	149	*434	1.090	*477	*166	*51	49
25	*190	*229	*202	166	138	*154	472	*1,090	456	162	50	*46
26	194	229	196	166	*144	154	509	1,060	*434	158	*50	46
27	198	*229	*190	*166	138	*154	*547	*1,020	422	*154	50	47
28	*202	229	190	160	*133	154	584	990	411	149	*56	*47
29	216	*229	190	*154	137	154	*621	*965	399	*144	57	46
30	*229	229	*190	154	-	*154	790	944	387	138	57	*44
31	229	-	190	*154	-	149	-	922	-	*133	*58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,166	229	154	199	0.375	0.43
November	6,953	244	216	232	.438	.49
December	6,483	229	190	209	.394	.45
Calendar year 1935	119,856	900	44	328	.619	8.42
January	5,554	190	154	179	.338	.39
February	4,159	154	133	143	.270	.29
March	4,599	166	133	148	.279	.32
April	8,303	790	133	277	.523	.58
May	32,911	1,160	922	1,062	2.00	2.31
June	19,387	900	387	646	1.22	1.36
July	7,520	376	133	243	.458	.53
August	2,399	132	50	77.4	.146	.17
September	1,475	60	44	49.2	.093	.10
Water year 1935-36	105,909	1,160	44	289	.545	7.42

*Gage read on this day; discharge interpolated for intervening days.

Kabetogama Lake near Ray, Minn.

Location.- Chain gage and staff gage, lat. 48°27', long. 93°3', in SE¼SE¼ sec. 21, T. 69 N., R. 21 W., at State forest ranger station 8 miles northeast of Ray. Zero of gage is 1,105.24 feet above mean sea level.

Records available.- October 1933 to September 1936 (incomplete).

Extremes.- Maximum water-surface elevation observed during year, 1,119.04 feet June 18; minimum, 1,108.92 feet Apr. 23.
1933-36: Maximum water-surface elevation observed, 1,120.10 feet July 11, 1935; minimum, 1,107.80 feet Mar. 16, 1935.

Remarks.- Records good. Record furnished by Minnesota Department of Conservation, Division of Forestry. Elevation of water surface controlled by dam at Kettle Falls, outlet of Namakan Lake.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	15.43	-				-	-	-	18.70	17.74	-
2	-	-	-				-	-	-	-	-	-
3	-	-	-				-	-	16.80	-	17.62	16.24
4	-	-	-				-	10.49	17.08	18.58	-	-
5	17.72	14.74	-				-	10.74	17.34	-	-	16.14
6	-	-	-				-	10.98	17.64	18.50	17.74	16.14
7	17.62	14.34	-				-	-	-	-	-	-
8	-	-	-				-	11.39	-	-	17.40	-
9	-	-	11.00				-	-	-	-	-	16.04
10	17.52	-	-				-	-	18.44	18.24	17.26	-
11	-	-	-				-	12.08	18.60	-	-	-
12	17.46	13.76	-				-	12.30	18.74	-	-	15.94
13	-	-	-				-	-	-	-	17.14	-
14	-	-	-				-	12.82	-	-	-	-
15	17.36	-	-				-	-	18.96	-	16.94	15.92
16	-	-	-				-	13.26	-	18.04	-	-
17	-	-	-				-	13.34	-	-	16.86	-
18	-	-	-				-	-	19.04	-	-	15.84
19	16.96	-	-				-	-	-	-	16.82	-
20	-	-	-				-	14.14	-	-	16.74	15.76
21	-	12.54	-				-	-	-	18.02	-	-
22	16.74	12.42	-				-	14.64	19.02	-	16.68	-
23	16.64	-	-				8.92	14.86	-	-	-	15.64
24	16.54	-	-				-	-	-	-	16.54	-
25	-	-	-				9.14	15.30	18.94	17.98	-	-
26	16.34	-	-				-	-	18.92	-	16.39	15.54
27	16.22	-	-				-	15.68	-	17.94	-	-
28	-	-	-				-	-	18.82	17.82	0	15.49
29	-	-	-				-	-	-	17.84	16.36	-
30	-	-	-				-	16.14	-	17.78	16.34	15.39
31	-	-	-				-	16.32	-	-	-	-

Note.- Add 1,100 feet to obtain elevation above mean sea level.

Little Fork River at Little Fork, Minn.

Location.- Wire-weight gage, lat. 48°24', long. 93°34', in NW¼ sec. 9, T. 68 N., R. 25 W., at bridge on State Highway 65 at Little Fork, 1½ miles above mouth of Beaver Creek. Prior to June 22, 1936, chain gage at same site and datum.

Drainage area.- 1,620 square miles.

Records available.- June 1909 to September 1917, June 1928 to September 1936.

Average discharge.- 14 years (1911-17, 1928-36), 772 second-feet.

Extremes.- Maximum discharge observed during year, 9,090 second-feet Apr. 20 (gage height, 23.30 feet, affected by ice); minimum discharge, 21 second-feet Aug. 26, 27 (gage height, 2.52 feet).
1909-17, 1928-36: Maximum discharge observed, 19,300 second-feet Apr. 18, 1916 (gage height, 37 feet); minimum discharge, that of Aug. 26, 27, 1936.

Remarks.- Records good except those for period of ice effect, Nov. 3 to Apr. 20, which were computed on basis of five discharge measurements, gage heights, notes by engineers and observer, and weather records and are fair. Gage read once daily except Apr. 12-22, when it was read twice daily. Graph based on gage readings used Apr. 12-25, Apr. 30 to May 11.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

4.5	19	5.6	186	8.0	920	14.0	3,760
4.6	29	5.8	231	9.0	1,310	15.0	4,300
4.8	52	6.0	280	10.0	1,720	16.0	4,880
5.0	77	6.5	414	11.0	2,180	17.0	5,510
5.2	107	7.0	564	12.0	2,690	18.0	6,200
5.4	145	7.5	738	13.0	3,220	21.0	8,450

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	359	280	145	77	54	101	3,440	1,150	186	41	88
2	176	359	268	145	77	54	97	4,760	996	197	40	88
3	176	359	268	145	74	54	84	5,510	882	243	39	87
4	186	346	255	145	74	53	111	5,710	774	255	38	84
5	197	332	255	135	72	53	111	5,510	702	268	36	76
6	186	319	268	135	70	53	107	5,000	632	268	33	69
7	186	332	280	135	69	51	116	4,410	666	243	31	63
8	186	346	268	135	67	53	125	3,980	666	231	30	60
9	165	359	255	135	64	54	135	3,710	702	197	29	58
10	176	359	243	125	62	56	702	3,540	666	176	37	57
11	176	359	231	125	62	57	738	3,380	666	155	34	56
12	176	359	231	125	58	57	1,390	3,220	598	135	31	57
13	176	386	220	120	56	56	2,080	2,850	532	120	30	56
14	176	386	220	120	53	54	2,900	2,530	471	107	31	53
15	186	359	220	114	53	54	3,540	2,280	414	101	27	56
16	186	359	220	112	53	52	4,470	1,990	386	91	26	52
17	186	359	220	111	53	54	5,710	1,720	386	83	25	50
18	186	359	208	109	52	57	7,250	1,680	359	83	24	50
19	186	359	208	109	51	59	8,220	1,590	359	78	24	51
20	186	359	197	109	51	64	8,610	1,590	346	67	24	56
21	208	359	186	105	51	67	6,950	1,510	319	69	23	64
22	231	346	176	105	51	69	4,940	1,430	306	64	22	74
23	268	346	176	102	51	72	3,920	1,430	280	60	23	72
24	293	332	176	96	51	74	3,540	1,590	255	57	23	69
25	332	332	176	91	53	88	3,110	1,720	231	56	22	65
26	386	332	165	90	56	107	3,060	1,810	220	54	21	64
27	386	319	165	88	56	111	3,060	1,810	186	52	21	63
28	359	306	155	85	57	112	3,000	1,640	186	50	51	63
29	359	280	155	83	54	112	2,950	1,550	176	48	64	62
30	346	280	155	80	-	109	3,170	1,390	165	45	74	57
31	359	-	145	80	-	105	-	1,270	-	45	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,157	386	176	231	0.143	0.16
November	10,346	386	280	345	.213	.24
December	6,645	280	145	214	.132	.15
Calendar year 1935	325,061	8,000	60	891	.550	7.46
January	3,539	145	80	114	.070	.08
February	1,728	77	51	59.6	.037	.04
March	2,125	112	51	68.5	.042	.05
April	84,297	8,610	84	2,810	1.73	1.93
May	85,550	5,710	1,270	2,760	1.70	1.96
June	14,677	1,150	165	489	.302	.34
July	3,884	262	45	125	.077	.09
August	1,064	90	21	34.3	.021	.02
September	1,920	88	50	64.0	.040	.04
Water year 1935-36	222,932	8,610	21	609	.376	5.10

Big Fork River at Big Falls, Minn.

Location.- Staff gage, lat. 48°12', long. 93°48', in sec. 35, T. 155 N., R. 25 W., at Big Falls, 500 feet below falls and a quarter of a mile downstream from bridge on U. S. Highway 71.

Drainage area.- 1,520 square miles.

Records available.- August 1909 to December 1912, June 1928 to September 1936.

Extremes.- Maximum discharge observed during year, 3,480 second-feet Apr. 18, May 5; maximum gage height, 7.54 feet Apr. 18; minimum discharge observed, 28 second-feet Aug. 13, 18, 19, 23-24 (gage height, 2.60 feet).
1909-12, 1928-36: Maximum discharge observed, 5,440 second-feet Apr. 20, 1933 (gage height, 8.71 feet), minimum, 18 second-feet Jan. 22-25, 28-30, 1935.

Remarks.- Records good except those for periods of ice effect, Nov. 9 to Apr. 14, which were computed on basis of five discharge measurements, gage heights, and weather records and are fair. Gage read once daily except Sundays.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.6	28	4.5	950
2.8	67	5.0	1,320
3.0	122	5.5	1,720
3.2	190	6.0	2,150
3.4	272	6.5	2,650
3.6	364	7.0	3,150
3.8	474	7.5	3,700
4.0	600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	294	*194	108	70	*45	96	2,550	1,100	138	46	58
2	290	255	190	102	*68	46	96	2,750	950	148	*44	56
3	294	*257	186	99	65	44	93	*2,900	845	158	42	51
4	281	259	179	99	65	42	83	3,050	740	154	41	53
5	272	264	183	*100	65	39	*84	3,480	670	*149	41	56
6	*268	251	190	102	62	39	85	3,260	600	144	39	*54
7	264	222	198	96	58	41	83	2,850	*600	138	39	53
8	255	238	*194	88	56	*42	80	2,550	600	116	44	51
9	251	264	190	88	*56	42	90	2,350	600	108	*40	53
10	247	*274	194	80	56	41	110	*2,250	568	96	36	58
11	251	285	183	80	53	39	151	2,150	535	88	31	60
12	255	294	190	*80	53	38	243	1,970	446	*86	30	58
13	*264	294	190	80	56	34	740	1,800	417	85	28	*59
14	272	285	179	75	56	38	2,550	1,640	*390	88	33	60
15	281	272	*174	77	49	*37	3,260	1,560	364	88	34	75
16	290	264	168	77	*46	36	3,480	1,480	316	83	*32	80
17	290	*258	154	75	44	41	3,260	*1,440	298	80	30	77
18	290	251	158	70	46	39	3,150	1,400	281	72	28	83
19	294	251	158	*71	44	41	3,370	1,320	268	*70	28	80
20	*296	251	148	72	44	41	3,260	1,320	255	67	30	*84
21	298	251	141	70	44	41	2,750	1,240	234	62	30	88
22	303	255	*134	70	46	*45	2,250	1,240	214	60	28	110
23	294	243	128	70	*48	49	1,970	1,170	190	58	*28	105
24	285	*238	132	72	49	62	1,800	1,400	176	58	28	102
25	272	234	122	72	46	67	1,640	1,240	158	56	30	96
26	268	226	116	*72	44	77	*1,640	1,400	141	*54	31	102
27	*270	222	113	72	46	83	1,640	1,400	128	53	34	*104
28	272	222	110	70	49	93	1,800	1,480	*125	51	58	105
29	272	206	*108	70	44	*96	1,880	1,400	122	51	60	102
30	281	198	105	72	-	99	2,060	1,320	125	49	*60	99
31	316	-	108	72	-	99	-	*1,210	-	49	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,626	316	247	278	0.183	0.21
November	7,578	294	198	253	.166	.19
December	4,917	198	105	159	.105	.12
Calendar year 1935	148,962	3,590	18	408	.268	3.66
January	2,501	108	70	80.7	.053	.06
February	1,528	70	44	52.7	.035	.04
March	1,616	99	34	52.1	.034	.04
April	43,794	3,480	80	1,460	.961	1.07
May	58,570	3,480	1,170	1,889	1.24	1.43
June	12,456	1,100	122	415	.273	.30
July	2,757	158	49	88.9	.058	.07
August	1,163	60	28	37.5	.025	.03
September	2,272	110	51	75.7	.050	.06
Water year 1935-36	147,778	3,480	28	404	.266	3.62

*Interpolated.

MISSISSIPPI RIVER

Lake Itasca at Lake Itasca, Minn.

Location.- Staff gage, lat. 47°14', long. 95°12', in sec. 2, T. 143 N., R. 36 W., on east shore of Lake Itasca, one-eighth mile above outlet and about one-eighth mile from Lake Itasca post office.

Records available.- May 1933 to September 1936.

Extremes.- Maximum water-surface elevation observed during year, 1,474.64 feet May 23; minimum, 1,473.80 feet Aug. 22, 29, Sept. 5, 26.
1933-36: Maximum water-surface elevation observed, that of May 23, 1936; minimum, 1,473.76 feet Sept. 5-7, Oct. 1-15, 1933.

Remarks.- Gage-height record furnished by Minnesota Division of State Parks. Gage heights have been reduced to mean sea-level datum. Elevation of lake regulated by dam at outlet and by storage in lakes above.

Elevation, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	74.36	-	-	-	-	-	73.94	-
2	-	74.18	-	-	-	-	-	74.48	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	74.36	-	-	74.40	-	-	74.36	-	-
5	74.10	-	-	-	-	-	-	-	-	-	-	73.80
6	-	-	-	-	-	-	-	-	74.54	-	-	-
7	-	-	74.32	-	-	74.38	-	-	-	-	-	73.82
8	-	-	-	-	74.38	-	-	-	-	-	73.94	-
9	-	74.26	-	-	-	-	-	74.48	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	74.36	-	-	74.38	-	-	74.26	-	-
12	74.20	-	-	-	-	-	-	-	-	-	-	73.90
13	-	-	-	-	-	-	-	-	74.44	-	-	-
14	-	-	74.36	-	-	74.38	-	-	-	-	-	-
15	-	-	-	-	74.36	-	-	-	-	-	73.88	-
16	-	74.28	-	-	-	-	-	74.58	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	74.34	-	-	74.36	-	-	74.18	-	-
19	74.18	-	-	-	-	-	-	-	-	-	-	73.86
20	-	-	-	-	-	-	-	74.55	74.36	-	-	-
21	-	-	74.36	-	-	74.38	-	-	-	-	-	-
22	-	-	-	-	74.36	-	-	-	-	-	73.80	-
23	-	74.28	-	-	-	-	-	74.64	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	74.36	-	-	74.44	-	-	74.08	-	-
26	74.16	-	-	-	-	-	-	-	-	-	-	73.80
27	-	-	-	-	-	-	-	-	74.26	-	-	-
28	-	-	74.36	-	-	74.38	-	-	-	-	-	-
29	-	-	-	-	74.36	-	-	-	-	-	73.80	-
30	-	74.26	-	-	-	-	-	74.56	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-

Note.- Add 1,400 feet to obtain elevation above mean sea level.

Mississippi River below Sandy River, near Libby, Minn.

Location.- Water-stage recorder, lat. 46°47', long. 93°20', in sec. 25, T. 50 N., R. 24 W., 600 feet below mouth of Sandy River and three-quarters of a mile northwest of Libby. Zero of gage is 1,204.55 feet above mean sea level (general adjustment of 1912).

Drainage area.- 5,060 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge during year, 5,150 second-feet May 12 (gage height, 11.01 feet); minimum, 128 second-feet Aug. 28 (gage height, 1.58 feet).
1930-36: Maximum discharge, that of May 12, 1936; minimum (estimated because of ice effect), 104 second-feet Dec. 29, 1932.

Remarks.- Records excellent except those for periods of ice effect, Nov. 14-16, Nov. 21 to Apr. 14, which were computed on basis of four discharge measurements, gage heights, and weather records, and are fair. Flow regulated by Government reservoirs above.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	134	2.8	615	6.0	2,261
1.8	200	3.0	715	7.0	2,781
2.0	270	3.2	815	8.0	3,320
2.2	345	3.6	1,015	9.0	3,900
2.4	429	4.0	1,221	10.0	4,500
2.6	520	5.0	1,741	11.0	5,150

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	386	497	605	630	429	479	520	3,660	2,050	665	284	221
2	318	534	562	511	416	488	520	3,780	1,840	715	306	238
3	378	520	474	483	438	434	615	3,900	1,790	715	341	214
4	333	520	447	591	506	353	601	4,320	1,640	765	314	214
5	306	426	558	596	442	345	572	4,500	1,380	815	224	221
6	329	281	620	605	438	357	591	4,560	1,300	595	281	204
7	378	314	655	715	442	322	601	4,700	1,300	374	306	210
8	345	416	665	645	497	314	456	4,960	1,320	801	299	235
9	270	434	645	790	474	408	420	4,960	1,170	1,220	295	270
10	270	438	567	840	395	395	529	4,960	1,140	1,120	345	274
11	277	479	529	715	299	288	765	5,080	1,170	1,200	318	306
12	281	497	488	640	281	322	1,060	5,150	1,140	1,380	210	299
13	277	434	520	586	288	425	1,380	5,020	1,040	1,480	238	310
14	310	412	548	520	333	470	1,640	4,890	1,120	1,480	306	302
15	333	395	520	438	408	492	1,900	4,760	1,170	1,430	322	277
16	413	416	520	502	366	492	2,160	4,630	965	1,380	302	256
17	548	474	570	474	390	456	2,360	4,380	1,020	1,380	299	292
18	601	502	650	416	447	349	2,730	4,100	1,020	1,380	260	310
19	591	483	655	465	378	337	2,890	3,050	1,020	1,380	204	281
20	539	416	740	581	378	511	2,360	2,540	990	1,320	246	274
21	548	382	715	544	438	790	2,160	2,360	1,020	1,090	263	284
22	452	353	625	399	386	990	2,210	2,260	1,020	806	238	322
23	353	361	529	399	353	1,040	2,360	2,210	715	486	238	256
24	399	366	553	416	395	1,020	2,830	2,210	665	865	326	266
25	416	395	601	452	434	890	2,990	2,100	715	940	383	256
26	399	525	591	456	382	840	3,260	2,100	690	602	232	252
27	425	525	382	470	349	940	3,430	2,000	740	460	147	370
28	361	525	306	470	349	1,020	3,430	2,000	715	390	134	474
29	306	596	488	386	420	990	3,600	2,000	790	318	141	399
30	306	615	660	366	-	865	3,660	2,050	620	314	210	318
31	434	-	740	390	-	715	-	2,050	-	281	228	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,882	601	270	383	0.076	0.09
November	13,531	615	281	451	.089	.10
December	17,728	740	306	572	.113	.13
Calendar year 1935	298,455	2,830	190	818	.162	2.19
January	16,491	840	366	532	.105	.12
February	11,551	506	281	398	.079	.09
March	18,137	1,040	288	585	.116	.13
April	54,600	3,660	420	1,820	.360	.40
May	111,240	5,150	2,000	3,588	.709	.82
June	33,275	2,050	620	1,109	.219	.24
July	28,147	1,480	281	908	.179	.21
August	8,240	383	134	266	.053	.06
September	8,405	474	204	280	.055	.06
Water year 1935-36	333,227	5,150	134	910	.180	2.45

Mississippi River near Royalton, Minn.

Location.- Lat. 45°52', long. 94°22', 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 1936.

Average discharge.- 12 years, 2,351 second-feet.

Extremes.- Maximum daily discharge during year, 9,380 second-feet May 12; minimum, 300 second-feet Sept. 7, 9.
1924-36: Maximum daily discharge, 12,600 second-feet Apr. 22, 1927; minimum, 298 second-feet July 31, 1934.

Remarks.- Records good. Flow regulated by Government reservoirs on headwaters. Records furnished by Minnesota Power & Light Co. from record of power operation, under general supervision of the U. S. Geological Survey in connection with a Federal Power Commission project. Result of discharge measurement on Oct. 23, 1935, agreed with power-house determination within 7.1 percent.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,100	1,440	1,370	1,360	1,220	1,050	2,760	6,170	3,730	1,280	785	504
2	1,090	1,180	1,180	1,250	1,360	970	2,940	6,540	3,490	1,250	728	371
3	1,140	1,200	1,430	1,420	852	999	2,780	6,300	3,300	1,120	678	450
4	910	1,270	1,480	1,450	1,130	939	2,860	7,110	3,220	1,030	521	358
5	1,220	1,550	1,450	1,400	1,300	960	2,750	7,670	2,940	1,060	706	363
6	1,100	1,280	1,480	1,360	1,080	1,020	2,180	7,280	2,920	982	496	413
7	777	1,370	1,510	1,340	1,130	1,040	1,970	7,910	2,790	1,300	417	300
8	957	1,420	1,420	1,410	1,150	1,060	2,380	7,970	2,510	1,160	314	321
9	973	1,320	1,350	1,290	1,200	948	2,370	8,490	2,650	1,050	402	300
10	838	1,320	1,130	1,350	1,080	1,070	2,750	8,610	2,370	1,130	346	665
11	1,000	950	1,370	1,440	1,190	1,050	3,020	8,950	2,380	822	364	715
12	1,220	1,020	1,430	1,520	1,120	1,040	3,190	9,380	2,120	915	354	600
13	1,460	1,480	1,470	1,440	1,100	1,040	3,620	9,300	2,020	1,660	342	818
14	1,180	1,620	1,600	1,430	1,070	1,120	4,740	9,340	2,080	1,700	525	1,030
15	1,220	1,680	1,480	1,440	1,110	1,040	5,510	9,270	1,820	1,870	338	727
16	1,180	1,520	1,530	1,360	1,250	1,080	5,750	8,770	1,880	1,930	375	492
17	1,210	1,430	1,510	1,330	1,140	1,090	6,010	8,300	1,900	1,930	390	471
18	1,080	1,260	1,400	1,260	956	1,050	5,560	7,940	1,780	2,030	364	983
19	1,320	1,400	1,260	1,220	957	1,140	5,240	7,640	1,710	2,080	350	746
20	1,410	1,330	1,230	1,340	1,090	1,450	5,030	7,600	1,670	1,620	481	499
21	1,290	969	1,430	1,260	975	2,060	5,640	6,440	1,500	1,720	819	567
22	1,690	898	1,340	1,200	1,020	2,450	5,500	5,780	1,480	1,770	583	601
23	1,480	1,140	1,380	1,230	1,040	2,300	4,600	5,200	1,500	1,880	852	583
24	1,270	1,370	1,390	1,360	1,020	2,380	4,700	4,820	1,350	1,790	531	475
25	1,420	1,290	1,370	1,170	973	2,420	4,900	4,700	1,510	1,510	442	879
26	1,410	1,350	1,280	1,160	1,080	2,660	5,160	4,550	1,510	1,210	500	692
27	1,280	1,320	1,400	1,190	1,040	2,620	5,170	4,410	1,430	1,240	496	439
28	1,140	1,070	1,320	1,210	1,080	3,000	5,280	4,210	1,270	1,290	575	627
29	1,240	1,140	1,450	1,180	1,020	2,980	5,380	4,020	996	1,380	738	592
30	1,310	1,450	1,320	1,150	-	2,880	5,840	3,620	1,310	1,060	842	738
31	1,380	-	1,380	1,180	-	2,420	-	3,630	-	849	667	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	37,295	1,690	777	1,203	0.104	0.12
November	39,037	1,680	898	1,301	.112	.12
December	43,140	1,600	1,130	1,392	.120	.14
Calendar year 1935	716,617	5,470	400	1,963	.169	2.29
January	40,700	1,520	1,150	1,313	.113	.13
February	31,633	1,300	852	1,091	.094	.10
March	49,328	3,000	939	1,591	.137	.16
April	125,580	6,010	1,970	4,186	.361	.40
May	211,920	9,380	3,620	6,836	.589	.68
June	63,136	3,730	996	2,105	.181	.20
July	43,618	2,080	822	1,407	.121	.14
August	16,321	852	314	526	.045	.05
September	17,319	1,030	300	577	.050	.06
Water year 1935-36	719,025	9,380	300	1,965	.169	2.30

Mississippi River at Elk River, Minn.

Location.- Water-stage recorder, lat. 48°15', long. 93°34', in SE¼ sec. 34, T. 33 N., R. 26 W. fourth principal meridian, in Elk River, 2,500 feet below mouth of Elk River. Zero of gage is 847.92 feet above mean sea level (general adjustment of 1912).

Drainage area.- 14,500 square miles.

Records available.- July 1915 to September 1936.

Average discharge.- 21 years, 4,115 second-feet.

Extremes.- Maximum discharge during year, 15,000 second-feet May 8 (gage height, 7.3f feet); minimum, 513 second-feet Sept. 10 (gage height, 1.62 feet).
1915-36: Maximum discharge, 27,000 second-feet Apr. 7, 1916 (gage height, 10.8 feet); minimum, 278 second-feet Nov. 15, 1933 (partly estimated because of ice effect).

Remarks.- Records excellent except those for period of ice effect, Nov. 21 to Apr. 11, which were computed on basis of four discharge measurements, gage-height records, weather records, and comparison with power-plant record at Coon Rapids and are good. Flow partly regulated by Government reservoirs on headwaters.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	495	2.2	1,170	3.2	2,920	4.6	6,060
.7	585	2.4	1,470	3.4	3,340	5.0	7,160
.8	680	2.6	1,800	3.6	3,760	6.0	10,100
.9	785	2.8	2,150	4.0	4,600	7.0	13,400
2.0	900	3.0	2,520	4.2	5,050	7.5	15,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	1,900	1,180	1,580	1,470	1,300	7,160	9,800	4,390	1,280	1,280	900
2	1,520	1,970	1,400	1,880	1,410	1,300	7,020	10,700	5,170	1,380	1,220	978
3	1,630	1,830	1,990	2,010	1,490	1,260	7,740	11,300	4,500	1,350	888	831
4	1,660	2,010	1,240	1,470	1,720	1,440	7,450	11,300	4,390	1,350	888	820
5	1,490	1,600	1,750	1,750	1,340	1,360	7,020	11,900	3,860	1,220	1,170	690
6	1,190	1,800	1,870	1,850	1,260	1,350	7,020	13,400	3,760	1,280	831	670
7	1,380	1,950	2,220	1,680	1,280	1,410	6,200	14,600	3,970	1,280	712	877
8	1,300	1,940	2,220	1,730	1,520	1,410	5,050	14,200	3,660	1,160	952	774
9	1,060	2,080	1,850	1,660	1,440	1,140	4,600	13,400	3,550	1,350	732	661
10	1,670	2,010	1,610	1,780	1,300	1,280	5,170	13,800	3,760	1,410	712	567
11	1,630	1,570	1,260	1,780	1,320	1,440	6,330	13,000	2,920	1,160	670	661
12	1,280	1,650	1,070	1,600	1,300	1,500	7,300	13,400	2,620	1,200	661	842
13	1,520	1,460	1,580	1,820	1,380	1,550	7,160	13,400	2,820	1,060	614	877
14	1,580	1,350	2,080	1,800	1,360	1,340	7,020	13,000	2,620	1,260	594	991
15	2,150	1,780	2,100	1,820	1,290	1,440	8,320	12,600	2,520	1,990	680	1,230
16	1,630	2,040	2,040	1,900	1,360	1,680	8,900	12,600	2,480	2,020	632	1,350
17	1,950	1,870	1,970	1,730	1,240	1,460	9,200	11,900	2,520	2,100	680	1,000
18	1,660	1,800	1,780	1,780	1,380	1,520	9,200	11,300	2,520	1,990	585	743
19	1,370	1,850	1,830	1,660	1,420	1,500	8,320	10,400	2,100	2,020	623	722
20	1,380	1,630	1,410	1,830	1,260	2,130	7,740	9,800	1,990	2,410	558	978
21	1,750	1,170	1,530	1,570	1,140	2,260	7,740	9,800	1,950	2,200	614	808
22	1,950	1,180	1,240	1,500	1,380	2,520	8,320	8,610	2,220	1,830	975	831
23	1,990	1,160	1,650	1,320	1,140	4,080	8,030	8,320	1,920	1,800	1,540	764
24	2,060	1,470	1,700	1,490	1,180	5,670	6,880	7,740	1,830	1,970	732	796
25	1,750	1,850	1,400	1,650	1,360	5,540	6,880	6,740	1,770	2,020	985	820
26	1,860	1,870	1,650	1,770	1,320	5,420	7,020	6,060	1,750	1,920	1,100	774
27	1,990	1,940	1,520	1,500	1,400	6,200	7,160	6,200	1,780	1,530	732	1,040
28	1,770	1,200	1,530	1,530	1,410	6,200	7,160	5,800	1,700	1,290	754	1,060
29	1,660	965	1,660	1,460	1,440	7,020	7,740	5,420	1,780	1,300	1,000	764
30	1,580	1,780	1,830	1,440	-	7,450	8,030	5,050	1,550	1,530	888	670
31	2,080	-	1,800	1,500	-	7,160	-	4,710	-	1,490	831	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	51,260	2,150	1,060	1,654	0.114	0.13
November	50,675	2,080	965	1,689	.116	.13
December	51,960	2,220	1,070	1,676	.116	.13
Calendar year 1935	954,242	7,160	551	2,614	.180	2.44
January	51,840	2,010	1,320	1,672	.115	.13
February	39,310	1,720	1,140	1,356	.094	.10
March	88,330	7,450	1,140	2,849	.196	.23
April	218,880	9,200	4,600	7,296	.503	.56
May	320,250	14,600	4,710	10,330	.712	.82
June	84,370	5,170	1,550	2,812	.194	.22
July	49,150	2,410	1,060	1,585	.109	.13
August	25,833	1,540	558	833	.057	.07
September	25,489	1,350	567	850	.059	.07
Water year 1935-36	1,057,347	14,600	558	2,889	.199	2.72

Mississippi River near Anoka, Minn.

Location.- Water-stage recorder, lat. 45°7'36", long. 93°17'48", in SW¼ sec. 12, T. 119 N., R. 21 W., 0.5 mile below Coon Creek, 1½ miles downstream from Coon Rapids hydroelectric plant of Northern States Power Co., and 6⅝ miles downstream from Anoka.

Drainage area.- 19,100 square miles.

Records available.- June 1931 to September 1936.

Extremes.- Maximum discharge during year, 17,100 second-feet May 7; maximum gage height, 8.60 feet (backwater from ice) Mar. 27; minimum discharge, 648 second-feet Aug. 15 (gage height, 0.49 foot).
1931-36: Maximum discharge, 17,600 second-feet Mar. 22, 1935 (gage height, 7.10 feet); minimum, 586 second-feet Sept. 13, 1934 (gage height, 0.37 foot).

Remarks.- Records excellent except those for period of ice effect, Dec. 9 to Apr. 8, and those for Oct. 26-30, Nov. 21, 22, 28, 29, Dec. 1-4, May 16, 17, July 18, 19, which were computed on basis of comparison with power-plant record and are good. Flow partly regulated by Government reservoirs on headwaters.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	660	1.4	1,950	2.6	4,210	3.8	7,010
.6	790	1.6	2,290	2.8	4,650	4.0	7,530
.7	920	1.8	2,630	3.0	5,090	4.5	8,870
.8	1,050	2.0	2,990	3.2	5,550	5.0	10,380
1.0	1,330	2.2	3,370	3.4	6,030	5.5	12,020
1.2	1,630	2.4	3,770	3.6	6,510	6.0	13,800
						7.0	17,500

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,810	2,290	1,520	1,850	1,590	1,400	12,800	11,200	5,200	1,720	1,400	1,070
2	2,030	2,210	1,470	2,030	1,620	1,410	12,000	12,700	5,730	1,490	1,450	1,370
3	1,800	2,360	2,180	2,190	1,600	1,350	11,900	13,400	5,270	1,820	1,080	1,150
4	1,960	2,420	1,620	1,800	1,850	1,550	11,100	13,100	5,080	1,600	875	1,090
5	1,800	2,110	1,800	1,890	1,610	1,500	10,300	14,200	4,360	1,670	1,180	1,010
6	1,780	2,030	2,070	2,070	1,460	1,570	9,580	15,600	4,520	1,400	1,050	919
7	1,370	2,320	2,340	1,870	1,480	1,530	8,590	16,700	4,360	1,630	852	1,040
8	1,790	2,250	2,610	1,940	1,570	1,590	7,200	16,700	4,450	1,430	784	1,130
9	1,470	2,370	2,140	1,890	1,600	1,380	8,000	16,000	4,210	1,530	942	1,000
10	1,560	2,350	1,770	1,910	1,520	1,480	8,610	16,400	4,280	1,710	742	853
11	2,210	2,000	1,670	2,060	1,350	1,730	10,100	15,600	3,840	1,410	700	834
12	1,780	1,740	1,380	1,930	1,560	1,690	11,400	15,600	3,040	1,400	694	1,110
13	2,070	2,000	1,760	1,910	1,560	1,650	11,700	15,600	3,220	1,380	686	1,130
14	1,880	1,650	2,290	2,070	1,470	1,690	11,000	14,900	3,170	1,200	699	1,210
15	2,480	2,040	2,220	1,890	1,470	1,630	13,000	14,500	3,030	2,140	699	1,440
16	2,190	2,330	2,310	2,120	1,550	1,800	13,800	14,500	2,920	2,120	859	1,560
17	2,160	2,480	2,200	1,940	1,400	1,830	14,200	13,800	2,860	2,290	718	1,480
18	2,480	2,210	2,030	1,950	1,450	1,620	14,500	12,490	2,890	2,130	836	1,230
19	1,560	2,280	2,120	1,920	1,590	1,760	13,100	11,700	2,880	2,210	724	994
20	1,820	2,060	1,530	1,970	1,550	2,290	12,400	11,000	2,190	2,320	732	1,080
21	2,170	1,350	1,790	1,900	1,260	2,920	11,300	11,000	2,290	2,520	752	1,290
22	2,280	1,370	1,540	1,750	1,440	3,760	11,300	9,750	2,520	2,150	1,060	1,100
23	2,380	1,340	1,810	1,580	1,410	5,880	10,700	9,370	2,230	1,960	1,950	970
24	2,360	1,710	1,930	1,590	1,190	10,000	9,750	8,960	2,190	2,090	1,070	966
25	2,290	2,150	1,680	1,830	1,520	11,100	9,080	7,860	2,080	2,190	878	1,140
26	2,110	2,130	1,760	1,860	1,490	10,700	9,220	7,190	2,110	2,200	1,510	1,030
27	2,320	2,200	1,770	1,780	1,500	11,600	9,270	7,220	2,060	1,770	1,090	1,140
28	2,810	1,770	1,760	1,580	1,490	12,300	9,100	6,870	2,060	1,500	1,080	1,470
29	1,880	1,050	1,870	1,820	1,500	13,500	9,440	6,310	2,090	1,360	1,230	1,010
30	2,030	2,030	1,890	1,500	-	14,200	9,770	5,950	1,930	1,620	1,330	929
31	2,210	-	2,080	1,690	-	13,300	-	5,620	-	1,710	1,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	62,840	2,810	1,370	2,027	0.106	0.12
November	60,600	2,480	1,050	2,020	.106	.12
December	58,910	2,610	1,380	1,900	.099	.11
Calendar year 1935	1,120,605	9,140	790	3,070	.161	2.17
January	58,080	2,190	1,500	1,874	.098	.11
February	43,650	1,850	1,190	1,505	.079	.09
March	141,770	14,200	1,350	4,573	.239	.28
April	324,210	14,500	7,200	10,810	.566	.63
May	371,700	16,700	5,620	11,990	.628	.72
June	99,060	5,730	1,930	3,302	.173	.19
July	55,670	2,520	1,200	1,796	.094	.11
August	30,672	1,950	686	989	.052	.06
September	33,745	1,560	834	1,125	.059	.07
Water year 1935-36	1,340,907	16,700	686	3,664	.192	2.61

Mississippi River at St. Paul, Minn.

Location.- Staff gage, lat. 44°56'40", long. 93°5'20", in St. Paul, 6 miles below mouth of Minnesota River. Zero of gage is 684.16 feet above mean sea level (general adjustment of 1912).

Drainage area.- 36,800 square miles.

Records available.- March 1887 to September 1936.

Average discharge.- 44 years (1892-1936), 8,997 second-feet.

Extremes.- Maximum discharge observed during year, 37,500 second-feet Mar. 30 (gage height, 10.90 feet); minimum daily discharge, 668 second-feet Aug. 13.
1887-1936: Maximum discharge, 80,800 second-feet Apr. 6, 1897 (gage height, 18.0 feet); minimum, 632 second-feet Aug. 26, 1934.
Maximum discharge known, 107,000 second-feet Apr. 29, 1881 (gage height, 19.6 feet), determined by Corps of Engineers, U. S. Army.

Remarks.- Records good. Discharge for Oct. 1 to Mar. 22, May 24 to Sept. 30 computed by adding to the discharge of Mississippi River at Twin City Lock and Dam the discharge of Minnesota River at mouth (determined by increasing the discharge near Carver by 5 percent). Discharge for Mar. 23 to May 23 computed on basis of twice-daily gage readings at St. Paul and rating table based on five discharge measurements. Record of Mississippi River at Twin City Lock and Dam furnished by Ford Motor Co. from record of power operation. Gage readings at St. Paul furnished by Corps of Engineers, U. S. Army. Partial regulation by Government reservoirs on headwaters. Gage in backwater from Hastings Dam except during period Mar. 23 to May 23, when dam was open.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,710	2,690	1,840	2,270	1,830	1,730	35,500	13,700	6,800	2,120	1,550	1,340
2	2,210	2,360	1,600	2,320	1,730	1,490	33,500	14,900	6,690	1,860	1,100	1,650
3	1,940	2,800	2,310	2,520	1,620	1,580	31,100	15,500	6,530	2,370	1,450	1,550
4	1,970	2,720	2,160	2,280	1,960	1,720	28,800	16,000	6,120	1,940	1,020	1,360
5	1,990	2,600	1,660	1,960	1,840	1,810	24,900	16,200	5,370	2,110	856	1,320
6	1,880	2,160	2,640	2,490	1,650	1,670	21,900	17,300	5,880	1,760	1,090	1,400
7	1,380	2,690	2,540	2,190	1,680	1,790	19,100	18,200	5,390	1,780	1,010	1,220
8	1,910	2,500	2,870	2,260	1,670	1,800	17,300	18,900	5,720	1,850	829	1,590
9	1,660	2,560	2,500	2,240	2,060	2,120	16,400	18,600	5,050	1,620	779	1,380
10	1,560	2,680	1,960	2,190	1,570	2,020	16,000	18,400	5,020	2,020	906	1,290
11	2,460	2,350	1,870	2,360	1,530	2,260	16,400	18,400	5,100	1,660	835	1,110
12	1,880	1,820	1,730	2,230	1,700	2,550	17,700	18,200	3,930	1,680	778	1,070
13	2,350	2,280	1,830	1,980	1,650	2,560	18,400	18,200	4,180	1,550	668	1,370
14	2,190	1,840	2,550	2,400	1,610	2,520	18,200	17,900	3,060	1,440	715	1,420
15	2,550	1,980	2,580	2,110	1,530	2,310	18,400	17,500	3,740	2,020	899	1,790
16	2,590	2,550	2,680	2,410	1,560	2,600	19,100	17,100	4,040	2,170	833	1,690
17	2,420	2,710	2,660	2,290	1,600	2,950	19,400	16,400	3,710	2,340	583	1,770
18	2,630	2,370	2,520	2,170	1,560	3,640	19,400	15,700	3,830	2,280	366	1,370
19	1,960	2,560	2,350	2,310	1,740	5,100	18,600	14,900	3,640	2,180	927	1,190
20	1,990	2,470	1,700	2,210	1,730	6,940	17,900	14,100	2,930	2,390	927	1,200
21	2,730	1,650	1,910	2,230	1,340	9,880	17,100	13,700	2,990	2,710	1,190	1,610
22	2,360	1,410	1,850	1,730	1,550	14,500	16,400	13,300	3,150	2,470	1,240	1,250
23	2,580	1,760	1,860	1,830	1,550	16,600	16,000	12,900	3,160	2,000	2,010	1,390
24	2,660	1,980	2,260	1,740	1,450	22,600	15,500	10,400	2,910	2,040	1,470	1,040
25	2,660	2,680	1,930	1,610	1,680	27,000	14,300	9,300	2,470	2,220	1,080	1,260
26	2,200	2,400	1,900	2,090	1,730	30,200	13,500	8,670	2,770	2,050	1,620	1,070
27	2,450	2,550	2,140	2,100	1,620	33,000	13,700	9,110	2,540	2,060	1,400	1,150
28	2,530	1,960	1,820	1,860	1,640	35,000	13,700	9,010	2,570	1,810	1,270	1,830
29	2,010	1,280	2,080	2,000	1,560	37,000	13,500	8,360	2,800	1,320	1,250	1,250
30	2,430	2,090	2,300	1,680	-	37,500	13,700	7,360	2,660	1,340	1,690	983
31	2,590	-	2,340	1,950	-	37,000	-	7,110	-	1,460	1,290	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	68,430	2,730	1,380	2,207	0.060	0.07
November	68,460	2,800	1,280	2,282	.062	.07
December	66,940	2,870	1,600	2,159	.059	.07
Calendar year 1935	1,415,283	12,600	871	3,877	.105	1.44
January	66,010	2,520	1,610	2,129	.058	.07
February	47,940	2,060	1,340	1,653	.045	.05
March	351,440	37,500	1,490	11,340	.308	.36
April	575,400	35,500	13,500	19,180	.521	.58
May	445,320	18,900	7,110	14,370	.390	.45
June	124,750	6,800	2,470	4,158	.113	.13
July	60,620	2,710	1,320	1,955	.053	.06
August	34,409	2,010	668	1,110	.030	.03
September	40,913	1,830	983	1,364	.037	.04
Water year 1935-36	1,950,632	37,500	668	5,330	.145	1.98

Mississippi River at Prescott, Wis.

Location.- Water-stage recorder, lat. 44°44'45", long. 92°48'0", in sec. 9, T. 26 N., R. 20 W., in Prescott, 200 feet below mouth of St. Croix River. Zero of gage is 669.28 feet above mean sea level (general adjustment of 1912).

Drainage area.- 45,000 square miles.

Records available.- June 1928 to September 1936.

Extremes.- Maximum discharge during year, 52,500 second-feet Apr. 17 (gage height, 12.46 feet); minimum, 2,100 second-feet Aug. 14; minimum gage height, -2.45 feet Aug. 11. 1928-36: Maximum discharge, that of Apr. 17, 1936; minimum, that of Aug. 14, 1936; minimum gage height, -4.20 feet Aug. 29, 1934.

Remarks.- Records good Oct. 1 to Nov. 28, Mar. 25 to June 30 and fair for remainder of year. Stage-discharge relation affected by elevation of water surface in Lake Pepin. Discharge for period of ice effect, Dec. 21 to Mar. 24, computed on basis of seven discharge measurements, gage heights, and weather records. Discharge for Apr. 13-19 determined from gage heights and two discharge measurements. Discharge for remainder of year computed on basis of eleven discharge measurements and slope between Prescott, mile 43.7 (2 miles below Prescott), Diamond Bluff, and Red Wing, Minn., and comparison with other Mississippi River records. Gage readings, other than at Prescott, furnished by Corps of Engineers, U. S. Army. Flow partly regulated by reservoirs, navigation dams, and power plants above.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,450	5,950	5,400	4,810	3,950	3,950	46,000	25,500	11,500	4,800	3,100	3,600
2	4,200	6,200	5,200	4,930	3,850	3,950	45,000	26,000	11,000	4,400	3,100	3,600
3	4,100	6,500	4,700	4,810	3,760	3,850	43,000	29,000	11,000	4,400	2,800	3,700
4	4,100	6,500	4,700	4,810	3,670	3,850	42,000	30,000	10,500	4,400	2,700	3,600
5	4,250	6,300	4,700	4,810	3,670	3,950	39,000	32,000	10,500	4,300	2,500	3,700
6	4,200	6,300	5,000	4,690	3,850	4,050	35,500	33,000	10,000	4,400	2,400	3,700
7	4,100	6,400	5,600	4,470	4,050	4,150	32,000	35,000	10,000	4,300	2,400	3,600
8	3,900	6,800	5,800	4,470	4,050	4,250	31,000	37,000	9,400	4,000	2,400	3,600
9	4,200	6,800	5,900	4,580	4,050	4,250	27,000	39,000	9,500	3,800	2,300	3,600
10	4,100	6,700	6,000	4,580	4,050	4,360	25,000	39,000	9,000	3,800	2,300	3,600
11	4,200	6,400	5,800	4,580	3,850	4,690	27,000	38,000	8,800	3,900	2,200	3,600
12	4,350	5,800	5,700	4,580	3,760	5,050	31,000	36,000	8,500	3,700	2,200	3,500
13	5,100	6,100	5,600	4,360	3,670	5,050	38,000	35,000	8,000	3,700	2,200	3,800
14	5,150	6,300	5,700	4,250	3,670	5,290	45,200	34,000	7,900	3,700	2,100	4,000
15	5,200	5,800	5,600	4,360	3,580	5,290	50,400	33,000	7,200	3,400	2,200	4,200
16	5,400	5,900	5,600	4,250	3,490	5,170	51,800	31,000	7,000	3,700	2,200	4,200
17	5,700	6,000	5,300	4,360	3,310	5,290	51,800	30,000	7,200	3,700	2,200	4,400
18	5,600	6,300	5,700	4,470	3,220	5,670	51,800	28,000	6,800	4,000	2,400	4,200
19	5,500	6,300	4,600	4,360	3,220	6,620	51,800	27,000	6,800	4,000	2,300	4,100
20	5,200	6,000	4,500	4,250	3,310	8,170	49,000	25,000	6,400	3,700	2,300	3,900
21	5,500	6,000	4,250	4,050	3,400	11,200	46,000	23,000	6,100	3,800	2,400	3,800
22	5,500	5,100	4,250	4,150	3,400	15,000	43,000	23,000	5,800	4,100	2,800	4,000
23	5,500	4,700	4,150	4,250	3,400	19,600	40,000	22,000	5,800	4,000	3,000	3,800
24	5,500	4,600	4,050	4,150	3,580	27,400	36,000	20,000	5,700	3,600	3,400	3,600
25	5,500	4,800	4,150	4,150	3,580	32,000	34,000	18,000	5,500	3,700	2,900	3,500
26	5,700	5,300	4,250	4,150	3,850	37,000	31,000	16,000	5,500	3,700	3,300	3,700
27	5,500	5,900	4,360	4,150	3,850	41,000	28,000	14,000	5,200	3,700	3,500	3,500
28	5,700	6,400	4,470	4,050	3,850	43,000	27,000	13,000	5,100	3,800	4,100	3,300
29	5,650	5,700	4,470	4,050	3,850	43,000	26,500	14,000	5,000	3,800	3,600	3,500
30	5,500	5,400	4,690	3,950	-	44,000	26,000	12,500	5,000	3,000	3,600	3,500
31	6,400	-	4,810	4,050	-	45,000	-	12,000	-	3,000	3,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	154,950	6,400	3,900	4,998	0.111	0.13
November	179,250	6,800	4,600	5,975	.133	.15
December	155,000	6,000	4,050	5,000	.111	.13
Calendar year 1935	2,999,570	35,600	2,420	8,218	.183	2.48
January	135,930	4,930	3,950	4,385	.097	.11
February	106,790	4,050	3,220	3,682	.082	.09
March	455,100	45,000	3,850	14,680	.326	.38
April	1,150,800	51,800	25,000	38,360	.852	.95
May	830,000	39,000	12,000	26,770	.595	.69
June	231,700	11,500	5,000	7,723	.172	.19
July	120,300	4,800	3,000	3,881	.086	.10
August	84,500	4,100	2,100	2,726	.061	.07
September	112,400	4,400	3,300	3,747	.083	.09
Water year 1935-36	3,716,720	51,800	2,100	10,150	.226	3.08

Mississippi River at Winona, Minn.

Location.- Water-stage recorder, lat. 44°3'20", long. 91°38'15", in sec. 23, T. 107 N., R. 7 W., at highway bridge at Winona. Zero of gage is 634.64 feet above mean sea level (general adjustment of 1929).
Drainage area.- 59,200 square miles.
Records available.- June 1928 to September 1936.
Extremes.- Maximum discharge during year, 94,900 second-feet Apr. 20 (gage height, 12.30 feet); minimum, 4,870 second-feet (current-meter measurement) Aug. 19; minimum gage height, -1.11 feet July 23.
1928-36: Maximum discharge, that of Apr. 20, 1936; minimum (estimated because of ice effect), 2,250 second-feet Dec. 29, 1933.
Remarks.- Records excellent except those for period of ice effect, Dec. 21 to Mar. 22 (computed on basis of seven discharge measurements, gage heights, and weather records), and those for July 6 to Sept. 30 (computed from record of flow at Dam 6 at Trempealeau, Wis., corrected for storage and inflow), which are good. Gage readings at Dam 6 and storage diagram furnished by Corps of Engineers, U. S. Army. Flow partly regulated by reservoirs, navigation dams, and power plants above.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 22				Mar. 23 to July 5			
-1.6	8,000	1.0	14,700	-0.5	9,600	7.0	42,600
-1.0	9,200	1.5	16,350	0.0	10,800	8.0	49,600
-.5	10,400	2.0	18,100	1.0	13,300	9.0	57,000
0.0	11,740	3.0	22,100	2.0	16,300	10.0	65,900
.5	13,200			3.0	19,800	11.0	77,500
				4.0	24,500	12.0	90,700
				5.0	30,300	12.3	94,900
				6.0	36,300		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,500	15,600	10,400	10,400	8,800	10,900	84,000	51,000	25,500	11,600	5,440	7,790
2	11,500	18,100	9,900	10,900	8,800	10,900	81,400	50,300	23,000	11,300	5,300	7,410
3	11,500	18,900	9,400	11,200	8,800	10,900	76,300	48,900	21,500	11,000	5,170	9,040
4	11,500	19,700	9,650	11,500	8,800	10,700	73,900	49,600	20,600	10,600	5,440	8,110
5	11,500	21,700	9,650	11,500	8,800	10,700	70,300	50,300	18,600	10,600	5,580	8,210
6	11,700	21,700	10,200	11,500	8,600	10,200	64,900	51,700	19,800	10,200	5,580	8,380
7	11,500	20,500	11,500	11,500	8,400	10,200	62,000	52,400	20,200	9,310	5,580	12,500
8	11,500	19,300	12,600	11,200	8,200	10,900	58,600	52,400	19,000	8,820	5,590	11,000
9	10,700	17,000	13,500	11,200	8,400	11,200	56,200	53,800	17,800	8,720	5,730	8,230
10	10,400	15,600	12,900	11,500	8,600	12,000	53,800	59,400	19,400	8,530	5,440	6,620
11	10,700	15,600	13,200	11,500	8,800	16,400	52,400	67,000	17,800	8,410	5,590	8,300
12	10,400	15,600	14,400	11,500	8,600	19,700	51,000	72,700	17,500	8,350	5,300	8,370
13	9,900	14,700	12,900	11,500	8,400	21,300	51,700	71,500	16,300	8,160	5,300	8,360
14	10,400	14,400	12,600	10,900	8,200	22,900	55,400	67,000	16,300	7,900	5,170	7,100
15	10,400	15,300	12,900	11,200	8,400	22,900	62,900	63,900	15,400	7,980	5,040	10,700
16	10,400	15,000	13,200	10,400	8,400	22,100	75,100	59,400	13,600	7,980	5,040	11,000
17	10,400	13,800	13,500	10,200	8,200	21,700	85,300	57,000	15,100	7,940	5,040	7,810
18	10,400	13,800	13,500	10,700	8,200	21,700	90,700	53,800	14,500	7,460	5,040	8,100
19	10,400	14,100	13,200	10,700	8,600	22,900	93,500	51,700	12,300	7,160	5,010	8,140
20	10,400	13,500	12,900	10,200	8,600	25,800	94,900	48,900	13,300	7,080	5,230	10,500
21	10,700	14,100	11,500	9,900	8,600	35,800	92,100	46,100	12,300	6,450	5,380	10,400
22	13,200	13,200	10,400	9,400	9,000	45,100	86,600	44,000	12,600	6,320	6,200	9,700
23	13,800	11,700	9,900	9,200	9,000	53,100	80,100	42,600	12,800	5,940	6,260	8,040
24	13,200	10,700	9,000	9,000	9,200	56,200	72,700	40,500	12,600	5,820	6,260	9,220
25	12,300	10,700	8,600	8,800	9,900	59,400	67,000	38,700	12,300	5,680	6,140	7,720
26	11,200	11,500	9,000	9,000	10,200	65,900	62,000	35,100	12,000	5,660	6,360	7,180
27	11,200	11,200	9,400	9,000	10,700	75,100	57,800	32,100	12,000	6,060	7,370	8,800
28	11,700	14,100	9,900	9,200	10,700	81,400	54,600	30,900	11,600	6,440	14,700	7,730
29	11,700	13,500	10,200	9,000	10,700	84,000	51,000	29,100	11,600	5,720	13,800	7,180
30	11,200	11,200	10,400	8,800	-	86,600	48,900	28,500	11,600	5,850	10,800	7,180
31	12,000	-	10,700	8,800	-	85,300	-	26,700	-	5,490	8,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	349,300	13,800	9,900	11,270	0.190	0.22
November	455,800	21,700	10,700	15,190	.257	.29
December	351,000	14,400	8,600	11,320	.191	.22
Calendar year 1935	6,757,000	75,200	8,600	18,510	.313	4.25
January	321,300	11,500	8,800	10,360	.175	.20
February	258,600	10,700	8,200	8,917	.151	.16
March	1,053,900	86,600	10,200	34,000	.574	.66
April	2,067,100	94,900	48,900	68,900	1.16	1.29
May	1,527,000	72,700	26,700	49,260	.832	.96
June	478,900	25,500	11,600	15,960	.270	.30
July	244,530	11,600	5,490	7,888	.133	.15
August	198,700	14,700	5,010	6,410	.108	.12
September	258,820	12,500	6,620	8,627	.146	.16
Water year 1935-36	7,564,950	94,900	5,010	20,670	.349	4.73

Mississippi River at La Crosse, Wis.

Location.- Water-stage recorder, lat. 43°48'45", long. 91°15'25", in sec. 31, T. 16 N., R. 7 W., at wagon bridge in La Crosse. Zero of gage is 625.65 feet above mean sea level (general adjustment of 1929).
Drainage area.- 62,800 square miles.
Records available.- June 1929 to September 1936.
Extremes.- Maximum discharge during year, 100,000 second-feet Mar. 27, 28; maximum gage height, 11.92 feet Mar. 27; minimum discharge, 5,750 second-feet Aug. 16-20; minimum gage height, -2.52 feet Aug. 19, 20.
1929-36: Maximum discharge, that of Mar. 27, 28, 1936; minimum (estimated because of ice effect), 3,300 second-feet Dec. 30, 31, 1933.
Maximum stage known, 16.2 feet June 19, 1880; minimum stage known, that of Aug. 19, 20, 1936.
Remarks.- Records good except those for period of ice effect, Dec. 4 to Mar. 21, which were computed on basis of eight discharge measurements, gage heights, and weather records and are fair. Discharge for Oct. 22-24 computed on basis of record at Winona. Flow partly regulated by reservoirs, navigation dams, and power plants above.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 21				Mar. 22 to Sept. 30			
-1.0	8,600	3.0	19,700	-2.5	5,750	3.0	19,000
-.5	9,800	3.5	21,700	-2.0	6,650	4.0	23,000
0.0	11,000	4.0	23,950	-1.5	7,550	5.0	28,000
.5	12,250	4.5	26,300	-1.0	8,450	6.0	33,600
1.0	13,500	5.0	28,800	-0.5	9,450	7.0	39,700
1.5	14,800	5.5	31,300	0.0	10,570	8.0	46,700
2.0	16,300	6.0	34,200	1.0	13,080	10.0	67,700
2.5	17,900	6.5	37,200	2.0	15,800	12.0	102,000

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,800	16,300	14,000	11,800	9,800	11,800	92,000	56,200	30,000	12,800	6,470	10,600
2	13,800	19,300	13,200	12,200	9,800	11,800	90,000	58,400	28,500	12,600	6,110	9,050
3	13,800	22,200	12,500	13,200	9,560	12,000	86,400	58,400	26,000	12,000	5,930	8,850
4	13,500	24,400	12,000	13,500	9,560	12,000	83,000	58,400	24,500	11,800	5,930	9,890
5	13,500	26,800	11,800	14,000	9,560	12,000	78,200	59,600	23,000	11,300	6,290	9,670
6	13,500	27,300	12,000	13,800	9,560	12,000	75,000	59,600	21,800	11,000	6,470	9,450
7	13,500	26,300	12,500	13,800	9,320	11,800	70,500	59,600	22,200	10,600	6,470	10,700
8	13,500	24,400	13,800	13,500	9,320	11,800	66,300	58,400	21,800	10,300	6,470	14,800
9	13,200	22,600	14,500	13,200	9,080	12,000	63,500	59,600	21,000	10,100	6,470	13,100
10	12,800	20,100	14,200	13,200	9,320	13,000	59,600	63,500	21,400	10,100	6,470	9,890
11	12,500	18,600	13,800	13,200	9,320	17,200	58,400	69,100	21,000	9,890	6,290	8,850
12	12,500	18,200	15,100	13,000	9,320	24,400	57,200	76,600	19,800	9,670	6,290	9,450
13	12,200	18,200	14,500	12,800	9,320	26,300	56,200	78,200	19,400	9,250	6,110	9,670
14	12,000	17,200	14,500	12,800	9,080	26,800	57,200	76,600	18,300	9,250	6,110	9,050
15	12,200	16,900	14,800	12,800	9,080	27,300	62,100	73,400	18,000	9,250	5,930	9,450
16	12,200	17,200	15,100	12,500	9,080	27,300	69,100	69,100	16,400	9,250	5,750	13,500
17	12,800	16,900	15,400	12,200	9,080	26,800	79,800	66,300	16,100	9,050	5,750	11,800
18	12,800	16,300	15,400	12,000	9,080	27,800	88,200	62,100	16,400	8,650	5,750	9,890
19	12,800	16,300	14,500	11,800	9,080	29,300	94,000	58,400	15,800	8,450	5,750	9,250
20	12,500	16,300	13,500	11,800	9,080	31,300	98,000	55,200	14,700	8,450	5,750	9,450
21	12,500	16,000	12,000	11,500	9,080	36,600	96,000	52,500	14,700	8,090	6,290	11,800
22	14,500	16,000	11,000	10,800	9,080	43,900	94,000	49,900	14,100	7,730	7,190	11,600
23	16,000	15,100	10,300	10,500	9,560	59,600	88,200	49,100	14,100	7,190	7,550	10,100
24	16,000	14,000	9,800	10,000	9,800	76,600	83,000	47,500	14,100	6,830	7,550	9,890
25	14,800	13,500	9,080	10,000	10,300	86,400	76,600	45,300	13,900	6,470	7,370	9,670
26	14,000	13,500	9,320	10,000	11,000	98,000	71,900	42,500	13,600	6,470	7,370	8,650
27	13,500	13,800	9,800	10,300	11,200	100,000	67,700	39,000	13,300	6,650	7,550	8,450
28	13,200	14,800	10,300	10,300	11,500	100,000	63,500	36,600	13,100	6,830	10,800	9,890
29	13,800	16,000	10,500	10,300	11,500	98,000	59,600	34,200	13,100	7,370	16,800	8,650
30	14,000	15,700	10,800	10,000	-	96,000	56,200	32,400	12,800	6,290	16,800	8,270
31	14,800	-	11,200	9,800	-	94,000	-	31,200	-	6,470	12,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	416,500	16,000	12,000	13,440	0.214	0.25
November	550,200	27,300	13,500	18,340	.292	.33
December	391,200	15,400	9,080	12,620	.201	.23
Calendar year 1935	8,084,240	78,200	9,080	22,150	.353	4.79
January	370,600	14,000	9,800	11,950	.190	.22
February	279,420	11,500	9,080	9,635	.153	.16
March	1,273,800	100,000	11,800	41,090	.654	.75
April	2,241,400	98,000	56,200	74,710	1.19	1.33
May	1,736,900	78,200	31,200	56,030	.892	1.03
June	552,900	30,000	12,800	18,430	.293	.33
July	280,150	12,800	6,290	9,037	.144	.17
August	230,450	16,800	5,750	7,433	.118	.14
September	303,330	14,800	8,270	10,110	.161	.18
Water year 1935-36	8,626,830	100,000	5,750	23,570	.375	5.12

Mississippi River at Clayton, Iowa

Location.- Staff gage, lat. 42°54'15", long. 91°8'40", in NE¼ sec. 1, T. 93 N., R. 3 W., about a quarter of a mile downstream from railroad station in Clayton. Zero of gage is 602.80 feet above mean sea level (general adjustment of 1912).

Drainage area.- 79,200 square miles.

Records available.- April 1930 to June 1936 (discontinued owing to Dam 10 at Guttenberg, Iowa, being put into operation.

Extremes.- Maximum discharge observed during period, 137,000 second-feet Apr. 2, 3 (gage height, 15.36 feet); minimum discharge (estimated because of ice effect), 10,400 second-feet Dec. 26; minimum gage height observed, 1.42 feet Dec. 6.

1930-36: Maximum discharge, that of Apr. 2, 3, 1936; minimum, 5,540 second-feet Dec. 14, 1933 (determined by current-meter measurement).

Remarks.- Records good except those for period of ice effect, Dec. 10-13, Dec. 19 to Mar. 18, which were computed on basis of five discharge measurements, gage heights, and weather records and are fair. Discharge during period of backwater from Dam 10 May 24 to June 30 computed on basis of three discharge measurements, gage heights, record of operation of dam, and comparison with records of other stations. Gage read once daily except at high or rapidly changing stages, when it is read more frequently. Flow partly regulated by reservoirs, navigation dams, and power plants.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 24 to June 30)

Oct. 1 to Mar. 18				Mar. 19 to June 30			
1.0	16,000	5.0	33,300	9.0	59,000	13.0	101,000
1.5	17,500	6.0	38,500	10.0	68,000	14.0	115,000
2.0	19,600	7.0	44,800	11.0	78,000	15.0	131,000
2.5	21,750	8.0	53,500	12.0	89,000	15.4	137,400
3.0	24,000	8.5	58,000				
4.0	28,500						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,400	23,100	24,900	14,300	14,800	19,200	128,000	86,800	49,600			
2	24,400	24,000	23,600	15,400	14,500	19,600	126,000	83,500	48,200			
3	25,100	24,900	20,400	16,600	14,500	20,000	137,000	82,400	46,300			
4	21,800	27,200	18,400	17,200	14,500	21,300	134,000	81,300	44,500			
5	20,400	30,400	18,400	17,600	14,800	22,200	129,000	81,300	41,500			
6	19,600	32,300	17,200	19,200	14,800	23,100	123,000	81,300	39,700			
7	20,800	35,300	17,600	19,600	14,800	24,000	115,000	82,400	37,300			
8	20,800	36,800	19,800	20,000	14,800	24,900	103,000	83,500	35,800			
9	22,200	37,300	22,200	20,400	14,800	24,900	102,000	84,600	35,800			
10	21,300	37,300	21,800	20,800	14,800	27,200	97,400	85,700	36,300			
11	20,000	36,300	22,200	20,400	15,100	34,300	92,600	85,700	34,800			
12	19,600	34,300	23,600	20,400	15,100	40,300	89,000	85,700	33,300			
13	18,800	32,300	24,000	20,400	15,100	43,400	85,700	86,800	32,300			
14	20,000	31,800	23,600	20,400	15,400	48,100	81,300	90,200	30,900			
15	20,000	30,400	21,800	20,000	15,400	52,600	81,300	96,200	30,400			
16	19,600	29,000	21,300	20,000	15,100	56,200	80,200	101,000	29,000			
17	19,600	28,600	23,100	20,000	14,800	57,100	80,200	101,000	28,600			
18	20,400	29,000	24,400	20,000	14,800	58,000	82,400	97,400	27,600			
19	19,600	27,600	21,800	18,800	14,500	59,900	86,800	93,800	26,300			
20	19,200	27,200	19,600	18,400	14,500	60,800	92,600	89,000	24,900			
21	20,000	26,300	17,200	18,000	14,800	63,500	99,800	85,700	24,000			
22	20,400	24,900	14,800	17,600	14,800	66,200	107,000	82,400	22,600			
23	20,400	24,400	13,500	17,200	15,100	67,100	112,000	79,100	21,300			
24	20,800	24,000	12,600	16,900	15,100	68,000	115,000	76,000	21,300			
25	22,200	24,000	11,300	16,600	15,700	72,000	114,000	71,000	21,300			
26	22,600	23,100	10,400	15,700	16,000	80,200	108,000	62,600	20,800			
27	22,600	21,800	10,900	15,400	17,200	87,900	104,000	59,000	20,400			
28	22,600	21,800	10,900	14,800	18,000	96,200	99,800	57,400	20,000			
29	22,600	23,100	12,100	14,500	18,800	104,000	95,000	55,000	19,600			
30	20,800	23,600	12,300	14,500	-	111,000	90,200	53,400	19,200			
31	21,300	-	13,500	14,800	-	117,000	-	51,000	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	651,900	24,400	18,800	21,030	0.266	0.31
November	852,100	37,300	21,800	28,400	.359	.40
December	568,900	24,900	10,400	18,350	.232	.27
Calendar year 1935	12,870,000	129,000	10,400	35,260	.445	6.05
January	555,900	20,800	14,300	17,930	.226	.26
February	442,400	18,800	14,500	15,260	.193	.21
March	1,670,200	117,000	19,200	53,880	.680	.78
April	3,108,300	137,000	80,200	103,600	1.31	1.46
May	2,492,200	101,000	51,000	80,390	1.02	1.18
June	923,600	49,600	19,200	30,790	.389	.43
July	-	-	-	-	-	-
August	-	-	-	-	-	-
September	-	-	-	-	-	-
Water year						

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Mississippi River at Le Claire, Iowa

Location.- Water-stage recorder, lat. 41°35'45", long. 90°20'40", at foot of Dodge Street in Le Claire, 7 miles below mouth of Wapsipinicon River and 15 miles above Davenport. Zero of gage is 562.61 feet above mean sea level (general adjustment of 1929). Prior to June 1, 1934, staff gage at same site and datum.

Drainage area.- 98,600 square miles.

Records available.- October 1932 to September 1936 in reports of U. S. Geological Survey; June 1873 to December 1932 in report by Iowa State Planning Board.

Average discharge.- 63 years, 47,960 second-feet.

Extremes.- Maximum discharge during year ending Sept. 30, 1936, 133,000 second-feet Apr. 7 (gage height, 8.99 feet); minimum, 10,500 second-feet Aug. 18 (gage height, -0.21 foot).

1873-1936: Maximum discharge, 250,000 second-feet June 25, 1880 (gage height, 14.5 feet); minimum (estimated), 6,500 second-feet Dec. 25-27, 1933.

Remarks.- Records (for water year 1935-36) excellent except those for period of ice effect, Dec. 3 to Mar. 15, which are fair and were computed on basis of records for stations at Keokuk and Clayton. Discharge computed from once-daily gage readings May 4-9, 12-27. Gage-height record collected in cooperation with U. S. Weather Bureau. Results of several measurements furnished by Corps of Engineers, U. S. Army. Daily-discharge record for water year 1932-33 furnished by Mississippi River Power Co.

Discharge, in second-feet, water year October 1932 to September 1933

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15,700	15,000	*14,000	*28,500	30,400	28,600	74,000	50,900	53,300	27,700	19,500	12,800
2	15,700	15,000	*15,000	*28,000	32,300	*34,000	83,600	50,900	52,100	26,300	18,800	12,100
3	15,700	15,000	16,400	*26,000	32,300	43,900	85,300	52,100	50,900	46,200	18,800	12,100
4	15,700	15,000	17,200	*24,000	*31,000	41,800	87,000	49,700	49,700	58,400	19,500	12,100
5	15,000	15,000	17,200	*22,000	*22,000	39,600	88,700	48,500	48,500	53,300	19,500	12,100
6	15,000	15,000	18,000	*20,000	*16,000	38,500	90,400	48,500	47,300	46,200	18,800	12,100
7	14,300	15,000	18,800	*19,000	*12,000	38,500	90,400	48,500	45,100	42,900	17,200	12,800
8	14,300	15,000	*15,000	*19,000	*10,000	38,500	92,100	48,500	44,000	39,600	18,800	12,800
9	14,300	15,700	*11,000	*18,000	*10,000	40,700	92,100	50,900	44,000	37,400	18,800	12,800
10	15,000	15,700	*8,500	*18,000	*10,000	*38,000	92,100	52,100	42,900	34,300	18,000	12,800
11	15,000	16,400	*7,500	*18,000	*11,000	*38,500	92,100	53,300	42,900	30,400	16,400	13,600
12	15,000	16,400	*7,500	*17,500	*13,000	39,600	92,100	57,100	42,900	26,700	15,700	13,600
13	14,300	16,400	*7,500	*17,000	*15,000	38,500	92,100	59,700	42,900	24,900	15,700	13,600
14	14,300	17,200	*8,000	*17,500	*16,000	37,400	90,400	59,700	41,800	23,000	15,700	14,300
15	14,300	18,000	*8,500	*18,000	*16,500	37,400	90,400	59,700	41,800	23,000	15,000	14,300
16	14,300	17,200	*9,500	*18,500	*17,000	36,300	88,700	58,400	41,800	22,000	15,000	15,000
17	14,300	18,000	*10,500	18,800	*17,500	36,300	87,000	59,700	40,700	21,100	15,000	15,700
18	14,300	18,000	*11,000	18,800	*18,000	39,600	87,000	63,800	39,600	20,300	15,000	15,700
19	14,300	18,000	*11,500	18,800	*19,000	41,800	85,300	62,400	39,600	19,500	14,300	15,700
20	14,300	*17,000	*12,000	18,800	*21,000	41,800	83,600	66,600	38,500	19,500	14,300	15,000
21	15,000	*16,000	*12,500	18,800	*22,500	41,800	82,000	74,000	37,400	19,500	14,300	15,000
22	15,000	*14,000	*13,000	19,500	*24,500	37,400	82,000	83,600	37,400	18,800	14,300	14,300
23	15,000	*14,000	*14,000	20,300	*26,000	32,300	78,800	83,600	34,300	18,800	13,600	14,300
24	15,000	*14,000	*16,000	20,300	*27,000	29,500	74,000	78,800	34,300	20,300	13,600	14,300
25	15,000	*14,500	*20,000	20,300	*28,000	29,500	69,500	75,600	33,300	22,000	13,600	14,300
26	15,000	*14,500	*27,000	21,100	*29,000	31,300	63,800	75,600	32,300	22,000	13,600	14,300
27	15,700	*14,000	*31,000	24,000	*29,500	32,300	59,700	72,500	31,300	23,000	13,600	15,000
28	15,700	*14,000	*30,000	*26,000	29,500	34,300	55,800	68,000	29,500	23,000	13,600	15,000
29	15,700	*13,500	*29,500	27,700	-	39,600	54,500	63,800	28,600	22,000	13,600	14,300
30	15,000	*13,500	*29,000	27,700	-	41,800	50,900	61,000	27,700	21,100	12,800	14,300
31	15,000	-	*28,500	29,500	-	54,500	-	57,100	-	20,300	12,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	462,200	15,700	14,300	14,910	0.168	0.19
November	466,000	18,000	13,600	15,530	.175	.20
December	496,100	31,000	7,500	15,970	.180	.21
Calendar year						
January	659,400	29,500	17,000	21,270	.240	.28
February	586,000	32,300	10,000	20,930	.236	.25
March	1,172,600	54,500	28,600	37,830	.427	.49
April	2,435,400	92,100	50,900	81,180	.916	1.02
May	1,894,600	83,600	48,500	61,120	.690	.80
June	1,216,400	53,300	27,700	40,550	.458	.51
July	883,500	58,400	18,800	28,500	.322	.37
August	489,200	19,500	12,800	15,780	.178	.21
September	416,100	15,700	12,100	13,870	.157	.18
Water year 1932-33	11,176,500	92,100	7,500	30,620	.346	4.71

*Discharge estimated because of ice.

Mississippi River at Le Claire, Iowa

(Continued)

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

-0.2	10,500	3.0	37,600
0.0	11,900	4.0	48,700
0.2	13,300	5.0	61,200
0.6	16,100	6.0	76,000
1.0	19,200	7.0	93,400
1.5	23,200	8.0	112,800
2.0	27,700	9.0	133,300
2.5	32,400		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28,600	23,200	25,900	15,000	16,500	26,000	97,200	107,000	62,600	21,600	11,900	17,600
2	26,800	23,200	26,800	16,000	16,200	27,000	105,000	105,000	65,400	21,600	11,900	19,200
3	25,900	25,000	26,000	16,500	16,000	28,000	111,000	*100,000	64,000	21,600	11,900	20,800
4	25,000	31,400	24,500	17,000	15,800	30,000	119,000	95,300	58,600	20,800	11,900	20,800
5	24,100	33,400	23,300	18,000	15,700	33,000	125,000	91,600	54,700	20,800	11,600	20,800
6	23,200	31,400	22,500	18,400	15,600	38,000	129,000	88,000	51,100	20,800	11,600	19,600
7	22,400	31,400	23,700	18,800	15,500	43,000	133,000	86,200	47,500	20,000	11,200	20,800
8	21,600	33,400	24,600	19,200	15,400	41,000	131,000	84,400	45,300	19,600	10,800	21,600
9	21,600	34,400	25,000	19,600	15,400	39,000	131,000	82,700	42,000	19,200	11,200	20,800
10	22,400	36,500	25,000	20,000	15,300	41,000	127,000	*82,700	40,900	18,400	11,200	19,600
11	22,400	38,700	24,600	20,500	15,200	44,000	123,000	*82,700	39,800	18,000	11,200	19,600
12	22,400	38,700	24,000	21,000	15,100	50,000	117,000	82,700	39,800	18,000	11,200	22,400
13	21,600	37,600	23,000	21,500	15,000	53,000	113,000	84,400	38,700	17,600	11,200	25,900
14	21,600	36,500	23,500	22,000	14,900	64,000	105,000	84,400	37,600	17,200	10,800	24,100
15	20,800	34,400	24,300	22,000	14,700	60,000	101,000	84,400	35,400	16,400	11,600	22,400
16	20,800	33,400	24,800	22,000	14,600	59,900	97,200	84,400	34,400	16,100	11,600	23,200
17	20,800	31,400	25,000	21,900	14,500	59,900	93,400	86,200	33,400	15,400	11,200	24,100
18	20,800	30,400	25,000	21,400	14,500	65,400	89,800	88,000	32,400	15,400	10,800	25,000
19	20,800	30,400	23,000	20,800	14,500	68,300	86,200	91,600	31,400	15,000	11,200	25,000
20	20,800	29,500	19,000	20,400	14,400	69,800	86,200	93,400	29,500	15,000	11,200	24,100
21	20,800	29,500	16,000	20,000	14,400	69,800	86,200	93,400	28,600	15,000	11,200	24,100
22	20,800	28,600	13,500	19,500	14,400	69,800	86,200	93,400	27,700	14,700	11,200	23,200
23	20,800	27,700	12,000	19,000	14,800	69,800	89,800	91,600	26,800	14,700	12,600	22,400
24	20,800	25,900	12,500	18,600	16,000	72,800	93,400	86,200	25,900	14,000	13,300	21,600
25	20,800	25,900	12,800	18,300	18,000	74,400	99,100	82,700	24,100	14,000	13,300	21,600
26	21,600	25,900	13,000	18,000	20,000	76,000	105,000	84,400	23,200	13,600	13,300	21,600
27	21,600	25,000	12,600	17,800	23,000	79,300	109,000	81,000	23,200	13,600	14,000	21,600
28	22,400	25,900	12,400	17,500	24,000	81,000	111,000	76,000	22,400	13,000	15,000	21,600
29	22,400	25,900	12,700	17,200	25,000	84,400	113,000	71,300	22,400	12,600	18,000	20,800
30	22,400	25,000	13,400	17,000	-	88,000	111,000	68,300	22,400	12,200	19,200	19,200
31	23,200	-	14,000	16,800	-	91,600	-	65,400	-	11,900	18,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	692,000	28,600	20,800	22,320	0.252	0.29
November	909,600	38,700	23,200	30,320	.342	.38
December	628,400	26,800	12,000	20,270	.229	.26
Calendar year 1935	14,555,600	123,000	12,000	39,880	.450	6.10
January	591,700	22,000	15,000	19,090	.215	.25
February	474,400	25,000	14,400	16,360	.185	.20
March	1,797,200	91,600	26,000	57,970	.654	.75
April	3,223,700	133,000	86,200	107,500	1.21	1.35
May	2,678,800	107,000	65,400	86,410	.975	1.12
June	1,131,200	65,400	22,400	37,710	.426	.48
July	517,800	21,600	11,900	16,700	.188	.22
August	386,300	19,200	10,800	12,460	.141	.16
September	655,100	25,900	17,600	21,840	.247	.28
Water year 1935-36	13,686,200	133,000	10,800	37,390	.422	5.74

*Discharge interpolated.

Mississippi River at Keokuk, Iowa

Location.- In lat. 40°23'35", long. 91°22'25", at Mississippi River Power Co.'s dam and power plant at Keokuk, 2.8 miles above mouth of Des Moines River.

Drainage area.- 119,000 square miles.

Records available.- October 1932 to September 1936 in reports of U. S. Geological Survey; January 1878 to December 1932 in a report of Iowa State Planning Board.

Average discharge.- 58 years, 60,800 second-feet.

Extremes.- Maximum daily discharge during year, 148,000 second-feet Apr. 9, 10; minimum, 11,000 second-feet Aug. 14-16.
1878-1936: Maximum discharge, 314,000 second-feet May 18, 1888; minimum daily discharge, 5,000 second-feet Dec. 27, 1933.

Remarks.- Records good. Discharge computed from records of operation of turbines in power plant and spillway gates in dam, with allowance for daily changes of storage in reservoir in order to give "natural flow" figures comparable to records obtained prior to 1913 before dam was built. A few discharge measurements were made during the year by the U. S. Geological Survey. Records of daily discharge furnished by Mississippi River Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31,500	28,000	35,000	19,000	22,500	60,500	120,000	120,000	69,000	25,000	12,500	22,500
2	30,500	28,000	29,000	19,600	21,500	58,500	120,000	120,000	69,500	24,500	12,500	23,500
3	30,000	30,500	31,500	20,500	21,500	57,000	124,000	118,000	66,000	24,000	12,500	24,500
4	29,500	47,500	31,000	21,000	21,000	58,500	127,000	115,000	69,000	23,500	12,500	26,500
5	28,000	50,000	29,000	21,500	21,000	60,500	135,000	113,000	69,000	23,500	13,500	27,000
6	26,500	56,000	29,000	22,500	20,500	59,500	137,000	108,000	65,000	23,500	13,500	26,500
7	26,000	56,500	31,000	24,000	20,500	79,500	142,000	106,000	62,500	23,000	13,000	25,500
8	25,500	52,500	32,000	24,500	20,000	86,000	144,000	101,000	55,000	22,500	13,000	25,000
9	25,000	51,000	31,000	25,000	19,500	76,500	148,000	99,000	52,500	22,500	12,500	25,500
10	24,500	49,500	32,000	25,500	19,500	83,500	148,000	96,500	50,000	22,000	12,500	26,000
11	24,500	50,000	28,500	26,000	20,500	87,500	147,000	93,500	48,500	21,000	12,000	26,000
12	25,000	50,500	31,000	26,000	20,000	94,000	144,000	92,000	48,500	20,500	12,000	27,000
13	25,000	50,000	32,000	27,000	20,000	100,000	141,000	92,500	49,000	20,000	11,500	29,000
14	25,500	49,000	30,000	28,000	20,000	104,000	136,000	91,500	48,500	19,500	11,000	33,500
15	25,500	47,000	28,000	28,000	20,000	113,000	131,000	90,500	47,000	19,000	11,000	36,500
16	24,000	45,500	30,000	29,000	19,500	123,000	125,000	90,000	44,500	18,000	11,000	43,500
17	23,500	44,500	29,500	28,500	19,000	125,000	118,000	90,500	41,000	17,500	11,500	44,500
18	23,500	42,000	29,000	27,500	19,500	122,000	112,000	91,000	38,500	17,000	11,500	42,500
19	23,500	40,000	24,500	27,000	19,500	122,000	106,000	93,500	37,000	16,500	14,000	44,500
20	23,500	39,000	19,200	27,500	19,500	120,000	100,000	94,500	36,500	16,000	12,000	45,000
21	24,000	38,000	16,600	27,500	19,500	118,000	100,000	96,500	35,500	15,500	12,000	45,000
22	24,000	38,000	14,500	26,500	19,000	114,000	96,000	97,000	34,000	15,500	12,000	44,000
23	24,000	36,500	17,200	25,000	20,000	110,000	93,500	97,500	32,000	15,500	12,000	43,000
24	24,000	35,000	16,800	25,000	27,500	108,000	94,500	98,500	30,500	15,500	12,500	43,500
25	24,000	34,500	15,600	25,000	43,000	111,000	96,500	97,000	29,000	15,000	14,000	39,000
26	24,500	34,500	16,200	24,000	61,000	108,000	101,000	93,000	28,000	15,000	14,500	47,500
27	24,500	33,000	17,100	24,500	56,500	109,000	105,000	91,000	28,000	15,000	14,500	53,000
28	25,000	33,500	17,800	23,500	57,500	111,000	110,000	86,500	27,500	14,500	15,000	45,500
29	25,500	34,500	18,400	23,000	60,500	114,000	114,000	82,500	26,000	14,500	15,500	40,000
30	25,500	36,000	19,000	23,000	-	116,000	117,000	79,000	26,500	14,000	17,000	38,000
31	26,000	-	19,500	23,000	-	117,000	-	75,000	-	13,500	19,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	791,500	31,500	23,500	25,530	0.215	0.25	1,570,000
November	1,260,500	56,500	28,000	42,020	.353	.39	2,500,000
December	780,700	35,000	14,300	25,180	.212	.24	1,548,000
Calendar year 1935	20,204,200	138,000	14,300	55,350	.465	6.31	40,070,000
January	767,600	29,000	19,000	24,760	.208	.24	1,523,000
February	769,500	61,000	19,000	26,530	.223	.24	1,526,000
March	3,026,500	125,000	57,000	97,630	.820	.95	6,003,000
April	3,632,500	148,000	93,500	121,100	1.02	1.14	7,205,000
May	3,009,500	120,000	75,000	97,080	.816	.94	5,969,000
June	1,363,500	69,500	26,000	45,450	.382	.43	2,704,000
July	582,500	25,000	15,500	18,790	.158	.18	1,155,000
August	404,000	19,500	11,000	13,030	.109	.13	801,300
September	1,063,000	53,000	22,500	35,430	.298	.33	2,108,000
Water year 1935-36	17,451,300	148,000	11,000	47,680	.401	5.46	34,610,000

Mississippi River at Alton, Ill.

Location.- Wire-weight gage, lat. 38°53'6", long. 90°10'56", sec. 14, T. 5 N., R. 10 W., at Missouri & Illinois Bridge & Belt Railroad bridge at Alton, 7½ miles above mouth of Missouri River. Zero of gage is 395.42 feet above mean sea level (general adjustment of 1929).

Drainage area.- 171,500 square miles.

Records available.- March 1933 to September 1936. Daily gage heights have been published in reports of Mississippi River Commission since January 1904, in reports of U. S. Weather Bureau December 1890 to September 1893 and since January 1917. Results of discharge measurements made intermittently by Corps of Engineers, U. S. Army, and by Mississippi River Commission since 1880 at Grafton, 15 miles upstream, are contained in reports of those organizations.

Extremes.- Maximum discharge observed during year, 218,000 second-feet Mar. 1 (gage height, 18.0 feet); minimum, 21,600 second-feet Aug. 8-10, 19-23; minimum gage height observed, -1.6 feet Aug. 20-22.

1933-36: Maximum discharge observed, 285,000 second-feet May 17, 1933; maximum gage height observed, 28.9 feet June 2, 1935; minimum discharge, 15,000 second-feet Dec. 30, 1933 (gage height, -1.7 feet).

Maximum stage known, 37.0 feet June 1844.

Remarks.- Records good except those for period of ice effect, Jan. 29 to Feb. 26, which were computed on basis of weather records and comparative hydrographs for adjacent stations and are fair. Discharge determined from readings on gage located at Grafton, Ill., maintained by the U. S. Weather Bureau. Gage-height records furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44,500	38,100	56,300	34,300	36,000	218,000	166,000	133,000	105,000	36,700	24,400	24,800
2	43,000	40,200	57,200	34,300	37,000	196,000	165,000	136,000	100,000	37,400	24,400	26,200
3	41,600	40,200	59,000	33,700	37,000	166,000	165,000	144,000	96,500	38,100	24,000	27,700
4	42,300	40,900	59,000	32,500	37,000	152,000	163,000	158,000	91,300	36,700	23,600	29,200
5	43,000	50,900	55,400	36,700	36,000	149,000	163,000	158,000	88,700	35,100	22,800	31,900
6	43,000	64,000	51,800	38,800	36,000	149,000	166,000	154,000	87,500	35,500	22,400	34,900
7	43,000	76,800	50,100	38,800	35,000	151,000	169,000	152,000	88,700	33,700	22,000	36,100
8	42,300	85,100	48,500	37,400	35,000	152,000	172,000	149,000	87,500	32,500	21,600	36,700
9	40,200	86,300	46,900	37,400	33,000	158,000	175,000	144,000	85,100	32,500	21,600	36,100
10	38,800	96,600	47,700	37,400	33,000	170,000	177,000	139,000	80,300	33,700	21,600	34,900
11	38,800	95,200	47,700	40,200	33,000	170,000	181,000	134,000	77,900	33,700	22,000	34,300
12	38,100	86,300	50,900	41,600	33,000	170,000	183,000	131,000	71,300	33,100	22,400	33,700
13	36,700	80,300	50,100	46,100	33,000	170,000	183,000	128,000	69,100	31,900	22,400	34,300
14	36,700	77,900	49,300	48,500	34,000	175,000	183,000	125,000	67,000	31,300	22,000	38,100
15	36,100	75,700	48,500	49,300	34,000	179,000	181,000	125,000	67,000	31,300	21,600	40,900
16	36,100	73,500	50,100	47,700	33,000	183,000	175,000	125,000	68,000	30,700	22,000	40,900
17	36,100	71,300	50,900	48,500	32,000	185,000	170,000	124,000	68,000	30,200	22,000	45,300
18	37,400	71,300	50,100	46,900	31,000	188,000	163,000	124,000	66,000	29,200	22,000	54,500
19	37,400	70,200	49,300	42,300	31,000	192,000	154,000	122,000	62,000	28,700	21,600	67,000
20	37,400	67,000	46,100	45,300	32,000	196,000	147,000	120,000	59,000	28,200	21,600	73,500
21	36,700	65,000	42,300	46,100	33,500	192,000	139,000	119,000	54,500	27,700	21,600	74,600
22	36,100	63,000	37,400	43,700	35,000	185,000	133,000	120,000	50,100	26,700	21,600	69,100
23	34,900	61,000	43,000	38,800	37,000	179,000	128,000	120,000	50,100	26,200	21,600	68,000
24	34,900	59,000	38,100	33,700	40,000	177,000	124,000	122,000	50,100	25,700	22,800	70,200
25	35,500	58,100	35,500	36,700	45,000	175,000	119,000	124,000	49,300	24,800	22,800	70,200
26	36,100	58,100	33,700	38,100	56,000	172,000	118,000	124,000	46,900	24,400	22,000	66,000
27	36,100	56,300	32,500	38,100	100,000	170,000	118,000	122,000	44,500	24,400	22,000	66,000
28	36,700	56,300	30,700	40,200	172,000	168,000	120,000	120,000	41,600	24,400	22,000	90,000
29	37,400	56,300	29,700	39,000	212,000	168,000	125,000	116,000	40,900	24,400	22,000	122,000
30	36,100	56,300	28,700	36,000	-	168,000	128,000	112,000	38,100	24,400	22,400	133,000
31	36,100	-	27,200	34,000	-	168,000	-	109,000	-	24,400	23,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,189,100	44,500	34,900	38,360	2,359,000
November	1,977,100	96,500	38,100	65,900	3,922,000
December	1,403,700	59,000	27,200	45,280	2,784,000
Calendar year 1935	37,534,500	231,000	27,200	102,800	74,450,000
January	1,242,100	49,300	32,500	40,070	2,464,000
February	1,411,500	212,000	31,000	48,670	2,800,000
March	5,391,000	218,000	149,000	173,900	10,690,000
April	4,652,000	183,000	118,000	155,100	9,227,000
May	4,033,000	158,000	109,000	130,100	7,999,000
June	2,052,000	105,000	38,100	68,400	4,070,000
July	938,700	38,100	24,400	30,280	1,862,000
August	692,400	24,400	21,600	22,340	1,373,000
September	1,610,100	133,000	24,800	53,670	3,194,000
Water year 1935-36	26,592,700	218,000	21,600	72,660	52,740,000

Crow Wing River at Nimrod, Minn.

Location.- Chain gage, lat. 46°39', long. 94°53', in sec. 32, T. 137 N., R. 33 W., on highway bridge 0.5 mile north of Nimrod.

Drainage area.- 1,010 square miles.

Records available.- April 1910 to September 1914, July 1930 to September 1936 (incomplete during winter).

Extremes.- Maximum discharge observed during year, 622 second-feet Apr. 13 (gage height, 5.86 feet, affected by ice); minimum, 45 second-feet Aug. 7.
1910-14, 1930-36: Maximum discharge observed, 2,000 second-feet June 9, 1914; minimum, that of Aug. 7, 1936.

Remarks.- Records fair. Stage-discharge relation affected by aquatic growth, ice, or shifting control throughout year; discharge computed on basis of seven discharge measurements, gage heights, and weather records. Discharge estimated Nov. 3-5. No records Nov. 7 to Apr. 12. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	128					-	424	234	145	67	96
2	157	128					-	436	244	124	73	102
3	153	122					-	366	234	113	52	113
4	149	117					-	354	234	102	64	113
5	153	112					-	366	234	102	58	110
6	157	106					-	366	224	92	55	113
7	161	-					-	391	184	88	45	113
8	161	-					-	378	166	85	61	116
9	166	-					-	391	157	85	50	116
10	166	-					-	443	180	76	70	161
11	166	-					-	477	170	73	58	140
12	166	-					-	477	161	73	52	136
13	234	-					622	443	166	70	52	128
14	224	-					553	378	157	70	70	132
15	224	-					547	378	153	73	64	136
16	224	-					511	372	153	70	61	136
17	203	-					511	335	153	67	61	140
18	194	-					477	335	149	67	55	145
19	194	-					477	323	140	76	55	153
20	184	-					443	300	136	76	55	157
21	184	-					410	277	132	73	85	136
22	184	-					372	250	124	67	106	145
23	180	-					360	218	120	67	96	132
24	180	-					348	229	116	64	88	145
25	175	-					335	239	110	61	96	145
26	157	-					348	239	120	106	92	145
27	149	-					360	229	120	106	92	140
28	149	-					372	218	116	99	128	145
29	149	-					436	218	132	82	153	136
30	140	-					436	224	132	79	92	140
31	140	-					-	229	-	73	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,384	234	140	174	0.172	0.20
November 1-6	713	128	106	119	.118	.03
December	-	-	-	-	-	-
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April 13-30	7,948	622	335	442	.438	.29
May	10,303	477	218	332	.329	.38
June	4,851	244	110	162	.160	.18
July	2,604	145	61	84.0	.083	.10
August	2,302	153	45	74.3	.074	.09
September	3,965	161	96	132	.131	.15
Water year						

Little Sand Lake outlet near Dorset, Minn.

Location.- Staff gage, lat. 46°59', long. 94°55', in NE¼ sec. 36, T. 141 N., R. 34 W., 2 miles northeast of Dorset.

Records available.- July 1930 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge observed during period, 27 second-feet Apr. 1 (gage height, 1.66 feet); no flow Sept. 4-30.
1930-36: Maximum discharge observed, 74 second-feet Apr. 8, 1934 (gage height, 2.66 feet, affected by ice); no flow for several days in August, September, and October, 1934, September 1936.

Remarks.- Records good. Stage-discharge relation affected by ice Nov. 28, by shifting control Apr. 1 to May 16, and by weed growth July 2 to Sept. 19. Discharge for these periods computed on basis of four discharge measurements, gage heights, and weather records. No records Dec. 16 to Mar. 31. Gage read twice daily.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 1 to May 16, July 2 to Sept. 19)

Oct. 1 to Dec. 15

1.2	5.4	0.4	0	0.9	2.4	1.5	19.2
1.3	7.4	.5	.1	1.1	6.4	1.6	23
1.4	9.9	.6	.2	1.2	9.3	1.7	27
		.7	.6	1.3	12.5		
		.8	1.3	1.4	15.8		

Apr. 1 to Sept. 30

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	7.6	8.4				27	19	20	15	1.5	0.1
2	7.9	7.0	8.4				25	20	19	14	1.3	.1
3	7.4	7.0	8.4				23	20	19	14	1.2	.1
4	6.8	7.2	8.4				22	20	18	13	1.0	0
5	6.6	7.0	8.4				20	20	17	12	1.0	0
6	6.4	7.0	8.4				20	21	17	12	.9	0
7	6.2	6.6	8.9				20	21	17	11	.7	0
8	6.0	7.0	8.9				19	20	17	10	.7	0
9	5.8	7.4	8.9				18	20	17	9.3	.6	0
10	5.4	7.6	9.9				18	21	16	8.7	.5	0
11	5.4	7.9	9.4				19	22	16	8.4	.4	0
12	5.4	7.6	9.4				19	22	16	7.6	.3	0
13	8.9	7.6	9.4				19	21	15	7.0	.2	0
14	8.2	7.9	9.4				19	21	14	6.7	.4	0
15	8.2	7.6	9.4				19	21	14	6.4	.4	0
16	8.4	7.9	-				18	21	13	6.2	.4	0
17	8.2	7.9	-				18	21	13	5.7	.2	0
18	8.2	7.9	-				17	21	12	5.4	.2	0
19	7.9	8.4	-				17	21	12	5.0	.2	0
20	7.6	8.4	-				17	21	12	4.2	.2	0
21	7.9	8.4	-				17	20	12	3.8	.2	0
22	7.4	8.4	-				16	21	12	3.7	.2	0
23	7.4	7.9	-				16	22	11	3.4	.2	0
24	7.4	7.9	-				17	22	11	3.0	.1	0
25	7.4	7.9	-				17	22	11	2.7	.1	0
26	7.2	7.9	-				17	22	11	2.7	.1	0
27	7.2	7.9	-				17	21	12	2.9	.1	0
28	7.0	8.2	-				18	21	11	2.6	.2	0
29	7.0	8.4	-				19	21	16	2.3	.2	0
30	7.0	8.4	-				19	21	15	2.1	.2	0
31	7.4	-	-				-	21	-	1.8	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	223.1	8.9	5.4	7.20	
November	231.8	8.4	6.6	7.73	
December 1-15	134.0	9.9	8.4	8.93	
Calendar year					
January	-	-	-	-	
February	-	-	-	-	
March	-	-	-	-	
April	567	27	16	18.9	
May	648	22	19	20.9	
June	436	20	11	14.5	
July	212.6	15	1.8	6.86	
August	14.1	1.5	.1	.45	
September	.3	.1	0	.01	
Water year					

Lake Belle Taine near Nevis, Minn.

(Known also as Elbow Lake)

Location.- Staff gage, lat. 46°56', long. 94°54', in sec. 19, T. 140 N., R. 33 W., on south shore of lake about 4 miles southwest of Nevis.

Records available.- July 1935 to September 1936.

Extremes.- Maximum gage height observed during year and period of record, 2.79 feet May 23-25, 1936; minimum, 0.00 feet Sept. 30, 1936.

Remarks.- Records fair. No record Nov. 10 to May 16, July 1-21, July 23 to Sept. 6, Sept. 8.

Gage-height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.48	1.34						-	2.72	-		-
2	1.48	1.34						-	2.71	-		-
3	1.47	1.34						-	2.69	-		-
4	1.46	1.34						-	2.67	-		-
5	1.44	1.34						-	2.65	-		-
6	1.42	1.34						-	2.63	-		-
7	1.40	1.36						-	2.61	-		0.41
8	1.38	1.38						-	2.63	-		-
9	1.36	1.40						-	2.61	-		.41
10	1.36	-						-	2.59	-		.39
11	1.37	-						-	2.57	-		.37
12	1.36	-						-	2.55	-		.36
13	1.38	-						-	2.53	-		.33
14	1.39	-						-	2.51	-		.31
15	1.40	-						-	2.47	-		.29
16	1.40	-						-	2.43	-		.27
17	1.40	-						2.77	2.39	-		.25
18	1.41	-						2.77	2.35	-		.25
19	1.42	-						2.76	2.31	-		.23
20	1.41	-						2.75	2.27	-		.21
21	1.40	-						2.75	2.25	-		.19
22	1.40	-						2.76	2.23	1.57		.17
23	1.38	-						2.79	2.21	-		.15
24	1.37	-						2.79	2.19	-		.13
25	1.36	-						2.79	2.17	-		.11
26	1.35	-						2.78	2.17	-		.09
27	1.35	-						2.77	2.17	-		.07
28	1.34	-						2.77	2.15	-		.05
29	1.34	-						2.76	2.23	-		.03
30	1.36	-						2.75	2.21	-		.00
31	1.36	-						2.73	-	-		-

Platte River at Royalton, Minn.

Location.- Chain gage, lat. 45°50', long. 94°17', in sec. 35, T. 39 N., R. 32 W., on highway bridge at east edge of Royalton, 6 miles above junction with Mississippi River.

Drainage area.- 338 square miles.

Records available.- May 1929 to September 1936 (incomplete during winter).

Extremes.- Maximum discharge observed during period, 1,450 second-feet May 3 (gage height, 6.36 feet); minimum discharge (estimated), 0.7 second-foot Aug. 17-19. 1929-36: Maximum discharge observed, that of May 3, 1936; minimum, 0.6 second-foot Aug. 15, 1933 (gage height, 1.28 feet, affected by aquatic growth).

Remarks.- Records poor. Stage-discharge relation affected by ice Apr. 7, by shifting control Oct. 1 to Nov. 15, Apr. 11 to May 3; discharge computed on basis of four discharge measurements, gage heights, engineers' and observer's notes, and weather records. Discharge for June 10 to Sept. 30 computed on basis of six discharge measurements, weather records, and comparison with records of nearby stations. Discharge interpolated Apr. 8, 9, May 30. No records Nov. 16 to Apr. 6. Gage read twice daily Oct. 1 to Nov. 15, May 1-6, once daily Apr. 7, Apr. 10 to May 29, May 31 to Sept. 30.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	23					-	206	44	17	2.4	2.8
2	19	22					-	720	41	15	2.2	2.6
3	19	21					-	1,380	39	14	2.0	2.5
4	18	21					-	1,380	36	13	1.9	2.2
5	18	21					-	1,170	32	12	1.7	2.1
6	17	22					-	900	32	12	1.5	2.0
7	17	22					380	750	36	11	1.2	1.8
8	16	22					340	600	35	8.4	1.2	1.6
9	16	22					300	520	35	7.3	1.2	1.6
10	16	21					265	470	30	7.3	1.2	2.6
11	17	20					240	422	28	7.3	1.1	8.4
12	17	20					228	360	26	6.6	1.0	8.4
13	18	19					252	320	25	5.8	1.0	6.0
14	18	19					252	285	23	5.3	.8	5.0
15	18	19					278	250	22	5.3	.8	5.1
16	19	-					265	235	21	5.0	.8	5.0
17	20	-					278	205	26	4.7	.7	4.7
18	20	-					240	160	31	4.7	.7	4.4
19	19	-					228	132	26	4.6	.7	4.4
20	19	-					217	136	26	4.5	.8	4.4
21	20	-					175	114	25	4.4	1.4	4.4
22	21	-					157	110	22	4.2	1.8	4.4
23	20	-					148	114	21	4.0	1.8	4.4
24	19	-					132	101	20	3.8	1.6	4.5
25	19	-					140	86	18	3.5	1.4	4.5
26	18	-					132	82	19	3.2	2.0	4.5
27	18	-					124	68	21	3.0	4.0	4.4
28	18	-					132	56	19	3.0	3.2	4.4
29	18	-					124	49	18	3.0	3.2	4.6
30	18	-					124	46	18	2.8	3.2	4.6
31	19	-					-	44	-	2.6	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	569	21	16	18.4	0.054	0.06
November 1-15	314	23	19	20.9	.062	.03
December	-	-	-	-	-	-
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April 7-30	5,151	380	124	215	.636	.57
May	11,471	1,380	44	370	1.09	1.26
June	815	44	18	27.2	.080	.09
July	208.3	17	2.6	6.72	.020	.02
August	51.5	4.0	.7	1.66	.0049	.006
September	122.3	8.4	1.6	4.08	.012	.01
Water year						

Sauk River near St. Cloud, Minn.

Location.- Water-stage recorder, lat. 45°34', long. 94°14', in sec. 8, T. 124 N., R. 28 W., about 0.5 mile northwest of Waite Park, 3 miles west of St. Cloud, and 5 miles above junction with Mississippi River. Zero of gage is 1,034.95 feet above mean sea level.

Drainage area.- 815 square miles.

Records available.- July 1909 to December 1913, May 1929 to September 1936.

Extremes.- Maximum discharge during year, 1,950 second-feet May 6 (gage height, 4.90 feet; minimum, 4.0 second-feet Aug. 12.
1909-13, 1929-36: Maximum discharge, that of May 6, 1936; minimum, 1.1 second-feet July 31, 1934.

Remarks.- Records good Oct. 1 to Dec. 1, Apr. 13 to June 25, Aug. 10 to Sept. 30; others fair except those estimated, which are poor. Discharge during period of ice effect Dec. 2 to Apr. 12, except estimated periods, computed on basis of seven discharge measurements, gage heights, and weather records. Discharge estimates based on four discharge measurements, engineers' notes, weather records, and comparison with record of Elk River near Big Lake, Minn. Stage-discharge relation affected by debris Oct. 1 to Dec. 1, July 19-23; discharge computed on basis of three discharge measurements, gage heights, and engineers' notes. Diurnal fluctuation caused by power plants above.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	112	41	24			1,150	438	130			26
2	117	113	36		*10		1,110	514	91			23
3	96	54	41		†7.3	*65	1,020	485	91		*10	19
4	108	48	52				880	533	66	*40		18
5	102	58	48				825	684	79			18
6	96	61	39	*25		100	715	1,690	112			18
7	57	114	50			87	798	1,650	255	43		17
8	46	133	30			59	825	1,650	187	22	*8	13
9	45	73	23			11	742	1,440	156	16		13
10	43	67	30			69	715	1,250	72	14	6.7	12
11	41	36	39	33		115	742	1,020	85	13	5.7	12
12	41	45	45	16		100	578	1,020	58	13	5.1	13
13	48	73	67	7		57	528	880	52	12	4.6	17
14	46	43	54	13	*10	46	616	770	62	12	6.2	33
15	41	53	41	25		20	583	688	106	13	8.9	43
16	43	58	25	31		11	550	600	60	13	12	24
17	43	50	55	38		100	508	414	64	13	15	18
18	41	38	39			216	478	362	47	13	27	15
19	39	67	41			241	292	453	30	13	23	15
20	41	73	50			267	283	414	30	13	19	12
21	50	74	71	*20		418	424	382	38	13	30	10
22	54	55	55			433	405	372	103	13	42	16
23	52	77	25			374	391	386	52	13	34	15
24	70	63	23			595	368	172	30		24	13
25	112	46	*25			770	395	175	26		22	12
26	123	94	*30			880	213	209			21	14
27	102	98	*30		*50	880	214	188		*12	22	12
28	57	59	33			962	368	182	*45		27	10
29	88	41	30	*15		1,000	372	180			25	8.4
30	113	36	25		-	1,100	400	172			22	6.7
31	123	-	24		-	1,200	-	130	-	-	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,164	123	39	69.8	0.086	0.10
November	2,012	133	36	67.1	.082	.09
December	1,217	71	23	39.3	.048	.06
Calendar year 1935	35,358.7	685	1.3	96.9	.119	162
January	662	-	-	21.4	.026	.03
February	447.3	-	-	15.4	.019	.02
March	10,436	1,200	11	337	.413	.48
April	17,488	1,150	213	583	.715	.80
May	19,483	1,690	130	628	.771	.89
June	2,307	255	26	76.9	.094	.10
July	598	-	-	19.3	.024	.03
August	504.2	42	4.6	16.3	.020	.02
September	497.1	43	6.7	16.6	.020	.02
Water year 1935-36	57,615.6	1,690	4.6	158	.194	2.64

*Estimated.
†Discharge measurement.

Elk River near Big Lake, Minn.

Location.- Water-stage recorder, lat. 45°20', long. 93°40', in sec. 23, T. 33 N., R. 27 W., at highway bridge 4 miles east of Big Lake and 4 miles below mouth of St. Francis River.

Drainage area.- 615 square miles.

Records available.- April 1911 to September 1917, April 1931 to September 1936.

Extremes.- Maximum discharge during year, 2,000 second-feet Mar. 29 (gage height, 6.92 feet, affected by ice): minimum, 15 second-feet Aug. 10-13 (gage height, 0.89 foot, affected by backwater from weeds).

1911-17, 1931-36: Maximum discharge, 5,100 second-feet May 7, 1912 (gage height, 10 feet); minimum, 3.6 second-feet July 31, 1934.

Remarks.- Records excellent except those for period of ice effect, Nov. 29 to Apr. 5, which were computed on basis of five discharge measurements, gage heights, and weather records and are fair and those for period of backwater from weed growth, July 15 to Sept. 18, which are good.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used July 15 to Sept. 18)

Oct. 1 to Mar. 23

1.2	48
1.4	85
1.6	142

Mar. 24 to Sept. 30.

0.7	11	1.8	261
.8	17	2.0	340
.9	25	2.5	540
1.0	35	3.0	740
1.2	67	3.5	955
1.4	120	4.0	1,200
1.6	186	4.5	1,450

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	133	72	66	38	29	1,400	356	146	53	17	54
2	56	139	70	66	38	30	1,250	352	133	49	17	53
3	54	133	68	66	36	32	1,150	348	126	49	17	51
4	54	127	68	66	35	33	1,000	352	117	48	18	48
5	54	121	70	66	34	33	865	356	106	46	19	48
6	53	97	81	66	34	36	760	400	120	43	19	49
7	53	118	90	64	35	38	600	580	136	41	19	62
8	54	115	93	68	32	40	520	620	126	38	18	65
9	56	107	90	68	30	51	560	560	120	35	17	54
10	56	107	64	70	27	59	500	540	114	33	16	54
11	59	90	72	70	27	74	492	500	108	32	16	58
12	61	80	77	70	27	83	496	460	100	31	16	62
13	85	101	79	68	26	77	500	416	97	30	16	62
14	104	107	77	70	26	79	540	388	91	30	17	63
15	96	104	77	68	26	79	620	356	84	30	18	65
16	93	96	74	70	26	74	720	332	79	30	19	62
17	101	96	70	68	25	74	720	300	77	29	21	62
18	104	96	66	66	27	74	660	273	74	29	23	60
19	98	98	53	62	26	85	580	267	72	28	23	62
20	96	98	62	58	27	104	520	238	65	28	23	62
21	115	59	70	54	27	136	464	219	63	27	26	58
22	121	84	64	51	29	194	420	204	62	26	38	56
23	115	88	64	50	30	288	388	223	60	25	46	53
24	107	85	56	47	30	520	366	227	58	24	46	51
25	101	85	62	47	30	600	360	212	56	24	48	49
26	96	83	62	48	29	865	344	201	56	23	53	48
27	93	83	61	47	29	955	324	186	56	22	60	48
28	90	66	59	44	29	1,450	312	176	54	21	72	48
29	88	72	61	40	29	1,750	304	166	53	20	69	45
30	88	77	62	40	-	1,750	328	155	53	19	62	43
31	118	-	64	40	-	1,500	-	152	-	18	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,577	121	53	83.1	0.135	0.16
November	2,945	139	59	98.2	.160	.18
December	2,158	93	53	69.6	.113	.13
Calendar year 1935	34,876	630	24	95.6	.155	2.11
January	1,844	70	40	59.5	.097	.11
February	864	38	25	29.8	.048	.05
March	11,192	1,750	29	361	.587	.68
April	18,065	1,400	304	602	.979	1.09
May	10,105	620	152	326	.530	.61
June	2,662	146	53	88.7	.144	.16
July	981	53	18	31.6	.051	.06
August	947	72	16	30.5	.050	.06
September	1,655	65	43	55.2	.090	.10
Water year 1935-36	55,995	1,750	16	153	.249	3.39

Crow River at Rockford, Minn.

Location.- Water-stage recorder, lat. 45°05'15", long. 93°44', in sec. 29, T. 119 N., R. 24 W., at Rockford, 1 mile below junction of North and South Forks. Zero of gage is 893.65 feet above mean sea level (general adjustment of 1912).
Drainage area.- 2,520 square miles.
Records available.- June 1909 to September 1917, April 1929 to September 1936.
Extremes.- Maximum discharge during year, 4,480 second-feet Mar. 25 (gage height, 10.40 feet, affected by ice); minimum, 10 second-feet Aug. 13 (gage height, 1.30 feet).
1909-17, 1929-36: Maximum discharge, 10,600 second-feet Apr. 2, 3, 1916; minimum observed, 3.8 second-feet Aug. 4-6, 1934.
Remarks.- Records excellent except those for periods of ice effect and debris on control, Nov. 7 to Dec. 5, Dec. 23 to Jan. 1, Jan. 17 to Mar. 19, Mar. 20-25, Aug. 16-20, which were computed on basis of eight discharge measurements, gage heights, and weather records, and are fair, and those for Dec. 6-22, Jan. 2-16, May 3-19, which were computed on basis of range of fluctuation as shown on recorder graph, weather records, and comparison with record of South Fork of Crow River near Mayer, and are poor.

Rating tables, water year 1935-36 except period of backwater (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 19

1.6	17	2.1	54	1.2	10	2.0	45	4.5	1,010		
1.7	22	2.2	64	1.3	12	2.2	64	5.0	1,400		
1.8	28	2.3	74	1.4	15	2.4	84	6.0	2,200		
1.9	36	2.4	84	1.5	18	2.6	112	7.0	3,000		
2.0	45	2.5	96	1.6	21	2.8	162	8.0	3,850		
				1.7	25	3.0	222	9.0	4,750		
				1.8	30	3.5	410				
				1.9	37	4.0	668				

Mar. 20 to Sept. 30

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	80	29	35	26	17	3,160	744	258	50	13	29
2	82	88	28	36	23	17	2,840	772	242	45	13	28
3	72	81	28	38	22	18	2,600	760	210	42	13	27
4	65	77	28	36	22	18	2,360	730	174	38	13	25
5	60	71	28	34	22	18	2,200	700	162	37	13	24
6	57	67	29	32	20	15	2,000	680	171	33	12	24
7	58	68	30	30	20	12	1,880	650	174	30	12	28
8	56	71	32	30	20	18	1,400	640	182	29	11	25
9	52	67	30	32	19	20	1,820	640	188	27	11	21
10	49	67	27	35	18	24	1,640	650	185	26	11	23
11	47	52	26	38	17	30	1,720	670	162	23	11	23
12	48	44	28	40	17	30	1,840	640	151	21	10	33
13	71	55	30	38	18	31	1,840	600	123	20	10	34
14	81	59	32	40	18	30	1,840	580	114	20	10	26
15	69	55	33	40	18	30	1,800	550	107	20	11	24
16	68	55	32	40	17	29	1,720	520	102	20	12	22
17	72	54	30	40	18	30	1,640	500	98	19	12	25
18	71	52	30	40	18	33	1,480	470	92	18	14	27
19	66	54	28	36	17	58	1,280	460	88	19	14	26
20	65	50	25	32	17	176	1,120	432	81	20	15	26
21	77	28	26	31	17	678	1,040	386	78	19	18	25
22	77	45	28	28	17	1,200	975	354	73	19	24	33
23	77	38	30	26	17	2,120	905	406	67	19	24	23
24	74	40	30	26	17	3,160	849	410	66	18	21	23
25	71	45	27	27	17	3,940	856	424	61	17	20	21
26	68	46	27	29	18	4,390	863	390	58	17	19	20
27	66	47	27	28	17	4,390	849	354	57	17	28	20
28	63	41	29	28	17	4,300	765	326	54	16	43	21
29	60	39	31	28	17	4,300	665	302	55	15	40	21
30	61	35	34	28	-	3,850	672	272	52	15	38	20
31	73	-	35	27	-	3,400	-	266	-	14	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,067	92	47	66.7	0.026	0.03
November	1,661	88	28	55.4	.022	.02
December	907	35	25	29.3	.012	.01
Calendar year 1935	42,952	725	12	118	.047	.62
January	1,028	40	26	33.2	.013	.01
February	541	26	17	18.7	.0074	.008
March	36,393	4,390	17	1,174	.466	.54
April	46,119	3,160	665	1,537	.610	.68
May	16,278	772	266	525	.208	.24
June	3,695	258	52	123	.049	.05
July	744	50	14	24.0	.0095	.01
August	548	43	10	17.7	.0070	.008
September	717	39	20	23.9	.0095	.01
Water year 1935-36	110,698	4,390	10	302	.120	1.62

South Fork of Crow River near Mayer, Minn.

Location.- Chain gage, lat. 44°54', long. 93°53', on line between secs. 30 and 31, T. 117 N., R. 25 W. fifth principal meridian, on highway bridge 1½ miles north of Mayer and 4 miles southwest of Watertown. Zero of gage is 926.00 feet above mean sea level.

Records available.- April 1934 to September 1936 (incomplete).

Extremes.- Maximum discharge observed during year, 2,470 second-feet Mar. 24 (gage height, 9.54 feet); no flow July 30 to Sept. 30.
1934-36: Maximum discharge observed, that of Mar. 24, 1936; no flow at times.

Remarks.- Records fair. Discharge during period of ice effect, Mar. 8-22, computed on basis of three discharge measurements, gage heights, and weather records. No records Nov. 16 to Feb. 29. Discharge estimated Mar. 1-7. Gage read once daily.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	0	1.6	79	2.8	296	6.0	1,180
.8	6	1.8	110	3.2	386	7.0	1,610
1.0	15	2.0	143	3.6	486	8.0	1,910
1.2	28	2.2	178	4.0	596	9.0	2,320
1.4	49	2.4	215	5.0	880	9.3	2,470

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	4.8					1,210	234	29	2.0		
2	.1	6.8					1,180	224	27	1.8		
3	.1	6.8					970	215	24	1.4		
4	.3	6.4				0.5	910	196	21	1.2		
5	.5	6.0					850	169	13	1.2		
6	.6	6.4					708	160	16	1.0		
7	.7	6.4					540	143	17	.9		
8	.9	6.0				.5	512	143	19	.8		
9	1.0	5.4				.8	624	152	20	.6		
10	.9	4.8				1	652	152	17	.4		
11	.9	3.9				3	792	169	14	.4		
12	.9	3.6				8	792	160	10	.4		
13	1.8	3.6				13	764	134	8.8	.3		
14	5.4	3.6				15	736	118	6.8	.2		
15	6.0	3.9				15	708	102	6.0	.2		
16	5.7	-				10	652	81	6.0	.2		
17	8.4	-				5.4	596	69	5.4	.2		
18	9.2	-				8	486	57	4.2	.2		
19	7.2	-				94	486	45	3.6	.1		
20	8.0	-				652	410	39	3.0	.2		
21	9.6	-				1,090	386	35	2.8	.3		
22	8.8	-				1,510	362	33	2.6	.3		
23	7.6	-				1,990	340	56	2.4	.2		
24	5.1	-				2,470	318	78	2.4	.2		
25	5.7	-				2,420	296	69	2.4	.1		
26	5.7	-				2,320	275	64	2.2	.1		
27	5.1	-				2,070	234	59	2.0	.1		
28	4.8	-				1,830	224	53	1.8	.1		
29	4.2	-				1,670	215	41	2.2	.1		
30	3.9	-				1,630	206	33	2.4	0		
31	3.6	-				1,300	-	31	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	122.9	9.6	0.1	3.96	
November 1-15	78.4	6.8	3.6	5.23	
December	-	-	-	-	
Calendar year					
January	-	-	-	-	
February	-	-	-	-	
March	21,130.2	2,470	-	682	
April	17,434	1,210	206	581	
May	3,314	234	31	107	
June	294.0	29	1.8	9.80	
July	15.2	2.0	0	.49	
August	0	0	0	0	
September	0	0	0	0	
Water year					

Mille Lacs Lake at Wealthwood, Minn.

Location.- Staff gage, lat. 46°21'35", long. 93°39'15", in sec. 20, T. 45 N., R. 26 W. fourth principal meridian, in Wealthwood.

Records available.- June 1931 to September 1936.

Extremes.- Maximum elevation observed during year, 1,247.24 feet May 31, June 1; minimum, 1,246.11 feet Oct. 11, 12.
1931-36: Maximum observed elevation, 1,249.36 feet June 20, 1931; minimum 1,246.04 feet Nov. 8-14, 1934.

Remarks.- Records good. Gage heights have been reduced to mean sea level datum. No records Nov. 16 to Apr. 25.

Gage-height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.29	6.23					-	6.99	7.24	6.94	6.60	6.20
2	6.27	6.17					-	7.07	7.22	6.94	6.58	6.20
3	6.25	6.17					-	7.07	7.22	6.92	6.54	6.20
4	6.23	6.17					-	7.07	7.20	6.92	6.52	6.20
5	6.21	6.17					-	7.09	7.20	6.92	6.52	6.20
6	6.19	6.17					-	7.09	7.20	6.92	6.50	6.20
7	6.17	6.17					-	7.09	7.18	6.92	6.48	6.18
8	6.15	6.17					-	7.11	7.18	6.90	6.48	6.18
9	6.13	6.17					-	7.11	7.18	6.90	6.44	6.18
10	6.13	6.17					-	7.13	7.16	6.90	6.44	6.20
11	6.11	6.17					-	7.13	7.16	6.90	6.42	6.22
12	6.11	6.17					-	7.13	7.16	6.90	6.40	6.24
13	6.13	6.17					-	7.15	7.16	6.92	6.38	6.24
14	6.13	6.17					-	7.15	7.14	6.92	6.36	6.24
15	6.13	6.17					-	7.14	7.14	6.92	6.36	6.24
16	6.13	-					-	7.14	7.12	6.90	6.34	6.26
17	6.17	-					-	7.14	7.12	6.90	6.32	6.26
18	6.17	-					-	7.16	7.10	6.90	6.30	6.26
19	6.17	-					-	7.16	7.10	6.86	6.28	6.26
20	6.17	-					-	7.18	7.10	6.84	6.26	6.26
21	6.17	-					-	7.18	7.08	6.82	6.24	6.26
22	6.17	-					-	7.18	7.08	6.80	6.24	6.26
23	6.17	-					-	7.18	7.06	6.78	6.24	6.26
24	6.17	-					-	7.20	7.06	6.76	6.22	6.24
25	6.17	-					-	7.20	7.06	6.74	6.22	6.24
26	6.17	-					6.79	7.20	7.04	6.70	6.22	6.24
27	6.17	-					6.79	7.22	7.04	6.68	6.20	6.20
28	6.17	-					6.81	7.22	7.00	6.66	6.20	6.18
29	6.17	-					6.81	7.22	6.98	6.64	6.20	6.14
30	6.17	-					6.83	7.22	6.98	6.62	6.20	6.14
31	6.17	-					-	7.24	-	6.60	6.20	-

Rum River near St. Francis, Minn.

Location.- Water-stage recorder, lat. 45°19'40", long. 93°22'20", in sec. 19, T. 33 N., R. 24 W., 5 miles south of St. Francis and 15½ miles above junction with Mississippi River. Zero of gage is 861.12 feet above mean sea level (general adjustment of 1912).

Drainage area.- 1,580 square miles.

Records available.- May 1929 to September 1936.

Extremes.- Maximum discharge during year, 3,180 second-feet Apr. 18 (gage height, 8.11 feet); minimum, 39 second-feet Aug. 1.
1929-36: Maximum discharge, 3,780 second-feet May 18, 1930 (gage height, 8.53 feet); minimum, 29 second-feet Aug. 18, 1934 (gage height, 1.91 feet).

Remarks.- Records good except those for Dec. 17-23, June 18, 18-27, June 25 to July 8, which are fair, and those for Mar. 24 to Apr. 9, which are poor. Stage-discharge relation affected by backwater from ice or weed growth for periods Oct. 1 to Apr. 8, May 23 to Sept. 30; discharge computed on basis of 12 discharge measurements, gage heights, and weather records. Discharge for periods when gage did not operate, Dec. 17-23, Mar. 24 to Apr. 9, June 18, 18-27, June 29 to July 8, computed on basis of range of fluctuation shown on recorder graph, weather records, and comparison with record of Elk River near Big Lake.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	174	116	92	77	92	2,500	828	302	100	42	72
2	90	194	116	90	74	93	1,900	865	279	95	44	72
3	90	198	116	90	74	105	1,400	988	258	95	47	70
4	90	188	116	98	68	102	1,000	994	241	90	45	70
5	88	184	118	98	66	92	900	1,130	233	90	46	70
6	88	164	110	95	66	88	800	1,460	245	85	44	77
7	88	157	121	90	66	90	700	1,710	245	81	42	79
8	85	150	121	85	68	100	700	1,810	241	79	41	77
9	90	174	118	88	68	100	750	1,760	233	74	42	79
10	92	167	110	90	68	100	895	1,660	217	72	44	83
11	95	157	116	95	66	95	1,180	1,510	205	68	44	121
12	98	130	108	92	68	98	1,560	1,360	194	66	44	105
13	148	141	108	90	74	98	1,960	1,180	188	64	45	108
14	144	157	108	85	70	100	2,240	1,030	184	62	46	110
15	141	151	110	88	70	105	2,520	918	180	61	46	118
16	135	151	110	90	70	100	2,880	798	167	58	46	170
17	127	148	110	92	70	108	3,060	724	154	56	46	170
18	127	148	110	98	68	105	3,180	636	150	55	48	164
19	127	151	100	88	64	105	3,000	580	145	55	45	151
20	130	151	95	83	68	148	2,700	526	140	54	46	148
21	144	117	100	83	68	141	2,240	479	135	52	55	124
22	144	151	95	72	68	167	1,810	452	130	52	68	110
23	144	138	95	74	70	245	1,410	446	130	52	60	105
24	141	124	94	74	70	600	1,180	425	125	50	58	118
25	135	127	90	79	74	750	1,030	399	120	50	62	108
26	132	127	85	79	85	600	932	373	115	49	70	98
27	132	124	83	79	85	900	850	358	110	49	79	102
28	130	124	88	77	88	1,700	798	349	108	47	95	92
29	130	121	90	77	88	2,200	790	329	105	46	92	81
30	127	121	90	77	-	1,900	798	316	100	45	79	72
31	148	-	90	77	-	2,000	-	302	-	44	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,672	148	85	118	0.087	0.10
November	4,539	198	117	151	.111	.12
December	3,237	121	83	104	.076	.09
Calendar year 1935	71,345	1,760	58	195	.143	1.95
January	2,655	98	72	85.6	.063	.07
February	2,079	88	64	71.7	.053	.06
March	13,232	2,200	88	427	.314	.36
April	47,663	3,180	700	1,589	1.17	1.30
May	26,595	1,810	302	858	.631	.73
June	5,379	302	100	179	.132	.15
July	1,997	100	44	64.4	.047	.05
August	1,681	95	41	54.2	.040	.05
September	3,124	170	70	104	.076	.08
Water year 1935-36	115,853	3,180	41	317	.233	3.16

Minnesota River near Montevideo, Minn.

Location.- Water-stage recorder, lat. 44°56', long. 95°43', in sec. 19, T. 117 N., R. 40 W., at highway bridge 500 feet below mouth of Chippewa River and 1 mile south of Montevideo. Zero of gage is 910.87 feet above mean sea level (general adjustment of 1912).

Drainage area.- 6,300 square miles.

Records available.- July 1909 to September 1936.

Average discharge.- 27 years, 483 second-feet.

Extremes.- Maximum discharge during year, 750 second-feet Apr. 2 (gage height, 7.31 feet, affected by ice); no flow Aug. 6-20.
1909-36: Maximum discharge, about 22,000 second-feet June 25, 1919 (gage height, about 18.85 feet); no flow for several days in 1933, 1934, and 1936.

Remarks.- Records excellent except those for period of ice effect, Dec. 22 to Feb. 11, Mar. 5 to Apr. 9 (computed on basis of eight discharge measurements, gage heights, and weather records), and those for Feb. 12 to Mar. 4 (estimated on basis of record at power plant 20 miles downstream and weather records), which are fair.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	0	2.2	55	3.0	151	4.5	425
1.0	.1	2.4	69	3.1	161	5.0	570
1.2	.2	2.5	72	3.2	170	5.5	720
1.4	.4	2.6	91	3.4	192	6.0	870
1.6	1.3	2.7	115	3.6	222		
1.8	6.3	2.8	130	3.8	260		
2.0	17	2.9	141	4.0	303		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	21	23	13	7.6	5	720	400	116	18	0.1	29
2	28	27	21	15	7.2	5	735	412	114	16	.1	24
3	21	22	20	14	7.2	6	660	400	106	16	.1	12
4	33	20	20	14	6.8	6	585	375	79	14	.1	6.4
5	23	16	20	14	5.8	5.8	555	400	74	11	.1	3.0
6	16	16	20	14	5.8	8.1	525	338	79	9.0	0	2.7
7	18	19	21	14	5.8	9.0	525	350	91	6.8	0	2.3
8	16	19	26	13	6.8	14	555	332	76	6.3	0	1.7
9	13	19	27	12	7.2	19	570	326	75	5.4	0	1.4
10	12	20	21	12	6.5	23	525	338	118	4.6	0	1.3
11	14	16	20	12	5.0	29	615	350	91	3.5	0	1.0
12	16	19	19	12		26	660	338	71	2.7	0	.6
13	15	25	20	12		30	720	362	59	2.2	0	.4
14	20	22	21	12		29	705	303	56	1.9	0	1.2
15	20	22	21	11		28	705	250	59	1.4	0	2.3
16	16	20	22	11		23	690	240	48	1.2	0	3.5
17	16	23	21	10		21	645	240	47	.8	0	3.5
18	13	25	20	10		23	585	250	56	.5	0	3.2
19	15	25	19	10		78	540	240	40	.4	0	3.2
20	14	23	20	10	5.0	192	495	180	36	.4	0	3.5
21	16	25	19	10		222	540	151	36	.3	.3	2.7
22	25	23	19	10		222	480	151	34	.3	26	2.2
23	27	20	16	10		250	400	186	32	.2	37	1.3
24	20	20	16	9.0		375	362	214	27	.2	38	.7
25	20	21	15	9.0		400	375	192	22	.2	42	.4
26	20	21	15	9.0		400	388	170	19	.1	42	.4
27	19	24	15	8.1		466	326	166	16	.1	46	.4
28	19	21	14	8.1		540	314	151	16	.1	42	.3
29	18	22	14	8.1		675	350	141	17	.1	47	.6
30	14	25	13	7.6	-	675	375	132	18	.1	44	.8
31	14	-	13	7.6	-	690	-	126	-	.1	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	571	33	12	18.4	0.0029	0.003
November	641	27	16	21.4	.0034	.004
December	591	27	13	19.1	.0030	.003
Calendar year 1935	30,703.8	552	1.3	84.1	.013	.16
January	339.5	14	7.6	11.0	.0017	.002
February	161.5	7.6	-	5.57	.00088	.0009
March	5,499.9	690	5.0	177	.028	.03
April	16,285	735	314	543	.086	.10
May	8,210	412	126	265	.042	.05
June	1,728	118	16	57.6	.0091	.01
July	123.9	18	.1	4.00	.00063	.0007
August	401.8	47	0	13.0	.0021	.002
September	115.0	29	.3	3.83	.00061	.0007
Water year 1935-36	34,667.6	735	0	94.7	.015	.21

Minnesota River at Mankato, Minn.

Location.- Water-stage recorder, lat. 44°11', long. 94°01', in sec. 7, T. 108 N., R. 26 W., at Main Street highway bridge, in Mankato, 2 miles below mouth of Blue Earth River. Zero of gage is 747.925 feet above mean sea level (general adjustment of 1929).

Drainage area.- 14,600 square miles.

Records available.- March 1922 to September 1936 at present site. May 1903 to October 1921 comparable records 1,000 feet below mouth of Blue Earth River.

Average discharge.- 33 years, 2,233 second-feet.

Extremes.- Maximum discharge during year, 25,100 second-feet Mar. 23 (gage height, 20.05 feet); minimum, 30 second-feet Nov. 28 (gage height, 1.71 feet).

1903-36: Maximum discharge, 43,800 second-feet June 28, 1908 (gage height at old site, 21.2 feet); minimum, 28 second-feet Aug. 4, 1934.

Maximum stage known, about 27 feet at old site in 1881 (discharge, about 65,000 second-feet).

Remarks.- Records excellent except those for periods of ice effect, Dec. 9-10, Dec. 20 to Mar. 20, which were computed on basis of five discharge measurements, gage heights, weather records, and record of discharge through Rapidan Hydro Plant on Blue Earth River (about 6 miles above mouth) and are fair.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used July 31 to Sept. 30)

Oct. 1 to Mar. 18				Mar. 19 to Sept. 30					
1.9	63	3.5	600	1.8	44	3.0	302	10.0	5,750
2.0	82	4.0	920	2.0	69	3.5	510	12.0	7,750
2.2	123	4.5	1,245	2.2	106	4.0	790	14.0	9,900
2.4	167	5.0	1,580	2.4	148	5.0	1,470	16.0	13,000
2.6	215	6.0	2,320	2.6	193	6.0	2,250	18.0	17,700
2.8	270	7.0	3,300	2.8	244	8.0	3,050	20.0	25,100
3.0	340								

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	211	124	84	71	115	6,750	1,440	676	291	65	325
2	80	191	94	84	72	106	6,150	1,500	686	278	63	313
3	76	130	88	84	67	108	5,480	1,970	670	244	63	371
4	76	125	86	78	69	127	4,940	2,250	642	188	62	218
5	76	121	86	78	71	127	4,670	2,030	620	179	61	273
6	69	98	102	80	68	125	4,400	1,850	649	172	59	231
7	72	125	144	76	66	117	4,040	1,770	615	166	58	177
8	74	115	119	76	64	119	3,590	1,930	510	155	53	179
9	76	110	104	84	62	138	3,590	1,890	622	150	58	152
10	74	145	96	92	60	238	3,680	1,930	562	148	56	135
11	76	100	119	100	60	330	3,860	1,970	505	148	55	130
12	76	119	106	123	100	368	3,950	1,970	500	133	56	175
13	82	108	104	115	90	356	3,950	1,970	588	129	59	121
14	78	104	104	98	110	920	3,950	1,770	662	123	61	116
15	74	132	141	96	100	1,580	3,950	1,850	588	119	55	161
16	78	130	117	90	100	1,860	3,680	1,650	594	110	55	116
17	78	102	108	84	90	2,080	3,500	1,440	510	106	56	112
18	108	100	136	78	90	3,500	3,230	1,360	495	104	58	127
19	88	102	102	80	100	6,050	3,050	1,300	412	106	56	98
20	89	92	90	78	110	10,400	2,810	1,220	512	104	78	98
21	136	82	76	80	110	19,200	2,650	1,120	492	100	116	94
22	164	91	100	80	100	24,200	2,410	985	335	92	129	88
23	119	90	98	78	92	25,100	2,250	1,080	380	88	81	84
24	104	127	80	78	96	23,400	2,090	952	296	84	76	83
25	100	104	78	78	104	19,800	2,010	985	302	83	71	102
26	96	98	72	76	119	16,800	1,890	1,160	349	78	71	83
27	92	149	74	76	115	13,600	1,650	1,120	307	74	121	83
28	91	91	82	72	112	10,800	1,540	1,080	298	71	270	79
29	141	102	84	71	112	9,350	1,470	920	241	68	254	79
30	88	104	84	65	-	8,580	1,440	888	236	66	161	78
31	141	-	84	72	-	7,550	-	756	-	66	301	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,850	164	69	91.9	0.0063	0.007
November	3,498	211	82	117	.0080	.009
December	3,082	144	72	99.4	.0068	.008
Calendar year 1935	216,002	4,700	58	592	.041	.54
January	2,584	123	85	83.4	.0057	.007
February	2,580	119	-	89.0	.0061	.007
March	207,144	25,100	106	6,682	.458	.53
April	102,620	6,750	1,440	3,421	.234	.26
May	46,166	2,250	756	1,489	.102	.12
June	14,874	686	236	496	.034	.04
July	4,023	291	66	130	.0089	.01
August	2,838	301	53	91.5	.0063	.007
September	4,481	371	78	149	.010	.01
Water year 1935-36	396,740	25,100	53	1,084	.074	1.02

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Minnesota River near Carver, Minn.

Location.- Water-stage recorder, lat. 44°44', long. 93°38', in sec. 31, T. 115 N., R. 23 W., about 3 miles south of Carver and about 37 miles above mouth. Zero of gage is 690.00 feet above mean sea level (general adjustment of 1912).

Drainage area.- 15,800 square miles.

Records available.- September 1934 to September 1936.

Extremes.- Maximum discharge during year, 23,200 second-feet Mar. 25; maximum gage height, 22.43 feet Mar. 26; minimum discharge, 107 second-feet Nov. 22 (gage height, 2.66 feet).
1934-36: Maximum discharge, that of Mar. 25, 1936; maximum gage height, that of Mar. 26, 1936; minimum discharge, 104 second-feet Jan. 23, 1935; minimum gage height, that of Nov. 22, 1935.

Remarks.- Records excellent Oct. 1 to Dec. 18, June 2 to Sept. 30; others good except those for Apr. 10-14, Apr. 29 to May 14, which are fair. Discharge during periods of ice effect, Dec. 17 to Mar. 11, Mar. 17-25, computed on basis of eight discharge measurements, gage heights, and weather records.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	172	240	204	149	156	164	12,700	2,400	1,160	462	172	276
2	168	226	187	149	156	172	11,100	2,500	1,040	430	168	294
3	168	264	195	152	168	176	9,620	2,600	972	454	164	378
4	164	282	191	152	172	176	8,490	2,800	962	462	164	378
5	164	270	195	152	156	176	7,560	3,400	941	438	164	415
6	164	231	195	156	156	176	6,900	3,700	941	392	168	370
7	168	222	218	152	156	183	6,340	3,100	941	370	164	392
8	168	222	236	152	160	183	5,810	3,100	952	342	160	385
9	168	222	226	152	168	187	5,460	3,500	910	328	156	321
10	168	226	184	152	149	222	5,500	3,600	870	314	156	282
11	168	213	172	152	142	422	5,800	3,700	900	294	156	276
12	172	208	176	152	142	710	6,000	3,700	850	282	152	264
13	183	218	187	152	145	800	6,000	3,400	800	276	152	240
14	183	218	204	156	145	730	5,500	2,800	790	264	149	252
15	179	213	208	160	142	710	5,200	2,500	820	258	152	252
16	191	213	208	160	142	780	5,100	2,360	900	240	152	231
17	226	213	204	160	142	1,100	5,000	2,220	860	231	152	236
18	191	226	200	160	142	1,820	4,910	2,040	840	222	152	231
19	179	231	179	160	149	2,730	4,560	1,340	790	222	149	218
20	179	218	142	164	149	4,420	4,280	1,720	750	218	149	218
21	226	204	138	164	152	6,500	3,950	1,600	700	218	168	208
22	231	132	149	164	156	10,100	3,620	1,520	740	213	204	200
23	231	149	152	168	156	14,300	3,400	1,500	720	204	204	195
24	236	172	149	164	156	20,000	3,150	1,450	620	204	200	187
25	236	195	152	164	156	23,200	2,860	1,410	611	195	191	183
26	218	213	152	164	156	21,500	2,650	1,280	548	195	179	176
27	208	231	152	164	160	20,000	2,460	1,280	522	191	179	179
28	204	170	149	164	156	17,900	2,280	1,340	539	187	200	183
29	200	155	149	168	160	16,800	2,200	1,300	539	179	231	179
30	195	195	145	160	-	15,600	2,200	1,260	513	176	288	176
31	227	-	145	160	-	14,200	-	1,200	-	176	321	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,935	236	164	191	0.012	0.01
November	6,392	282	132	213	.013	.01
December	5,533	226	138	178	.011	.01
Calendar year 1935	274,444	4,710	104	752	.048	0.63
January	4,898	168	149	158	.010	.01
February	4,445	172	142	153	.0097	.01
March	196,687	23,200	164	6,345	.402	.46
April	160,490	12,700	2,200	5,350	.339	.38
May	72,120	3,700	1,200	2,326	.147	.17
June	24,041	1,160	513	801	.051	.06
July	8,637	462	176	279	.018	.02
August	5,516	321	149	178	.011	.01
September	7,775	415	176	259	.016	.02
Water year 1935-36	502,469	23,200	132	1,373	.087	1.17

Whetstone River near Big Stone, S. Dak.

Location.- Chain gage, lat. 45°17', long. 96°29', in sec. 18, T. 121 N., R. 46 W., 1½ miles west of Big Stone. Zero of gage is 996.96 feet above mean sea level (general adjustment of 1912).

Drainage area.- 420 square miles.

Records available.- March 1931 to September 1936 (incomplete during winter), March 1910 to November 1912 at a site 2 miles downstream, in reports of U. S. Geological Survey; April 1899 to May 1904, March 1910 to November 1912 in Report of water resources investigations of Minnesota for 1909-12 by State Drainage Commission.

Extremes.- Maximum discharge observed during year, 422 second-feet Mar. 22; maximum gage height observed, 5.96 feet Mar. 10 (affected by ice); no flow during February, July 9 to Aug. 18.

1909-12, 1931-36: Maximum discharge, 2,070 second-feet Mar. 8, 1910 (gage height, from floodmarks, 11.6 feet, former site and datum); no flow frequently during summer and fall.

A stage of about 26 feet, present site and datum, occurred in June 1919, reported by a nearby resident.

Remarks.- Records fair. Discharge during period of ice effect, Mar. 2, 3, 6-24, Mar. 26 to Apr. 9, computed on basis of six discharge measurements, gage heights, and weather records. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	1.5				†0	40	†20	2.7	0.5	0	0.4
2	.4	1.5				1.4	31	†30	2.5	.4	0	.4
3	*.4	*1.5				3.9	31	†26	1.8	.4	0	.4
4	.4	*1.4				†8.0	27	†24	1.1	*.4	0	.5
5	.4	*1.3				†5.0	23	21	2.3	.4	0	.7
6	.4	*1.2				2.7	19	18	3.9	.4	0	.6
7	.4	*1.1				4.4	18	16	3.1	.1	0	.5
8	*.5	1.1				22	21	13	2.5	.1	0	.4
9	.6	*1.1				128	25	14	2.1	0	0	.2
10	*.6	*1.2				170	36	16	1.8	0	0	.2
11	*.7	*1.3				170	44	16	1.4	0	0	.2
12	.7	*1.4	†2			120	46	14	1.2	0	0	.3
13	.7	1.5				128	59	14	1.2	0	0	.4
14	†.7	1.5				180	67	14	.7	0	0	.4
15	†.7	1.5				106	60	15	.7	0	0	.5
16	†.7					113	60	16	.9	0	0	.7
17	†.7					120	48	12	1.1	0	0	1.0
18	†.7					152	36	11	1.1	0	0	.5
19	†.7					211	27	9.0	1.1	0	.1	.5
20	†.7					345	24	9.0	1.1	0	.1	.4
21	†.7					391	22	9.0	1.0	0	.4	.4
22	†1.0					422	17	9.0	1.0	0	.5	.2
23	†1.0		†1.5			330	16	7.4	.9	0	.6	.1
24	†1.0		‡2.0			190	17	6.0	.6	0	.6	.1
25	†1.0					†100	17	5.2	.5	0	.7	0
26	†1.0					62	16	4.4	.4	0	.9	.1
27	†1.0					67	15	3.9	.4	0	1.1	.2
28	†1.0		†2			77	16	3.3	.4	0	1.4	.2
29	†1.0					59	14	3.1	1.5	0	1.2	.2
30	†1.0					48	17	3.1	1.5	0	.7	.2
31	†1.3	-				44	-	2.9	-	0	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	22.5	1.3	0.4	0.73	0.0017	0.002
November	42.6	-	1.1	1.42	.0034	.004
December	62.0	-	-	2.00	.0048	.006
Calendar year						
January	31	-	-	1.00	.0024	.003
February	0	0	0	0	0	0
March	3,780.4	422	0	122	.290	.33
April	909	67	14	30.3	.072	.08
May	385.3	30	2.9	12.4	.030	.03
June	42.5	3.9	.4	1.42	.0034	.004
July	2.7	.5	0	.09	.00021	.0002
August	8.9	1.4	0	.29	.00069	.0008
September	10.9	1.0	0	.36	.00086	.001
Water year 1935-36	5,297.8	422	0	14.5	.035	.46

*Interpolated.
†Estimated.
‡Discharge measurement.

Pomme de Terre River near Appleton, Minn.

Location.- Staff gage, lat. 45°14', long. 95°59', in NE¼ sec. 1, T. 120 N., R. 43 W., 3 miles northeast of Appleton and 5 miles above mouth.

Drainage area.- 950 square miles.

Records available.- March 1931 to September 1936 (incomplete during winter).

Extremes.- Maximum discharge observed during year, 720 second-feet Mar. 22; maximum gage height, 6.36 feet Mar. 21 (backwater from ice); no flow Feb. 1 to Mar. 7.
1931-36: Maximum discharge, that of Mar. 22, 1936; maximum gage height, that of Mar. 21, 1936: no flow Aug. 3-5, 1934, Feb. 1 to Mar. 7, 1936.

Remarks.- Records fair except those for Nov. 16 to Mar. 7, Mar. 13-18, which were computed on basis of three discharge measurements, weather records, and engineer's and observer's notes and are poor. Stage-discharge relation affected by ice Nov. 1-15, Mar. 8-12, Mar. 19 to Apr. 11; discharge computed on basis of six discharge measurements, gage heights, weather records, and engineers' and observer's notes. Stage-discharge relation affected by weed growth June 26 to Sept. 30; discharge computed on basis of three discharge measurements, gage heights, and weather records. Gage read twice-daily.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used June 26 to Sept. 30)

-0.2	0	.3	6.2	.8	36	1.6	146	3.5	480
-.1	.5	.4	10	.9	46	1.8	178	4.0	580
0.0	1.5	.5	14	1.0	58	2.0	212	4.5	680
.1	2.7	.6	20	1.2	85	2.5	297	4.7	720
.2	4.2	.7	28	1.4	115	3.0	384		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	14				0	52	72	16	8.9	3.4	6.6
2	11	13				0	35	74	15	7.7	3.4	6.2
3	11	13				0	31	68	15	8.1	3.6	6.0
4	12	14				0	33	64	12	7.0	4.0	5.8
5	12	13		2		0	37	59	13	7.0	4.0	5.8
6	12	16				0	26	58	14	7.7	4.6	7.7
7	12	15				*0	25	58	13	7.0	4.0	7.3
8	12	14	6			2.0	27	58	16	6.2	2.5	8.9
9	12	13				9.6	30	61	13	5.8	2.5	8.9
10	12	13		*1.4		34	34	72	13	5.0	3.0	9.2
11	13	12				26	45	81	13	4.2	3.2	8.9
12	14	13				6.6	85	81	12	4.4	3.2	8.5
13	14	12				5	170	75	11	4.4	3.3	7.7
14	15	12				5	154	75	11	4.4	3.9	9.6
15	14	11				5	138	66	10	4.4	4.4	8.5
16	13					5	130	61	11	4.2	4.8	8.1
17	13					8	154	56	11	3.9	4.6	7.7
18	13					12	138	56	10	3.9	5.2	7.7
19	12		4			40	122	54	9.6	3.9	5.0	9.6
20	12					154	115	53	9.2	4.0	4.8	10
21	12			1		500	92	58	9.2	4.2	5.4	8.9
22	13					700	77	52	10	4.6	6.0	8.5
23	13	9	*3.4			600	70	44	9.6	4.0	6.2	6.2
24	13					440	67	40	9.6	4.0	6.2	6.0
25	13					229	68	37	9.2	4.2	5.6	5.6
26	14					90	68	35	9.2	3.9	5.2	5.4
27	13		3			81	64	34	8.1	3.9	5.5	5.6
28	14					122	61	30	7.7	4.0	5.1	5.6
29	13					331	58	26	12	3.8	5.5	5.6
30	14					186	72	22	8.9	3.8	5.5	5.6
31	14					84	-	19	-	3.6	7.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	396	15	11	12.8	0.013	0.01
November	333	16	-	11.1	.012	.01
December	145.4	-	-	4.7	.0049	.006
Calendar year						
January	40.4	-	-	1.3	.0014	.002
February	0	0	0	0	0	0
March	3,685.2	700	0	119	.125	.14
April	2,278	170	25	75.9	.080	.09
May	1,699	81	19	54.8	.058	.07
June	341.3	16	7.7	11.4	.012	.01
July	156.1	8.9	3.6	5.04	.0053	.006
August	152.9	8.5	2.5	4.93	.0052	.006
September	221.7	10	5.4	7.39	.0078	.009
Water year 1935-36	9,449.0	700	0	25.8	.027	.36

*Discharge measurement.

Lac qui Parle River near Lac qui Parle, Minn.

Location.- Staff gage, lat. 45°0', long. 95°55', on line between secs. 27 and 28, T. 118 N., R. 42 W., 1 mile southwest of Lac qui Parle.

Drainage area.- 1,040 square miles.

Records available.- March 1931 to September 1936. April 1910 to November 1914 comparable record at station 2 miles downstream.

Extremes.- Maximum discharge observed during year, 293 second-feet Mar. 23 (gage height, 5.03 feet); no flow during several months.
1910-14, 1931-36: Maximum discharge, 1,550 second-feet May 5, 6, 1912 (gage height, 7.6 feet, former site and datum); no flow in several different years.

Remarks.- Records poor. Stage-discharge relation affected by ice Mar. 20, Mar. 27 to Apr. 11; discharge computed on basis of two discharge measurements, gage heights, and weather records. Gage read once daily.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.0	0	0.6	7.5	1.6	95
.1	.1	.7	13	1.8	118
.2	.5	.8	20	2.0	143
.3	1.3	1.0	36	2.2	171
.4	2.5	1.2	54	2.4	200
.5	4.5	1.4	74	2.5	215

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	*105	40	*12	*0.6		
2						0	*98	39	11	*.4		
3						0	*91	*40	10	*.3		
4						0	84	40	9.2	*.2		
5						0	*70	42	6.6	*.1		
6						0	*55	44	5.4	0		
7						0	41	46	*5.7	0		
8						0	36	48	6.0	0		
9						0	35	46	6.0	0		
10						0	30	*54	6.9	0		
11						0	56	61	*5.6	0		
12						0	*90	57	4.3	0		
13						0	124	44	3.9	0		
14						0	124	40	*3.8	0		
15						0	118	*38	*3.7	0		
16						0	112	35	*3.6	0		
17						0	100	*32	3.5	0		
18						*2	*98	30	3.1	0		
19						*15	95	29	2.7	0		
20						34	90	22	2.4	0		
21						*50	82	19	*2.2	0		
22						144	74	27	2.1	0		
23						215	44	30	*2.0	0		
24						*170	39	*30	1.9	0		
25						124	35	29	1.9	0		
26						130	29	27	1.7	0		
27						106	34	24	1.4	0		
28						74	29	*22	*1.2	0		
29						63	40	19	*1.0	0		
30						124	42	12	*.8	0		
31						112	-	*12	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	0	0	0	0	0	0
November	0	0	0	0	0	0
December	0	0	0	0	0	0
Calendar year 1935	3,729.56	196	0	10.2	.0098	.14
January	0	0	0	0	0	0
February	0	0	0	0	0	0
March	1,363	215	0	44.0	.042	.05
April	2,102	124	29	70.1	.067	.07
May	1,078	61	12	34.8	.033	.04
June	131.6	12	.8	4.39	.0042	.005
July	1.6	.6	0	.05	.000048	.0006
August	0	0	0	0	0	0
September	0	0	0	0	0	0
Water year 1935-36	4,676.2	215	0	12.8	.012	.17

*Estimated.

Chippewa River near Watson, Minn.

Location.- Chain gage, lat. 45°1', long. 95°48', on line between secs. 22 and 15, T. 118 N., R. 41 W., 1½ miles northeast of Watson, 2 miles below Dry Weather Creek, and 10 miles above mouth. Zero of gage is 931.82 feet above mean sea level (general adjustment of 1912).

Drainage area.- 1,850 square miles.

Records available.- July to September 1909 (discharge measurements only), April 1910 to September 1917, March 1931 to September 1936 (discontinued).

Extremes.- Maximum discharge observed during year, 318 second-feet Apr. 12, maximum gage height observed, 6.44 feet (backwater from ice) Mar. 20; no flow Feb. 11 to Mar. 12.

1910-17, 1931-36: Maximum discharge, 9,600 second-feet Apr. 4, 1917 (gage height, 17.86 feet, old datum); no flow during several months in 1933-36.

Remarks.- Records good Oct. 1 to Nov. 15, Apr. 9 to May 14; remainder poor. Discharge for period of ice effect Mar. 18 to Apr. 8, and period of backwater from weed growth, May 18 to Aug. 10, computed on basis of five discharge measurements, gage heights, weather records, and record of Minnesota River near Montevideo. Discharge for Nov. 16 to Mar. 17, Aug. 11 to Sept. 30 computed on basis of six discharge measurements and record of Minnesota River near Montevideo. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	18				0	214	151	37	19	0.4	5
2	11	19				0	182	158	34	18	.4	5
3	10	14		1		0	174	158	35	13	.9	5
4	8.8	18				0	166	158	33	13	1.8	5
5	9.4	18	10			*0	158	151	34	10	1.6	5
6	12	16			0.1		151	151	46	10	1.6	4
7	11	16					95	151	43	13	1.1	4
8	11	14		.5			174	158	44	10	1.0	4
9	11	17					214	158	40	8.2	.7	4
10	11	17		*.5		.1	264	174	35	8.2	.9	4
11	12	17	8		0		264	174	26	3.9	.8	3
12	15	18			0		318	166	29	2.7	.8	3
13	19	18		.5	0	*.1	282	174	29	2.6	.8	3
14	17	18			0	.5	264	151	26	2.0	.8	3
15	18	15			0	1	230	151	30	1.5	.8	4
16	16		6		0	2	214	144	27	1.2	1	5
17	11				0	5	182	129	22	.8	1	5
18	12				0	22	166	115	21	.8	1	4
19	13				0	95	166	102	19	.4	1	4
20	11				0	206	158	83	18	.6	1	5
21	14	15	4		0	166	166	83	17	.6	2	4
22	14				0	136	151	89	21	.6	3	4
23	14		*3.4		0	122	136	89	22	.5	4	3
24	14			.3	0	115	144	83	22	.5	4	3
25	14		3		0	83	136	72	17	.5	3	*2.7
26	14				0	102	129	68	17	.5	3	2
27	14				0	102	122	58	16	.7	6	2
28	14	12			0	166	122	56	16	.8	6	2
29	14		2		0	206	122	57	18	.7	*5.6	2
30	14				-	230	158	46	17	.6	5	2
31	14	-			-	246	-	42	-	.5	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	403.2	19	8.8	13.0	0.0070	0.008
November	463	19	-	15.4	.0083	.009
December	188.4	-	-	6.08	.0033	.004
Calendar year 1935	10,468.6	174	0	28.7	.016	.21
January	14.8	-	-	.48	.00026	.0003
February	1.0	-	0	.03	.000016	.00002
March	2,006.3	246	0	64.7	.035	.04
April	5,422	318	95	181	.098	.11
May	3,700	174	42	119	.064	.07
June	811	46	16	27.0	.015	.02
July	145.4	19	.4	4.69	.0025	.003
August	66.0	6	.4	2.13	.0012	.001
September	110.7	5	2	3.69	.0020	.002
Water year 1935-36	13,331.8	318	0	36.4	.020	.27

*Discharge measurement.

Yellow Medicine River near Granite Falls, Minn.

Location.- Wire-weight gage, lat. 44°43', long. 95°31', in sec. 35, T. 115 N., R. 39 W., 6 miles above mouth and 8 miles south of Granite Falls. Prior to June 11, 1936, chain gage at same site and datum.

Drainage area.- 540 square miles.

Records available.- March 1931 to September 1936 (incomplete during winter).

Extremes.- Maximum discharge observed during year, 147 second-feet Apr. 15; maximum gage height, 3.10 feet Mar. 29, Apr. 14, 15; minimum discharge, 0.1 second-foot Aug. 3-5, 1931-36: Maximum discharge, 476 second-feet Mar. 1, 1932 (gage height, 4.20 feet); no flow July 26, Aug. 27, 1931, and several days in 1933.

Remarks.- Records poor. Stage-discharge relation affected by shifting control or backwater from ice during most of period Oct. 1 to Nov. 15, Mar. 10 to Sept. 30; discharge computed on basis of 11 discharge measurements, gage heights, and weather records. Discharge estimated Nov. 16 to Mar. 9 on basis of two discharge measurements and weather records. Gage read twice daily Oct. 1 to Nov. 15, Mar. 29 to May 30, Sept. 14; once daily Mar. 9-29, May 31 to Sept. 13, Sept. 15-30.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	2.5				1.5	69	29	11	10	0.2	1.2
2	.4	2.3				2.0	69	27	†10	2.2	†.2	.9
3	.5	1.4				2.5	67	28	9.0	1.3	.1	.9
4	.8	2.1				*2.5	64	24	7.9	1.5	.1	.9
5	.9	2.1				2.5	55	23	7.9	1.3	.1	.9
6	.8	1.7				3	42	19	11	2.2	.2	1.5
7	1.1	1.5				4	42	18	11	2.5	.2	1.8
8	1.3	1.7				6	33	19	11	1.2	.2	1.4
9	1.5	1.4				8	42	19	†9	1.2	.2	1.3
10	1.7	3.5	1.5			9.0	34	19	6.9	1.1	.2	1.1
11	2.1	2.3				9.0	46	19	6.9	.8	.2	1.0
12	2.3	1.7				13	57	18	6.9	†.8	.2	1.0
13	2.1	1.9			1.0	6.9	92	20	4.5	.7	.2	1.0
14	1.4	2.3				3.9	124	18	4.5	.5	.4	55
15	2.7	2.1				†4.6	144	16	5.3	.4	.5	4.1
16	1.9					5.4	126	16	8.4	.4	.5	2.2
17	2.3					7.9	103	†15	7.9	.4	.6	1.3
18	1.3					15	81	14	7.9	.3	.4	1.0
19	1.5					20	69	16	6.4	.3	.4	1.0
20	2.1					29	61	14	4.8	.3	.6	†.8
21	2.1					18	48	11	4.5	.3	.7	.7
22	1.5					13	43	12	4.1	.2	.7	.5
23	.9	1.8				13	46	19	3.8	.2	†.7	.6
24	1.3		1.2			7.3	40	14	3.2	.2	.7	.6
25	1.3					5.8	38	12	2.5	.2	.7	.7
26	1.4				1.5	18	30	11	2.5	.2	†1.2	.7
27	1.9		*1.2			17	29	13	2.5	.2	1.8	.6
28	1.5					103	29	12	2.4	.2	2.5	.8
29	1.5					92	24	17	2.2	.2	†2.1	.8
30	1.7		1.2		-	90	28	14	11	.2	†1.6	.9
31	2.1	-			-	†4	-	11	-	.2	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	47.0	2.7	0.4	1.52	0.0028	0.003
November	57.5	3.5	-	1.92	.0036	.004
December	43.2	-	-	1.4	.0026	.003
Calendar year						
January	31.0	-	-	1.0	.0019	.002
February	32.5	-	-	1.1	.0020	.002
March	606.8	103	1.5	19.6	.036	.04
April	1,775	144	24	59.2	.110	.12
May	537	29	11	17.3	.032	.04
June	196.9	11	2.2	6.56	.012	.01
July	31.7	10	.2	1.02	.0019	.002
August	19.6	2.5	.1	.63	.0012	.001
September	87.2	55	.5	2.91	.0054	.006
Water year 1935-36	3,465.4	144	.1	9.47	.018	.23

*Discharge measurement. †Interpolated.

Redwood River near Redwood Falls, Minn.

Location.- Chain gage, lat. 44°31', long. 95°10', in NE¼ sec. 9, T. 112 N., R. 36 W., 3 miles west of Redwood Falls.

Drainage area.- 703 square miles.

Records available.- July 1909 to September 1914, August 1930 to September 1936 (incomplete during winter prior to 1936).

Extremes.- Maximum discharge observed during year, 387 second-feet Mar. 28 (gage height, 4.23 feet, affected by ice); minimum discharge, 0.2 second-foot July 28 to Aug. 7. 1909-14, 1930-36: Maximum discharge, 781 second-feet (discharge measurement) July 2, 1909 (gage height, 3.98 feet, present datum); minimum, 0.1 second-foot July 25-31, Aug. 4, 5, 9, 1934.

Remarks.- Records good Apr. 13 to June 30, fair for remainder of year. Stage-discharge relation affected by debris on control Oct. 1 to Nov. 15, Aug. 22 to Sept. 30. Discharge computed on basis of four discharge measurements, gage heights, and weather data. Discharge during period of ice effect, Mar. 10 to Apr. 12, computed on basis of four discharge measurements, gage heights, engineer's and observer's notes, and weather data. Discharge for Nov. 16 to Mar. 9 estimated on basis of two discharge measurements, weather data, and one gage reading by observer. Gage read once or twice daily.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Nov. 15, Aug. 22 to Sept. 30)

0.1	0.2	0.5	6	0.9	42	2.3	114	2.7	218
.2	.7	.6	12	2.0	57	2.4	137	2.8	250
.3	1.5	.7	20	2.1	74	2.5	162	2.9	286
.4	3	.8	30	2.2	93	2.6	189	3.0	325
								3.1	366

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	1.2				0.4	150	†38	27	6.0	0.2	1.0
2	.4	1.3				.6	104	36	23	4.2	.2	1.2
3	.4	1.2				.7	78	38	19	4.2	.2	1.4
4	.4	1.1				.7	64	38	18	†3.7	.2	1.3
5	.5	1.1				.7	69	38	17	†3.2	.2	1.0
6	.4	1.1				2	66	34	21	2.7	.2	1.0
7	.4	1.1				6	48	36	18	2.4	.2	.8
8	.6	1.2				14	50	34	24	1.8	.3	.9
9	.5	1.3				40	78	34	21	1.8	†.4	.6
10	.5	1.1	0.5			51	91	32	†20	1.5	.4	.6
11	.6	1.1				41	140	31	18	1.3	.3	.6
12	.6	1.1				28	142	29	22	†1.2	.3	.6
13	.6	1.1				22	126	29	37	1.1	.4	.5
14	.6	.9				16	123	27	45	.7	.4	.5
15	.7	.9				12	123	†25	42	.7	.6	.6
16	.9					23	126	29	34	.6	.7	.8
17	1.2					40	128	29	30	.5	.7	.7
18	1.3					72	126	27	23	.4	.5	.6
19	1.3					160	108	27	20	.4	.6	.6
20	1.4					130	99	23	18	.4	.7	.6
21	1.4					125	82	23	14	.3	.8	.5
22	1.5					119	84	23	14	.3	.9	.5
23	1.5	.8	.4			105	84	34	12	.3	1.1	.4
24	1.5					64	95	29	8.4	.3	.9	.4
25	1.4					48	87	29	7.2	.3	.8	.4
26	1.4					20	†62	28	6.0	.3	.7	.4
27	1.4		*.4			104	36	27	6.0	.4	1.3	†.4
28	1.3					286	†35	27	4.8	.2	3.0	.4
29	1.3		.4			345	34	44	5.7	.2	1.5	.4
30	1.4				-	306	38	41	5.4	.2	1.1	.4
31	1.5				-	268	-	29	-	.2	1.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	29.3	1.5	0.4	0.95	0.0014	0.002
November	28.9	1.3	-	.96	.0014	.002
December	14.4	-	-	.46	.00065	.0007
Calendar year						
January	12.4	-	-	.4	.00057	.0007
February	8.7	-	-	.3	.00043	.0006
March	2,458.1	346	.4	79.3	.113	.13
April	2,653	150	34	88.6	.126	.14
May	673	44	23	31.4	.045	.05
June	580.5	45	4.8	19.4	.028	.03
July	41.8	6.0	.2	1.35	.0019	.002
August	21.0	3.0	.2	.68	.00097	.001
September	20.0	1.4	.4	.67	.00095	.001
Water year 1935-36	6,849.1	346	.2	18.7	.027	.36

*Discharge measurement.
†Interpolated.

Cottonwood River near New Ulm, Minn.

Location.- Wire-weight gage, lat. 44°17', long. 94°29', in sec. 31, T. 110 N., R. 30 W., 2 miles southwest of New Ulm and 4 miles above mouth. Zero of gage is 810.50 feet above mean sea level (general adjustment of 1912).
Drainage area.- 1,190 square miles.
Records available.- March 1931 to September 1936 (incomplete during winter); July 1909 to December 1913 comparable records at station 2 miles downstream.
Extremes.- Maximum discharge observed during year, 4,160 second-feet Mar. 22; maximum gage height, 11.67 feet Mar. 19, affected by ice; minimum discharge, 2.1 second-feet Aug. 19.

1909-13, 1931-36: Maximum discharge, 4,580 second-feet Feb. 29, 1932 (gage height, 11.20 feet, affected by ice); minimum, 0.6 second-foot Aug. 1, 1934.

Remarks.- Records good Mar. 20-25, June, July, and August; others fair except those estimated, which are poor. Stage-discharge relation affected by backwater from debris on control Oct. 1 to Nov. 15, Aug. 5-20, Aug. 25 to Sept. 30 and by debris caught on piling just below gage Mar. 26 to Apr. 30; discharge computed on basis of seven discharge measurements, engineers' notes, and weather records. Discharge during period of ice effect, Mar. 9-19, computed on basis of two discharge measurements, gage heights, observer's and engineers' notes, and weather records. Discharge estimated Nov. 16 to Mar. 8 on basis of three discharge measurements and weather records. Gage read twice daily Mar. 9-22, once daily Oct. 1 to Nov. 15, Mar. 23 to Sept. 30.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 15, Mar. 26 to Apr. 30, Aug. 5 to Sept. 30)

2.3	2.1	3.2	85	4.5	310	8.0	2,200
2.4	5.3	3.4	114	5.0	440	9.0	3,000
2.5	11	3.6	145	5.5	600	10.0	3,800
2.6	18	3.8	177	6.0	825	10.5	4,250
3.0	58	4.0	212	7.0	1,460		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	16				6	565	194	66	30	3.4	153
2	4.0	18				*6.7	565	161	61	30	3.4	122
3	3.1	18				7	470	153	56	28	3.1	85
4	3.4	17				7	410	153	51	26	3.1	62
5	3.4	16	8			6	385	145	48	24	3.4	64
6	3.1	16				6	360	129	66	21	3.7	106
7	3.1	16				7	360	122	57	21	2.7	82
8	3.7	16				8	310	120	53	18	3.1	66
9	4.0	14				12	360	129	53	16	2.4	52
10	4.3	14			4	56	360	129	46	18	2.7	52
11	3.1	15				335	360	145	42	14	2.4	48
12	4.3	15				1,320	410	153	74	12	3.1	44
13	5.9	15	6			825	440	161	186	11	2.7	43
14	7.0	12		4		680	470	145	153	11	3.4	34
15	5.0	15				500	470	122	145	9.3	2.7	51
16	5.9					470	440	106	137	8.2	2.7	38
17	7.6					565	385	98	114	7.0	2.7	32
18	7.0	12	8			1,000	322	92	99	5.3	2.7	29
19	8.7					2,520	280	84	91	7.6	2.1	25
20	*7.0					3,550	250	84	82	6.4	3.4	24
21	7.6					4,070	221	71	67	7.0	12	21
22	8.7					4,160	203	68	63	5.3	14	20
23	10					3,450	194	81	56	5.2	11	17
24	8.2		4			2,920	177	91	52	6.4	8.7	17
25	4.3	10			5	2,280	161	84	44	5.3	13	16
26	3.7					1,810	145	81	39	5.3	11	16
27	5.9		*3.9			825	137	71	35	6.4	21	19
28	6.2					640	122	77	32	5.3	64	16
29	9.3		4	†4.3		725	114	74	38	4.3	203	16
30	8.2			4	-	680	221	70	32	4.3	470	14
31	12	-		4	-	680	-	67	-	3.7	212	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	184.0	12	3.1	5.94	0.0050	0.006
November	393	18	-	13.1	.011	.01
December	178.9	-	-	5.77	.0048	.006
Calendar year						
January	124.3	-	-	4.01	.0034	.004
February	125	-	-	4.31	.0036	.004
March	34,186.7	4,160	6	1,102	.926	1.07
April	9,667	565	114	322	.271	.30
May	3,469	194	67	112	.094	.11
June	2,140	186	32	71.3	.060	.07
July	382.4	30	3.7	12.3	.010	.01
August	1,098.6	470	2.1	35.4	.030	.03
September	1,384	153	14	46.1	.039	.04
Water year 1935-36	53,312.9	4,160	2.1	146	.123	1.66

*Interpolated.
†Discharge measurement.

St. Croix River near Danbury, Wis.

Location.- Chain gage, lat. 46°4', long. 92°15', in sec. 33, T. 42 N., R. 15 W., on State Trunk Highway 35, 10 miles northeast of Danbury. Namakagon River enters 3½ miles above station.

Drainage area.- 1,550 square miles.

Records available.- March 1914 to September 1936.

Average discharge.- 22 years, 1,147 second-feet.

Extremes.- Maximum discharge observed during year, 4,850 second-feet Apr. 16 (gage height, 5.04 feet); minimum, 450 second-feet Aug. 8, 10, 11.
1914-36: Maximum discharge observed, 8,480 second-feet Apr. 22, 1916 (gage height, 6.73 feet); minimum, 393 second-feet Aug. 6, 13, 1934 (gage height, -0.20 foot).

Remarks.- Records good except those for period of ice effect, Nov. 20 to Apr. 10, which are fair. Gage read twice daily.

Rating table, water year 1935-36, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-15, Aug. 7 to Sept. 30)

0.0	450	2.0	2,000
.2	544	2.5	2,520
.4	675	3.0	2,980
.6	815	3.5	3,400
.8	960	4.0	3,820
1.0	1,110	5.0	4,850
1.5	1,520		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	675	1,340	851	815	606	606	2,710	2,890	1,110	815	518	887
2	710	1,430	887	851	575	640	2,800	2,980	1,110	851	518	851
3	710	1,430	851	851	575	675	2,620	2,980	960	851	492	780
4	675	1,340	851	851	606	675	2,420	2,890	960	780	492	745
5	675	1,430	887	851	575	710	2,420	2,890	960	710	492	710
6	710	1,340	1,110	851	544	710	1,900	3,230	1,030	780	518	675
7	675	1,340	1,180	815	518	710	2,000	3,480	1,030	745	471	710
8	675	1,260	1,260	815	518	710	2,220	3,480	960	675	450	745
9	675	1,260	1,260	851	544	710	2,220	3,400	960	675	471	780
10	710	1,260	960	815	575	745	2,220	3,310	960	640	450	851
11	780	1,030	640	815	575	780	2,320	3,140	960	640	450	960
12	780	1,030	887	851	544	780	3,230	2,980	960	640	492	1,030
13	815	1,110	1,030	851	575	815	3,650	2,800	960	606	492	1,030
14	815	1,260	1,180	887	518	887	4,100	2,620	887	575	492	1,110
15	851	1,110	1,180	887	518	887	4,610	2,420	887	575	471	1,180
16	960	1,180	1,110	887	518	960	4,850	2,220	887	544	471	1,030
17	960	1,110	1,110	887	544	960	4,200	2,000	887	544	450	1,030
18	887	1,030	1,110	887	518	960	4,100	1,800	815	575	450	960
19	851	1,030	1,030	887	492	960	3,910	1,800	815	575	471	887
20	960	1,030	960	815	518	1,030	3,740	1,710	815	575	471	851
21	960	1,030	815	851	492	1,030	3,480	1,610	887	575	492	815
22	1,030	815	851	815	471	1,180	3,230	1,520	851	606	887	780
23	1,030	851	887	780	471	1,520	3,060	1,520	780	575	887	780
24	1,030	960	960	745	471	2,000	2,980	1,430	745	544	851	745
25	1,030	960	887	675	471	2,420	2,980	1,430	710	544	960	745
26	960	1,030	815	640	518	2,620	2,890	1,430	710	575	1,030	710
27	1,030	1,030	851	640	544	2,520	2,710	1,340	745	544	1,110	675
28	887	1,030	815	606	544	2,200	2,620	1,260	745	518	1,110	675
29	960	887	780	640	575	2,980	2,620	1,260	745	492	1,110	710
30	1,030	887	815	606	-	3,060	2,620	1,180	780	518	1,030	675
31	1,180	-	815	606	-	2,800	-	1,180	-	518	960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	26,676	1,180	675	861	0.555	0.64
November	33,830	1,430	815	1,128	.728	.81
December	29,625	1,260	640	956	.617	.71
Calendar year 1935	424,168	5,120	640	1,162	.750	10.16
January	24,624	887	606	794	.512	.59
February	15,513	606	471	535	.345	.37
March	40,840	3,060	606	1,317	.850	.98
April	91,430	4,850	1,900	3,048	1.97	2.20
May	70,180	3,480	1,180	2,264	1.46	1.68
June	26,611	1,110	710	887	.572	.64
July	19,380	851	492	625	.403	.46
August	20,009	1,110	450	645	.416	.48
September	25,112	1,180	675	837	.540	.60
Water year 1935-36	423,830	4,850	450	1,158	.747	10.16

St. Croix River near Grantsburg, Wis.

Location.- Staff gage, lat. 45°56', long. 92°39', near center of sec. 30, T. 40 N., R. 18 W., at Norway Point, 0.5 mile below mouth of Sand Creek and 10 miles north of Grantsburg.

Drainage area.- 2,820 square miles.

Records available.- April 1923 to September 1936.

Average discharge.- 13 years, 1,833 second-feet.

Extremes.- Maximum discharge observed during year, 13,300 second-feet Apr. 13 (gage height, 11.42 feet); minimum, 656 second-feet Aug. 9.
1923-36: Maximum discharge observed, 13,300 second-feet Mar. 18, 1927, Apr. 13, 1936; maximum gage height, that of Apr. 13, 1936; minimum discharge, 510 second-feet Aug. 14, 17, 1934.

Remarks.- Records good except those for period of ice effect, Nov. 21-23, Nov. 27 to Apr. 11, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	2,240	1,820	1,360	1,070	863	5,710	6,390	1,920	1,140	704	1,280
2	1,210	2,350	1,720	1,440	1,000	863	5,540	7,240	1,820	1,210	704	1,210
3	1,210	2,460	1,720	1,440	1,000	930	5,540	7,960	1,720	1,210	704	1,210
4	1,210	2,460	1,720	1,530	1,000	930	5,210	7,780	1,620	1,140	674	1,140
5	1,140	2,460	1,720	1,530	930	1,000	5,050	7,240	1,530	1,070	704	1,140
6	1,140	2,350	1,720	1,440	930	1,000	4,730	8,140	1,620	1,070	704	1,140
7	1,210	2,350	2,020	1,440	930	1,000	4,410	8,330	1,720	1,070	704	1,360
8	1,210	2,240	2,130	1,360	863	1,000	4,410	8,710	1,720	1,070	704	1,280
9	1,210	2,240	2,130	1,440	863	1,000	4,890	8,520	1,620	1,000	674	1,210
10	1,210	2,240	2,020	1,440	863	1,070	5,710	7,780	1,620	1,000	674	1,280
11	1,280	2,130	1,620	1,440	863	1,070	7,420	7,240	1,530	1,000	674	1,440
12	1,280	2,020	1,530	1,440	863	1,140	11,400	6,900	1,530	930	704	1,440
13	1,360	2,130	1,720	1,360	863	1,210	13,300	6,390	1,440	863	735	1,530
14	1,360	2,020	1,920	1,360	863	1,280	13,300	5,710	1,440	863	704	1,530
15	1,360	2,130	1,920	1,360	798	1,360	13,000	5,210	1,360	798	704	1,620
16	1,360	2,020	1,920	1,360	798	1,360	12,800	4,570	1,360	798	735	1,620
17	1,440	2,020	1,820	1,360	798	1,360	12,600	4,260	1,360	798	766	1,530
18	1,530	1,920	1,820	1,360	798	1,360	12,100	3,810	1,360	798	766	1,440
19	1,440	1,920	1,720	1,360	798	1,360	11,000	3,520	1,280	863	735	1,360
20	1,440	1,820	1,440	1,360	798	1,440	10,300	3,240	1,280	798	766	1,360
21	1,620	1,820	1,280	1,360	798	1,530	9,690	3,100	1,280	766	863	1,280
22	1,620	1,820	1,440	1,360	798	1,620	8,710	2,960	1,280	766	1,210	1,280
23	1,720	1,820	1,530	1,280	798	1,920	7,780	2,830	1,210	766	1,210	1,210
24	1,720	1,920	1,530	1,210	798	2,460	6,900	2,700	1,210	766	1,140	1,210
25	1,720	1,920	1,530	1,210	798	2,960	6,560	2,580	1,140	766	1,140	1,210
26	1,720	1,8	1,440	1,140	798	3,670	6,390	2,460	1,140	735	1,210	1,210
27	1,720	1, J	1,440	1,140	863	4,260	6,220	2,350	1,140	735	1,280	1,210
28	1,720	1,820	1,440	1,140	863	4,890	5,880	2,240	1,140	735	1,530	1,140
29	1,720	1,820	1,440	1,070	863	5,210	5,710	2,130	1,140	735	1,440	1,140
30	1,720	1,820	1,440	1,070	-	5,710	5,710	2,020	1,140	704	1,440	1,140
31	1,920	-	1,440	1,070	-	5,710	-	2,020	-	704	1,360	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	44,730	1,920	1,140	1,443	0.512	0.59
November	61,920	2,460	1,820	2,064	.732	.82
December	52,100	2,130	1,280	1,681	.596	.69
Calendar year 1935	763,205	12,400	905	2,091	.741	10.06
January	41,230	1,530	1,070	1,330	.472	.54
February	25,066	1,070	798	864	.306	.33
March	62,536	5,710	863	2,017	.715	.82
April	237,970	13,300	4,410	7,932	2.81	3.14
May	156,330	8,710	2,020	5,043	1.79	2.06
June	42,670	1,920	1,140	1,422	.504	.56
July	27,667	1,210	704	892	.316	.36
August	28,062	1,530	674	905	.321	.37
September	39,150	1,620	1,140	1,305	.463	.52
Water year 1935-36	819,431	13,300	674	2,239	.794	10.80

St. Croix River near Rush City, Minn.

Location.- Staff gage, lat. 45°42', long. 92°52', in SW¼ sec. 8, T. 37 N., R. 20 W., 200 feet above Northern Pacific Railway bridge 5 miles east of Rush City and 10 miles below mouth of Snake River. Zero of gage is 766.9 feet above mean sea level, by Northern States Power Co. levels.

Drainage area.- 5,120 square miles.

Records available.- April 1923 to September 1936.

Average discharge.- 13 years, 2,695 second-feet.

Extremes.- Maximum discharge observed during year, 27,700 second-feet (result of discharge measurement) Apr. 14 (gage height, 12.44 feet); minimum observed, 802 second-feet Aug. 15.
1923-36: Maximum discharge, that of Apr. 14, 1936; minimum, 650 second-feet Aug. 14, 1933.

Remarks.- Records good except those for period of ice effect, Nov. 16 to Apr. 11, which are poor and were computed on basis of two discharge measurements, gage heights, and weather records. Gage read once daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,490	2,720	2,200	1,790	1,080	1,060	8,490	12,000	2,720	1,390	820	1,690
2	1,390	3,050	2,100	1,790	1,100	1,150	7,470	14,800	3,050	1,600	874	1,590
3	1,390	3,050	1,890	1,790	1,040	1,290	6,700	16,300	2,720	1,490	856	1,490
4	1,390	3,050	1,890	1,890	1,060	1,290	6,700	15,500	2,620	1,490	838	1,490
5	1,390	3,050	1,990	1,890	1,080	1,290	6,440	14,500	2,520	1,390	856	1,490
6	1,490	2,830	2,100	1,790	1,040	1,290	5,920	17,600	2,720	1,290	874	1,490
7	1,490	2,830	2,300	1,790	1,000	1,290	4,900	16,800	2,720	1,290	856	1,890
8	1,490	2,720	2,620	1,690	1,020	1,190	4,650	16,500	2,620	1,190	856	1,690
9	1,490	2,720	2,520	1,790	1,040	1,290	5,160	18,500	2,520	1,190	838	1,590
10	1,490	2,830	2,520	1,790	1,060	1,290	7,470	14,500	2,520	1,130	856	2,100
11	1,490	2,620	2,100	1,790	1,110	1,290	10,300	14,000	2,410	1,100	820	2,300
12	1,490	2,410	1,690	1,690	1,170	1,390	17,900	12,800	2,300	1,020	838	2,100
13	1,790	2,520	1,890	1,590	1,190	1,490	24,200	11,500	2,300	1,100	838	1,990
14	1,790	2,520	2,100	1,490	1,190	1,490	27,500	10,500	2,300	1,060	820	2,100
15	1,790	2,520	2,100	1,690	1,190	1,590	25,300	9,250	2,100	1,020	802	2,300
16	1,890	2,410	1,990	1,690	1,130	1,590	25,300	8,490	2,100	982	838	2,300
17	1,990	2,410	1,990	1,690	1,110	1,590	24,200	7,980	1,990	946	874	2,300
18	1,890	2,300	1,890	1,690	1,170	1,690	23,500	7,220	1,990	964	874	1,990
19	1,890	2,300	1,890	1,690	1,130	1,690	21,500	6,960	1,890	946	874	2,200
20	1,790	1,990	1,590	1,590	1,110	1,790	18,200	6,440	1,790	946	892	2,410
21	1,990	2,100	1,690	1,590	1,080	1,890	16,500	6,440	1,790	982	964	1,690
22	2,100	2,200	1,790	1,390	1,150	1,890	15,000	5,410	1,790	946	1,790	1,690
23	2,100	2,200	1,790	1,390	1,080	3,490	13,000	5,150	1,690	910	1,690	1,590
24	2,200	2,300	1,890	1,290	1,110	7,980	12,300	4,650	1,690	982	1,490	1,490
25	2,200	2,300	1,790	1,190	1,100	6,440	11,500	4,650	1,590	946	1,490	1,490
26	2,200	2,300	1,790	1,190	1,130	7,980	11,300	4,410	1,590	910	1,690	1,490
27	2,100	2,300	1,790	1,100	1,170	7,470	11,000	3,940	1,690	910	1,790	1,490
28	2,100	2,200	1,790	1,110	1,110	7,980	10,500	3,940	1,490	910	1,990	1,490
29	2,100	1,990	1,790	1,100	1,110	8,240	10,300	3,490	1,490	910	1,890	1,390
30	2,100	1,990	1,690	1,110	-	8,490	11,000	3,270	1,490	838	1,890	1,390
31	2,100	-	1,790	1,100	-	8,490	-	3,050	-	820	1,790	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	55,590	2,200	1,390	1,793	0.350	0.40
November	74,730	3,050	1,990	2,491	.487	.54
December	60,950	2,620	1,590	1,966	.384	.44
Calendar year 1935	1,189,550	21,100	1,260	3,259	.637	8.63
January	48,160	1,890	1,100	1,554	.304	.35
February	32,060	1,190	1,000	1,106	.216	.23
March	98,370	8,490	1,060	3,173	.620	.71
April	404,190	27,500	4,650	13,470	2.63	2.93
May	300,540	18,500	3,050	9,695	1.89	2.18
June	64,200	3,050	1,490	2,140	.418	.47
July	33,688	1,690	820	1,087	.212	.24
August	35,458	1,990	802	1,144	.223	.26
September	53,700	2,410	1,390	1,790	.350	.39
Water year 1935-36	1,261,636	27,500	802	3,447	.673	9.14

St. Croix River near St. Croix Falls, Wis.

Location.- Lat. 45°24'45", long. 92°38'45", in sec. 19, 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 1936 in reports of U. S. Geological Survey; January 1902 to October 1912 in Report of water resources investigation of Minnesota, 1909-1912 (monthly discharge only July 1905 to December 1909).

Average discharge.- 31 years (1902-5, 1908-36), 3,432 second-feet.

Extremes.- Maximum daily discharge during year, 31,000 second-feet Apr. 15; minimum daily discharge, 129 second-feet Dec. 29.
1902-5, 1908-36: Maximum daily discharge observed, 35,800 second-feet Mar. 26, 1920; no flow Sept. 30, 1929.

Remarks.- Records good. Flow controlled by operation of gates of power plant and by regulation at Never's dam, 10 miles upstream. Records of daily discharge computed from power-house records furnished by Northern States Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,720	2,940	778	720	1,460	437	7,560	11,600	3,470	1,520	976	1,790
2	1,620	3,760	2,420	2,700	207	2,010	7,390	17,100	3,250	1,600	974	1,810
3	1,620	1,460	1,630	2,450	2,190	2,040	6,840	18,600	3,280	1,600	1,010	1,720
4	1,580	3,480	1,770	2,090	1,740	1,760	6,890	19,000	2,810	1,600	983	1,620
5	1,460	3,110	2,060	239	1,720	1,530	5,810	18,100	2,920	1,600	982	1,600
6	1,550	3,130	2,010	2,340	1,480	1,810	6,740	19,200	2,640	1,470	966	1,600
7	1,540	3,620	2,710	2,130	1,470	1,380	6,040	21,200	2,360	1,470	985	1,660
8	1,610	2,720	1,530	1,980	1,610	504	4,980	20,300	2,270	1,420	1,010	2,010
9	1,630	3,220	3,060	1,840	611	2,030	5,120	20,000	2,830	1,450	988	1,830
10	1,620	2,010	2,390	2,080	1,760	2,300	5,550	18,000	2,750	1,220	966	2,030
11	1,620	2,740	2,320	2,180	1,570	1,980	11,000	15,000	2,700	1,350	951	2,220
12	1,620	3,130	2,200	674	1,420	1,950	20,100	14,400	2,530	1,300	996	2,530
13	1,940	2,720	2,160	2,250	1,480	1,710	27,000	12,900	2,160	1,230	961	2,230
14	2,040	2,430	2,620	1,610	1,510	2,020	30,800	11,800	1,990	1,210	967	2,200
15	2,030	2,790	1,070	1,890	1,630	230	31,000	10,400	2,050	1,260	1,020	2,530
16	2,120	2,910	2,360	2,240	336	2,620	29,000	9,900	2,140	1,220	1,010	2,580
17	1,970	2,040	2,270	2,160	1,780	2,110	29,000	9,650	2,050	1,150	938	2,400
18	2,330	2,840	2,340	1,570	1,650	1,880	27,500	8,900	2,060	1,140	1,080	2,290
19	2,300	2,550	2,300	559	1,510	1,900	24,600	6,760	2,040	1,150	1,100	2,260
20	1,690	2,930	2,180	2,110	1,500	1,900	21,400	6,850	1,910	1,230	961	1,960
21	2,370	1,980	1,630	2,020	1,410	2,980	19,000	6,620	1,640	1,570	1,120	2,030
22	2,550	1,210	833	2,140	1,570	1,100	17,600	5,660	1,680	1,140	1,900	1,720
23	2,370	1,420	1,780	1,880	345	4,130	15,400	4,770	1,960	1,210	1,610	1,940
24	2,520	1,750	1,770	1,560	2,090	7,180	14,500	5,990	1,770	1,130	1,610	1,740
25	2,440	2,420	398	1,670	1,880	7,840	12,400	5,060	1,780	1,130	1,620	1,550
26	2,620	2,860	2,140	487	1,690	8,170	13,400	4,740	1,600	1,130	1,630	1,620
27	2,110	3,060	2,350	1,970	1,480	7,520	11,600	4,640	1,600	1,200	1,700	1,620
28	2,320	1,490	1,560	1,760	1,400	7,390	11,100	4,670	1,630	1,170	2,010	1,620
29	2,380	2,720	129	1,810	1,590	6,810	10,900	3,360	1,720	1,030	2,380	1,620
30	2,320	1,740	2,430	1,740	-	7,540	9,970	3,360	1,560	1,100	1,870	1,500
31	3,410	-	2,520	1,530	-	7,740	-	2,780	-	999	2,230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	63,000	3,410	1,460	2,032	0.343	0.40
November	77,180	3,760	1,210	2,573	.434	.48
December	59,738	3,060	129	1,927	.325	.37
Calendar year 1935	1,227,067	26,400	129	3,362	.567	7.69
January	54,379	2,700	239	1,754	.296	.34
February	42,189	2,190	207	1,455	.245	.26
March	102,501	8,170	230	3,306	.558	.64
April	449,790	31,000	4,980	14,990	2.53	2.82
May	337,310	21,200	2,780	10,880	1.83	2.11
June	66,050	3,470	1,560	2,268	.382	.43
July	40,399	1,600	999	1,303	.220	.25
August	39,504	2,380	938	1,274	.215	.25
September	57,830	2,580	1,500	1,928	.325	.36
Water year 1935-36	1,391,870	31,000	129	3,803	.641	8.71

Namakagon River near Trego, Wis.

Location.- Lat. 45°57', long. 91°53', in SW¼ sec. 17, T. 40 N., R. 12 W., at power house of Wisconsin Hydroelectric Co. 5 miles northwest of Trego.

Drainage area.- 489 square miles (revised).

Records available.- October 1927 to September 1936.

Extremes.- Maximum daily discharge during year, 1,340 second-feet Apr. 15; minimum, 197 second-feet Feb. 13.
1927-36: Maximum daily discharge, 1,360 second-feet Sept. 14, 1928; minimum, 113 second-feet Aug. 17, Sept. 7, 1930.

Remarks.- Records good. Discharge is computed from hourly records of load and head on power plant.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	506	390	328	263	311	694	918	569	416	224	423
2	346	579	316	352	275	299	575	884	543	329	224	303
3	328	483	329	347	275	267	530	852	547	329	224	346
4	328	547	319	352	275	266	490	868	505	291	224	329
5	330	558	273	324	276	264	230	823	492	427	224	299
6	312	502	396	352	209	264	544	1,040	450	344	224	259
7	312	504	475	318	232	278	517	1,170	384	306	224	263
8	312	531	430	336	245	278	517	1,250	443	303	224	332
9	321	506	467	306	273	293	430	1,120	446	303	224	332
10	321	462	359	310	256	292	434	1,160	425	289	224	400
11	321	429	310	321	237	301	737	1,000	425	367	224	412
12	317	419	327	335	279	411	983	983	425	239	224	430
13	320	566	338	327	197	398	1,100	886	426	244	224	414
14	361	511	386	339	227	399	1,220	891	428	221	224	541
15	386	522	370	339	240	400	1,340	755	401	220	261	486
16	425	450	476	339	218	435	1,330	742	354	234	238	467
17	346	385	419	346	209	396	1,130	663	306	273	199	414
18	326	385	382	339	237	396	1,170	615	335	273	211	414
19	377	418	357	333	264	396	1,180	664	369	275	210	321
20	308	424	307	346	257	444	997	644	383	275	230	355
21	347	401	294	339	264	463	997	566	391	263	250	297
22	431	328	282	295	257	448	948	601	330	270	431	299
23	431	279	302	297	285	594	905	660	294	254	464	315
24	431	296	282	272	274	802	915	624	291	256	332	318
25	425	361	231	272	286	774	870	537	361	255	417	318
26	425	488	320	306	293	828	762	680	396	276	710	304
27	327	486	289	279	287	645	871	636	396	266	517	240
28	376	462	320	280	295	795	774	630	403	218	583	285
29	361	331	285	276	268	609	876	628	400	225	602	284
30	426	320	285	282	-	692	838	574	400	225	456	284
31	441	-	346	282	-	695	-	574	-	224	443	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,164	441	308	360	0.736	0.85
November	13,439	579	279	448	.916	1.02
December	10,662	476	231	344	.703	.81
Calendar year 1935	149,261	957	193	409	.836	11.35
January	9,869	352	272	318	.650	.75
February	7,453	295	197	257	.526	.57
March	14,133	828	264	456	.933	1.08
April	24,904	1,340	230	830	1.70	1.90
May	24,638	1,250	537	795	1.63	1.88
June	12,318	569	291	411	.840	.94
July	8,690	427	218	280	.573	.66
August	9,690	710	199	313	.640	.74
September	10,484	541	240	349	.714	.80
Water year 1935-36	157,444	1,340	197	430	.879	12.00

Apple River near Somerset, Wis.

Location.- Lat. 45°10', long. 92°43', in sec. 21, T. 31 N., R. 19 W., at power plant of Northern States Power Co. 3½ miles below Somerset.

Drainage area.- 550 square miles.

Records available.- January 1901 to September 1936.

Average discharge.- 35 years, 297 second-feet.

Extremes.- Maximum daily discharge during year, 1,690 second-feet Apr. 12; minimum, 15 second-feet Aug. 15.
1901-36: Maximum daily discharge, 2,280 second-feet in June 1905; no flow Sept. 30, 1929, Aug. 2, 1933.

Remarks.- Records fair. Regulation at power plant. Daily discharge, computed from power-house records, furnished by Northern States Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	310	193	172	132	189	786	591	209	132	126	150
2	144	512	161	190	150	173	713	634	271	149	56	111
3	177	277	184	169	107	186	605	586	286	103	110	144
4	158	320	160	168	133	196	679	648	242	132	107	150
5	151	301	160	160	133	176	565	626	238	115	92	108
6	157	259	195	170	161	177	549	525	301	103	83	91
7	151	302	243	140	126	199	472	664	190	144	39	103
8	110	282	242	233	140	215	510	848	319	120	38	91
9	128	262	212	177	144	210	464	745	263	115	70	109
10	140	307	142	160	137	74	868	750	267	120	129	125
11	143	169	144	167	149	249	1,410	729	207	103	57	236
12	120	260	216	195	184	228	1,690	727	267	97	106	356
13	291	251	208	144	150	296	1,650	689	213	103	71	251
14	526	228	216	167	161	294	1,200	586	217	59	53	172
15	419	186	168	184	161	242	1,560	629	289	82	15	219
16	336	212	150	184	145	245	1,620	407	174	91	158	170
17	297	251	224	190	150	226	1,470	521	116	85	103	109
18	230	192	229	150	136	222	1,440	414	150	91	77	120
19	286	173	195	184	156	241	1,250	365	236	97	89	138
20	286	224	82	120	146	297	1,120	406	144	114	23	120
21	198	187	113	166	140	357	969	414	181	79	62	120
22	342	161	148	144	150	398	929	381	154	73	88	154
23	314	204	158	158	151	683	784	387	169	97	98	212
24	269	215	165	173	127	901	721	340	149	77	79	140
25	236	186	152	168	137	1,580	713	452	126	120	88	132
26	230	219	97	148	191	1,590	659	429	136	144	98	107
27	223	249	145	134	176	938	685	367	160	126	119	97
28	195	167	229	129	175	982	605	281	184	100	144	141
29	239	145	149	179	173	1,010	557	295	131	91	115	196
30	267	201	128	161	-	862	569	221	126	71	73	83
31	291	-	178	139	-	831	-	204	-	88	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,237	526	110	233	0.424	0.49
November	7,212	512	145	240	.436	.49
December	5,386	243	82	174	.316	.36
Calendar year 1935	82,110	814	79	225	.409	5.56
January	5,123	233	120	165	.300	.35
February	4,321	191	107	149	.271	.29
March	14,467	1,590	74	467	.849	.98
April	27,812	1,690	464	927	1.69	1.89
May	15,861	848	204	512	.931	1.07
June	6,115	319	116	204	.371	.41
July	3,221	149	59	104	.189	.22
August	2,686	158	15	86.6	.157	.18
September	4,455	356	83	148	.269	.30
Water year 1935-36	103,896	1,690	15	284	.516	7.03

Cannon River at Welch, Minn.

Location.- Water-stage recorder, lat. 44°34', long. 92°44', in sec. 28, T. 113 N., R. 16 W., at Welch, 3 miles above mouth of Belle Creek.

Drainage area.- 1,290 square miles.

Records available.- June 1909 to January 1914, November 1930 to September 1936.

Extremes.- Maximum discharge during year, 11,300 second-feet Mar. 23 (gage height, 12.04 feet); minimum, 20 second-feet Aug. 3 (gage height, 1.42 feet).
1909-14, 1930-36: Maximum discharge, that of Mar. 23, 1936; minimum, that of Aug. 3, 1936.

Remarks.- Records excellent except those for periods of ice effect, Dec. 27-29, Jan. 9-22, Jan. 28 to Feb. 15, Feb. 23 to Mar. 15 (computed on basis of five discharge measurements, gage heights, weather records and comparison with power-plant record at Cannon Falls), and those when recorder did not operate, Dec. 2-5, Jan. 23-27, Feb. 6, 16-22, (computed on basis of weather records and power-plant record at Cannon Falls), which are fair. Discharge partly regulated by power plants above.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	196	100	125	122	216	2,640	586	293	134	47	86
2	122	144	70	132	99	196	2,340	772	330	130	34	118
3	119	61	120	230	101	872	2,060	1,070	311	120	48	110
4	119	113	120	219	122	872	1,840	1,040	285	108	94	103
5	104	162	150	165	117	810	1,630	930	247	64	97	97
6	96	159	162	76	180	407	1,470	832	324	112	97	94
7	96	147	197	142	212	183	1,350	770	256	112	94	35
8	96	147	176	177	251	130	1,310	710	117	103	89	67
9	96	144	105	190	202	190	1,470	692	302	108	81	109
10	96	130	51	177	112	595	1,230	658	276	108	52	82
11	99	76	172	190	109	780	1,150	1,500	230	105	80	81
12	99	139	183	183	289	840	1,190	1,190	240	92	52	79
13	99	139	183	122	393	780	1,510	1,000	226	54	38	76
14	74	136	180	144	379	780	1,510	832	169	45	38	86
15	123	136	156	139	326	750	1,350	740	151	79	38	93
16	142	139	110	162	100	726	1,350	692	151	103	39	81
17	119	119	193	222	150	709	1,190	645	149	101	43	76
18	119	79	171	206	200	780	1,040	576	149	96	46	75
19	122	150	144	165	330	1,370	1,000	476	149	87	87	80
20	106	144	159	119	250	2,540	930	414	130	101	101	261
21	83	139	162	142	250	5,260	832	396	130	145	202	72
22	142	128	192	139	270	9,460	692	393	126	63	140	95
23	147	145	94	140	153	10,500	395	452	126	51	61	92
24	136	150	220	140	165	10,200	439	303	126	46	52	86
25	128	136	92	150	274	7,450	416	187	126	89	90	87
26	112	130	170	100	301	4,630	335	388	126	94	90	84
27	51	144	247	120	289	3,420	461	389	126	92	94	81
28	75	107	251	125	293	3,180	489	385	109	89	116	57
29	139	85	212	122	285	3,930	480	367	52	89	110	62
30	136	142	135	130	-	4,060	536	288	109	63	106	78
31	162	-	233	122	-	3,180	-	79	-	48	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,471	162	51	112	0.087	0.10
November	3,966	196	61	132	.102	.11
December	4,930	251	70	159	.123	.14
Calendar year 1935	107,659	3,960	51	295	.229	3.11
January	4,715	230	76	152	.118	.14
February	6,224	393	99	215	.167	.18
March	79,796	10,500	130	2,574	2.00	2.31
April	34,635	2,640	335	1,154	.895	1.00
May	19,552	1,300	79	631	.489	.56
June	5,641	330	52	188	.146	.16
July	2,836	145	45	91.5	.071	.08
August	2,421	202	34	78.1	.061	.07
September	2,703	261	55	90.1	.070	.08
Water year 1935-36	170,890	10,500	34	467	.362	4.93

Chippewa River at Bishops Bridge, near Winter, Wis.

Location.- Water-stage recorder, lat. 45°51', long. 91°4', 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 1936.

Average discharge.- 23 years (1913-36), 649 second-feet.

Extremes.- Maximum discharge during year, 2,600 second-feet May 14, 15 (gage height, 7.0 feet); minimum, 114 second-feet Apr. 21 (gage height, 3.85 feet).
1912-36: Maximum discharge, 6,940 second-feet Apr. 22, 1916 (gage height, 9.56 feet); minimum, 14 second-feet Apr. 17-20, 1925 (gage height, 3.25 feet).

Remarks.- Records good except those for period of ice effect, Jan. 23 to Mar. 10, which were computed on basis of gate openings at Chippewa Reservoir, one discharge measurement, and weather records and are fair. Part of table of monthly discharge corrected for regulation by storage in Chippewa and Moose Lake Reservoirs.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 24, July 11 to Sept. 30)

3.8	100	4.6	383	5.8	1,250
4.0	157	4.8	490	6.2	1,660
4.2	220	5.0	610	6.6	2,120
4.4	290	5.4	895	7.0	2,600

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	711	163	1,150	1,340	895	253	236	127	1,060	610	548	220
2	711	163	1,150	1,340	865	257	236	122	911	610	548	220
3	711	142	1,150	1,340	842	264	253	127	663	610	548	220
4	711	142	1,150	1,300	827	275	253	142	548	610	548	220
5	711	142	1,150	1,300	797	286	220	182	548	610	676	220
6	711	142	1,340	1,300	782	286	253	204	536	610	819	220
7	711	142	1,550	1,300	746	283	220	172	536	610	819	220
8	711	142	1,550	1,300	711	283	157	157	446	610	819	220
9	711	142	1,550	1,250	690	286	163	157	435	610	819	220
10	711	142	1,550	1,250	656	290	214	157	519	610	819	220
11	711	204	1,550	1,200	617	325	253	142	610	579	819	220
12	711	210	1,550	1,200	585	344	194	490	610	579	819	220
13	711	172	1,550	1,200	452	393	236	1,250	610	579	819	220
14	462	142	1,500	1,200	253	435	204	2,540	610	579	819	220
15	264	142	1,500	1,200	253	290	163	2,060	610	579	819	220
16	272	142	1,500	1,200	253	290	151	1,250	610	579	819	220
17	272	142	1,500	1,150	253	358	133	935	610	579	819	220
18	272	220	1,440	1,150	253	358	127	911	630	579	819	220
19	172	312	1,440	1,150	253	272	127	895	610	579	819	220
20	172	368	1,440	1,150	253	220	127	762	610	579	690	220
21	172	519	1,440	1,100	253	188	114	610	610	579	579	220
22	172	697	1,440	1,100	253	188	122	548	610	579	446	220
23	172	872	1,440	1,060	253	163	127	546	610	548	334	220
24	172	1,030	1,440	1,060	253	142	127	545	610	548	334	220
25	172	1,150	1,440	1,060	253	186	127	819	610	548	358	220
26	172	1,150	1,390	1,050	253	220	127	935	610	548	334	312
27	172	1,150	1,390	1,040	253	236	127	1,060	610	548	334	435
28	172	1,150	1,390	1,030	253	204	127	1,060	610	548	260	519
29	179	1,150	1,390	1,030	253	214	127	1,060	610	548	204	610
30	188	1,150	1,340	975	-	236	127	1,060	610	548	204	610
31	179	-	1,340	943	-	236	-	1,060	-	548	204	-

Month	Observed				Gain or loss in storage (millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	13,051	711	172	421	-123	375	0.483	0.56
November	13,534	1,150	142	451	-893	795	1.03	1.15
December	43,700	1,550	1,150	1,410	-2,650	421	.543	.63
Calendar year 1935	266,984	1,780	114	731	-940	701	.905	12.29
January	36,268	1,340	943	1,170	-2,600	199	.257	.30
February	13,513	895	253	466	-360	322	.415	.45
March	2,263	435	142	267	-1,080	670	.865	1.00
April	5,172	253	114	172	-5,760	2,394	3.09	3.45
May	22,110	2,540	122	713	-3,280	1,938	2.50	2.88
June	18,422	1,060	435	614	-910	263	.339	.38
July	17,980	610	548	580	-1,320	87	.112	.13
August	18,615	819	204	600	-750	320	.413	.48
September	7,986	610	220	266	-230	355	.458	.51
Water year 1935-36	218,614	2,540	114	597	-2,530	677	.874	11.92

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Chippewa River near Bruce, Wis.

Location.- Water-stage recorder, lat. 45°28', long. 91°15', in SE¼ sec. 5, T. 34 N., R. 7 W., 1 mile east of Bruce and 1 mile below mouth of Thornapple River.

Drainage area.- 1,600 square miles.

Records available.- December 1913 to September 1936.

Average discharge.- 22 years (1914-36), 1,292 second-feet.

Extremes.- Maximum discharge during year, 11,500 second-feet Apr. 12 (gage height, 15.0 feet); minimum, 421 second-feet, affected by ice, Feb. 16-28.
1914-36: Maximum discharge observed, 15,300 second-feet Mar. 24, 1935 (gage height, 13.4 feet); minimum observed, 155 second-feet June 10, 1932 (gage height, 0.9 foot, former site and datum).

Remarks.- Records good except those for period of ice effect, Nov. 23 to Mar. 24, which were computed on basis of two discharge measurements, gage heights, observer's notes, and weather records and are fair. Part of table of monthly discharge corrected for storage in Chippewa and Moose Lake Reservoirs.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	895	2,710	1,500	1,820	1,080	462	4,810	2,220	1,700	895	680	549
2	920	2,440	1,540	1,780	975	475	4,000	2,220	1,660	895	650	533
3	920	1,740	1,540	1,740	920	475	3,600	2,440	1,420	870	680	503
4	920	1,420	1,540	1,660	895	489	3,400	1,990	1,120	870	680	503
5	920	1,240	1,540	1,860	895	489	3,300	1,700	1,000	845	680	503
6	895	1,090	1,610	1,800	870	469	3,010	4,660	1,000	845	795	503
7	895	920	1,700	1,460	845	503	2,810	8,660	1,120	845	870	503
8	895	920	1,700	1,420	820	503	2,710	8,660	1,120	795	870	489
9	895	948	1,660	1,420	795	503	3,010	4,650	1,030	795	870	489
10	895	895	1,620	1,420	770	503	4,950	4,000	948	795	870	489
11	895	820	1,620	1,420	748	503	8,110	3,800	1,030	795	870	518
12	920	725	1,860	1,420	748	533	10,200	2,910	1,060	770	870	533
13	1,120	820	1,940	1,350	702	533	10,200	2,810	1,030	770	895	518
14	1,120	820	2,040	1,350	680	533	8,880	3,900	1,000	770	870	518
15	895	702	2,080	1,350	434	533	8,110	4,000	1,000	795	920	533
16	680	660	1,980	1,280	421	533	7,230	3,110	1,000	770	895	518
17	895	660	1,940	1,240	421	533	5,700	2,260	1,000	748	895	503
18	948	640	1,900	1,240	421	533	4,420	1,900	1,000	748	895	503
19	795	620	1,900	1,240	421	533	3,500	1,780	975	748	870	518
20	660	748	1,860	1,240	421	533	2,910	1,700	975	748	820	518
21	640	660	1,820	1,240	421	533	2,440	1,500	948	748	748	503
22	725	1,000	1,820	1,150	421	565	2,040	1,320	948	743	948	503
23	725	1,150	1,820	1,150	421	1,740	1,700	1,320	920	725	948	503
24	680	1,540	1,780	1,120	421	3,700	1,460	1,500	920	725	600	489
25	640	1,540	1,780	1,120	421	6,460	1,500	1,620	920	725	702	489
26	600	1,420	1,780	1,120	421	7,230	1,620	1,580	920	702	845	489
27	565	1,460	1,740	1,120	434	6,130	1,460	1,660	920	702	770	533
28	565	1,500	1,740	1,090	434	5,590	1,350	1,660	870	702	795	660
29	549	1,500	1,700	1,090	443	5,260	1,430	1,580	870	680	725	725
30	565	1,500	1,740	1,090	-	4,950	1,700	1,540	895	702	620	795
31	920	-	1,780	1,060	-	4,530	-	1,540	-	680	582	-

Month	Observed				Gain or loss in storage (millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	25,152	1,120	549	811	-123	765	0.478	0.55
November	34,868	2,710	640	1,162	+893	1,506	.941	1.05
December	54,590	2,080	1,500	1,761	-2,650	772	.482	.56
Calendar year 1935	545,605	15,300	549	1,495	-940	1,465	.916	12.43
January	41,280	1,820	1,060	1,332	-2,600	361	.226	.26
February	18,074	1,080	421	623	-360	479	.299	.32
March	56,973	7,330	462	1,838	+1,080	2,238	1.40	1.61
April	120,950	10,200	1,350	4,032	+5,760	6,254	3.91	4.36
May	94,590	4,660	1,320	2,729	+3,280	3,954	2.47	2.85
June	32,319	1,700	870	1,044	-910	693	.433	.48
July	25,951	895	680	773	-1,320	280	.175	.20
August	24,551	948	582	792	-750	512	.320	.37
September	15,362	795	489	531	+230	620	.388	.43
Water year 1935-36	532,204	10,200	421	1,464	+2,530	1,534	.959	13.04

Chippewa River at Chippewa Falls, Wis.

Location.- Water-stage recorder, lat. 44°55'35", long. 91°24'40", in lot 1, sec. 12, T. 28 N., R. 9 W., at Chippewa Falls, 1 mile below mouth of Duncan Creek. Zero of gage is 799.3 feet above mean sea level, Northern States Power Co. benchmark.
Drainage area.- 5,600 square miles.
Records available.- June 1888 to September 1936.
Average discharge.- 28 years (1907-10, 1913-36), 4,679 second-feet.
Extremes.- Maximum discharge during year, 43,400 second-feet Apr. 14 (gage height, 16.0 feet); minimum, 134 second-feet Nov. 18, 25, 26, Dec. 5, 6 (gage height, 1.04 feet); minimum mean daily discharge, 495 second-feet Mar. 8.
1888-1936: Maximum discharge, 78,000 second-feet Mar. 27, 1920 (gage height, 17.0 feet), former site and datum; minimum, 22 second-feet Apr. 2, 1934 (gage height, 0.63 foot); minimum mean daily discharge, 40 second-feet Feb. 4, 1917.
Maximum stage known, 26.94 feet Sept. 10, 1884.
Remarks.- Records good except those for period of ice effect and missing gage-height record, Dec. 2-4, Jan. 20 to Mar. 2, Mar. 14-20, May 30 to June 1, which were computed from power-house records and are fair. Flow regulated by Chippewa power plant immediately above station, by many other power plants above, and by the Chippewa, Moose Lake, Flambeau, Rest Lake, and Wissota Reservoirs. Part of table of monthly discharge corrected for storage in these reservoirs.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	122	2.6	1,290	6.0	6,200
1.2	191	3.0	1,690	7.0	8,300
1.4	310	3.5	2,280	8.0	10,900
1.6	460	4.0	2,960	9.0	13,800
1.8	615	4.5	3,670	10.0	17,000
2.0	775	5.0	4,400	12.0	24,500
2.3	1,020	5.5	5,240	14.0	32,500
				16.0	43,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,980	8,270	1,590	2,350	2,020	1,670	19,800	11,800	4,660	2,210	1,810	3,560
2	2,550	8,190	3,740	3,770	1,800	3,750	23,700	10,900	4,780	1,980	747	2,420
3	2,580	7,620	3,140	3,720	2,940	4,260	10,400	17,600	4,710	1,420	2,130	2,390
4	3,280	6,740	2,640	3,310	2,670	3,860	12,000	14,400	4,280	775	2,650	2,290
5	2,180	6,280	2,850	2,290	2,450	3,350	14,400	13,800	4,330	1,290	2,490	1,730
6	1,020	5,240	2,800	2,990	2,660	1,340	10,900	13,500	4,200	2,490	2,100	1,220
7	2,920	5,670	3,430	3,420	2,610	1,150	12,600	36,100	1,400	2,850	2,290	1,030
8	2,400	5,290	2,140	3,080	1,850	495	11,400	35,500	4,000	2,940	987	2,120
9	2,440	5,120	4,210	3,430	1,140	4,090	12,000	29,000	4,170	3,800	530	2,570
10	2,470	4,050	3,570	3,160	1,880	5,240	12,300	21,700	3,600	2,910	2,320	2,780
11	2,850	4,240	3,850	2,920	2,560	5,310	11,400	17,600	3,310	1,640	2,360	2,580
12	2,540	4,020	3,780	2,050	2,330	5,220	20,000	15,000	3,420	757	2,230	1,920
13	1,810	4,670	3,800	3,340	2,860	4,970	37,700	12,600	3,620	2,050	1,620	1,150
14	4,540	4,360	4,190	2,980	2,430	1,580	37,700	10,500	1,300	2,550	1,640	1,690
15	4,820	3,640	2,530	3,020	2,190	850	35,500	10,700	3,570	1,990	1,210	2,160
16	4,980	3,390	4,490	2,880	1,460	3,130	37,700	10,500	3,510	1,720	525	2,490
17	5,410	1,300	3,900	3,310	2,340	3,650	32,500	9,720	3,080	1,920	1,790	1,340
18	5,440	3,660	4,050	2,790	3,030	3,650	24,900	9,270	2,810	1,030	2,120	2,230
19	5,440	3,350	4,090	1,930	3,080	2,910	19,400	6,800	2,670	769	2,490	1,680
20	3,970	2,880	3,360	3,160	3,070	3,260	16,000	5,920	2,250	1,910	2,250	1,090
21	4,350	3,460	2,730	3,280	3,490	4,310	13,500	5,280	1,320	2,590	2,950	2,010
22	4,490	3,130	1,410	3,230	2,480	6,770	12,400	6,090	2,620	2,410	3,720	2,500
23	4,190	1,710	2,750	2,770	1,880	8,390	10,300	6,560	3,050	2,560	960	2,270
24	4,210	711	2,340	2,630	3,900	9,330	9,100	3,720	2,960	2,370	2,490	2,810
25	4,270	2,840	1,770	1,790	3,860	7,790	9,520	5,620	3,000	1,300	2,850	1,890
26	4,100	3,790	4,230	1,700	4,100	8,800	7,290	6,500	2,580	757	2,770	2,390
27	1,320	3,950	3,750	2,780	3,300	13,800	6,160	6,720	1,670	2,040	3,690	539
28	2,550	3,070	2,930	2,530	3,630	12,000	5,020	5,700	966	2,350	4,420	1,150
29	3,330	3,840	1,670	2,620	2,990	15,000	7,430	5,130	2,430	3,120	4,130	1,600
30	3,270	3,120	3,640	2,880	-	16,300	8,620	2,720	2,440	1,870	1,940	1,440
31	3,690	-	3,680	2,760	-	16,300	-	2,550	-	1,510	3,040	-

Month	Observed				Gain or loss in storage (millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	108,470	5,690	1,020	3,499	-236	3,411	0.609	0.70
November	127,801	8,270	711	4,260	+1,372	4,789	.855	.95
December	99,030	4,490	1,410	3,195	-3,593	1,854	.331	.38
Calendar year 1935	1,984,091	43,500	711	5,436	+1,749	5,491	.981	13.31
January	88,850	3,770	1,700	2,866	-3,745	1,467	.262	.30
February	76,900	4,100	1,140	2,652	-1,524	2,077	.371	.40
March	189,125	18,000	495	6,101	+982	6,467	1.15	1.33
April	515,700	37,700	7,290	17,190	+10,450	21,220	3.79	4.23
May	369,100	36,100	2,550	11,910	+4,361	13,540	2.42	2.79
June	92,716	4,780	966	3,091	-1,388	2,556	.456	.51
July	60,678	3,800	757	1,957	-2,845	895	.160	.18
August	69,129	4,420	525	2,230	-1,893	1,523	.272	.31
September	50,609	3,560	589	1,987	-885	1,762	.315	.35
Water year 1935-36	1,357,10[illegible]	3[illegible],700	495	5,074	+1,357	5,117	.914	12.43

Chippewa River at Durand, Wis.

Location.- Water-stage recorder, lat. 44°37'45", long. 91°58'10", in SW¼ sec. 21, T. 25 N., R. 13 W., at Durand, 400 feet above toll bridge. Zero of gage is 695.20 feet above mean sea level.
Drainage area.- 9,010 square miles.
Records available.- July 1928 to September 1936.
Extremes.- Maximum discharge during year, 54,400 second-feet Apr. 14 (gage height, 12.27 feet); minimum, 1,750 second-feet Aug. 17 (gage height, 0.75 foot); minimum daily discharge, 1,860 second-feet Aug. 17.
1928-36: Maximum discharge, 59,500 second-feet Mar. 25, 1935 (gage height, 12.56 feet); minimum (estimated), 1,320 second-feet Dec. 27, 1933.
Maximum stage known, 18.4 feet Sept. 12, 1884.
Remarks.- Records good except those for period of ice effect, Dec. 6 to Mar. 21, which were computed on basis of gage heights, four discharge measurements, observer's notes, and weather records and are poor. Regulation by operation of power plants and Chippewa, Moose Lake, Flambeau, and Rest Lake Reservoirs. Part of table of monthly discharge corrected for storage in these reservoirs.

Rating tables, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 17				Apr. 18 to Sept. 30			
1.8	2,770	4.5	9,580	0.8	1,800	3.5	6,800
2.0	3,070	5.0	11,300	1.0	2,030	4.0	8,180
2.2	3,440	6.0	14,800	1.2	2,290	4.5	9,560
2.5	4,090	7.0	18,300	1.5	2,700	5.0	11,000
2.8	4,750	8.0	22,700	1.8	3,150	6.0	14,100
3.2	5,730	10.0	33,400	2.2	3,810	7.0	18,000
3.6	6,810	12.0	50,200	2.6	4,610	8.0	22,700
4.0	7,990	12.5	57,700	3.0	5,510	Same as previous table above 8.0 feet.	

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,760	9,580	5,120	7,090	3,760	5,360	20,800	13,300	5,430	3,920	2,780	4,380
2	4,410	12,300	4,090	6,260	3,760	4,870	17,600	18,400	7,190	3,450	2,750	4,300
3	4,090	13,700	5,730	6,670	3,160	5,240	16,200	26,200	7,250	3,700	2,250	3,700
4	3,980	12,300	5,360	6,810	3,760	6,120	14,800	23,000	6,880	3,220	2,910	3,650
5	4,300	10,900	2,990	6,670	3,870	6,260	13,400	17,200	6,570	2,700	3,390	3,290
6	3,650	10,200	4,640	5,480	3,650	6,120	10,600	17,400	6,730	2,560	3,100	3,100
7	2,910	8,620	4,750	5,730	3,540	5,240	13,400	21,700	6,490	3,460	3,080	3,220
8	3,870	9,260	4,750	5,730	3,340	4,750	11,300	36,600	4,280	3,860	3,180	2,910
9	4,090	7,990	4,640	5,730	2,910	4,750	12,300	42,300	6,320	3,970	2,510	3,500
10	3,540	7,990	5,480	5,600	2,910	6,810	14,100	36,000	6,370	3,960	2,160	3,830
11	3,760	7,090	7,090	5,480	2,770	10,200	18,300	26,800	6,090	3,930	2,470	3,950
12	4,090	6,400	7,360	5,360	3,340	11,600	30,500	21,000	5,170	3,220	2,860	4,160
13	4,090	6,670	6,950	4,520	3,340	12,000	42,300	19,400	5,380	2,660	2,970	3,690
14	4,300	6,810	6,530	4,750	3,650	12,000	52,900	15,900	5,380	3,000	2,880	3,130
15	7,680	6,810	5,730	4,870	3,650	9,580	50,200	14,300	5,670	3,450	2,880	3,500
16	7,090	5,990	4,750	4,640	3,540	8,620	45,500	14,000	5,150	3,160	2,350	3,680
17	7,530	5,240	5,240	4,520	3,250	10,200	43,800	13,900	5,350	2,850	1,860	3,570
18	7,840	4,090	4,750	4,520	3,650	12,000	39,900	12,100	5,140	3,200	2,570	3,650
19	7,840	5,730	5,730	4,090	4,090	12,300	31,000	12,500	4,620	2,690	2,910	3,740
20	7,990	5,480	6,530	3,440	4,520	13,400	24,700	10,900	4,170	2,320	3,360	3,490
21	6,670	4,990	6,810	3,980	4,200	15,900	19,900	9,290	4,020	2,650	3,660	3,150
22	6,400	5,480	7,090	3,980	4,300	24,700	18,400	9,180	3,360	3,050	4,340	3,610
23	6,400	5,360	5,730	3,650	4,520	32,200	16,100	9,340	4,380	3,330	4,790	3,590
24	6,120	3,440	5,730	3,650	4,200	36,600	13,700	9,160	4,170	3,260	3,120	3,440
25	6,260	2,770	6,260	3,650	4,990	44,400	13,400	7,160	4,540	3,280	3,350	3,720
26	6,120	4,300	5,480	3,250	5,480	41,400	13,000	8,070	4,390	2,670	3,680	3,550
27	5,860	5,860	6,670	2,990	5,730	38,600	11,100	9,130	4,110	2,330	3,690	3,460
28	3,340	6,260	7,090	3,340	5,600	34,700	12,400	9,200	3,450	2,830	5,170	2,820
29	4,640	5,360	6,810	3,650	5,600	28,800	11,900	8,180	3,000	3,250	5,850	2,740
30	4,990	5,860	6,260	3,650	-	29,900	11,600	7,330	3,730	2,990	5,280	2,830
31	5,730	-	6,530	3,540	-	27,200	-	5,350	-	2,960	3,650	-

Month	Observed				Gain or loss in storage (millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	163,340	7,990	2,910	5,269	-236	5,181	0.575	0.66
November	212,830	13,700	2,770	7,094	+1,372	7,623	.846	.94
December	178,690	7,380	2,990	5,764	-3,592	4,423	.491	.57
Calendar year 1935	3,010,830	57,700	2,770	8,249	+1,749	8,306	.922	12.51
January	147,290	7,090	2,990	4,751	-3,745	3,352	.372	.43
February	115,080	5,730	2,770	3,968	-1,524	3,393	.377	.41
March	521,820	44,400	4,750	16,830	+982	17,200	1.91	2.20
April	664,600	52,900	10,600	22,150	+10,450	26,180	2.91	3.25
May	504,290	42,300	5,350	16,270	+4,361	17,900	1.99	2.29
June	152,780	7,250	3,000	5,093	-1,388	4,558	.506	.56
July	97,880	3,970	2,320	3,157	-2,845	2,095	.233	.27
August	101,800	5,850	1,860	3,284	-1,893	2,577	.286	.33
September	105,350	4,380	2,740	3,512	-585	3,287	.365	.41
Water year 1935-36	2,965,750	52,900	1,860	8,103	+1,357	8,146	.904	12.32

Flambeau River at Flambeau Reservoir, Wis.

Location.- Chain gage, lat. 46°4', long. 90°15', near north line of sec. 3, T. 41 N., R. 2 E., a quarter of a mile below dam of the Flambeau Reservoir. Zero of gage is 1,540.0 feet above mean sea level, Northern States Power Co. benchmark.

Drainage area.- 647 square miles (revised).

Records available.- September 1927 to September 1936.

Extremes.- Maximum discharge observed during year, 2,900 second-feet May 8, 9 (gage height, 7.37 feet); minimum, 8 second-feet Apr. 30 (gage height, 2.59 feet).
1927-36: Maximum discharge, that of Mar. 8, 9, 1936; minimum, 3.1 second-feet Apr. 12, 1934 (gage height, 2.39 feet).

Remarks.- Records good. Gage read twice daily. Discharge entirely regulated by storage in Flambeau and Rest Lake Reservoirs.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 10 to Sept. 30)

2.3	2.0	4.4	516
2.6	8.5	4.7	670
2.9	36	5.0	851
3.2	88	5.5	1,200
3.5	166	6.0	1,560
3.8	267	7.0	2,470
4.1	384		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	851	324	851	851	920	698	405	44	1,130	787	727	643
2	851	197	851	851	851	698	364	304	1,060	727	727	643
3	851	349	851	787	851	643	364	727	670	787	727	643
4	851	493	851	851	851	670	364	851	616	787	727	643
5	787	470	851	851	851	727	344	920	616	698	727	643
6	698	448	851	851	851	727	305	1,340	787	787	727	643
7	698	448	643	851	851	727	324	1,890	787	787	727	643
8	698	448	643	851	851	727	324	2,680	787	787	727	643
9	698	405	787	851	851	698	305	2,790	787	787	727	643
10	698	426	787	851	851	670	286	2,790	787	727	727	643
11	698	516	787	851	851	643	111	2,680	787	727	727	590
12	698	516	851	851	851	643	13	2,470	787	727	727	540
13	698	565	851	851	851	643	12	2,370	670	727	727	540
14	698	565	851	851	851	616	12	2,370	670	727	727	540
15	698	616	851	851	851	590	10	1,720	787	727	727	540
16	643	670	851	851	851	590	10	920	787	727	643	540
17	643	670	851	851	851	590	10	643	1,270	727	540	540
18	470	670	851	851	851	565	10	643	851	727	540	540
19	324	670	851	851	851	565	10	851	851	727	565	540
20	470	670	851	851	787	565	10	1,130	787	727	565	540
21	590	670	851	851	787	590	10	1,480	787	727	540	565
22	540	670	851	851	787	616	9	1,480	787	727	540	565
23	448	727	851	851	727	516	9	1,450	787	727	540	565
24	426	851	851	851	727	344	88	1,480	787	727	540	565
25	426	851	851	851	727	305	214	1,480	787	727	493	565
26	426	851	851	851	727	286	182	1,480	787	727	448	565
27	493	851	851	920	727	267	65	1,060	787	727	448	565
28	590	851	851	851	727	267	10	670	787	727	493	565
29	643	851	851	851	727	267	9	670	787	727	540	565
30	643	851	851	851	-	305	8	670	787	727	565	565
31	565	-	851	920	-	364	-	670	-	727	643	-

Month	Observed				Gain or loss in storage (Millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	19,511	851	324	629	-113	587	0.907	1.05
November	18,060	851	197	602	+479	787	1.22	1.36
December	25,773	851	643	831	-942	479	.740	.85
Calendar year 1935.	248,554	2,300	61	681	+1,997	744	1.15	15.60
January	26,455	920	787	853	-1,145	425	.657	.76
February	23,688	920	727	817	-1,164	386	.597	.64
March	17,122	727	267	552	-98	515	.796	.92
April	4,197	405	8	140	+4,690	1,949	3.01	3.36
May	42,754	2,790	44	1,379	+1,081	1,783	2.76	3.18
June	24,144	1,270	616	805	-478	621	.960	1.07
July	22,988	787	698	742	-1,525	173	.267	.31
August	19,548	727	448	631	-1,145	204	.315	.36
September	17,530	643	540	584	-815	270	.417	.47
Water year 1935-36.	261,770	2,790	8	715	-1,173	678	1.05	14.33

Flambeau River near Butternut, Wis.

Location.- Chain gage, lat. 46°0', long. 90°22', in lot 10, sec. 28, T. 41 N., R. 1 E., 6 miles southeast of Butternut.

Drainage area.- 723 square miles (revised).

Records available.- July 1914 to September 1936.

Average discharge.- 22 years, 654 second-feet.

Extremes.- Maximum discharge observed during year, 3,280 second-feet May 9 (gage height, 6.35 feet); minimum discharge observed, 169 second-feet Apr. 7 (gage height, 0.75 foot).

1914-36: Maximum discharge observed, 5,430 second-feet Apr. 22, 23, 1916 (gage height, 9.0 feet); minimum, 91 second-feet Sept. 18, 19, 1925 (gage height, 0.25 foot).

Remarks.- Records good except those for period of ice effect, Dec. 1 to Mar. 31, which are fair and were estimated on basis of records for station at Flambeau Reservoir. Gage read once daily. Discharge largely regulated by storage in Flambeau and Rest Lake Reservoirs. Part of table of monthly discharge corrected for storage in Flambeau Reservoir.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 1 to Sept. 30)

0.6	141	1.3	299	2.2	593	3.0	950	4.5	1,780	6.0	2,920
.8	179	1.6	384	2.5	717	3.5	1,200	5.0	2,130	6.5	3,370
1.0	224	1.9	482	2.8	855	4.0	1,470	5.5	2,520		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	855	674	907	901	966	737	415	593	1,150	808	762	717
2	855	369	907	901	897	737	415	633	1,200	808	762	717
3	855	340	907	837	897	682	326	1,250	654	762	762	674
4	855	633	907	901	897	709	432	1,250	654	808	762	674
5	855	613	907	901	897	766	384	1,250	654	555	762	654
6	762	555	907	901	897	766	273	1,780	808	762	762	674
7	717	574	699	901	897	766	169	2,600	762	762	717	654
8	717	518	699	901	897	766	465	3,100	855	762	762	674
9	717	415	843	901	897	737	326	3,280	855	762	762	674
10	717	354	843	901	897	709	340	3,100	855	762	762	674
11	762	633	843	901	897	682	326	2,920	855	762	717	717
12	762	574	907	901	897	682	224	2,680	855	762	717	633
13	762	633	907	901	897	682	326	2,520	654	762	717	633
14	762	633	907	901	897	655	354	2,440	593	762	717	633
15	717	633	907	901	897	629	482	2,130	808	762	717	633
16	674	717	907	901	897	629	448	1,410	808	762	717	633
17	762	717	907	901	897	629	384	808	855	762	536	613
18	762	717	907	901	897	604	432	762	855	762	536	593
19	432	717	907	901	897	604	482	1,000	855	762	536	613
20	400	717	907	901	833	660	593	1,050	855	762	536	574
21	465	674	907	901	833	685	518	1,520	855	762	536	613
22	674	762	907	901	833	711	415	1,580	808	762	574	574
23	593	808	907	901	773	611	369	1,580	808	762	574	574
24	500	855	907	901	773	439	312	1,640	808	762	574	574
25	482	855	907	901	773	400	482	1,580	808	762	574	536
26	415	855	907	901	773	381	446	1,580	808	762	432	536
27	415	855	907	970	773	362	448	1,580	808	762	432	555
28	613	855	907	901	773	362	354	808	808	762	574	574
29	674	902	907	901	773	362	448	762	808	762	574	574
30	762	855	907	901	-	400	518	762	808	762	536	574
31	808	-	907	970	-	459	-	717	-	717	674	-

Month	Observed				Gain or loss in storage (Millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	21,101	855	400	681	-113	639	0.884	1.02
November	20,012	902	340	667	+479	852	1.18	1.32
December	27,509	907	699	887	-942	535	.740	.85
Calendar year 1935	275,502	2,440	183	755	+1,997	818	1.13	15.38
January	28,005	970	837	903	-1,145	475	.657	.76
February	25,022	966	773	863	-1,164	432	.598	.64
March	19,003	766	362	613	-98	576	.797	.92
April	11,908	593	169	397	+4,690	2,206	3.05	3.40
May	50,665	3,280	593	1,634	+1,081	2,038	2.82	3.25
June	24,567	1,200	593	819	-478	635	.878	.98
July	23,508	808	555	758	-1,525	189	.261	.30
August	20,075	762	432	648	-1,143	221	.306	.35
September	18,745	717	536	625	-815	311	.430	.48
Water year 1935-36	290,120	3,280	169	793	-1,173	756	1.05	14.27

Flambeau River at Babbs Island, near Winter, Wis.

Location.- Water-stage recorder, lat. 45°47', long. 90°45', near west line of sec. 16, T. 38 N., R. 3 W., 10 miles east of Winter.

Drainage area.- 1,020 square miles (revised).

Records available.- August 1929 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge during year, 3,890 second-feet Apr. 16 (gage height, 5.47 feet); minimum recorded, 457 second-feet Nov. 11 (gage height, 1.04 feet); minimum mean daily discharge recorded, 540 second-feet Nov. 11.
1929-36: Maximum discharge, that of Apr. 16, 1936; minimum recorded, 218 second-feet Oct. 28, 1930 (gage height, 0.37 foot); minimum daily discharge recorded, 312 second-feet July 29, 1934.

Remarks.- Records fair. No records Dec. 1 to Apr. 15. Discharge regulated by storage in the Flambeau and Rest Lake Reservoirs. Part of table of monthly discharge corrected for storage in Flambeau Reservoir.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	911	1,160					-	1,710	977	950	837	766
2	924	1,050					-	1,800	1,340	1,020	757	771
3	920	856					-	1,750	1,340	1,030	657	813
4	902	619					-	2,040	828	990	911	774
5	930	895					-	1,800	746	604	752	722
6	894	890					-	2,120	994	752	796	806
7	736	839					-	3,260	1,130	789	654	639
8	807	759					-	3,800	905	907	769	780
9	750	750					-	3,710	1,040	864	829	671
10	842	790					-	3,710	1,030	936	814	765
11	797	540					-	3,440	1,120	866	857	909
12	748	849					-	3,260	964	855	880	847
13	738	837					-	3,080	873	810	895	799
14	913	740					-	2,720	771	846	868	577
15	1,010	779					-	2,720	791	922	865	759
16	887	852					3,620	2,730	975	921	820	800
17	940	726					2,200	1,440	954	875	690	743
18	880	700					2,030	852	996	852	688	638
19	906	756					1,980	1,330	1,060	851	742	740
20	644	859					1,950	1,480	1,030	860	708	662
21	605	811					1,900	1,620	1,020	880	594	608
22	1,040	926					1,730	1,760	712	890	775	650
23	1,010	793					1,470	1,780	850	868	857	720
24	672	952					1,060	1,920	838	902	757	591
25	667	727					996	1,920	884	863	926	607
26	708	847					1,150	1,800	945	867	920	622
27	645	955					1,040	1,860	922	898	698	657
28	591	904					1,100	1,250	898	850	684	692
29	884	893					1,150	997	799	851	880	628
30	857	829					1,310	836	955	1,060	867	583
31	829	-					-	903	-	915	651	-

Month	Observed				Gain or loss in storage (millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	25,587	1,040	591	825	-113	785	0.768	0.89
November	24,863	1,160	540	829	+479	1,014	.994	1.11
December	-	-	-	-	-	-	-	-
Calendar year								
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-
April 16-30	24,686	3,620	996	1,646	+4,690	3,455	3.39	3.78
May	65,408	3,800	836	2,110	+1,081	2,514	2.46	2.84
June	28,687	1,340	712	956	-478	772	.757	.84
July	27,344	1,060	604	882	-1,525	313	.307	.35
August	24,578	926	594	793	-1,143	366	.359	.41
September	21,330	909	577	711	-815	397	.389	.43
Water year								

Flambeau River near Ladysmith, Wis.

Location.- Lat. 45°34', long. 90°58', in sec. 35, T. 36 N., R. 5 W., at Big Falls power plant of Lake Superior District Power Co., 14 miles above Ladysmith.

Drainage area.- 1,910 square miles.

Records available.- October 1923 to September 1936. Comparable records February 1903 to December 1906 at Ladysmith, and January 1914 to September 1933 at site 8 miles below present site.

Average discharge.- 22 years (1914-36), 1,625 second-feet.

Extremes.- Maximum daily discharge during year, 10,900 second-feet Apr. 15; minimum, 549 second-feet Sept. 27.
1903-6, 1914-36: Maximum daily discharge, 19,500 second-feet Apr. 11, 1922; minimum, 176 second-feet Aug. 30, 1925.

Remarks.- Records good. Discharge regulated by storage in Flambeau and Rest Lake Reservoirs. Part of table of monthly discharge corrected for storage in Flambeau and Rest Lake Reservoirs. Records of daily discharge computed from power-house records furnished by Lake Superior District Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,070	2,510	837	894	1,240	979	2,330	4,210	1,810	1,280	924	1,440
2	1,090	2,560	850	1,360	767	888	2,070	4,420	1,690	1,570	850	1,420
3	1,150	2,200	1,330	1,320	1,160	907	2,160	4,310	2,100	1,460	685	1,250
4	1,300	1,800	1,120	1,260	1,130	969	2,000	4,600	1,970	973	893	1,430
5	1,180	2,210	1,230	780	1,180	882	1,740	4,470	1,680	1,080	876	1,390
6	894	2,120	1,520	1,170	1,120	962	1,730	6,160	1,170	898	864	617
7	960	2,150	1,560	1,200	1,310	1,260	1,750	7,420	1,100	1,040	933	874
8	1,060	1,990	1,640	1,310	1,180	831	1,740	7,640	1,780	1,120	887	1,020
9	951	1,680	1,280	1,220	800	1,000	1,890	7,480	1,680	1,040	885	985
10	1,020	1,570	1,180	1,420	1,140	1,230	2,410	7,270	1,740	1,080	897	1,070
11	1,230	1,670	1,200	1,360	1,180	1,160	4,270	6,460	1,760	1,400	872	1,380
12	1,230	1,750	1,470	877	1,200	994	6,580	5,960	1,840	617	943	1,610
13	1,020	1,800	1,600	1,150	1,240	1,190	7,920	5,510	1,710	936	963	914
14	1,450	1,850	1,410	1,220	1,410	1,080	9,390	4,660	953	943	917	1,390
15	1,790	1,540	1,050	1,240	1,260	699	10,900	4,740	1,190	1,060	997	781
16	1,810	1,390	1,600	1,370	705	966	10,600	4,280	1,330	1,090	968	1,250
17	1,910	1,150	1,310	1,510	1,100	972	8,600	2,830	1,440	1,060	866	1,180
18	2,160	1,640	1,360	1,260	1,160	994	7,620	2,030	1,440	1,090	785	1,050
19	2,130	1,350	1,330	834	1,090	899	6,620	2,510	1,550	898	845	1,270
20	1,680	1,440	1,350	1,260	1,000	1,230	5,900	2,810	1,470	945	847	704
21	1,740	1,160	1,000	1,250	1,220	1,100	5,260	2,720	1,270	945	911	901
22	1,840	1,050	770	1,240	1,210	815	4,650	2,850	1,020	950	1,240	922
23	2,210	1,330	1,520	1,150	744	1,540	4,230	2,930	1,150	904	1,000	1,040
24	1,960	1,130	1,290	1,240	974	2,530	3,490	2,810	1,160	948	1,140	1,060
25	1,810	1,620	939	1,150	1,040	2,590	3,300	2,860	1,200	981	1,800	1,020
26	1,310	1,440	1,230	829	988	2,740	3,110	2,800	1,400	854	1,990	1,290
27	882	1,640	1,260	1,080	1,030	2,500	3,080	2,750	1,550	873	1,640	549
28	1,190	1,030	1,340	1,160	958	2,640	2,740	2,130	940	947	1,720	930
29	1,550	1,580	725	1,200	1,100	2,580	2,810	1,710	1,010	885	1,650	912
30	1,590	1,510	1,400	1,230	-	2,500	3,270	1,310	1,200	1,060	1,300	895
31	1,880	-	1,370	1,390	-	2,340	-	1,630	-	987	1,650	-

Month	Observed				Gain or loss in storage (Millions of cubic feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	45,047	2,210	882	1,453	-113	1,411	0.739	0.85
November	49,860	2,560	1,030	1,662	+479	1,847	.967	1.08
December	39,071	1,640	725	1,260	-942	908	.475	.55
Calendar year 1935.	641,759	8,160	439	1,758	+1,997	1,821	.953	12.93
January	36,934	1,510	780	1,191	-1,145	763	.399	.46
February	31,636	1,410	705	1,091	-1,164	660	.346	.37
March	43,967	2,740	699	1,418	-98	1,381	.723	.83
April	134,160	10,900	1,730	4,472	+4,690	6,281	3.29	3.67
May	126,270	7,640	1,310	4,073	+1,081	4,477	2.34	2.70
June	43,303	2,100	940	1,443	-478	1,259	.659	.74
July	31,909	1,570	617	1,029	-1,525	460	.241	.28
August	33,738	1,990	685	1,088	-1,143	661	.346	.40
September	32,544	1,610	549	1,085	-815	771	.404	.45
Water year 1935-36.	648,440	10,900	549	1,772	-1,173	1,735	.953	12.38

South Fork of Flambeau River near Phillips, Wis.

Location.- Chain gage, lat. 45°42', long. 90°37', in NW¼SW¼ sec. 10, T. 37 N., R. 2 W., 0.5 mile downstream from mouth of Big Elk River and 12 miles west of Phillips.

Drainage area.- 666 square miles.

Records available.- August 1929 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge observed during year, 5,680 second-feet Apr. 16 (gage height, 11.96 feet) from rating curve extended above 2,000 second-feet; minimum, 154 second-feet Oct. 1; minimum gage height observed, 444 feet Aug. 27.
1929-36: Maximum discharge observed, 7,180 second-feet Apr. 10, 1934 (gage height, 13.5 feet) from rating curve extended above 2,000 second-feet; minimum, 39 second-feet Aug. 31, Sept. 3-5, 1933.

Remarks.- Records fair. Gage read once daily. No records Dec. 1 to Apr. 11.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	825					-	1,750	479	246	166	632
2	158	940					-	1,980	479	246	162	432
3	158	882					-	2,130	503	246	166	330
4	158	882					-	2,130	455	246	166	258
5	166	825					-	2,050	410	258	162	246
6	166	882					-	2,290	410	211	166	236
7	162	769					-	2,650	432	219	162	227
8	166	769					-	2,820	528	211	170	219
9	170	714					-	2,820	503	197	166	204
10	166	714					-	2,650	479	197	166	246
11	185	769					-	2,390	503	191	166	297
12	185	769					3,540	2,130	479	180	166	297
13	246	686					3,630	1,750	410	185	166	314
14	410	686					4,680	1,530	389	185	166	283
15	455	605					5,480	1,460	349	185	170	269
16	432	553					5,680	1,390	330	185	175	246
17	553	553					5,280	1,250	330	204	175	246
18	714	553					4,680	1,120	297	197	170	246
19	714	503					4,000	1,120	283	185	175	227
20	632	503					3,630	1,060	258	185	175	227
21	605	368					2,820	1,000	258	180	180	227
22	686	410					2,560	940	258	180	236	246
23	714	579					2,390	882	258	180	258	330
24	605	686					2,130	882	258	175	269	314
25	528	410					2,050	825	258	175	632	283
26	479	389					1,900	714	258	170	714	236
27	410	389					1,900	605	246	175	659	227
28	410	368					1,460	605	227	175	632	211
29	368	503					1,390	553	227	166	659	211
30	349	479					1,530	528	258	170	714	219
31	410	-					-	479	-	166	605	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,714	714	154	378	0.568	0.65
November	18,963	940	368	632	.949	1.06
December	-	-	-	-	-	-
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April 12-30	60,730	5,680	1,390	3,196	4.80	3.39
May	46,483	2,820	479	1,499	2.25	2.59
June	10,812	528	227	360	.541	.60
July	6,071	258	166	196	.294	.34
August	8,914	714	162	288	.432	.50
September	8,186	632	204	273	.410	.46
Water year						

Jump River at Sheldon, Wis.

Location.- Chain gage, lat. 45°18', long. 90°58', in sec. 26, T. 33 N., R. 5 W., at highway bridge in Sheldon, 1,500 feet above Soldier Creek and 11 miles above mouth.

Drainage area.- 510 square miles.

Records available.- July 1915 to September 1936.

Average discharge.- 21 years, 497 second-feet.

Extremes.- Maximum discharge observed during year, 9,950 second-feet May 6, 7 (gage height, 9.6 feet); minimum, 12 second-feet July 11, 12, 15, 16, 19; minimum gage height observed, 2.62 feet Aug. 14.
1915-36: Maximum discharge observed, 15,600 second-feet Mar. 26, 1920 (gage height, 11.48 feet); minimum, 12 second-feet July 28, 29, 1934, July 11, 12, 15, 16, 19, 1936; minimum gage height observed, 2.55 feet July 28, 29, 1934.

Remarks.- Records fair. Discharge for period of ice effect, Nov. 16 to Mar. 26, computed on basis of two discharge measurements, gage heights, and weather records. Gage read twice daily except Dec. 2 to Mar. 25, when read on alternate days.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	600	128	70	68	38	2,120	3,640	117	22	17	403
2	63	1,300	74	68	61	37	1,900	5,480	153	22	18	265
3	63	1,160	74	65	66	36	1,690	4,140	201	24	18	222
4	63	935	74	78	72	40	1,390	3,180	135	26	26	150
5	52	770	82	90	64	44	1,210	3,180	106	22	24	100
6	63	632	90	82	56	52	1,110	6,650	113	22	22	74
7	63	510	102	74	55	63	1,020	9,370	124	20	22	52
8	59	482	113	74	54	74	935	5,700	150	18	22	63
9	59	403	126	74	49	106	1,110	3,480	150	18	22	63
10	63	403	138	82	44	142	2,010	2,120	135	17	20	70
11	74	455	131	90	47	172	4,140	1,580	113	13	18	70
12	90	403	124	96	50	180	7,950	1,160	106	12	18	56
13	153	403	115	103	50	188	8,500	810	80	15	18	70
14	278	355	106	92	50	193	7,430	600	90	15	17	100
15	403	288	104	80	50	197	6,650	482	80	14	18	161
16	355	231	103	85	49	197	6,400	455	63	14	22	142
17	355	188	96	90	48	201	5,700	429	74	15	26	150
18	455	184	90	95	47	201	3,480	355	70	15	26	172
19	510	161	93	100	40	218	2,500	355	70	12	26	180
20	403	176	96	98	32	265	2,010	310	70	15	31	161
21	355	169	96	96	39	332	1,690	265	56	15	31	142
22	310	172	96	85	46	403	1,390	231	44	18	31	124
23	310	161	86	74	49	600	1,110	214	31	16	47	106
24	288	176	77	74	52	935	935	201	26	18	90	80
25	288	188	88	74	53	1,480	892	180	22	15	142	74
26	265	150	100	68	54	2,120	1,020	153	24	17	265	56
27	256	153	85	63	46	2,900	935	131	22	20	539	52
28	231	150	70	68	38	2,370	892	124	22	22	510	52
29	190	153	70	74	38	2,630	892	106	26	18	510	52
30	214	153	70	74	-	2,900	1,210	90	24	18	482	63
31	288	-	70	74	-	3,480	-	96	-	15	429	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,872	510	52	215	0.422	0.49
November	11,664	1,300	150	389	.763	.85
December	2,967	138	70	95.7	.188	.22
Calendar year 1935	201,870	10,200	36	553	1.08	14.75
January	2,510	103	63	81.0	.159	.18
February	1,467	72	32	50.6	.099	.11
March	22,794	3,480	36	735	1.44	1.66
April	80,221	8,500	892	2,674	5.24	5.85
May	55,267	9,370	90	1,783	3.50	4.04
June	2,497	201	22	83.2	.163	.18
July	543	26	12	17.5	.034	.04
August	3,507	639	17	113	.222	.26
September	5,525	403	52	118	.231	.26
Water year 1935-36	195,634	9,370	12	529	1.04	14.14

Red Cedar River near Colfax, Wis.

Location.- Water-stage recorder, lat. 45°3', long. 91°42', in sec. 27, T. 30 N., R. 11 W., at highway bridge 3.5 miles below Trout Creek and 4.5 miles north of Colfax.

Drainage area.- 1,100 square miles.

Records available.- March 1914 to September 1936.

Average discharge.- 22 years, 737 second-feet.

Extremes.- Maximum discharge during year, 9,780 second-feet Mar. 24 (gage height, 7.75 feet); minimum, 5 second-feet several times in July and August; minimum daily discharge, 172 second-feet Aug. 11.

1914-36: Maximum discharge, 21,900 second-feet Apr. 3, 1934 (gage height, 11.4 feet); minimum, that of July and August 1936; minimum daily discharge, 169 second-feet Aug. 23, 24, 1931, Aug. 13, 1934.

Remarks.- Records fair. Stage-discharge relation affected by backwater from dam during greater part of year. Discharge determined from records of Colfax power plant, 3.5 miles downstream, except for days when water was spilled at dam. Flow regulated by four storage reservoirs upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	1,840	761	505	357	447	1,790	866	648	320	186	350
2	417	1,360	264	485	403	452	1,540	842	675	319	182	341
3	450	1,110	446	560	337	461	1,270	840	596	342	183	353
4	416	1,230	422	539	330	543	1,230	764	592	328	213	320
5	419	871	443	518	341	604	1,110	847	598	308	203	337
6	431	767	587	447	312	586	1,030	2,100	629	315	192	363
7	387	881	692	552	345	580	885	3,320	590	281	189	358
8	416	737	844	466	336	518	871	2,650	657	306	167	329
9	419	695	656	503	311	456	1,840	2,260	693	284	186	342
10	421	715	489	465	317	633	4,260	2,480	625	262	206	755
11	457	615	366	464	342	666	5,300	2,200	627	258	172	791
12	464	701	475	504	351	707	6,160	1,840	507	228	185	590
13	1,740	657	515	336	398	708	7,020	1,190	460	256	189	451
14	1,400	633	594	449	398	678	3,710	1,110	432	252	199	402
15	827	672	641	527	383	671	3,450	1,070	457	284	186	514
16	611	625	575	451	398	677	2,890	1,030	522	300	340	505
17	1,030	642	610	478	373	699	2,540	993	508	306	300	452
18	860	639	519	457	421	701	1,890	993	574	289	200	459
19	737	662	506	405	429	698	1,740	920	535	244	253	444
20	697	642	282	381	437	716	1,500	860	426	255	265	418
21	642	607	373	441	436	786	1,270	812	383	241	271	423
22	728	387	342	356	445	4,550	1,190	752	396	263	647	411
23	628	465	410	338	448	6,360	1,150	706	436	264	451	422
24	662	555	479	334	435	8,820	1,150	730	348	286	338	433
25	645	655	537	362	466	8,550	1,230	620	361	284	404	430
26	572	686	410	371	439	5,790	1,110	533	390	257	381	409
27	594	711	416	373	434	4,400	1,070	676	364	227	412	415
28	490	592	478	376	443	3,320	935	626	342	216	457	415
29	565	419	458	295	489	2,890	827	625	347	212	420	419
30	655	565	416	337	-	2,590	717	497	345	199	405	419
31	1,370	-	568	345	-	1,990	-	479	-	198	378	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,570	1,740	387	664	0.604	0.70
November	22,386	1,840	387	746	.678	.76
December	15,574	844	264	502	.456	.53
Calendar year 1935	257,874	4,700	264	707	.643	8.74
January	13,420	560	295	433	.394	.45
February	11,354	489	311	392	.356	.38
March	62,247	8,820	447	2,008	1.83	2.11
April	62,675	7,020	717	2,089	1.90	2.12
May	36,231	3,320	479	1,169	1.06	1.22
June	15,063	693	342	502	.456	.51
July	8,384	342	198	270	.245	.28
August	8,760	647	172	283	.257	.30
September	13,070	791	320	436	.396	.44
Water year 1935-36	289,734	8,820	172	792	.720	9.80

Red Cedar River at Menomonie, Wis.

Location.- Water-stage recorder, lat. 44°53', long. 91°56', 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. Zero of gage is 780 feet above mean sea level, Northern States Power Co. benchmark.

Drainage area.- 1,760 square miles (revised).

Records available.- June 1907 to September 1908, May 1913 to September 1923, March 1925 to September 1936.

Average discharge.- 21 years (1913-23, 1925-36), 1,182 second-feet.

Extremes.- Maximum discharge, 14,900 second-feet Mar. 24 (gage height, 8.5 feet); minimum, 305 second-feet July 20 (gage height, 1.35 feet).
1907-8, 1913-23, 1925-36: Maximum discharge, 40,000 second-feet Apr. 4, 1934 (gage height, 16.0 feet, from floodmarks); minimum, 21 second-feet Dec. 9, 1928 (gage height, 0.65 foot).

Remarks.- Records good. Regulation by operation of power plant at Menomonie and at Cedar Falls and by storage in four reservoirs upstream.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

1.2	218	2.5	1,700	4.5	5,700
1.4	340	2.8	2,200	5.0	6,790
1.6	510	3.1	2,780	6.0	8,980
1.8	725	3.4	3,370	7.0	11,300
2.0	980	3.7	3,970	8.0	13,700
2.2	1,260	4.0	4,600		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	707	2,650	850	817	605	733	3,700	2,040	993	529	520	717
2	770	2,420	826	1,020	483	878	3,280	2,060	1,100	468	510	721
3	768	2,750	893	882	510	963	2,430	1,300	1,090	550	510	715
4	763	2,160	780	977	560	1,300	2,350	1,620	1,120	610	510	713
5	759	1,950	775	921	684	1,270	2,080	1,740	974	528	456	697
6	756	1,680	991	874	725	1,260	2,160	1,810	985	566	465	868
7	742	1,550	1,290	834	784	1,230	2,320	3,230	988	585	465	658
8	720	1,610	975	973	797	1,070	1,880	5,260	1,080	633	456	722
9	709	1,310	1,290	966	570	1,270	2,440	3,930	1,150	622	438	702
10	708	1,300	1,250	1,000	652	1,120	4,390	2,960	1,170	539	380	685
11	690	1,300	673	872	690	1,540	8,100	3,990	1,130	595	380	1,120
12	778	1,290	766	892	680	1,270	9,900	3,550	1,150	498	429	1,330
13	856	1,290	873	956	714	1,520	10,100	2,800	1,010	551	510	1,100
14	2,390	1,290	1,210	797	708	1,570	7,220	2,210	654	553	510	1,250
15	2,630	1,160	941	779	692	1,500	5,910	2,110	878	533	514	1,300
16	1,630	1,190	1,200	786	709	1,650	5,260	2,070	895	502	388	668
17	1,500	928	1,180	910	743	1,620	4,390	1,280	925	498	465	1,080
18	1,850	1,300	1,090	838	784	1,360	3,830	2,230	898	499	474	1,340
19	1,600	1,180	948	702	725	1,530	2,640	2,390	894	470	474	1,330
20	1,310	1,180	702	880	715	2,030	3,070	1,920	903	510	429	1,330
21	1,280	1,180	732	864	729	2,580	2,500	1,200	610	610	510	1,340
22	1,200	1,160	696	817	622	2,980	2,360	1,470	843	548	777	1,060
23	1,190	860	762	754	717	4,500	2,260	1,150	929	548	925	679
24	1,180	580	742	754	731	10,400	1,650	610	860	536	800	668
25	1,180	787	721	754	723	13,900	1,400	1,020	860	539	653	969
26	1,180	1,290	748	700	957	11,800	1,340	1,230	799	510	609	656
27	796	1,640	766	700	908	8,100	2,010	1,250	594	510	927	981
28	1,010	1,110	772	700	713	6,350	1,820	1,180	493	510	1,200	1,030
29	1,070	978	716	707	644	4,600	2,020	1,090	793	520	741	682
30	1,200	S16	973	779	-	5,260	1,990	669	589	520	744	891
31	1,910	-	1,020	737	-	3,870	-	590	-	520	734	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	35,832	2,630	690	1,156	0.657	0.76
November	41,889	2,750	580	1,396	.793	.88
December	28,151	1,290	673	908	.516	.59
Calendar year 1935	462,367	7,220	564	1,267	.720	9.76
January	25,942	1,020	700	837	.476	.55
February	20,274	957	483	699	.397	.43
March	101,024	13,900	733	3,259	1.85	2.13
April	106,800	10,100	1,340	3,560	2.02	2.25
May	61,959	5,260	590	1,999	1.14	1.31
June	27,357	1,170	493	912	.518	.58
July	16,710	633	468	539	.306	.35
August	17,903	1,200	380	578	.328	.38
September	28,002	1,340	656	933	.530	.59
Water year 1935-36	511,843	13,900	380	1,398	.794	10.80

Buffalo River near Tell, Wis.

Location.- Chain gage, lat. 44°23'30", long. 91°50'55", in NW¼ sec. 16, T. 22 N., R. 12 W., a quarter of a mile north of Tell School and 1 mile northeast of Tell. Prior to Mar. 13, 1936, staff gage at same site and datum.

Drainage area.- 398 square miles.

Records available.- October 1932 to September 1936 (winter records incomplete).

Extremes.- Maximum discharge observed during year, 3,060 second-feet Mar. 21 (gage height, 6.82 feet), result of discharge measurement; minimum, 84 second-feet Aug. 18. 1932-36: Maximum discharge observed, 8,650 second-feet Apr. 3, 4, 1934 (gage height, 8.48 feet, from floodmarks); minimum, 59 second-feet Aug. 16, 1933.

Remarks.- Records poor. No records Dec. 1 to Mar. 12. Discharge for period Mar. 13 to Apr. 4 was computed on basis of three discharge measurements and weather records. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	244	401				-	500	543	193	136	96	148
2	244	423				-	450	1,300	196	130	96	136
3	235	390				-	400	628	199	130	96	130
4	226	348				-	350	423	202	130	96	125
5	218	308				-	338	369	180	130	99	120
6	218	289				-	328	338	194	125	96	120
7	218	289				-	358	338	180	120	96	645
8	218	289				-	328	308	194	120	96	1,010
9	218	252				-	358	298	226	107	96	645
10	218	261				-	423	328	226	120	96	412
11	218	244				-	481	348	187	116	96	280
12	218	235				-	645	289	180	116	96	235
13	218	235				808	469	270	166	116	92	218
14	218	235				1,000	423	252	194	107	96	202
15	202	226				900	390	244	194	103	96	218
16	210	244				800	280	226	194	103	96	218
17	218	226				700	308	235	202	103	88	202
18	328	226				600	298	235	412	103	88	187
19	298	226				800	298	244	261	103	96	180
20	252	226				1,920	298	244	202	99	92	252
21	235	218				3,060	289	235	160	103	318	187
22	235	218				3,000	280	218	160	103	244	180
23	226	210				2,900	369	261	154	103	194	180
24	218	270				2,800	348	270	166	103	142	160
25	218	270				2,600	318	235	142	103	130	160
26	218	244				2,400	289	235	142	103	120	160
27	218	252				2,000	280	210	142	99	125	130
28	210	369				1,500	270	194	180	99	226	166
29	202	270				1,000	252	187	166	96	244	160
30	226	261				800	280	187	154	92	187	154
31	446	-				600	-	190	-	92	160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,289	446	202	235	0.590	0.68
November	8,155	423	210	272	.683	.76
December	-	-	-	-	-	-
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March 13-31	30,188	3,060	600	1,589	3.99	2.82
April	10,698	645	252	357	.897	1.00
May	9,882	1,300	187	319	.802	.92
June	5,748	412	142	192	.482	.54
July	3,413	136	92	110	.276	.32
August	3,989	318	88	129	.324	.37
September	7,320	1,010	120	244	.613	.68
Water year						

Zumbro River at Zumbro Falls, Minn.

Location.- Water-stage recorder, lat. 44°17', long. 92°26', in sec. 36, T. 110 N., R. 14 W., at Zumbro Falls, 700 feet below mouth of Spring Creek. Zero of gage is 811.26 feet above mean sea level (general adjustment of 1929).
Drainage area.- 1,120 square miles.
Records available.- June 1909 to September 1917, April 1929 to September 1936.
Average discharge.- 15 years, 430 second-feet.
Extremes.- Maximum discharge during year, 13,300 second-feet Mar. 21 (gage height, 20.18 feet); minimum, 63 second-feet Aug. 2, 7 (gage height, 6.60 feet).
1909-17, 1929-36: Maximum discharge, 21,800 second-feet Apr. 4, 1934 (gage height, 26.26 feet); minimum, 27 second-feet Jan. 12, 1935 (gage height, 6.30 feet).
Maximum stage known, about 30.5 feet, present datum, and 29.7 feet, former gage, in April 1888.
Remarks.- Records excellent except those for period of ice effect, Dec. 20-25, Jan. 7, 8, 18, 20-24, Feb. 15, 16, 24, Mar. 3, 4, 10, 11 (computed on basis of three discharge measurements, gage heights, appearance of recorder graph, and weather records), and those for period when intake was plugged, May 3-8 (computed on basis of records of Root River near Houston and Cannon River at Welch), which are fair. Diurnal fluctuation caused by operation of power plant about 10 miles upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

6.6	63	8.2	800	11.5	3,300
6.7	81	8.4	940	12.0	3,700
6.8	102	8.6	1,080	12.5	4,100
6.9	125	8.8	1,220	13.0	4,500
7.0	150	9.0	1,360	14.0	5,400
7.1	180	9.2	1,500	15.0	6,450
7.2	215	9.4	1,640	16.0	7,700
7.3	255	9.6	1,780	17.0	9,000
7.4	300	9.8	1,940	18.0	10,300
7.6	410	10.0	2,100	19.0	11,600
7.8	530	10.5	2,500	20.2	13,280
8.0	660	11.0	2,900		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	281	295	232	160	138	141	1,120	4,460	429	153	105	544
2	183	305	282	165	136	144	940	4,550	478	139	81	514
3	154	274	264	168	166	150	822	2,900	392	134	115	470
4	144	295	250	155	209	150	756	2,000	324	114	128	517
5	143	311	254	160	152	149	606	1,500	326	103	125	452
6	202	320	296	237	181	155	662	1,200	329	134	90	522
7	160	237	294	250	192	159	670	1,000	281	141	83	461
8	148	201	252	160	196	156	662	800	317	163	81	275
9	151	290	289	157	154	184	962	683	646	152	92	440
10	244	246	242	160	175	1,210	1,180	536	426	141	79	440
11	223	263	292	152	192	6,660	1,200	593	343	99	84	439
12	278	287	266	142	190	4,680	1,100	616	318	97	88	369
13	169	283	271	214	133	1,890	1,060	566	310	131	91	202
14	252	290	258	162	146	1,320	965	557	257	197	93	249
15	267	302	211	136	150	1,150	872	545	288	231	90	274
16	294	296	262	157	150	1,150	796	528	302	196	102	268
17	267	190	258	162	133	1,290	730	409	288	104	95	223
18	253	268	255	180	142	2,950	667	460	302	99	93	192
19	243	298	242	164	149	5,630	525	515	297	94	90	174
20	163	295	260	143	150	8,680	602	472	274	174	101	150
21	257	285	270	155	142	11,900	603	420	168	163	283	158
22	280	217	200	165	141	10,600	580	431	222	134	361	244
23	270	185	240	165	138	10,300	557	497	261	135	224	179
24	248	168	250	160	190	9,650	559	466	165	162	199	188
25	170	223	240	156	199	4,590	543	467	157	160	231	135
26	163	278	207	143	224	2,420	538	454	157	108	196	132
27	156	310	159	130	166	1,680	533	447	155	129	422	143
28	152	238	152	141	159	1,960	556	492	136	114	2,110	149
29	157	258	142	143	156	2,980	567	490	175	116	1,320	153
30	169	263	188	143	-	2,420	882	393	160	110	591	150
31	334	-	168	133	-	1,500	-	332	-	108	561	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,575	334	143	212	0.189	0.22
November	7,971	320	168	266	.238	.27
December	7,446	296	142	240	.214	.25
Calendar year 1935	196,976	9,040	58	540	.482	6.56
January	5,018	250	130	162	.145	.17
February	4,749	224	133	164	.146	.16
March	97,998	11,900	141	3,161	2.82	3.25
April	22,815	1,200	525	760	.679	.76
May	29,779	4,550	332	961	.858	.99
June	8,703	646	136	290	.259	.29
July	4,235	231	94	137	.122	.14
August	8,394	2,110	81	271	.242	.28
September	8,796	544	132	293	.262	.29
Water year 1935-36	212,479	11,900	81	581	.519	7.07

Trempealeau River at Dodge, Wis.

Location.- Chain gage, lat. 44°7'55", long. 91°33'10", in sec. 10, T. 19 N., R. 10 W., at highway bridge in Dodge, 9 miles above mouth.

Drainage area.- 633 square miles.

Records available.- December 1913 to September 1919, April 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 6,920 second-feet Mar. 22 (gage height, 8.51 feet); minimum observed, 133 second-feet Aug. 8, 9, 11.
1913-19, 1934-36: Maximum discharge (estimated), 10,000 second-feet Mar. 17, 1919 (gage height, estimated, 11.5 feet, from flood data); minimum (estimated), 105 second-feet Feb. 4, 5, 1918.

Remarks.- Records fair. Discharge during period of ice effect, Dec. 1 to Mar. 10, computed on basis of three discharge measurements, gage heights, weather records, and observer's notes. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	349	902	503	280	164	217	935	1,350	476	227	138	302
2	325	935	559	237	172	227	869	1,580	476	217	138	258
3	325	772	588	280	172	237	772	1,580	398	217	138	237
4	302	647	588	280	172	248	772	1,280	373	217	138	208
5	302	559	531	280	172	280	708	772	325	208	138	217
6	302	503	531	269	172	302	647	708	325	198	138	217
7	302	449	559	258	172	325	617	588	349	198	138	740
8	302	449	617	258	172	325	902	588	349	189	133	1,280
9	302	398	503	258	172	325	740	503	349	189	133	1,040
10	302	398	423	258	172	772	804	647	325	180	138	617
11	302	398	373	248	172	1,620	708	588	302	189	133	449
12	280	349	349	248	172	2,930	708	503	280	180	138	398
13	280	349	373	237	172	5,390	647	588	280	189	138	349
14	302	349	398	237	172	5,640	617	423	280	172	144	325
15	269	302	398	227	172	3,590	588	398	269	164	144	373
16	258	302	449	227	172	2,410	559	373	280	157	138	476
17	349	325	423	227	172	1,830	559	373	325	150	138	423
18	476	325	398	217	172	1,540	476	398	559	180	138	349
19	349	349	302	217	172	1,720	449	373	423	164	138	325
20	325	325	237	208	172	1,950	423	349	349	164	138	398
21	325	325	248	198	164	5,390	423	349	302	164	208	373
22	302	325	280	189	172	6,660	398	349	269	150	398	325
23	302	647	302	180	180	6,140	373	423	258	164	302	280
24	302	647	302	180	189	5,640	373	373	248	164	237	258
25	280	647	302	172	198	5,390	373	349	248	164	208	258
26	280	617	280	164	208	3,750	423	349	248	157	189	248
27	280	647	269	164	208	1,950	373	302	248	150	189	248
28	280	708	269	164	208	1,540	398	302	248	144	647	237
29	269	558	269	164	217	1,420	373	302	227	144	740	248
30	302	423	269	164	-	1,250	373	302	237	144	531	237
31	503	-	280	164	-	1,070	-	280	-	144	398	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,728	503	258	314	0.496	0.57
November	14,929	935	302	498	.787	.88
December	12,172	617	237	393	.621	.72
Calendar year 1935	174,652	2,930	180	478	.755	10.26
January	6,854	280	164	221	.349	.40
February	5,176	217	164	178	.281	.30
March	72,078	6,660	217	2,325	3.67	4.23
April	17,380	935	373	579	.915	1.02
May	17,642	1,580	280	569	.899	1.04
June	9,625	559	227	321	.507	.57
July	5,438	227	144	175	.276	.32
August	6,804	740	133	219	.346	.40
September	11,693	1,280	208	390	.616	.69
Water year 1935-36	189,519	6,660	133	518	.818	11.14

Black River at Neillsville, Wis.

Location.- Water-stage recorder, lat. 44°34', long. 90°36', in sec. 15, T. 24 N., R. 2 W., at highway bridge in Neillsville, 1 mile below O'Neill Creek and 1½ miles above Cunningham Creek.

Drainage area.- 756 square miles (revised).

Records available.- April 1905 to March 1909, December 1913 to September 1936.

Average discharge.- 22 years (1914-36), 562 second-feet.

Extremes.- Maximum discharge during year, 22,300 second-feet Mar. 24 (gage height, 15.67 feet); minimum, 0.6 second-foot Aug. 15 (gage height, 1.84 feet).
1905-9, 1913-36: Maximum discharge, 37,100 second-feet June 6, 1905 (gage height, 22.4 feet); minimum, that of Aug. 15, 1936.

Remarks.- Records good except those for period of ice effect, Nov. 23 to Mar. 20, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor.

Rating tables, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 22, Mar. 21 to Aug. 11								Aug. 12 to Sept. 30	
2.0	0.5	2.8	88	5.0	920	11.0	8,290	1.8	0.4
2.1	1.5	3.0	123	6.0	1,570	12.0	10,700	2.0	2.5
2.2	8.0	3.3	193	7.0	2,350	13.0	13,300	2.2	10
2.3	18	3.6	280	8.0	3,300	14.0	16,400	2.5	30
2.4	30	4.0	435	9.0	4,620	15.0	19,800	2.8	60
2.6	57	4.5	660	10.0	6,230			3.2	120
								3.6	207

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	3,300	130	47	17	51	1,820	3,910	109	47	2.8	42
2	68	1,760	151	57	18	45	1,460	3,530	109	46	2.2	42
3	68	1,040	186	62	17	51	1,070	2,350	107	46	1.5	40
4	66	860	213	66	23	71	860	1,600	123	46	1.5	38
5	66	705	259	70	27	65	705	1,200	127	44	1.4	32
6	63	570	292	66	29	68	592	4,230	131	42	1.5	29
7	62	484	308	55	31	64	570	6,410	131	39	1.3	207
8	62	525	325	58	34	62	489	5,710	127	35	1.2	179
9	62	489	342	58	36	57	804	3,310	129	31	.9	142
10	62	430	342	55	38	72	2,260	1,740	125	38	.7	82
11	63	386	325	51	38	186	3,910	1,200	112	35	.7	78
12	63	319	308	51	39	228	4,920	804	100	34	1.0	65
13	66	259	275	50	38	140	4,330	638	88	36	2.5	60
14	70	221	200	47	38	186	4,050	516	75	35	.7	62
15	78	221	134	47	37	162	3,530	377	75	40	.7	68
16	100	204	80	45	35	138	3,530	302	69	33	.7	72
17	175	183	80	46	32	140	2,800	274	75	30	.8	65
18	498	167	78	45	32	228	2,100	265	74	29	1.0	57
19	422	175	77	40	34	612	1,570	262	74	23	1.0	48
20	280	204	123	32	20	2,710	1,230	247	75	24	2.5	46
21	213	162	102	22	36	4,330	980	218	68	23	36	45
22	183	175	58	14	36	5,650	804	199	63	23	33	41
23	180	162	61	12	28	10,600	660	247	58	24	22	36
24	158	140	55	11	22	19,900	592	344	56	22	14	31
25	149	89	51	11	39	12,600	660	238	53	18	36	27
26	138	65	45	10	47	7,400	752	204	53	16	38	24
27	129	72	36	11	49	3,980	705	177	51	15	34	24
28	121	80	31	11	50	3,240	615	149	50	12	115	23
29	116	89	32	10	50	4,190	592	125	50	10	91	22
30	570	109	35	11	-	3,300	778	112	49	6	68	22
31	2,480	-	40	16	-	2,350	-	103	-	2.8	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,899	2,480	62	223	0.295	0.34
November	13,645	3,300	65	455	.602	.67
December	4,774	342	31	154	.204	.24
Calendar year 1935	265,320	18,400	31	727	.962	13.03
January	1,187	70	10	38.3	.051	.06
February	970	50	17	33.4	.044	.05
March	82,876	19,900	45	2,673	3.54	4.08
April	49,738	4,920	489	1,658	2.19	2.44
May	40,991	6,410	103	1,322	1.75	2.02
June	2,586	131	49	86.2	.114	.13
July	904.8	47	2.8	29.2	.039	.04
August	566.6	115	0.7	18.3	.024	.03
September	1,749	207	22	58.3	.077	.09
Water year 1935-36	206,886.4	19,900	0.7	565	.747	10.19

Black River near Galesville, Wis.

Location.- Chain gage, lat. 44°3'45", long. 91°17'30", on line between secs. 1 and 2, T. 18 N., R. 8 W., 4.5 miles southeast of Galesville on State Trunk Highway 35 and 5 miles below mouth of Fleming Creek. Zero of gage is 657.3 feet above mean sea level.

Drainage area.- 2,120 square miles.

Records available.- December 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 35,000 second-feet Mar. 25 (gage height, 12.76 feet); minimum, 256 second-feet Aug. 14 (gage height, 1.70 feet).
1931-36: Maximum discharge observed, that of Mar. 25, 1936; minimum, 180 second-feet Dec. 20, 1932.

Remarks.- Records fair except those for period of ice effect, Dec. 2 to Mar. 21, which were computed on basis of three discharge measurements, gage heights, observer's notes, and weather records and are poor. Gage read once daily.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.7	256	3.5	1,410	8.0	8,620
1.8	290	4.0	1,920	9.0	11,000
2.0	365	4.5	2,480	10.0	14,200
2.2	455	5.0	3,050	11.0	19,100
2.5	615	5.5	3,800	12.0	26,300
2.8	810	6.0	4,630	13.0	38,000
3.1	1,040	7.0	6,500		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	3,800	1,810	605	480	640	5,710	3,350	775	432	273	560
2	1,130	5,900	1,850	570	510	710	3,960	5,340	922	432	290	455
3	1,130	9,060	1,970	540	450	710	3,960	9,520	1,310	480	290	455
4	1,040	6,700	1,970	675	450	710	3,960	7,960	1,310	455	290	410
5	922	4,460	1,970	640	480	710	2,500	6,100	1,220	432	290	365
6	810	3,200	1,970	605	480	675	2,500	3,500	885	410	290	365
7	922	2,910	2,090	570	450	675	2,250	4,120	922	388	308	615
8	922	2,480	2,220	510	480	640	1,810	6,900	960	410	273	432
9	848	2,360	2,090	318	480	710	2,030	9,290	1,000	410	273	432
10	775	2,360	1,740	480	450	745	2,250	8,620	848	410	290	432
11	740	2,140	1,630	710	420	2,910	2,910	5,710	848	410	290	432
12	645	2,030	1,410	605	450	2,910	4,630	2,630	810	410	290	410
13	740	1,920	1,300	570	450	2,490	6,900	2,500	708	388	290	410
14	708	1,710	1,250	510	420	2,350	8,180	2,140	675	388	256	410
15	810	1,610	1,200	675	420	2,910	8,180	1,920	615	345	290	345
16	708	1,510	1,010	640	420	3,050	7,310	1,710	615	365	290	480
17	810	1,510	890	480	420	2,770	5,900	1,510	645	365	325	480
18	740	1,410	710	390	420	3,050	5,520	1,220	588	365	273	455
19	775	1,410	365	365	420	3,350	5,160	1,310	645	345	273	455
20	922	1,310	340	340	420	3,960	3,960	1,310	588	345	325	432
21	922	1,310	365	340	420	7,960	2,770	1,220	588	345	432	455
22	1,220	1,310	480	340	420	10,200	2,480	1,410	588	308	455	410
23	1,130	1,310	540	340	420	18,500	2,140	1,710	588	308	480	432
24	1,040	1,220	540	340	420	21,000	1,810	2,250	505	365	455	432
25	1,040	1,310	570	340	420	35,000	1,810	2,250	480	345	455	410
26	1,040	1,220	480	365	480	27,200	1,710	2,360	455	308	410	410
27	1,000	1,220	390	318	570	18,000	1,810	1,130	455	290	410	410
28	960	1,410	390	318	605	13,800	1,920	1,220	432	325	775	455
29	1,000	1,610	390	365	640	8,180	1,810	1,040	432	308	1,000	345
30	1,040	1,710	365	272	-	6,500	1,810	922	432	290	740	410
31	1,610	-	480	450	-	7,100	-	740	-	273	645	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	29,409	1,610	645	949	0.448	0.52
November	73,420	9,060	1,220	2,447	1.15	1.28
December	34,775	2,220	340	1,122	.529	.61
Calendar year 1935	874,559	27,200	340	2,396	1.13	15.34
January	14,586	710	272	471	.222	.26
February	13,365	640	420	461	.217	.23
March	210,115	35,000	640	6,778	3.20	3.69
April	109,650	8,180	1,710	3,655	1.72	1.92
May	102,912	9,520	740	3,320	1.57	1.81
June	21,844	1,310	432	728	.343	.38
July	11,450	480	273	369	.174	.20
August	12,026	1,000	256	388	.183	.21
September	12,999	615	345	433	.204	.23
Water year 1935-36	646,551	35,000	256	1,766	.833	11.34

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La Crosse River near West Salem, Wis.

Location.- Chain gage, lat. 43°54'5", long. 91°7'5", 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 1936.

Average discharge.- 22 years, 303 second-feet.

Extremes.- Maximum discharge observed during year, 2,180 second-feet Mar. 18 (gage height, 8.12 feet); maximum gage height observed, 11.10 feet Mar. 11 result of ice jam; minimum discharge observed, 80 second-feet Aug. 9.
1913-36: Maximum discharge, 4,780 second-feet Sept. 15, 1928 (gage height, 9.8 feet); maximum gage height, 12.2 feet Aug. 6, 1935; minimum discharge, 56 second-feet Feb. 20, 1927.

Remarks.- Records fair except those for periods of ice effect, Nov. 21-23, Dec. 1-8, Dec. 20 to Mar. 17, which were computed on basis of four discharge measurements, gage heights, observer's notes, and weather records and are poor. Gage read twice daily. Slight diurnal fluctuation is caused by operation of power plants a few miles above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	194	500	249	216	238	164	376	328	260	183	164	205
2	173	450	216	249	183	194	376	475	376	183	147	194
3	194	352	194	249	173	173	352	475	425	183	110	194
4	183	352	238	249	216	216	352	376	328	173	155	205
5	183	376	194	216	183	227	328	328	282	173	124	183
6	183	328	194	227	164	205	282	352	260	183	155	147
7	194	305	216	216	183	183	328	352	238	183	173	227
8	205	328	282	227	194	183	328	328	271	173	164	293
9	216	238	328	238	205	216	352	328	249	155	124	328
10	227	227	260	238	194	601	352	352	249	173	164	216
11	205	271	293	227	194	1,200	376	328	227	147	117	205
12	216	271	183	216	194	1,260	376	305	194	147	173	205
13	216	249	183	238	205	1,200	376	293	205	173	147	205
14	227	249	282	227	194	1,140	328	271	205	164	155	194
15	249	238	238	227	155	1,010	282	260	216	164	155	249
16	249	238	249	216	205	1,010	282	249	205	173	155	282
17	271	238	205	227	183	1,300	260	216	227	173	147	352
18	271	260	194	227	173	1,900	260	260	260	173	139	271
19	271	249	194	205	173	1,740	271	260	249	155	173	238
20	249	260	238	216	173	1,390	260	249	227	173	173	227
21	260	271	249	227	183	1,170	249	238	205	173	183	227
22	238	271	249	216	205	1,010	249	271	194	131	183	205
23	238	271	249	216	155	1,200	205	400	183	155	173	194
24	238	249	249	227	173	1,330	205	400	183	173	183	205
25	238	249	249	238	155	1,040	238	352	194	155	183	173
26	227	249	249	227	164	740	260	305	194	139	164	205
27	227	271	249	249	173	575	260	260	183	155	194	173
28	238	305	249	227	205	475	249	260	183	164	216	194
29	227	352	238	238	173	425	238	238	183	139	328	205
30	293	282	238	238	-	450	249	155	183	117	271	194
31	475	-	238	216	-	400	-	205	-	131	227	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,275	475	173	235	0.570	0.66
November	8,749	500	227	292	.709	.79
December	7,336	328	183	237	.575	.66
Calendar year 1935	118,469	2,440	147	325	.789	10.68
January	7,070	249	205	228	.553	.64
February	5,368	238	155	185	.449	.48
March	24,327	1,900	164	785	1.91	2.20
April	8,899	376	205	297	.721	.80
May	9,469	475	155	305	.740	.85
June	7,038	425	183	235	.570	.64
July	5,036	183	117	162	.393	.45
August	5,319	328	110	172	.417	.48
September	6,595	352	147	220	.534	.60
Water year 1935-36	102,481	1,900	110	280	.680	9.25

Little La Crosse River near Leon, Wis.

Location.- Water-stage recorder, lat. 43°53'45", long. 90°50'25", in NE¼ sec. 3, T. 16 N., R. 4 W., 2 miles northwest of Leon. Zero of gage is 760.28 feet above mean sea level.

Drainage area.- 77.1 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 1,210 second-feet Mar. 10 (gage height, 9.62 feet); minimum, 22 second-feet Aug. 10, 12, 13 (gage height, 1.94 feet).
1934-36: Maximum discharge, 4,620 second-feet Aug. 6, 1935 (gage height, 14.43 feet); minimum, 14 second-feet Feb. 25, 1935 (gage height, 1.83 feet).

Remarks.- Records excellent except those for periods of ice effect, Dec. 20, 21, 26-28, Jan. 16 to Feb. 23, which were computed on basis of 7 discharge measurements, weather records, and observer's notes and are good.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	48	36	30	30	33	49	85	49	28	23	25
2	31	38	31	31	29	33	49	52	40	28	23	25
3	31	48	32	31	29	34	47	45	34	28	23	25
4	30	51	31	30	29	40	46	40	32	28	24	24
5	30	40	32	30	30	39	45	39	31	27	23	23
6	30	38	36	30	29	37	44	41	34	27	23	25
7	30	38	54	30	29	34	48	38	33	26	23	48
8	30	36	40	31	29	34	50	37	32	26	22	28
9	31	36	36	31	29	37	60	36	34	26	22	27
10	32	36	33	30	29	427	57	41	32	26	22	26
11	32	34	32	31	29	521	56	38	31	26	22	29
12	31	34	32	30	29	140	48	36	30	25	22	30
13	32	34	32	30	29	79	47	35	30	25	22	28
14	114	34	32	30	29	60	44	34	30	25	24	28
15	38	33	33	30	29	49	42	34	29	24	23	87
16	36	33	32	31	30	94	41	33	31	24	23	86
17	47	32	32	31	30	178	40	36	46	24	22	36
18	40	32	32	29	30	180	38	32	33	26	24	30
19	36	38	30	29	30	137	38	32	31	25	23	29
20	35	36	28	29	30	161	37	32	30	24	24	34
21	34	34	31	28	30	194	36	32	29	24	30	30
22	35	30	31	27	30	149	35	34	29	24	26	28
23	35	30	31	27	31	382	35	48	29	26	25	28
24	33	30	31	27	32	157	36	35	28	25	23	27
25	32	31	30	27	40	80	39	33	28	25	24	27
26	32	31	29	27	40	72	36	32	28	24	25	27
27	32	56	29	28	36	72	36	32	28	24	27	28
28	32	44	29	28	37	62	36	31	27	24	54	28
29	33	34	30	29	34	59	35	30	27	23	23	27
30	41	34	30	29	-	54	36	30	28	24	27	27
31	64	-	30	30	-	50	-	30	-	23	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,149	114	30	37.1	0.481	0.55
November	1,103	56	30	36.8	.477	.53
December	1,007	54	28	32.5	.422	.49
Calendar year 1935	18,768.5	1,510	25.3	51.4	0.667	9.03
January	911	31	27	29.4	.381	.44
February	897	40	29	30.9	.401	.43
March	3,678	521	33	119	1.54	1.78
April	1,286	60	35	42.9	.556	.62
May	1,163	85	30	37.5	.486	.56
June	953	49	27	31.8	.412	.46
July	784	28	23	25.3	.328	.38
August	772	54	22	24.9	.323	.37
September	970	87	23	32.3	.419	.47
Water year 1935-36	14,673	521	22	40.1	.520	7.08

Coon Creek at Coon Valley, Wis.

Location.- Water-stage recorder, lat. 43°42'15", long. 91°1'5", in NE¼ sec. 7, T. 14 N., R. 5 W., in the village of Coon Valley. Zero of gage is 716.16 feet above mean sea level (general adjustment of 1912).

Drainage area.- 77.2 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 1,400 second-feet Mar. 10 (gage height, 6.11 feet); minimum, 13 second-feet Dec. 10 (caused by ice jam); minimum daily discharge, 24 second-feet Aug. 9, 11; minimum gage height, 1.73 feet Aug. 8.
1934-36: Maximum discharge, 8,110 second-feet Aug. 6, 1935 (gage height, 12.90 feet); minimum, 4.4 second-feet Feb. 22, 1935 (gage height, 0.65 foot, caused by ice jam).

Remarks.- Records excellent except those for periods of ice effect, Nov. 29, Dec. 2, 4, 20-31, Jan. 5, 10, 13, Jan. 15 to Feb. 25 (computed on a basis of 9 discharge measurements, weather records, and observer's notes), and those above 700 second-feet, which are good.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	40	32	33	28	33	47	62	46	30	25	27
2	32	36	32	33	29	34	47	44	36	29	25	29
3	32	44	32	33	29	38	46	39	35	30	26	27
4	31	41	31	32	29	44	45	40	32	30	26	26
5	31	37	33	32	30	37	44	36	31	29	26	27
6	32	36	38	32	30	40	42	48	36	28	25	34
7	32	36	42	32	30	34	42	40	34	27	25	48
8	32	35	36	31	30	34	44	39	34	27	25	31
9	33	35	35	32	31	49	46	81	35	26	24	32
10	34	35	29	31	31	445	48	50	33	27	25	29
11	33	34	33	32	31	328	46	44	32	27	24	38
12	33	34	32	31	31	94	45	39	31	26	25	34
13	40	33	31	32	32	60	44	36	31	26	27	31
14	44	35	31	31	32	53	44	35	31	26	27	29
15	33	34	31	31	32	46	41	34	31	26	26	78
16	34	33	31	27	32	78	39	34	31	26	26	51
17	42	34	31	25	32	140	39	42	36	26	26	36
18	36	33	31	29	31	162	38	34	32	27	27	33
19	34	38	28	29	31	120	38	35	31	26	25	33
20	33	35	27	30	31	202	39	35	31	26	26	36
21	36	35	31	29	31	152	36	35	31	26	40	33
22	36	31	32	29	31	110	36	44	31	26	29	31
23	35	31	32	28	31	409	36	47	31	33	28	30
24	32	32	30	27	33	104	39	38	31	26	26	31
25	32	32	29	27	40	69	39	34	31	26	26	29
26	32	32	29	27	38	65	36	34	31	26	26	30
27	33	50	27	27	38	61	39	34	31	26	32	32
28	33	41	28	27	34	56	38	34	31	26	44	30
29	33	35	29	27	33	54	36	32	31	26	30	29
30	42	35	30	28	-	53	38	32	31	26	29	30
31	53	-	31	28	-	49	-	34	-	26	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,080	53	31	34.8	0.451	0.52
November	1,072	50	31	35.7	.462	.52
December	974	42	27	31.4	.407	.47
Calendar year 1935	17,094.1	1,210	23.3	46.8	.606	8.24
January	922	33	25	29.7	.385	.44
February	921	40	28	31.8	.412	.44
March	3,253	445	33	105	1.36	1.57
April	1,237	48	36	41.2	.534	.60
May	1,245	81	32	40.2	.521	.60
June	979	46	31	32.6	.422	.47
July	838	33	26	27.0	.350	.40
August	849	44	24	27.4	.355	.41
September	1,014	78	26	33.8	.438	.49
Water year 1935-36	14,384	445	24	39.3	.509	6.93

Coon Creek near Stoddard, Wis.

Location.- Water-stage recorder, lat. 43°39'50", long. 91°9'10", in NE¼ sec. 25, T. 14 N., R. 7 W., 3¼ miles east of Stoddard. Zero of gage is 650.68 feet above mean sea level.

Drainage area.- 119 square miles.

Records available.- March 1934 to September 1936.

Extremes.- Maximum discharge during year, 1,840 second-feet Mar. 11 (gage height, 9.08 feet); minimum, 28 second-feet July 31 (gage height, 2.28 feet).
1934-36: Maximum discharge, 5,160 second-feet Aug. 6, 1935 (gage height, 10.70 feet); minimum, 25 second-feet Feb. 25, 1935 (gage height, 2.10 feet).

Remarks.- Records excellent except those for periods of ice effect, Nov. 22-24, Nov. 29 to Dec. 5, Dec. 11, 12, Dec. 19 to Jan. 8, Jan. 10-12, Jan. 14, and Jan. 16 to Mar. 8 (computed on basis of 13 discharge measurements, weather records, and observer's notes), those for periods of backwater from Mississippi River, Mar. 25 to Apr. 3 (computed on basis of 15 discharge measurements and records of stage for Mississippi River at La Cross, Wis.), and those above 600 second-feet, which are good. Flow regulated by storage in Chaseburg Grist Mill Reservoir.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	70	53	54	48	54	72	104	66	50	41	45
2	51	58	53	59	48	56	74	67	61	48	41	45
3	53	69	51	58	48	60	74	61	54	48	42	45
4	51	75	50	53	48	72	73	62	55	49	42	43
5	51	62	53	52	48	60	72	60	51	47	43	44
6	51	61	60	53	47	53	70	75	57	46	42	49
7	51	60	72	51	47	67	73	62	56	47	41	79
8	51	58	61	52	48	57	71	58	54	43	42	49
9	51	59	58	53	48	93	75	62	57	44	42	47
10	55	60	50	52	48	670	74	104	54	44	42	45
11	53	55	52	53	48	1,120	74	62	51	44	42	57
12	53	55	52	51	48	212	69	58	51	43	42	55
13	54	55	54	48	48	103	69	56	50	43	43	48
14	68	56	54	53	48	91	66	54	49	43	45	47
15	51	54	53	48	48	53	64	54	49	42	43	105
16	51	53	53	46	49	128	61	53	50	42	44	99
17	60	54	53	42	50	203	61	58	56	42	41	57
18	55	54	52	47	50	229	59	55	51	44	43	52
19	53	60	48	49	50	226	59	52	51	43	42	50
20	53	59	46	51	50	188	59	52	50	42	42	55
21	53	56	48	49	50	278	57	53	49	42	60	50
22	53	50	50	46	51	182	56	60	50	43	49	48
23	55	52	50	44	52	622	56	75	49	49	45	48
24	51	52	48	43	62	222	57	57	49	44	43	47
25	51	53	46	43	72	122	55	55	49	44	43	48
26	51	53	46	44	65	101	57	53	49	43	43	46
27	51	78	45	45	56	94	56	52	49	42	50	49
28	51	72	46	46	66	81	57	51	48	42	74	47
29	51	57	47	46	57	78	55	52	48	41	50	46
30	68	56	49	47	-	74	54	51	48	42	46	47
31	106	-	50	48	-	71	-	53	-	41	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,708	106	51	55.1	0.463	0.53
November	1,766	78	50	58.9	.495	.55
December	1,603	72	45	51.7	.434	.50
Calendar year 1935	26,928.5	1,530	37.7	73.8	.620	8.42
January	1,526	59	42	49.2	.413	.48
February	1,498	72	47	51.7	.434	.47
March	5,720	1,120	53	185	1.55	1.79
April	1,929	75	54	64.3	.540	.60
May	1,881	104	51	60.7	.510	.59
June	1,561	66	48	52.0	.437	.49
July	1,367	50	41	44.1	.371	.43
August	1,393	74	41	44.9	.377	.43
September	1,592	105	43	53.1	.446	.50
Water year 1935-36	23,544	1,120	41	64.3	.540	7.36

Root River near Houston, Minn.

Location.- Water-stage recorder, lat. 43°46', long. 91°35', in sec. 32, T. 104 N., R. 6 W., 1 mile west of Houston and 2½ miles above mouth of South Fork of Root River. Zero of gage is 671.86 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,280 square miles.

Records available.- May 1929 to September 1936. May 1909 to September 1917 at site 1½ miles downstream.

Average discharge.- 15 years, 622 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet May 1; maximum gage height, about 14.9 feet Mar. 11 (ice jam); minimum daily discharge, 203 second-feet Jan. 27 (gage height, 3.18 feet, affected by ice).
1909-17, 1929-36: Maximum discharge, 26,600 second-feet Mar. 31, 1933 (gage height, 14.07 feet); minimum, 65 second-feet Dec. 26, 1933, Feb. 25, 1935; minimum daily discharge, 85 second-feet Dec. 26, 27, 1933.

Remarks.- Records good except those for period of ice effect, Dec. 20 to Mar. 17 (computed on basis of 5 discharge measurements, gage heights, observer's notes and weather records), and those for Aug. 7-20, Aug. 27 to Sept. 11 (computed on basis of once daily gage readings), which are fair. Stage-discharge relation affected by ice or shifting control throughout the year. Chain gage read once daily Nov. 6 to May 12. Diurnal fluctuation caused by operation of power plant at Rushford.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	710	420	352	242	270	910	8,020	607	375	250	310
2	420	760	310	398	250	330	860	2,600	585	375	250	290
3	398	660	375	375	270	352	810	1,600	510	375	250	290
4	398	510	352	398	242	330	760	1,270	488	375	250	250
5	398	442	420	352	234	398	760	1,150	488	352	250	230
6	398	398	398	330	246	442	710	1,250	488	352	250	352
7	398	375	488	290	242	465	660	1,100	510	352	250	488
8	398	352	510	330	250	420	660	910	488	330	250	398
9	398	352	442	310	250	398	710	810	1,660	330	250	465
10	398	375	420	310	270	2,280	970	760	1,140	416	250	560
11	398	375	352	375	250	9,450	1,090	810	710	330	230	420
12	398	398	442	310	246	6,900	1,090	760	660	330	242	398
13	398	352	420	290	290	5,000	970	710	560	310	250	352
14	375	352	442	310	250	4,180	910	660	510	310	210	330
15	375	330	398	290	270	3,580	860	635	488	310	210	469
16	352	352	398	250	250	2,850	760	610	465	310	210	781
17	442	352	375	290	242	1,810	710	635	442	290	210	585
18	442	352	375	270	226	4,860	660	710	442	330	210	442
19	420	352	352	290	250	6,850	635	610	420	310	210	420
20	398	330	352	270	242	8,250	610	585	420	330	210	420
21	398	352	352	270	250	9,720	585	535	420	290	290	375
22	398	330	330	250	234	7,370	560	564	398	290	270	375
23	398	310	375	226	234	7,780	560	1,330	398	310	250	352
24	375	290	330	210	270	7,420	535	822	398	310	250	330
25	375	330	270	214	290	3,300	560	660	398	330	234	310
26	375	330	270	210	270	2,120	535	635	398	290	230	310
27	375	398	270	203	290	1,600	535	585	398	290	270	310
28	375	560	270	218	250	1,390	510	535	398	270	1,390	310
29	375	420	310	250	250	1,270	510	510	398	250	660	310
30	569	398	352	234	-	1,150	535	488	375	250	330	290
31	660	-	352	230	-	1,030	-	488	-	250	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	12,695	660	352	410	0.320	0.37
November	12,197	760	290	407	.318	.35
December	11,522	510	270	372	.291	.34
Calendar year 1935	257,686	8,380	140	706	.552	7.49
January	8,905	398	203	287	.224	.26
February	7,350	290	226	253	.198	.21
March	103,565	9,720	270	3,341	2.61	3.01
April	21,530	1,090	510	718	.561	.63
May	33,347	8,020	488	1,076	.841	.97
June	16,060	1,660	375	535	.418	.47
July	9,922	416	250	320	.250	.29
August	9,196	1,390	210	297	.232	.27
September	11,522	781	230	384	.300	.33
Water year 1935-36	257,811	9,720	203	704	.550	7.50

Upper Iowa River near Decorah, Iowa

Location.- Staff gage, lat. 91°41'30", long. 43°19'20", in SE¼NE¼ sec. 8, T. 98 N., R. 7 W., at upper power plant of Interstate Power Co., 5 miles northeast of Decorah.

Drainage area.- 576 square miles.

Records available.- July 1933 to September 1936. August 1913 to November 1914, May 1919 to June 1927 at site 4 miles upstream.

Extremes.- Maximum discharge during year, 9,420 second-feet Mar. 10, 11 (gage height, 98.0 feet, backwater from closed gates in dam downstream), from rating curve extended above 3,300 second-feet; minimum, about 18 second-feet at numerous times when power plant was shut down; minimum daily discharge, 39 second-feet Aug. 16.

1933-36: Maximum discharge, 12,200 second-feet July 1, 2, 1933 (gage height, 97.2 feet), from rating curve extended above 3,000 second-feet; minimum, about 10 second-feet on numerous days when power plant was shut down during water year 1934-35.

Remarks.- Records fair except those above 1,000 second-feet, which are poor. Gage-height record furnished by Interstate Power Co.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	404	202	106	70	100	333	722	181	100	75	101
2	111	162	138	100	53	103	374	1,060	248	100	43	80
3	111	216	140	106	65	110	402	762	164	100	75	90
4	88	251	146	108	65	162	356	581	170	88	66	90
5	114	193	138	94	68	202	357	507	158	88	52	101
6	76	170	164	140	68	175	333	301	149	88	57	75
7	120	170	210	94	68	198	333	481	158	100	57	116
8	91	135	234	93	65	198	294	456	149	86	61	90
9	91	135	181	81	56	936	389	343	929	84	50	96
10	100	123	132	83	65	5,220	412	369	498	128	64	176
11	106	120	94	88	65	8,640	438	389	284	101	64	300
12	114	117	117	88	82	6,680	495	277	221	81	67	202
13	100	135	164	88	68	4,560	503	319	199	89	66	128
14	106	135	181	88	53	2,850	476	267	187	81	88	132
15	103	129	138	88	76	1,800	387	261	181	81	87	700
16	94	129	129	94	65	2,090	333	254	164	70	39	706
17	140	91	135	88	68	2,300	333	244	140	81	80	322
18	129	132	123	94	65	2,830	333	360	173	64	67	228
19	132	132	106	65	70	4,410	294	219	164	55	80	191
20	94	120	76	91	70	3,020	248	172	167	81	73	194
21	111	120	82	82	70	3,320	234	206	85	69	88	188
22	117	97	82	59	76	2,660	254	216	143	87	88	173
23	114	106	111	59	68	6,300	235	364	157	88	70	158
24	106	76	108	65	76	3,520	248	385	136	73	76	150
25	114	135	97	73	85	2,120	235	294	123	99	59	137
26	114	123	97	53	88	1,410	228	333	130	60	75	132
27	79	181	100	53	91	993	241	287	120	86	84	147
28	117	333	97	53	94	742	202	219	123	75	308	139
29	111	120	85	53	113	651	221	202	123	75	336	129
30	348	181	100	70	-	591	218	187	111	52	116	127
31	314	-	76	59	-	465	-	170	-	64	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,771	348	76	122	0.212	0.24
November	4,671	404	76	156	.271	.30
December	3,983	234	76	128	.222	.26
Calendar year 1935	145,563	5,950	76	399	.693	9.39
January	2,556	140	53	82.5	.143	.16
February	2,086	113	53	71.9	.125	.13
March	69,356	8,640	100	2,237	3.88	4.47
April	9,739	503	202	325	.564	.63
May	11,207	1,060	170	362	.628	.72
June	5,935	929	85	198	.344	.38
July	2,574	128	52	83.0	.144	.17
August	2,713	336	39	87.5	.152	.18
September	5,598	706	75	187	.325	.36
Water year 1935-36	124,189	8,640	39	339	.589	8.00

Yellow River at Ion, Iowa

Location.- Wire gage, lat. 43°6'35", long. 91°15'45" in SE¼SW¼ sec. 24, T. 96 N., R. 4 W., at highway bridge at Ion, about 7⅛ miles (revised) northwest of McGregor and 8 miles above mouth. Zero of gage is 654.91 feet above mean sea level (general adjustment of 1912).

Drainage area.- 213 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 3,600 second-feet Mar. 10 (gage height, 10.15 feet), from rating curve extended above 600 second-feet; minimum, 21 second-feet Aug. 17; minimum gage height observed, 2.70 feet May 9, 10.
1934-36: Maximum discharge observed, 5,000 second-feet (estimated) Mar. 4, 1935 (gage height, 10.95 feet); minimum, that of Aug. 17, 1936.

Remarks.- Records poor. Discharge for period of ice effect, Dec. 21 to Mar. 9, computed on basis of one discharge measurement, gage heights, observer's notes, and weather records. Gage read once daily during low and medium stages, oftener during high stages. Station operated in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	82	51	37	23	23	110	60	45	36	24	45
2	35	53	26	37	25	24	110	96	72	36	24	43
3	35	47	48	38	23	23	103	74	41	35	24	40
4	35	75	26	54	23	36	103	63	38	33	23	35
5	35	57	43	25	22	103	96	60	36	32	23	32
6	35	49	45	35	22	51	89	57	36	32	23	30
7	35	45	63	31	22	69	89	56	35	30	23	79
8	35	43	63	34	22	84	82	54	34	29	23	41
9	35	41	63	34	22	600	140	48	1,350	29	23	110
10	35	41	39	22	22	*3,220	103	48	207	28	22	31
11	35	41	34	33	23	*2,860	103	148	110	28	22	216
12	35	40	45	33	23	747	103	140	80	31	22	164
13	35	39	45	29	23	207	103	140	66	31	22	84
14	55	39	42	36	23	1,070	89	124	57	30	23	55
15	37	39	42	29	23	255	84	117	53	29	23	50
16	36	38	42	22	22	1,070	82	103	48	28	25	363
17	38	38	40	25	22	869	75	96	48	28	21	156
18	37	38	40	26	22	661	74	86	48	28	63	117
19	37	41	30	25	22	580	71	82	46	30	28	96
20	37	39	30	23	22	331	70	74	44	30	29	88
21	41	35	40	27	22	555	68	68	44	30	718	76
22	38	27	37	26	22	506	66	68	43	30	156	68
23	37	26	35	25	22	1,350	60	75	41	33	245	65
24	37	35	30	25	23	606	60	66	39	30	80	56
25	37	35	30	26	22	255	61	60	38	30	64	52
26	37	35	30	24	25	198	57	55	37	29	61	51
27	37	47	30	29	22	181	57	50	37	27	66	62
28	37	103	29	27	29	181	56	48	37	26	580	56
29	37	45	35	25	29	148	56	47	37	25	148	50
30	37	39	37	25	-	117	55	41	36	24	96	48
31	43	-	40	23	-	110	-	41	-	24	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,150	55	35	37.1	0.174	0.20
November	1,352	103	26	45.1	.212	.24
December	1,230	63	26	39.7	.186	.21
Calendar year 1935	37,792	2,600	24	104	.488	6.59
January	890	38	22	28.7	.135	.16
February	667	29	22	23.0	.108	.12
March	17,090	3,220	23	551	2.59	2.99
April	2,475	140	55	82.5	.387	.43
May	2,345	148	41	75.6	.355	.41
June	2,883	1,350	34	96.1	.451	.50
July	921	36	24	29.7	.139	.16
August	2,782	718	21	89.7	.421	.49
September	2,459	363	30	82.0	.385	.43
Water year 1935-36	36,244	3,220	21	99.0	.465	6.34

*Discharge estimated.

Wisconsin River at Whirlpool Rapids, near Rhinelander, Wis.

Location.- Water-stage recorder, lat. 45°33', long. 89°30', 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.- 1,200 square miles (revised).

Records available.- September 1915 to September 1936. December 1905 to September 1915 at a station 3 miles upstream.

Average discharge.- 19 years (1915-26, 1928-36), 1,045 second-feet.

Extremes.- Maximum discharge during year, 4,030 second-feet May 10 (gage height, 4.82 feet); minimum, 265 second-feet Oct. 13 (gage height, 0.95 foot); minimum daily discharge, 301 second-feet Aug. 19.

1915-36: Maximum discharge, 5,410 second-feet Apr. 10, 1929 (gage height, 5.70 feet); minimum, 123 second-feet July 29, 30, 1934 (gage height, 0.34 foot); minimum daily discharge, 210 second-feet July 30, 1934.

Remarks.- Records good except those for period of ice effect, Dec. 21 to Jan. 2, Jan. 14 to Mar. 21, which are poor. Flow is regulated by 15 reservoirs and 3 power plants above station.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 18 to Sept. 30)

0.8	225	1.6	541	2.5	1,150	3.7	2,380
1.0	279	1.8	656	2.8	1,430	4.0	2,770
1.2	350	2.0	783	3.1	1,720	4.5	3,540
1.4	438	2.2	919	3.4	2,040	5.0	4,360

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	830	1,540	638	1,320	1,080	1,260	1,250	2,190	997	770	394	857
2	1,090	1,500	779	1,200	740	680	1,180	2,480	1,390	1,040	390	772
3	1,150	969	830	919	1,040	660	1,030	2,200	1,050	809	534	722
4	800	982	925	1,300	1,100	980	996	2,300	693	535	460	762
5	846	885	945	714	710	880	927	2,700	839	420	411	634
6	724	906	1,250	730	660	700	1,120	3,240	851	587	415	645
7	654	1,300	947	878	1,140	660	1,140	3,530	739	710	450	613
8	770	1,560	742	1,200	1,260	630	1,140	3,610	767	587	411	564
9	769	1,470	843	1,260	1,060	790	1,170	3,540	843	626	368	615
10	944	1,070	1,140	1,210	730	930	1,260	3,550	796	692	395	600
11	1,210	1,230	1,250	854	710	2,010	1,430	3,330	848	917	438	625
12	1,060	1,440	1,160	730	710	1,610	1,490	3,380	786	678	488	595
13	683	1,340	1,050	875	680	1,510	1,660	3,000	791	635	544	618
14	1,100	1,400	853	830	630	960	2,240	2,470	818	673	492	637
15	1,380	1,380	647	735	580	1,110	2,630	2,450	797	709	464	803
16	880	1,340	955	510	585	780	2,840	2,300	779	681	442	774
17	1,200	884	1,180	540	560	1,410	2,410	1,910	762	866	498	743
18	1,390	789	1,230	710	460	1,020	2,160	1,870	755	660	338	697
19	1,460	1,010	1,210	460	600	730	1,910	2,000	950	554	301	575
20	936	1,300	1,210	310	800	880	1,780	1,950	1,170	546	372	541
21	931	1,290	580	710	840	1,210	1,960	1,790	765	612	791	611
22	927	995	540	1,520	880	806	2,050	1,950	620	662	1,120	569
23	1,380	857	540	880	520	936	1,980	2,000	881	606	887	575
24	1,480	624	500	990	920	1,210	1,470	1,270	1,050	604	830	504
25	1,500	675	650	1,110	1,160	1,620	1,450	973	1,000	637	844	498
26	1,060	810	730	1,310	1,080	1,560	1,890	1,070	981	534	763	509
27	984	1,120	930	710	990	1,540	2,210	1,080	655	571	827	530
28	993	1,310	1,100	1,000	960	1,520	2,150	1,170	588	632	970	586
29	955	1,300	880	1,120	960	1,280	2,210	1,370	575	615	1,130	552
30	986	872	680	1,240	-	1,190	2,210	1,270	691	586	880	595
31	1,220	-	980	920	-	1,280	-	863	-	426	959	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	32,292	1,500	654	1,042	0.868	1.00
November	34,148	1,560	624	1,138	.948	1.06
December	27,894	1,250	500	900	.750	.86
Calendar year 1935	448,589	3,760	500	1,229	1.02	13.91
January	28,795	1,520	310	929	.774	.89
February	24,145	1,260	460	833	.694	.75
March	34,342	2,010	630	1,108	.923	1.06
April	51,343	2,840	927	1,711	1.43	1.60
May	68,806	3,610	363	2,220	1.85	2.13
June	25,427	1,390	575	848	.707	.79
July	20,180	1,040	420	651	.542	.62
August	18,586	1,130	301	600	.500	.58
September	18,921	857	498	631	.526	.59
Water year 1935-36	384,879	3,610	301	1,052	.877	11.93

Wisconsin River at Merrill, Wis.

Location.- Water-stage recorder, lat. 45°10'40", long. 89°40'45", on line between secs. 12 and 13, T. 31 N., R. 6 E., 300 feet below new highway bridge at east end of Merrill and 0.5 mile below mouth of Prairie River.

Drainage area.- 2,780 square miles (revised).

Records available.- November 1902 to September 1936.

Average discharge.- 28 years (1907-11, 1912-36), 2,589 second-feet.

Extremes.- Maximum discharge during year, 13,100 second-feet May 6 (gage height, 9.65 feet); minimum, 502 second-feet July 6 (gage height, 3.47 feet); minimum daily discharge, 528 second-feet July 5.
1902-36: Maximum discharge, 45,000 second-feet July 24, 1912 (gage height, 17.5 feet); minimum, about 90 second-feet Sept. 26, 1908 (gage height, 2.45 feet).

Remarks.- Records excellent except those for periods of ice effect, Dec. 11-14, 21, 24, Dec. 28 to Jan. 4, Jan. 9-11, 15, 16, 20, Jan. 23 to Apr. 5, which were computed on basis of 2 discharge measurements, observer's notes, and weather records and are fair. Flow regulated by 20 reservoirs and 9 power plants above station.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

3.3	400	4.5	1,450	6.5	4,660
3.5	520	4.8	1,810	7.0	5,850
3.7	660	5.2	2,360	8.0	8,400
3.9	820	5.6	2,970	9.0	11,300
4.2	1,120	6.0	3,680	10.0	14,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	3,010	1,890	2,300	1,700	2,200	4,000	7,370	2,090	1,750	1,340	2,160
2	1,580	3,050	1,870	2,400	1,400	2,150	4,200	10,400	2,560	1,560	717	1,960
3	2,080	3,090	1,810	2,300	1,700	1,950	3,800	9,500	2,610	1,520	715	1,410
4	2,040	2,960	1,770	2,300	1,700	1,900	3,300	7,090	2,490	1,140	862	1,760
5	2,110	2,110	1,880	1,860	1,800	2,050	3,300	5,900	2,030	528	834	1,560
6	1,100	1,910	1,890	2,190	1,850	2,200	3,190	11,000	2,160	937	838	1,440
7	1,200	1,900	2,550	1,900	1,750	2,050	3,190	11,900	1,910	1,570	812	1,620
8	1,810	2,200	1,450	1,900	2,200	1,900	3,300	11,600	1,920	1,500	857	1,580
9	1,650	2,290	1,760	2,200	2,100	1,700	3,170	9,800	2,130	1,550	741	1,650
10	1,960	2,410	1,530	2,250	1,800	2,000	3,920	8,400	1,890	1,540	782	1,650
11	1,700	2,310	1,900	2,250	2,000	2,700	4,570	7,020	1,650	1,590	821	1,540
12	1,800	2,070	2,000	1,920	1,600	2,850	7,420	7,540	1,980	1,330	896	1,670
13	2,020	2,060	2,080	1,720	1,700	2,500	9,210	6,450	1,590	1,220	861	1,570
14	2,220	2,170	2,100	2,120	1,750	2,200	11,000	5,300	1,630	1,560	822	1,450
15	2,370	2,160	1,670	2,250	1,800	1,800	10,700	4,520	1,260	1,590	880	1,620
16	2,800	2,090	1,930	2,400	2,200	2,000	11,000	4,130	1,670	1,540	798	1,600
17	2,730	1,820	2,160	2,300	1,800	2,400	10,100	4,390	1,960	1,530	927	1,610
18	2,190	2,010	2,140	1,780	1,850	2,550	8,930	4,040	1,860	1,570	941	1,560
19	2,340	1,780	2,090	1,980	1,800	2,200	6,210	3,760	1,770	1,190	865	1,520
20	2,130	1,740	1,560	2,100	2,000	1,900	5,520	3,180	2,070	1,140	921	1,270
21	2,400	1,840	1,800	1,870	2,300	2,200	4,770	6,960	1,750	1,590	969	1,430
22	1,790	1,940	1,620	1,580	2,250	2,800	4,390	3,010	1,990	1,540	1,050	1,510
23	1,800	1,820	1,800	2,300	1,700	3,900	4,340	2,740	1,980	1,580	2,160	1,510
24	2,300	1,360	1,850	2,250	1,800	6,000	4,390	3,430	1,780	1,550	1,780	1,450
25	2,800	1,540	1,760	1,700	2,100	7,400	3,380	3,150	1,990	1,600	2,820	1,490
26	2,260	1,770	1,780	1,600	2,000	7,200	3,760	2,210	2,080	1,220	3,260	1,510
27	1,650	1,770	1,980	1,800	2,100	6,200	3,580	2,690	1,830	1,080	2,420	1,300
28	1,880	1,820	2,150	1,750	2,100	5,400	4,290	2,810	1,610	1,620	3,210	1,510
29	2,420	2,320	2,150	2,100	1,800	5,400	4,540	2,440	1,360	1,590	2,760	1,470
30	2,000	2,410	2,250	2,150	-	4,600	4,620	2,250	1,760	1,580	2,330	1,480
31	2,450	-	1,880	2,050	-	4,200	-	1,930	-	1,620	2,340	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	63,040	2,800	1,100	2,034	0.732	0.84
November	63,730	3,090	1,360	2,124	.764	.85
December	59,050	2,550	1,450	1,905	.685	.79
Calendar year 1935	1,079,270	15,400	1,100	2,957	1.06	14.43
January	63,570	2,400	1,580	2,051	.738	.85
February	54,650	2,300	1,400	1,884	.678	.73
March	98,500	7,400	1,700	3,177	1.14	1.31
April	162,090	11,000	3,170	5,403	1.94	2.16
May	176,910	11,900	1,930	5,707	2.05	2.36
June	57,380	2,610	1,280	1,913	.688	.77
July	44,425	1,750	528	1,433	.515	.59
August	42,329	3,260	715	1,365	.491	.57
September	46,860	2,160	1,270	1,562	.562	.63
Water year 1935-36	932,534	11,900	528	2,548	.917	12.45

Wisconsin River at Knowlton, Wis.

Location.- Water-stage recorder, lat. 44°42', long. 89°42', in N½ sec. 29, T. 26 N., R. 7 E., 50 feet below combination railroad and highway bridge at Knowlton and 1.5 miles below mouth of Big Eau Pleine River.

Drainage area.- 4,520 square miles (revised).

Records available.- July 1921 to September 1936.

Average discharge.- 15 years, 3,957 second-feet.

Extremes.- Maximum discharge during year, 41,800 second-feet Mar. 24 (gage height, 17.25 feet); minimum, 489 second-feet Aug. 10, 11; minimum daily discharge, 524 second-feet Aug. 10.

1921-36: Maximum discharge, 49,800 second-feet Apr. 10, 1922 (gage height, 19.5 feet); minimum, 317 second-feet Aug. 8, 1932 (gage height, 0.9 foot); minimum daily discharge, 373 second-feet Aug. 13, 1934.

Remarks.- Records good except those for period of ice effect, Dec. 11 to Mar. 23, which were determined on basis of records for stations at Nekoosa and Merrill and are poor. Flow regulated by many storage reservoirs and power plants above station.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,760	5,650	2,470	2,650	3,140	2,180	9,840	7,380	1,960	2,040	1,730	3,120
2	2,220	6,500	2,260	2,180	2,650	2,340	8,840	15,400	3,110	2,250	1,260	2,860
3	2,410	5,000	3,060	2,490	2,730	2,970	7,380	17,200	3,170	2,030	850	2,520
4	2,350	4,530	2,850	2,570	2,810	3,060	6,500	12,500	3,330	1,270	1,060	1,800
5	2,510	4,450	2,390	2,650	2,730	2,650	5,280	9,590	3,310	583	1,030	2,000
6	1,780	3,610	2,180	1,880	2,650	2,810	5,550	9,090	2,960	826	1,040	1,490
7	1,710	3,290	2,530	1,800	2,340	3,310	5,210	29,600	2,250	1,480	951	970
8	2,350	3,260	2,230	2,180	1,880	2,340	4,720	28,200	2,420	1,740	703	3,000
9	2,360	3,180	1,880	2,810	1,960	2,490	5,110	18,500	3,000	1,770	623	2,930
10	2,190	3,480	2,390	2,650	2,030	3,480	6,290	14,000	2,860	1,820	524	2,830
11	2,190	3,320	2,810	2,810	2,340	3,650	8,340	10,400	2,820	1,900	584	2,580
12	2,430	3,210	2,970	2,490	2,810	3,830	12,500	10,400	2,550	1,060	749	2,570
13	2,010	3,140	2,970	2,340	2,490	4,010	17,800	10,100	2,150	755	853	2,430
14	1,810	2,930	2,650	2,650	2,810	4,010	18,900	7,610	1,930	1,650	936	2,280
15	2,980	2,840	2,340	2,180	2,650	3,920	18,900	6,500	636	2,150	989	2,280
16	2,780	3,020	1,660	2,340	2,340	3,140	19,800	5,770	1,690	1,870	777	2,050
17	3,250	2,700	2,340	2,490	2,490	3,480	18,300	5,600	2,300	1,960	641	1,980
18	3,350	2,190	2,180	2,810	2,810	3,310	14,200	5,450	2,190	1,410	1,410	1,910
19	3,430	2,970	2,340	2,340	2,650	3,480	11,100	5,350	2,280	806	1,130	1,840
20	2,560	2,790	2,650	1,730	2,650	3,830	8,840	4,710	2,410	1,130	940	1,450
21	2,690	2,720	2,490	2,810	2,570	4,370	7,850	4,310	1,480	1,580	770	1,370
22	3,470	2,800	2,420	2,490	2,570	6,090	6,930	4,020	1,940	1,690	1,190	1,960
23	2,800	2,450	2,030	2,180	2,730	8,340	6,290	4,510	2,360	1,820	1,040	1,800
24	2,660	1,500	2,970	2,490	2,180	30,100	6,090	5,100	2,550	1,750	1,000	1,750
25	2,760	1,750	2,810	2,490	2,730	36,200	5,700	5,920	2,530	1,820	2,200	1,700
26	2,910	2,120	2,490	2,340	2,650	28,900	4,910	5,300	2,260	1,360	3,130	1,740
27	2,640	2,480	3,310	1,880	2,650	20,700	5,790	4,230	2,150	1,030	3,540	1,120
28	2,390	2,530	2,810	2,810	2,570	16,900	5,320	3,820	1,410	1,570	3,330	1,270
29	2,760	2,240	2,490	2,810	2,570	16,000	5,890	3,610	1,240	1,720	3,910	1,720
30	2,860	2,470	1,580	2,810	-	16,000	6,930	2,930	2,170	1,650	3,550	1,650
31	3,830	-	2,810	2,810	-	12,500	-	1,710	-	2,100	2,830	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	81,200	3,830	1,710	2,619	0.579	0.67
November	95,120	6,500	1,500	3,171	.702	.78
December	77,360	3,310	1,580	2,495	.552	.64
Calendar year 1935	1,666,050	44,300	1,360	4,565	1.01	13.71
January	75,960	2,810	1,730	2,450	.542	.62
February	74,180	3,140	1,880	2,558	.566	.61
March	260,390	36,200	2,180	8,400	1.86	2.14
April	275,100	19,800	4,720	9,170	2.03	2.26
May	278,810	29,600	1,710	8,994	1.99	2.29
June	69,416	3,330	636	2,314	.512	.57
July	48,590	2,250	583	1,567	.347	.40
August	45,210	3,910	524	1,458	.323	.37
September	60,970	3,120	970	2,032	.450	.50
Water year 1935-36	1,442,306	36,200	524	3,941	.872	11.85

Wisconsin River near Nekoosa, Wis.

Location.- Water-stage recorder, lat. 44°18', long. 89°53', in sec. 15, T. 21 N., R. 5 E., 1½ miles below Nekoosa and 4 miles above Tenmile Creek.

Drainage area.- 5,500 square miles.

Records available.- May 1914 to September 1936.

Average discharge.- 22 years, 4,866 second-feet.

Extremes.- Maximum discharge during year, 48,100 second-feet Mar. 26 (gage height, 16.50 feet); minimum, 180 second-feet July 22, 23 (gage height, 1.44 feet); minimum daily discharge, 461 second-feet July 5.
1914-36: Maximum discharge, 68,500 second-feet Mar. 24, 1935 (gage height, 18.9 feet); minimum, 140 second-feet Aug. 14-21, Nov. 6, 1932; minimum daily discharge, 165 second-feet Aug. 12, 1934.

Remarks.- Records excellent except those for period of ice effect, Dec. 20 to Mar. 22, which are fair. Flow is regulated by many storage reservoirs and power plants above station.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 12 to Sept. 30)

1.4	140	3.1	1,710	5.2	5,570	9.0	15,100
1.6	230	3.4	2,140	5.6	6,500	10.0	17,800
1.8	362	3.7	2,580	6.0	7,460	12.0	24,500
2.0	517	4.0	3,080	6.5	8,700	14.0	33,000
2.2	692	4.4	3,850	7.0	9,950	16.0	44,500
2.5	1,000	4.8	4,680	8.0	12,500	18.0	60,300
2.8	1,330						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,840	4,480	1,530	3,100	2,900	1,700	14,700	8,580	3,180	2,650	1,730	2,880
2	2,920	6,980	2,870	3,100	1,900	3,000	11,400	14,400	3,450	2,380	1,430	2,750
3	2,580	7,890	2,570	3,100	2,700	3,500	10,600	19,700	4,120	2,580	810	2,960
4	2,720	5,510	2,980	3,000	3,000	3,300	10,300	17,600	3,440	542	1,280	2,730
5	2,430	5,440	3,040	2,200	3,300	3,300	4,900	13,700	3,560	461	1,310	2,810
6	1,210	4,660	2,760	2,800	3,200	3,150	5,750	12,300	4,250	1,750	1,410	1,700
7	2,400	3,750	2,830	3,000	3,000	3,150	5,890	21,000	2,740	2,280	1,380	1,180
8	2,390	4,000	1,640	3,000	2,950	2,300	5,510	38,200	2,850	2,010	1,260	2,300
9	2,400	4,010	2,630	3,050	2,000	3,500	6,170	29,900	2,850	2,100	940	3,390
10	2,530	2,600	2,990	3,100	2,700	4,000	6,430	18,900	3,840	2,140	960	2,830
11	2,250	4,140	2,850	3,000	2,900	4,200	9,470	14,100	3,860	1,870	1,310	3,260
12	2,710	4,930	2,480	1,670	3,100	4,000	9,680	11,800	3,300	1,090	1,210	3,220
13	1,290	3,700	2,600	3,000	3,300	4,100	17,400	12,400	3,210	1,110	730	2,030
14	2,290	3,710	2,940	2,800	3,100	4,300	19,500	10,500	1,450	1,820	1,180	1,840
15	2,350	3,450	1,930	2,850	3,000	3,300	20,800	8,580	2,490	1,800	1,160	2,000
16	2,750	3,290	2,900	2,900	2,280	3,700	21,100	6,350	2,500	1,890	780	3,020
17	3,290	1,720	2,910	2,900	1,580	4,800	21,700	4,430	2,610	1,840	1,050	2,770
18	3,870	2,470	2,720	3,050	2,900	4,700	19,400	5,880	1,940	2,420	1,110	2,620
19	3,550	3,110	2,930	1,700	3,100	4,900	14,200	6,400	2,020	1,350	1,200	2,440
20	2,550	2,680	2,900	2,100	2,950	5,400	12,500	5,420	2,560	1,280	1,210	1,330
21	2,790	2,860	3,000	3,000	2,800	4,700	9,630	5,020	1,500	1,150	2,060	1,720
22	3,270	2,940	2,200	3,200	2,750	6,000	8,580	4,480	2,340	1,780	1,530	1,740
23	3,530	3,200	2,850	3,150	1,700	13,400	7,830	4,980	3,360	1,720	1,160	2,060
24	3,290	2,030	3,000	3,100	2,600	18,900	7,290	6,180	3,660	1,680	1,830	2,140
25	2,880	2,250	1,670	3,000	3,000	24,800	7,940	6,930	3,740	1,650	2,420	2,010
26	3,020	2,540	3,200	2,000	2,850	45,700	5,490	7,270	3,330	832	2,380	2,100
27	2,060	2,670	3,400	2,800	2,650	37,100	5,740	5,140	3,750	1,360	3,640	1,250
28	2,780	2,870	3,200	3,200	2,800	27,000	6,090	4,640	1,820	1,900	4,280	1,540
29	3,110	2,900	2,200	3,150	2,700	23,500	6,630	3,900	2,980	1,920	3,660	1,780
30	3,160	3,030	3,000	3,050	-	19,900	7,020	4,010	2,770	1,660	3,010	1,910
31	3,420	-	3,000	3,000	-	17,800	-	2,160	-	1,420	2,980	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	84,630	3,870	1,210	2,730	0.496	0.57
November	109,810	7,890	1,720	3,660	.665	.74
December	84,020	3,400	1,530	2,710	.493	.57
Calendar year 1935	2,116,110	62,100	1,180	5,798	1.05	14.31
January	88,070	3,200	1,670	2,841	.517	.60
February	79,910	3,300	1,580	2,756	.501	.54
March	313,100	45,700	1,700	10,100	1.84	2.12
April	319,640	21,700	4,900	10,660	1.94	2.16
May	337,050	38,200	2,160	10,870	1.98	2.28
June	89,470	4,250	1,450	2,982	.542	.60
July	52,435	2,650	461	1,691	.307	.35
August	52,400	4,280	730	1,690	.307	.35
September	68,310	3,390	1,180	2,277	.414	.46
Water year 1935-36	1,678,845	45,700	461	4,587	.834	11.34

Wisconsin River near Wisconsin Dells, Wis.

Location.- Water-stage recorder, lat. 43°36'20", long. 89°45'25", in the extreme western part of sec. 14, T. 13 N., R. 6 E., 0.5 mile below Dell Creek and 3 miles downstream from Wisconsin Dells.

Drainage area.- 7,830 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge during year, 46,300 second-feet Mar. 29 (gage height, 14.75 feet); minimum, 300 second-feet Aug. 14 (gage height, 2.00 feet); minimum daily discharge, 1,060 second-feet Aug. 19.
1934-36: Maximum discharge, 64,600 second-feet Mar. 27, 1935 (gage height, 17.80 feet); minimum, that of Aug. 14, 1936; minimum daily discharge, that of Aug. 19, 1936.

Remarks.- Records good except those for period of ice effect, Dec. 26 to Mar. 22, which were computed on basis of records for station at Muscoda and are fair. Diurnal regulation by Wisconsin Power & Light Co.'s power plant at Wisconsin Dells and by numerous power plants and reservoirs above.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,770	4,730	3,950	4,600	3,950	4,100	25,100	9,500	5,680	3,190	2,000	3,460
2	3,140	4,860	3,950	4,700	3,950	4,500	21,800	9,800	4,840	3,810	1,830	3,510
3	5,020	6,100	3,600	4,500	4,000	3,900	19,000	11,500	5,710	4,180	2,560	3,660
4	4,020	6,720	4,000	4,300	3,500	3,850	16,400	15,800	5,530	3,070	2,210	3,590
5	4,770	8,270	3,900	4,100	4,000	5,000	15,200	19,000	5,900	3,520	1,290	3,260
6	3,820	7,650	3,800	4,500	4,200	4,700	13,300	19,000	5,500	2,320	1,880	3,630
7	3,780	6,960	4,100	4,100	3,800	4,600	10,100	15,800	5,860	2,160	1,880	3,290
8	2,950	7,030	4,300	3,700	4,000	5,400	9,800	16,400	5,850	3,010	1,900	2,630
9	4,010	7,120	3,500	4,200	3,800	5,000	9,500	21,100	4,960	2,060	1,880	2,300
10	4,000	6,200	4,500	3,800	3,900	4,800	9,200	28,600	4,400	2,820	2,000	2,910
11	4,010	6,140	4,700	4,100	3,500	5,300	9,800	31,500	5,080	2,880	1,650	4,020
12	4,760	5,830	4,500	4,200	3,700	5,400	10,900	23,400	5,530	3,060	1,410	3,760
13	3,030	5,740	4,100	4,100	3,900	5,700	12,100	17,700	5,340	2,810	1,550	3,750
14	4,140	6,100	4,350	3,600	4,000	6,000	13,600	14,500	4,710	1,860	1,600	3,760
15	3,290	5,870	4,300	3,000	4,100	6,200	18,400	13,900	4,700	1,840	1,570	3,720
16	3,830	5,100	4,000	3,600	4,000	6,300	20,000	12,700	3,410	3,210	1,510	2,460
17	4,410	5,100	3,600	3,700	3,800	6,350	21,100	11,200	4,410	2,500	1,450	3,180
18	4,230	4,840	4,000	3,700	3,600	6,390	21,800	10,400	4,080	2,580	1,790	3,800
19	5,080	3,550	4,100	3,750	3,400	6,800	21,800	8,260	3,910	2,700	1,060	3,740
20	4,400	4,600	3,900	4,200	3,600	7,100	20,400	8,960	3,850	2,980	1,640	3,580
21	4,630	4,800	4,000	3,100	3,700	7,220	16,800	8,480	3,430	2,080	2,220	2,710
22	4,340	4,750	4,000	4,200	3,800	7,920	14,200	7,890	3,940	2,530	1,800	2,250
23	4,060	4,700	3,800	4,500	4,000	8,370	12,700	7,380	2,840	2,180	2,760	2,240
24	4,710	4,600	3,400	4,200	4,300	13,400	11,200	7,210	3,540	2,640	2,330	2,690
25	5,070	4,500	3,500	4,300	3,900	18,100	10,400	7,050	3,970	2,690	1,520	2,810
26	4,380	3,400	4,200	3,900	3,400	24,000	9,800	7,640	4,130	2,040	3,380	2,550
27	4,110	3,750	4,000	4,000	4,100	33,100	10,400	8,250	4,070	2,440	3,530	2,450
28	4,320	4,000	3,000	3,500	4,300	42,400	8,060	8,160	3,600	1,550	3,390	2,950
29	4,230	4,100	4,200	3,800	4,400	45,200	9,500	7,360	3,830	1,840	4,700	2,160
30	4,230	3,800	4,300	4,100	-	38,700	8,340	6,900	2,920	2,750	4,220	2,280
31	5,000	-	4,700	3,900	-	31,500	-	5,960	-	2,570	4,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	129,540	5,080	2,950	4,179	0.534	0.62
November	160,910	8,270	3,400	5,364	.685	.76
December	124,250	4,700	3,000	4,008	.512	.59
Calendar year 1935	2,843,430	63,400	2,850	7,790	.995	13.50
January	123,950	4,700	3,000	3,998	.511	.59
February	112,600	4,400	3,400	3,883	.496	.53
March	377,800	45,200	3,850	12,190	1.56	1.80
April	430,700	25,100	8,060	14,360	1.83	2.04
May	401,320	31,500	5,960	12,950	1.65	1.90
June	135,520	5,900	2,840	4,517	.577	.64
July	81,870	4,180	1,550	2,641	.337	.39
August	68,750	4,700	1,060	2,218	.283	.33
September	93,000	4,020	2,160	3,100	.396	.44
Water year 1935-36	2,240,210	45,200	1,060	6,121	.782	10.63

Wisconsin River at Muscoda, Wis.

Location.- Water-stage recorder, lat. 43°12'0", long. 90°26'25", in sec. 1, T. 8 N., R. 1 W., at highway bridge 0.5 mile above Eagle Mill Creek and 1 mile north of Muscoda. Zero of gage is 664.3 feet above mean sea level.

Drainage area.- 10,300 square miles.

Records available.- December 1902 to December 1903, December 1913 to September 1936.

Average discharge.- 22 years (1914-36), 8,607 second-feet.

Extremes.- Maximum discharge during year, 48,100 second-feet Mar. 31 (gage height, 8.70 feet); minimum, 2,020 second-feet July 20 (gage height, -0.13 foot); minimum daily discharge, 2,100 second-feet July 20.

1902-3, 1913-36: Maximum discharge observed, 72,100 second-feet Apr. 16, 1922 (gage height, 10.60 feet); minimum daily discharge (estimated), 2,000 second-feet Feb. 11, 1918.

Maximum stage known, 11.1 feet during August 1868 (gage datum unknown).

Remarks.- Records good except those for periods of ice effect, Dec. 10-13, Dec. 16 to Mar. 19, which were computed on basis of 3 discharge measurements, weather records, and observer's notes and are fair. Flow regulated by many storage reservoirs and power plants upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,810	5,470	6,650	5,400	3,800	5,200	43,000	9,930	7,820	4,440	2,500	4,380
2	5,880	5,120	5,060	4,800	4,000	5,400	37,600	11,700	7,470	4,370	2,420	4,490
3	4,460	7,160	5,320	5,200	4,100	6,000	32,800	10,100	6,450	4,040	2,670	4,670
4	5,490	7,690	5,630	5,600	4,200	6,200	27,900	12,800	5,700	4,060	2,520	4,150
5	4,930	8,230	5,340	6,000	4,000	8,000	24,600	12,800	6,900	3,740	2,540	3,960
6	5,320	9,320	5,540	5,200	3,900	7,200	20,400	16,800	6,440	3,400	2,580	4,510
7	6,370	9,540	5,740	5,900	3,900	6,400	17,300	19,800	7,580	4,040	2,500	4,400
8	5,790	9,580	5,870	5,000	3,500	7,000	15,000	19,800	7,670	4,400	2,420	4,480
9	4,240	9,680	6,110	5,200	3,500	8,000	12,600	18,700	6,700	3,840	2,440	4,540
10	3,960	9,390	6,000	4,500	4,300	9,200	12,300	17,000	6,590	3,240	2,480	4,230
11	4,090	7,950	5,800	3,900	4,100	12,000	12,300	19,800	5,330	3,030	2,650	3,770
12	4,350	9,050	5,600	4,700	4,100	15,000	11,000	23,400	4,920	2,870	2,540	3,820
13	4,920	9,190	5,400	4,000	4,600	14,000	10,600	28,600	5,820	2,700	2,500	3,990
14	5,240	6,600	4,900	4,200	4,400	12,600	12,900	29,300	5,870	2,850	2,480	4,350
15	4,890	7,760	4,650	4,400	3,900	12,000	15,200	22,200	7,190	3,020	2,590	4,500
16	5,360	9,080	4,650	4,200	4,400	11,400	15,200	17,000	5,100	3,110	2,500	4,960
17	5,010	6,880	4,300	3,600	5,400	11,000	18,500	15,700	5,310	2,620	2,560	5,860
18	4,020	7,040	5,000	3,700	4,900	10,600	21,000	14,500	5,130	2,700	2,730	4,150
19	4,990	7,210	4,600	4,000	4,500	11,000	22,800	12,000	4,620	2,550	2,870	4,090
20	5,890	5,570	3,200	5,400	4,100	11,100	24,000	11,300	4,380	2,100	2,770	4,470
21	5,150	5,640	4,600	4,400	3,600	10,400	24,000	10,700	4,290	2,550	2,690	4,390
22	6,370	5,330	4,800	5,100	3,800	9,600	23,400	10,300	4,220	2,320	2,820	4,440
23	5,350	6,010	4,900	5,400	4,000	8,720	19,800	10,200	4,380	2,600	2,720	4,340
24	5,880	5,960	4,400	4,400	4,600	10,800	16,800	9,820	4,590	2,680	2,740	3,790
25	4,810	4,910	4,400	4,600	4,800	14,700	14,600	8,480	4,240	2,500	2,740	3,520
26	5,920	4,380	4,200	4,100	6,300	17,600	12,000	7,490	4,240	2,380	2,780	3,510
27	6,630	5,810	4,800	3,900	6,200	22,200	13,200	8,940	3,970	2,800	2,820	3,540
28	5,260	7,620	5,000	5,000	5,000	23,400	11,800	8,930	3,960	2,940	3,780	3,490
29	5,260	6,000	5,200	3,800	4,600	28,600	11,200	9,380	4,740	2,870	4,640	3,640
30	5,670	7,550	5,600	4,400	-	39,400	10,500	9,090	4,750	2,720	4,370	3,540
31	5,650	-	6,000	4,200	-	47,000	-	8,980	-	2,580	4,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	160,960	6,630	3,490	5,192	0.504	0.58
November	216,720	9,680	4,380	7,224	.701	.78
December	159,260	6,650	3,200	5,137	.499	.58
Calendar year 1935	3,554,120	61,000	3,200	9,737	.945	12.84
January	144,200	6,000	3,600	4,652	.452	.52
February	126,500	6,300	3,500	4,362	.423	.46
March	421,720	47,000	5,200	13,600	1.32	1.52
April	564,300	43,000	10,500	18,810	1.83	2.04
May	445,540	29,300	7,490	14,370	1.40	1.61
June	166,370	7,820	3,960	5,546	.538	.60
July	96,060	4,440	2,100	3,099	.301	.35
August	87,920	4,640	2,420	2,836	.275	.32
September	125,970	5,860	3,490	4,199	.408	.46
Water year 1935-36	2,715,520	47,000	2,100	7,419	.720	9.82

Tomahawk River at Tomahawk, Wis.

Location.- Lat. 45°29', long. 89°45', in sec. 28, T. 35 N., R. 8 E., at Jersey power plant of Wisconsin Public Service Corp., 1 mile north of Tomahawk.

Drainage area.- 547 square miles.

Records available.- January 1930 to September 1936.

Extremes.- Maximum daily discharge during year, 1,170 second-feet July 11; minimum, 176 second-feet Aug. 24.
1930-36: Maximum daily discharge, 2,230 second-feet July 6, 1935; no flow several times in 1931, 1934.

Remarks.- Records good. Records of discharge, computed from power-plant records, furnished by Wisconsin Public Service Corporation. Flow completely regulated by four reservoirs operated by the Wisconsin Valley Improvement Co. in the interest of power development. Part of table of monthly discharge corrected for storage in all four reservoirs upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	637	472	436	740	704	642	299	852	438	568	621	179
2	790	342	422	740	696	642	324	1,070	438	611	543	213
3	804	274	433	740	693	644	332	1,040	406	579	543	767
4	691	254	436	740	693	650	332	949	391	245	543	813
5	586	289	544	740	680	716	332	714	493	239	532	632
6	633	261	756	740	674	718	332	708	662	450	396	563
7	756	261	510	740	695	702	335	855	477	581	346	521
8	756	282	297	740	683	696	355	955	624	636	351	491
9	756	267	455	740	704	696	355	997	624	755	299	473
10	756	267	434	740	683	686	412	1,080	671	970	300	767
11	726	281	479	740	683	719	436	1,000	748	1,170	315	747
12	756	289	450	740	674	711	436	1,070	804	1,120	322	625
13	848	261	450	740	683	697	448	1,080	804	976	341	601
14	756	267	450	740	689	694	448	1,030	804	712	309	604
15	719	267	578	740	683	689	484	1,090	765	662	278	530
16	638	267	724	740	683	675	470	1,010	856	684	278	412
17	453	273	532	740	683	675	425	1,060	962	826	278	412
18	373	289	390	729	683	671	416	1,040	959	768	268	412
19	371	289	390	718	683	652	436	780	944	685	274	412
20	368	360	390	725	683	645	452	610	785	698	260	447
21	428	431	390	729	683	645	455	588	632	698	311	594
22	396	431	555	729	680	643	398	512	878	709	269	623
23	451	425	740	713	674	489	419	472	905	821	204	703
24	462	429	740	707	674	501	432	523	935	885	176	735
25	373	445	740	707	674	447	437	469	901	871	325	733
26	373	454	740	705	674	467	437	563	873	875	178	756
27	532	438	740	691	663	465	437	710	827	879	178	756
28	755	449	740	683	657	447	437	710	831	891	197	824
29	640	442	740	694	651	452	437	627	943	882	201	843
30	543	436	740	702	-	419	512	540	911	821	186	865
31	576	-	740	704	-	337	-	467	-	848	179	-

Month	Observed				Gain or loss in storage (millions of cubic-feet)	Adjusted for storage		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October	18,692	848	368	603	+88	636	1.16	1.34
November	10,192	472	254	340	+689	706	1.11	1.24
December	17,161	756	297	554	-503	366	.669	.77
Calendar year 1935	249,567	2,230	152	684	-293	675	1.23	16.75
January	22,516	740	683	726	-1,161	293	.536	.62
February	19,752	704	651	681	-1,049	262	.479	.52
March	18,932	719	337	611	+316	729	1.33	1.53
April	12,260	512	299	409	+3,095	1,603	2.93	3.27
May	25,171	1,090	467	812	+894	1,146	2.10	2.42
June	22,291	962	391	745	-637	497	.909	1.01
July	23,115	1,170	239	746	-1,200	298	.545	.63
August	9,801	821	176	316	+610	544	.995	1.15
September	18,053	865	179	602	-370	459	.839	.94
Water year 1935-36	217,956	1,170	176	595	+772	619	1.13	15.44

Rib River at Rib Falls, Wis.

Location.- Chain gage, lat. 44°58'25", long. 89°54'15", in NW¼ 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 1936.

Average discharge.- 11 years, 300 second-feet.

Extremes.- Maximum discharge observed during year, 15,200 second-feet May 6 (gage height, 10.75 feet); minimum, 8 second-feet Feb. 11, 12 (during period of ice-effect).
1925-36: Maximum discharge observed, that of May 6, 1936; minimum discharge (estimated), 3 second-feet Jan. 23, 1930.

Remarks.- Records fair. Discharge for period of ice effect, Nov. 20 to Mar. 23, computed on basis of two discharge measurements, weather records, and observer's notes. Gage read once daily.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Mar. 24 to Sept. 30

1.8	9	3.2	476	6.0	2,660
2.0	27	3.5	626	7.0	4,310
2.2	63	3.9	830	8.0	6,500
2.4	117	4.3	1,060	9.0	9,070
2.6	190	4.8	1,410	10.0	12,300
2.9	327	5.3	1,830		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	574	76	31	34	22	1,120	2,950	57	19	12	30
2	25	427	71	31	31	25	884	1,740	220	19	14	27
3	31	298	54	31	22	27	727	1,120	178	19	12	23
4	31	258	60	34	20	24	601	778	127	19	12	23
5	34	220	25	31	16	27	601	601	86	19	13	23
6	28	192	32	31	11	32	342	11,000	80	17	13	20
7	31	157	60	34	10	43	401	6,260	97	15	13	25
8	28	164	91	34	10	45	293	1,830	102	15	16	63
9	31	150	141	31	10	43	476	1,060	80	14	15	42
10	31	150	88	34	9	40	998	778	66	15	13	46
11	31	150	60	37	8	56	2,160	601	48	15	13	73
12	34	113	56	40	8	63	3,940	476	44	17	13	88
13	40	101	51	45	9	78	3,420	401	40	15	16	63
14	67	101	51	34	9	181	2,800	293	38	14	15	46
15	76	81	51	38	13	220	2,950	229	40	17	15	42
16	71	63	49	43	13	202	2,660	186	38	15	20	46
17	81	71	49	45	15	195	1,570	170	38	15	23	39
18	157	71	47	43	13	220	1,060	220	38	15	27	30
19	137	86	45	42	14	239	830	170	32	15	27	30
20	96	83	34	45	14	258	727	141	28	14	20	30
21	81	94	32	49	18	523	676	127	28	14	27	25
22	76	83	42	46	19	2,000	501	108	24	15	36	25
23	81	88	40	42	13	4,620	401	127	22	15	36	25
24	81	65	51	44	11	6,500	376	203	24	14	30	23
25	71	60	47	45	10	3,590	426	134	24	14	30	30
26	67	60	46	38	11	2,660	451	102	22	12	33	23
27	58	69	45	40	19	1,930	401	80	22	12	36	23
28	54	78	42	40	22	1,740	352	70	22	14	68	25
29	51	74	35	31	20	2,400	451	61	22	12	94	23
30	54	74	34	24	-	1,930	426	52	22	14	59	23
31	339	-	30	30	-	1,340	-	48	-	12	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,101	339	25	67.8	0.219	0.25
November	4,255	574	60	142	.460	.51
December	1,635	141	25	52.7	.171	.20
Calendar year 1935	121,422	9,680	22	333	1.08	14.60
January	1,163	49	24	37.5	.121	.14
February	432	34	8	14.9	.048	.05
March	31,271	6,500	22	1,009	3.27	3.77
April	33,031	3,940	293	1,101	3.56	3.97
May	32,116	11,000	48	1,036	3.35	3.86
June	1,709	220	22	57.0	.184	.21
July	471	19	12	15.2	.049	.06
August	810	94	12	26.1	.084	.10
September	1,054	88	20	35.1	.114	.13
Water year 1935-36	110,048	11,000	8	301	.974	13.25

Yellow River at Sprague, Wis.

Location.- Chain gage, lat. 44°8', long. 90°6', in NW¼ sec. 11, T. 19 N., R. 3 E., 1 mile southeast of Sprague and 10 miles above Necedah Dam.

Drainage area.- 420 square miles (revised).

Records available.- September 1926 to September 1936.

Average discharge.- 10 years, 222 second-feet.

Extremes.- Maximum discharge during year, 5,160 second-feet Mar. 25 (gage height, 13.0 feet, from graph based on gage reading) from rating curve extended above 2,500 second-feet; minimum discharge observed, 7.4 second-feet Aug. 20.
1926-36: Maximum gage height, 14.0 feet Sept. 17, 1928 (discharge not determined); previously published maximum discharge probably much too low; minimum discharge, 5.4 second-feet Sept. 9, 1933.

Remarks.- Records fair except those for period of ice effect, Nov. 23 to Mar. 21, which were computed on basis of one discharge measurement, weather records, and observer's notes and are poor. Gage read twice daily. Discharge for Mar. 24, 25, 27 determined from graph based on observer's gage readings and floodmarks. All previous discharge data above 1,540 second-feet were probably given considerably too low.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	118	140	42	28	24	1,220	212	98	31	10	48
2	108	740	118	45	28	26	984	322	118	30	10	39
3	98	1,080	103	45	29	25	740	984	140	28	10	38
4	94	1,160	94	45	32	23	579	1,220	140	27	9.0	26
5	85	860	94	42	31	22	477	1,110	124	26	9.0	23
6	81	579	98	42	29	26	386	764	103	25	9.0	20
7	77	458	98	45	27	29	353	558	98	22	8.8	20
8	73	386	103	42	27	27	337	959	89	21	8.6	19
9	70	307	94	42	29	26	337	1,340	89	20	8.1	23
10	66	322	89	45	26	26	353	1,300	81	19	8.6	28
11	70	292	85	39	24	29	497	909	73	18	8.6	24
12	70	278	81	42	26	39	669	558	70	17	8.1	21
13	66	264	81	42	24	62	934	403	66	16	8.1	20
14	66	224	81	39	25	73	1,130	322	62	15	8.6	20
15	66	200	73	42	24	134	1,160	278	59	15	8.6	24
16	62	176	70	38	24	188	1,060	237	56	13	8.1	25
17	66	164	66	35	26	250	959	212	56	21	8.1	25
18	66	152	66	35	25	292	934	212	59	14	8.1	26
19	70	140	62	37	26	278	788	188	52	13	8.1	42
20	70	129	59	36	24	403	601	146	52	12	7.4	32
21	73	140	62	37	26	477	458	134	52	12	12	31
22	77	118	59	37	25	764	369	140	45	12	11	24
23	77	118	56	36	26	1,060	322	140	45	16	10	21
24	77	113	56	35	26	2,580	278	164	42	15	9.5	19
25	73	103	56	36	24	4,800	292	212	45	12	11	16
26	70	108	48	34	24	4,620	264	278	39	12	10	19
27	70	108	52	35	29	3,060	264	224	38	11	11	22
28	70	124	48	34	27	2,420	264	176	36	12	16	18
29	70	129	48	32	24	1,720	237	134	34	12	18	15
30	66	134	45	31	-	1,380	212	113	32	11	21	20
31	70	-	45	31	-	1,300	-	103	-	11	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,335	118	62	75.3	0.179	0.21
November	9,224	1,160	103	307	.731	.82
December	2,330	140	45	75.2	.179	.21
Calendar year 1935	116,047	2,300	45	318	.757	10.29
January	1,198	45	31	38.6	.092	.11
February	765	32	24	26.4	.063	.07
March	26,183	4,800	22	845	2.01	2.32
April	17,458	1,220	212	582	1.39	1.55
May	14,052	1,340	103	453	1.08	1.24
June	2,093	140	32	69.8	.166	.19
July	541	31	11	17.5	.042	.05
August	364.4	62	7.4	11.8	.028	.03
September	748	48	15	24.9	.059	.07
Water year 1935-36	77,291.4	4,800	7.4	211	.502	6.87

61009 O—38——11

Devils Lake near Baraboo, Wis.

Location.- Staff gage, lat. 43°25'20", long. 89°43'30", in S½ sec. 13, T. 11 N., R. 6 E., in Devils Lake State Park. Elevation of zero of gage, 955.00 feet above mean sea level.

Drainage area.- 5.64 square miles. Lake surface area, 361 acres.

Records available.- June 1922 to August 1930, June to August 1932, June 1934 to September 1936 (fragmentary).

Extremes.- Maximum stage observed during year, 4.65 feet June 17; minimum observed, 2.87 feet Sept. 29, 30.
1922-36: Maximum stage observed, 10.6 feet June 1, 1927; minimum observed, 2.4 feet July 10, 16, 1934.

Remarks.- Records June 1922 to June 1936 furnished by College of Engineering, University of Wisconsin. Gage-height record since Aug. 11, 1936, furnished by R. J. Vanderwall, custodian, Devils Lake State Park.

Gage heights, in feet, 1922-30, 1932, 1934-36

1922			1924			1934		
June	13	8.70	July	17	7.26	June	14	2.65
	14	8.70		18	7.12		24	2.65
	15	8.70		19	7.09	July	10	2.4
	16	8.65		20	7.06		16	2.4
	17	8.62		22	7.16			
	19	8.55	Aug.	8	10.0	1935		
	20	8.52		23	8.9	June	22	7.34
	21	8.50		29	8.7	July	5	7.3
	22	8.48	Sept.	13	8.5		6	7.4
	23	8.43		16	8.4		8	7.3
	24	8.40						
	25	8.35	1925			1936		
	26	8.35	June	16	5.96	June	17	4.65
	27	8.27		17	6.08		23	4.50
	28	8.25		18	6.06		24	3.80
	29	8.21		19	6.15	Aug.	11	3.34
	30	8.20		20	6.11		12	3.34
July	2	8.15		21	6.10		13	3.34
	3	8.12		24	6.10		14	3.29
	5	8.00	July	17	5.83		15	3.29
	6	8.00					16	3.28
	7	8.12	1926				17	3.23
	10	8.12	May	10	6.65		18	3.23
	13	8.16	June	15	6.70		19	3.23
	17	8.20		18	6.63		20	3.08
Sept.	14	6.45		20	6.57		21	3.18
				21	6.58		22	3.18
1923				23	6.50		23	3.17
June	9	6.90		25	6.45		24	3.17
	10	6.88	July	13	6.02		25	3.17
	11	6.88					26	3.22
	13	6.83	1927				27	3.22
	18	6.69	May	16	9.15		28	3.27
	22	6.60	June	1	10.6		29	3.27
	23	6.56		10	10.3		30	3.26
	25	6.50		11	10.15		31	3.21
	26	6.45		13	10.08	Sept.	1	3.21
	28	6.52		14	10.04		2	3.16
July	3	6.45		19	9.90		3	3.16
	11	6.30		28	9.75		4	3.11
	16	6.10	July	1	9.69		5	3.11
Aug.	10	5.95	Oct.	21	7.7		6	3.05
	20	5.56					7	3.05
	21	5.56	1928				8	3.05
	22	5.55	June	11	8.45		9	3.05
	24	5.55		12	8.45		10	3.05
	25	5.54		15	8.40		11	3.05
	26	5.54					12	3.05
	29	5.53	1929				13	3.04
	30	5.52	June	18	8.88		14	3.04
	31	5.52		22	8.80		15	3.09
Sept.	1	5.51		29	e.75		16	3.14
	2	5.49	July	2	8.68		17	3.14
	14	5.85					18	3.14
			1930				19	3.09
1924			June	19	6.95		20	3.08
June	16	7.40	July	15	6.45		21	3.03
	17	7.44		17	6.45		22	3.03
	18	7.48		21	6.25		23	2.98
	20	7.50	Aug.	27	5.46		24	2.98
July	1	7.49					25	2.98
	2	7.48	June	20	3.21		26	2.93
	3	7.48		28	3.18		27	2.92
	14	7.40	Aug.	25	3.81		28	2.90
	15	7.35					29	2.87
	16	7.35					30	2.87

Kickapoo River at Steuben, Wis.

Location.- Chain gage, lat. 43°11'0", long. 90°51'35", in SW¼ sec. 9, T. 8 N., R. 4 W., at highway bridge in Steuben, 1½ miles above Duffy Creek and 15 miles above mouth. Zero of gage is 659.1 feet above mean sea level.

Drainage area.- 699 square miles.

Records available.- May 1933 to September 1936.

Extremes.- Maximum discharge observed during year, 3,440 second-feet Mar. 12 (gage height, 9.98 feet); minimum, 161 second-feet Aug. 9 (gage height, 0.76 foot).
1933-36: Maximum discharge, 8,600 second-feet Aug. 8, 1935 (gage height, 12.30 feet); minimum, that of Aug. 9, 1936.

Remarks.- Records fair except those for period of ice effect, Nov. 22-24, Nov. 28 to Mar. 11, which were computed on basis of three discharge measurements, weather records, and observer's notes and are poor. Gage read twice daily. Slight diurnal regulation caused by operation of power plant at Gays Mills, 15 miles upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 21, Nov. 25-27)

1.0	167	2.4	283	4.5	705	8.0	1,760
1.3	178	2.7	326	5.0	832	9.0	2,290
1.5	189	3.0	375	5.5	971	10.0	3,440
1.7	204	3.3	433	6.0	1,100	11.0	5,310
1.9	223	3.6	497	6.5	1,230	12.0	7,830
2.1	244	4.0	587	7.0	1,400		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	297	413	283	270	204	375	413	657	244	204	174	204
2	297	454	270	283	204	375	497	610	283	204	174	189
3	297	433	270	297	204	357	475	541	297	223	174	189
4	297	433	270	297	196	433	475	475	270	196	178	189
5	297	433	283	297	196	519	454	375	244	196	178	189
6	297	413	297	297	196	519	433	357	244	196	178	189
7	297	375	297	297	196	475	433	433	257	196	178	196
8	297	357	297	297	196	433	413	413	257	189	178	204
9	297	357	297	297	196	541	433	341	285	189	167	223
10	311	357	283	297	196	859	454	357	270	183	170	204
11	297	341	270	311	189	2,110	475	375	257	183	178	204
12	311	357	297	311	189	3,290	497	375	244	183	174	233
13	297	341	311	311	189	3,150	475	357	233	189	174	233
14	311	326	311	311	189	2,640	413	341	223	183	178	223
15	394	326	297	311	189	2,000	394	311	223	183	174	223
16	394	326	283	311	189	1,470	375	297	223	178	189	413
17	357	326	283	283	189	1,290	357	297	223	178	178	519
18	375	326	283	270	189	1,400	341	283	233	189	178	326
19	375	326	270	257	189	1,500	341	311	270	189	189	244
20	341	341	244	244	189	1,500	326	283	233	183	196	223
21	326	341	244	233	189	1,330	326	341	223	189	189	223
22	326	311	257	233	204	1,400	311	270	213	183	204	223
23	311	297	257	223	213	1,470	311	270	213	196	213	213
24	311	297	257	213	223	1,540	311	326	213	189	196	204
25	311	297	257	213	270	1,640	297	326	213	189	189	204
26	311	326	244	213	297	1,720	311	270	204	189	183	204
27	311	341	244	213	394	1,030	297	270	204	183	189	213
28	311	311	244	204	433	755	297	257	204	183	223	213
29	326	297	244	204	413	564	311	244	204	178	213	213
30	311	283	244	204	-	610	283	244	204	178	244	213
31	357	-	257	204	-	564	-	244	-	183	213	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	9,948	394	297	321	0.459	0.53
November	10,462	454	283	349	.499	.56
December	8,445	311	244	272	.389	.45
Calendar year 1935	176,145	6,710	196	483	.691	9.36
January	8,206	311	204	265	.379	.44
February	6,510	433	189	224	.320	.35
March	37,859	3,290	357	1,221	1.75	2.02
April	11,529	497	283	384	.549	.61
May	10,851	657	244	350	.501	.58
June	7,106	297	204	237	.339	.38
July	5,854	223	178	189	.270	.31
August	5,813	244	167	188	.269	.31
September	6,940	519	189	231	.330	.37
Water year 1935-36	129,523	3,290	167	354	.506	6.91

Turkey River at Elkader, Iowa

Location.- Wire gage, lat. 42°51'15", long. 91°24'15", in sec. 23, T. 93 N., R. 5 W., in tailrace of Interstate Power Co's. hydroelectric plant in Elkader. Zero of gage is 701.61 feet above mean sea level (general adjustment of 1929).

Drainage area.- 892 square miles.

Records available.- July 1933 to September 1936.

Extremes.- Maximum discharge observed during year, 9,000 second-feet Mar. 11, 25 (determined from formula for flow over dam); minimum daily discharge, 40 second-feet Aug. 9, 12.

1933-36: Maximum discharge, 11,800 second-feet July 2, 1933 (gage height, 14.2 feet); minimum daily discharge, 25 second-feet June 14, 29, 30, 1934.

Remarks.- Records fair. Discharge Mar. 10-29 computed from head-gage readings and formula for flow over dam. Discharge Sept. 20-30 estimated on basis of records for station at Garber. Daily discharge record furnished by Interstate Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

7.1	39	8.3	564
7.3	84	8.5	742
7.5	144	8.7	970
7.7	220	8.9	1,220
7.9	313	9.2	1,620
8.1	426	9.5	2,040

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	428	212	116	53	245	760	320	212	106	52	138
2	131	214	176	107	53	249	733	778	264	100	52	238
3	116	282	205	122	53	327	694	1,480	243	100	49	146
4	120	375	164	103	55	499	606	1,110	233	94	50	126
5	110	258	190	116	58	499	564	666	206	112	48	236
6	114	222	203	122	55	400	521	549	222	96	50	415
7	105	201	261	118	47	321	469	514	199	94	51	308
8	110	205	271	122	53	328	445	483	178	99	55	245
9	112	194	250	112	51	489	507	418	384	75	40	168
10	110	188	149	101	49	6,700	572	400	406	82	42	149
11	116	162	142	129	53	8,250	572	358	218	73	45	734
12	120	151	164	120	51	6,210	572	328	198	67	40	929
13	110	155	203	107	53	3,950	563	320	178	73	48	547
14	168	165	214	152	47	2,600	539	294	185	82	66	400
15	118	151	207	124	47	2,800	503	273	163	52	49	301
16	117	151	178	165	55	3,740	456	264	158	63	57	2,110
17	230	146	175	127	47	4,130	400	260	158	71	53	2,010
18	280	131	151	127	47	4,000	388	258	147	65	79	1,050
19	175	166	110	112	53	4,420	383	258	131	52	68	613
20	155	146	71	109	58	4,000	346	255	131	46	62	400
21	125	154	107	112	68	3,250	334	258	122	72	602	320
22	142	90	114	107	55	2,970	316	257	169	60	318	280
23	136	103	122	93	73	4,190	320	262	152	77	384	250
24	125	153	103	110	86	6,150	294	256	160	68	119	230
25	136	144	112	66	194	5,760	324	324	149	62	63	220
26	131	157	110	60	352	2,190	303	333	140	74	68	240
27	116	214	107	64	282	1,580	290	276	131	58	131	250
28	133	323	105	55	256	1,260	301	259	106	62	1,120	230
29	111	177	107	51	241	1,100	285	238	107	59	597	210
30	127	185	103	53	-	954	277	219	88	59	189	210
31	287	-	116	53	-	839	-	232	-	54	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,298	287	105	139	0.156	0.18
November	5,790	428	90	193	.216	.24
December	4,902	271	71	158	.177	.20
Calendar year 1935	178,259	3,650	71	488	.547	7.43
January	3,235	165	51	104	.117	.13
February	2,645	352	47	91.2	.102	.11
March	84,400	8,250	245	2,723	3.05	3.52
April	13,637	760	277	455	.510	.57
May	12,500	1,480	219	403	.452	.52
June	5,538	406	88	185	.207	.23
July	2,307	112	46	74.4	.083	.10
August	4,793	1,120	40	155	.174	.20
September	13,703	2,110	126	457	.512	.57
Water year 1935-36	157,748	8,250	40	431	.483	6.57

Turkey River at Garber, Iowa

Location.- Water-stage recorder, lat. 42°44'25", long. 91°15'45", in sec. 36, T. 92 N., R. 4 W., at 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, November 1932 to September 1936 in reports of U. S. Geological Survey. August 1913 to November 1916, May 1919 to September 1927, April 1929 to September 1930 in report of Iowa State Planning Board.

Extremes.- Maximum discharge during year, 15,000 second-feet Mar. 11 (gage height, 20.66 feet, during period of ice effect); minimum, 60 second-feet Aug. 8 (gage height, 3.39 feet).

1913-16, 1919-27, 1929-30, 1932-36: Maximum discharge observed, about 26,600 second-feet Feb. 23, 1922 (gage height, 28.06 feet); minimum observed, 46 second-feet June 29, 1934.

Remarks.- Records good except those for period of ice effect, Nov. 30 to Mar. 11, which are poor and were computed on basis of two discharge measurements and records for station at Elkader. Slight diurnal fluctuation caused by operation of hydroelectric plant at Elkader. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year, 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

3.4	62	5.0	733	7.0	1,940
3.6	102	5.2	895	8.0	2,780
3.8	151	5.4	1,020	9.0	3,720
4.0	210	5.6	1,120	10.0	4,720
4.2	280	5.8	1,200	11.0	5,810
4.4	368	6.0	1,300	13.0	8,180
4.6	472	6.2	1,410	15.0	10,700
4.8	592	6.6	1,660		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	168	646	335	180	100	430	1,120	456	269	141	94	240
2	168	408	355	195	98	440	1,070	586	301	146	98	280
3	173	555	370	200	98	580	1,020	1,350	297	146	89	262
4	171	799	290	195	98	1,000	965	1,220	273	148	94	220
5	165	542	300	180	100	1,000	930	930	258	135	85	1,280
6	171	423	320	195	105	900	871	711	284	141	87	895
7	162	368	370	200	94	580	823	619	276	135	89	489
8	173	350	420	195	96	580	823	626	262	133	89	378
9	173	336	460	190	94	900	807	561	487	125	92	309
10	179	318	280	180	90	11,500	965	536	1,270	120	83	265
11	182	297	270	200	94	14,300	965	626	368	118	79	824
12	182	288	290	210	94	10,200	992	445	305	116	87	1,200
13	188	280	360	215	94	5,260	965	440	269	135	162	992
14	210	273	355	230	90	3,620	895	398	258	125	217	612
15	201	269	330	235	84	3,920	831	373	243	116	125	943
16	188	265	305	245	90	5,480	782	359	262	114	114	4,220
17	207	258	280	240	86	5,480	704	354	354	107	102	2,510
18	388	258	273	220	86	5,260	612	350	243	116	138	1,380
19	276	269	245	205	92	5,480	592	336	220	114	159	992
20	236	265	160	185	105	5,040	555	322	210	107	118	741
21	217	276	190	190	125	4,420	513	331	201	116	1,380	606
22	213	236	195	190	115	4,120	489	331	201	111	495	501
23	210	204	210	175	115	4,820	484	327	207	118	467	461
24	207	243	190	175	150	7,820	467	318	191	125	309	423
25	210	280	185	180	350	7,940	467	322	173	118	165	393
26	198	293	190	185	610	3,230	467	368	168	111	143	403
27	201	345	185	120	480	2,100	450	345	168	104	258	456
28	201	561	180	115	450	1,660	434	301	154	102	2,280	408
29	204	429	180	115	420	1,470	418	288	157	102	1,140	359
30	191	320	175	116	-	1,320	418	262	157	98	408	359
31	418	-	175	108	-	1,200	-	262	-	96	265	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,431	418	162	207	0.135	0.16
November	10,654	799	204	355	.232	.26
December	8,423	460	160	272	.178	.21
Calendar year 1935	297,517	15,500	160	815	.533	7.24
January	5,761	245	105	186	.122	.14
February	4,703	610	84	162	.106	.11
March	122,050	14,300	430	3,937	2.57	2.96
April	21,894	1,120	418	730	.477	.53
May	15,053	1,350	262	486	.318	.37
June	8,486	1,270	154	283	.185	.21
July	3,749	151	96	121	.079	.09
August	9,511	2,280	79	307	.201	.23
September	23,401	4,220	220	780	.510	.57
Water year 1935-36	240,116	14,300	79	656	.429	5.84

Grant River near Burton, Wis.

Location.- Wire gage, lat. 42°43'20", long. 90°50'50", in NE¼ sec. 21, T. 3 N., R. 4 W., about 1½ miles west of Burton, 7½ miles northwest of Potosi, and 14 miles above mouth. Zero of gage is 638.99 feet above mean sea level (general adjustment of 1912).

Drainage area.- 326 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 2,470 second-feet Mar. 4 (gage height, 8.74 feet), from rating curve extended above 450 second-feet; minimum discharge observed, 30 second-feet Aug. 5, 8, 9 (gage height, 2.56 feet).
1934-36: Maximum discharge observed, 3,300 second-feet Mar. 4, 1935 (gage height, 9.81 feet) from rating curve extended above 450 second-feet; minimum discharge observed, that of Aug. 5, 8, 9, 1936.

Remarks.- Records fair except those for period of ice effect, Jan. 19 to Mar. 3, which were estimated on basis of gage heights, weather records, and records for Coon Creek near Stoddard, Wis., and those above 400 second-feet, which are poor. Gage read once daily, more often during periods of high water. Station operated in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	76	79	59	56	100	80	63	52	37	32	51
2	50	64	52	58	56	120	86	61	92	38	32	50
3	49	157	49	57	56	160	83	61	60	36	31	49
4	49	136	48	57	56	1,970	80	62	48	38	31	48
5	48	76	47	58	55	515	82	61	47	42	30	975
6	48	67	52	57	55	330	79	60	52	39	32	176
7	49	64	78	57	55	160	77	58	54	37	31	84
8	49	63	70	54	55	330	80	57	49	34	30	67
9	54	62	63	55	55	890	79	58	53	34	30	86
10	66	60	62	59	55	975	82	60	52	35	32	73
11	58	59	52	60	55	1,020	77	57	52	34	32	510
12	57	58	54	58	55	245	77	56	48	38	31	134
13	58	58	57	57	55	150	76	54	47	37	49	98
14	57	57	58	70	55	182	73	53	46	35	44	83
15	55	57	59	68	55	160	72	50	43	33	43	1,060
16	55	57	58	66	55	160	65	49	42	33	38	210
17	64	57	68	63	54	170	65	49	121	33	38	116
18	60	57	64	60	54	150	63	49	62	37	48	97
19	57	63	63	58	54	140	62	48	54	35	132	84
20	57	62	62	56	54	110	61	48	48	40	47	76
21	58	62	60	55	54	130	61	45	42	38	690	70
22	57	60	57	55	54	130	61	45	42	37	67	67
23	58	57	54	55	55	120	61	49	41	38	51	64
24	58	55	44	55	68	110	62	51	40	39	48	58
25	57	64	40	55	90	110	65	49	40	38	45	55
26	54	63	47	55	200	102	63	48	39	35	45	67
27	55	99	50	55	200	95	62	45	38	33	76	73
28	54	96	54	55	140	90	61	44	38	33	810	69
29	54	92	57	55	120	89	61	45	38	32	76	67
30	55	85	58	55	-	84	62	44	38	32	58	63
31	90	-	58	56	-	79	-	44	-	31	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,738	90	48	56.1	0.172	0.20
November	2,143	157	55	71.4	.219	.24
December	1,774	79	40	57.2	.175	.20
Calendar year 1935	35,000	1,500	40	95.9	.294	4.00
January	1,793	70	54	57.8	.177	.20
February	2,081	200	54	71.8	.220	.24
March	9,176	1,970	79	296	.908	1.05
April	2,118	86	61	70.6	.217	.24
May	1,623	63	44	52.4	.161	.19
June	1,518	121	38	50.6	.155	.17
July	1,111	42	31	35.8	.110	.13
August	2,831	810	30	91.3	.280	.32
September	4,780	1,060	48	159	.488	.54
Water year 1935-36	32,686	1,970	30	89.3	.274	3.72

Platte River near Rockville, Wis.

Location.- Wire gage, lat. 42°7'0", long. 90°3'20", in NW¼ sec. 17, T. 3 N., R. 2 W., about 2⅔ miles northeast of Rockville, 5 miles northeast of Potosi, and 15 miles above mouth.
Drainage area.- 137 square miles.
Records available.- November 1934 to September 1936.
Extremes.- Maximum discharge observed during year, 1,400 second-feet Mar. 10 (gage height, 7.90 feet) from rating curve extended above 250 second-feet; minimum observed, 20 second-feet Dec. 4 (gage height, 3.00 feet).
1934-36: Maximum discharge observed, 1,700 second-feet Mar. 4, 1935 (gage height, 8.67 feet), from rating curve extended above 250 second-feet; minimum discharge observed, 20 second-feet Dec. 28, 1934, Dec. 4, 1935; minimum gage height observed, 3.00 feet Dec. 4, 1935.
Remarks.- Records fair except those for periods of ice effect, Dec. 22 to Jan. 4, Jan. 6-9, 11-15, Jan. 17 to Mar. 6, which were estimated on the basis of gage heights, weather records, and records for Coon Creek near Stoddard, and those above 350 second-feet, which are poor. Gage read once daily, more often during periods of high water. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Aug. 29 to Sept. 14)

Oct. 1 to Mar. 10				Mar. 11 to Sept. 30			
3.0	20	4.0	169	3.0	9	4.0	144
3.1	28	4.4	249	3.1	17	4.4	229
3.2	39	4.8	337	3.2	26	4.8	324
3.3	52	5.2	435	3.3	37	5.2	430
3.4	66	5.6	550	3.4	49	5.6	550
3.6	97	6.0	670	3.6	76	6.0	670
3.8	132	6.5	845	3.8	107	6.5	845

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	59	43	40	38	57	56	43	33	28	22	30
2	32	37	29	41	38	57	56	47	52	26	21	30
3	32	43	39	40	38	80	53	41	39	26	22	29
4	32	100	20	40	38	300	50	43	34	26	22	27
5	31	44	39	39	38	100	52	42	32	25	22	27
6	31	40	44	40	37	90	49	39	36	25	21	134
7	32	39	51	39	37	123	53	38	35	24	21	41
8	34	38	46	38	37	360	49	38	33	23	21	36
9	35	37	43	37	37	337	50	37	94	22	22	36
10	43	39	36	34	37	880	50	38	43	22	22	24
11	39	37	44	36	37	580	50	39	32	22	22	123
12	37	37	40	37	37	196	48	38	30	22	21	112
13	38	35	36	37	37	111	48	37	29	22	22	47
14	37	35	36	36	37	101	47	36	29	22	25	43
15	35	35	32	35	37	85	45	35	28	22	25	430
16	32	35	35	34	37	86	44	35	28	22	24	164
17	38	34	34	35	37	86	43	35	39	21	22	59
18	39	35	35	36	37	79	42	35	43	28	25	45
19	35	38	32	37	37	80	43	34	32	35	28	43
20	34	37	34	38	37	69	42	35	30	27	30	38
21	37	37	30	38	38	76	39	34	28	23	144	35
22	36	30	30	37	40	76	39	34	29	22	42	33
23	34	34	29	36	47	73	41	35	27	26	73	32
24	34	40	29	36	55	78	41	35	27	25	28	30
25	32	39	28	36	75	70	41	35	27	25	25	28
26	35	38	32	36	90	63	39	33	30	24	24	28
27	35	47	35	36	80	69	41	30	27	22	30	47
28	35	58	36	36	70	57	39	32	27	22	490	36
29	34	46	37	37	60	54	41	30	28	22	52	30
30	34	56	38	37	-	56	38	29	28	22	34	32
31	35	-	39	38	-	54	-	32	-	22	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,078	43	31	34.8	0.254	0.29
November	1,259	100	30	42.0	.307	.34
December	1,111	51	20	35.8	.261	.30
Calendar year 1935	21,497	670	20	58.9	.430	5.81
January	1,152	41	34	37.2	.272	.31
February	1,300	90	37	44.8	.372	.35
March	4,563	880	54	147	1.07	1.23
April	1,369	56	38	45.6	.333	.37
May	1,124	47	29	36.3	.265	.31
June	1,029	94	27	34.3	.250	.28
July	745	35	21	24.0	.175	.20
August	1,432	490	21	46.2	.337	.39
September	1,849	430	24	61.6	.450	.50
Water year 1935-36	18,011	880	20	49.2	.359	4.87

Little Maquoketa River near Durango, Iowa

Location.- Wire gage, lat. 42°33'20", long. 90°44'40", in NE¼ sec. 5, T. 89 N., R. 2 E., about 1½ miles east of Durango, 5 miles northwest of Dubuque, and 8 miles above mouth. Zero of gage is 612.62 feet (revised) above mean sea level (general adjustment of 1912).

Drainage area.- 130 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 534 second-feet Mar. 10 (gage height, 6.11 feet); minimum observed, 5 second-feet July 12, 13 (gage height, 2.76 feet).
1934-36: Maximum discharge observed, 4,900 second-feet (revised) Mar. 4, 1935 (gage height, 13.63 feet); minimum observed, that of July 12, 13, 1936.

Remarks.- Records fair except those for period of ice effect, Dec. 20 to Mar. 2, which are poor and were estimated on the basis of one discharge measurement, gage heights, weather records and records for Yellow River at Ion. Gage read once daily. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 29 to Sept. 30)

2.8	6	3.5	66	4.8	272
2.9	10	3.6	78	5.0	310
3.0	16	3.8	105	5.2	348
3.1	24	4.0	135	5.4	388
3.2	33	4.2	167	5.6	428
3.3	43	4.4	201	5.8	470
3.4	54	4.6	236	6.1	534

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	24	16	16	12	60	46	44	16	10	6	*18
2	14	22	15	15	15	100	58	42	61	8.5	6	17
3	14	20	15	14	13	491	45	39	36	9	6	13
4	14	98	15	13	12	408	37	29	16	8	6	13
5	17	91	15	12	12	218	35	29	16	8	6	13
6	14	26	25	13	11	201	27	25	18	8	5.5	37
7	14	20	35	14	11	201	30	22	18	8	5.5	18
8	13	16	23	14	11	122	35	17	18	7	5.5	15
9	11	15	20	11	11	428	40	17	128	6	5.5	12
10	24	13	17	11	11	534	43	35	34	6	7.5	14
11	20	14	14	11	11	329	47	28	18	5.5	6.5	42
12	14	13	15	14	13	329	41	29	16	5	5.5	56
13	15	14	15	12	13	310	35	22	15	5	5.5	51
14	22	13	16	12	13	291	34	19	15	8.5	7.5	42
15	16	21	16	13	13	254	33	18	14	7	7	46
16	15	18	16	12	12	201	27	18	47	7	6.5	135
17	24	18	16	12	11	135	25	20	33	7	6.5	38
18	20	22	17	13	10	120	27	19	18	7	7.5	34
19	11	17	15	13	10	112	27	16	16	7	9	31
20	10	17	12	12	10	90	25	15	14	7	6	34
21	14	17	10	12	10	120	26	15	10	9	5.5	22
22	18	15	12	12	10	91	24	16	10	7.5	7	17
23	15	15	16	12	10	90	22	16	9.5	7.5	9	15
24	14	15	14	13	11	120	24	16	9.5	7	9.5	15
25	13	15	12	13	12	72	21	16	10	8	11	15
26	13	14	11	14	14	70	20	15	12	8	11	14
27	13	38	11	14	16	64	17	15	10	7	20	28
28	12	33	11	†15	22	64	18	16	10	7	348	20
29	13	19	14	15	50	135	21	13	9	7	38	18
30	14	17	15	14	-	34	29	12	10	6	20	15
31	20	-	16	12	-	43	-	11	-	6	*19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	475	24	10	15.3	0.118	0.14
November	710	98	13	23.7	.182	.20
December	490	35	10	15.8	.122	.14
Calendar year 1935	21,210	1,220	10	58.1	.447	6.07
January	403	16	11	13.0	.100	.12
February	390	50	10	13.4	.103	.11
March	5,907	534	34	191	1.47	1.70
April	939	58	17	31.3	.241	.27
May	664	44	11	21.4	.165	.19
June	667	128	9	22.2	.171	.19
July	224.5	10	5	7.24	.056	.06
August	625	348	5.5	20.2	.155	.18
September	858	135	12	28.6	.220	.25
Water year 1935-36	12,352.5	534	5	33.8	.260	3.55

*Discharge interpolated.
†Result of discharge measurement.

Galena River at Galena, Ill.

Location.- Wire gage, lat. 42°24'50", long. 90°25'40", in NE¼NE¼ sec. 24, T. 28 N., R. 1 W., on Green Street Bridge, in Galena, about 1,500 feet below Hughlett Branch and 4 miles above mouth. Zero of gage is 580.58 feet above mean sea level (general adjustment of 1912).

Drainage area.- 192 square miles.

Records available.- October 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 2,200 second-feet Aug. 28; maximum gage height observed, 16.73 feet Apr. 5 (backwater from Mississippi River); minimum discharge observed, 20 second-feet July 11, 12, 30, Aug. 3, 9; minimum gage height observed, 7.90 feet Aug. 13.

1934-36: Maximum discharge observed, that of Aug. 28, 1936; maximum gage height observed, that of Apr. 5, 1936; minimum discharge observed, that of July 11, 12, 30, Aug. 3, 9, 1936; minimum gage height observed, that of Aug. 13, 1936.

Maximum stage known, 25.0 feet Mar. 26, 1916 (from high-water mark).

Remarks.- Records poor. Discharge for period of ice effect, Dec. 21 to Feb. 26, estimated on basis of weather records, gage heights, and ice notes. Discharge for period of backwater from Mississippi River, Mar. 13 to May 31, computed on basis of one discharge measurement and records for Plum River near Savanna. Gage read once daily, more often during periods of high water. Station operated in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	94	54	45	39	144	67	48	128	28	21	35
2	57	61	35	50	41	128	67	48	144	28	22	35
3	58	67	62	50	43	183	67	47	74	29	20	33
4	61	291	38	50	44	1,030	67	47	40	29	21	33
5	60	88	51	45	45	575	67	46	29	27	22	36
6	58	71	58	46	45	253	67	44	26	28	21	32
7	57	63	88	47	45	175	68	42	29	33	22	42
8	63	61	82	47	45	235	70	39	25	24	21	53
9	70	59	69	45	44	700	89	36	310	24	20	41
10	70	58	59	43	45	940	100	34	68	25	121	38
11	69	58	41	49	46	1,030	120	33	52	20	37	40
12	71	58	64	48	47	392	93	33	40	20	26	100
13	72	53	58	40	48	200	77	32	38	21	23	64
14	88	57	58	44	50	160	*62	31	34	25	29	57
15	72	53	59	43	49	145	60	31	32	22	38	50
16	68	54	56	41	49	130	59	30	38	32	28	350
17	73	59	56	39	48	120	57	30	36	22	26	73
18	75	53	49	37	48	105	56	29	42	24	26	50
19	71	61	40	35	51	99	55	28	41	26	29	45
20	69	67	32	36	50	98	54	27	42	29	33	40
21	68	61	37	38	49	98	53	26	36	24	29	35
22	79	40	35	40	49	98	53	26	30	22	26	36
23	73	35	33	30	50	100	52	25	35	26	54	36
24	68	54	35	30	60	110	52	24	29	26	40	57
25	72	52	40	30	300	105	51	23	30	26	30	45
26	69	51	38	32	430	95	51	23	31	25	30	64
27	73	76	37	33	272	88	50	22	33	23	121	81
28	68	94	35	34	208	82	50	21	31	22	1,560	59
29	71	38	35	34	192	74	49	21	27	21	88	46
30	72	57	35	35	-	68	49	21	30	20	46	42
31	73	-	40	37	-	67	-	21	-	21	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,132	88	57	68.8	0.358	0.41
November	2,044	291	35	68.1	.355	.40
December	1,509	88	32	48.7	.254	.29
Calendar year 1935	38,761	1,300	32	106	.552	7.50
January	1,253	50	30	40.4	.210	.24
February	2,532	430	39	87.3	.455	.49
March	7,827	1,030	67	252	1.31	1.51
April	1,932	120	49	64.4	.335	.37
May	988	48	21	31.9	.166	.19
June	1,580	310	25	52.7	.274	.31
July	772	33	20	24.9	.130	.15
August	2,666	1,560	20	86.0	.448	.52
September	1,748	350	32	58.3	.304	.34
Water year 1935-36	26,983	1,560	20	73.7	.384	5.22

*Result of discharge measurement.

Maquoketa River near Manchester, Iowa

Location.- Water-stage recorder, lat. 42°27'20", long. 91°25'50", in sec. 9, T. 88 N., R. 5 W., 2 miles southeast of Manchester. Zero of gage is 895.06 feet above mean sea level (general adjustment of 1912).

Drainage area.- 306 square miles.

Records available.- April 1933 to September 1936.

Extremes.- Maximum discharge during water year 1934-35, 4,880 second-feet Mar. 5 (gage height, 10.45 feet); minimum, 8.5 second-feet Oct. 10, 12, 15, 16, 18, 31 (gage height, 3.00 feet); minimum daily discharge 13 second-feet Oct. 31.
Maximum discharge during water year 1935-36, 4,280 second-feet Mar. 10 (gage height, 10.5 feet, from flood marks); minimum not determined, probably occurred during winter.
1933-36: Maximum discharge, that of Mar. 5, 1935; minimum daily discharge, 6 second-feet June 8, 29, 1934.

Remarks.- Records good except those estimated, which are poor. Large diurnal fluctuation caused by operation of power plant 2 miles above station. Gage-height record collected in cooperation with Iowa Electric Co.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

4.0	12	5.2	185	7.0	1,280
4.2	19	5.4	253	7.5	1,655
4.4	30	5.7	396	8.0	2,050
4.6	49	6.0	581	9.0	2,910
4.8	81	6.3	785	10.0	3,810
5.0	128	6.6	995	11.0	4,780

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	46	165	*70	*85	147	162	152	70	269	63	62
2	37	33	174	*85	94	213	162	228	473	226	64	60
3	38	57	220	*70	116	434	145	583	332	195	50	63
4	34	130	163	*60	105	1,590	142	1,040	274	171	128	65
5	28	80	*145	*60	78	4,070	175	541	140	137	102	*73
6	35	68	*140	*100	65	1,250	124	314	117	131	57	*81
7	43	68	*155	*105	81	578	125	239	118	134	59	*76
8	34	61	*170	*105	90	474	128	*210	101	109	58	*60
9	32	62	*160	*110	79	295	116	*180	96	105	60	*61
10	30	52	*150	*120	64	324	116	*160	84	103	64	*76
11	28	48	*140	*110	98	479	478	*150	86	90	56	*73
12	29	44	*135	*100	122	412	626	*145	79	81	59	34
13	35	48	*135	*80	107	385	372	*135	73	70	60	53
14	40	63	*135	*75	162	321	215	*130	78	104	62	62
15	30	53	134	*80	576	482	130	*120	67	75	65	57
16	30	44	133	*90	468	785	155	*115	90	66	59	44
17	34	52	130	*85	301	561	131	*110	87	76	59	57
18	27	89	145	*80	274	425	152	*105	197	68	51	66
19	26	74	145	*65	357	461	125	*100	358	66	95	58
20	51	151	136	*55	477	446	121	*95	294	69	219	58
21	46	130	138	*50	422	456	122	*95	201	73	166	46
22	39	204	125	*50	352	483	119	*90	105	146	86	58
23	40	230	136	*45	276	637	123	*85	140	66	141	46
24	40	195	127	*45	385	491	144	*85	100	99	84	42
25	44	144	106	*45	357	381	123	*85	142	79	67	49
26	31	116	*90	*45	352	332	140	*80	257	73	98	50
27	31	130	*80	*50	265	307	194	*80	206	66	100	50
28	38	271	*80	*55	182	277	187	*80	175	82	72	54
29	36	337	*75	*65	-	208	143	*80	729	69	†65	47
30	38	289	*75	*70	-	183	122	*80	504	67	†59	49
31	13	-	*80	*75	-	171	-	*75	-	46	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,076	51	13	34.7	0.113	0.13
November	3,369	337	33	112	.366	.41
December	4,122	220	75	133	.435	.50
Calendar year 1934	20,521	480	6	56.2	.184	2.50
January	2,320	120	45	74.8	.244	.28
February	6,390	576	64	228	.745	.78
March	18,078	4,070	147	583	1.91	2.20
April	5,367	626	116	179	.585	.65
May	5,767	1,040	75	186	.608	.70
June	5,773	729	67	192	.627	.70
July	3,183	269	46	103	.337	.39
August	2,480	219	50	80.0	.261	.30
September	1,730	81	34	57.7	.189	.21
Water year 1934-35	59,655	4,070	13	163	.533	7.25

*Estimated in basis of records for station at Delhi.
†Interpolated.

Maquoketa River near Manchester, Iowa

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	95	85			*90	144	92	62	47	28	93
2	49	66	72			*210	117	125	134	35	26	80
3	53	76	69	*35	*21	*255	111	109	71	42	35	67
4	52	159	62			*480	106	92	50	40	27	59
5	42	74	65			*480	140	89	40	32	28	103
6	53	72	76			*480	105	94	54	36	33	299
7	50	68	83			*490	117	83	56	31	26	323
8	55	57	90	*50	*20	*500	143	79	80	38	30	150
9	40	62	82			*1,060	152	82	67	29	29	105
10	61	67	63			*2,850	160	83	126	30	27	85
11	59	65	66			*960	158	98	212	35	39	123
12	58	64	76			*530	128	92	91	40	30	94
13	47	57	69	*54	*21	*510	111	87	79	33	33	146
14	61	63	*74			*500	112	77	78	37	32	114
15	48	58	*76			*480	113	69	65	44	34	142
16	50	77	*74			*460	95	68	65	24	43	277
17	54	45	*70			*390	92	56	235	28	29	328
18	39	57	*64	*53	*41	*330	87	57	76	36	23	190
19	47	60	26			†276	90	54	51	42	34	143
20	36	72	38			239	106	52	50	41	45	106
21	44	*60	64			*45	224	69	49	49	44	42	107
22	36	*58	50			*50	226	82	52	67	27	35	67
23	36	*54	51	*53		*145	305	78	62	52	42	46	89
24	40	*50	62			*146	522	80	82	37	36	28	87
25	38	*60	35			*94	347	80	64	51	31	30	74
26	39	*70	35			*70	239	67	53	62	36	30	103
27	39	*90	28			*68	*220	88	55	40	24	103	160
28	39	141	24	*34		*69	*190	85	54	50	29	519	92
29	39	105	22			*70	*150	78	56	52	33	286	116
30	40	104	*40			-	*155	79	47	51	26	116	100
31	51	-	*40			-	155	-	46	-	26	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,440	61	36	46.5	0.152	0.18
November	2,206	159	45	73.5	.240	.27
December	1,831	90	22	59.1	.193	.22
Calendar year 1935	56,565	4,070	22	155	.507	6.88
January	1,429	-	-	46.1	.151	.17
February	1,272	146	-	43.9	.143	.15
March	14,303	2,850	90	461	1.51	1.74
April	3,173	160	67	106	.346	.39
May	2,258	125	46	72.8	.238	.27
June	2,255	235	37	75.2	.246	.27
July	1,074	47	24	34.6	.113	.13
August	1,945	519	23	62.7	.205	.24
September	4,042	328	59	135	.441	.49
Water year 1935-36	37,228	2,850	-	102	.333	4.52

*Discharge estimated on basis of records for station at Delhi.
†Result of discharge measurement.

Maquoketa River near Delhi, Iowa

Location.- Water-stage recorder, lat. 42°24'40", long. 91°20'40", in sec. 29, T. 88 N., R. 4 W., in tailrace of Interstate Power Co.'s hydroelectric plant, 1½ miles south of Delhi. Zero of gage is 774.32 feet above mean sea level (general adjustment of 1912).

Drainage area.- 348 square miles.

Records available.- July 1933 to September 1936.

Extremes.- Maximum discharge during year, 2,990 second-feet Mar. 11 (gage height, 86.4 feet); minimum, about 9 second-feet at numerous times when plant was shut down.
1933-36: Maximum discharge, 4,700 second-feet Mar. 5, 1935 (gage height, 88.0 feet); minimum, about 8 second-feet at numerous times during 1933 and 1934 when plant was shut down.

Remarks.- Records fair except those below 20 second-feet, which are poor. Daily discharge record furnished by Interstate Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

80.2	9	82.3	318
80.4	18	82.6	416
80.6	30	82.9	530
80.8	46	83.2	660
81.0	67	83.5	804
81.2	92	84.0	1,080
81.4	121	85.0	1,760
81.6	154	86.0	2,610
81.8	193	87.0	3,600
82.0	237		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	48	58	13	30	13	136	89	65	39	11	133
2	46	58	211	61	47	103	146	144	69	39	11	104
3	49	11	134	61	9	241	146	11	105	39	52	42
4	51	89	43	53	9	295	140	133	71	11	30	78
5	55	154	51	13	25	547	10	72	59	11	11	134
6	51	98	51	53	21	547	140	131	71	47	11	350
7	75	11	119	68	33	547	136	55	11	39	60	197
8	86	158	11	57	9	547	151	96	67	37	11	160
9	86	69	127	55	44	561	125	193	113	11	11	133
10	49	57	79	53	0	1,820	136	71	72	56	28	147
11	53	49	57	57	9	2,840	144	60	216	36	48	211
12	67	85	96	13	25	1,100	18	60	138	11	11	92
13	69	81	66	88	9	600	140	58	129	51	41	54
14	51	60	97	86	29	581	135	124	11	60	45	159
15	47	57	17	61	45	572	134	58	69	16	19	291
16	51	62	93	57	124	557	134	77	91	11	62	475
17	51	11	85	69	9	524	131	24	330	75	25	298
18	51	106	58	63	16	446	148	69	70	11	82	383
19	55	83	58	13	36	188	11	62	63	26	45	201
20	13	53	58	97	47	131	128	64	40	33	19	9
21	88	53	52	92	47	216	134	47	11	39	51	85
22	44	57	11	51	57	45	34	55	71	11	31	137
23	38	60	77	55	13	198	60	30	73	37	11	52
24	68	11	77	51	164	402	57	11	11	11	11	77
25	53	91	11	51	166	443	65	56	71	35	11	80
26	53	89	61	13	105	374	15	64	105	11	11	92
27	13	87	49	51	39	389	71	59	11	55	383	18
28	72	62	63	44	49	252	70	53	21	80	593	147
29	74	169	13	36	116	10	68	96	39	31	593	229
30	45	55	53	62	-	154	134	11	17	11	173	122
31	70	-	59	9	-	201	-	11	-	37	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,725	88	13	55.6	0.160	0.18
November	2,134	169	11	71.1	.204	.23
December	2,095	211	11	67.6	.194	.22
Calendar year 1935	63,680	4,050	11	174	.500	6.81
January	1,606	97	9	51.8	.149	.17
February	1,341	166	9	46.2	.133	.14
March	15,444	2,840	10	498	1.43	1.65
April	3,097	151	10	103	.296	.33
May	2,144	193	11	69.2	.199	.23
June	2,290	330	11	76.3	.219	.24
July	1,017	80	11	32.8	.094	.11
August	2,648	593	11	85.4	.245	.28
September	4,690	475	9	156	.448	.50
Water year 1935-36	40,231	2,840	9	110	.316	4.28

Maquoketa River below North Fork of Maquoketa River, near Maquoketa, Iowa

Location.- Water-stage recorder, lat. 42°5', long. 90°38', in SW¼NE¼ sec. 17, T. 84 N., R. 3 E., at Bridgeport Bridge, 1,200 feet above mouth of Mill Creek and 3 miles northeast of Maquoketa.
Drainage area.- 1,550 square miles.
Records available.- September 1913 to September 1936.
Average discharge.- 23 years, 899 second-feet.
Extremes.- Maximum discharge during year, 10,000 second-feet Mar. 11 (gage height, 14.13 feet); minimum, 87 second-feet Aug. 13 (gage height, 1.08 feet); minimum mean daily discharge, 105 second-feet Feb. 11-20, during period of ice effect.
1913-36: Maximum discharge, 21,800 second-feet Mar. 14, 1929; maximum gage height, 22.0 feet Mar. 27, 1916; minimum discharge, 39 second-feet Sept. 15, 1931 (gage height, 0.81 foot); minimum mean daily discharge, that of Feb. 11-20, 1936.
Remarks.- Records fair except those for period of ice effect, Dec. 19 to Mar. 8, and those for period of missing gage-height record, Mar. 31 to Apr. 3, which are poor and were estimated on basis of records for station on Turkey River at Garber. Diurnal fluctuations at low water due to operation of power plant above station. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 26 to May 9)

Oct. 1 to May 9				May 10 to Sept. 30			
1.6	170	5.0	1,810	1.0	71	2.4	530
1.8	231	6.0	2,370	1.2	113	2.8	701
2.0	301	7.0	2,970	1.4	167	3.4	980
2.3	419	8.0	3,620	1.6	230	4.0	1,280
2.6	550	10.0	5,150	1.8	299	5.0	1,810
3.0	744	12.0	7,170	2.0	372	Note.- Same as previous table above gage height 5.0 feet.	
3.5	1,000	14.0	9,850				
4.0	1,270						

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279	382	360	200	120	580	720	415	372	227	144	679
2	251	305	343	210	115	580	670	501	716	195	144	530
3	265	798	289	220	115	850	630	436	701	220	136	426
4	258	1,760	309	220	115	1,500	555	505	530	214	150	368
5	248	846	398	220	115	6,800	635	427	418	198	133	331
6	251	474	417	220	115	6,100	555	423	410	208	133	328
7	262	415	541	220	110	5,700	532	440	426	208	141	551
8	262	407	548	220	110	5,300	597	436	380	176	136	530
9	283	385	545	220	110	5,150	640	436	357	201	120	473
10	328	438	435	225	110	5,330	621	572	383	179	141	368
11	316	347	352	235	105	8,710	640	551	406	186	133	560
12	309	328	279	250	105	8,060	616	514	380	164	130	2,000
13	301	328	343	240	105	4,570	550	473	391	167	120	1,000
14	312	301	407	235	105	2,200	555	426	441	176	141	814
15	339	331	407	230	105	1,810	564	383	399	158	150	572
16	272	309	394	235	105	1,700	541	399	365	144	138	1,430
17	277	294	382	240	105	1,540	465	426	339	186	150	2,030
18	283	294	316	235	105	1,480	505	430	339	195	136	1,130
19	277	312	300	225	105	1,430	492	391	490	170	152	884
20	279	305	190	230	105	1,270	479	346	414	170	170	791
21	301	335	220	235	110	1,110	505	346	331	173	167	701
22	276	276	225	225	115	1,030	394	346	296	167	204	453
23	262	215	230	215	120	1,060	440	361	285	176	350	453
24	276	196	240	220	150	1,000	432	418	274	167	164	636
25	265	276	210	205	450	1,030	386	372	274	164	179	426
26	262	324	220	175	720	1,080	378	383	299	161	164	485
27	265	504	220	140	640	1,110	386	365	379	152	1,090	746
28	279	505	215	130	600	1,030	419	357	189	152	1,680	418
29	272	347	200	130	590	898	419	361	233	144	2,250	426
30	258	301	205	125	-	846	415	372	214	133	1,180	481
31	318	-	210	125	-	780	-	328	-	155	884	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,686	339	248	280	0.181	0.21
November	12,728	1,760	196	424	.274	.31
December	9,930	548	190	320	.206	.24
Calendar year 1935	290,621	11,400	190	796	.514	6.98
January	6,455	250	125	208	.134	.15
February	5,680	720	105	196	.126	.14
March	81,634	8,710	580	2,633	1.70	1.96
April	15,736	720	378	525	.339	.38
May	12,939	572	328	417	.269	.31
June	11,431	716	189	381	.246	.27
July	5,486	227	133	177	.114	.13
August	11,110	2,250	120	358	.231	.27
September	21,020	2,030	328	701	.452	.50
Water year 1935-36	202,835	8,710	105	554	.357	4.87

Apple River near Hanover, Ill.

Location.- Wire gage, lat. 42°14', long. 90°16', in SW¼ sec. 22, T. 26 N., R. 2 E., about a third of a mile west of State Highway 80 and 1½ miles south of Hanover. Zero of gage is 581.85 feet above mean sea level (general adjustment of 1912).

Drainage area.- 267 square miles.

Records available.- November 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 2,410 second-feet Mar. 4 (gage height, 14.62 feet); minimum discharge observed, 27 second-feet Jan. 10 (gage height, 3.01 feet, during period of ice effect).

1934-36: Maximum discharge observed, 3,370 second-feet Mar. 5, 1935 (gage height, 17.31 feet); minimum observed, 24 second-feet Nov. 17, 1934; minimum gage height observed, 3.01 feet Jan. 10, 1936.

Maximum stage known, 26.4 feet, from floodmarks.

Remarks.- Records poor. Discharge during period of ice effect, Dec. 23 to Feb. 27, estimated on basis of weather records, ice notes, and gage heights. Discharge during period of backwater from Mississippi River, Mar. 27 to May 28, computed on basis of one discharge measurement and records for station on Plum River near Savanna. Gage read twice daily. Diurnal fluctuation during low water due to operation of hydroelectric plant at Hanover. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1935-36, except periods of ice and backwater (gage height, in feet, and discharge, in second-feet)

3.0	29	4.0	73	6.0	344	9.0	939
3.2	33	4.4	109	6.5	433	10.0	1,185
3.4	40	4.8	156	7.0	525	11.0	1,435
3.6	49	5.2	213	7.5	621	13.0	1,935
3.8	60	5.6	276	8.0	721	15.0	2,530

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	54	40	40	50	415	84	80	63	46	34	38
2	57	49	66	70	70	469	85	77	81	44	33	49
3	49	94	63	60	140	742	87	74	104	33	33	31
4	42	433	57	40	95	2,380	85	73	66	32	49	31
5	44	109	66	60	50	1,460	85	73	49	32	54	34
6	34	90	63	70	70	763	85	73	36	49	34	34
7	60	63	40	60	50	563	85	73	46	52	52	156
8	54	66	66	50	95	763	90	65	60	44	34	66
9	46	36	86	50	60	1,660	110	60	77	40	33	52
10	57	63	66	45	90	1,640	170	55	81	34	52	33
11	57	81	63	32	130	1,560	180	55	70	33	52	38
12	34	63	63	45	75	433	150	55	54	32	42	681
13	33	63	60	70	80	228	130	55	34	44	34	126
14	77	63	36	50	57	228	*106	55	38	49	54	94
15	54	63	40	50	95	183	100	52	70	34	38	66
16	57	36	81	50	95	176	98	50	52	49	32	601
17	46	34	60	50	95	143	92	50	46	34	49	150
18	60	81	63	35	100	137	85	50	49	33	54	86
19	34	66	66	40	64	143	80	50	46	32	36	63
20	36	73	34	60	85	143	77	50	33	49	33	60
21	81	63	36	55	95	131	75	45	32	49	46	46
22	60	66	40	50	125	131	75	45	57	52	34	44
23	60	36	70	45	100	143	75	45	54	34	66	46
24	57	34	50	42	200	143	75	45	49	42	73	114
25	44	81	31	40	750	131	75	50	44	34	60	63
26	36	54	55	39	1,100	114	73	50	42	33	54	40
27	34	70	55	45	950	110	74	50	34	49	54	77
28	73	66	33	40	641	105	78	50	32	49	1,180	73
29	66	94	38	65	563	97	90	49	49	34	104	46
30	63	70	66	46	-	91	86	34	52	32	46	54
31	52	-	55	75	-	85	-	32	-	52	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,609	81	33	51.9	0.194	0.22
November	2,314	433	34	77.1	.289	.32
December	1,707	86	31	55.1	.206	.24
Calendar year 1935	54,638	2,140	31	150	.562	7.60
January	1,568	75	32	50.6	.190	.22
February	6,170	1,100	50	213	.798	.86
March	15,510	2,380	85	500	1.87	2.16
April	2,839	180	73	94.6	.354	.40
May	1,720	80	32	55.5	.208	.24
June	1,600	104	32	53.3	.200	.22
July	1,255	52	32	40.5	.152	.18
August	2,589	1,180	32	83.5	.313	.36
September	3,092	681	31	103	.386	.43
Water year 1935-36	41,973	2,380	31	115	.431	5.85

*Result of discharge measurement.

Plum River near Savanna, Ill.

Location.- Wire gage, lat. 42°07'0", long. 90°3'20", in NW¼ sec. 33, T. 25 N., R. 4 E., about 5 miles northeast of Savanna and 15 miles above mouth. Zero of gage is 582.54 feet above mean sea level (general adjustment of 1912).
Drainage area.- 201 square miles.
Records available.- November 1934 to September 1936.
Extremes.- Maximum discharge observed during year, 1,140 second-feet Mar. 4 (gage height, 22.28 feet); minimum discharge observed, 3.5 second-feet Aug. 3, 13, 18, 19.
1934-36: Maximum discharge observed, 1,380 second-feet Mar. 11, 1935; maximum gage height observed, 23.35 feet Feb. 15, 1935 (ice jam); minimum discharge observed, that of Aug. 3, 13, 18, 19, 1936.
Maximum stage known, 29.3 feet, from floodmarks.
Remarks.- Records poor. Discharge for period of ice effect, Dec. 23 to Feb. 26, estimated on basis of weather records, gage heights, and ice notes. Gage read once daily, more often during high stages. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 2, Sept. 8-30)

10.3	3	12.4	55	16.0	320
10.4	4	12.8	72	17.0	443
10.6	7	13.2	92	18.0	557
10.8	10	13.6	115	19.0	687
11.0	13	14.0	142	20.0	820
11.2	17	14.5	179	21.0	960
11.6	28	15.0	221	22.0	1,100
12.0	40	15.5	278		

Discharge, in second-feet, water year October 1955 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	82	32	20	20	309	59	44	15	12	4	6
2	14	36	48	20	21	299	72	46	195	12	4	28
3	14	36	32	20	23	493	72	50	82	11	3.5	37
4	16	778	30	22	23	1,100	63	44	32	9	4	9
5	16	82	30	20	24	1,100	67	48	25	9	4	7
6	16	44	30	20	23	433	67	50	22	9	4	6
7	17	38	31	20	23	299	72	52	22	9	4	221
8	17	36	31	20	23	445	63	37	22	8	4	149
9	20	32	34	19	23	765	82	34	21	7.5	4	28
10	21	32	31	18	22	635	115	32	87	7.5	4	18
11	30	32	34	19	20	687	121	34	31	7	4	20
12	25	32	30	18	21	278	103	34	22	7	4	765
13	24	31	30	18	22	164	92	32	20	7	3.5	63
14	31	30	28	18	22	171	82	34	17	7	4	92
15	34	30	26	18	22	142	82	28	17	6	5	44
16	36	26	26	17	21	142	77	26	15	6	7	239
17	38	26	25	16	20	115	67	26	15	6	4	128
18	40	26	25	16	20	103	63	25	72	5.5	3.5	87
19	40	26	25	16	21	103	63	32	24	7.5	3.5	46
20	38	37	26	15	20	98	59	25	16	8	4	42
21	40	32	21	14	20	98	59	21	16	12	5	38
22	42	28	20	12	20	92	55	21	12	7.5	5	36
23	40	28	20	11	20	98	52	20	13	7	17	32
24	38	24	19	10	25	128	52	21	12	7	40	469
25	37	22	18	11	700	115	50	31	12	7	10	46
26	37	24	18	13	850	92	48	22	12	7	7	37
27	36	30	18	15	765	92	44	20	12	7	21	72
28	38	63	17	16	505	82	52	18	12	5.5	40	82
29	40	38	18	16	421	77	67	16	11	5.5	128	55
30	38	32	19	16	-	67	52	15	11	5	12	52
31	38	-	20	16	-	63	-	16	-	5	7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	926	42	14	29.9	0.149	0.17
November	1,813	778	22	60.4	.300	.33
December	812	48	17	26.2	.130	.15
Calendar year 1935	40,446	1,380	13	111	.552	7.49
January	520	22	10	16.8	.084	.10
February	3,760	850	20	130	.647	.70
March	8,885	1,100	63	287	1.43	1.65
April	2,072	121	44	69.1	.344	.38
May	954	52	15	30.8	.153	.18
June	895	195	11	29.8	.148	.17
July	236.5	12	5	7.63	.038	.04
August	374.5	128	3.5	12.1	.060	.07
September	2,954	765	6	98.5	.490	.55
Water year 1935-36	24,202	1,100	3.5	66.1	.329	4.49

Wapsipinicon River at Independence, Iowa

Location.- Staff gage, lat. 42°28'10", long. 91°53'40", in SW¼SE¼ sec. 34, T. 89 N., R. 9 W., at Interstate Power Co's. hydroelectric plant in Independence.

Drainage area.- 1,060 square miles.

Records available.- July 1933 to September 1936.

Extremes.- Maximum discharge during year, 6,900 second-feet Mar. 12 (gage height, 92.3 feet); minimum, about 9 second-feet at numerous times when power plant was shut down. 1933-36: Maximum discharge, 7,220 second-feet Mar. 5, 6, 1935 (gage height, 92.6 feet); minimum, about 7 second-feet at numerous times during 1933-34.

Remarks.- Records fair except those below 20 second-feet, which are poor. Gage read hourly. Discharge record furnished by Interstate Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

84.3	9	85.6	478	88.0	2,285
84.4	22	85.8	591	88.5	2,755
84.5	40	86.0	713	89.0	3,250
84.6	63	86.3	910	89.5	3,765
84.8	121	86.6	1,120	90.0	4,290
85.0	193	86.9	1,345	91.0	5,390
85.2	278	87.2	1,585	92.0	6,525
85.4	374	87.6	1,925	93.0	7,675

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	88	194	76	62	9	914	396	141	48	21	326
2	49	141	194	76	9	94	753	274	236	48	9	220
3	49	114	208	76	35	165	563	141	114	35	9	206
4	35	288	182	102	35	151	461	498	101	9	9	141
5	35	141	182	9	35	356	570	463	75	9	9	417
6	9	247	168	102	35	368	393	609	141	62	9	810
7	49	154	234	102	35	340	532	777	62	48	9	955
8	49	154	89	102	35	368	422	580	88	9	9	853
9	49	208	275	89	9	673	503	435	510	35	9	688
10	49	62	182	76	49	2,000	577	303	1,790	9	9	379
11	49	127	129	115	35	5,350	606	342	1,020	35	9	381
12	75	101	195	9	35	6,410	517	246	542	9	9	583
13	9	101	199	115	35	3,770	544	233	272	35	9	907
14	62	114	208	76	35	2,840	544	233	167	22	9	1,260
15	62	114	62	76	35	3,410	517	167	154	9	9	1,290
16	62	128	182	102	9	3,610	410	234	128	9	9	1,500
17	62	9	144	89	35	3,600	357	82	141	9	9	2,110
18	62	141	115	129	35	3,520	384	206	128	9	9	2,530
19	75	141	102	9	35	3,540	263	154	75	9	9	2,400
20	9	75	102	115	35	3,780	302	128	128	16	9	1,940
21	154	101	129	76	35	3,830	275	128	9	9	9	1,500
22	62	75	11	76	35	3,640	274	167	128	9	9	1,010
23	62	101	117	76	9	3,560	248	154	101	9	9	775
24	62	9	118	76	75	4,110	233	48	75	9	22	570
25	62	134	11	76	62	4,750	246	154	75	9	9	341
26	88	114	64	9	35	4,700	168	128	68	9	9	476
27	9	221	77	115	49	4,460	207	114	108	22	48	312
28	88	247	104	76	49	3,230	200	134	9	9	89	393
29	62	155	9	62	80	2,390	248	155	75	9	815	393
30	62	208	76	62	-	1,710	193	88	75	9	420	353
31	168	-	76	62	-	1,220	-	35	-	9	366	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,828	168	9	59.0	0.056	0.06
November	4,013	288	9	134	.126	.14
December	4,138	275	9	133	.125	.14
Calendar year 1935	170,060	6,230	8	466	.440	5.97
January	2,411	129	9	77.8	.073	.08
February	1,092	80	9	37.7	.036	.04
March	81,954	6,410	9	2,644	2.49	2.87
April	12,404	914	168	413	.390	.44
May	7,786	777	35	251	.237	.27
June	6,736	1,790	9	225	.212	.24
July	586	62	9	18.9	.018	.02
August	1,997	815	9	64.4	.061	.07
September	26,019	2,530	141	867	.818	.91
Water year 1935-36	150,964	6,410	9	412	.389	5.28

Wapsipinicon River near De Witt, Iowa

Location.- Water-stage recorder, lat. 41°46', long. 90°32', in sec. 31, T. 81 N., R. 4 E., 3 miles south of De Witt and 18 miles above mouth.

Drainage area.- 2,300 square miles.

Records available.- June 1934 to September 1936.

Extremes.- Maximum discharge during year, 6,880 second-feet Mar. 18, maximum gage height, 9.30 feet Mar. 5 (ice jam); minimum discharge, 81 second-feet Aug. 19 (gage height, 1.19 feet).
1934-36: Maximum discharge, 8,070 second-feet Mar. 12, 1935 (gage height, 9.66 feet); minimum, that of Aug. 19, 1936.

Remarks.- Records good except those for period of ice effect, Dec. 18 to Mar. 7, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.1	70	2.7	514	5.2	2,050
1.3	97	3.0	637	5.6	2,370
1.5	134	3.3	775	6.0	2,700
1.7	182	3.6	940	7.0	3,700
1.9	237	4.0	1,180	8.0	5,020
2.1	298	4.4	1,450	9.0	6,690
2.3	364	4.8	1,730	10.0	8,700
2.5	437				

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	279	534	264	172	2,290	5,480	681	356	267	107	209
2	204	276	534	282	162	2,050	4,450	681	3,360	258	104	554
3	196	430	494	295	162	2,130	3,070	825	2,050	240	102	471
4	193	2,130	494	276	157	2,610	2,450	825	970	226	100	400
5	185	1,660	475	255	155	2,880	2,050	800	751	226	102	371
6	182	1,030	554	270	148	3,270	1,810	727	659	220	104	354
7	190	825	637	282	146	3,480	1,620	681	616	209	104	460
8	190	751	751	286	148	3,270	1,520	727	554	204	100	452
9	198	681	727	295	143	3,070	1,520	775	514	193	97	386
10	201	637	681	301	141	3,590	1,520	880	574	182	97	514
11	204	616	491	304	141	4,320	1,450	940	554	177	96	574
12	204	574	452	304	139	4,730	1,380	852	514	177	96	659
13	201	574	467	317	139	5,020	1,380	852	637	170	96	880
14	204	554	498	320	139	5,170	1,340	727	1,060	164	94	825
15	209	510	534	304	136	5,480	1,280	659	1,060	162	92	727
16	209	491	595	295	136	5,810	1,240	616	880	155	92	1,030
17	201	467	616	292	136	6,330	1,180	574	727	148	90	1,340
18	204	460	494	276	139	6,690	1,120	727	659	141	86	1,380
19	204	475	415	261	136	6,150	1,060	616	595	139	85	1,480
20	204	494	282	261	139	5,320	1,000	595	595	134	86	1,590
21	215	483	295	243	139	5,170	940	475	534	132	88	1,730
22	223	433	289	237	139	5,170	880	452	467	130	90	2,010
23	223	404	292	223	139	5,020	825	441	422	128	102	2,210
24	226	396	264	206	193	5,020	775	433	375	124	106	2,210
25	220	396	252	204	554	5,020	751	418	354	118	96	1,850
26	204	415	231	198	1,590	5,020	727	411	324	120	96	1,520
27	204	534	231	187	2,210	5,020	704	407	324	114	114	1,730
28	206	727	237	185	2,290	4,870	704	386	304	114	185	1,660
29	212	637	234	190	2,450	5,020	727	357	295	112	130	1,280
30	215	574	240	185	-	5,320	704	344	282	111	120	1,150
31	226	-	261	172	-	5,480	-	330	-	109	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,358	226	182	205	0.089	0.10
November	18,913	2,130	276	630	.274	.31
December	13,551	751	231	437	.190	.22
Calendar year 1935	456,436	7,860	182	1,251	.544	7.38
January	7,970	320	172	257	.112	.13
February	12,618	2,450	136	435	.189	.20
March	139,790	6,690	2,050	4,509	1.96	2.26
April	45,657	5,480	704	1,522	.662	.74
May	19,214	940	330	620	.270	.31
June	21,396	3,360	282	713	.310	.35
July	5,104	267	109	165	.072	.08
August	3,181	185	85	103	.045	.05
September	32,006	2,210	209	1,067	.464	.52
Water year 1935-36	325,758	6,690	85	890	.387	5.27

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Rock River at Watertown, Wis.

Location.- Water-stage recorder, lat. 43°11'25", long. 88°43'35", in sec. 4, T. 8 N., R. 15 E., in Watertown, on left bank of river, 700 feet below Milwaukee Street highway bridge and 1 1/8 miles below mouth of Silver Creek.

Records available.- June 1931 to September 1936.

Drainage area.- 971 square miles.

Extremes.- Maximum discharge during year, 1,810 second-feet Mar. 22 (gage height, 3.80 feet); minimum daily discharge, 2 second-feet several days in August and September. 1931-36: Maximum discharge, 3,250 second-feet May 20, 1933 (gage height, 3.81 feet, former site and datum); minimum, 1 second-foot several times during 1931, 1932, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 20-22, 26-30, Jan. 19 to Mar. 1, which were computed on basis of records for power plant 2⅛ miles upstream, 1 discharge measurement, observer's notes, and weather records and are poor. A small feed mill a quarter of a mile upstream causes slight intermittent regulation; a power plant 2⅛ miles above causes considerable diurnal regulation.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 24 to Aug. 24)

0.6	0.0	2.0	253
.8	1.2	2.3	377
1.0	6.8	2.6	524
1.2	22	3.0	780
1.4	56	3.4	1,190
1.6	110	3.8	1,510
1.8	177	4.2	2,860

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	33	177	66	55	180	1,400	373	154	33	3	32
2	68	26	152	61	50	226	1,400	381	200	30	3	30
3	41	53	120	50	45	336	1,320	391	215	23	4	20
4	39	110	75	93	45	290	1,320	404	186	8	4	24
5	34	91	109	58	40	334	1,320	393	224	25	4	24
6	19	104	95	54	40	471	1,260	385	193	42	3	2
7	29	161	122	104	40	467	1,260	382	213	30	3	3
8	21	121	104	53	35	471	1,260	386	177	27	3	32
9	16	114	80	105	30	524	1,190	396	173	32	3	27
10	22	125	98	80	25	612	1,190	406	160	32	3	26
11	26	102	83	143	25	1,260	1,130	415	192	32	3	45
12	25	87	134	110	25	1,070	1,020	419	188	6	3	51
13	17	97	102	195	25	865	912	391	166	22	3	66
14	34	117	97	165	20	822	780	432	162	22	3	79
15	32	52	69	230	20	780	708	369	147	22	3	64
16	45	103	116	300	20	822	642	406	141	24	2	172
17	39	83	54	290	20	822	642	327	168	21	2	306
18	44	90	113	140	20	865	612	262	147	23	3	80
19	35	52	60	70	20	960	551	256	177	6	3	154
20	3	119	110	65	15	1,020	552	228	149	23	3	98
21	34	90	100	35	15	1,260	524	263	140	25	5	109
22	23	91	80	80	15	1,630	507	180	120	28	6	89
23	28	97	62	50	15	1,470	490	205	104	24	6	82
24	24	88	46	45	15	1,400	474	205	103	5	12	63
25	25	110	32	15	30	1,320	440	190	48	5	13	70
26	31	50	70	50	35	1,320	422	216	90	5	10	70
27	19	126	50	75	40	1,320	398	172	42	6	16	77
28	35	130	70	70	40	1,320	376	177	21	6	79	65
29	29	53	60	70	45	1,320	364	181	38	5	67	100
30	23	151	50	65	-	1,320	356	165	30	5	102	81
31	28	-	56	60	-	1,320	-	169	-	5	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	952	68	3	30.7	0.032	0.04
November	2,831	161	26	94.4	.097	.11
December	2,746	177	32	88.6	.091	.10
Calendar year 1935	145,708	2,140	3	399	.411	5.59
January	3,117	300	15	101	.104	.12
February	865	55	15	29.8	.031	.03
March	28,197	1,630	180	910	.937	1.08
April	24,850	1,400	356	828	.853	.95
May	9,525	432	165	307	.316	.36
June	4,268	224	21	142	.146	.16
July	602	42	5	19.4	.020	.02
August	415	102	2	13.4	.014	.02
September	2,141	306	2	71.4	.074	.08
Water year 1935-36	80,509	1,630	2	220	.227	3.07

Rock River at Afton, Wis.

Location.- Water-stage recorder, lat. 42°36'40", long. 89°4'10", on line between secs. 22 and 27, T. 2 N., R. 12 E., at highway bridge in Afton, three-quarters of a mile above mouth of Bass Creek. Zero of gage is 742.18 feet above mean sea level.

Drainage area.- 3,300 square miles (revised).

Records available.- February 1914 to September 1936.

Average discharge.- 22 years, 1,804 second-feet.

Extremes.- Maximum discharge during year, 4,600 second-feet Mar. 26 (gage height, 7.07 feet); minimum, 36 second-feet July 9 (gage height, 0.13 foot); minimum daily discharge, 65 second-feet July 19.

1914-36: Maximum discharge observed, 13,000 second-feet Mar. 23, 24, 1929; maximum gage height observed, 11.8 feet, present datum, Mar. 23, 1929; minimum discharge, 36 second-feet Aug. 26, 1934, July 9, 1936; minimum gage height, 0.09 foot Aug. 28, 1934; minimum daily discharge, 42 second-feet Aug. 25, 26, 1934.

Remarks.- Records good except those for period of ice effect, Dec. 19 to Mar. 3, which were computed on basis of gage heights, 2 discharge measurements, weather records, and observer's notes and are fair. Regulation by operation of power plants above.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.4	61	1.6	388	4.0	1,590
.6	87	2.0	538	5.0	2,370
.8	129	2.5	750	6.0	3,340
1.0	184	3.0	994	7.0	4,480
1.3	282	3.5	1,270		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	505	496	562	580	600	1,240	4,000	1,460	325	396	150	718
2	403	435	778	600	480	1,220	4,000	1,390	792	314	101	708
3	443	636	845	640	580	1,400	3,670	1,360	849	369	308	435
4	323	749	842	700	680	1,200	3,560	1,360	570	205	258	411
5	441	935	842	640	580	1,390	3,560	1,270	520	367	127	616
6	332	810	742	580	420	1,490	3,450	1,220	548	316	156	292
7	360	873	616	650	500	1,510	3,130	1,190	302	448	194	393
8	432	798	666	660	460	1,540	3,030	1,160	643	114	131	445
9	348	779	657	720	440	1,840	3,130	950	640	182	81	510
10	335	864	758	660	400	2,190	3,030	1,050	762	342	241	499
11	402	758	875	600	500	2,640	2,930	1,280	610	245	265	373
12	632	842	783	500	460	2,640	2,930	1,260	636	97	140	330
13	390	752	675	540	480	2,550	2,930	1,230	590	246	165	338
14	347	730	710	520	500	2,730	2,730	1,280	464	370	290	665
15	470	784	614	560	520	2,930	2,550	1,210	516	264	207	590
16	629	694	588	600	500	3,230	2,280	787	589	200	69	780
17	571	639	744	640	500	3,340	2,190	892	561	182	300	851
18	620	739	634	660	540	3,560	2,190	896	624	114	359	709
19	554	717	660	600	500	3,670	1,870	900	596	65	244	637
20	351	636	600	640	480	3,780	1,760	796	489	486	126	537
21	418	643	750	620	500	3,780	1,910	864	421	360	250	665
22	512	702	620	600	540	3,780	1,800	942	357	185	138	714
23	570	532	710	640	540	4,000	1,700	682	485	250	77	723
24	564	728	640	610	760	4,000	1,700	908	394	173	414	745
25	491	710	680	620	1,190	4,000	1,590	608	284	130	282	603
26	497	619	660	570	1,220	4,480	1,590	787	202	126	336	698
27	388	741	640	570	1,220	4,120	1,560	762	211	349	314	615
28	474	653	680	600	1,110	4,240	1,560	737	253	267	431	493
29	509	779	640	640	1,020	4,240	1,520	612	434	220	577	787
30	490	657	670	680	-	4,360	1,460	689	519	180	455	757
31	511	-	640	700	-	4,000	-	535	-	138	398	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	14,312	632	323	462	0.140	0.16
November	21,430	935	435	714	.216	.24
December	21,521	875	562	694	.210	.24
Calendar year 1935	519,291	5,440	233	1,423	.431	5.84
January	19,140	720	500	617	.187	.22
February	18,220	1,220	400	628	.190	.20
March	91,090	4,480	1,200	2,938	.890	1.03
April	75,510	4,000	1,460	2,510	.761	.85
May	31,067	1,460	535	1,002	.304	.35
June	15,186	849	202	506	.153	.17
July	7,700	486	65	248	.075	.09
August	7,584	577	69	245	.074	.09
September	17,637	851	292	588	.178	.20
Water year 1935-36	340,197	4,480	65	930	.282	3.84

Rock River at Como, Ill.

Location.- Water-stage recorder, lat. 41°47'0", long. 89°44'58", in NE¼ sec. 25, T. 21 N., R. 6 E. fourth principal meridian, 1 mile above Como, 3 miles below Rock Falls, and 3½ miles above mouth of Elkhorn Creek.

Drainage area.- 8,700 square miles.

Records available.- December 1933 to September 1936; November 1914 to September 1934 records collected at Lyndon, 16½ miles downstream (drainage area, 9,010 square miles).

Average discharge.- 22 years, 5,319 second-feet (discharge for site at Lyndon corrected for difference in drainage area).

Extremes.- Maximum daily discharge during year, 18,000 second-feet Mar. 12; maximum gage height, 10.69 feet Mar. 10 (ice jam); minimum daily discharge, 524 second-feet Aug. 9.

1914-36: Maximum discharge observed, 38,100 second-feet Mar. 28, 1916 (based on discharge at Lyndon corrected for difference in drainage area); minimum daily discharge, 440 second-feet Aug. 20, 1934.

Remarks.- Records good. Discharge during periods of ice effect, Dec. 4, 11, Dec. 20 to March 17, computed on basis of records of power plant at Sterling, 4 miles above gage. About 100 second-feet diverted above gage to Illinois & Mississippi Canal. Some diurnal fluctuations from power plants upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.7	450	2.2	960	3.0	2,430	5.0	8,000
1.8	530	2.4	1,250	3.5	3,660	6.0	11,300
1.9	620	2.6	1,600	4.0	5,020	7.0	14,700
2.0	730	2.8	2,000	4.5	6,460	8.0	18,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,460	2,120	3,360	1,900	1,250	6,800	6,920	3,170	2,030	909	615	3,130
2	1,540	1,730	2,290	2,080	1,190	7,200	6,320	3,220	2,940	1,440	740	3,180
3	1,450	2,670	2,580	2,130	1,260	7,600	6,140	3,270	2,940	1,340	716	2,920
4	1,590	9,020	2,180	1,960	1,300	10,200	6,130	3,260	3,070	948	801	2,320
5	1,450	8,660	2,190	1,680	1,270	11,400	6,290	3,280	2,590	878	685	2,020
6	1,600	8,160	2,300	2,100	1,480	11,500	5,810	2,910	2,360	1,180	664	1,370
7	1,080	5,910	3,220	2,080	1,230	11,400	5,860	2,920	2,350	1,020	721	2,300
8	1,650	5,930	3,230	2,070	1,300	11,400	6,140	2,980	1,880	891	602	2,910
9	1,470	4,560	2,930	1,990	1,080	12,100	5,720	2,790	2,330	1,280	524	3,050
10	1,510	4,330	3,080	1,970	1,070	13,000	5,870	2,450	2,220	1,020	839	2,660
11	1,620	4,200	2,510	1,960	1,210	17,700	6,460	2,480	2,350	809	796	2,810
12	1,380	4,350	2,520	1,770	1,170	18,000	6,610	2,380	2,110	663	818	6,020
13	1,240	4,070	2,580	2,140	1,120	16,600	6,310	2,720	1,840	1,070	713	4,880
14	1,800	4,120	2,710	2,050	1,200	12,800	5,870	2,760	1,660	655	918	4,600
15	1,690	4,000	2,660	2,000	1,050	11,700	5,870	2,630	1,880	777	1,030	5,870
16	1,400	3,480	2,550	2,000	840	11,400	5,440	2,530	1,800	815	906	10,000
17	1,410	3,520	2,400	2,030	1,140	11,300	5,160	2,570	1,450	807	1,300	11,500
18	1,550	3,060	2,520	1,950	1,200	11,100	4,460	2,280	1,600	675	840	10,600
19	1,580	3,140	2,410	1,300	1,010	11,000	4,320	2,310	1,660	835	802	8,990
20	1,710	3,260	830	1,370	1,170	10,600	4,190	2,240	1,560	922	1,260	7,220
21	1,590	3,610	1,800	1,540	1,180	9,320	4,060	2,220	1,540	727	1,150	5,720
22	1,570	3,200	1,530	1,500	1,170	8,660	3,700	1,810	1,590	689	972	5,160
23	1,440	2,930	2,050	1,470	1,050	8,160	3,770	2,100	1,070	928	1,120	4,060
24	1,600	2,930	2,000	1,350	1,820	7,840	3,550	2,460	1,330	1,010	1,560	3,790
25	1,430	2,650	1,610	1,400	4,700	8,330	3,470	1,790	1,430	774	1,110	3,170
26	1,630	2,920	1,520	1,300	6,600	7,690	3,420	2,160	1,350	743	1,490	3,180
27	1,360	3,020	1,650	1,430	7,400	7,840	3,380	1,940	1,130	950	2,380	5,080
28	1,910	2,950	1,980	1,260	7,100	7,840	3,370	1,900	958	610	1,920	5,870
29	1,430	3,280	1,650	1,420	7,000	7,220	3,350	1,950	1,270	626	2,600	5,870
30	1,540	2,970	2,060	1,270	-	7,070	3,250	1,730	1,140	697	2,390	5,020
31	1,630	-	1,870	1,290	-	6,920	-	1,560	-	758	2,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	47,250	1,910	1,020	1,524		
November	120,750	9,020	1,730	4,025		
December	70,770	3,360	830	2,283		
Calender year 1935	1,719,240	22,400	830	4,710		
January	53,760	2,140	1,260	1,734		
February	61,560	7,400	840	2,123		
March	321,690	18,000	6,800	10,380		
April	151,210	6,920	3,250	5,040		
May	76,770	3,280	1,560	2,476		
June	55,428	3,070	958	1,848		
July	27,446	1,440	610	885		
August	35,552	2,600	524	1,147		
September	145,270	11,500	1,370	4,842		
Water year 1935-36	1,167,456	18,000	524	3,190		

Beaver Lake near Hartland, Wis.

Location.- Staff gage, lat. 43°7'30", long. 88°22'0", in E½ sec. 28, T. 8 N., R. 18 E., 60 feet east of lake outlet and 1¾ miles northwest of Hartland. Zero of gage is 900.00 feet above mean sea level.

Drainage area.- 3 square miles.

Lake surface area.- 305 acres.

Records available.- April 1933 to September 1936 (fragmentary).

Extremes.- Maximum gage height observed during year, 10.10 feet May 16, June 7; minimum gage height observed, 9.14 feet Aug. 13, 15.
1933-36: Maximum gage height observed, 10.24 feet July 15, 1933; minimum gage height observed, 9.08 feet Apr. 17, 1933.

Remarks.- Gage readings furnished by Chief of Police of village of Chenequa. No record on days for which no gage readings are given. Records good.

Gage height, in feet, 1933-35

1933		1934		1935	
Apr. 17	9.08	Apr. 2	9.87	May 18	10.12
23	9.88	4	9.91	25	10.06
May 12	9.41	14	10.08	June 1	10.06
June 9	9.93	21	10.01	8	10.06
July 8	10.20	28	9.95	15	10.03
15	10.24	May 5	9.89	22	10.08
22	10.18	12	9.83	29	10.08
29	10.12	19	9.85	July 6	10.08
Aug. 5	10.10	26	9.83	13	9.97
9	10.11	June 3 below	9.33	20	9.85
12	10.06	Aug. 4 below	9.33	27	9.89
14	10.13	1935		Aug. 3	10.06
21	9.97	Mar. 29	9.91	10	10.01
26	9.91	Apr. 6	9.89	17	9.91
Sept. 2	9.81	13	9.99	24	9.85
9	9.74	20	9.99	31	9.70
16	9.83	27	10.10	Sept. 7	9.62
23	9.74	May 4	10.16	14	9.53
30below	9.33	11	10.12	21	9.58
				28	9.45

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-			-	-	-	10.00	9.84	9.31	-
2	-	9.33	-			-	-	-	10.09	-	-	9.42
3	-	-	-			-	-	-	10.09	-	-	-
4	-	-	-			-	9.87	-	10.07	9.81	-	-
5	9.37	-	-			-	-	-	10.06	-	-	9.38
6	-	-	-			-	-	-	10.06	-	-	-
7	-	-	9.41			-	-	-	10.10	-	-	-
8	-	-	-			-	-	-	10.08	-	9.18	-
9	-	9.41	-			-	-	-	10.07	-	-	9.42
10	-	-	-			-	-	-	10.07	-	-	-
11	-	-	-			-	9.91	-	10.05	9.72	-	-
12	9.37	-	-			-	-	-	10.03	-	-	9.48
13	-	-	-			-	-	-	10.02	-	9.14	-
14	-	-	9.37			-	-	-	10.01	-	-	-
15	-	-	-			-	-	-	10.00	-	9.14	-
16	-	9.37	-			-	-	10.10	9.99	-	-	9.70
17	-	-	-			9.86	-	10.09	9.98	-	-	-
18	-	-	-			-	-	10.09	9.98	9.56	-	-
19	9.37	-	-			-	-	10.08	9.98	-	9.22	9.64
20	-	-	-			-	-	10.06	9.97	-	-	-
21	-	-	-			-	-	10.03	9.96	-	-	-
22	-	-	-			-	-	10.05	9.94	-	9.24	-
23	-	9.41	-			-	-	10.03	9.92	-	-	9.62
24	-	-	-			9.79	-	10.05	9.90	-	-	-
25	-	-	-			-	-	10.03	9.89	9.47	-	-
26	9.33	-	-			-	-	10.02	9.89	-	9.28	9.56
27	-	-	-			-	-	10.01	9.89	-	-	-
28	-	-	-			9.83	-	10.00	9.87	-	-	-
29	-	-	-			-	-	10.00	9.86	-	9.46	-
30	-	9.41	-			-	-	9.98	9.85	-	-	9.60
31	-	-	-			-	-	9.96	-	-	-	-

Note.- Add 900.00 feet to obtain elevation above mean sea level.

Pine Lake near Hartland, Wis.

Location.- Staff gage, lat. 43°7'30", long. 88°23'25", in SE¼ sec. 29, T. 8 N., R. 18 E., attached to concrete boathouse foundation, 2⅝ miles northwest of Hartland, Wis. Zero of gage is 890.00 feet above mean sea level.

Drainage area.- 6 square miles.

Lake surface area.- 760 acres.

Records available.- March 1931 to September 1936 (fragmentary).

Extremes.- Maximum gage height observed during year, 10.10 feet June 8, 7; minimum observed, 9.10 feet Aug. 15.
1931-36: Maximum gage height observed, 11.03 feet Apr. 5, 1931; minimum observed, 8.86 feet Oct. 14, 1934.

Remarks.- Gage readings furnished by Chief of Police, Chenequa, Wis. No record on days for which no gage readings are given. Records good.

Gage height, in feet, 1931-36

1931		1932		1933	
Mar. 22	10.95	Sept. 20	8.93	June 18	10.55
Apr. 5	11.03	Nov. 18	9.02	24	10.45
May 30	10.86			July 1	10.7
June 27	10.70	1933		2	10.88
Aug. 21	9.93	Apr. 4	9.6	8	10.65
Oct. 23	9.84	8	9.7	15	10.85
Nov. 28	10.07	9	9.71	22	10.8
		14	9.6	29	10.7
1932		15	9.7	Aug. 5	10.7
Jan. 3	10.08	21	9.78	12	10.65
31	10.17	22	9.7	21	10.55
Feb. 14	10.25	29	9.7	26	10.45
28	10.20	May 6	10.0	30	10.27
Mar. 13	10.31	13	10.15	Sept. 2	10.35
27	10.40	20	10.5	9	10.3
Apr. 5	10.37	27	10.65	16	10.4
Aug. 6	9.66	June 3	10.65	23	10.3
Sept. 4	9.37	10	10.65	30	10.25
10	9.28	17	10.5		

1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	-	9.65	-	9.0
2	-	-	10.0	10.08	-	-	10.2	-	-	-	-	-
3	-	-	-	-	-	-	10.30	-	10.1	-	9.45	-
4	-	10.1	-	-	-	10.16	10.3	-	-	-	9.45	-
5	-	10.09	-	-	-	-	-	10.25	-	-	-	-
6	-	-	-	-	-	-	-	-	-	9.65	-	-
7	10.2	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	9.83	-	9.05
9	-	-	9.95	-	-	-	-	-	9.9	-	-	-
10	-	-	-	-	-	-	-	-	-	-	9.45	-
11	-	10.05	-	-	-	-	-	-	-	-	-	-
12	-	10.03	-	-	-	-	-	10.2	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	9.13
14	10.1	-	-	-	-	-	10.35	-	-	9.8	-	-
15	10.12	-	-	-	-	-	-	-	-	-	-	9.18
16	-	-	-	-	-	-	-	-	9.89	-	-	-
17	-	-	9.97	-	9.68	-	-	-	-	-	-	-
18	-	10.0	-	-	-	-	-	-	-	-	9.3	-
19	-	-	-	-	-	-	-	10.25	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	10.15	-	-	-	-	-	10.3	-	-	9.7	-	-
22	-	-	-	-	-	-	10.32	-	-	-	9.21	9.15
23	-	-	-	-	-	-	-	-	9.8	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	9.16
25	-	10.0	-	-	-	-	-	-	-	-	9.2	-
26	-	-	-	-	-	-	-	10.2	-	9.65	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	10.1	-	-	-	-	-	10.25	-	-	9.65	-	-
29	-	-	-	-	-	-	-	-	-	-	-	9.15
30	-	-	-	-	-	-	-	-	-	-	9.07	9.14
31	-	-	10.07	-	-	-	-	10.10	-	-	-	-

Note.- Add 890 feet to obtain elevation above mean sea level.

Gage height, in feet, of Pine Lake near Hartland, Wis., 1931-36--Continued
1934-35

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	9.4	-	-	-	-	-	10.2	-	-	9.85
2	-	-	9.41	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	10.25	-
4	-	-	-	-	-	-	-	10.25	-	-	-	-
5	-	-	-	9.4	-	-	-	10.26	-	-	-	-
6	-	-	-	9.65	-	-	9.95	-	10.26	10.25	-	-
7	-	-	-	-	-	-	9.92	-	-	-	-	9.8
8	-	-	9.4	-	-	-	-	-	10.2	-	-	9.80
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	9.86	-	-	-	-	10.20	-
11	-	9.0	-	-	-	-	-	10.25	-	-	-	-
12	-	-	-	-	-	-	-	10.27	-	-	-	-
13	-	-	-	-	-	-	10.05	-	-	10.15	-	9.75
14	8.86	-	-	-	-	-	10.12	-	-	-	10.15	9.7
15	-	-	9.35	-	-	-	-	-	10.2	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	9.87	-	-	-	-	10.1	9.70
18	-	9.0	-	-	-	-	-	10.25	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	10.05	-	-	10.05	10.10	-
21	9.08	-	-	-	-	-	10.02	-	-	10.05	-	9.75
22	-	-	9.35	-	-	-	-	-	10.25	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	9.2	-	-	9.67	-	-	-	-	-	10.0	-
25	-	9.29	-	-	-	-	-	10.2	-	-	10.00	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	10.15	-	-	10.1	-	9.65
28	-	-	-	-	-	-	10.20	-	-	-	-	9.6
29	-	-	9.4	-	-	10.0	-	-	10.25	-	-	-
30	-	-	-	-	-	-	-	-	-	-	9.88	9.60
31	-	-	-	-	-	9.96	-	-	-	-	9.85	-

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-			-	-	-	10.05	-	9.30	-
2	-	9.45	-			-	-	-	-	-	-	9.40
3	-	9.45	-			-	-	10.03	10.07	-	-	-
4	9.55	-	-			-	9.75	-	-	9.80	-	-
5	9.5	-	-			-	-	-	-	-	-	9.35
6	-	-	-			-	-	-	10.10	-	-	-
7	-	-	9.5			-	-	-	10.10	-	-	-
8	-	-	-			-	-	-	-	-	9.20	-
9	9.40	9.5	-			-	-	-	-	-	-	9.40
10	-	9.53	-			-	-	-	-	-	-	-
11	-	-	-			-	9.8	-	-	9.75	-	-
12	9.45	-	-			-	-	10.08	-	-	-	9.45
13	-	-	-			-	-	-	10.05	-	9.15	-
14	-	-	9.45			-	-	-	10.03	-	-	-
15	-	-	-			-	-	-	-	-	9.10	-
16	-	9.5	-			-	-	-	-	-	-	9.65
17	-	9.47	-			-	-	-	-	-	-	-
18	-	-	-			-	-	-	-	9.60	-	-
19	9.45	-	-			-	9.83	-	-	-	9.15	9.60
20	9.45	-	-			-	-	-	10.0	-	-	-
21	-	-	-			-	-	-	-	-	-	-
22	-	-	-			9.75	-	-	-	-	9.20	-
23	-	9.45	-			-	9.85	-	-	-	-	9.55
24	-	-	-			9.7	-	-	-	-	-	-
25	-	-	-			-	9.83	10.00	-	9.50	-	-
26	9.4	-	-			-	-	-	9.90	-	9.25	9.50
27	9.45	-	-			-	-	-	9.9	-	-	-
28	-	-	-			9.72	-	-	-	-	-	-
29	-	-	-			-	-	-	-	-	9.45	-
30	-	9.5	-			-	-	-	-	-	-	9.55
31	-	-	-			-	-	9.95	-	-	-	-

Note.- Add 890 feet to obtain elevation above mean sea level.

Crawfish River at Milford, Wis.

Location.- Chain gage, lat. 43°6'0", long. 88°51'0", in sec. 4, T. 7 N., R. 14 E., at highway bridge on County Trunk Highway A in Milford, 1 mile below Rock Creek and 8 miles above mouth.

Drainage area.- 732 square miles (revised).

Records available.- June 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 2,240 second-feet Mar. 18 (gage height, 6.05 feet); minimum discharge observed, 5 second-feet Aug. 18 (gage height, 1.16 feet). 1931-35: Maximum discharge observed, 2,650 second-feet Mar. 14, 1935 (gage height, 6.52 feet); minimum, that of Aug. 18, 1936.

Remarks.- Records good except those for period of ice effect, Nov. 21-24, Nov. 29 to Dec. 12, Dec. 20 to Mar. 17, which were computed on basis of three discharge measurements, gage hsights, and weather records and are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	98	101	84	70	83	803	174	27	24	12	29
2	41	84	96	86	70	84	803	217	83	41	12	43
3	83	98	79	86	70	86	670	232	83	39	10	43
4	77	114	72	88	70	103	541	267	83	26	18	31
5	47	83	73	88	69	124	541	328	58	24	15	20
6	48	52	81	88	72	121	434	224	65	29	14	26
7	48	94	84	88	72	135	412	209	81	29	10	38
8	47	121	84	88	62	146	287	217	73	21	10	44
9	64	105	83	90	61	174	391	224	69	16	10	48
10	105	119	79	92	61	349	391	228	79	19	10	32
11	83	119	83	98	61	476	391	202	77	23	10	43
12	73	114	92	96	64	627	391	195	52	20	11	48
13	54	105	116	92	64	996	391	236	43	21	12	54
14	94	103	119	98	64	1,230	391	119	54	20	10	43
15	84	138	116	96	62	1,350	412	116	62	19	18	53
16	65	109	116	90	62	1,410	434	56	21	21	14	101
17	98	88	114	84	62	1,690	349	73	47	19	13	70
18	81	83	116	83	62	2,240	247	124	79	20	8	67
19	72	107	121	92	62	2,240	206	114	69	23	24	62
20	59	69	94	86	61	2,160	243	83	86	22	28	62
21	52	62	90	81	59	2,000	267	46	62	24	35	58
22	73	58	84	73	64	1,920	224	41	58	22	32	41
23	75	59	76	73	62	2,000	181	34	59	18	35	34
24	56	70	77	72	58	1,760	174	69	48	30	20	75
25	53	98	79	77	69	1,690	181	77	58	25	20	21
26	54	96	79	69	79	1,620	209	59	30	20	35	40
27	72	107	81	67	77	1,480	152	61	53	28	46	90
28	70	132	81	72	81	1,290	158	61	36	20	72	56
29	70	109	83	69	79	1,230	152	65	32	21	101	64
30	30	103	83	67	-	1,110	165	67	43	18	72	52
31	61	-	84	75	-	945	-	39	-	13	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,066	105	30	66.6	0.091	0.10
November	2,897	138	52	96.6	.132	.15
December	2,815	121	72	90.8	.124	.14
Calendar year 1935	118,636	2,650	29	325	.444	6.02
January	2,588	98	67	83.5	.114	.13
February	1,929	81	58	66.5	.091	.10
March	32,869	2,240	83	1,060	1.45	1.67
April	10,581	803	152	353	.482	.54
May	4,257	328	34	137	.187	.22
June	1,770	86	21	59.0	.081	.09
July	715	41	13	23.1	.032	.04
August	777	101	8	25.1	.034	.04
September	1,488	101	20	49.6	.068	.08
Water year 1935-36	64,752	2,240	8	177	.242	3.30

Lake Mendota at Madison, Wis.

Location.- Staff gage, lat. 43°5'40", long. 89°22'10", in SE¼ sec. 12, T. 7 N., R. 9 E., attached to face of dam at lake outlet in Madison, Wis. Zero of gage is 847.40 feet above mean sea level.
Drainage area.- 254 square miles.
Lake surface area.- 15.2 square miles.
Records available.- December 1902 to May 1903; January 1916 to September 1936 (incomplete). Records of water surface elevations 1856 to March 1917 are published in Wisconsin Railroad Commission Reports, volume 19, pages 462-468.
Extremes.- Maximum stage observed during year, 2.44 feet Mar. 13; minimum, 0.74 foot Aug.7.
1916-36: Maximum stage observed, 3.38 feet Mar. 21, 1918; minimum, 0.20 foot Feb.24 to Mar. 10, 1920.
Remarks.- Gage-height record furnished by City Engineer of Madison, Wis.

Gage height, in feet, 1916-36

1916

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1.05	1.95	1.25	2.20	1.70	1.40	2.10	1.85	1.90
2				1.05	1.90	1.22	2.20	1.70	1.40	2.10	1.85	1.90
3				1.05	1.85	1.20	2.15	1.70	1.90	2.10	1.85	1.80
4				1.05	1.85	1.75	2.10	1.75	1.90	2.10	1.90	1.80
5				1.05	1.80	1.55	2.05	1.75	1.90	2.00	2.20	1.80
6				1.05	1.77	1.35	2.00	1.75	1.90	2.00	2.35	1.90
7				1.00	1.73	1.20	1.95	1.75	1.90	2.10	2.35	2.20
8				1.00	1.70	1.15	1.95	1.73	2.10	2.00	2.35	2.20
9				1.00	1.67	1.10	1.90	1.70	2.30	2.00	2.35	2.30
10				1.00	1.63	1.05	1.85	1.70	2.30	1.90	2.35	2.35
11				1.00	1.60	1.05	1.83	1.60	2.30	1.90	2.35	2.35
12				1.00	1.52	1.05	1.80	1.60	2.30	1.90	2.30	2.40
13				1.00	1.56	1.05	1.78	1.50	2.30	1.90	2.30	2.40
14				.90	1.55	1.07	1.75	1.50	2.30	1.90	2.30	2.40
15				-	-	-	-	-	2.30	1.90	2.25	2.35
16				-	-	-	-	-	2.30	1.90	2.20	2.30
17				-	-	-	-	-	2.20	1.90	2.20	2.25
18				-	-	-	-	-	2.20	1.90	2.20	2.25
19				-	-	-	-	-	2.11	2.10	2.15	2.25
20				-	-	-	-	-	2.21	2.10	2.15	2.25
21				-	-	-	-	-	2.21	2.10	2.15	2.20
22				-	-	-	-	-	2.21	2.10	2.10	2.15
23				-	-	-	-	-	2.21	2.05	2.10	2.15
24				-	-	-	-	-	2.20	2.05	2.10	2.10
25				-	-	-	-	-	2.20	2.05	2.00	2.10
26				-	-	-	-	-	2.20	2.05	2.00	1.90
27				-	-	-	-	-	2.21	2.00	2.00	1.95
28				-	-	-	-	-	2.21	2.00	1.95	1.95
29				-	-	-	-	-	2.21	2.00	1.95	1.90
30				-	-	-	-	-	2.10	2.00	1.90	1.90
31				-	-	-	-	-	-	1.90	1.85	-

1916-17

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.80	1.35	1.10	0.95	0.70	0.50	1.95	1.70	1.70	2.75	2.50	
2	1.75	1.35	1.05	.90	.70	.50	1.95	1.65	1.80	2.80	2.50	
3	1.70	1.30	1.05	.90	.70	.50	1.90	1.65	1.90	2.80	2.45	
4	1.70	1.30	1.05	.90	.65	.50	1.90	1.70	1.90	2.80	2.45	
5	1.65	1.25	1.05	.90	.65	.50	1.90	1.70	1.90	2.70	2.45	
6	1.60	1.25	1.05	.90	.65	.50	1.80	1.70	1.90	2.65	2.45	
7	1.60	1.25	1.00	.90	.65	.50	1.80	1.65	2.10	2.55	2.50	
8	1.50	1.25	1.00	.90	.65	.50	1.80	1.65	2.10	2.50	-	
9	1.50	1.25	1.00	.90	.65	.50	1.75	1.65	2.21	2.50	-	
10	1.45	1.25	1.00	.90	.65	.65	1.75	1.65	2.21	2.45	-	
11	1.40	1.25	1.00	.85	.65	.80	1.75	1.65	2.21	2.40	-	
12	1.40	1.25	1.00	.85	.60	.80	1.70	1.60	2.20	2.35	-	
13	1.40	1.25	1.00	.85	.60	.95	1.70	1.60	2.30	2.30	-	
14	1.35	1.20	1.00	.85	.60	.98	1.70	1.55	2.40	2.25	-	
15	1.30	1.20	1.00	.85	.60	1.00	1.65	1.55	2.50	2.20	-	
16	1.30	1.20	1.00	.80	.60	1.20	1.65	1.50	2.50	2.25	-	
17	1.30	1.20	1.00	.80	.60	1.20	1.65	1.54	2.50	2.25	-	
18	1.30	1.15	1.00	.80	.60	1.40	1.65	1.54	2.50	2.25	-	
19	1.25	1.15	1.00	.80	.60	1.40	1.70	1.54	2.50	2.25	-	
20	1.30	1.15	1.00	.80	.60	1.60	1.70	1.50	2.54	2.25	-	
21	1.30	1.10	1.00	.80	.60	1.60	1.70	1.65	2.54	2.25	-	
22	1.30	1.10	.95	.80	.60	1.70	1.70	1.65	2.40	2.40	-	
23	1.30	1.10	.95	.80	.80	1.70	1.70	1.50	2.54	2.60	-	
24	1.30	1.10	.95	.75	.55	1.80	1.70	1.57	2.50	2.75	-	
25	1.40	1.10	.95	.75	.55	1.90	1.70	1.70	2.60	2.75	-	
26	1.40	1.10	.95	.75	.55	2.00	1.70	1.76	2.60	2.60	-	
27	1.40	1.10	.95	.75	.55	2.00	1.70	1.70	2.70	2.60	-	
28	1.45	1.10	.95	.75	.55	2.00	1.70	1.76	2.75	2.60	-	
29	1.45	1.10	.95	.70	-	2.00	1.70	1.76	2.80	2.50	-	
30	1.35	1.10	.95	.70	-	1.95	1.70	1.76	2.75	2.50	-	
31	1.35	-	.95	.70	-	1.95	-	1.70	-	2.50	-	

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1918

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0.65	0.52	0.80	2.23	1.25	1.10	1.10	1.15	1.00
2				.65	.52	.90	2.13	1.23	1.10	1.10	1.15	.95
3				.65	.50	1.30	2.10	1.20	1.05	1.05	1.15	.95
4				.65	.48	1.30	2.07	1.17	1.05	1.05	1.15	.95
5				.65	.45	1.40	2.05	1.15	1.05	1.15	1.15	.90
6				.65	.45	1.40	1.95	1.15	1.05	1.15	1.15	.90
7				.65	.43	1.50	1.92	1.10	1.05	1.10	1.15	.90
8				.65	.43	1.50	1.88	1.07	.95	1.10	1.15	.85
9				.65	.42	1.60	1.85	1.05	.95	1.10	1.10	.85
10				.65	.42	1.60	1.78	1.03	.95	1.10	1.10	.85
11				.60	.40	1.65	1.72	1.02	.95	1.10	1.10	.90
12				.60	.40	1.65	1.65	1.00	.90	1.10	1.10	.90
13				.60	.40	1.67	1.62	1.00	.90	1.10	1.10	.90
14				.60	.38	2.00	1.59	1.00	.85	1.10	1.20	.85
15				.60	.37	2.00	1.50	1.00	.85	1.10	1.20	.85
16				.60	.37	2.25	1.50	1.00	1.00	1.15	1.20	.85
17				.60	.37	2.35	1.45	1.10	.98	1.15	1.15	.85
18				.60	.35	2.45	1.45	1.10	.95	1.18	1.15	.85
19				.55	.35	3.15	1.45	1.10	.95	1.20	1.15	.85
20				.55	.37	3.35	1.40	1.10	.98	1.20	1.10	.80
21				.55	.37	3.38	1.45	1.10	.95	1.20	1.10	.80
22				.55	.40	3.35	1.45	1.15	.95	1.18	1.10	.80
23				.55	.40	3.25	1.42	1.15	.95	1.18	1.10	.80
24				.55	.40	3.13	1.38	1.15	.95	1.20	1.10	.75
25				.55	.50	2.95	1.34	1.15	1.00	1.20	1.10	.75
26				.55	.60	2.94	1.29	1.15	1.00	1.20	1.05	.75
27				.55	.70	2.72	1.27	1.10	1.05	1.20	1.05	.75
28				.54	.80	2.63	1.27	1.10	1.05	1.20	1.05	.75
29				.54	-	2.53	1.25	1.10	1.05	1.20	1.05	.75
30				.54	-	2.43	1.25	1.10	1.10	1.20	1.00	.75
31				.54	-	2.33	-	1.10	-	1.20	1.00	-

1918-19

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.70	0.95	0.95	1.10	0.70	0.50	1.07	1.65	1.85	1.85	1.75	1.20
2	.70	.95	.95	1.10	.70	.48	1.15	1.65	1.85	1.85	1.70	1.20
3	.70	.95	.95	1.10	.70	.45	1.35	1.68	1.85	1.70	1.65	1.20
4	.70	.95	.95	1.10	.70	.45	1.35	1.70	1.85	1.70	1.60	1.15
5	.70	.95	1.00	1.10	.70	.45	1.30	1.70	1.91	1.85	1.60	1.15
6	.70	.95	1.00	1.10	.70	.45	1.30	1.85	1.90	1.85	1.60	1.10
7	.70	.95	1.00	1.10	.70	.45	1.30	1.85	1.90	1.85	1.60	1.10
8	.70	.95	1.00	1.10	.70	.45	1.30	1.85	1.80	1.70	1.60	1.15
9	.70	.95	1.00	1.10	.70	.45	1.35	1.85	1.80	1.70	1.65	1.15
10	.70	.90	1.05	1.10	.70	.55	1.40	1.85	1.80	1.75	1.65	1.20
11	.70	.90	1.05	1.20	.70	.65	1.40	1.85	1.70	1.75	1.65	1.25
12	.75	.90	1.05	1.20	.67	.75	1.45	1.85	2.10	1.75	1.50	1.20
13	.70	.90	1.10	1.20	.64	.85	1.50	1.85	2.10	1.75	1.50	1.15
14	.70	.90	1.10	1.00	.60	1.00	1.50	1.85	2.10	1.75	1.50	1.15
15	.70	.90	1.10	1.10	.60	1.20	1.50	1.82	2.25	1.70	1.50	1.10
16	.70	.95	1.10	1.00	.60	1.30	1.55	1.72	2.25	1.70	1.50	1.10
17	.70	.95	1.10	1.00	.60	1.40	1.60	1.62	2.10	1.75	1.55	1.10
18	.70	.95	1.10	1.00	.60	1.50	1.60	1.70	2.10	1.60	1.55	1.10
19	.70	.95	1.10	.95	.60	1.50	1.60	1.80	2.15	1.60	1.55	1.25
20	.70	.95	1.10	.90	.55	1.50	1.60	1.80	2.15	1.60	1.40	1.30
21	.70	.95	1.10	.90	.55	1.45	1.60	1.85	2.15	1.65	1.40	1.40
22	.70	.95	1.10	.90	.55	1.40	1.60	1.85	2.15	1.65	1.40	1.45
23	.70	.90	1.10	.90	.50	1.40	1.60	1.85	2.15	1.65	1.40	1.50
24	.75	.90	1.10	.87	.50	1.40	1.60	1.85	2.15	1.50	1.40	1.50
25	.75	.90	1.10	.84	.50	1.37	1.60	1.85	2.15	1.50	1.35	1.50
26	.75	.90	1.10	.80	.50	1.35	1.60	1.70	1.90	1.55	1.35	1.55
27	.80	.90	1.10	.80	.50	1.35	1.65	1.70	1.90	1.55	1.30	1.55
28	.90	.95	1.10	.80	.50	1.30	1.65	1.70	1.90	1.65	1.30	1.55
29	.95	.95	1.10	.80	-	1.30	1.65	1.70	1.95	1.65	1.25	1.60
30	.95	.95	1.10	.80	-	1.25	1.65	1.70	1.90	1.70	1.25	1.65
31	.95	-	1.10	.80	-	1.20	-	1.70	-	1.70	1.20	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1919-20

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.65	1.75	-	-	0.40	0.20	1.57	2.07	1.90	2.10	1.45	1.40
2	1.65	1.70	-	-	.40	.20	1.57	2.07	1.90	2.10	1.45	1.40
3	1.70	1.70	-	-	.40	.20	1.57	2.03	1.85	2.10	1.40	1.40
4	1.80	1.70	-	-	.40	.20	1.57	2.00	1.80	1.95	1.40	1.40
5	1.90	1.75	1.50	-	.40	.20	1.57	2.00	1.75	1.85	1.40	1.40
6	1.90	1.75	1.25	-	.35	.20	1.57	1.97	1.75	1.85	1.40	1.40
7	1.90	1.75	-	-	.35	.20	1.57	1.95	1.75	1.90	1.40	1.40
8	1.90	1.75	-	-	.35	.20	1.57	1.90	1.70	1.90	1.40	1.45
9	1.90	1.70	-	-	.35	.20	1.60	1.87	1.70	1.80	1.40	1.45
10	1.90	1.75	-	.55	.34	.20	1.60	1.85	1.70	1.85	1.40	1.45
11	1.90	1.70	-	-	.34	.22	1.60	1.90	1.70	1.85	1.40	1.45
12	1.90	1.70	-	-	.32	.32	1.60	1.90	1.70	1.80	1.35	1.45
13	1.85	1.75	-	-	.30	.44	1.62	1.90	1.85	1.75	1.35	1.45
14	1.80	1.75	-	-	.30	.57	1.62	1.90	1.85	1.75	1.45	1.45
15	1.85	1.65	-	-	.30	.65	1.63	1.87	1.85	1.75	1.50	1.45
16	1.80	1.65	-	-	.28	.90	1.64	1.87	2.25	1.75	1.50	1.45
17	1.85	1.60	-	-	.27	.98	1.64	1.87	2.30	1.75	1.50	1.40
18	1.70	1.60	-	-	.26	1.05	1.64	1.80	2.40	1.70	1.50	1.40
19	1.70	1.60	-	-	.25	1.10	1.90	1.87	2.40	1.70	1.50	1.40
20	1.75	1.60	-	-	.25	1.10	1.92	1.75	2.40	1.65	1.50	1.40
21	1.75	1.60	-	-	.25	1.10	1.92	1.75	2.35	1.65	1.50	1.40
22	1.75	1.60	-	-	.25	1.10	2.00	1.75	2.35	1.65	1.50	1.37
23	1.75	1.55	-	-	.25	1.14	2.05	1.75	2.30	1.65	1.50	1.37
24	1.60	1.55	-	-	.20	1.14	2.05	2.00	2.30	1.70	1.45	1.37
25	1.60	1.55	-	-	.20	1.14	2.05	2.00	2.25	1.60	1.45	1.37
26	1.60	1.55	-	-	.20	1.43	2.05	2.00	2.20	1.60	1.45	1.37
27	1.60	1.50	-	-	.20	1.55	2.07	2.00	2.15	1.56	1.45	1.35
28	1.60	1.50	-	-	.20	1.55	2.15	2.00	2.10	1.50	1.45	1.35
29	1.60	1.50	-	-	.20	1.57	2.07	2.10	2.20	1.50	1.45	1.35
30	1.75	1.50	-	.40	-	1.57	2.07	2.10	2.20	1.50	1.45	1.35
31	1.75	-	-	-	-	1.57	-	2.10	-	1.50	1.45	-

1920-21

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.25	1.40	1.60	0.96	0.52	0.38	0.80	1.65	2.15	1.80	1.45	1.50
2	1.25	1.40	1.60	.94	.52	.36	.80	1.63	2.10	1.80	1.48	1.55
3	1.24	1.45	1.60	.92	.50	.36	.80	1.61	2.05	1.78	1.45	1.60
4	1.24	1.45	1.60	.90	.50	.34	.80	1.60	1.95	1.75	1.45	1.60
5	1.24	1.45	1.60	.90	.50	.34	.80	1.60	1.95	1.75	1.40	1.60
6	1.24	1.50	1.60	.87	.50	.32	.80	1.57	1.95	1.70	1.40	1.65
7	1.24	1.50	1.60	.85	.50	.32	.85	1.57	1.95	1.70	1.40	1.65
8	1.24	1.50	1.50	.83	.50	.30	.85	1.55	1.90	1.70	1.35	1.85
9	1.24	1.50	1.50	.80	.50	.30	.90	1.55	1.95	1.70	1.30	1.60
10	1.20	1.50	1.50	.78	.48	.30	.95	1.55	1.98	1.65	1.30	1.65
11	1.20	1.45	1.50	.76	.48	.30	.95	1.55	1.98	1.65	1.30	1.65
12	1.20	1.45	1.48	.74	.48	.28	.95	1.57	2.00	1.65	1.30	1.70
13	1.20	1.45	1.45	.72	.48	.28	.97	1.57	2.00	1.50	1.30	1.75
14	1.20	1.45	1.45	.70	.46	.28	.99	1.57	2.00	1.50	1.30	1.75
15	1.25	1.45	1.45	.68	.46	.36	1.05	1.57	2.00	1.50	1.30	1.75
16	1.25	1.45	1.45	.66	.46	.36	1.05	1.55	2.01	1.50	1.30	1.85
17	1.25	1.	1.45	.64	.46	.40	1.07	1.55	2.01	1.50	1.35	1.90
18	1.35	1	1.45	.63	.45	.58	1.07	1.55	2.01	1.50	1.37	1.90
19	1.35	1	1.45	.63	.45	.62	1.10	1.55	2.01	1.48	1.41	1.95
20	1.35	1.45	1.45	.64	.45	.64	1.13	1.62	2.00	1.45	1.45	1.95
21	1.35	1.50	1.17	.65	.45	.66	1.29	1.60	2.00	1.45	1.45	1.95
22	1.35	1.50	1.15	.65	.45	.68	1.33	1.60	2.00	1.40	1.50	2.01
23	1.35	1.50	1.13	.65	.45	.70	1.35	1.65	2.00	1.40	1.50	2.15
24	1.35	1.50	1.10	.65	.43	.70	1.40	1.65	1.98	1.40	1.45	2.20
25	1.37	1.50	1.07	.65	.43	.75	1.45	1.65	1.90	1.40	1.45	2.20
26	1.37	1.55	1.07	.63	.42	.77	1.50	1.68	1.90	1.45	1.45	2.20
27	1.37	1.55	1.05	.61	.42	.77	1.55	1.71	1.85	1.45	1.45	2.20
28	1.35	1.55	1.05	.60	.40	.78	1.60	1.58	1.85	1.45	1.45	2.20
29	1.35	1.60	1.03	.57	-	.78	1.65	1.59	1.80	1.45	1.45	2.15
30	1.35	1.60	1.00	.53	-	.80	1.65	2.15	1.80	1.45	1.45	2.15
31	1.35	-	.97	.53	-	.80	-	2.18	-	1.40	1.45	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1921-22

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.95	2.01	2.10	1.67	0.90	1.78	1.64	2.10	1.98	2.16	2.18	1.60
2	1.95	2.00	2.15	1.64	.90	1.78	1.58	2.08	1.98	2.12	2.18	1.68
3	1.95	2.00	2.15	1.60	.87	1.68	1.54	2.08	1.98	2.08	2.20	1.66
4	1.95	1.95	2.15	1.56	.85	1.68	1.52	2.06	2.00	2.06	2.18	1.66
5	1.90	1.95	2.15	1.58	.83	1.70	1.52	2.04	2.00	2.00	2.18	1.64
6	1.90	1.95	2.15	1.55	.83	1.85	1.52	2.04	1.98	1.98	2.16	1.64
7	1.90	1.90	2.15	1.52	.80	2.10	1.52	2.02	1.98	2.00	2.16	1.62
8	1.90	1.90	2.15	1.50	.78	2.18	1,76	2.00	1.96	2.08	2.14	1.62
9	1.90	1.95	2.15	1.48	.78	2.20	1.94	2.00	1.95	2.06	2.12	1.75
10	1.95	2.00	2.15	1.45	.80	2.18	1.94	1.98	1.95	2.42	2.10	1.76
11	1.95	1.95	2.15	1.43	.80	2.10	2.00	1.98	1.95	2.50	2.08	1.74
12	1.95	1.95	2.15	1.40	.77	2.05	2.22	1.96	2.85	2.58	2.06	1.72
13	1.95	1.91	2.15	1.37	.73	2.02	2.22	1.94	2.88	2.58	2.04	1.74
14	1.85	1.91	2.15	1.34	.73	1.97	2.22	1.92	2.85	2.56	2.02	1.72
15	1.80	1.85	2.15	1.32	.71	1.92	2.22	1.90	2.81	2.54	2.02	1.74
16	1.85	1.85	2.15	1.30	.71	1.88	2.22	1.88	2.76	2.52	2.00	1.76
17	1.95	1.85	2.15	1.28	.68	1.85	2.22	1.88	2.72	2.50	1.98	1.76
18	2.00	1.90	2.14	1.26	.68	1.82	2.25	1.86	2.68	2.48	1.96	1.76
19	2.00	1.90	2.13	1.24	.66	1.86	2.29	1.86	2.60	2.46	1.94	1.78
20	2.00	1.90	2.13	1.22	.65	1.98	2.29	1.84	2.56	2.44	1.92	1.76
21	2.00	1.90	2.12	1.20	.64	1.98	2.28	1.84	2.54	2.40	1.91	1.74
22	2.08	1.90	2.10	1.18	.90	1.96	2.25	1.84	2.46	2.38	1.90	1.72
23	2.08	1.90	2.10	1.16	1.50	1.92	2.20	1.84	2.44	2.36	1.88	1.72
24	2.08	1.85	2.08	1.14	1.75	1.88	2.20	1.86	2.42	2.34	1.86	1.72
25	2.00	1.85	2.05	1.14	1.98	1.84	2.18	1.88	2.36	2.32	1.84	1.68
26	2.00	1.80	2.05	1.09	1.90	1.78	2.18	2.00	2.30	2.30	1.82	1.68
27	1.95	1.80	1.80	1.09	1.90	1.76	2.16	2.02	2.38	2.28	1.80	1.64
28	1.95	1.80	1.80	1.08	1.85	1.74	2.14	2.02	2.24	2.26	1.78	1.64
29	2.00	1.80	1.77	1.04	-	1.72	2.12	2.00	2.22	2.24	1.76	1.64
30	2.00	1.80	1.75	1.00	-	1.68	2.10	2.00	2.18	2.22	1.74	1.64
31	2.10	-	1.71	.95	-	1.68	-	2.00	-	2.20	1.72	-

1922-23

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.64	1.43	1.70	1.26	0.68	0.56	0.88	2.31	1.70	1.50	1.40	1.52
2	1.64	1.44	1.70	1.24	.66	.66	.88	2.28	1.70	1.52	1.40	1.54
3	1.64	1.44	1.70	1.24	.65	.82	1.04	2.24	1.72	1.52	1.39	1.56
4	1.64	1.46	1.70	1.24	.64	1.00	1.56	2.20	1.70	1.55	1.38	1.58
5	1.62	1.48	1.70	1.22	.63	1.16	1.96	2.18	1.70	1.58	1.37	1.56
6	1.60	1.48	1.70	1.22	.62	1.18	2.18	2.14	1.72	1.59	1.36	1.57
7	1.58	1.46	1.70	1.20	.61	1.20	2.70	2.10	1.70	1.59	1.37	1.59
8	1.56	1.54	1.70	1.20	.60	1.14	2.76	2.06	1.70	1.60	1.38	1.59
9	1.56	1.56	1.70	1.18	.59	1.16	2.76	2.02	1.68	1.58	1.36	1.59
10	1.54	1.58	1.70	1.04	.58	1.14	2.76	2.00	1.66	1.56	1.36	1.58
11	1.54	1.58	1.70	1.02	.57	1.16	2.74	1.98	1.64	1.62	1.46	1.54
12	1.52	1.58	1.70	1.00	.56	1.18	2.70	1.96	1.62	1.60	1.46	1.54
13	1.52	1.58	1.70	.98	.55	1.20	2.70	1.92	1.62	1.60	1.46	1.53
14	1.48	1.58	1.54	.96	.54	1.20	2.68	1.90	1.58	1.59	1.46	1.49
15	1.48	1.56	1.54	.94	.53	1.18	2.66	1.90	1.56	1.59	1.43	1.48
16	1.48	1.56	1.52	.92	.52	1.16	2.64	1.92	1.53	1.58	1.42	1.47
17	1.48	1.58	1.52	.90	.51	1.14	2.62	1.92	1.50	1.57	1.42	1.47
18	1.46	1.58	1.49	.88	.50	1.10	2.60	1.90	1.50	1.54	1.41	1.45
19	1.46	1.56	1.47	.86	.48	1.10	2.56	1.90	1.60	1.53	1.40	1.46
20	1.44	1.60	1.45	.84	.46	1.08	2.56	2.00	1.58	1.52	1.39	1.62
21	1.44	1.68	1.43	.82	.45	1.09	2.54	2.00	1.58	1.52	1.42	1.68
22	1.44	1.68	1.42	.80	.44	1.10	2.55	1.86	1.56	1.51	1.46	1.70
23	1.42	1.60	1.40	.78	.43	1.10	2.56	1.90	1.56	1.49	1.48	1.72
24	1.42	1.68	1.37	.76	.42	1.00	2.54	1.90	1.56	1.48	1.46	1.72
25	1.42	1.68	1.35	.75	.43	.98	2.50	1.88	1.55	1.46	1.46	1.71
26	1.42	1.68	1.32	.74	.44	.96	2.46	1.86	1.54	1.43	1.44	1.71
27	1.42	1.68	1.30	.73	.48	.94	2.42	1.84	1.53	1.42	1.45	1.70
28	1.45	1.70	1.30	.72	.52	.92	2.39	1.82	1.53	1.42	1.49	1.70
29	1.43	1.70	1.28	.70	-	.90	2.36	1.78	1.52	1.41	1.50	1.70
30	1.43	1.70	1.28	.69	-	.88	2.34	1.76	1.51	1.40	1.51	1.69
31	1.43	-	1.26	.69	-	.88	-	1.72	-	1.40	1.52	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1923-24--Continued

1923-24

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.69	1.60	1.56	1.74	0.64	0.42	1.10	1.26	1.37	1.58	1.58	2.06
2	1.68	1.62	1.54	1.72	.62	.44	1.12	1.28	1.38	1.56	1.54	2.04
3	1.66	1.60	1.54	1.02	.62	.52	1.10	1.32	1.38	1.56	1.74	2.00
4	1.65	1.60	1.56	1.07	.60	.56	1.12	1.30	1.38	1.54	1.94	1.96
5	1.62	1.59	1.56	1.12	.58	.60	1.12	1.28	1.36	1.54	2.08	1.92
6	1.61	1.58	1.58	1.17	.58	.62	1.12	1.28	1.36	1.54	2.20	1.98
7	1.61	1.58	1.58	1.22	.56	.68	1.12	1.30	1.39	1.54	2.26	1.89
8	1.60	1.58	1.60	1.20	.56	.70	1.12	1.30	1.45	1.58	2.36	1.90
9	1.59	1.59	1.60	1.20	.54	.70	1.18	1.30	1.50	1.66	2.46	1.84
10	1.58	1.60	1.58	1.18	.52	.72	1.18	1.28	1.48	1.68	2.46	1.82
11	1.56	1.56	1.58	1.14	.50	.72	1.20	1.28	1.48	1.68	2.48	1.86
12	1.59	1.56	1.57	1.12	.48	.70	1.20	1.28	1.48	1.74	2.48	1.84
13	1.59	1.60	1.56	1.10	.48	.70	1.18	1.30	1.48	1.73	2.42	1.88
14	1.60	1.56	1.56	1.06	.46	.70	1.14	1.30	1.48	1.72	2.42	1.86
15	1.60	1.60	1.56	1.00	.46	.70	1.08	1.36	1.47	1.70	2.42	1.84
16	1.61	1.60	1.55	1.00	.46	.69	1.12	1.36	1.46	1.68	2.40	1.84
17	1.66	1.60	1.54	.98	.44	.68	1.14	1.36	1.46	1.66	2.36	1.82
18	1.69	1.58	1.54	.96	.44	.70	1.16	1.37	1.52	1.60	2.24	1.80
19	1.70	1.56	1.56	.94	.42	.70	1.10	1.38	1.38	1.58	2.30	1.80
20	1.66	1.60	1.56	.92	.42	.70	1.10	1.40	1.38	1.58	2.30	1.84
21	1.67	1.60	1.58	.90	.40	.68	1.10	1.40	1.38	1.58	2.32	1.83
22	1.68	1.50	1.58	.86	.40	.70	1.10	1.40	1.36	1.66	2.36	1.82
23	1.67	1.50	1.61	.84	.40	.72	1.06	1.40	1.34	1.66	2.34	1.78
24	1.67	1.60	1.64	.76	.38	.74	1.06	1.40	1.48	1.68	2.28	1.76
25	1.65	1.58	1.66	.74	.38	.80	1.06	1.40	1.46	1.64	2.22	1.76
26	1.64	1.50	1.68	.70	.36	.84	1.04	1.40	1.46	1.66	2.24	1.74
27	1.64	1.54	1.72	.68	.36	.96	1.12	1.38	1.60	1.66	2.24	1.74
28	1.66	1.54	1.72	.66	.34	.98	1.16	1.38	1.58	1.66	2.18	1.72
29	1.66	1.60	1.74	.64	.42	1.06	1.19	1.38	1.60	1.64	2.14	1.72
30	1.64	1.56	1.74	.64	-	1.10	1.22	1.36	1.60	1.62	2.10	1.70
31	1.62	-	1.76	.64	-	1.10	-	1.36	-	1.60	2.08	-

1924-25

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.68	1.34	1.14	1.04	0.66	0.84	0.98	1.16	0.80	1.10	1.10	.95
2	1.68	1.32	1.12	1.02	.64	.82	.96	1.12	.84	1.10	1.08	.95
3	1.66	1.30	1.10	1.02	.64	.80	.94	1.10	.96	1.08	1.06	.92
4	1.66	1.26	1.10	1.02	.64	.78	.92	1.08	.96	1.10	1.04	.92
5	1.64	1.22	1.16	1.00	.66	.76	.90	1.06	.94	1.10	1.02	.92
6	1.64	1.20	1.18	1.00	.66	.74	.88	1.06	.94	1.14	1.02	1.05
7	1.62	1.20	1.16	1.00	.74	.72	.86	1.04	.92	1.12	1.12	1.09
8	1.58	1.20	1.16	1.00	.82	.76	.92	1.04	.90	1.10	1.18	1.10
9	1.58	1.22	1.14	1.00	.90	.80	.90	1.02	.88	1.16	1.18	1.10
10	1.58	1.28	1.14	.99	1.00	.82	.92	1.02	.86	1.18	1.18	1.09
11	1.56	1.28	1.16	.99	1.04	.84	.92	1.00	.84	1.18	1.16	1.09
12	1.56	1.30	1.16	.99	1.06	.84	.90	1.00	.82	1.15	1.14	1.09
13	1.56	1.30	1.14	.99	1.08	.86	.88	.98	.88	1.16	1.14	1.08
14	1.54	1.26	1.12	.99	1.06	.86	.86	.98	.90	1.15	1.14	1.08
15	1.54	1.25	1.12	.99	1.04	.88	.86	.96	.94	1.15	1.12	1.06
16	1.54	1.24	1.14	.89	1.02	.88	.88	.96	.92	1.16	1.12	1.06
17	1.54	1.22	1.14	.88	1.00	.80	.90	.95	1.00	1.09	1.12	1.04
18	1.54	1.22	1.14	.87	.98	.94	.90	.94	1.06	1.10	1.10	1.04
19	1.53	1.22	1.12	.86	.96	1.00	.94	.94	1.04	1.15	1.08	1.14
20	1.52	1.20	1.10	.84	.94	1.02	.98	.94	1.04	1.15	1.08	1.12
21	1.52	1.20	1.10	.82	.94	1.04	1.04	.92	1.02	1.15	1.06	1.12
22	1.52	1.20	1.10	.80	.92	1.06	1.08	.92	1.02	1.12	1.06	1.08
23	1.50	1.18	1.08	.78	.92	1.06	1.10	.90	1.00	1.10	1.06	1.08
24	1.42	1.16	1.08	.76	.90	1.08	1.14	.88	.96	1.10	1.06	1.06
25	1.40	1.18	1.06	.76	.90	1.08	1.20	.86	1.14	1.08	1.05	1.04
26	1.40	1.18	1.06	.74	.88	1.06	1.20	.86	1.14	1.06	1.04	1.02
27	1.38	1.16	1.06	.74	.86	1.06	1.20	.86	1.14	1.06	1.04	1.02
28	1.36	1.16	1.06	.72	.84	1.04	1.18	.84	1.12	1.04	1.02	1.06
29	1.36	1.14	1.06	.70	-	1.04	1.18	.84	1.12	1.04	1.00	1.06
30	1.34	1.14	1.04	.68	-	1.02	1.18	.84	1.12	1.08	.95	1.10
31	1.34	-	1.04	.66	-	1.00	-	.82	-	1.10	.95	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1925-26

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.10	1.04	1.10	0.96	0.92	1.00	1.46	1.70	1.74	1.48	1.24	1.03
2	1.11	1.04	1.08	.96	.94	1.02	1.48	1.74	1.70	1.50	1.24	1.02
3	1.12	1.02	1.10	.96	.94	1.02	1.46	1.76	1.68	1.52	1.24	1.04
4	1.12	1.02	1.10	.96	.94	1.00	1.46	1.78	1.68	1.50	1.24	1.08
5	1.12	1.02	1.10	.98	.94	1.00	1.46	1.76	1.68	1.48	1.24	1.12
6	1.12	1.08	1.10	.98	.92	.98	1.44	1.76	1.67	1.46	1.24	1.16
7	1.11	1.08	1.08	.98	.92	.98	1.46	1.76	1.67	1.46	1.20	1.18
8	1.10	1.07	1.08	.96	.92	.96	1.46	1.76	1.63	1.45	1.16	1.22
9	1.09	1.07	1.08	.96	.92	.98	1.44	1.78	1.59	1.44	1.12	1.20
10	1.08	1.08	1.08	.96	.92	.98	1.44	1.78	1.54	1.42	1.10	1.18
11	1.08	1.08	1.08	.96	.92	1.00	1.44	1.78	1.50	1.40	1.12	1.14
12	1.08	1.10	1.08	.98	.90	1.00	1.46	1.76	1.57	1.38	1.12	1.12
13	1.10	1.10	1.08	.98	.90	1.00	1.46	1.76	1.63	1.34	1.11	1.10
14	1.10	1.10	1.10	.98	.90	.98	1.46	1.76	1.70	1.30	1.11	1.24
15	1.08	1.10	1.10	.96	.90	.98	1.44	1.74	1.63	1.28	1.10	1.24
16	1.08	1.10	1.10	.96	.90	1.00	1.40	1.74	1.63	1.28	1.10	1.22
17	1.06	1.12	1.08	.96	.92	1.02	1.40	1.76	1.64	1.27	1.10	1.22
18	1.04	1.12	1.08	.96	.92	1.02	1.46	1.78	1.64	1.26	1.10	1.20
19	1.02	1.12	1.08	.94	.92	1.12	1.48	1.80	1.60	1.26	1.08	1.22
20	1.00	1.10	1.06	.94	.92	1.22	1.48	1.76	1.59	1.24	1.08	1.22
21	.98	1.10	1.06	.92	.92	1.30	1.46	1.74	1.58	1.26	1.10	1.24
22	.96	1.10	1.04	.92	.92	1.40	1.48	1.74	1.58	1.28	1.10	1.24
23	.94	1.10	1.04	.92	.92	1.44	1.48	1.74	1.56	1.26	1.14	1.32
24	.94	1.10	1.02	.92	.92	1.46	1.46	1.74	1.56	1.24	1.14	1.52
25	.94	1.08	1.02	.90	.98	1.48	1.46	1.72	1.56	1.24	1.12	1.52
26	1.02	1.08	1.02	.88	.96	1.50	1.68	1.74	1.55	1.22	1.10	1.50
27	1.04	1.08	1.00	.88	.96	1.50	1.66	1.74	1.54	1.20	1.08	1.48
28	1.05	1.08	.98	.88	.98	1.48	1.68	1.72	1.52	1.18	1.08	1.52
29	1.02	1.10	.98	.86	-	1.48	1.70	1.76	1.50	1.22	1.07	1.54
30	1.02	1.10	.98	.88	-	1.48	1.70	1.76	1.58	1.24	1.06	1.56
31	1.03	-	.98	.90	-	1.46	-	1.76	-	1.24	1.04	-

1926-27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.70	1.67	1.66	1.24	1.06	1.30	1.50	1.44	2.68	2.16	1.88	1.48
2	1.72	1.68	1.64	1.22	1.04	1.30	1.50	1.44	2.68	2.16	1.79	1.46
3	1.74	1.68	1.62	1.20	1.10	1.30	1.50	1.58	2.68	2.15	1.76	1.44
4	1.80	1.70	1.60	1.20	1.14	1.30	1.50	1.60	2.68	2.06	1.76	1.48
5	1.82	1.70	1.59	1.18	1.18	1.32	1.48	1.60	2.68	2.08	1.74	1.44
6	1.82	1.70	1.60	1.18	1.20	1.32	1.48	1.58	2.58	2.08	1.72	1.50
7	1.82	1.68	1.62	1.16	1.26	1.32	1.48	1.58	2.58	2.04	1.70	1.52
8	1.80	1.68	1.60	1.16	1.33	1.30	1.50	1.58	2.56	2.04	1.68	1.52
9	1.80	1.68	1.60	1.14	1.38	1.30	1.50	1.74	2.54	1.96	1.68	1.52
10	1.80	1.67	1.58	1.14	1.38	1.30	1.50	1.78	2.50	1.96	1.66	1.52
11	1.80	1.67	1.58	1.12	1.36	1.39	1.52	1.82	2.48	1.96	1.66	1.54
12	1.80	1.66	1.56	1.12	1.36	1.39	1.52	1.86	2.48	2.00	1.64	1.65
13	1.80	1.70	1.54	1.12	1.36	1.40	1.52	1.90	2.44	1.96	1.64	1.58
14	1.79	1.74	1.50	1.10	1.34	1.44	1.50	1.90	2.42	1.94	1.64	1.58
15	1.78	1.76	1.46	1.10	1.34	1.46	1.52	1.90	2.36	1.96	1.60	1.58
16	1.78	1.80	1.44	1.08	1.32	1.48	1.50	1.90	2.32	1.92	1.60	1.56
17	1.78	1.82	1.42	1.08	1.32	1.48	1.48	1.90	2.28	1.92	1.58	1.60
18	1.76	1.84	1.40	1.06	1.30	1.50	1.48	1.95	2.28	1.92	1.56	1.60
19	1.76	1.84	1.40	1.06	1.30	1.52	1.50	1.90	2.24	1.92	1.56	1.58
20	1.74	1.82	1.38	1.08	1.32	1.54	1.51	1.91	2.24	1.88	1.54	1.56
21	1.74	1.82	1.36	1.10	1.32	1.52	1.52	1.92	2.32	1.94	1.54	1.56
22	1.72	1.80	1.34	1.12	1.32	1.50	1.51	2.10	2.32	1.92	1.54	1.56
23	1.72	1.68	1.32	1.12	1.32	1.52	1.52	2.10	2.32	1.90	1.54	1.54
24	1.70	1.72	1.32	1.10	1.30	1.52	1.52	2.14	2.36	1.90	1.54	1.60
25	1.68	1.72	1.30	1.10	1.32	1.54	1.52	2.14	2.30	1.88	1.54	1.60
26	1.66	1.72	1.30	1.08	1.32	1.54	1.50	2.14	2.25	1.88	1.54	1.72
27	1.70	1.74	1.28	1.08	1.30	1.56	1.48	2.10	2.25	1.86	1.54	1.75
28	1.70	1.70	1.28	1.08	1.30	1.54	1.48	2.46	2.24	1.86	1.54	1.78
29	1.68	1.68	1.26	1.10	-	1.52	1.46	2.58	2.18	1.84	1.50	1.80
30	1.68	1.66	1.26	1.10	-	1.52	1.46	2.60	2.17	1.84	1.48	1.80
31	1.68	-	1.24	1.08	-	1.52	-	2.70	-	1.86	1.48	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.86	1.96	2.02	1.79	1.80	2.10	2.42	1.96	1.94	2.18	1.84	1.78
2	1.86	2.02	2.02	1.82	1.78	2.10	2.40	1.94	1.90	2.20	1.84	1.82
3	1.91	1.96	2.00	1.85	1.76	2.12	2.38	1.90	1.90	2.28	1.86	1.84
4	2.02	1.96	2.00	1.88	1.78	2.10	2.34	1.90	1.86	2.28	1.96	1.78
5	2.10	1.96	2.00	1.90	1.76	2.08	2.40	1.88	1.92	2.38	1.98	1.74
6	2.16	1.94	1.98	1.93	1.76	1.96	2.46	1.90	1.86	2.34	1.94	1.70
7	2.16	1.92	1.98	1.96	2.04	2.06	2.46	1.90	1.86	2.34	1.94	1.70
8	2.16	1.90	1.96	1.96	2.08	2.04	2.48	1.90	1.88	2.34	1.94	1.68
9	2.14	1.90	1.96	1.98	2.14	2.06	2.46	1.86	1.84	2.34	1.86	1.70
10	2.16	1.90	1.96	1.96	2.14	2.02	2.44	1.84	1.82	2.32	1.86	1.70
11	2.20	1.90	1.94	1.96	2.14	2.18	2.40	1.84	1.80	2.30	1.84	1.72
12	2.20	1.90	1.94	1.94	2.16	2.22	2.44	1.84	1.80	2.26	1.82	1.70
13	2.18	1.88	1.96	1.96	2.16	2.50	2.38	1.82	1.82	2.22	1.82	1.74
14	2.18	1.88	1.96	1.96	2.22	2.70	2.42	1.81	1.80	2.18	1.82	1.70
15	2.16	2.00	1.96	1.96	2.26	2.78	2.36	1.81	1.80	2.18	1.80	1.70
16	2.15	1.96	1.96	1.94	2.26	2.76	2.32	1.86	1.80	2.15	1.80	1.70
17	2.14	1.96	1.88	1.92	2.30	2.74	2.32	2.00	1.94	2.14	1.80	1.70
18	2.12	1.96	1.88	1.94	2.26	2.68	2.30	2.02	1.94	2.10	1.78	1.70
19	2.12	1.96	1.86	1.94	2.24	2.66	2.22	2.02	2.06	2.10	1.74	1.70
20	2.14	1.96	1.86	1.94	2.20	2.62	2.24	2.02	2.00	2.10	1.72	1.70
21	2.08	2.02	1.86	1.96	2.18	2.60	2.24	2.02	2.00	2.09	1.76	1.68
22	2.06	1.96	1.86	1.90	2.18	2.58	2.20	2.02	2.10	2.09	1.74	1.64
23	2.08	1.98	1.82	1.88	2.20	2.56	2.22	2.02	2.06	2.08	1.82	1.60
24	2.08	2.00	1.82	1.90	2.20	2.56	2.22	2.00	2.04	2.08	1.78	1.60
25	2.08	2.02	1.82	1.92	2.18	2.56	2.10	2.00	2.06	2.05	1.76	1.50
26	2.06	2.00	1.83	1.84	2.18	2.60	2.08	2.00	2.06	2.04	1.74	1.50
27	2.04	2.00	1.84	1.82	2.16	2.58	2.04	2.00	2.08	2.04	1.74	1.46
28	2.06	2.00	1.84	1.82	2.16	2.56	2.04	1.96	2.10	1.92	1.74	1.44
29	2.06	2.02	1.80	1.82	2.10	2.54	2.00	1.98	2.16	1.88	1.80	1.44
30	2.02	2.00	1.76	1.82	-	2.48	1.98	1.96	2.18	1.86	1.80	1.44
31	2.00	-	1.76	1.82	-	2.45	-	1.94	-	1.86	1.80	-

1928-29

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.44	1.54	1.72	1.52	1.14	0.66	2.54	2.48	2.02	1.94	2.36	1.68
2	1.46	1.56	1.72	1.50	1.14	.66	2.52	2.46	1.96	1.92	2.32	1.66
3	1.44	1.54	1.74	1.48	1.12	.66	2.52	2.42	1.94	1.92	2.24	1.64
4	1.44	1.56	1.74	1.48	1.12	.66	2.56	2.42	1.90	1.94	2.22	1.64
5	1.48	1.56	1.74	1.50	1.10	.64	2.54	2.40	1.90	1.94	2.20	1.64
6	1.48	1.54	1.76	1.46	1.10	.64	2.52	2.38	1.86	1.94	2.18	1.66
7	1.46	1.66	1.76	1.44	1.10	.64	2.68	2.36	1.84	2.06	2.16	1.64
8	1.46	1.62	1.72	1.42	1.12	.62	2.72	2.28	1.84	2.08	2.08	1.64
9	1.44	1.62	1.70	1.40	1.12	.62	2.70	2.26	1.82	2.00	2.10	1.64
10	1.42	1.66	1.70	1.40	1.10	.62	2.68	2.26	1.80	1.98	2.10	1.66
11	1.42	1.62	1.68	1.38	1.08	.62	2.68	2.24	1.84	2.00	2.08	1.60
12	1.42	1.60	1.66	1.36	.88	.62	2.68	2.24	1.82	1.98	2.07	1.58
13	1.44	1.62	1.70	1.36	.88	.88	2.68	2.24	1.84	2.00	2.06	1.58
14	1.42	1.58	1.78	1.34	.80	.88	2.66	2.22	1.82	2.00	2.04	1.58
15	1.42	1.58	1.70	1.34	.80	2.16	2.62	2.22	2.04	2.00	2.01	1.56
16	1.48	1.58	1.78	1.34	.80	2.48	2.62	2.20	2.02	2.00	1.97	1.54
17	1.48	1.70	1.86	1.28	.78	2.64	2.58	2.20	2.02	1.96	1.94	1.52
18	1.50	1.72	1.78	1.28	.78	2.68	2.52	2.18	2.02	1.94	1.92	1.50
19	1.52	1.72	1.60	1.26	.76	2.72	2.50	2.14	2.04	1.92	1.90	1.48
20	1.54	1.74	1.63	1.24	.76	2.74	2.44	2.12	2.08	1.86	1.88	1.48
21	1.54	1.74	1.67	1.24	.74	2.72	2.44	2.12	2.10	1.84	1.85	1.46
22	1.58	1.70	1.70	1.22	.74	2.70	2.42	2.04	2.10	1.82	1.85	1.44
23	1.58	1.70	1.70	1.22	.74	2.68	2.42	2.08	2.04	1.80	1.84	1.44
24	1.58	1.70	1.70	1.22	.76	2.66	2.40	2.10	2.04	2.20	1.82	1.46
25	1.58	1.70	1.70	1.22	.74	2.66	2.40	2.06	2.04	2.40	1.80	1.44
26	1.58	1.68	1.68	1.22	.72	2.62	2.42	2.06	2.06	2.50	1.78	1.44
27	1.56	1.68	1.68	1.18	.70	2.54	2.48	2.08	2.02	2.50	1.78	1.44
28	1.54	1.72	1.66	1.16	.70	2.58	2.50	2.06	2.02	2.48	1.74	1.50
29	1.52	1.72	1.58	1.14	-	2.52	2.52	2.04	1.98	2.48	1.72	1.54
30	1.50	1.72	1.54	1.14	-	2.52	2.52	2.02	1.96	2.46	1.70	1.54
31	1.50	-	1.54	1.14	-	2.52	-	2.02	-	2.40	1.70	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36—Continued

1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.54	1.50	1.46	1.34	1.34	1.58	1.46	1.78	1.87	2.00	1.62	1.26
2	1.54	1.50	1.46	1.34	1.36	1.58	1.44	1.90	1.86	1.98	1.62	1.38
3	1.52	1.52	1.46	1.34	1.36	1.48	1.42	1.94	1.86	1.94	1.60	1.36
4	1.52	1.52	1.36	1.34	1.34	1.48	1.46	1.94	1.84	1.94	1.58	1.36
5	1.50	1.48	1.42	1.34	1.34	1.48	1.48	1.96	1.92	1.94	1.56	1.36
6	1.48	1.50	1.42	1.34	1.34	1.46	1.48	1.96	1.96	1.92	1.56	1.34
7	1.48	1.50	1.40	1.34	1.24	1.46	1.48	1.92	2.02	1.92	1.54	1.32
8	1.46	1.50	1.38	1.34	1.24	1.54	1.48	1.92	2.00	1.90	1.54	1.30
9	1.46	1.48	1.38	1.34	1.24	1.54	1.48	1.96	1.96	1.90	1.54	1.30
10	1.48	1.54	1.38	1.34	1.22	1.54	1.46	1.94	1.92	1.88	1.50	1.30
11	1.46	1.58	1.40	1.34	1.20	1.54	1.44	1.92	1.92	1.90	1.46	1.30
12	1.46	1.54	1.40	1.34	1.18	1.52	1.44	1.92	2.00	1.90	1.44	1.30
13	1.46	1.54	1.42	1.34	1.18	1.52	1.50	1.98	2.00	1.86	1.42	1.28
14	1.46	1.54	1.42	1.36	1.18	1.50	1.52	1.98	2.02	1.84	1.42	1.28
15	1.46	1.54	1.42	1.38	1.18	1.50	1.60	1.98	2.02	1.84	1.42	1.26
16	1.46	1.52	1.42	1.38	1.18	1.50	1.64	1.92	2.02	1.80	1.40	1.28
17	1.46	1.54	1.40	1.38	1.16	1.50	1.70	1.90	2.02	1.78	1.40	1.24
18	1.46	1.54	1.38	1.38	1.14	1.52	1.74	1.86	2.00	1.76	1.38	1.22
19	1.46	1.52	1.38	1.38	1.16	1.52	1.78	1.84	2.00	1.78	1.34	1.22
20	1.46	1.52	1.36	1.40	1.30	1.50	1.74	1.84	1.98	1.74	1.32	1.20
21	1.48	1.52	1.36	1.40	1.44	1.50	1.70	1.80	1.98	1.72	1.32	1.20
22	1.48	1.50	1.36	1.38	1.54	1.46	1.74	1.78	1.96	1.70	1.30	1.20
23	1.50	1.50	1.34	1.38	1.56	1.48	1.74	1.94	1.96	1.68	1.30	1.14
24	1.48	1.48	1.34	1.36	1.58	1.46	1.74	1.90	1.96	1.66	1.28	1.12
25	1.48	1.48	1.34	1.36	1.62	1.46	1.72	1.96	1.98	1.64	1.26	1.12
26	1.50	1.48	1.34	1.36	1.62	1.46	1.72	1.94	1.96	1.64	1.26	1.28
27	1.50	1.48	1.34	1.34	1.64	1.48	1.72	1.94	1.96	1.68	1.26	1.28
28	1.50	1.46	1.34	1.34	1.60	1.44	1.72	1.96	1.90	1.70	1.24	1.22
29	1.52	1.46	1.34	1.38	-	1.42	1.70	1.96	2.00	1.68	1.24	1.16
30	1.50	1.46	1.34	1.38	-	1.42	1.70	1.94	2.00	1.68	1.22	1.16
31	1.52	-	1.34	1.38	-	1.42	-	1.88	-	1.66	1.24	-

1930-31

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.14	1.06	1.06	1.24	1.26	1.16	1.36	1.54	1.56	1.52	1.06	.94
2	1.12	1.06	1.06	1.26	1.26	1.16	1.38	1.54	1.56	1.50	1.10	.92
3	1.12	1.06	1.06	1.26	1.24	1.18	1.40	1.54	1.54	1.48	1.20	.92
4	1.12	1.04	1.08	1.26	1.24	1.18	1.42	1.54	1.54	1.46	1.16	.92
5	1.12	1.04	1.08	1.26	1.24	1.18	1.44	1.54	1.54	1.44	1.16	.90
6	1.12	1.04	1.08	1.26	1.24	1.18	1.44	1.56	1.54	1.42	1.16	.90
7	1.12	1.04	1.08	1.26	1.24	1.18	1.46	1.54	1.54	1.38	1.16	.90
8	1.14	1.02	1.08	1.26	1.22	1.18	1.46	1.52	1.54	1.34	1.14	.88
9	1.18	1.02	1.10	1.28	1.20	1.18	1.46	1.52	1.54	1.30	1.12	.88
10	1.16	1.02	1.10	1.28	1.20	1.18	1.46	1.52	1.54	1.30	1.12	.88
11	1.16	1.02	1.10	1.28	1.20	1.18	1.46	1.52	1.54	1.30	1.08	.88
12	1.16	1.02	1.10	1.30	1.22	1.20	1.46	1.52	1.54	1.30	1.06	.88
13	1.24	1.02	1.10	1.30	1.22	1.20	1.46	1.54	1.54	1.30	1.04	.90
14	1.26	1.02	1.10	1.30	1.14	1.20	1.46	1.54	1.54	1.28	1.00	.92
15	1.26	1.02	1.10	1.30	1.10	1.22	1.48	1.54	1.54	1.28	.98	.92
16	1.26	1.02	1.12	1.30	1.08	1.22	1.52	1.52	1.56	1.28	.98	1.04
17	1.26	1.02	1.12	1.28	1.08	1.24	1.54	1.50	1.54	1.28	.98	1.04
18	1.24	1.02	1.14	1.28	1.08	1.24	1.54	1.54	1.54	1.28	.96	1.06
19	1.22	1.02	1.16	1.34	1.06	1.24	1.54	1.60	1.54	1.30	.96	1.08
20	1.22	1.06	1.18	1.36	1.12	1.24	1.54	1.58	1.54	1.32	.94	1.38
21	1.16	1.18	1.18	1.38	1.12	1.26	1.56	1.58	1.54	1.32	.92	1.44
22	1.14	1.10	1.18	1.38	1.12	1.26	1.58	1.56	1.56	1.28	.90	1.52
23	1.10	1.18	1.20	1.38	1.12	1.22	1.58	1.56	1.58	1.24	.90	1.56
24	1.10	1.18	1.20	1.38	1.12	1.24	1.58	1.58	1.60	1.21	.88	1.56
25	1.08	1.12	1.22	1.36	1.14	1.26	1.60	1.58	1.58	1.20	.88	1.60
26	1.08	1.10	1.22	1.36	1.14	1.24	1.60	1.56	1.58	1.16	.86	1.60
27	1.08	1.10	1.22	1.34	1.14	1.28	1.60	1.56	1.58	1.14	.86	1.66
28	1.08	1.08	1.22	1.32	1.14	1.28	1.60	1.56	1.56	1.14	.96	1.80
29	1.08	1.08	1.22	1.36	-	1.32	1.58	1.58	1.56	1.10	.96	1.74
30	1.08	1.06	1.22	1.28	-	1.32	1.56	1.58	1.54	1.08	.86	1.74
31	1.08	-	1.24	1.28	-	1.36	-	1.56	-	1.06	.85	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1931-32

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.74	1.52	2.10	1.89	1.90	1.84	1.94	1.56	1.54	1.42	1.30	1.30
2	1.68	1.50	2.10	1.90	1.90	1.84	1.92	1.54	1.56	1.40	1.30	1.28
3	1.64	1.48	2.06	1.94	1.90	1.86	1.92	1.54	1.56	1.40	1.38	1.28
4	1.64	1.46	2.02	1.94	1.90	1.86	1.92	1.52	1.56	1.40	1.38	1.26
5	1.64	1.46	2.00	1.94	1.86	1.86	1.94	1.52	1.58	1.42	1.36	1.26
6	1.64	1.44	1.96	1.92	1.86	1.84	1.96	1.54	1.58	1.42	1.36	1.26
7	1.68	1.44	1.92	1.90	1.84	1.84	1.98	1.56	1.58	1.42	1.34	1.20
8	1.68	1.42	1.90	1.92	1.82	1.84	1.98	1.58	1.56	1.42	1.34	1.18
9	1.70	1.42	2.04	1.90	1.82	1.84	1.98	1.60	1.54	1.46	1.20	1.18
10	1.66	1.42	2.04	1.90	1.82	1.84	1.96	1.62	1.52	1.58	1.18	1.16
11	1.64	1.40	1.96	1.87	1.82	1.82	1.94	1.64	1.50	1.56	1.18	1.16
12	1.60	1.40	1.94	1.86	1.82	1.82	1.88	1.64	1.40	1.56	1.16	1.14
13	1.65	1.42	1.90	1.88	1.84	1.80	1.84	1.64	1.48	1.56	1.10	1.14
14	1.68	1.44	1.90	1.90	1.84	1.80	1.84	1.62	1.48	1.54	1.08	1.12
15	1.68	1.44	1.90	1.89	1.86	1.80	1.82	1.62	1.46	1.54	1.08	1.12
16	1.66	1.48	1.89	1.89	1.86	1.78	1.82	1.62	1.46	1.54	1.08	1.10
17	1.66	1.62	1.89	1.90	1.84	1.78	1.78	1.50	1.44	1.52	1.08	1.08
18	1.64	1.80	1.89	1.90	1.86	1.78	1.76	1.58	1.48	1.52	1.30	1.04
19	1.60	1.84	1.89	1.92	1.88	1.78	1.74	1.56	1.48	1.50	1.30	1.04
20	1.58	1.86	1.89	1.90	1.90	1.80	1.68	1.56	1.46	1.50	1.30	1.02
21	1.58	1.88	1.89	1.90	1.90	1.80	1.68	1.54	1.46	1.48	1.30	1.00
22	1.56	1.92	1.89	1.90	1.90	1.84	1.67	1.54	1.42	1.48	1.30	1.00
23	1.58	2.04	1.90	1.90	1.90	1.88	1.67	1.52	1.42	1.46	1.30	.96
24	1.56	2.04	1.94	1.92	1.90	1.92	1.66	1.52	1.42	1.40	1.28	.94
25	1.66	2.04	1.96	1.90	1.90	1.98	1.66	1.54	1.48	1.40	1.28	.94
26	1.68	2.06	1.94	1.88	1.86	2.00	1.62	1.60	1.48	1.40	1.26	.92
27	1.74	2.10	1.94	1.86	1.84	2.02	1.60	1.58	1.48	1.40	1.26	.92
28	1.68	2.10	1.92	1.86	1.84	2.02	1.58	1.56	1.46	1.48	1.30	.92
29	1.66	2.10	1.90	1.86	1.84	2.02	1.58	1.56	1.46	1.48	1.30	.90
30	1.64	2.10	1.90	1.88	-	2.00	1.56	1.54	1.42	1.42	1.28	.90
31	1.56	-	1.89	1.88	-	1.98	-	1.54	-	1.44	1.28	-

1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.88	.90	.88	1.30	1.40	1.52	2.57	2.20	2.46	1.88	1.82	1.64
2	.88	.90	.88	1.34	1.40	1.52	2.64	2.22	2.40	2.10	1.80	1.62
3	.88	.92	.88	1.36	1.42	1.54	2.64	2.21	2.36	2.16	1.82	1.62
4	.90	.94	.88	1.36	1.44	1.54	2.70	2.20	2.32	2.16	1.80	1.60
5	.90	.98	.86	1.38	1.44	1.52	2.65	2.15	2.28	2.16	1.78	1.60
6	.90	.98	.86	1.38	1.46	1.52	2.63	2.19	2.24	2.14	1.76	1.60
7	.88	.90	.88	1.36	1.44	1.51	2.60	2.24	2.19	2.14	1.90	1.60
8	.88	.94	.88	1.32	1.44	1.50	2.57	2.26	2.16	2.12	1.94	1.58
9	.86	1.02	.88	1.32	1.44	1.50	2.59	2.24	2.12	2.10	1.94	1.58
10	.90	1.04	.88	1.30	1.42	1.50	2.72	2.24	2.16	2.08	1.94	1.58
11	.90	1.04	.86	1.30	1.42	1.50	2.74	2.22	2.14	2.06	1.92	1.70
12	.88	1.02	.86	1.28	1.44	1.52	2.82	2.19	2.14	2.04	1.92	1.70
13	.88	1.02	.86	1.26	1.44	1.54	2.78	2.19	2.14	2.02	1.90	1.70
14	.88	1.00	.86	1.26	1.44	1.54	2.80	2.19	2.02	2.00	1.90	1.71
16	.88	1.00	.86	1.30	1.44	1.52	2.76	2.19	2.00	2.00	1.90	1.70
16	.90	1.00	.86	1.32	1.42	1.50	2.68	2.22	1.98	1.98	1.88	1.68
17	.90	.98	.88	1.32	1.40	1.50	2.64	2.26	1.96	1.98	1.86	1.68
18	.88	.98	.88	1.28	1.38	1.49	2.61	2.24	1.92	1.94	1.84	1.68
19	.88	.98	.92	1.28	1.38	1.51	2.58	2.35	1.92	1.92	1.82	1.68
20	.88	.98	.96	1.28	1.38	1.56	2.52	2.68	1.90	1.90	1.80	1.66
21	.88	.98	1.00	1.28	1.38	1.67	2.48	2.76	1.90	1.88	1.78	1.66
22	.96	.98	1.02	1.30	1.38	1.68	2.44	2.84	1.88	1.94	1.76	1.64
23	.90	.98	1.06	1.34	1.42	1.68	2.40	2.78	1.86	1.94	1.74	1.64
24	.90	.98	1.10	1.34	1.44	1.66	2.38	2.70	1.84	1.92	1.72	1.62
25	.94	.96	1.14	1.38	1.46	1.66	2.28	2.70	1.82	1.90	1.72	1.62
26	.94	.91	1.16	1.38	1.46	1.66	2.22	2.72	1.82	1.90	1.70	1.64
27	.94	.90	1.20	1.40	1.48	1.66	2.18	2.82	1.80	1.88	1.70	1.64
28	.92	.90	1.28	1.40	1.50	1.68	2.16	2.56	1.80	1.88	1.68	1.64
29	.92	.90	1.26	1.38	-	1.68	2.16	2.54	1.78	1.86	1.66	1.62
30	.92	.90	1.26	1.38	-	2.18	2.18	2.56	1.86	1.86	1.66	1.62
31	.92	-	1.26	1.40	-	2.48	-	2.53	-	1.84	1.64	-

61009 O—38——13

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-31--Continued

1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.62	1.44	1.30				2.10	1.72	1.46	1.34	1.18	0.92
2	1.60	1.42	1.30				2.10	1.72	1.44	1.34	1.16	.92
3	1.60	1.42	1.30				2.10	1.69	1.44	1.32	1.10	.88
4	1.60	1.40	1.32				2.12	1.68	1.42	1.28	1.10	.86
5	1.58	1.40	1.34				2.10	1.66	1.42	1.26	1.12	.84
6	1.58	1.40	1.34				2.12	1.66	1.38	1.28	1.16	.82
7	1.58	1.38	-				2.12	1.66	1.38	1.28	1.16	.82
8	1.56	1.38	-				2.12	1.66	1.36	1.28	1.16	.82
9	1.56	1.36	-				2.12	1.66	1.36	1.32	1.16	.86
10	1.56	1.36	-				2.10	1.64	1.34	1.34	1.14	.86
11	1.54	1.36	-				2.10	1.64	1.34	1.34	1.14	.86
12	1.54	1.36	-				2.12	1.64	1.34	1.34	1.14	.84
13	1.52	1.34	-				2.12	1.62	1.34	1.32	1.12	.84
14	1.52	1.34	-				2.10	1.62	1.34	1.32	1.12	.96
15	1.52	1.34	-				2.08	1.64	1.32	1.28	1.12	.96
16	1.52	1.32	-				2.06	1.64	1.32	1.28	1.10	.96
17	1.50	1.32	-				2.04	1.62	1.32	1.26	1.08	.96
18	1.50	1.32	-				2.02	1.62	1.40	1.26	1.08	.98
19	1.48	1.28	-				2.00	1.60	1.40	1.30	1.06	.98
20	1.48	1.28	-				1.98	1.58	1.38	1.30	1.06	1.00
21	1.50	1.28	-				1.98	1.58	1.38	1.30	1.04	1.06
22	1.50	1.28	-				1.90	1.56	1.38	1.28	1.04	1.06
23	1.50	1.26	-				1.88	1.56	1.36	1.28	1.04	1.06
24	1.48	1.26	-				1.86	1.56	1.36	1.26	1.02	1.06
25	1.48	1.26	-				1.82	1.54	1.36	1.26	1.02	1.04
26	1.46	1.26	-				1.80	1.52	1.34	1.26	.98	1.04
27	1.46	1.26	-				1.78	1.50	1.52	1.24	.98	1.02
28	1.46	1.28	-				1.78	1.50	1.50	1.24	.96	1.02
29	1.46	1.28	-				1.78	1.48	1.48	1.22	.96	1.00
30	1.44	1.28	-				1.74	1.48	1.46	1.20	.94	1.00
31	1.44	-	-				-	1.46	-	1.18	.94	-

1934-35

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.00	1.00	1.68	1.62	1.62	1.76	2.28	1.92	2.10	2.34	2.02	1.96
2	1.00	1.00	1.68	1.62	1.60	1.82	2.26	1.92	2.10	2.34	2.00	1.94
3	.98	1.06	1.72	1.60	1.60	1.84	2.24	1.98	2.08	2.36	2.00	1.90
4	.98	1.06	1.74	1.60	1.60	1.88	2.20	2.06	2.08	2.36	2.00	1.90
5	.98	1.06	1.74	1.60	1.60	1.90	2.16	2.06	2.08	2.36	2.00	1.88
6	.96	1.04	1.74	1.62	1.60	2.20	2.12	2.08	2.10	2.36	2.26	1.88
7	.96	1.04	1.74	1.63	1.58	2.34	2.10	2.10	2.10	2.34	2.32	1.86
8	.96	1.04	1.76	1.63	1.58	2.34	2.08	2.10	2.12	2.32	2.36	1.86
9	.94	1.02	1.76	1.64	1.58	2.32	2.08	2.12	2.14	2.30	2.32	1.86
10	.94	1.02	1.80	1.64	1.58	2.34	2.04	2.12	2.12	2.30	2.32	1.84
11	.94	1.02	1.76	1.64	1.58	2.42	2.08	2.12	2.10	2.28	2.30	1.82
12	.94	1.00	1.76	1.64	1.60	2.58	2.10	2.14	2.12	2.30	2.29	1.80
13	.92	1.00	1.74	1.64	1.60	2.58	2.16	2.14	2.14	2.30	2.28	1.78
14	.92	1.00	1.74	1.64	1.62	2.56	2.14	2.14	2.14	2.26	2.28	1.76
15	.92	.98	1.74	1.64	1.64	2.56	2.10	2.14	2.12	2.26	2.26	1.80
16	.90	.98	1.70	1.62	1.64	2.55	2.08	2.12	2.14	2.24	2.24	1.86
17	.90	.98	1.70	1.62	1.66	2.55	2.06	2.12	2.16	2.22	2.22	1.86
18	.90	1.08	1.68	1.62	1.68	2.55	2.04	2.11	2.20	2.22	2.20	1.86
19	.90	1.08	1.68	1.64	1.68	2.52	2.04	2.11	2.26	2.18	2.22	1.88
20	1.00	1.18	1.68	1.66	1.66	2.50	2.02	2.10	2.32	2.18	2.20	1.86
21	1.02	1.26	1.66	1.66	1.66	2.50	1.98	2.10	2.34	2.14	2.22	1.84
22	1.02	1.34	1.66	1.66	1.66	2.48	1.94	2.10	2.34	2.14	2.20	1.80
23	1.02	1.54	1.65	1.68	1.66	2.48	1.92	2.10	2.36	2.12	2.18	1.80
24	1.02	1.58	1.65	1.68	1.66	2.46	1.94	2.10	2.36	2.10	2.16	1.84
25	1.02	1.50	1.64	1.66	1.66	2.46	1.94	2.10	2.40	2.10	2.14	1.84
26	.98	.52	1.64	1.66	1.68	2.43	1.94	2.10	2.40	2.10	2.12	1.84
27	.96	1.58	1.64	1.64	1.68	2.40	1.94	2.10	2.40	2.10	2.08	1.82
28	.96	1.62	1.64	1.64	1.70	2.36	1.92	2.12	2.42	2.08	2.06	1.82
29	.98	1.62	1.63	1.64	-	2.33	1.90	2.10	2.38	2.08	2.04	1.80
30	1.00	1.64	1.63	1.62	-	2.33	1.90	2.08	2.36	2.06	2.02	1.80
31	1.00	-	1.62	1.62	-	2.30	-	2.08	-	2.04	2.00	-

Gage height, in feet, of Lake Mendota at Madison, Wis., 1916-36--Continued

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.80	1.66	1.82	1.92	2.02	1.78	2.10	1.56	1.38	1.28	0.88	0.98
2	1.78	1.66	1.82	1.92	2.00	1.76	2.06	1.56	1.46	1.28	.88	.96
3	1.76	1.68	1.82	1.96	2.00	1.74	2.02	1.58	1.50	1.28	.88	.94
4	1.74	1.72	1.82	2.00	2.00	1.74	1.98	1.58	1.46	1.26	.84	.94
5	1.72	1.74	1.84	2.02	2.00	1.76	1.96	1.58	1.52	1.24	.80	.94
6	1.68	1.74	1.84	2.04	2.00	1.76	1.94	1.56	1.54	1.24	.78	.96
7	1.64	1.72	1.84	2.04	2.00	1.76	1.92	1.56	1.54	1.22	.74	.98
8	1.64	1.74	1.84	2.04	2.00	1.78	1.90	1.56	1.52	1.22	.75	1.02
9	1.64	1.74	1.86	2.06	2.00	1.79	1.87	1.56	1.52	1.22	.75	1.04
10	1.66	1.76	1.86	2.06	2.00	1.77	1.86	1.58	1.48	1.22	.78	1.04
11	1.66	1.76	1.86	2.08	2.00	2.08	1.84	1.58	1.44	1.22	.76	1.08
12	1.68	1.78	1.88	2.08	2.00	2.30	1.82	1.56	1.44	1.20	.76	1.12
13	1.70	1.76	1.88	2.08	2.01	2.44	1.80	1.56	1.42	1.20	.76	1.14
14	1.70	1.76	1.88	2.08	1.96	2.43	1.76	1.58	1.42	1.18	.76	1.20
15	1.72	1.76	1.88	2.08	1.92	2.43	1.76	1.56	1.42	1.18	.76	1.23
16	1.74	1.74	1.88	2.08	1.92	2.40	1.74	1.56	1.42	1.14	.76	1.26
17	1.70	1.74	1.86	2.07	1.92	2.40	1.74	1.52	1.42	1.10	.76	1.30
18	1.68	1.74	1.86	2.07	1.92	2.38	1.72	1.50	1.42	1.10	.76	1.28
19	1.68	1.74	1.86	2.07	1.92	2.38	1.72	1.50	1.42	1.10	.78	1.26
20	1.70	1.74	1.86	2.07	1.90	2.37	1.70	1.48	1.42	1.10	.78	1.26
21	1.70	1.76	1.86	2.07	1.84	2.36	1.66	1.45	1.42	1.10	.90	1.24
22	1.70	1.76	1.84	2.07	1.80	2.32	1.64	1.44	1.40	1.06	.88	1.24
23	1.68	1.76	1.84	2.07	1.78	2.28	1.56	1.42	1.39	1.05	.88	1.22
24	1.68	1.78	1.84	2.06	1.82	2.26	1.54	1.42	1.38	1.04	.88	1.22
25	1.66	1.78	1.86	2.06	1.84	2.24	1.52	1.42	1.38	1.00	.82	1.22
26	1.64	1.80	1.86	2.06	1.84	2.24	1.52	1.39	1.36	1.00	.90	1.18
27	1.64	1.80	1.88	2.05	1.88	2.22	1.52	1.38	1.36	.96	.93	1.18
28	1.64	1.82	1.88	2.04	1.84	2.23	1.55	1.38	1.34	.96	.96	1.17
29	1.62	1.80	1.90	2.04	1.82	2.22	1.54	1.36	1.33	.94	.98	1.16
30	1.62	1.82	1.90	2.04	-	2.20	1.54	1.38	1.32	.90	1.00	1.16
31	1.62	-	1.90	2.02	-	2.20	-	1.38	-	.88	1.02	-

Lake Monona at Madison, Wis.

Location.- Reference point, lat. 43°3'50", long. 89°23'45", in NW¼ sec. 23, T. 7 N., R. 9 E., at end of concrete storm sewer in Brittingham Park, Madison, Wis. Zero of datum to which stages are referred is 843.40 feet above mean sea level.
Drainage area.- 273 square miles.
Lake surface area.- 4.40 square miles.
Records available.- September 1915 to September 1936.
Extremes.- Maximum stage observed during year, 2.03 feet Mar. 23-25; minimum observed, 0.20 foot Feb. 19-21.
1915-36: Maximum stage observed, 3.66 feet July 28, 1929; minimum observed, 0.03 foot Oct. 15, 16, 1935.
Remarks.- Gage-height record furnished by city engineer of Madison, Wis.

Gage-height, in feet, 1915-36

1915-16

Day	Sept.	Oct.	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	2.80	-	1.70	2.35	1.71	2.87	2.35	1.70	2.30	2.20	2.05
2	-	2.70	-	1.70	2.33	1.69	2.85	2.40	1.65	2.30	2.20	2.05
3	-	2.60	-	1.70	2.30	1.67	2.85	2.40	1.60	2.30	2.20	2.05
4	-	2.60	-	1.70	2.27	1.65	2.85	2.40	1.60	2.35	2.20	2.00
5	-	2.50	-	1.70	2.25	1.65	2.80	2.40	1.55	2.35	2.20	2.00
6	-	2.50	-	1.70	2.20	1.63	2.75	2.35	1.50	2.35	2.45	2.20
7	-	2.40	-	1.70	2.17	1.57	2.71	2.30	1.60	2.35	2.50	2.20
8	-	2.30	-	1.70	2.15	1.55	2.70	2.30	1.70	2.35	2.50	2.25
9	-	2.20	1.10	1.60	2.10	1.53	2.60	2.30	1.85	2.30	2.50	2.35
10	-	2.10	1.10	1.60	2.07	1.53	2.60	2.25	1.90	2.30	2.50	2.35
11	-	2.10	1.10	1.60	2.05	1.50	2.60	2.10	1.95	2.30	2.45	2.35
12	-	2.10	1.10	1.60	2.03	1.50	2.50	2.10	1.95	2.30	2.45	2.35
13	-	2.00	1.20	1.60	2.00	1.48	2.50	2.10	1.95	2.30	2.40	2.35
14	-	2.00	1.20	1.60	2.00	1.48	2.50	2.20	2.00	2.30	2.40	2.30
15	-	2.00	1.20	1.60	1.97	1.48	2.40	2.20	2.00	2.30	2.40	2.30
16	-	2.00	1.20	1.60	1.95	1.45	2.40	2.20	2.00	2.35	2.35	2.25
17	-	2.00	1.20	1.60	1.92	1.45	2.40	2.10	2.00	2.35	2.35	2.25
18	-	2.00	1.30	1.60	1.92	1.45	2.30	2.10	2.05	2.30	2.35	2.20
19	-	2.00	1.40	1.60	1.90	1.43	2.30	2.00	2.05	2.30	2.35	2.20
20	-	2.00	1.50	1.60	1.90	1.43	2.40	2.00	2.10	2.45	2.30	2.20
21	-	2.00	1.50	1.60	1.87	1.45	2.40	2.00	2.10	2.45	2.30	2.20
22	-	1.90	1.50	1.60	1.87	1.45	2.40	2.00	2.10	2.45	2.30	2.10
23	3.20	-	1.50	1.60	1.85	1.50	2.40	1.90	2.10	2.45	2.25	2.10
24	3.20	-	1.50	1.60	1.83	1.55	2.40	1.90	2.10	2.40	2.25	2.10
25	3.20	-	1.50	1.72	1.80	1.65	2.40	1.90	2.20	2.40	2.20	2.10
26	3.10	-	1.50	1.83	1.77	2.60	2.30	1.90	2.20	2.40	2.20	2.20
27	3.10	-	1.60	1.95	1.75	2.65	2.30	1.85	2.20	2.30	2.20	2.40
28	2.90	-	1.70	2.12	1.75	2.73	2.30	1.80	2.25	2.30	2.20	2.45
29	2.90	-	1.70	2.30	1.73	2.80	2.30	1.75	2.25	2.30	2.20	2.45
30	2.80	-	1.70	2.35	-	2.85	2.30	1.70	2.30	2.25	2.15	2.50
31	-	-	-	2.35	-	2.85	-	1.70	-	2.25	2.15	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1916-17

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.60	2.20				-	2.15	1.70	1.70	3.00	3.15	2.46
2	2.60	2.15				-	2.15	1.75	1.70	3.07	3.10	2.44
3	2.60	2.10				-	2.10	1.75	1.74	3.10	3.00	2.40
4	2.60	2.10				-	2.10	1.75	1.79	3.20	3.00	2.38
5	2.55	2.10				-	2.05	1.70	1.83	3.20	3.00	2.45
6	2.55	2.00				-	2.05	1.70	1.88	3.20	2.95	2.40
7	2.55	2.00				-	2.05	1.70	1.92	3.25	2.95	2.40
8	2.45	2.00				-	2.00	1.70	1.97	3.25	3.00	2.45
9	2.45	-				-	2.00	1.70	2.01	3.30	3.00	2.43
10	2.45	-				-	1.95	1.70	2.05	3.30	3.00	2.40
11	2.40	-				-	1.95	1.70	2.10	3.34	3.00	2.37
12	2.40	-				-	1.90	1.70	2.10	3.38	2.94	2.35
13	2.40	-				-	1.85	1.70	2.20	3.38	2.91	2.40
14	2.40	-				-	1.80	1.70	2.20	3.40	2.93	2.40
15	2.40	-				-	1.75	1.70	2.15	3.40	2.95	2.40
16	2.35	-				-	1.70	1.70	2.15	3.40	2.85	2.40
17	2.35	-				-	1.70	1.70	2.20	3.40	2.81	2.35
18	2.30	-				-	1.70	1.70	2.20	3.38	2.80	2.35
19	2.30	-				-	1.70	1.70	2.20	3.35	2.78	2.35
20	2.25	-				-	1.70	1.70	2.20	3.33	2.89	2.34
21	2.25	-				-	1.70	1.70	2.20	3.30	2.84	2.30
22	2.25	-				-	1.70	1.70	2.20	3.35	2.79	2.25
23	2.25	-				2.20	1.20	1.70	2.32	3.35	2.74	2.25
24	2.20	-				2.25	1.25	1.70	2.45	3.35	2.70	2.22
25	2.30	-				2.25	1.25	1.70	2.50	3.30	2.65	2.20
26	2.30	-				2.30	1.30	1.70	2.65	3.30	2.60	2.18
27	2.30	-				2.30	1.30	1.70	2.68	3.30	2.60	2.15
28	2.20	-				2.25	1.25	1.70	2.80	3.25	2.58	2.11
29	2.20	-				2.25	1.25	1.70	2.90	3.20	2.55	2.05
30	2.20	-				2.20	1.20	1.70	2.95	3.19	2.50	2.00
31	2.20	-				2.17	-	1.70	-	3.16	2.50	-

1917-18

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.00	1.95	1.58	1.60	1.47	1.75	3.18	2.07	2.11	2.00	1.79	1.55
2	2.00	1.90	1.58	1.60	1.47	1.82	3.15	2.07	2.15	2.00	1.76	1.50
3	1.95	1.89	1.57	1.60	1.47	1.85	3.08	2.00	2.15	2.00	1.72	1.48
4	1.95	1.88	1.57	1.60	1.46	1.90	3.06	1.96	2.15	2.00	1.71	1.43
5	1.90	1.88	1.60	1.58	1.45	2.00	2.95	1.95	2.16	2.03	1.71	1.43
6	1.86	1.88	1.65	1.58	1.43	2.25	2.95	1.90	2.15	2.01	1.69	1.43
7	1.85	1.87	1.66	1.60	1.41	2.31	2.89	1.90	2.15	2.00	1.69	1.39
8	1.76	1.86	1.66	1.60	1.40	2.35	2.86	1.90	2.17	1.98	1.69	1.39
9	1.74	1.85	1.65	1.60	1.42	2.45	2.84	1.90	2.18	1.95	1.69	1.38
10	1.74	1.85	1.63	1.60	1.42	2.45	2.75	1.90	2.19	1.95	1.68	1.38
11	1.66	1.84	1.63	1.60	1.42	2.48	2.70	1.90	2.20	1.93	1.71	1.39
12	1.63	1.84	1.63	1.60	1.41	2.50	2.65	1.85	2.20	1.91	1.70	1.35
13	1.60	1.80	1.64	1.60	1.41	2.62	2.60	1.84	2.20	1.91	1.70	1.35
14	1.60	1.79	1.64	1.60	1.41	3.00	2.55	1.80	2.20	1.90	1.81	1.34
15	1.56	1.75	1.64	1.60	1.45	3.10	2.53	1.80	2.16	1.90	1.80	1.33
16	1.55	1.75	1.64	1.59	1.45	3.14	2.50	1.78	2.14	1.96	1.80	1.30
17	1.53	1.70	1.63	1.59	1.45	3.15	2.45	1.75	2.13	1.95	1.80	1.25
18	1.52	1.70	1.62	1.58	1.45	3.30	2.44	1.86	2.10	1.95	1.80	1.23
19	1.45	1.67	1.62	1.57	1.44	3.31	2.42	1.86	2.05	1.95	1.80	1.20
20	1.50	1.67	1.64	1.55	1.45	3.25	2.38	1.86	2.05	1.94	1.75	1.15
21	1.55	1.65	1.65	1.53	1.45	3.25	2.38	1.85	2.00	1.92	1.75	1.10
22	1.56	1.60	1.64	1.51	1.45	3.25	2.35	1.92	1.97	1.90	1.75	1.10
23	1.61	1.60	1.65	1.50	1.44	3.27	2.33	1.95	1.95	1.90	1.75	1.10
24	1.66	1.55	1.65	1.50	1.45	3.26	2.25	1.95	1.95	1.90	1.75	1.80
25	1.70	1.54	1.64	1.49	1.53	3.25	2.24	1.95	2.00	1.89	1.74	1.60
26	1.85	1.50	1.64	1.49	1.61	3.25	2.20	1.95	1.98	1.88	1.71	1.60
27	1.88	1.50	1.61	1.49	1.66	3.27	2.15	1.97	1.98	1.86	1.68	1.50
28	1.90	1.50	1.61	1.49	1.72	3.27	2.16	2.05	1.97	1.84	1.66	1.30
29	1.95	1.55	1.61	1.49	-	3.26	2.15	2.08	1.97	1.85	1.60	1.00
30	1.94	1.56	1.61	1.49	-	3.25	2.10	2.10	2.01	1.83	1.60	1.00
31	1.94	-	1.60	1.48	-	3.20	-	2.10	-	1.80	1.56	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1918-19

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.00	0.80	0.70	0.60	1.10	1.20	1.95	1.15	1.42	2.19	2.02	1.40
2	1.00	.80	.70	.60	1.10	1.20	1.90	1.15	1.55	2.19	1.99	1.40
3	1.00	.80	.70	.60	1.10	1.20	1.82	1.15	1.55	2.19	1.98	1.39
4	1.00	.80	.70	.60	1.10	1.20	1.75	1.20	1.60	2.19	1.97	1.35
5	1.00	.80	.70	.60	1.10	1.16	1.67	1.20	1.60	2.29	1.98	1.32
6	1.00	.80	.70	.60	1.10	1.15	1.62	1.20	1.64	2.29	1.98	1.30
7	1.00	.80	.70	.60	1.10	1.15	1.60	1.30	1.60	2.27	1.99	1.29
8	1.00	.80	.70	.60	1.07	1.14	1.56	1.30	1.64	2.25	1.96	1.25
9	1.00	.80	.70	.60	1.06	1.13	1.55	1.30	1.68	2.25	1.94	1.25
10	1.00	.80	.70	.60	1.06	1.14	1.55	1.30	1.70	2.24	1.93	1.35
11	1.00	.80	.70	.60	1.06	1.16	1.50	1.30	1.75	2.19	1.90	1.34
12	1.00	.80	.70	.60	1.06	1.24	1.45	1.28	1.84	2.19	1.90	1.30
13	1.00	.80	.70	.60	1.06	1.30	1.40	1.28	1.88	2.18	1.90	1.29
14	1.00	.80	.70	.60	1.21	1.34	1.36	1.28	1.91	2.19	1.88	1.28
15	1.00	.80	.70	.70	1.22	1.40	1.41	1.28	1.98	2.20	1.89	1.26
16	.90	.80	.70	.80	1.24	2.00	1.40	1.29	2.02	2.17	1.85	1.24
17	.90	.80	.70	.90	1.24	2.15	1.35	1.30	2.10	2.15	1.80	1.24
18	.90	.80	.70	.90	1.23	2.24	1.35	1.28	2.09	2.14	1.78	1.23
19	.90	.80	.70	.95	1.22	2.28	1.41	1.28	2.09	2.12	1.77	1.38
20	.90	.80	.70	1.00	1.22	2.29	1.38	1.26	2.14	2.10	1.75	1.58
21	.90	.80	.70	1.00	1.21	2.30	1.36	1.24	2.15	2.09	1.73	1.68
22	.90	.80	.70	1.02	1.20	2.28	1.33	1.24	2.16	2.05	1.72	1.70
23	.90	.80	.70	1.04	1.20	2.28	1.30	1.24	2.20	2.03	1.70	1.70
24	.90	.80	.70	1.07	1.20	2.25	1.28	1.24	2.23	1.99	1.69	1.69
25	.90	.80	.70	1.09	1.20	2.20	1.22	1.24	2.24	1.98	1.65	1.65
26	.90	.80	.70	1.09	1.20	2.16	1.20	1.26	2.24	1.95	1.60	1.60
27	.90	.80	.70	1.10	1.20	2.10	1.20	1.25	2.21	1.94	1.55	1.58
28	.90	.80	.70	1.10	1.20	2.10	1.18	1.28	2.20	1.95	1.50	1.56
29	.90	.80	.70	1.10	-	2.00	1.16	1.28	2.19	1.95	1.50	1.68
30	.90	.80	.70	1.10	-	2.00	1.15	1.28	2.19	1.93	1.48	1.73
31	.90	-	.70	1.10	-	1.97	-	1.28	-	2.00	1.45	-

1919-20

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.75	1.81	1.25	1.66	1.33	1.00	2.44	1.33	1.63	3.00	2.72	2.35
2	1.76	1.81	1.25	1.65	1.32	1.00	2.38	1.35	1.63	3.03	2.69	2.32
3	1.85	1.80	1.25	1.65	1.30	1.00	2.42	1.35	1.64	3.02	2.68	2.30
4	2.08	1.76	1.28	1.60	1.28	1.00	2.40	1.35	1.63	3.02	2.66	2.28
5	2.20	1.71	1.28	1.65	1.24	1.04	2.30	1.35	1.61	3.01	2.65	2.26
6	2.27	1.70	1.38	1.63	1.24	1.04	2.25	1.35	1.58	3.06	2.59	2.21
7	2.28	1.68	1.48	1.63	1.23	1.03	2.15	1.35	1.58	3.06	2.58	2.20
8	2.27	1.68	1.53	1.60	1.23	1.00	2.15	1.35	1.60	3.10	2.58	2.18
9	2.27	1.66	1.64	1.58	1.22	1.00	2.15	1.35	1.60	3.14	2.56	2.20
10	2.21	1.75	1.64	1.56	1.21	1.00	1.94	1.35	1.63	3.14	2.54	2.20
11	2.16	1.75	1.65	1.55	1.20	1.05	1.85	1.40	1.62	3.14	2.53	2.18
12	2.12	1.65	1.70	1.54	1.20	1.25	1.80	1.40	1.62	3.14	2.52	2.15
13	2.10	1.61	1.70	1.50	1.18	1.35	1.66	1.40	1.68	3.14	2.52	2.15
14	2.10	1.58	1.70	1.49	1.16	1.45	1.56	1.38	1.95	3.14	2.54	2.10
15	2.00	1.55	1.75	1.48	1.15	1.50	1.50	1.37	2.10	3.13	2.54	2.06
16	2.00	1.54	1.75	1.47	1.15	1.60	1.45	1.37	2.18	3.10	2.55	2.00
17	1.95	1.50	1.75	1.47	1.15	1.64	1.40	1.36	2.55	3.05	2.53	2.00
18	1.92	1.48	1.85	1.46	1.13	1.68	1.36	1.36	2.68	3.00	2.52	1.96
19	1.89	1.45	1.85	1.45	1.13	1.74	1.30	1.41	2.75	2.98	2.49	1.95
20	1.85	1.42	1.85	1.45	1.11	1.74	1.45	1.43	2.75	2.95	2.48	1.90
21	1.79	1.38	1.84	1.44	1.10	1.74	1.50	1.41	2.78	2.94	2.50	1.90
22	1.78	1.35	1.84	1.44	1.08	1.75	1.45	1.40	2.80	2.94	2.51	1.86
23	1.75	1.32	1.83	1.44	1.08	1.75	1.45	1.60	2.85	2.94	2.49	1.85
24	1.75	1.31	1.84	1.43	1.08	1.80	1.40	1.65	2.85	2.89	2.49	1.83
25	1.74	1.30	1.80	1.41	1.05	1.90	1.35	1.70	2.89	2.85	2.48	1.80
26	1.72	1.26	1.80	1.40	1.04	2.20	1.35	1.70	2.90	2.83	2.45	1.76
27	1.68	1.20	1.78	1.39	1.03	2.30	1.30	1.80	2.90	2.80	2.44	1.75
28	1.65	1.20	1.78	1.38	1.01	2.35	1.28	1.68	2.95	2.78	2.44	1.71
29	1.62	1.20	1.74	1.38	1.01	2.39	1.25	1.66	2.98	2.75	2.40	1.61
30	1.70	1.20	1.73	1.37	-	2.44	1.30	1.64	3.00	2.74	2.38	1.55
31	1.81	-	1.68	1.37	-	2.44	-	1.63	-	2.71	2.38	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1920-21

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.40	0.90	0.60	1.52	1.25	1.15	0.85	1.58	1.90	2.53	1.79	1.65
2	1.40	.90	.65	1.54	1.25	1.15	.85	1.55	1.90	2.50	1.90	1.65
3	1.40	.90	.70	1.55	1.24	1.15	.85	1.50	1.95	2.46	1.77	1.60
4	1.40	.80	.70	1.55	1.24	1.14	.73	1.48	1.95	2.40	1.75	1.60
5	1.36	.80	.72	1.55	1.22	1.14	.70	1.45	1.95	2.38	1.70	1.70
6	1.34	.80	.74	1.55	1.20	1.12	.70	1.40	1.98	2.36	1.70	1.65
7	1.30	.85	.75	1.53	1.20	1.10	.70	1.40	2.00	2.35	1.65	1.65
8	1.28	.80	.80	1.50	1.20	1.10	.75	1.35	2.02	2.35	1.60	1.60
9	1.25	.80	.85	1.50	1.20	1.10	.70	1.35	2.12	2.30	1.60	1.58
10	1.22	.70	.90	1.50	1.20	1.10	.70	1.35	2.20	2.25	1.65	1.60
11	1.20	.70	.95	1.46	1.20	1.10	.70	1.30	2.25	2.23	1.60	1.60
12	1.17	.70	1.00	1.46	1.20	1.10	.70	1.28	2.27	2.20	1.65	1.59
13	1.15	.70	1.00	1.45	1.20	1.10	.70	1.25	2.30	2.18	1.60	1.55
14	1.13	.70	1.00	1.45	1.22	1.15	.70	1.20	2.33	2.15	1.60	1.55
15	1.15	.70	1.00	1.45	1.25	1.21	.70	1.15	2.35	2.15	1.58	1.56
16	1.15	.68	1.00	1.43	1.25	1.22	.70	1.15	2.40	2.05	1.55	1.67
17	1.13	.65	1.00	1.40	1.25	1.22	.75	1.13	2.45	2.02	1.60	1.95
18	1.11	.65	1.00	1.36	1.25	1.21	.75	1.18	2.47	2.00	1.60	1.98
19	1.10	.65	1.00	1.35	1.28	1.15	.80	1.18	2.49	1.95	1.60	2.00
20	1.09	.65	1.00	1.35	1.30	1.06	.90	1.18	2.50	1.90	1.70	2.05
21	1.08	.65	1.10	1.35	1.25	1.06	1.00	1.18	2.50	1.87	1.70	2.15
22	1.06	.65	1.20	1.36	1.20	1.05	1.10	1.16	2.50	1.84	1.65	2.15
23	1.02	.65	1.30	1.35	1.20	1.02	1.10	1.15	2.50	1.80	1.66	2.10
24	1.00	.65	1.35	1.35	1.20	1.00	1.10	1.20	2.50	1.90	1.65	2.10
25	1.00	.65	1.35	1.33	1.18	1.00	1.20	1.30	2.50	1.90	1.64	2.15
26	1.00	.65	1.42	1.31	1.17	1.00	1.35	1.30	2.50	1.87	1.60	2.15
27	1.00	.65	1.45	1.30	1.15	1.00	1.50	1.60	2.55	1.90	1.60	2.10
28	.85	.60	1.46	1.30	1.15	.95	1.60	1.78	2.55	1.90	1.55	2.08
29	.85	.60	1.50	1.28	-	.90	1.60	1.76	2.55	1.86	1.55	2.05
30	.85	.60	1.50	1.27	-	.85	1.60	1.80	2.54	1.85	1.55	2.00
31	.85	-	1.51	1.25	-	.85	-	1.87	-	1.80	1.65	-

1921-22

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.95	1.50	1.14	1.46	1.32	2.44	2.45	1.58	1.75	3.04	2.86	2.20
2	1.95	1.48	1.30	1.46	1.38	2.40	2.42	1.58	1.75	3.04	2.90	2.19
3	1.93	1.45	1.38	1.46	1.38	2.39	2.41	1.55	1.75	3.00	2.88	2.18
4	1.78	1.40	1.38	1.44	1.38	2.40	2.40	1.55	1.75	3.00	2.88	2.18
5	1.75	1.38	1.38	1.47	1.38	2.41	2.38	1.49	1.75	2.90	2.85	2.14
6	1.70	1.36	1.38	1.45	1.36	2.58	2.38	1.48	1.75	2.90	2.88	2.12
7	1.78	1.34	1.37	1.45	1.34	2.69	2.35	1.48	1.75	2.92	2.85	2.10
8	1.75	1.34	1.37	1.47	1.34	2.69	2.32	1.45	1.75	2.98	2.80	2.14
9	1.70	1.35	1.37	1.49	1.34	2.70	2.25	1.45	2.15	2.96	2.79	2.14
10	1.72	1.35	1.37	1.52	1.34	2.70	2.21	1.45	2.25	3.27	2.76	2.12
11	1.70	1.35	1.35	1.52	1.32	2.69	2.36	1.45	2.39	3.29	2.70	2.10
12	1.65	1.30	1.35	1.50	1.32	2.69	2.35	1.45	2.46	3.40	2.70	2.18
13	1.65	1.30	1.35	1.51	1.32	2.69	2.32	1.35	2.58	3.40	2.70	2.14
14	1.60	1.27	1.35	1.50	1.32	2.67	2.25	1.38	2.61	3.35	2.69	2.12
15	1.60	1.25	1.39	1.50	1.30	2.64	2.18	1.38	2.70	3.35	2.68	2.00
16	1.55	1.24	1.39	1.48	1.29	2.61	2.16	1.36	2.79	3.35	2.64	2.00
17	1.55	1.25	1.39	1.42	1.28	2.60	2.15	1.36	2.80	3.30	2.62	1.98
18	1.65	1.24	1.39	1.42	1.28	2.60	1.98	1.38	2.82	3.25	2.60	1.90
19	1.65	1.25	1.38	1.42	1.27	2.68	1.95	1.36	2.89	3.20	2.58	1.92
20	1.64	1.25	1.38	1.40	1.27	2.69	1.94	1.35	2.90	3.15	2.58	1.90
21	1.60	1.22	1.37	1.39	1.27	2.68	1.94	1.35	2.92	3.15	2.50	1.89
22	1.60	1.20	1.37	1.39	1.85	2.68	1.89	1.35	2.94	3.15	2.50	1.84
23	1.57	1.20	1.36	1.38	2.24	2.62	1.85	1.38	2.98	3.10	2.49	1.82
24	1.55	1.20	1.36	1.38	2.40	2.60	1.85	1.45	2.98	3.05	2.48	1.80
25	1.47	1.20	1.35	1.32	2.42	2.60	1.85	1.54	2.98	3.05	2.46	1.78
26	1.47	1.18	1.34	1.30	2.48	2.59	1.78	1.54	2.98	3.00	2.42	1.72
27	1.44	1.16	1.34	1.28	2.48	2.56	1.75	1.65	2.98	2.98	2.39	1.70
28	1.44	1.15	1.34	1.29	2.48	2.55	1.68	1.65	3.00	2.98	2.36	1.69
29	1.50	1.15	1.41	1.29	-	2.49	1.65	1.68	3.00	2.96	2.30	1.64
30	1.48	1.15	1.45	1.32	-	2.49	1.65	1.65	3.04	2.92	2.28	1.62
31	1.50	-	1.46	1.30	-	2.47	-	1.75	-	2.90	2.24	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1922-23

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.60	1.02	1.04	1.50	1.50	1.50	1.70	2.22	1.50	1.80	1.50	1.20
2	1.58	1.02	1.04	1.50	1.50	1.50	1.70	2.20	1.50	1.82	1.58	1.24
3	1.54	1.02	1.04	1.44	1.50	1.85	2.02	2.14	1.50	1.89	1.54	1.20
4	1.52	1.00	1.04	1.48	1.48	1.94	2.30	2.12	1.53	1.89	1.50	1.20
5	1.50	1.02	1.05	1.48	1.48	1.94	2.58	2.15	1.55	1.89	1.48	1.20
6	1.49	1.02	1.05	1.48	1.42	1.94	2.86	2.10	1.54	1.90	1.40	1.20
7	1.48	1.05	1.05	1.42	1.42	2.10	3.00	1.98	1.64	1.95	1.48	1.19
8	1.40	1.05	1.03	1.42	1.42	1.98	3.06	1.88	1.65	1.92	1.46	1.15
9	1.36	1.05	1.03	1.44	1.40	1.98	3.08	1.80	1.65	1.94	1.40	1.10
10	1.32	1.04	1.02	1.44	1.40	2.15	3.06	1.80	1.66	1.94	1.40	1.10
11	1.30	1.04	1.02	1.46	1.40	2.05	2.98	1.78	1.64	1.98	1.50	1.10
12	1.24	1.03	1.02	1.48	1.40	2.10	2.94	1.74	1.68	1.99	1.50	1.06
13	1.20	1.03	1.02	1.50	1.40	2.10	2.90	1.70	1.69	1.98	1.44	1.00
14	1.20	1.03	1.02	1.52	1.40	2.08	2.85	1.66	1.70	1.97	1.42	1.00
15	1.19	1.02	1.02	1.54	1.40	2.10	2.81	1.73	1.72	1.98	1.40	1.00
16	1.18	1.02	1.01	1.54	1.40	2.10	2.78	1.68	1.74	1.99	1.38	1.00
17	1.16	1.02	1.10	1.54	1.40	2.08	2.70	1.65	1.76	1.99	1.33	1.00
18	1.06	1.03	1.10	1.56	1.40	2.06	2.66	1.64	1.79	1.98	1.29	1.00
19	1.06	1.02	1.20	1.56	1.38	2.04	2.64	1.64	1.80	1.95	1.29	1.00
20	1.00	1.02	1.20	1.56	1.38	2.04	2.60	1.68	1.80	1.89	1.26	1.10
21	1.00	1.02	1.28	1.58	1.36	2.04	2.60	1.68	1.80	1.82	1.38	1.10
22	1.00	1.03	1.36	1.52	1.38	2.06	2.62	1.64	1.80	1.75	1.30	1.18
23	1.05	1.04	1.30	1.50	1.38	2.00	2.56	1.62	1.80	1.75	1.30	1.10
24	1.07	1.05	1.34	1.50	1.38	2.00	2.56	1.62	1.82	1.70	1.28	1.10
25	1.09	1.04	1.34	1.50	1.34	2.02	2.50	1.59	1.80	1.65	1.25	1.12
26	1.04	1.05	1.38	1.50	1.40	1.90	2.48	1.58	1.82	1.65	1.24	1.12
27	1.04	1.05	1.39	1.50	1.44	1.90	2.42	1.54	1.80	1.60	1.24	1.10
28	1.02	1.05	1.39	1.50	1.50	1.86	2.40	1.54	1.84	1.60	1.22	1.10
29	1.02	1.05	1.40	1.50	-	1.80	2.32	1.52	1.84	1.58	1.20	1.10
30	1.02	1.04	1.40	1.50	-	1.78	2.24	1.50	1.82	1.56	1.20	1.08
31	1.03	-	1.49	1.50	-	1.75	-	1.50	-	1.50	1.20	-

1923-24

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.08	1.00	1.00	1.01	1.58	1.14	1.72	1.64	.81	1.68	1.87	2.78
2	1.02	1.00	1.00	1.01	1.55	1.14	1.70	1.60	.81	1.68	1.85	2.74
3	1.00	1.00	1.00	1.01	1.54	1.12	1.70	1.55	.81	1.70	1.79	2.70
4	1.00	1.00	1.00	1.01	1.50	1.20	1.70	1.49	.81	1.70	2.20	2.68
5	1.00	1.00	1.00	1.00	1.50	1.28	1.70	1.44	.80	1.70	2.34	2.60
6	1.00	1.00	1.00	1.00	1.49	1.30	1.70	1.40	.80	1.70	2.48	2.60
7	1.00	1.00	1.00	1.12	1.49	1.34	1.70	1.38	.79	1.70	2.50	2.60
8	1.00	1.00	1.00	1.20	1.50	1.35	1.70	1.34	.80	1.77	2.53	2.60
9	1.00	1.00	1.00	1.22	1.48	1.34	1.70	1.30	.90	1.85	2.60	2.60
10	1.00	1.00	1.00	1.30	1.41	1.36	1.70	1.29	.94	1.98	2.70	2.58
11	1.00	1.00	1.00	1.36	1.41	1.34	1.69	1.28	.98	1.98	2.78	2.58
12	1.00	1.00	1.00	1.40	1.40	1.31	1.66	1.28	.98	2.00	2.80	2.60
13	1.00	1.00	1.00	1.42	1.39	1.31	1.65	1.20	.94	2.00	2.80	2.59
14	1.00	1.00	1.00	1.44	1.38	1.30	1.64	1.22	.94	1.98	2.80	2.58
15	1.00	1.00	1.00	1.48	1.36	1.30	1.64	1.20	.98	1.95	2.82	2.58
16	1.00	1.00	1.00	1.50	1.35	1.29	1.61	1.15	.98	1.94	2.82	2.50
17	1.00	1.00	1.00	1.50	1.30	1.26	1.59	1.15	.99	1.94	2.84	2.50
18	1.00	1.00	1.00	1.52	1.29	1.26	1.60	1.10	1.04	1.90	2.82	2.50
19	1.00	1.00	1.00	1.56	1.29	1.24	1.60	1.05	1.07	1.87	2.80	2.50
20	1.00	1.00	1.00	1.58	1.28	1.22	1.58	1.05	1.10	1.85	2.88	2.52
21	1.00	1.00	1.00	1.59	1.26	1.22	1.58	1.05	1.09	1.84	2.96	2.50
22	1.00	1.00	1.00	1.59	1.26	1.22	1.53	.95	1.16	1.94	2.98	2.48
23	1.00	1.00	1.00	1.60	1.25	1.22	1.50	.95	1.30	1.92	2.90	2.48
24	1.00	1.00	1.00	1.60	1.20	1.29	1.50	.95	1.40	1.93	2.90	2.46
25	1.00	1.00	1.00	1.61	1.20	1.32	1.50	.95	1.57	1.89	2.90	2.40
26	1.00	1.00	1.00	1.61	1.18	1.40	1.50	.90	1.64	1.91	2.92	2.40
27	1.00	1.00	1.00	1.60	1.16	1.50	1.58	.88	1.60	1.90	2.90	2.40
28	1.00	1.00	1.00	1.59	1.16	1.56	1.70	.85	1.70	1.90	2.87	2.30
29	1.00	1.00	1.00	1.59	1.16	1.63	1.72	.85	1.70	1.89	2.80	2.28
30	1.00	1.00	1.00	1.58	-	1.56	1.70	.83	1.68	1.90	2.80	2.24
31	1.00	-	1.00	1.58	-	1.70	-	.81	-	1.87	2.80	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1924-25

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.20	1.40	1.24	1.19	1.34	1.60	1.63	1.26	1.19	1.98	1.60	1.20
2	2.18	1.36	1.24	1.19	1.34	1.60	1.61	1.24	1.26	1.98	1.60	1.20
3	2.14	1.34	1.24	1.18	1.34	1.56	1.59	1.24	1.40	1.98	1.58	1.18
4	2.09	1.32	1.24	1.18	1.34	1.54	1.58	1.24	1.42	1.98	1.55	1.18
5	2.09	1.30	1.24	1.18	1.36	1.52	1.56	1.20	1.46	1.98	1.54	1.15
6	2.05	1.30	1.26	1.18	1.38	1.52	1.52	1.19	1.47	1.98	1.52	1.30
7	2.00	1.50	1.28	1.16	1.39	1.52	1.52	1.18	1.50	1.99	1.59	1.28
8	1.96	1.52	1.28	1.16	1.39	1.52	1.50	1.18	1.50	1.98	1.70	1.26
9	1.92	1.49	1.28	1.14	1.60	1.52	1.48	1.18	1.44	2.04	1.70	1.26
10	1.88	1.50	1.26	1.14	1.72	1.56	1.44	1.18	1.44	2.06	1.66	1.24
11	1.85	1.50	1.26	1.14	1.72	1.56	1.35	1.18	1.46	2.05	1.64	1.24
12	1.80	1.50	1.26	1.14	1.78	1.58	1.30	1.15	1.49	2.04	1.64	1.23
13	1.80	1.50	1.26	1.14	1.80	1.58	1.30	1.15	1.55	2.02	1.64	1.20
14	1.78	1.50	1.24	1.16	1.80	1.58	1.28	1.15	1.62	2.00	1.62	1.20
15	1.76	1.50	1.22	1.16	1.79	1.60	1.24	1.14	1.70	2.00	1.60	1.18
16	1.70	1.48	1.20	1.12	1.78	1.60	1.20	1.18	1.70	1.94	1.59	1.16
17	1.68	1.48	1.20	1.19	1.78	1.60	1.18	1.20	1.83	1.94	1.58	1.16
18	1.65	1.44	1.20	1.20	1.74	1.64	1.18	1.20	1.88	1.85	1.56	1.12
19	1.62	1.42	1.20	1.20	1.74	1.74	1.18	1.20	1.90	1.90	1.52	1.20
20	1.60	1.42	1.20	1.24	1.72	1.78	1.18	1.20	1.92	1.94	1.50	1.14
21	1.58	1.40	1.20	1.26	1.70	1.80	1.18	1.22	1.92	1.86	1.48	1.10
22	1.54	1.39	1.20	1.28	1.70	1.81	1.19	1.22	1.94	1.82	1.44	1.10
23	1.50	1.38	1.20	1.29	1.69	1.80	1.19	1.22	1.98	1.80	1.42	1.03
24	1.48	1.34	1.20	1.29	1.69	1.82	1.26	1.20	1.98	1.76	1.40	1.02
25	1.45	1.30	1.20	1.30	1.64	1.82	1.30	1.18	2.10	1.75	1.38	1.00
26	1.45	1.32	1.20	1.30	1.64	1.82	1.30	1.18	2.06	1.70	1.32	1.03
27	1.44	1.30	1.20	1.32	1.63	1.78	1.30	1.16	2.06	1.70	1.30	1.00
28	1.40	1.28	1.20	1.32	1.60	1.78	1.30	1.16	2.03	1.70	1.30	1.00
29	1.40	1.24	1.19	1.34	-	1.70	1.30	1.16	2.01	1.65	1.26	1.00
30	1.40	1.24	1.19	1.36	-	1.66	1.28	1.19	2.00	1.62	1.24	1.08
31	1.40	-	1.19	1.34	-	1.64	-	1.18	-	1.60	1.22	-

1925-26

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.04	0.62	0.53	1.02	1.10	1.20	1.70	1.10	1.14	1.74	1.79	1.50
2	1.02	.60	.54	1.06	1.14	1.21	1.70	1.04	1.10	1.75	1.78	1.50
3	1.02	.60	.52	1.08	1.12	1.20	1.68	1.10	1.10	1.86	1.76	1.50
4	1.05	.60	.58	1.09	1.12	1.20	1.68	1.10	1.10	1.90	1.76	1.52
5	1.00	.62	.70	1.10	1.13	1.20	1.70	1.10	1.10	1.90	1.76	1.56
6	.98	.62	.72	1.12	1.13	1.19	1.68	1.04	1.10	1.94	1.76	1.56
7	.94	.64	.72	1.10	1.11	1.18	1.70	1.04	1.12	1.96	1.72	1.59
8	.94	.64	.74	1.10	1.10	1.20	1.70	1.05	1.10	1.94	1.70	1.64
9	.90	.64	.78	1.10	1.10	1.18	1.70	1.00	1.10	1.94	1.70	1.60
10	.84	.64	.80	1.10	1.10	1.19	1.70	.98	1.12	1.95	1.70	1.56
11	.85	.64	.80	1.10	1.10	1.20	1.70	.96	1.14	1.96	1.70	1.55
12	.84	.60	.84	1.10	1.10	1.20	1.70	.90	1.25	1.96	1.68	1.55
13	.82	.60	.84	1.10	1.10	1.20	1.68	.86	1.29	1.94	1.66	1.50
14	.80	.60	.86	1.12	1.10	1.20	1.64	.90	1.42	1.94	1.66	1.64
15	.80	.55	.88	1.12	1.10	1.18	1.60	.87	1.43	1.88	1.64	1.64
16	.80	.56	.92	1.12	1.08	1.18	1.60	.86	1.48	1.85	1.64	1.64
17	.78	.56	.94	1.10	1.09	1.16	1.58	.84	1.54	1.85	1.62	1.64
18	.72	.56	.96	1.10	1.10	1.20	1.52	.82	1.54	1.82	1.60	1.62
19	.70	.58	.96	1.08	1.10	1.30	1.42	.84	1.54	1.82	1.60	1.66
20	.68	.58	.98	1.10	1.10	1.39	1.34	.84	1.58	1.82	1.62	1.64
21	.64	.58	.98	1.10	1.10	1.49	1.24	.88	1.58	1.81	1.66	1.62
22	.64	.58	.98	1.09	1.09	1.54	1.24	.88	1.60	1.84	1.60	1.70
23	.64	.54	.98	1.09	1.09	1.60	1.20	.94	1.60	1.85	1.62	1.76
24	.64	.54	1.00	1.09	1.09	1.60	1.20	.96	1.60	1.85	1.60	1.73
25	.63	.56	1.00	1.08	1.14	1.64	1.20	.98	1.60	1.86	1.58	1.73
26	.64	.52	1.05	1.08	1.19	1.68	1.20	1.00	1.64	1.79	1.58	1.72
27	.66	.50	1.00	1.06	1.20	1.68	1.20	1.00	1.64	1.76	1.56	1.70
28	.64	.50	.98	1.05	1.20	1.68	1.14	1.04	1.64	1.74	1.54	1.70
29	.60	.50	.98	1.04	-	1.64	1.10	1.04	1.64	1.75	1.54	1.68
30	.60	.52	1.02	1.04	-	1.64	1.10	1.10	1.70	1.76	1.52	1.66
31	.64	-	1.02	1.04	-	1.64	-	1.10	-	1.79	1.52	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1926-27

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.80	0.95	1.50	1.50	1.10	1.38	1.58	1.46	2.45	3.09	2.30	1.42
2	1.82	.90	1.50	1.50	1.08	1.38	1.56	1.40	2.48	3.08	2.26	1.42
3	1.80	.90	1.51	1.42	1.14	1.34	1.58	1.36	2.50	3.06	2.20	1.42
4	1.82	.88	1.51	1.40	1.14	1.34	1.58	1.34	2.52	3.08	2.14	1.38
5	1.82	.84	1.54	1.40	1.24	1.33	1.56	1.30	2.52	3.06	2.14	1.36
6	1.78	.82	1.56	1.34	1.32	1.32	1.56	1.24	2.54	3.05	2.11	1.40
7	1.74	.80	1.60	1.30	1.42	1.34	1.56	1.20	2.54	3.06	2.10	1.44
8	1.70	.80	1.60	1.30	1.50	1.34	1.56	1.20	2.54	3.05	2.08	1.44
9	1.69	.79	1.62	1.28	1.50	1.34	1.56	1.54	2.54	3.04	2.04	1.48
10	1.64	.78	1.64	1.24	1.50	1.34	1.56	1.54	2.58	3.02	2.00	1.42
11	1.63	.76	1.64	1.24	.49	1.47	1.50	1.52	2.59	3.00	1.98	1.42
12	1.60	.74	1.64	1.22	.49	1.47	1.48	1.50	2.60	2.94	1.96	1.41
13	1.58	.74	1.64	1.20	1.48	1.52	1.47	1.44	2.60	2.94	1.90	1.40
14	1.50	.70	1.64	1.20	1.40	1.56	1.45	1.41	2.64	2.90	1.90	1.39
15	1.49	.86	1.64	1.20	1.42	1.58	1.44	1.46	2.72	2.90	1.84	1.38
16	1.45	.86	1.66	1.20	1.42	1.58	1.42	1.40	2.74	2.82	1.82	1.34
17	1.34	.90	1.68	1.20	1.42	1.58	1.46	1.40	2.70	2.80	1.80	1.34
18	1.34	.90	1.68	1.18	1.40	1.56	1.48	1.40	2.66	2.79	1.75	1.33
19	1.30	.92	1.64	1.18	1.39	1.56	1.50	1.36	2.68	2.74	1.72	1.29
20	1.28	.80	1.64	1.18	1.38	1.56	1.50	1.34	2.70	2.70	1.70	1.24
21	1.26	.88	1.64	1.18	1.36	1.54	1.53	1.40	2.75	2.70	1.66	1.20
22	1.20	.88	1.62	1.16	1.34	1.54	1.52	1.46	2.82	2.68	1.64	1.10
23	1.19	.86	1.62	1.10	1.38	1.56	1.51	1.54	2.90	2.61	1.62	1.12
24	1.10	.85	1.60	1.10	1.40	1.58	1.48	1.60	2.97	2.60	1.60	1.10
25	1.10	.90	1.60	1.10	1.40	1.58	1.50	1.64	2.99	2.58	1.60	1.10
26	1.10	1.20	1.58	1.10	1.40	1.60	1.50	1.68	2.99	2.54	1.56	1.20
27	1.04	1.30	1.54	1.10	1.38	1.61	1.48	1.68	2.99	2.50	1.54	1.24
28	1.02	1.30	1.54	1.10	1.38	1.60	1.46	1.96	3.02	2.45	1.52	1.29
29	1.00	1.44	1.50	1.10	-	1.58	1.46	2.30	3.07	2.42	1.50	1.30
30	.97	1.48	1.50	1.10	-	1.58	1.47	2.40	3.07	2.38	1.49	1.32
31	.97	-	1.50	1.10	-	1.58	-	2.44	-	2.36	1.46	-

1927-28

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.34	1.46	1.20	1.30	1.06	1.40	2.00	1.55	1.10	1.94	1.86	1.15
2	1.50	1.44	1.20	1.30	1.06	1.40	2.00	1.55	1.06	2.00	1.84	1.14
3	1.54	1.42	1.20	1.30	1.06	1.38	2.00	1.50	1.06	2.20	1.86	1.10
4	1.59	1.34	1.18	1.30	1.06	1.38	2.04	1.50	1.02	2.30	2.00	1.09
5	1.64	1.34	1.18	1.30	1.00	1.36	2.10	1.45	1.00	2.30	1.96	1.09
6	1.70	1.32	1.18	1.30	1.00	1.32	2.14	1.45	1.00	2.34	1.94	1.00
7	1.80	1.26	1.19	1.28	1.10	1.28	2.30	1.40	1.00	2.39	1.90	1.00
8	1.84	1.22	1.19	1.28	1.24	1.28	2.24	1.38	1.00	2.40	1.86	1.00
9	1.85	1.20	1.20	1.26	1.24	1.24	2.24	1.34	1.02	2.40	1.84	.94
10	1.84	1.20	1.25	1.24	1.26	1.26	2.24	1.34	1.04	2.38	1.80	.90
11	1.84	1.20	1.30	1.24	1.28	1.54	2.20	1.30	1.04	2.38	1.74	.92
12	1.90	1.14	1.30	1.24	1.28	1.60	2.20	1.25	1.10	1.36	1.70	.94
13	1.92	1.14	1.30	1.24	1.30	1.84	2.20	1.20	1.10	1.36	1.65	.92
14	1.86	1.14	1.30	1.22	1.30	2.20	2.22	1.20	1.10	2.31	1.60	.96
15	1.84	1.24	1.30	1.22	1.38	2.00	2.14	1.18	1.10	2.30	1.55	.90
16	1.84	1.24	1.30	1.20	1.40	2.00	2.14	1.20	1.08	2.30	1.52	.89
17	1.80	1.24	1.35	1.18	1.40	2.00	2.14	1.34	1.24	2.28	1.46	.84
18	1.78	1.22	1.32	1.16	1.38	2.00	2.10	1.32	1.30	2.28	1.40	.82
19	1.74	1.22	1.32	1.18	1.38	2.00	2.10	1.40	1.40	2.24	1.35	.82
20	1.70	1.20	1.30	1.20	1.38	1.96	2.08	1.40	1.44	2.24	1.33	.80
21	1.64	1.20	1.30	1.20	1.38	1.96	2.02	1.40	1.48	2.24	1.33	.78
22	1.66	1.20	1.28	1.20	1.38	1.92	1.98	1.38	1.48	2.24	1.28	.74
23	1.64	1.20	1.24	1.18	1.40	1.90	1.94	1.34	1.55	2.22	1.33	.68
24	1.62	1.20	1.20	1.18	1.40	1.89	1.86	1.30	1.60	2.20	1.34	.62
25	1.60	1.22	1.20	1.16	1.42	1.90	1.80	1.28	1.62	2.20	1.32	.58
26	1.57	1.22	1.20	1.10	1.42	2.00	1.78	1.09	1.64	2.18	1.28	.54
27	1.52	1.22	1.28	1.10	1.40	2.10	1.72	1.24	1.64	2.16	1.30	.50
28	1.50	1.20	1.34	1.10	1.40	2.10	1.70	1.20	1.76	2.14	1.30	.50
29	1.50	1.22	1.34	1.08	1.42	2.00	1.65	1.20	1.84	2.00	1.28	.50
30	1.50	1.22	1.24	1.08	-	2.00	1.60	1.18	1.87	1.94	1.24	.50
31	1.50	-	1.27	1.08	-	2.00	-	1.14	-	1.90	1.20	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1928-29

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.51	0.90	1.42	1.62	1.56	1.60	2.54	2.24	1.65	-	3.58	2.72
2	.50	.94	1.42	1.62	1.54	1.58	2.58	2.22	1.60	-	3.55	2.68
3	.50	1.02	1.44	1.60	1.54	1.60	2.50	2.10	1.54	-	3.55	2.66
4	.50	1.05	1.42	1.60	1.52	1.60	2.58	2.10	1.50	-	3.48	2.62
5	.50	1.00	1.44	1.60	1.50	1.58	2.58	2.00	1.50	-	3.46	2.72
6	.50	1.00	1.44	1.58	1.48	1.60	2.58	1.98	-	-	3.45	2.68
7	.50	1.06	1.44	1.58	1.48	1.62	2.80	1.94	-	-	3.42	2.66
8	.51	1.10	1.44	1.56	1.48	1.60	2.88	1.90	-	-	3.38	2.64
9	.50	1.10	1.43	1.56	1.48	1.60	2.88	1.86	-	-	3.35	2.62
10	.50	1.12	1.42	1.56	1.46	1.58	2.86	1.84	-	-	3.33	2.54
11	.50	1.10	1.42	1.54	1.46	1.58	2.86	1.84	-	-	3.32	2.52
12	.52	1.10	1.42	1.54	1.42	1.57	2.76	1.84	-	-	3.30	2.48
13	.50	1.10	1.42	1.52	1.40	1.90	2.76	1.80	-	2.64	3.30	2.46
14	.52	1.10	1.64	1.54	1.36	2.54	2.76	1.80	-	2.68	3.26	2.40
15	.52	1.16	1.70	1.58	1.34	2.90	2.74	1.80	-	2.66	3.24	2.38
16	.52	1.16	1.70	1.62	1.34	2.96	2.60	1.80	-	2.66	3.18	2.36
17	.70	1.46	1.70	1.62	1.42	2.98	2.58	1.76	-	2.66	3.16	2.32
18	.80	1.46	1.72	1.62	1.42	3.00	2.54	1.73	-	2.66	3.14	2.24
19	.80	1.52	1.64	1.68	1.40	3.00	2.50	1.70	-	2.66	3.08	2.24
20	.80	1.50	1.62	1.66	1.42	2.98	2.42	1.68	-	2.64	3.06	2.18
21	.84	1.50	1.62	1.66	1.46	2.94	2.40	1.64	-	2.62	3.04	2.16
22	.98	1.50	1.58	1.64	1.50	2.92	2.20	1.62	-	2.60	3.02	2.12
23	1.00	1.48	1.58	1.64	1.54	2.86	2.28	1.62	-	2.60	2.98	2.08
24	1.00	1.45	1.58	1.62	1.58	2.84	2.26	1.64	-	3.06	2.97	2.06
25	1.00	1.42	1.60	1.60	1.60	2.80	2.30	1.64	-	3.35	2.95	2.04
26	.98	1.42	1.64	1.60	1.60	2.78	2.58	1.64	-	3.55	2.92	2.00
27	.98	1.40	1.64	1.58	1.60	2.78	2.37	1.64	-	3.63	2.90	2.00
28	.96	1.40	1.62	1.58	1.60	2.66	2.30	1.64	-	3.66	2.84	2.02
29	.90	1.40	1.62	1.57	-	2.62	2.28	1.64	-	3.64	2.82	2.06
30	.90	1.40	1.64	1.56	-	2.56	2.26	1.66	-	3.62	2.78	2.04
31	.90	-	1.64	1.56	-	2.55	-	1.66	-	3.60	2.76	-

1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.02	1.40	1.04	1.04	1.03	1.90	1.20	1.10	1.44	2.72	2.48	1.72
2	2.00	1.38	1.04	1.04	1.03	1.88	1.20	1.18	1.44	2.72	2.46	1.95
3	1.98	1.38	1.04	1.04	1.02	1.86	1.26	1.22	1.46	2.70	2.42	1.92
4	1.94	1.36	1.04	1.04	1.02	1.86	1.22	1.22	1.48	2.70	2.40	1.88
5	1.92	1.34	1.06	1.04	1.02	1.86	1.18	1.22	1.58	2.75	2.38	1.86
6	1.88	1.32	1.08	1.02	1.00	1.84	1.12	1.24	1.72	2.76	2.38	1.86
7	1.86	1.28	1.10	1.02	1.00	1.86	1.08	1.32	1.80	2.76	2.36	1.84
8	1.82	1.24	1.10	1.00	1.00	1.78	1.04	1.32	1.84	2.76	2.34	1.82
9	1.80	1.24	1.10	1.00	1.02	1.76	1.04	1.28	1.86	2.75	2.32	1.78
10	1.78	1.24	1.12	1.00	1.04	1.70	1.02	1.28	1.90	2.84	2.28	1.74
11	1.74	1.24	1.12	1.00	1.06	1.68	1.00	1.32	1.94	2.84	2.24	1.70
12	1.72	1.22	1.14	1.02	1.10	1.66	1.00	1.30	1.94	2.80	2.18	1.68
13	1.70	1.22	1.14	1.02	1.10	1.60	1.00	1.32	2.04	2.78	2.14	1.72
14	1.68	1.20	1.14	1.02	1.12	1.58	1.02	1.30	2.12	2.76	2.10	1.66
15	1.66	1.18	1.14	1.04	1.12	1.56	1.10	1.24	2.20	2.76	2.08	1.64
16	1.64	1.16	1.12	1.06	1.14	1.50	1.10	1.24	2.26	2.68	2.06	1.58
17	1.62	1.14	1.12	1.06	1.14	1.48	1.20	1.24	2.34	2.68	2.06	1.54
18	1.58	1.12	1.12	1.06	1.16	1.48	1.18	1.22	2.36	2.64	2.02	1.48
19	1.56	1.12	1.12	1.06	1.42	1.44	1.18	1.20	2.38	2.64	2.00	1.46
20	1.54	1.12	1.12	1.06	1.46	1.42	1.20	1.20	2.42	2.62	1.98	1.40
21	1.54	1.12	1.12	1.06	1.56	1.40	1.20	1.20	2.44	2.60	1.94	1.36
22	1.52	1.12	1.14	1.06	1.66	1.38	1.18	1.20	2.48	2.56	1.94	1.32
23	1.50	1.12	1.14	1.05	1.72	1.34	1.18	1.40	2.50	2.52	1.92	1.28
24	1.50	1.10	1.14	1.05	1.74	1.34	1.16	1.40	2.60	2.48	1.90	1.28
25	1.48	1.10	1.14	1.04	1.78	1.32	1.14	1.42	2.62	2.48	1.86	1.26
26	1.48	1.10	1.14	1.04	1.86	1.30	1.14	1.42	2.62	2.50	1.84	1.40
27	1.46	1.10	1.12	1.04	1.86	1.24	1.12	1.48	2.62	2.84	1.82	1.32
28	1.46	1.08	1.10	1.04	1.88	1.22	1.12	1.46	2.60	2.64	1.80	1.28
29	1.44	1.06	1.08	1.03	-	1.20	1.10	1.44	2.58	2.56	1.78	1.22
30	1.42	1.04	1.08	1.03	-	1.18	1.08	1.44	2.70	2.54	1.76	1.18
31	1.40	-	1.08	1.03	-	1.18	-	1.44	-	2.48	1.74	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1930-31

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.16	0.60	0.40	0.30	0.40	0.50	0.51	0.46	0.57	1.30	0.98	0.72
2	1.16	.60	.40	.30	.40	.50	.51	.44	.57	1.32	1.08	.70
3	1.14	.58	.40	.30	.40	.50	.51	.43	.58	1.35	1.05	.67
4	1.12	.58	.40	.30	.50	.50	.52	.43	.60	1.35	1.05	.65
5	1.06	.56	.40	.30	.50	.50	.52	.43	.60	1.32	1.05	.62
6	1.06	.56	.40	.30	.50	.40	.52	.44	.60	1.29	1.05	.62
7	1.14	.56	.40	.30	.60	.40	.52	.44	.60	1.23	1.03	.62
8	1.14	.54	.40	.30	.60	.40	.52	.44	.65	1.21	1.08	.61
9	1.10	.54	.40	.30	.60	.40	.52	.44	.65	1.20	1.00	.60
10	1.12	.54	.40	.30	.67	.40	.50	.47	.65	1.19	1.00	.59
11	1.10	.54	.40	.30	.67	.36	.48	.47	.68	1.18	.99	.58
12	1.08	.54	.40	.30	.67	.40	.48	.47	.77	1.18	.96	.57
13	1.06	.54	.40	.30	.67	.40	.48	.44	.83	1.19	.94	.57
14	1.04	.54	.40	.30	.67	.40	.47	.45	.86	1.19	.92	.57
15	1.02	.56	.40	.30	.60	.40	.47	.45	.88	1.18	.90	.57
16	1.00	.48	.40	.23	.60	.42	.46	.45	.90	1.18	.88	.71
17	1.00	.48	.40	.30	.60	.44	.55	.45	.90	1.16	.87	.72
18	.86	.48	.40	.30	.60	.43	.56	.50	.90	1.14	.87	.70
19	.82	.46	.40	.30	.60	.45	.56	.52	.91	1.14	.87	.74
20	.80	.46	.40	.30	.60	.45	.56	.48	.97	1.18	.87	.84
21	.74	.44	.40	.30	.60	.44	.59	.47	.97	1.18	.79	.87
22	.72	.44	.40	.30	.50	.44	.57	.49	.98	1.12	.77	.92
23	.70	.44	.40	.30	.50	.45	.57	.50	1.20	1.12	.72	.89
24	.68	.44	.40	.30	.50	.42	.55	.50	1.20	1.09	.72	.98
25	.66	.44	.40	.30	.50	.43	.58	.50	1.22	1.07	.71	1.10
26	.66	.44	.40	.30	.50	.43	.57	.52	1.24	1.06	.71	1.11
27	.66	.42	.40	.30	.50	.43	.56	.52	1.28	1.04	.71	1.07
28	.62	.44	.40	.30	.50	.46	.54	.52	1.29	1.02	.71	1.06
29	.62	.44	.40	.30	-	.48	.47	.57	1.29	1.02	.66	1.06
30	.60	.44	.40	.33	-	.51	.46	.57	1.29	.98	.65	.99
31	.60	-	.40	.33	-	.51	-	.57	-	.98	.61	-

1931-32

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.98	0.80	1.40	1.12	0.89	1.02	1.11	1.05	0.87	0.73	0.95	0.95
2	.98	.80	1.40	1.15	.89	1.04	1.12	1.05	.89	.70	.95	.94
3	.98	.76	1.38	1.15	.85	1.06	1.15	1.05	.88	.70	1.00	.91
4	.95	.74	1.36	1.10	.83	1.10	1.15	1.03	.88	.84	1.00	.86
5	.95	.72	1.36	1.10	.83	1.10	1.16	1.03	.87	.82	.98	.82
6	.95	.72	1.24	1.10	.82	1.12	1.18	1.03	.92	.80	.97	.78
7	.95	.72	1.23	1.10	.82	1.14	1.24	1.09	.92	.83	.96	.74
8	.93	.70	1.23	1.10	.81	1.14	1.24	1.10	.89	.83	.96	.74
9	.93	.70	1.23	1.10	.80	1.16	1.24	1.12	.85	.83	.96	.74
10	.93	.68	1.22	1.05	.80	1.15	1.26	1.14	.85	1.04	.95	.74
11	.93	.68	1.23	1.05	.80	1.14	1.23	1.14	.83	1.07	.96	.70
12	.93	.74	1.23	1.06	.82	1.14	1.23	1.08	.83	1.07	.96	.65
13	.99	.73	1.23	1.08	.83	1.10	1.22	1.08	.82	1.10	.96	.60
14	.98	.85	1.20	1.07	.84	1.08	1.23	1.08	.80	1.12	.95	.60
15	.94	.85	1.16	1.06	.84	1.08	1.23	1.08	.79	1.12	.94	.55
16	.92	.88	1.13	1.06	.86	1.08	1.22	.98	.79	1.12	.93	.52
17	.92	.90	1.12	1.05	.97	1.05	1.22	1.05	.78	1.11	1.06	.51
18	.90	1.02	1.12	1.05	1.00	1.07	1.21	1.05	.85	1.10	1.05	.50
19	.90	1.03	1.09	1.04	1.00	1.08	1.21	1.05	.84	1.08	1.00	.50
20	.84	1.04	1.06	1.03	1.00	1.08	1.20	1.03	.83	1.08	.99	.48
21	.83	1.10	1.05	1.02	1.00	1.05	1.20	.90	.83	1.08	.99	.43
22	.83	1.12	1.05	1.01	1.00	1.03	1.09	.90	.81	1.05	.99	.42
23	.95	1.44	1.05	1.00	1.00	1.00	1.09	.85	.74	1.03	.99	.38
24	.95	1.44	1.09	.98	1.00	1.00	1.09	.83	.74	1.02	.99	.38
25	.93	1.54	1.09	.96	1.01	1.01	1.09	.83	.83	1.02	.97	.37
26	.93	1.54	1.09	.96	1.02	1.04	1.09	.90	.83	1.08	.95	.36
27	.90	1.52	1.09	.94	1.02	1.07	1.05	.95	.81	1.06	.94	.33
28	.90	1.52	1.09	.94	1.02	1.12	1.05	.90	.81	1.03	.95	.28
29	.88	1.51	1.08	.94	1.02	1.12	1.05	.90	.80	1.00	.95	.28
30	.84	1.45	1.08	.93	-	1.11	1.05	.90	.80	.96	.95	.28
31	.82	-	1.08	.93	-	1.11	-	.88	-	.97	.93	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.26	0.39	0.43	0.66	0.72	0.96	1.87	2.13	2.88	1.93	1.37	0.70
2	.26	.39	.40	.66	.80	.91	1.87	2.28	2.80	2.14	1.35	.68
3	.26	.39	.40	.66	.80	.88	1.92	2.25	2.76	2.12	1.35	.67
4	.33	.40	.46	.66	.80	.86	1.94	2.22	2.71	2.08	1.28	.67
5	.29	.40	.49	.67	.80	.84	2.00	2.20	2.67	2.06	1.26	.68
6	.29	.40	.49	.65	.80	.82	2.06	2.19	2.62	2.03	1.30	.66
7	.29	.39	.45	.65	.80	.80	2.10	2.25	2.59	2.02	1.35	.66
8	.29	.39	.45	.65	.80	.76	2.13	2.32	2.55	2.03	1.30	.65
9	.29	.45	.45	.65	.80	.76	2.16	2.33	2.52	2.01	1.30	.65
10	.40	.45	.45	.65	.80	.76	2.33	2.32	2.39	1.97	1.29	.62
11	.39	.45	.45	.65	.80	.71	2.38	2.30	2.33	1.95	1.24	.68
12	.38	.45	.45	.64	.80	.71	2.39	2.27	2.27	1.93	1.20	.74
13	.36	.48	.45	.64	.80	.71	2.40	2.24	2.18	1.90	1.19	.77
14	.36	.48	.42	.64	.80	.68	2.43	2.22	2.11	1.88	1.11	.75
15	.39	.47	.42	.63	.92	.65	2.43	2.20	2.07	1.93	1.11	.73
16	.39	.46	.42	.63	.95	.65	2.43	2.24	2.03	1.90	1.08	.71
17	.40	.46	.42	.62	.95	.65	2.43	2.24	2.01	1.86	1.06	.68
18	.40	.45	.42	.62	.95	.63	2.42	2.24	1.97	1.88	.99	.65
19	.40	.45	.40	.62	.96	.63	2.40	2.39	1.97	1.81	.98	.65
20	.39	.45	.40	.62	.96	.68	2.40	3.00	1.96	1.74	.96	.60
21	.39	.44	.40	.61	.96	.74	2.34	3.14	1.93	1.72	.94	.59
22	.38	.44	.40	.61	.97	.73	2.31	3.12	1.93	1.74	.92	.59
23	.38	.44	.40	.66	1.03	.73	2.28	3.10	1.92	1.72	.87	.59
24	.40	.44	.50	.66	1.03	.75	2.24	3.08	1.89	1.71	.85	.59
25	.48	.46	.63	.66	1.04	.75	2.20	3.08	1.89	1.64	.82	.63
26	.48	.46	.64	.65	1.03	.75	2.12	3.07	1.86	1.59	.81	.68
27	.45	.45	.66	.65	1.00	.75	2.07	3.04	1.86	1.55	.81	.65
28	.45	.43	.66	.65	1.00	.75	2.04	2.99	1.86	1.52	.78	.64
29	.45	.44	.66	.66	-	.75	2.07	2.98	1.90	1.47	.74	.61
30	.43	.43	.66	.69	-	1.32	2.07	2.96	1.95	1.42	.71	.58
31	.42	-	.66	.70	-	1.68	-	2.92	-	1.38	.71	-

1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.55	0.35	0.33	0.26	0.33	0.29	0.80	0.70	0.46	0.55	0.52	0.19
2	.55	.34	.36	.27	.33	.29	.83	.71	.46	.55	.52	.19
3	.53	.33	.36	.27	.33	.29	.94	.73	.45	.53	.54	.18
4	.53	.33	.36	.27	.32	.28	.96	.73	.44	.57	.56	.18
5	.51	.33	.35	.27	.30	.28	.99	.71	.44	.61	.56	.18
6	.51	.30	.35	.28	.30	.28	1.01	.70	.44	.61	.52	.18
7	.50	.29	.34	.28	.29	.31	1.01	.70	.43	.61	.48	.18
8	.49	.29	.33	.30	.28	.32	1.01	.68	.42	.68	.48	.15
9	.48	.29	.32	.29	.28	.32	1.04	.64	.42	.76	.47	.15
10	.47	.25	.31	.29	.27	.32	1.07	.60	.41	.76	.47	.15
11	.42	.25	.30	.28	.27	.34	1.07	.54	.40	.73	.46	.16
12	.42	.24	.29	.28	.27	.35	1.08	.57	.38	.73	.43	.12
13	.43	.24	.29	.29	.26	.35	1.08	.60	.38	.73	.40	.12
14	.43	.23	.30	.34	.27	.32	1.08	.63	.39	.73	.40	.12
15	.43	.23	.32	.37	.28	.40	1.02	.61	.39	.73	.40	.15
16	.41	.23	.30	.37	.28	.38	.97	.60	.38	.73	.40	.15
17	.40	.23	.30	.36	.28	.40	.97	.59	.38	.71	.39	.18
18	.40	.23	.29	.37	.28	.45	.96	.59	.48	.70	.39	.18
19	.40	.27	.29	.37	.28	.51	.96	.59	.48	.77	.34	.18
20	.40	.27	.29	.35	.29	.53	.94	.54	.50	.75	.30	.19
21	.40	.29	.28	.34	.29	.55	.92	.54	.51	.75	.30	.24
22	.42	.29	.27	.34	.29	.55	.92	.53	.55	.74	.24	.24
23	.41	.29	.27	.34	.29	.55	.87	.53	.55	.72	.21	.24
24	.40	.28	.26	.34	.28	.55	.85	.53	.55	.71	.19	.26
25	.40	.28	.26	.33	.28	.57	.82	.50	.56	.69	.19	.25
26	.38	.29	.26	.33	.28	.57	.81	.50	.55	.68	.19	.24
27	.37	.30	.25	.33	.29	.57	.72	.49	.56	.66	.19	.21
28	.36	.33	.25	.33	.29	.58	.70	.49	.56	.66	.18	.21
29	.35	.31	.24	.32	-	.59	.70	.47	.56	.62	.18	.20
30	.35	.31	.25	.32	-	.59	.70	.46	.55	.62	.18	.19
31	.35	-	.26	.33	-	.59	-	.46	-	.52	.19	-

Gage height, in feet, of Lake Monona at Madison, Wis., 1915-36--Continued

1934-35

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.17	0.08	0.84	0.66	0.59	0.65	1.78	1.12	0.79	1.63	1.92	1.40
2	.16	.12	.88	.66	.59	.65	1.73	1.12	.80	1.71	1.91	1.37
3	.16	.16	.92	.65	.60	.75	1.69	1.12	.83	1.77	1.90	1.35
4	.14	.20	1.01	.65	.60	.80	1.67	1.13	.80	1.80	1.88	1.31
5	.13	.22	1.04	.64	.59	.88	1.64	1.10	.78	1.80	1.84	1.29
6	.16	.21	1.04	.63	.59	1.08	1.62	1.10	.78	1.90	2.12	1.26
7	.19	.21	.98	.61	.58	1.08	1.60	1.08	.76	1.90	2.12	1.24
8	.19	.20	.96	.60	.58	1.14	1.58	1.10	.74	1.85	2.10	1.20
9	.17	.19	.95	.62	.58	1.35	1.58	1.13	.72	1.99	2.08	1.18
10	.15	.17	.93	.65	.57	1.53	1.59	1.09	.76	2.00	2.06	1.16
11	.14	.15	.92	.65	.56	1.53	1.60	1.09	.80	2.02	2.06	1.14
12	.12	.15	.92	.65	.55	1.57	1.62	1.10	.79	2.10	2.01	1.11
13	.05	.14	.90	.65	.55	1.60	1.60	1.07	.78	2.08	1.97	1.08
14	.05	.12	.86	.64	.58	1.60	1.58	1.07	.77	2.08	1.96	1.05
15	.03	.12	.86	.64	.58	1.60	1.57	1.03	.76	2.08	1.92	1.04
16	.03	.14	.84	.64	.59	1.65	1.55	1.00	.81	2.07	1.89	1.03
17	.04	.15	.82	.63	.59	1.70	1.55	.95	.87	2.07	1.86	1.02
18	.04	.17	.82	.63	.65	1.73	1.47	.90	.93	2.08	1.84	1.00
19	.09	.19	.80	.62	.65	1.73	1.43	.87	1.00	2.07	1.83	1.00
20	.15	.25	.80	.62	.65	1.74	1.43	.86	1.16	2.06	1.81	1.01
21	.15	.32	.78	.60	.65	1.74	1.42	.85	1.21	2.05	1.79	1.02
22	.14	.32	.78	.60	.65	1.75	1.40	.84	1.25	2.03	1.77	1.00
23	.19	.30	.76	.60	.64	1.80	1.40	.83	1.26	2.04	1.73	1.00
24	.25	.30	.76	.58	.64	1.80	1.39	.80	1.28	2.04	1.70	.98
25	.19	.46	.74	.58	.64	1.82	1.38	.76	1.35	2.02	1.67	.96
26	.17	.67	.74	.58	.62	1.82	1.38	.77	1.42	2.01	1.65	.93
27	.14	.71	.70	.58	.62	1.82	1.30	.77	1.43	2.00	1.59	.90
28	.11	.72	.70	.60	.64	1.80	1.26	.75	1.48	1.98	1.53	.85
29	.08	.72	.68	.60	-	1.79	1.20	.76	1.50	1.96	1.47	.80
30	.07	.77	.68	.60	-	1.78	1.12	.80	1.58	1.94	1.47	.76
31	.08	-	.68	.59	-	1.78	-	.78	-	1.93	1.43	-

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.72	0.43	0.43	0.34	0.56	-	2.00	1.30	0.66	0.83	0.53	0.80
2	.72	.45	.43	.34	.56	-	1.98	1.26	.68	.82	.53	.80
3	.68	.51	.43	.34	.50	1.33	2.00	1.22	.74	.82	.53	.80
4	.64	.57	.42	.34	.50	1.34	2.00	1.20	.73	.82	.54	.80
5	.59	.57	.42	.34	.50	1.37	2.00	1.20	.73	.83	.54	.80
6	.57	.57	.41	.34	.48	1.37	2.00	1.17	.73	.83	.54	.80
7	.55	.58	.41	.34	.48	1.37	1.99	1.13	.74	.83	.52	.80
8	.54	.56	.41	.34	.47	1.37	1.98	1.11	.76	.81	.52	.80
9	.50	.53	.40	.34	.45	1.42	1.98	1.00	.76	.80	.52	.80
10	.55	.50	.40	.34	.45	1.42	1.90	1.00	.77	.80	.53	.80
11	.55	.48	.40	.34	.41	1.50	1.86	.98	.77	.80	.54	.80
12	.54	.45	.39	.35	.41	1.50	1.86	.96	.77	.80	.55	.80
13	.53	.44	.38	.36	.38	1.60	1.86	.96	.77	.76	.55	.80
14	.57	.44	.38	.37	.36	1.70	1.85	.95	.77	.75	.55	.80
15	.62	.44	.37	.37	.30	1.80	1.80	.92	.77	.72	.56	.80
16	.59	.43	.37	.38	.30	1.90	1.70	.90	.76	.72	.60	.80
17	.57	.43	.36	.38	.27	1.97	1.68	.86	.77	.73	.60	.80
18	.57	.43	.36	.38	.25	1.97	1.65	.83	.78	.74	.62	.82
19	.55	.42	.36	.39	.20	2.00	1.63	.80	.79	.78	.62	.82
20	.54	.42	.35	.39	.20	2.00	1.62	.80	.79	.78	.66	.82
21	.53	.40	.35	.41	.20	2.00	1.60	.79	.79	.76	.66	.82
22	.52	.40	.34	.43	-	2.02	1.55	.76	.79	.72	.70	.82
23	.49	.38	.34	.46	-	2.03	1.55	.76	.79	.68	.70	.82
24	.47	.36	.34	.48	-	2.03	1.50	.78	.78	.66	.72	.82
25	.44	.35	.34	.52	-	2.03	1.47	.78	.78	.66	.72	.82
26	.42	.35	.34	.54	-	2.02	1.45	.76	.78	.64	.74	.82
27	.42	.38	.34	.56	-	2.01	1.43	.73	.78	.61	.74	.84
28	.43	.40	.34	.58	-	2.01	1.40	.70	.79	.61	.76	.85
29	.43	.42	.34	.58	-	2.01	1.37	.68	.80	.55	.76	.85
30	.42	.42	.34	.58	-	2.00	1.33	.65	.83	.55	.77	.84
31	.42	-	.34	.56	-	2.00	-	.65	-	.56	.78	-

Yahara River near McFarland, Wis.

Location.- Water-stage recorder, lat. 43°0'30", long. 89°18'15", in SW¼ sec. 3, T. 6 N., R. 10 E., at upstream side of bridge on U. S. Highway 51, about 400 feet downstream from outlet of Lake Waubesa and 1 mile southwest of McFarland. Zero of gage is 840.2 feet above mean sea level.

Drainage area.- 351 square miles (revised).

Records available.- September 1930 to September 1936.

Extremes.- Maximum discharge during year, 347 second-feet Apr. 7, 8, 10-20; maximum gage height, 5.00 feet Apr. 2-4, 7; minimum discharge, 6 second-feet June 29, 30. 1930-36: Maximum discharge observed, 655 second-feet May 21, 1933; minimum, that of June 29, 30, 1936.

Remarks.- Records good. Stage-discharge relation affected by dead vegetation at all times. In winter there is a slightly increased backwater effect from ice. In summer the stage-discharge relation is seriously affected by aquatic growth. On days for which no gage heights were available, Jan. 6, 7, Jan. 19 to Feb. 9, Feb. 13-19, 21-24, Mar. 1-7, 9, 10, Apr. 26 to May 17, discharge was computed on basis of weather records.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	84	14	61	59	128	301	256	40	7	29	108
2	67	80	16	63	63	128	324	245	46	7	28	106
3	71	94	50	67	63	128	324	245	38	7	27	104
4	59	114	64	71	63	128	324	245	31	7	26	102
5	53	118	69	71	64	138	324	223	23	7	26	100
6	52	106	75	71	64	138	324	212	22	7	26	104
7	52	96	82	71	64	168	347	201	21	7	24	108
8	47	94	88	71	68	190	347	179	19	7	23	110
9	47	88	71	69	67	212	324	168	18	8	23	108
10	59	80	64	66	69	234	347	158	16	8	25	106
11	63	98	59	66	69	256	347	158	16	8	27	116
12	58	88	55	67	75	256	347	148	14	9	26	122
13	59	82	55	71	78	256	347	148	14	10	30	138
14	67	73	56	73	82	256	347	138	12	11	46	138
15	71	71	59	69	84	267	347	138	12	12	45	148
16	69	69	58	61	86	278	347	128	12	12	40	158
17	94	64	58	56	88	290	347	118	11	13	38	158
18	100	61	56	63	88	290	347	112	11	15	40	148
19	100	71	63	52	90	278	347	110	10	18	50	148
20	96	69	61	46	92	267	347	92	9	20	52	138
21	90	77	59	43	94	267	324	78	8	21	69	138
22	78	28	59	39	98	278	301	73	8	23	75	128
23	77	55	58	37	106	267	301	64	8	26	78	124
24	73	61	59	37	112	256	290	88	8	29	75	120
25	77	66	67	38	116	256	290	80	7	34	77	106
26	78	63	64	39	118	267	278	78	7	34	78	100
27	77	73	63	45	120	267	267	75	7	34	82	106
28	77	86	61	47	122	267	267	69	7	34	124	104
29	78	21	59	50	126	267	267	61	6	31	128	98
30	78	49	59	55	-	278	256	52	6	32	122	94
31	82	-	58	58	-	290	-	49	-	30	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,220	100	47	71.6	0.204	0.24
November	2,289	118	21	76.3	.217	.24
December	1,839	88	14	59.3	.169	.19
Calendar year 1935	49,347	370	14	135	.385	5.21
January	1,793	73	37	57.8	.165	.19
February	2,488	126	59	85.8	.244	.26
March	7,246	290	128	234	.667	.77
April	9,597	347	256	320	.912	1.02
May	4,209	256	49	136	.387	.45
June	467	46	6	15.6	.044	.05
July	528	34	7	17.0	.048	.06
August	1,671	128	23	53.9	.154	.18
September	3,586	158	94	120	.342	.38
Water year 1935-36	37,933	347	6	104	.296	4.03

Pecatonica River at Freeport, Ill.

Location.- Water-stage recorder, lat. 42°18'13", long. 89°36'57", T. 27 N., R. 8 E. fourth principal meridian, on Illinois Northern Utilities Co. property at extension of North Adams Street in Freeport. Zero of gage is 743.18 feet above mean sea level.(general adjustment of 1929).

Drainage area.- 1,330 square miles.

Records available.- September 1914 to September 1936.

Average discharge.- 22 years, 912 second-feet.

Extremes.- Maximum discharge during year, 5,100 second-feet Mar. 16 (gage height, 11.99 feet); minimum daily discharge, 118 second-feet Aug. 4.
1914-36: Maximum discharge observed, 18,400 second-feet Mar. 16, 1929 (gage height, 19.76 feet, former site and datum); minimum observed, 98 second-feet July 3, 1934 (gage height, 2.84 feet, former site and datum).

Remarks.- Records good. Discharge for period of ice effect, Jan. 24 to Mar. 13, computed on basis of power plant records at Martintown, gage heights, and weather records. Discharge obtained from one gage reading daily Dec. 20 to Jan. 20. Some diurnal regulation from power plants upstream.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge in second-feet)

1.7	105	2.5	318	4.5	1,000	8.0	2,500	12.0	5,100
1.8	123	3.0	482	5.0	1,180	9.0	3,000		
1.9	144	3.5	652	6.0	1,570	10.0	3,500		
2.0	170	4.0	825	7.0	2,020	11.0	4,200		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	372	417	306	220	1,250	550	428	312	240	127	445
2	312	465	285	306	260	1,030	584	417	366	216	180	328
3	288	482	366	306	280	1,010	584	414	398	267	219	303
4	315	808	379	312	230	1,800	567	448	404	207	118	291
5	288	1,000	379	315	240	2,120	533	431	385	264	148	255
6	324	772	366	318	280	2,220	550	414	337	173	153	240
7	315	499	372	334	270	2,110	550	411	328	213	149	516
8	288	438	408	324	230	2,040	550	404	318	252	191	755
9	318	411	465	324	240	2,070	567	395	312	210	149	499
10	337	401	465	328	260	2,160	601	379	347	170	199	382
11	356	398	324	318	280	2,500	601	372	331	219	218	294
12	363	392	366	324	270	3,200	584	372	324	192	303	860
13	363	388	376	324	280	3,900	550	369	315	192	213	895
14	350	369	385	328	270	4,700	533	356	303	214	216	755
15	360	363	398	334	260	5,000	516	353	294	210	321	618
16	294	363	395	328	250	4,900	499	331	219	217	328	825
17	318	360	369	318	260	3,450	482	321	288	172	276	1,450
18	353	356	366	318	270	1,930	465	353	279	169	187	1,490
19	363	372	279	312	280	1,220	448	398	264	242	267	825
20	294	353	136	303	280	1,070	441	366	288	243	252	482
21	328	408	243	294	270	1,000	438	334	285	231	222	431
22	353	401	243	294	270	930	434	318	282	215	249	408
23	340	360	356	303	290	895	428	303	225	229	465	372
24	321	465	350	290	300	930	421	318	252	204	567	465
25	324	294	252	270	600	930	414	331	249	211	376	635
26	324	376	252	210	1,220	842	414	350	246	217	291	533
27	324	411	291	230	1,440	755	424	328	201	198	294	465
28	328	482	300	200	1,620	703	434	303	267	202	669	455
29	334	516	300	200	1,520	669	438	312	207	183	1,570	445
30	321	550	312	240	-	635	434	294	225	192	1,750	421
31	344	-	264	230	-	601	-	288	-	164	985	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,168	363	288	328	0.247	0.28
November	13,625	1,000	294	454	.341	.38
December	10,459	465	136	337	.253	.29
Calendar year 1935	262,054	5,000	136	718	.540	7.32
January	9,141	334	200	295	.222	.26
February	12,740	1,620	220	439	.330	.36
March	58,570	5,000	601	1,889	1.42	1.64
April	15,034	601	414	501	.377	.42
May	11,181	448	258	361	.271	.31
June	8,851	404	201	295	.222	.25
July	6,528	267	164	211	.159	.18
August	11,632	1,750	118	375	.282	.33
September	17,148	1,490	240	572	.430	.48
Water year 1935-36	185,077	5,000	118	506	.380	5.18

Sugar River near Brodhead, Wis.

Location.- Chain gage, lat. 42°36'40", long. 89°23'50", in SW¼ sec. 26, T. 2 N., R. 9 E., at highway bridge 2 miles above mouth of Jordan Creek and 2 miles southwest of Brodhead.

Drainage area.- 529 square miles.

Records available.- February 1914 to September 1936.

Average discharge.- 22 years, 352 second-feet.

Extremes.- Maximum discharge observed during year, 2,540 second-feet Mar. 12 (gage height, 6.12 feet); minimum observed, 67 second-feet Aug. 15.
1914-36: Maximum discharge, about 13,000 second-feet Sept. 13, 1915 (gage height, 11.4 feet, from floodmarks); minimum, 45 second-feet Aug. 26, 1934 (gage height, 0.28 foot).

Remarks.- Records fair except those for period of ice effect, Nov. 30 to Dec. 5, Dec. 18 to Mar. 10, which were computed on basis of 3 discharge measurements, weather records, and observer's notes and are poor. Gage read twice daily. Flow regulated by operation of power plant in Brodhead.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge in second-feet) (Shifting-control method used May 3 to Aug. 26, Sept. 18-30)

0.2	53	1.3	235	3.5	1,030
.4	72	1.6	313	4.0	1,230
.6	95	1.9	400	5.0	1,800
.8	127	2.2	493	6.0	2,460
1.0	166	2.6	633	7.0	3,650
		3.0	800		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	200	356	136	166	385	300	211	200	166	89	260
2	156	223	211	211	145	356	286	200	200	136	83	211
3	166	200	166	223	145	313	260	200	248	127	89	177
4	188	493	166	223	145	526	286	260	260	110	78	223
5	177	633	188	235	156	756	327	260	223	127	136	145
6	136	560	235	248	156	800	260	248	127	156	145	110
7	177	400	223	223	145	713	327	260	177	102	95	177
8	166	260	235	248	136	800	327	273	188	102	102	145
9	156	223	248	235	136	937	286	211	188	127	89	127
10	156	260	260	248	136	1,230	313	188	177	166	89	156
11	200	313	235	211	136	1,800	327	223	177	110	102	200
12	156	260	235	211	118	2,540	286	188	188	127	102	188
13	145	211	188	248	118	1,800	327	188	177	110	102	177
14	188	211	177	145	118	1,080	273	200	177	136	127	327
15	166	248	200	127	118	633	300	188	177	145	89	356
16	211	188	248	136	110	560	248	188	177	127	200	493
17	166	188	223	156	102	560	235	188	200	102	110	633
18	166	200	211	235	110	461	211	211	223	156	102	633
19	156	177	188	177	110	461	223	200	200	177	110	365
20	166	188	177	156	110	385	260	200	188	188	156	273
21	200	188	166	145	127	356	223	200	145	188	166	248
22	156	200	166	166	110	400	248	200	177	177	145	156
23	145	211	166	156	110	430	223	211	177	145	166	156
24	188	188	156	156	110	461	273	200	145	145	156	156
25	200	248	156	156	136	493	200	211	177	156	211	211
26	156	223	156	166	177	385	200	211	136	118	166	200
27	145	248	145	177	248	400	235	177	145	118	166	223
28	235	260	145	145	286	356	248	156	102	136	341	211
29	177	300	136	145	356	313	223	177	211	127	526	166
30	177	356	145	145	-	313	223	188	110	127	596	145
31	200	-	145	166	-	313	-	177	-	95	430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,304	235	127	171	0.323	0.37
November	8,058	633	177	269	.509	.57
December	6,052	356	136	195	.369	.43
Calendar year 1935	114,841	2,120	118	315	.595	8.09
January	5,755	248	127	186	.352	.41
February	4,276	356	102	147	.278	.30
March	21,316	2,540	313	688	1.30	1.50
April	7,958	327	200	265	.501	.56
May	6,393	273	156	206	.389	.45
June	5,397	260	102	180	.340	.38
July	4,229	188	95	136	.257	.30
August	5,264	596	78	170	.321	.37
September	7,268	633	110	242	.457	.51
Water year 1935-36	87,270	2,540	78	238	.450	6.15

Green River near Geneseo, Ill.

Location.- Wire-weight gage, lat. 41°29'20", long. 90°9'30", on highway bridge in West center of sec. 4, T. 17 N., R. 3 E., 3 miles north of Geneseo. Zero of gage is 550.66 feet above mean sea level.

Drainage area.- 958 square miles.

Records available.- March to September 1936.

Extremes.- Maximum discharge observed during period, 3,940 second-feet Mar. 1 (gage height, 41.84 feet); minimum, 56 second-feet Aug. 18 (gage height, 31.46 feet). Maximum stage known, about 44.8 feet sometime after 1931 (discharge, 5,500 second-feet).

Remarks.- Records good. Gage read twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

31.4	49	32.2	164	36.0	1,280
31.5	61	32.4	203	37.0	1,670
31.6	73	32.6	243	38.0	2,100
31.7	85	32.8	284	39.0	2,570
31.8	99	33.0	328	40.0	3,040
31.9	114	33.5	451	41.0	3,540
32.0	130	34.0	598	42.0	4,040
		34.5	753		
		35.0	910		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						3,940	538	350	203	114	74	81
2						3,640	538	373	213	114	72	203
3						3,290	568	423	213	106	69	156
4						3,790	536	396	203	106	68	138
5						3,390	568	373	193	99	73	114
6						2,800	629	350	193	99	79	96
7						2,520	722	328	193	92	74	86
8						2,430	722	306	183	84	65	86
9						2,290	660	306	183	81	60	88
10						2,150	629	306	203	86	67	81
11						2,240	598	306	253	89	72	77
12						2,010	568	284	215	98	65	156
13						1,630	538	328	193	92	57	846
14						1,360	509	373	174	88	59	753
15						1,210	480	328	164	85	60	509
16						1,130	451	306	156	88	61	1,840
17						984	423	284	147	64	63	2,340
18						910	423	306	138	63	57	1,590
19						878	396	350	138	93	57	1,020
20						846	373	306	130	96	67	722
21						846	396	284	130	98	69	784
22						846	396	263	130	86	62	509
23						846	373	253	130	85	71	451
24						878	373	253	130	86	80	2,520
25						910	350	253	122	98	77	846
26						784	350	243	114	92	62	629
27						722	350	243	114	84	89	3,440
28						660	373	233	106	80	106	2,800
29						629	373	213	106	79	122	1,930
30						598	373	213	114	77	95	1,440
31						568	-	203	-	74	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	51,725	3,940	568	1,668	1.74	2.01
April	14,578	722	350	486	.507	.57
May	9,336	423	203	301	.314	.36
June	4,882	253	106	163	.170	.19
July	2,816	114	74	90.8	.095	.11
August	2,232	122	57	72.0	.075	.09
September	26,331	3,440	77	878	.916	1.02
Water year						

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Iowa River at Marshalltown, Iowa

Location.- Water-stage recorder, lat. 42°4', long. 92°54', in SW¼ sec. 24, T. 84 N., R. 18 W., in Marshalltown. Zero of gage is 852.7 feet above mean sea level (general adjustment of 1912).
Drainage area.- 1,500 square miles.
Records available.- May 1915 to September 1927, February 1933 to September 1936. February to August 1903 at old dam site 1 mile above present station (gage heights only).
Average discharge.- 15 years (1915-27, 1933-36), 656 second-feet.
Extremes.- Maximum discharge during year, 8,450 second-feet Mar. 9 (gage height, 13.62 feet); minimum discharge observed, 32 second-feet Aug. 17, 19, 20, 21, 23 (gage height, 2.62 feet).
1915-27, 1933-36: Maximum discharge observed, 42,000 second-feet June 4, 1918 (gage height, 17.74 feet); minimum, about 2 second-feet Nov. 24, 1917 (caused by regulation).
Remarks.- Records good except those for period of ice effect, Dec. 20 to Mar. 7, which are fair and were computed on basis of two discharge measurements, gage heights, weather records, and records for station at Iowa City. Discharge computed on basis of once-daily gage readings Dec. 1, 2, 20-30, Mar. 15-21, July 8-18, July 21 to Sept. 30 and twice-daily gage readings Mar. 22 to Apr. 23.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-10)

2.6	31	4.0	294	5.6	1,090	10.0	3,210
2.8	44	4.2	381	5.9	1,210	11.0	3,870
3.0	61	4.4	484	6.2	1,330	12.0	5,010
3.2	85	4.6	608	6.6	1,490	13.5	8,190
3.4	118	4.8	727	7.0	1,690		
3.6	163	5.0	830	8.0	2,190		
3.8	221	5.3	970	9.0	2,690		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	780	780	302	130	425	1,250	1,490	363	137	59	368
2	146	556	425	307	127	415	780	1,490	543	128	57	307
3	144	622	620	319	124	1,130	878	1,410	396	124	57	302
4	131	1,290	556	311	121	2,640	878	1,210	340	120	57	228
5	131	1,050	569	294	118	2,940	878	1,050	336	111	54	294
6	128	830	664	286	117	2,490	864	948	340	107	54	562
7	124	687	727	275	116	2,490	948	830	332	97	54	372
8	128	582	754	275	115	3,450	929	754	328	94	46	336
9	131	582	754	283	115	5,510	948	658	664	90	58	336
10	133	531	620	283	115	7,690	925	681	1,170	86	36	294
11	139	479	381	290	115	8,190	878	639	576	82	57	345
12	139	441	484	286	115	7,690	854	727	468	78	35	391
13	163	415	608	267	115	5,690	830	658	372	77	36	441
14	146	410	608	260	115	4,720	754	569	319	73	33	614
15	131	391	508	256	115	4,460	780	508	307	64	36	614
16	118	368	496	252	115	4,040	687	462	260	64	35	2,140
17	212	368	410	242	115	3,510	639	420	238	63	32	1,990
18	514	368	401	202	115	3,150	595	430	228	64	35	1,840
19	381	391	206	190	116	2,940	562	372	224	*64	32	1,790
20	302	415	133	180	118	2,640	550	363	215	*63	32	1,740
21	279	410	336	174	98	2,440	525	340	199	*63	32	1,690
22	249	260	319	167	111	2,490	479	323	212	63	34	1,410
23	235	260	307	163	107	3,580	462	332	193	62	32	1,130
24	215	345	302	158	98	3,870	420	550	190	63	54	830
25	209	368	242	154	113	3,330	410	830	174	63	46	639
26	196	336	209	149	228	2,890	386	854	166	63	64	582
27	196	780	206	145	256	2,690	391	805	168	63	38	496
28	190	1,090	212	142	246	2,540	386	614	153	63	85	468
29	185	902	224	139	368	2,090	391	496	139	63	151	446
30	187	805	232	137	-	1,640	386	441	141	59	85	435
31	499	-	290	134	-	1,330	-	376	-	59	354	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,239	514	118	201	0.134	0.15
November	17,112	1,290	260	570	.380	.42
December	13,583	780	133	438	.292	.34
Calendar year 1935	264,705	8,970	78	725	.483	6.54
January	7,022	319	134	227	.151	.17
February	3,977	368	98	137	.091	.10
March	105,100	8,190	415	3,390	2.26	2.61
April	20,635	1,250	386	688	.459	.51
May	21,630	1,490	323	698	.465	.54
June	9,754	1,170	139	325	.217	.24
July	2,470	137	59	79.7	.053	.06
August	1,870	354	32	60.3	.040	.05
September	23,430	2,140	228	781	.521	.58
Water year 1935-36	232,822	8,190	32	636	.424	5.77

*Interpolated.

Iowa River at Iowa City, Iowa

Location.- Water-stage recorder, lat. 41°39'30", long. 91°32'20", in sec. 15, T. 79 N., R. 6 W., 25 feet below the hydraulic laboratory of the State University of Iowa and 200 feet below Burlington Street highway bridge in Iowa City. Zero of gage is at elevation of 39.00 feet, Iowa City datum, and 627.27 feet, mean sea-level datum (general adjustment of 1929).
Drainage area.- 3,230 square miles.
Records available.- June 1903 to July 1906, October 1913 to September 1936 in reports of U. S. Geological Survey; June 1903 to December 1932 in report of Iowa State Planning Board.
Average discharge.- 25 years (1903-5, 1913-36), 1,484 second-feet.
Extremes.- Maximum discharge during year, 12,900 second-feet Mar. 15 (gage height, 12.00 feet); minimum, 54 second-feet July 27 (gage height, -1.08 feet); minimum daily discharge, 59 second-feet Aug. 21.
1903-6, 1913-36: Maximum discharge, 36,200 second-feet June 7, 1918 (gage height, 19.45 feet, former site and datum); minimum daily discharge, 10 second-feet Dec. 28, 1916; practically no flow Sept. 3, 1925 (caused by regulation).
Remarks.- Records good except those for period of ice effect, Dec. 23 to Mar. 7, which are fair and were computed on basis of three discharge measurements, gage heights, and weather records. Considerable fluctuation at low stages due to operation of power plant above station.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

-1.1	53	0.3	279	2.6	1,520	7.0	5,620
-.9	68	.6	376	3.0	1,840	8.0	6,820
-.7	88	1.0	538	3.5	2,240	9.0	8,170
-.5	115	1.4	732	4.0	2,680	10.0	9,640
-.3	147	1.8	965	5.0	3,580	11.0	11,200
0	206	2.2	1,240	6.0	4,570	12.0	12,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	465	498	1,520	732	420	1,920	3,580	1,140	924	432	117	897
2	444	503	1,380	706	430	2,080	3,130	1,170	2,060	413	119	621
3	406	1,690	1,240	732	442	2,410	2,770	1,640	1,920	380	93	284
4	334	3,870	1,280	732	454	3,770	2,590	2,860	2,000	391	105	305
5	352	2,860	1,240	706	438	3,870	2,500	2,770	1,880	348	144	325
6	341	2,160	1,340	655	434	3,770	2,320	2,410	1,480	279	119	459
7	219	2,000	1,560	680	423	4,570	2,320	2,160	1,280	287	128	474
8	334	1,800	1,880	706	419	4,770	2,240	1,920	1,140	321	109	759
9	311	1,560	2,000	706	374	4,970	2,160	1,760	1,350	308	160	896
10	321	1,420	1,840	680	411	8,740	2,160	1,640	2,680	282	85	615
11	318	1,280	1,240	706	389	9,950	2,080	1,600	2,040	252	100	589
12	308	1,240	1,280	630	382	10,800	2,080	1,520	1,560	196	125	732
13	341	1,170	1,310	655	385	12,200	1,920	1,600	1,720	223	97	1,380
14	240	1,100	1,240	655	374	12,700	1,920	1,480	1,340	253	120	934
15	283	1,030	1,170	655	346	12,900	1,840	1,380	1,200	239	94	844
16	328	934	1,240	655	343	12,200	1,760	1,340	1,100	174	110	1,200
17	305	903	1,310	630	360	11,200	1,680	1,280	1,140	189	129	1,200
18	338	844	1,100	588	346	10,300	1,600	1,200	1,200	175	95	1,920
19	358	934	998	538	354	9,040	1,520	1,140	861	190	103	2,080
20	344	874	760	529	389	8,030	1,450	1,060	816	179	76	1,960
21	387	903	510	499	368	7,340	1,420	998	680	152	59	1,720
22	542	816	421	525	354	6,820	1,380	874	680	146	134	1,720
23	516	706	499	495	360	6,320	1,340	903	680	162	93	1,760
24	481	732	592	434	323	5,730	1,280	874	655	151	108	1,640
25	460	787	706	474	680	5,070	1,240	816	597	147	105	1,480
26	429	816	816	487	1,030	4,770	1,170	903	588	165	93	1,450
27	380	1,140	787	458	1,340	4,670	1,140	844	556	132	164	1,560
28	398	1,600	787	419	1,280	4,770	1,280	998	469	134	194	1,280
29	436	1,520	706	411	1,520	4,870	1,240	1,060	503	148	180	1,200
30	391	1,310	706	410	-	5,070	1,170	1,060	409	116	201	1,140
31	477	-	680	415	-	4,870	-	998	-	138	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	11,587	542	219	374	0.116	0.13
November	39,000	3,870	498	1,300	.402	.45
December	34,138	2,000	421	1,101	.341	.39
Calendar year 1935	595,155	8,550	179	1,631	.505	6.85
January	18,303	732	410	590	.183	.21
February	15,168	1,520	323	523	.162	.17
March	210,490	12,900	1,920	6,790	2.10	2.42
April	56,280	3,580	1,140	1,876	.581	.65
May	43,398	2,860	816	1,400	.433	.50
June	36,508	2,680	409	1,184	.367	.41
July	7,102	432	116	229	.071	.08
August	3,688	201	59	119	.037	.04
September	33,424	2,080	284	1,114	.345	.38
Water year 1935-36	508,086	12,900	59	1,388	.430	5.83

Iowa River at Wapello, Iowa

Location.- Water-stage recorder, lat. 41°11', long. 91°11', in sec. 27, T. 74 N., R. 3 W., at highway bridge at east edge of Wapello, 15.4 miles above mouth of river.

Drainage area.- 12,480 square miles.

Records available.- February 1915 to September 1936.

Average discharge.- 21 years, 5,833 second-feet.

Extremes.- Maximum discharge during year, 36,500 second-feet Mar. 18 (gage height, 11.59 feet); minimum discharge, 603 second-feet Aug. 12, 13; minimum gage height -0.42 foot Aug. 15.
1915-36: Maximum discharge, 67,500 second-feet Mar. 19, 1929 (gage height, 16.22 feet); minimum, about 400 second-feet Dec. 15-17, 1916.

Remarks.- Records good except those for period of ice effect, Dec. 18 to Mar. 10, which are poor and were computed on basis of one discharge measurement, and records for stations at Iowa City and Cedar River at Cedar Rapids. Station operated in cooperation with Corps of Engineers, U. S. Army, and Mississippi River Power Co. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,580	2,030	4,850	2,700	1,450	8,500	20,300	4,450	3,140	1,900	745	1,260
2	1,520	2,030	4,750	2,700	1,450	8,600	14,600	4,360	3,060	1,770	710	2,900
3	1,580	2,680	4,550	2,500	1,450	8,700	12,300	5,050	6,340	1,700	675	4,170
4	1,580	5,900	4,170	2,500	1,450	9,000	11,100	5,470	5,680	1,580	663	3,060
5	1,520	9,700	4,080	2,500	1,420	9,800	10,200	6,560	5,160	1,520	745	2,820
6	1,510	8,390	3,990	2,400	1,400	11,000	9,700	7,000	4,550	1,480	752	2,750
7	1,520	6,780	4,080	2,350	1,410	14,000	9,160	7,000	3,990	1,360	724	2,750
8	1,460	6,120	4,360	2,300	1,450	16,000	8,640	7,220	3,900	1,340	689	2,900
9	1,380	5,470	4,850	2,300	1,430	17,000	8,390	6,560	3,640	1,270	669	2,980
10	1,450	5,050	5,260	2,300	1,410	18,500	8,140	5,900	3,640	1,260	651	3,550
11	1,470	4,550	5,160	2,250	1,350	19,900	8,140	5,680	5,900	1,210	651	3,460
12	1,520	4,360	4,650	2,200	1,310	22,800	7,670	5,470	6,120	1,170	609	3,300
13	1,520	3,990	4,260	2,250	1,280	25,800	7,440	5,470	5,900	1,090	609	3,550
14	1,510	3,810	4,080	2,200	1,250	28,100	7,220	5,160	5,680	1,050	621	4,450
15	1,510	3,720	3,990	2,150	1,220	31,000	7,000	4,750	4,950	1,010	615	4,450
16	1,420	3,550	3,720	2,200	1,200	34,000	7,000	4,450	4,260	963	651	6,340
17	1,480	3,380	3,720	2,200	1,150	36,000	6,780	4,170	3,810	963	675	7,900
18	1,480	3,220	3,400	2,100	1,100	36,000	6,340	4,170	3,550	909	710	7,900
19	1,500	3,140	2,600	2,100	1,080	33,500	6,120	3,990	3,900	892	738	8,140
20	1,520	3,220	1,800	2,050	1,050	29,500	5,900	3,720	3,300	909	768	9,160
21	1,580	3,140	1,500	1,900	1,020	26,200	5,680	3,550	2,900	876	805	10,200
22	1,700	3,140	1,900	1,850	1,050	24,100	5,470	3,380	2,600	836	836	11,400
23	1,770	2,980	1,900	1,750	1,100	23,200	5,470	3,220	2,620	812	836	11,700
24	1,900	2,900	2,300	1,700	1,200	23,600	5,050	3,220	2,380	828	892	9,970
25	1,900	2,680	2,600	1,650	3,000	23,600	4,850	3,220	2,310	828	927	8,140
26	1,840	2,600	2,800	1,600	4,500	24,100	4,750	3,140	2,170	782	1,040	7,000
27	1,840	2,980	2,900	1,600	6,200	24,100	4,650	3,140	2,100	768	1,080	7,670
28	1,770	3,810	3,000	1,550	7,000	24,500	4,450	3,140	2,030	768	1,080	7,900
29	1,770	5,160	3,000	1,500	8,400	24,900	4,650	3,380	1,900	752	1,140	6,340
30	1,700	5,160	3,000	1,550	-	25,800	4,550	3,460	1,900	752	1,120	5,680
31	1,840	-	2,800	1,500	-	24,500	-	3,300	-	752	1,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	49,570	1,900	1,380	1,599	0.128	0.15
November	125,640	9,700	2,030	4,188	.336	.37
December	110,020	5,260	1,500	3,549	.284	33
Calendar year 1935	2,175,880	35,500	1,000	5,961	.478	6.49
January	64,400	2,700	1,500	2,077	.166	.19
February	59,780	8,400	1,020	2,061	.165	.18
March	686,300	36,000	8,500	22,140	1.77	2.04
April	231,710	20,300	4,450	7,724	.619	.69
May	142,750	7,220	3,140	4,605	.369	.43
June	113,280	6,340	1,900	3,776	.303	.34
July	34,100	1,900	752	1,100	.088	.10
August	24,546	1,140	609	792	.063	.07
September	173,790	11,700	1,260	5,793	.464	.52
Water year 1935-36	1,815,886	36,000	609	4,961	.398	5.41

Ralston Creek at Iowa City, Iowa

Location.- Water-stage recorder, lat. 41°40'10", long. 91°30'40", in SE¼NW¼ sec. 11, T. 79 N., R. 6 W., at bridge on State Highway 1 just outside city limits of Iowa City.

Drainage area. 3.01 square miles.

Records available.- October 1932 to September 1936 in reports of the U. S. Geological Survey; September 1924 to December 1935 in University of Iowa Engineering Bulletin No. 9.

Extremes.- Maximum discharge during year, 193 second-feet Sept. 1 (gage height, 3.59 feet); no flow at numerous times.
1924-36: Maximum discharge, 851 second-feet Aug. 1, 1932 (gage height, 8.18 feet); no flow at times each year.

Remarks.- Records poor. Stage-discharge relation affected by ice Jan. 1 to Mar. 5.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.02	0.13	0.62	*0.30	*0.10	†6	0.74	0.77	12	0.11	0	37
2	.02	.09	.40	*.30	*.11	†6	.92	1.05	13.5	.07	0	.27
3	.02	14	.46	*.29	.11	†20	.77	.63	1.2	.03	0	.04
4	.02	5.3	.37	.28	*.14	†10	.77	.62	.63	.03	0	0
5	.02	1.2	.39	*.28	*.17	†6	.97	.55	.63	.03	0	.57
6	.02	.72	1.00	.28	*.20	2.4	1.2	.44	8.0	.01	0	.12
7	.02	.64	.97	*.28	.23	4.6	.95	.37	1.5	0	0	.10
8	.02	.45	.97	*.30	*.24	5.0	.83	.30	.78	.01	0	.08
9	.03	.41	.76	*.32	*.25	6.1	.94	.28	14	.02	0	0
10	.07	.37	.46	*.35	.26	5.2	.84	.36	3.0	0	0	0
11	.05	.35	.41	.37	*.23	7.1	.82	.36	1.3	0	0	.21
12	.06	.37	.44	.34	*.20	1.9	.66	.31	.66	0	0	3.2
13	.07	.37	.50	.31	*.18	1.4	.66	.34	.58	0	0	3.0
14	.07	.33	.42	.31	*.15	1.4	.66	.26	.49	0	0	.20
15	.07	.31	.41	.21	.13	1.4	.58	.23	.52	0	0	.30
16	.06	.27	.41	.18	*.13	.94	.46	.23	2.3	0	0	2.8
17	.07	.26	.39	.14	*.13	.87	.46	1.3	1.9	0	0	.32
18	.07	.25	.33	.14	.13	.82	.46	.51	.28	0	0	.23
19	.08	.66	.25	.11	*.17	.88	.43	.31	.35	0	0	.19
20	.07	.53	.14	*.10	*.20	.97	.43	.32	.20	0	0	.16
21	.07	.41	.11	*.09	*.23	.97	.43	.40	.16	0	0	.13
22	.07	.19	.12	*.08	*.26	1.3	.37	.21	.21	0	0	.10
23	.07	.20	.12	.07	*.29	1.5	.37	.26	.20	0	0	12.5
24	.07	.21	.10	*.07	.31	1.2	.44	.26	.27	0	0	1.7
25	.06	.26	.04	*.07	†20	.94	.43	.19	.18	0	0	.45
26	.08	.71	.04	*.06	†30	.90	.41	.16	.23	0	0	21
27	.08	4.8	.04	*.08	†15	.64	.78	.12	.20	0	.01	7.1
28	.09	1.6	.04	*.09	†8	.84	1.2	.11	.14	0	0	2.4
29	.08	.84	.18	*.09	†8	.84	.63	.11	.12	0	0	1.2
30	.08	.87	.29	*.10	-	.75	.48	.11	.10	0	0	1.4
31	.16	-	.31	.10	-	.63	-	.12	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1.84	0.16	0.02	0.059	0.020	0.02
November	37.10	14	.09	1.24	.410	.46
December	11.49	1.00	.04	.371	.123	.15
Calendar year 1935	675.67	72	0	1.85	.620	e.38
January	6.11	.37	.07	.197	.068	.08
February	85.55	30	.10	2.95	.979	1.06
March	99.69	20	.63	3.22	1.07	1.23
April	20.09	1.2	.37	.670	.222	.24
May	11.59	1.3	.11	.374	.124	.15
June	65.63	14	.10	2.19	.726	.81
July	0.31	.11	0	.010	.003	.003
August	.01	.01	0	0	0	0
September	96.77	37	0	3.23	1.07	1.19
Water year 1935-36	436.18	37	0	1.21	.401	5.39

*Interpolated.
†Field estimates.

Cedar River at Mitchell, Iowa

Location.- Staff gage, lat. 43°19', long. 92°52', in sec. 8, T. 98 N., R. 17 W., at hydroelectric plant of Interstate Power Co. in Mitchell.

Drainage area.- 845 square miles.

Records available.- July 1933 to September 1936.

Extremes.- Maximum discharge during year, 3,210 second-feet May 2 (gage height, 87.8 feet); minimum, about 15 second-feet almost daily during low-water periods, when power plant was shut down.

1933-36: Maximum discharge, 3,760 second-feet Apr. 4, 1934 (gage height, 89.7 feet); minimum, about 5 second-feet at numerous times during 1934-35 when power plant was shut down.

Remarks.- Records fair. Daily-discharge record furnished by Interstate Power Co.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

78.8	8	80.4	216	83.0	1,010
79.0	17	80.6	261	83.5	1,210
79.2	32	80.8	308	84.0	1,415
79.4	51	81.0	359	84.5	1,640
79.6	74	81.3	439	85.0	1,865
79.8	102	81.6	524	86.0	2,315
80.0	136	81.9	614	87.0	2,810
80.2	175	82.2	713	88.0	3,310
		82.6	854		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	392	126	85	80	61	270	753	126	51	71	100
2	80	291	122	106	61	89	381	2,290	131	65	30	92
3	89	145	138	96	71	108	358	782	113	103	64	75
4	85	160	125	126	66	89	327	640	99	69	56	75
5	108	154	114	52	66	99	260	520	103	48	60	98
6	48	146	127	89	71	89	228	360	155	57	60	45
7	80	117	200	99	66	126	241	333	115	65	45	98
8	94	122	99	103	75	80	260	282	122	74	71	98
9	99	179	122	99	61	136	312	348	170	57	66	124
10	85	71	123	85	80	435	431	160	117	65	15	71
11	99	117	94	126	75	1,070	512	246	126	99	30	132
12	112	99	123	71	117	1,510	550	235	243	32	45	105
13	66	117	122	94	89	1,120	520	213	162	57	45	45
14	89	85	150	85	66	987	489	204	89	57	124	60
15	85	109	85	94	113	1,220	428	195	117	48	61	227
16	117	152	105	103	71	1,660	350	209	126	45	15	112
17	89	80	119	85	89	2,220	299	129	131	58	42	98
18	108	101	124	117	66	2,840	265	173	80	68	60	90
19	117	128	95	62	80	3,160	200	155	117	15	45	99
20	62	98	91	94	99	2,870	226	155	108	81	45	65
21	89	124	127	89	71	2,990	197	140	34	79	90	82
22	112	87	34	66	94	2,530	145	242	136	76	90	86
23	108	131	91	80	80	2,060	189	285	94	117	45	65
24	103	54	100	71	99	1,980	145	140	71	45	60	107
25	112	110	61	99	80	1,470	219	203	85	105	60	69
26	99	120	89	43	85	939	122	220	99	30	60	*72
27	66	180	85	66	85	688	201	174	108	71	75	*78
28	94	226	114	71	80	631	145	156	57	52	166	*75
29	89	101	48	71	117	529	170	136	99	45	172	*72
30	182	189	80	71	-	495	209	136	93	52	56	*70
31	167	-	76	66	-	495	-	89	-	52	120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,022	182	48	97.5	0.115	0.13
November	4,185	392	54	140	.166	.19
December	3,309	200	34	107	.127	.15
Calendar year 1935	76,571	2,670	5	210	.249	3.38
January	2,664	126	43	85.9	.102	.12
February	2,353	117	61	81.1	.096	.10
March	34,776	3,160	61	1,122	1.33	1.53
April	8,629	530	122	288	.341	.38
May	10,303	2,290	89	332	.393	.45
June	3,426	243	34	114	.135	.15
July	1,938	117	15	62.5	.074	.09
August	2,044	172	15	65.9	.078	.09
September	2,685	227	45	89.5	.106	.12
Water year 1935-36	79,334	3,160	15	217	.257	3.50

*Estimated by hydrographic comparison with records for station at Janesville.

Cedar River at Janesville, Iowa

Location.- Chain gage, lat. 42°39', long. 92°28', in sec. 35, T. 91 N., R. 14 W., at highway bridge in Janesville, 3 miles above junction with Shell Rock River. Zero of gage is 870 feet above mean sea level.
Drainage area.- 1,660 square miles.
Records available.- April 1905 to September 1906, May 1915 to September 1927, November 1932 to September 1936.
Average discharge.- 15 years (1915-27, 1933-36), 629 second-feet.
Extremes.- Maximum discharge observed during year, 10,900 second-feet Mar. 24 (gage height, 9.66 feet); minimum, 48 second-feet Aug. 2, 11 (gage height, 1.15 feet).
1905-6, 1915-27, 1932-36: Maximum discharge observed, 27,700 second-feet Apr. 1,1933 (gage height, 15.43 feet); minimum 28 second-feet Oct. 21, 1922.
Remarks.- Records good except those for periods of ice effect, Dec. 2-7, Dec. 11 to Mar. 14, which are fair and were computed on basis of one discharge measurement, gage heights, weather records, and comparison with records for stations at Cedar Rapids and Shell Rock River at Greene. Diurnal fluctuation during low water periods caused by operation of power plant at Waverly, 9 miles above station. Gage read twice daily.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to May 4						May 5 to Sept. 30			
1.4	139	2.6	920	5.0	3,170	1.1	56	2.4	696
1.6	222	2.9	1,180	6.0	4,320	1.2	59	2.6	860
1.8	326	3.2	1,450	7.0	5,700	1.4	116	3.0	1,220
2.0	452	3.5	1,720	8.0	7,380	1.6	192	3.5	1,670
2.2	600	4.0	2,170	9.0	9,360	1.8	287	4.0	2,170
2.4	760	4.5	2,660	10.0	11,660	2.0	404	5.0	3,170
						2.2	543	6.0	4,320

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	209	315	283	140	90	140	1,270	452	309	120	141	367
2	196	252	280	140	80	140	1,140	920	320	134	88	342
3	182	452	250	150	80	160	1,000	2,080	298	156	104	247
4	166	523	230	130	90	150	920	2,760	267	134	100	314
5	170	262	220	130	110	150	880	1,400	237	164	113	431
6	178	326	220	120	110	160	760	696	228	127	120	860
7	166	315	300	130	120	170	720	818	304	168	91	348
8	209	356	356	140	100	240	640	776	184	164	88	342
9	191	356	326	130	100	600	640	696	471	116	120	320
10	170	252	386	130	110	1,200	680	657	398	110	104	282
11	155	209	340	150	120	2,000	720	379	252	116	67	995
12	174	237	240	130	120	3,000	800	438	272	104	130	1,770
13	147	209	220	140	110	4,000	840	431	206	104	219	950
14	178	204	230	140	110	4,500	840	444	282	116	110	818
15	196	227	210	130	110	5,550	840	367	232	116	148	818
16	200	213	200	140	110	3,960	800	331	219	120	206	4,080
17	227	272	190	140	130	4,320	720	471	214	113	164	2,070
18	257	213	180	110	130	5,850	760	277	192	141	201	995
19	247	227	170	100	130	6,840	720	331	180	156	232	905
20	267	209	160	110	130	9,360	452	331	156	138	188	860
21	151	204	160	130	130	10,000	562	257	172	120	277	580
22	200	209	160	90	140	9,150	488	287	141	152	219	580
23	200	191	150	80	140	9,800	452	320	172	206	214	507
24	178	162	150	90	130	10,700	452	543	152	184	141	507
25	200	151	140	90	100	7,380	452	379	138	180	168	464
26	187	187	120	90	100	4,710	488	379	201	156	172	451
27	182	272	120	100	120	3,170	326	331	141	152	543	507
28	155	356	130	100	140	1,990	488	385	164	141	1,580	424
29	166	452	130	90	140	1,720	386	331	127	201	657	411
30	170	356	140	90	-	1,630	419	320	120	104	361	373
31	237	-	140	91	-	1,360	-	242	-	104	320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	5,911	267	147	191	0.115	0.13
November	8,169	523	151	272	.164	.18
December	6,531	386	120	211	.127	.15
Calendar year 1935	216,555	8,330	90	593	.357	4.85
January	3,671	150	80	118	.071	.08
February	3,330	140	80	115	.069	.07
March	114,100	10,700	140	3,681	2.22	2.56
April	20,655	1,270	326	688	.414	.46
May	18,829	2,760	242	607	.366	.42
June	6,749	471	120	225	.136	.15
July	4,317	206	104	139	.084	.10
August	7,386	1,580	67	238	.143	.16
September	22,918	4,080	247	764	.460	.51
Water year 1935-36	222,566	10,700	67	608	.366	4.97

Cedar River at Cedar Rapids, Iowa

Location.- Water-stage recorder, lat. 41°58'15", long. 81°40'5", in sec. 28, T. 83 N., R. 7 W., in central part of Cedar Rapids, 500 feet above Eighth Avenue Bridge and 0.5 mile below dam.
Drainage area.- 6,640 square miles.
Records available.- February 1903 to September 1936.
Average discharge.- 33 years, 2,996 second-feet.
Extremes.- Maximum discharge during year, 22,700 second-feet Mar. 15 (gage height, 9.45 feet); minimum, 232 second-feet July 13 (gage height, 2.22 feet); minimum daily discharge, 418 second-feet July 31, Aug. 11-13.
1903-36: Maximum discharge, 72,000 second-feet Mar. 19, 1929 (gage height, 20.1 feet); minimum, 178 second-feet Sept. 25, 1935 (gage height, 2.24 feet); minimum daily discharge, 236 second-feet July 1, 1934.
Flood of June 1851 reached a stage of about 20 feet.
Remarks.- Records good except those for period of ice effect, Dec. 19 to Mar. 11, which are fair and were computed on basis of one discharge measurement, gage heights, and weather records. Diurnal fluctuation caused by operation of power plant 0.5 mile above station.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 30						Mar. 31 to Sept. 30			
2.7	580	4.0	2,960	7.0	13,200	2.2	220	3.6	2,050
3.0	940	4.5	4,440	8.0	17,000	2.4	346	4.0	2,990
3.3	1,390	5.0	6,050	9.0	21,000	2.6	518	4.5	4,390
3.6	1,970	6.0	9,540	9.5	23,090	2.8	735	5.0	6,000
						3.0	995	6.0	9,520
						3.3	1,470	7.0	13,200

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	762	1,040	1,740	1,110	823	1,360	7,030	3,150	1,540	772	435	2,320
2	888	1,220	1,790	1,080	580	1,360	6,340	3,150	1,860	900	472	2,050
3	901	1,610	1,160	1,010	702	1,390	5,670	3,250	1,860	822	463	1,860
4	836	2,310	1,460	1,050	1,110	2,590	5,180	3,660	1,600	678	454	1,740
5	875	2,310	1,520	1,110	1,230	3,040	4,860	3,940	1,600	809	463	1,490
6	726	2,410	1,610	996	1,050	2,910	4,390	4,700	1,600	712	444	1,580
7	635	2,240	1,930	1,050	927	2,640	4,240	3,940	1,440	747	454	2,250
8	657	1,990	2,360	1,020	862	3,440	4,090	3,300	1,420	735	454	2,760
9	849	1,800	2,720	996	1,050	4,750	3,940	2,960	1,740	689	444	2,290
10	786	1,780	2,850	1,110	1,170	6,050	3,800	2,840	2,360	632	426	1,840
11	762	1,590	1,960	1,010	1,020	13,200	3,800	2,670	3,800	611	418	1,780
12	798	1,520	1,040	1,020	875	17,400	3,660	2,500	3,250	611	418	1,900
13	762	1,480	1,200	1,160	862	21,400	3,660	2,320	2,740	559	418	2,380
14	798	1,410	1,430	1,120	888	22,300	3,660	2,180	2,230	570	426	4,540
15	798	1,290	1,570	1,220	875	22,700	3,660	2,050	1,840	539	444	5,020
16	823	1,290	1,700	1,120	875	19,400	3,410	1,990	1,650	559	472	5,340
17	823	1,160	1,930	1,140	968	15,500	3,330	1,860	2,200	539	463	5,670
18	888	1,200	1,720	1,120	1,010	13,600	3,200	1,760	1,520	590	463	6,860
19	940	1,250	1,480	1,200	954	13,200	3,040	1,820	1,370	559	570	8,800
20	927	1,290	1,340	1,040	1,010	13,600	2,960	1,710	1,370	539	454	10,600
21	1,010	1,260	1,070	1,020	1,010	14,700	2,820	1,610	1,250	600	454	9,160
22	1,020	1,100	750	836	982	15,900	2,520	1,510	995	559	500	6,510
23	968	875	1,080	982	940	17,000	2,410	1,630	1,190	559	518	4,860
24	862	875	1,530	1,070	901	17,800	2,340	1,670	981	539	518	3,600
25	798	1,020	1,310	996	954	18,200	2,270	1,560	981	528	549	3,300
26	823	1,310	1,310	1,020	1,050	19,400	2,180	1,780	941	559	559	3,040
27	836	1,820	1,290	1,010	1,080	20,200	2,160	2,120	913	559	549	2,960
28	836	2,060	1,260	810	1,070	17,800	2,180	1,970	886	559	621	2,790
29	836	1,800	1,390	702	1,220	13,200	2,120	1,800	927	611	689	2,720
30	849	1,700	1,330	786	-	10,300	2,120	1,610	927	509	1,800	2,640
31	901	-	1,230	875	-	8,080	-	1,490	-	418	2,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	25,973	1,020	635	838	0.126	0.15
November	46,010	2,410	875	1,534	.231	.26
December	48,060	2,850	750	1,550	.233	.27
Calendar year 1935	979,007	25,800	460	2,682	.404	5.51
January	31,789	1,220	702	1,025	.154	.18
February	28,048	1,230	580	967	.146	.16
March	374,410	22,700	1,360	12,080	1.82	2.10
April	107,040	7,030	2,120	3,568	.537	.60
May	74,500	4,700	1,490	2,403	.362	.42
June	48,981	3,800	886	1,633	.246	.27
July	19,172	900	418	618	.093	.11
August	17,932	2,120	418	578	.087	.10
September	114,850	10,600	1,490	3,828	.576	.64
Water year 1935-36	936,765	22,700	418	2,559	.385	5.26

Shell Rock River at Greene, Iowa

Location.- Staff gage, lat. 42°54', long. 92°48', in sec. 1, T. 93 N., R. 17 W., in tailrace of Interstate Power Co.'s hydroelectric plant in Greene.

Drainage area.- 1,375 square miles.

Records available.- July 1933 to September 1936.

Extremes.- Maximum discharge during year, 7,900 second-feet Mar. 11 (computed from weir formula for flow over dam; minimum, about 20 second-feet at numerous times when power plant was shut down.

1933-36: Maximum discharge, 12,400 second-feet Mar. 5, 1935 (gage height, 97.5 feet); minimum, about 6 second-feet at numerous times during 1935-36 when power plant was shut down.

Remarks.- Records poor. Discharge for Mar. 10-31 computed from weir formula for flow over dam. Discharge for Sept. 26-30 estimated on basis of records for Cedar River at Janesville. Gage-height record furnished by Interstate Power Co.

Rating table, water year 1935-36 except periods Mar. 10-31 and Sept. 25-30 (gage height, in feet, and discharge, in second-feet)

90.2	13	91.4	375	93.0	2,020
90.4	36	91.6	496	93.5	3,060
90.6	71	91.8	638	94.0	4,250
90.8	121	92.0	802	94.5	5,600
91.0	186	92.3	1,100	95.0	6,900
91.2	272	92.6	1,430		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	305	210	68	34	48	1,120	437	248	68	48	181
2	104	358	216	75	34	55	998	532	428	68	27	172
3	94	261	133	75	27	80	917	407	332	62	48	131
4	94	241	119	56	27	27	848	409	188	48	34	130
5	83	178	117	75	27	41	900	385	194	55	41	304
6	83	155	110	55	27	89	900	368	183	48	41	166
7	62	131	229	68	41	82	900	326	124	48	41	216
8	72	178	146	82	27	153	839	332	134	55	41	391
9	99	186	224	75	20	146	752	329	169	48	48	231
10	72	121	94	62	27	3,800	784	278	136	48	27	237
11	94	117	155	89	34	7,300	876	286	110	48	34	3,700
12	83	117	96	62	27	4,900	900	267	110	48	34	2,580
13	83	75	113	82	41	2,800	835	279	110	48	205	1,130
14	83	110	131	68	20	4,400	802	232	101	48	20	797
15	83	117	112	68	27	5,300	791	232	62	48	38	3,300
16	104	124	117	82	27	6,200	711	249	96	48	77	6,680
17	192	75	100	62	27	5,600	638	145	89	85	88	2,240
18	125	117	107	58	27	5,600	623	204	75	68	27	1,270
19	178	110	72	34	27	5,200	610	134	82	20	68	962
20	94	96	60	58	34	5,300	564	141	89	34	63	742
21	114	96	92	68	41	5,300	485	188	75	97	254	654
22	124	48	62	20	48	4,500	438	208	76	101	68	435
23	96	100	75	20	48	5,600	443	666	81	36	68	415
24	75	75	75	30	48	3,800	389	850	89	20	62	406
25	103	89	34	27	41	3,000	385	570	55	30	58	286
26	128	106	41	27	34	2,430	320	348	82	34	55	300
27	48	222	58	34	48	2,640	358	306	82	55	370	315
28	116	96	66	41	48	2,500	342	161	62	48	1,420	290
29	48	164	62	34	48	2,360	342	177	62	27	1,100	270
30	126	260	62	27	-	2,100	327	131	68	34	649	260
31	110	-	68	37	-	1,810	-	131	-	34	488	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,074	192	48	99.2	0.072	0.08
November	4,428	358	48	148	.108	.12
December	3,358	229	34	108	.079	.09
Calendar year 1935	118,174	11,800	6	324	.236	3.19
January	1,719	89	20	55.5	.040.	.05
February	986	48	20	34.0	.025	.03
March	93,161	7,300	27	3,005	2.19	2.52
April	20,137	1,120	320	671	.488	.54
May	9,708	850	131	313	.228	.26
June	3,792	428	55	126	.092	.10
July	1,569	101	20	50.3	.037	.04
August	5,642	1,420	20	182	.132	.15
September	29,191	6,680	130	973	.708	.79
Water year 1935-36	176,755	7,300	20	483	.351	4.77

Lime Creek at Mason City, Iowa

Location.- Water-stage recorder, lat. 43°10', long. 93°11', in sec. 3, T. 97 N., R. 20 W., at Fourteenth Street highway bridge in Mason City.

Drainage area.- 535 square miles.

Records available.- December 1932 to September 1936.

Extremes.- Maximum discharge during year, 2,800 second-feet Mar. 16; maximum gage height, 6.96 feet Mar. 18 (ice jam); minimum discharge, 5 second-feet July 24, Aug. 6 (gage height, 0.77 foot).
1932-36: Maximum discharge, about 9,400 second-feet Mar. 30, 1933 (gage height, 22.15 feet, former datum, from gage reading at flood crest); practically no flow Aug. 30 to Sept. 1, 1933.

Remarks.- Records good except those below 10 second-feet and those for period of ice effect, Mar. 16-19, which were computed on basis of estimated effective gage heights and are poor. Discharge Jan. 3-30, Feb. 10 to Mar. 1, Mar. 24 to Apr. 26 computed from once-daily gage readings.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.8	6	2.2	274	3.6	1,170
1.0	13	2.4	400	3.8	1,290
1.2	26	2.6	600	4.0	1,410
1.4	43	2.8	760	4.4	1,650
1.6	70	3.0	850	4.8	1,890
1.8	116	3.2	950	5.2	2,170
2.0	184	3.4	1,050	5.6	2,450

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	90	47	24	11	14	556	103	51	20	7.2	82
2	21	62	40	25	11	14	512	95	58	18	7.4	61
3	18	56	41	20	10	18	319	95	53	15	7.2	53
4	13	55	36	26	10	19	393	103	50	12	6.6	43
5	12	45	36	20	12	20	418	100	45	12	7.2	44
6	15	35	43	22	12	20	264	93	44	11	6.4	50
7	16	48	58	20	12	20	264	86	54	10	6.8	84
8	18	39	56	24	12	22	255	78	47	12	6.6	70
9	17	37	53	23	12	38	264	74	48	13	7.2	47
10	17	38	33	25	10	470	285	76	43	12	8	53
11	18	28	34	29	10	1,650	308	68	39	12	12	192
12	23	30	36	31	11	875	308	66	36	10	12	280
13	20	33	36	20	11	950	285	62	35	7.8	14	184
14	18	33	37	18	10	1,200	264	61	34	8.5	9	126
15	20	31	34	25	10	1,470	236	55	32	7.8	14	656
16	21	30	35	20	10	2,030	209	53	32	7.2	13	1,230
17	39	30	38	22	13	2,170	201	49	33	7.4	12	512
18	33	30	29	22	10	2,200	184	45	30	7.2	23	274
19	28	33	28	22	10	2,450	170	43	26	7.6	26	192
20	24	24	25	18	11	2,240	155	44	23	7.2	22	148
21	27	28	20	22	9.5	1,770	155	44	25	7.4	31	116
22	28	22	22	14	14	1,440	116	243	26	7.0	22	95
23	28	24	22	15	10	1,410	126	393	25	7.2	20	78
24	21	28	23	15	11	1,170	122	155	25	6.4	15	70
25	20	26	23	15	12	950	116	111	24	7.4	12	61
26	20	33	19	14	10	925	116	82	22	7.4	12	62
27	22	64	18	15	12	950	95	67	23	7.0	39	66
28	21	45	18	15	14	875	86	58	22	6.6	463	58
29	24	62	19	15	15	760	84	53	19	6.6	481	55
30	27	61	21	13	-	746	88	48	17	6.4	226	53
31	80	-	20	12	-	618	-	45	-	6.8	126	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	737	80	12	23.8	0.044	0.05
November	1,200	90	22	40.0	.075	.08
December	1,000	58	18	32.3	.060	.07
Calendar year 1935	37,758.5	2,100	8.0	103	.193	2.62
January	621	31	12	20.0	.037	.04
February	325.5	15	9.5	11.2	.021	.02
March	29,504	2,450	14	952	1.78	2.05
April	6,954	556	84	232	.434	.48
May	2,748	393	43	88.6	.166	.19
June	1,041	58	17	34.7	.065	.07
July	293.9	20	6.4	9.48	.018	.02
August	1,673.6	481	6.4	54.0	.101	.12
September	5,095	1,230	43	170	.318	.35
Water year 1935-36	51,193.0	2,450	6.4	140	.262	3.54

Clear Lake at Clear Lake, Iowa

Location.- Staff gage, lat. 43°8', long. 93°25', in sec. 14, T. 96 N., R. 22 W., at State fish hatchery at Clear Lake.

Records available.- May 1933 to September 1936.

Extremes.- Maximum stage observed during year, 2.61 feet Apr. 18; minimum, 1.44 feet Aug. 12.
1933-36: Maximum stage observed, 5.02 feet May 20, 22, 23, 1933; minimum, that of Aug. 12, 1936.

Remarks.- Gage not read during periods of missing record. There has been no discharge from lake for several years.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-						-	2.53		-	1.66	1.78
2	-						-	2.55		-	1.62	1.78
3	-						-	2.57		-	1.62	1.80
4	-						-	2.59		-	1.60	1.80
5	-						-	2.59		-	1.60	1.82
6	-						-	2.59		-	1.58	1.84
7	-						-	2.59		-	1.56	1.86
8	-						-	2.57		-	1.52	1.88
9	-						-	2.57		-	1.50	1.90
10	2.00						-	-		-	1.48	1.90
11	2.00						-	-		-	1.46	2.12
12	1.98						-	-		-	1.44	2.12
13	1.96						-	-		2.13	1.54	2.12
14	1.92						-	-		2.12	1.55	2.12
15	1.90						-	-		2.11	1.55	2.24
16	1.88						-	-		2.09	1.54	2.36
17	-						-	-		2.06	1.52	2.38
18	-						2.61	-		2.02	1.54	2.38
19	-						-	-		2.00	1.60	2.38
20	-						-	-		1.98	1.62	2.36
21	-						-	-		1.96	1.62	2.34
22	-						-	-		1.92	1.60	2.34
23	-						-	-		1.90	1.60	2.36
24	-						-	-		1.86	1.58	2.36
25	-						-	-		1.82	1.56	2.34
26	-						-	-		1.80	1.54	2.34
27	-						-	-		1.80	1.72	2.34
28	-						2.50	-		1.78	1.84	2.32
29	-						2.53	-		1.76	1.84	2.34
30	-						2.53	-		1.74	1.84	2.32
31	-						-	-		1.70	1.82	-

Edwards River near New Boston, Ill.

Location.- Wire gage, lat. 41°11', long. 90°58', at quarter corner between secs. 21 and 28, T. 14 N., R. 5 W., about 1⅛ miles northeast of New Boston and 2½ miles above mouth. Zero of gage is 529.92 feet above mean sea level (general adjustment of 1912).

Drainage area.- 434 square miles.

Records available.- November 1934 to September 1936.

Extremes.- Maximum daily discharge during year (estimated), 3,000 second-feet Mar. 2; maximum gage height observed, 19.95 feet Feb. 27, 29, Mar. 1 (ice jam); minimum discharge observed, 7 second-feet Aug. 4, 18, 19 (gage height, 8.63 feet).
1934-36: Maximum daily discharge, that of Mar. 2, 1936; maximum gage height observed, that of Feb. 27, 29, Mar. 1, 1936; minimum discharge observed, that of Aug. 4, 18, 19, 1936.

Remarks.- Records fair except those for period of ice effect, Jan. 24 to Mar. 2, which are poor and were computed on basis of weather records, gage heights, and one discharge measurement. Gage read once daily; more often during high stages. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 13

9.0	23	10.4	150	14.0	843
9.2	33	10.8	215	15.0	1,110
9.4	47	11.2	287	16.0	1,410
9.6	62	11.6	356	17.0	1,800
9.8	80	12.0	425	18.0	2,400
10.0	100	13.0	598	19.0	3,470

Apr. 14 to Sept. 30

8.6	6.5	9.2	37
8.7	9.0	9.6	68
8.8	13	10.0	105
9.0	24	10.5	166

Same as previous table above gage height 10.5 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	66	111	106	73	2,850	182	105	50	19	8	19
2	38	90	174	100	74	3,000	182	110	52	19	8	27
3	36	166	117	90	77	2,490	182	105	51	19	8	563
4	32	1,350	90	71	78	2,000	182	120	49	18	7	144
5	30	1,000	95	76	78	1,380	190	120	49	18	9	60
6	30	948	106	71	78	1,290	224	105	47	16	12	56
7	30	321	117	66	77	643	224	100	46	16	13	39
8	28	321	123	62	76	598	233	100	45	14	9	37
9	32	198	123	62	76	620	206	95	43	13	9	100
10	34	206	117	62	77	620	206	100	47	13	8	95
11	39	198	111	62	78	716	198	100	44	13	9	14
12	39	233	76	62	80	667	190	95	45	11	9	23
13	37	321	71	90	81	643	174	95	42	11	8	356
14	36	233	85	66	80	408	166	90	43	11	8	304
15	32	182	95	71	80	390	158	90	36	10	8	206
16	33	174	90	71	80	356	144	86	35	10	8	1,320
17	30	158	80	85	80	321	137	86	32	9	8	895
18	29	150	62	85	80	304	120	77	33	9	7	791
19	30	143	58	76	80	287	120	77	30	9	7	373
20	30	136	58	71	83	287	115	77	31	9	8	321
21	26	136	66	76	86	287	120	72	31	9	8	120
22	28	111	85	71	89	287	120	72	28	9	8	90
23	28	106	76	71	92	269	115	64	27	9	8	72
24	28	100	71	72	*136	338	115	68	26	13	9	206
25	28	111	71	72	1,260	321	110	68	25	9	9	529
26	28	106	76	72	1,800	338	110	68	25	8	11	206
27	27	111	80	72	2,100	321	105	64	22	8	49	1,350
28	28	182	85	73	2,400	321	115	60	21	8	64	1,000
29	27	136	100	73	2,700	233	131	60	20	8	40	1,050
30	27	90	100	73	-	206	115	52	20	8	52	1,290
31	26	-	106	72	-	190	-	51	-	8	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	963	39	26	31.1	0.072	0.08
November	7,783	1,350	66	259	.597	.67
December	2,875	174	58	92.7	.214	.25
Calendar year 1935	145,195	2,600	26	398	.917	12.43
January	2,302	106	62	74.3	.171	.20
February	12,229	2,700	73	422	.972	1.05
March	22,981	3,000	190	741	1.71	1.97
April	4,689	233	105	156	.359	.40
May	2,632	120	51	84.9	.196	.23
June	1,095	52	20	36.5	.084	.09
July	364	19	8	11.7	.027	.03
August	479	64	7	15.5	.036	.04
September	11,656	1,350	14	389	.896	1.00
Water year 1935-36	70,048	3,000	7	191	.440	6.01

*Discharge measurement.

Pope Creek near Keithsburg, Ill.

Location.- Wire gage, lat. 41°8', long. 90°55', in SE¼ sec. 11, T. 13 N., R. 5 W., about 2 miles northeast of Keithsburg and 3 miles above mouth. Zero of gage is 524.07 feet above mean sea level (general adjustment of 1912).

Drainage area.- 171 square miles.

Records available.- December 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 2,020 second-feet Feb. 26 (gage height, 22.73 feet); minimum, 2 second-feet Sept. 11 (gage height, 15.06 feet). 1934-36: Maximum discharge observed, 2,260 second-feet June 18, 1935 (gage height, 23.51 feet); minimum, that of Sept. 11, 1936.

Remarks. Records fair except those for periods of ice effect, Dec. 9 to Jan. 3, Jan. 5, 13, 15, Jan. 17 to Feb. 25, which are poor and were estimated on basis of weather records, gage heights, ice notes, and records for nearby stations. Gage read once daily; more often during high stages. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Mar. 14)

15.0	1	16.0	92	18.5	510
15.1	3	16.2	119	19.0	625
15.2	8.5	16.4	148	19.5	760
15.3	16	16.8	209	20.0	910
15.4	25	17.2	273	21.0	1,225
15.6	44	17.6	341	22.0	1,575
15.8	67	18.0	413	23.0	1,980

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	59	78	56	44	575	62	35	14	11	3	8
2	16	52	77	57	43	625	68	44	13	8.5	3	18
3	15	257	74	58	42	490	60	48	13	8	3	87
4	14	1,300	73	59	42	451	61	45	14	8	3	46
5	14	341	69	60	42	307	67	38	12	7.5	12	19
6	14	148	73	60	42	209	71	35	14	7	11	15
7	14	98	80	57	42	186	74	31	12	6.5	5	9
8	13	88	82	56	43	241	69	30	12	5.5	3.5	7.5
9	13	82	78	56	43	193	66	28	12	5	3	4
10	16	119	71	61	43	209	63	37	16	5	3	2.5
11	17	98	67	59	44	201	62	35	15	4.5	2.5	2
12	15	98	66	55	44	178	60	51	15	4	2.5	2.5
13	14	119	65	58	44	133	56	59	14	3.5	2.5	341
14	14	96	67	60	43	119	54	37	13	3	2.5	74
15	14	92	65	63	43	112	52	32	12	3	2.5	26
16	14	79	71	63	42	98	47	29	11	3	2.5	910
17	13	77	53	62	42	84	45	27	10	3	3	359
18	13	75	52	62	42	82	43	32	8.5	2.5	3	126
19	13	78	51	60	41	79	41	30	8.5	2.5	2.5	40
20	13	74	50	58	41	77	40	26	8.5	3.5	3	9
21	15	69	50	56	40	80	42	24	e	3	3	8
22	20	62	50	54	40	79	41	20	8	3	2.5	5
23	16	56	49	52	40	83	40	19	8	3	3	2.5
24	15	60	49	50	70	170	39	26	e	3	2.5	225
25	15	71	48	50	800	126	38	21	7.5	3.5	2.5	55
26	15	67	48	50	2,020	98	37	19	7.5	3.5	87	35
27	16	84	47	50	1,740	88	42	18	7.5	3	126	1,160
28	16	98	47	50	1,090	83	46	15	7.5	3	72	675
29	16	65	48	49	1,060	69	44	14	7	3	37	163
30	16	62	50	48	-	67	38	14	11	3	14	79
31	15	-	52	46	-	60	-	14	-	3	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	461	20	13	14.9	0.087	0.10
November	4,126	1,300	52	138	.807	.90
December	1,900	82	47	61.3	.358	.41
Calendar year 1935	62,667	2,260	10	172	1.01	13.65
January	1,735	63	46	56.0	.327	.38
February	7,752	2,020	40	267	1.56	1.68
March	5,652	625	60	182	1.06	1.22
April	1,568	74	37	52.3	.306	.34
May	933	59	14	30.1	.176	.20
June	327.5	16	7	10.9	.064	.07
July	138.5	11	2.5	4.47	.026	.03
August	437.5	126	2.5	14.1	.082	.09
September	4,513	1,160	2	150	.877	.98
Water year 1935-36	29,543.5	2,020	2	80.7	.472	6.40

Henderson River near Oquawka, Ill.

Location.- Wire gage, lat. 41°0', long. 90°51', in sec. 33, T. 12 N., R. 4 W., on State Highway 94, 1 mile south of Bald Bluff and about 6½ miles northeast of Oquawka. Zero of gage is 541.83 feet above mean sea level (general adjustment of 1912).

Drainage area.- 428 square miles.

Records available.- December 1934 to September 1936.

Extremes.- Maximum discharge observed during year, about 6,580 second-feet Feb. 27 (gage height, 25.23 feet, affected by backwater from ice); minimum discharge observed, 2 second-feet July 24, Aug. 1-4, 13, 18, Sept. 1, 10, 12; minimum gage height observed, 9.76 feet Aug. 4.

1934-36: Maximum discharge observed, that of Feb. 27, 1936; minimum, that of Aug. 4, 1936.

Remarks.- Records fair except those for period of ice effect, Dec. 20 to Feb. 27, which were estimated on the basis of weather records, observed gage heights, and one discharge measurement, and those above 4,000 second-feet, which are poor. Discharge Nov. 3-6, Feb. 28 to Mar. 3 determined from graphs drawn on basis of gage readings. Gage read once daily, more often during periods of high water. Station operated in cooperation with Corps of Engineers, U. S. Army.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Sept. 30)

Oct. 1 to Mar. 5

10.4	24	12.6	209	19.0	1,260
10.6	34	13.0	256	20.0	1,510
10.8	45	14.0	382	21.0	1,760
11.0	57	15.0	526	22.0	2,240
11.4	87	16.0	686	23.0	3,590
11.8	124	17.0	862	24.0	5,400
12.2	165	18.0	1,055	25.0	7,380

Mar. 6 to Sept. 30

9.8	2	11.5	89
9.9	3	12.0	126
10.0	6	13.0	229
10.5	28	14.0	370
11.0	56	15.2	556

Same as previous table above gage height 15.2 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	176	154	120	102	1,710	163	89	50	15	2	2
2	27	92	114	120	103	1,060	163	135	50	16	2	5
3	26	452	187	125	104	790	153	254	47	16	2	31
4	25	2,640	134	130	105	900	173	153	47	17	2	21
5	24	1,510	134	133	105	686	163	135	50	16	5	10
6	24	466	144	132	105	492	183	126	41	15	30	4
7	24	317	144	130	104	460	194	110	41	10	14	3
8	26	256	154	130	105	445	173	103	41	6	10	3
9	28	220	154	130	100	430	153	96	38	6	5	3
10	30	232	134	130	102	415	163	96	62	8	5	2
11	34	280	83	130	104	445	163	118	53	5	4	3
12	34	343	124	131	106	415	153	110	41	4	4	2
13	32	356	114	134	108	340	144	110	36	4	2	56
14	29	280	119	140	110	310	135	229	32	4	3	135
15	28	244	134	155	107	295	126	118	30	3	3	47
16	45	220	124	170	105	267	118	110	28	3	3	1,160
17	30	198	110	160	105	241	110	103	26	3	3	900
18	26	187	87	154	105	217	110	110	22	3	2	86
19	26	176	83	155	104	217	110	103	22	3	3	47
20	27	198	90	140	105	229	110	86	22	3	31	47
21	28	187	92	140	105	217	110	72	24	3	12	33
22	32	154	90	140	105	205	126	72	22	3	8	24
23	31	110	87	120	144	217	118	72	21	3	5	23
24	34	114	86	104	*321	460	103	68	20	2	3	790
25	30	134	90	104	1,510	340	103	72	20	7	3	89
26	30	134	95	107	3,590	254	96	72	18	5	38	1,760
27	30	176	100	107	6,400	229	96	72	16	5	56	1,820
28	36	244	105	103	6,180	217	110	65	16	4	22	1,820
29	42	176	110	100	3,240	194	118	59	15	4	10	295
30	48	114	115	100	-	183	110	56	15	5	5	153
31	42	-	118	101	-	163	-	50	-	3	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	956	48	24	30.8	0.072	0.08
November	9,986	2,240	92	333	.778	.87
December	3,609	187	83	116	.271	.31
Calendar year 1935	158,427	4,190	24	434	1.01	13.76
January	3,975	170	100	128	.299	.34
February	23,689	6,400	100	817	1.91	2.06
March	13,043	1,710	163	421	.984	1.13
April	4,050	194	96	135	.315	.35
May	3,224	254	50	104	.243	.28
June	966	62	15	32.2	.075	.08
July	204	17	2	6.58	.015	.02
August	298	53	2	9.61	.022	.03
September	9,374	1,820	2	312	.729	.81
Water year 1935-36	73,374	6,400	2	200	.467	6.36

*Result of discharge measurement.

Skunk River near Ames, Iowa

Location.- Water-stage recorder, lat. 42°4'6", long. 93°37'2", in SW¼ sec. 23, T. 84 N., R. 24 W., 2⅜ miles north of Ames, 3½ miles below Keigley Branch, and 5 miles above mouth of Squaw Creek.

Drainage area.- 320 square miles.

Records available.- July 1920 to August 1927, March 1933 to September 1936.

Extremes.- Maximum discharge during year, 2,580 second-feet Mar. 10 (gage height, 7.70 feet); minimum, 0.17 second-foot Aug. 30 (gage height, 1.63 feet).
1920-27, 1933-36: Maximum discharge, about 3,540 second-feet Sept. 17, 1921 (gage height, 9.2 feet); no flow at times during June, July, and August, 1934.

Remarks.- Records good except those for Oct. 1-4 and those for periods of ice effect, Dec. 11, 12, Dec. 20 to Feb. 20, Feb. 25 to Mar. 4 and Mar. 7, which are poor and were estimated on basis of one discharge measurement, available gage heights, and weather records.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.6	0.13	2.4	27	4.2	700
1.7	.26	2.6	54	4.6	911
1.8	.46	2.8	95	5.0	1,120
1.9	1.10	3.0	151	5.5	1,390
2.0	2.40	3.2	220	6.0	1,660
2.1	5.40	3.4	301	6.5	1,930
2.2	11.2	3.6	394	7.0	2,200
2.3	18	3.8	493	8.0	2,740
		4.0	596		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	184	198	51	37	55	139	255	51	10	0.46	0.18
2	19	145	161	54	37	70	121	560	98	8.3	.44	.22
3	16	212	174	60	36	200	113	370	86	6.6	.46	.30
4	14	463	139	58	36	1,000	136	280	75	6.0	.97	.26
5	12	328	136	56	35	1,200	139	220	65	4.8	.72	9.1
6	11	232	151	54	34	964	121	195	69	3.9	.65	6.1
7	12	191	209	53	34	900	145	161	73	3.3	.46	1.9
8	14	168	236	52	33	1,440	151	139	65	2.4	.44	.97
9	13	154	232	50	32	2,040	158	121	60	2.4	.42	.72
10	14	139	177	48	32	2,520	154	195	149	2.1	.36	.65
11	13	116	150	50	31	2,200	148	263	118	2.0	.38	.72
12	13	108	160	51	30	1,390	133	202	84	1.9	.42	.97
13	13	108	151	44	29	832	121	161	65	1.8	.38	1.5
14	12	103	136	48	28	638	113	133	54	1.6	.52	.97
15	11	98	124	48	27	565	100	116	46	1.5	.65	11
16	11	95	118	54	26	529	84	105	39	1.4	.42	19
17	175	93	113	52	24	438	77	95	37	1.1	.28	32
18	174	91	111	38	23	389	73	93	31	1.1	.25	23
19	108	98	54	34	22	351	73	86	28	1.1	.30	15
20	82	100	77	45	20	306	73	75	26	1.1	.42	9.5
21	67	95	80	48	*19	280	69	69	24	1.1	.36	6.0
22	56	60	80	44	19	259	65	65	23	.97	.28	4.8
23	51	77	69	39	18	601	64	103	22	.84	.34	3.6
24	46	84	54	37	17	700	64	154	19	.84	.30	3.0
25	44	80	46	37	20	463	62	116	17	.84	.22	2.3
26	40	82	44	37	26	360	60	93	15	.78	.20	3.9
27	40	244	44	37	34	314	58	80	17	.72	.25	8.3
28	39	342	46	37	44	251	60	67	14	.84	.36	6.6
29	37	255	44	37	44	209	58	58	12	.52	.28	5.1
30	35	243	44	37	-	177	67	51	11	.46	.22	5.1
31	84	-	46	37	-	133	-	48	-	.46	.21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,298	175	11	41.9	0.131	0.15
November	4,788	463	60	160	.500	.56
December	3,604	236	44	116	.362	.42
Calendar year 1935	63,109.8	2,790	5.7	173	.541	7.34
January	1,427	60	34	46.0	.144	.17
February	847	44	17	29.2	.091	.10
March	21,774	2,520	55	702	2.19	2.52
April	2,999	156	58	100	.312	.35
May	4,737	560	48	153	.478	.55
June	1,493	149	11	49.8	.156	.17
July	72.77	10	.46	2.35	.007	.01
August	12.42	.97	.20	.401	.001	.001
September	182.76	32	.18	6.09	.019	.02
Water year 1935-36	43,234.95	2,520	.18	118	.369	5.02

*Result of discharge measurement.

Skunk River at Coppock, Iowa

Location.- Chain gage, lat. 41°10', long. 91°43', in sec. 1, T. 73 N., R. 8 W., at highway bridge an eighth of a mile above Chicago, Burlington & Quincy Railroad bridge at Coppock and a quarter of a mile above junction with Crooked Creek.

Drainage area.- 2,890 square miles.

Records available.- October 1913 to September 1936.

Average discharge.- 22 years (1914-36), 1,351 second-feet.

Extremes.- Maximum discharge observed during year, 11,200 second-feet Mar. 13 (gage height, 14.94 feet); minimum, 49 second-feet Aug. 28, Sept. 1 (gage height, 2.23 feet).

1913-36: Maximum discharge observed, 25,200 second-feet June 15, 1930 (gage height, 22.13 feet): minimum, 18 second-feet Aug. 28, 1934 (gage height, 1.86 feet).

A stage of about 22 feet occurred on or about May 31, 1903.

Remarks.- Records fair except those for periods of ice effect, Dec. 2-4, Dec. 18 to Mar. 5, which are poor and were estimated on basis of gage heights, observer's notes, and weather records. Gage read once daily, more often during periods of high water. Station operated in cooperation with Mississippi River Power Co.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

2.2	45	3.0	197	4.0	563	8.0	3,060
2.4	73	3.2	256	4.5	790	10.0	4,900
2.6	108	3.4	323	5.0	1,030	12.0	7,170
2.8	149	3.7	434	6.0	1,590	15.0	11,400

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	225	434	1,470	400	100	5,900	1,920	837	563	340	76	49
2	225	358	1,350	400	100	5,800	1,720	837	540	323	75	58
3	197	1,130	1,300	400	75	5,600	1,590	1,990	563	289	72	62
4	172	2,900	1,300	450	75	5,400	1,500	3,560	2,280	*264	68	57
5	160	2,740	1,240	450	50	5,200	1,590	3,060	1,990	240	90	83
6	149	2,580	1,180	450	50	4,700	1,530	2,280	1,240	240	85	87
7	149	2,060	1,130	450	50	4,800	1,720	1,850	1,130	225	80	116
8	138	1,590	1,180	500	50	6,450	1,660	1,660	1,030	211	82	73
9	138	1,290	1,180	500	50	6,930	1,590	1,470	1,130	197	82	698
10	138	981	1,290	500	50	7,290	1,660	1,350	932	184	78	376
11	138	1,080	1,240	500	50	8,580	1,660	1,290	1,660	172	70	225
12	138	1,030	1,130	500	50	10,300	1,590	2,820	3,060	172	64	211
13	149	932	981	550	50	11,200	1,470	1,990	1,990	160	64	518
14	149	884	981	550	50	10,800	1,410	1,660	1,290	149	62	395
15	138	837	981	600	50	10,300	1,350	1,470	1,130	149	55	653
16	149	790	1,080	600	50	9,850	1,240	1,290	981	138	54	1,130
17	138	744	932	550	50	8,580	1,180	1,180	932	138	53	653
18	138	744	900	500	50	6,930	1,130	1,080	790	128	53	454
19	138	698	850	400	50	4,600	1,030	1,030	698	122	50	1,240
20	184	698	700	300	50	3,390	1,030	932	653	120	53	653
21	340	698	500	250	50	2,980	981	884	563	114	53	414
22	474	698	400	200	50	2,660	981	790	540	108	52	306
23	434	*676	300	200	100	2,580	932	744	496	112	54	256
24	376	653	300	200	200	2,430	884	744	496	101	52	653
25	323	608	300	200	2,000	3,060	932	884	454	114	50	376
26	306	608	300	200	5,000	3,480	837	1,350	454	99	49	256
27	434	837	300	150	6,000	3,390	837	884	395	90	112	1,660
28	474	1,470	300	150	6,000	3,300	837	790	376	87	101	837
29	272	1,410	350	150	6,000	2,500	837	698	376	85	72	518
30	256	1,720	350	100	-	2,280	837	653	358	85	61	698
31	256	-	400	100	-	2,130	-	608	-	82	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,095	474	138	229	0.079	0.09
November	33,878	2,900	358	1,129	.391	.44
December	26,195	1,470	300	845	.292	.34
Calendar year 1935	513,284	7,740	50	1,406	.487	6.61
January	11,450	600	100	369	.128	.15
February	26,550	6,000	50	916	.317	.34
March	173,390	11,200	2,130	5,593	1.94	2.24
April	38,555	1,920	837	1,285	.445	.50
May	42,665	3,560	608	1,376	.476	.55
June	29,090	3,060	358	970	.336	.37
July	5,038	340	82	163	.056	.06
August	2,077	112	49	67.0	.023	.03
September	13,765	1,660	49	459	.159	.18
Water year 1935-36	409,748	11,200	49	1,120	.388	5.29

*Interpolated.

Skunk River at Augusta, Iowa

Location.- Water-stage recorder, lat. 40°46', long. 91°17', in NE¼ sec. 26, T. 69 N., R. 4 W., about a quarter of a mile southwest of Augusta post office and 12.2 miles above mouth. Zero of gage is 521.69 feet above mean sea level (general adjustment of 1912).

Drainage area.- 4,290 square miles.

Records available.- September to November 1913, May 1915 to September 1936.

Average discharge.- 21 years (1915-36), 2,094 second-feet.

Extremes.- Maximum discharge during year (estimated), 16,000 second-feet Feb. 26 (gage height, 17.40 feet, ice jam); minimum, 44 second-feet Aug. 26 (gage height, 1.27 feet).

1913, 1915-36: Maximum discharge observed, 44,500 second-feet June 17, 1930 (gage height, 22.55 feet); minimum, 7 second-feet Aug. 27 to Sept. 1, 1934 (gage height, 1.0 foot).

Remarks.- Records good except those for periods of ice effect, Dec. 5, Dec. 12-15, Dec. 18 to Mar. 4, which are poor and were computed on basis of one discharge measurement, gage heights, and weather records, and those determined from once-daily gage readings and those below 100 second-feet, which are fair. Station operated in cooperation with Corps of Engineers, U. S. Army, and Mississippi River Power Co.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 30

1.6	100	3.2	1,270	7.0	5,590
1.8	167	3.6	1,740	8.0	6,790
2.0	251	4.0	2,200	9.0	8,020
2.3	415	4.5	2,750	10.0	9,320
2.6	650	5.0	3,300	11.0	10,620
2.9	940	6.0	4,400	12.5	12,650

Mar. 31 to Sept. 30

1.3	48	3.0	1,090
1.6	114	3.5	1,650
2.0	268	4.0	2,220
2.5	598	4.6	2,860

Same as previous table above gage height 5.0 feet

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	251	*344	2,090	*650	*300	12,000	2,600	1,020	722	407	96	101
2	*251	*403	1,980	*650	*300	11,500	2,380	1,080	650	363	98	86
3	*280	*549	2,140	*700	*300	11,000	2,280	1,090	615	334	96	79
4	251	*6,190	2,260	*700	*300	12,800	2,160	2,280	590	311	96	62
5	*233	4,510	3,000	650	*300	12,400	2,160	3,630	1,160	300	104	88
6	*233	3,520	2,970	650	*300	11,000	2,600	3,190	2,000	279	106	114
7	*160	3,080	2,040	650	*300	8,280	2,600	2,660	1,530	258	111	126
8	*199	2,480	1,800	650	*300	7,030	2,440	2,220	1,180	244	106	135
9	*175	2,040	1,620	650	*300	7,760	2,330	1,940	1,090	268	106	170
10	*195	1,680	1,560	650	*300	8,410	2,220	1,770	1,170	239	96	487
11	*191	*1,420	*1,560	650	*300	9,580	2,220	1,590	1,110	220	98	475
12	*191	*1,450	*1,600	650	*300	11,000	2,220	1,480	1,390	208	101	340
13	*220	*1,270	*1,450	650	*300	11,000	2,060	2,660	2,970	191	93	960
14	*199	*1,200	*1,300	650	*300	11,500	1,940	2,660	2,280	187	†86	900
15	183	1,050	*1,100	650	*300	11,500	1,770	2,280	1,710	183	79	1,180
16	160	973	*1,060	600	*300	11,000	1,650	2,000	1,420	179	88	3,080
17	199	900	*1,280	600	*300	10,400	1,530	1,830	1,210	172	55	2,440
18	175	*880	*1,250	550	*300	9,190	1,480	†1,530	1,050	165	75	1,390
19	183	880	*1,200	550	*300	7,270	1,390	1,230	910	158	81	920
20	167	890	*900	500	*300	5,350	1,310	1,140	820	154	88	1,270
21	171	880	*600	500	*300	4,400	1,280	1,050	742	148	91	900
22	280	830	500	500	*300	3,740	1,230	980	667	144	59	556
23	436	830	500	*450	*300	3,520	1,180	900	624	132	79	992
24	*422	750	500	*400	*500	3,300	1,130	850	582	117	77	1,940
25	*385	722	550	*400	4,000	3,190	1,100	830	550	126	59	1,480
26	*276	722	*600	*400	15,000	3,630	1,050	870	518	123	55	2,940
27	*344	*760	*600	*350	14,000	3,960	1,010	1,390	496	123	52	6,790
28	*344	*1,300	*600	*350	14,000	3,740	1,020	1,240	475	123	64	4,510
29	*300	2,040	*650	*350	13,000	3,630	1,060	1,020	446	114	70	2,110
30	*295	1,920	*650	*300	-	3,080	1,020	900	420	106	132	1,200
31	*311	-	*700	*300	-	2,660	-	800	-	98	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	7,660	436	160	247	0.058	0.07
November	46,463	6,190	344	1,549	.361	.40
December	40,610	3,000	500	1,310	.305	.35
Calendar year 1935	849,131	16,300	60	2,326	.542	7.35
January	16,950	700	300	547	.128	.15
February	67,400	15,000	300	2,324	.542	.58
March	238,820	12,800	2,660	7,704	1.80	2.08
April	52,420	2,600	1,010	1,747	.407	.45
May	50,110	3,630	800	1,616	.377	.43
June	31,097	2,970	420	1,037	.242	.27
July	6,174	407	98	199	.046	.05
August	2,665	132	52	86.0	.020	.02
September	37,823	6,790	62	1,261	.294	.33
Water year 1935-36	598,192	15,000	52	1,634	.381	5.18

*Determined from once-daily gage readings.
†Interpolated.

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West Fork of Des Moines River near Jackson, Minn.

(Formerly Des Moines River near Jackson, Minn.)

Location.- Chain gage, lat. 43°42', long. 95°5', in sec. 28, T. 103 N., R. 35 W., 8 miles northwest of Jackson. Zero of gage is 1,304.85 feet above mean sea level (general adjustment of 1929).

Records available.- August 1930 to September 1936. May 1909 to December 1913 comparable records at a site 8 miles downstream.

Extremes.- Maximum discharge observed during year, 2,330 second-feet Mar. 22 (gage height, 9.60 feet: no flow at times.
1909-13, 1930-36: Maximum discharge observed, that of Mar. 23, 1936; no flow at times in 1931, 1934-36.

Remarks.- Records fair except those for period of ice effect, Mar. 4-20 (computed on basis of two discharge measurements, gage heights, and weather records), and those estimated for Nov. 17 to Mar. 2, which are poor. Gage read once daily. Discharge determined from graph based on gage readings, Mar. 12 to Apr. 18 and June 8-12.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 3				Mar. 4 to Aug. 27				Aug. 28 to Sept. 30	
0.4	0	0.6	0	1.6	56	4.0	420	0.4	0
.5	.6	.7	1.0	1.8	76	4.5	530	.5	.1
.6	1.4	.8	3.9	2.0	98	5.0	650	.6	.4
.7	2.6	.9	8.0	2.2	121	6.0	930	.7	.8
.8	4.1	1.0	13	2.4	146	7.0	1,250	.8	1.8
.9	6.5	1.1	19	2.6	173	8.0	1,650	.9	5.0
		1.2	25	3.0	234	9.0	2,050	1.0	11
		1.4	39	3.5	321	9.5	2,270		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.9				0	1,080	234	98	56	0	0.3
2	0	3.2				0	1,050	202	92	54	0	.3
3	0	2.9				0	930	180	92	47	0	.2
4	0	3.4				5	930	173	87	45	0	.1
5	0	2.6				13	930	166	82	44	0	.2
6	0	2.9				8	810	152	76	38	0	.3
7	0	3.2				25	725	152	98	32	0	.3
8	0	3.5				47	675	159	98	28	0	3.7
9	0	3.2				399	700	173	195	25	0	3.1
10	0	2.9				725	675	173	226	24	0	1.8
11	0	2.9				930	675	187	166	21	0	1.4
12	.5	2.6				780	650	187	133	16	0	*1.3
13	1.2	2.6				601	625	202	133	14	0	1.2
14	1.6	2.4				507	577	152	140	13	1.6	.8
15	1.9	2.1				485	530	146	146	11	1.0	.4
16	1.9	1.9				485	463	140	133	10	.8	1.0
17	2.1					507	420	121	121	8.0	.4	1.0
18	2.4					553	379	115	115	6.4	.2	.8
19	2.4					810	379	104	104	5.5	0	.6
20	2.6					1,330	359	109	98	4.7	0	.3
21	4.6					2,050	321	133	87	3.9	0	.2
22	4.6					2,270	268	140	87	3.3	.2	.1
23	4.1					2,130	251	202	82	2.2	*.2	.1
24	3.8	1.5				2,090	251	194	76	1.6	*.1	.1
25	3.2					1,970	251	180	71	1.6	*.1	0
26	2.4					1,770	218	140	66	1.6	*.1	0
27	1.9					1,490	218	121	64	1.6	.1	0
28	1.6					1,250	194	109	60	1.3	7.4	0
29	1.4					1,530	187	109	56	1.0	3.1	0
30	1.6					1,410	187	109	62	.8	.7	0
31	3.2	-				1,140	-	104	-	.4	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	490	4.6	0	1.58		
November	66.2	3.5	-	2.21		
December	31	-	-	1		
Calendar year						
January	15.5	-	-	.5		
February	0	0	0	0		
March	27,310	2,270	0	881		
April	15,908	1,080	187	530		
May	4,768	234	104	154		
June	3,144	226	56	105		
July	520.9	56	.4	16.8		
August	16.6	7.4	0	.54		
September	19.6	3.7	0	.65		
Water year 1935-36	51,848.8	2,270	0	142		

* Interpolated.

Des Moines River near Boone, Iowa

Location.- Water-stage recorder, lat. 42°4'40", long. 93°55'55", in NW¼ sec. 24, T. 84 N., R. 27 W., at dam of Boone Water Department, 2 miles northwest of Boone and 2 miles above Bluff Creek. Zero of gage is 871.52 feet above mean sea level (general adjustment of 1912).
Drainage area.- 5,490 square miles.
Records available.- October 1924 to September 1927, October 1933 to September 1936. April 1920 to September 1924 at site 1.3 miles upstream.
Extremes.- Maximum discharge during year, 12,600 second-feet Mar. 12 (gage height, 8.79 feet); minimum, 30 second-feet Aug. 13 (gage height, 0.11 foot).
1920-27, 1933-36: Maximum discharge, 17,000 second-feet June 26, 1935 (gage height, 11.30 feet); minimum, that of Aug. 13, 1936.
Highest stage since 1907, 17.44 feet, present datum, occurred Apr. 2, 1933 (discharge not determined). A stage of 20.54 feet, former site and datum, occurred June 6, 1918 (discharge, about 32,000 second-feet).
Remarks.- Records good except those for discharges below 200 second-feet, which are fair, and those for periods of ice effect, Dec. 24-28, Jan. 15-21, Jan. 23 to Feb. 24, Feb. 28, which are poor and were computed on basis of one discharge measurement, gage heights, weather records, and records for station at Des Moines. Discharge for Nov. 17-24, Dec. 3-17 determined from once daily gage readings. Some diurnal fluctuation during low stages due to operation of city power plant at Fort Dodge.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.1	26	1.5	2,690	3.1	5,010	8.0	11,260
.3	169	1.7	3,180	3.5	5,370	9.0	12,930
.5	407	1.9	3,520	4.0	5,850		
.7	725	2.1	3,820	4.5	6,380		
.9	1,120	2.3	4,100	5.0	6,960		
1.1	1,580	2.5	4,360	6.0	8,260		
1.3	2,100	2.8	4,710	7.0	9,700		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	340	449	200	160	150	4,600	2,270	1,560	314	51	1,120
2	132	435	242	200	150	210	3,960	2,570	1,700	314	51	1,010
3	115	435	265	200	150	541	3,600	2,240	1,510	276	51	951
4	99	509	169	189	140	1,700	3,360	1,880	1,300	242	64	690
5	92	556	189	189	130	3,820	3,180	1,660	1,160	242	57	780
6	92	435	407	179	130	4,230	3,070	1,510	1,050	221	45	854
7	99	366	301	169	130	4,230	2,880	1,340	1,030	221	51	816
8	92	327	478	210	120	4,360	2,770	1,190	951	160	57	816
9	99	314	435	189	110	6,050	2,740	1,160	1,160	210	51	931
10	99	314	189	179	110	8,680	2,660	1,300	2,390	160	57	655
11	107	301	169	169	100	11,600	2,510	1,390	2,740	132	64	541
12	141	276	253	169	100	12,200	2,480	1,390	2,300	132	51	1,350
13	123	276	301	169	90	11,900	2,450	1,440	1,780	141	40	2,660
14	107	242	366	221	80	10,000	2,360	1,530	1,510	115	45	2,540
15	107	242	276	240	70	8,680	2,270	1,410	1,210	107	45	2,300
16	132	242	301	260	72	8,960	2,160	1,270	1,080	99	45	3,740
17	276	183	288	240	72	9,700	2,020	1,210	911	99	45	4,480
18	221	163	301	220	70	8,960	1,880	1,140	816	92	57	3,960
19	210	242	242	210	70	8,540	1,780	990	780	84	51	3,270
20	200	183	242	200	72	8,400	1,630	873	673	77	51	2,360
21	179	163	288	195	*73	8,260	1,510	854	655	77	51	1,700
22	160	123	327	179	76	7,720	1,440	854	638	64	77	1,250
23	150	115	327	180	80	7,980	1,360	951	605	70	70	1,140
24	169	163	320	180	90	8,260	1,320	2,300	556	70	84	1,010
25	160	†200	300	175	141	7,720	1,230	3,960	509	77	84	743
26	210	232	260	175	221	6,960	1,050	4,480	478	77	77	690
27	179	301	240	170	189	6,600	1,030	3,670	464	77	57	655
28	115	327	220	170	170	6,380	1,050	3,070	407	70	57	621
29	150	232	200	170	150	5,950	990	2,480	407	51	98	509
30	150	340	189	165	-	5,460	1,080	2,070	353	51	572	493
31	288	-	200	165	-	5,010	-	1,730	-	45	1,010	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,576	288	92	148	0.027	0.03
November	8,607	556	115	287	.052	.06
December	8,734	478	169	282	.051	.06
Calendar year 1935	504,615	16,300	84	1,383	.252	3.41
January	5,926	260	165	191	.035	.04
February	3,316	221	70	114	.021	.02
March	209,211	12,200	150	6,749	1.23	1.42
April	66,420	4,600	990	2,214	.403	.45
May	56,182	4,480	854	1,812	.330	.38
June	32,683	2,740	353	1,089	.198	.22
July	4,167	314	45	134	.024	.03
August	3,266	1,010	40	105	.019	.02
September	44,635	4,480	493	1,488	.271	.30
Water year 1935-36	447,723	12,200	40	1,223	.223	3.03

* Result of discharge measurement.
† Interpolated.

Des Moines River at Des Moines, Iowa

Location.- Water-stage recorder, lat. 41°35'18", long. 93°36'55", in sec. 4, T. 78 N., R. 24 W., at Walnut Street Bridge, in Des Moines, a quarter of a mile below dam of Des Moines Electric Co. and two-thirds of a mile above mouth of Raccoon River. Zero of gage is 773.74 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,180 square miles.

Records available.- October 1902 to August 1903, October 1914 to March 1915 (gage heights only), May 1905 to July 1906, March 1915 to September 1927, October 1932 to September 1936 in reports of U. S. Geological Survey. April 1893 to September 1894, July 1897 to September 1927 (only monthly discharge prior to 1905 and for years 1907-14) in report of Iowa State Planning Board.

Average discharge.- 16 years (1915-27, 1932-36), 1,879 second-feet.

Extremes.- Maximum discharge observed during year, 15,600 second-feet Mar. 14; maximum gage height, 11.23 feet Mar. 13 (backwater from Raccoon River); minimum discharge, 64 second-feet Aug. 31.
1915-27, 1932-36: Maximum discharge, about 41,500 second-feet June 7, 1919 (gage height, 16.5 feet); minimum daily discharge, 35 second-feet Dec. 31, 1923 and Jan. 1, 1924; no flow has occurred at times since construction of dam above gage.
Maximum stage known, about 23 feet in May 1903 (caused by backwater from Raccoon River; discharge not determined).

Remarks.- Records fair except those for period of ice effect, Feb. 2-23 estimated on basis of records for station at Boone, and those below about 200 second-feet, which are poor. Discharge for Nov. 5, 8, Mar. 4-23, May 2-6, 11-16, 25-28, June 9, 10, Sept. 17, 18, determined from staff-gage readings at dam a quarter of a mile upstream. Gage-height record furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	513	698	248	174	*650	*5,800	2,400	1,870	453	85	469
2	174	612	446	261	170	*850	5,180	3,300	2,320	407	80	841
3	149	756	561	279	165	*1,500	4,280	3,580	2,320	394	76	803
4	147	1,380	551	308	165	3,870	4,080	3,160	2,080	388	76	803
5	139	1,230	580	323	160	4,800	3,790	2,520	1,720	344	94	1,130
6	135	†1,100	744	323	150	4,800	3,410	2,280	1,640	308	85	1,260
7	130	†980	816	313	150	5,830	3,220	2,000	1,460	292	81	803
8	125	854	780	308	145	†6,380	3,030	1,820	1,350	270	76	916
9	125	*740	803	274	140	6,940	2,940	1,580	1,320	283	71	686
10	123	*660	698	270	130	8,510	2,850	1,630	2,900	257	70	904
11	121	*600	376	266	120	10,100	2,760	2,280	†3,160	266	‡68	803
12	119	*560	363	261	115	11,800	2,580	2,400	3,410	229	‡70	686
13	121	513	513	283	110	13,100	2,580	2,280	2,670	229	‡70	866
14	125	476	654	279	105	13,100	2,490	†2,160	2,130	221	‡70	2,320
15	125	446	686	274	90	†11,800	2,490	2,050	1,840	214	‡68	2,580
16	123	415	654	270	80	10,600	2,320	1,830	1,480	197	‡68	2,940
17	200	407	484	248	80	10,100	2,150	1,560	1,320	184	‡67	3,030
18	430	407	484	237	80	10,600	2,050	1,500	1,140	171	69	4,170
19	494	446	302	221	80	10,600	1,900	1,410	1,030	166	69	3,880
20	394	422	147	210	80	10,100	1,690	1,290	955	144	68	3,030
21	369	407	252	203	85	9,730	1,790	1,200	853	139	68	2,320
22	334	344	344	197	95	9,730	1,680	1,120	803	130	66	1,790
23	270	283	350	194	120	9,730	1,580	1,090	733	125	68	1,380
24	248	334	344	†188	233	*9,730	1,500	1,100	686	113	68	1,230
25	229	344	313	†182	*800	*10,300	1,460	2,280	654	105	68	1,120
26	248	369	288	177	*1,100	*9,500	1,460	3,870	601	102	72	1,090
27	244	513	244	177	*850	*8,100	1,350	4,480	570	97	75	968
28	279	654	244	177	*750	*7,500	1,300	3,870	551	95	74	853
29	233	522	240	177	‡644	*7,100	1,350	2,940	494	94	68	791
30	190	709	244	177	-	*6,700	1,300	2,400	476	91	66	698
31	283	-	244	174	-	*6,300	-	2,060	-	89	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	6,623	494	119	214	0.035	0.04
November	17,996	1,380	283	600	.097	.11
December	14,447	816	147	466	.075	.09
Calendar year 1935	638,715	17,200	100	1,750	.283	3.86
January	7,479	323	174	241	.039	.04
February	7,166	1,100	80	247	.040	.04
March	250,450	13,100	650	8,079	1.31	1.51
April	76,360	5,800	1,300	2,545	.412	.46
May	69,440	4,480	1,090	2,240	.362	.42
June	44,536	3,410	476	1,485	.240	.27
July	6,597	453	89	213	.034	.04
August	2,248	94	66	73	.012	.01
September	45,160	4,170	469	1,505	.244	.27
Water year 1935-36	548,502	13,100	66	1,499	.243	3.30

* Estimated on basis of records for station at Boone and for the Raccoon River at Van Meter.
† Interpolated.
‡ Discharge computed from once-daily gage reading.

Des Moines River at Ottumwa, Iowa

Location.- Water-stage recorder, lat. 41°01', long. 92°24', in NE¼ sec. 25, T. 72 N., R. 14 W., at Vine Street Bridge in Ottumwa. Zero of gage is 622.77 feet above mean sea level (general adjustment of 1929).

Drainage area.- 13,200 square miles.

Records available.- March 1917 to September 1927, January 1929 to September 1930, March 1935 to September 1936 in reports of U. S. Geological Survey; March 1917 to September 1930 in report of Iowa State Planning Board. Comparable records at Eldon October 1930 to March 1935.

Average discharge.- 14 years (1917-30, 1935-36), 4,284 second-feet.

Extremes.- Maximum discharge observed during year, 27,800 second-feet Mar. 5, 6 (gage height, 9.50 feet); minimum discharge, 50 second-feet Sept. 3 (gage height, -0.20 foot); minimum daily discharge, 80 second-feet Aug. 18.
1917-30, 1935-36: Maximum discharge observed, 58,700 second-feet June 11, 1917 (gage height, 16.5 feet, former site); minimum, that of 1936.

Remarks.- Records good except those for period of ice effect, Dec. 20 to Feb. 29, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. Discharge June 15 to Aug. 4 computed on basis of records for station at Keosauqua. Diurnal fluctuation at low stages due to operation of power plant above gage. Gage-height record collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

-0.2	50	.5	490	1.6	2,320	3.0	5,850	7.0	18,900
0	120	.8	860	2.0	3,230	4.0	8,830	9.0	26,000
.2	232	1.2	1,520	2.5	4,490	5.0	12,100		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	935	1,840	2,720	1,140	1,040	*13,700	9,470	2,740	3,970	1,070	270	155
2	935	4,000	2,670	1,260	1,040	*12,700	8,520	3,350	4,360	930	250	182
3	792	3,720	2,340	1,200	1,060	*19,600	7,900	7,000	5,160	950	220	212
4	858	13,100	2,110	1,150	1,120	*26,700	7,300	7,900	4,750	850	330	560
5	397	16,100	2,220	1,360	1,110	*27,800	7,000	6,860	4,360	850	335	905
6	606	8,210	2,010	1,320	1,110	*26,700	6,710	5,710	3,840	750	323	890
7	580	4,360	2,410	1,410	1,010	23,800	6,560	4,620	3,840	730	341	1,410
8	486	3,470	2,810	1,470	1,200	23,100	5,850	4,490	3,720	660	383	1,540
9	545	2,940	2,990	1,430	1,200	23,500	5,850	3,970	3,600	660	317	1,540
10	556	2,670	2,670	1,430	1,170	22,400	5,570	3,720	4,000	600	276	1,540
11	512	2,390	2,240	1,340	1,030	23,500	5,330	4,620	7,600	570	264	1,310
12	526	2,220	*2,110	1,410	1,010	24,900	5,160	4,490	9,150	540	222	1,360
13	545	2,050	*1,520	1,390	1,010	24,900	5,020	5,020	7,300	510	252	1,310
14	512	1,850	*1,430	1,320	1,010	24,200	4,750	4,620	5,160	500	263	1,830
15	512	1,770	*1,340	1,340	1,030	23,500	4,750	4,360	4,300	400	180	1,770
16	490	1,730	*1,910	1,540	1,010	23,100	4,620	3,970	3,800	430	282	2,830
17	490	1,650	*1,910	1,120	1,010	21,700	4,000	3,720	3,100	370	227	3,720
18	1,100	1,630	*1,910	1,170	1,010	17,800	4,000	3,470	2,650	390	80	4,750
19	3,130	1,600	*1,710	1,070	1,010	16,400	3,840	3,210	2,400	390	299	5,570
20	2,240	1,600	1,340	1,220	1,010	16,100	3,720	2,990	2,150	350	252	5,290
21	1,830	1,750	792	1,030	1,030	15,400	3,600	2,850	1,950	360	217	4,620
22	1,410	1,630	792	1,040	1,010	14,400	3,350	2,610	1,750	370	230	3,840
23	1,150	1,450	860	1,190	1,010	14,100	3,350	2,520	1,700	360	250	3,160
24	980	1,260	860	1,040	1,070	18,200	3,180	2,690	1,600	340	242	2,470
25	905	1,150	860	1,010	2,320	19,200	3,060	2,740	1,450	350	476	2,010
26	833	1,310	833	1,040	5,020	18,500	2,880	2,320	1,400	280	468	2,070
27	778	3,140	980	1,060	10,100	16,100	2,830	3,350	1,300	340	380	1,910
28	723	4,750	819	1,090	11,100	13,700	2,760	5,160	1,170	340	104	3,350
29	778	5,020	1,010	1,070	12,100	12,400	2,720	5,710	1,210	290	104	4,360
30	711	3,280	1,030	995	-	11,400	2,670	5,160	1,130	320	120	2,970
31	890	-	1,090	1,040	-	10,400	-	4,490	-	250	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	27,735	3,130	397	895	0.068	0.08
November	103,640	16,100	1,150	3,455	.262	.29
December	52,296	2,990	792	1,687	.128	.15
Calendar year						
January	37,695	1,540	995	1,216	.092	.11
February	65,960	12,100	1,010	2,274	.172	.19
March	589,900	27,800	10,400	19,352	1.47	1.70
April	146,320	9,470	2,670	4,877	.369	.41
May	130,430	7,900	2,320	4,207	.319	.37
June	103,870	9,150	1,130	3,462	.262	.29
July	16,100	1,070	250	519	.039	.04
August	8,102	476	80	261	.020	.02
September	69,434	5,570	155	2,314	.175	.20
Water year 1935-36	1,361,482	27,800	80	3,720	.282	3.85

* Computed from once-daily gage readings.

Des Moines River at Keosauqua, Iowa

Location.- Water-stage recorder, lat. 40°44', long. 91°57', in sec. 36, T. 69 N., R. 10 W., at highway bridge in Keosauqua, a quarter of a mile above old dam site and Government locks.

Drainage area.- 13,900 square miles.

Records available.- May 1903 to July 1906, April 1910 to September 1936.

Average discharge.- 23 years (1913-36), 4,785 second-feet.

Extremes.- Maximum discharge during year, 26,900 second-feet Mar. 6 (gage height, 9.39 feet); minimum, 102 second-feet Aug. 31 (gage height, -0.49 foot).
1903-6, 1910-36: Maximum discharge, about 97,000 second-feet June 1, 1903 (gage height, 27.85 feet); minimum, 72 second-feet Aug. 30, 1934.
Flood of June 1, 1851, reached a stage of about 24 feet (discharge, about 80,000 second-feet).

Remarks.- Records good except those for period of ice effect, Dec. 20 to Mar. 5, which were estimated on basis of gage heights, weather records, and records for station at Ottumwa and are poor. Station operated in cooperation with the Corps of Engineers, U. S. Army, and the Mississippi River Power Co.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

-0.5	100	0.7	1,360	3.0	6,810	9.0	25,500
-.3	160	1.0	1,950	4.0	9,590	10.0	29,040
-.1	290	1.3	2,600	5.0	12,530		
.1	474	1.6	3,280	6.0	15,600		
.3	716	2.0	4,240	7.0	18,800		
.5	1,010	2.5	5,500	8.0	22,100		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,010	888	3,000	1,200	1,120	13,000	10,500	2,510	4,240	1,150	262	114
2	844	2,230	2,600	1,250	1,130	14,000	9,300	2,620	3,760	1,100	276	178
3	801	4,240	2,510	1,300	1,140	18,000	8,460	4,490	4,490	934	248	202
4	716	7,900	2,270	1,280	1,150	23,000	7,900	7,900	4,990	934	227	214
5	716	17,500	1,910	1,260	1,150	25,000	7,350	7,350	4,490	844	340	324
6	588	11,900	1,970	1,400	1,150	26,600	7,080	6,280	4,240	844	315	858
7	340	6,150	1,990	1,460	1,150	25,200	6,810	5,240	3,640	759	307	815
8	577	3,880	2,470	1,500	1,150	23,500	6,410	4,240	3,760	730	276	1,180
9	454	3,280	2,870	1,500	1,150	23,800	5,760	4,120	3,640	665	324	1,360
10	531	2,820	2,910	1,500	1,160	23,100	5,890	3,760	3,520	665	307	1,360
11	542	2,580	2,600	1,460	1,200	24,100	5,630	4,000	4,360	601	276	1,380
12	*520	2,340	2,120	1,470	1,160	25,800	5,370	4,740	9,020	588	248	1,310
13	497	2,120	1,870	1,480	1,110	25,800	5,120	4,740	8,740	542	234	2,230
14	520	1,910	1,730	1,490	1,110	25,200	4,990	5,370	6,410	520	190	1,460
15	485	1,870	1,510	1,500	1,110	24,500	4,740	4,490	4,740	508	220	1,650
16	485	1,750	1,950	1,480	1,110	24,100	4,490	4,240	4,240	404	227	2,620
17	485	1,650	1,950	1,520	1,110	23,100	4,490	3,640	3,520	454	160	3,030
18	485	1,550	2,060	1,340	1,110	19,500	3,880	3,520	3,050	384	214	3,880
19	1,080	1,610	1,810	1,220	1,110	17,200	3,880	3,160	2,600	404	214	5,120
20	2,600	1,550	900	1,190	1,110	16,900	3,760	2,980	2,380	404	227	5,630
21	1,950	1,590	800	1,160	1,110	16,200	3,640	2,780	2,120	357	220	5,500
22	1,610	1,670	800	1,150	1,120	15,000	3,400	2,600	1,950	366	208	4,240
23	1,250	1,550	850	1,150	1,120	14,400	3,160	2,340	1,770	384	184	3,760
24	1,040	1,400	900	1,160	2,000	16,200	3,050	2,360	1,710	374	227	3,640
25	858	1,220	950	1,200	7,000	20,100	2,870	2,580	1,550	357	214	2,290
26	830	1,130	900	1,150	10,000	20,100	2,800	2,420	1,490	366	283	3,520
27	773	2,340	900	1,120	11,000	17,500	2,670	2,120	1,400	290	531	5,760
28	730	4,490	950	1,150	12,000	15,000	2,670	3,280	1,270	307	276	2,560
29	665	6,410	1,050	1,170	12,500	13,100	2,600	5,240	1,180	307	276	3,880
30	690	4,740	1,100	1,170	-	11,900	2,510	5,630	1,220	255	124	4,000
31	716	-	1,150	1,140	-	11,000	-	4,990	-	283	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	25,388	2,600	340	819	0.059	0.07
November	106,258	17,500	888	3,542	.255	.28
December	53,350	3,000	800	1,721	.124	.14
Calendar year 1935	2,030,671	53,000	340	5,563	.400	5.43
January	40,520	1,520	1,120	1,307	.094	.11
February	80,540	12,500	1,110	2,777	.200	.22
March	611,900	26,600	11,000	19,740	1.42	1.64
April	151,180	10,500	2,510	5,039	.363	.40
May	125,730	7,900	2,120	4,056	.292	.34
June	105,490	9,020	1,180	3,516	.253	.28
July	17,080	1,150	255	551	.040	.05
August	7,743	531	108	250	.018	.02
September	74,065	5,760	114	2,469	.178	.20
Water year 1935-36	1,399,244	26,600	108	3,823	.275	3.75

* Interpolated.

Heron Lake outlet near Heron Lake, Minn.

Location.- Staff gage, lat. 43°48', long. 95°16', on line between secs. 21 and 22, T. 104 N., R. 37 W., 3 miles east of Heron Lake.
Drainage area.- 492 square miles.
Records available.- August 1930 to September 1933, October 1934 to September 1936.
Extremes.- Maximum discharge observed during year, 960 second-feet Mar. 23-25; maximum gage height, 6.82 feet Mar. 25; no flow during several months.
1930-33, 1934-36: Maximum discharge, that of Mar. 23-25, 1936; no flow for several periods during 1931, 1933-36.
Remarks.- Records fair except those for period of ice effect, Mar. 3-19 (computed on basis of three discharge measurements, gage heights, and weather records), and those for period of backwater effect from aquatic growth, May 27 to July 14 (computed on basis of one discharge measurement and records for Des Moines River near Jackson), which are poor. Gage read once daily. Graph based on gage readings used Mar. 11 to Apr. 24.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.3	0	1.0	25	3.0	191	6.5	855
.4	1	1.2	37	3.5	249	6.8	960
.5	2.5	1.4	51	4.0	316		
.6	5	1.6	66	4.5	392		
.7	9	1.8	82	5.0	480		
.8	14	2.0	98	5.5	580		
.9	19	2.5	141	6.0	700		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	760	98	58	10		
2						0	730	98	58	9.0		
3						.2	675	98	51	8.2		
4						.5	650	98	51	7.0		
5						.4	625	90	48	5.8		
6						.3	600	86	51	5.0		
7						1	540	82	51	5.0		
8						2	500	86	48	3.8		
9						3	480	90	43	3.8		
10						16	444	90	40	3.5		
11						25	409	98	36	3.2		
12						24	376	98	32	3.0		
13						16	376	90	28	2.2		
14						14	360	82	27	1.6		
15						16	302	82	26	1.0		
16						32	288	82	25	.8		
17						86	275	78	30	0		
18						180	249	74	25	0		
19						345	237	66	24	0		
20						560	213	58	24	0		
21						760	191	90	24	0		
22						790	170	90	24	0		
23						890	150	90	20	0		
24						960	132	90	18	0		
25						960	123	86	16	0		
26						960	114	86	17	0		
27						925	106	82	15	0		
28						890	106	78	13	0		
29						855	98	74	12	0		
30						820	98	70	12	0		
31						790	-	62	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	0	0	0	0		
November	0	0	0	0		
December	0	0	0	0		
Calendar year 1935	9,675.2	226	0	26.5		
January	0	0	0	0		
February	0	0	0	0		
March	10,921.4	960	0	352		
April	10,377	760	98	346		
May	2,622	98	58	84.6		
June	947	58	12	31.6		
July	72.9	10	0	2.35		
August	0	0	0	0		
September	0	0	0	0		
Water year 1935-36	24,940.3	960	0	68.1		

Tuttle Lake near Ceylon, Minn.

Location.- Staff gage, lat. 43°30', long. 94°36', in sec. 31, T. 101 N., R. 31 W., on northwest shore of Tuttle Lake, about 3 miles southeast of Ceylon. Zero of gage is 2.0 feet below crest of dam at outlet.

Records available.- July 1930 to September 1936.

Extremes.- Maximum stage during year, 5.32 feet Mar. 24; minimum, 1.12 feet Oct. 7, 10, 12, 15, 18, 20.
1930-36: Maximum stage, that of Mar. 24, 1936; minimum, 0.00 foot several times in September 1931.

Remarks.- There was no fixed relation this year between the stage of the lake and the discharge over the dam, owing to fish screens on the crest of the dam. No records Nov. 16 to Mar. 22. The following discharge measurement was made: June 12, 1936, gage height, 3.57 feet; discharge, 60.0 second-feet.

Gage height, in feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.24	1.24				-	4.96	3.67	3.81	3.14	2.38	2.28
2	1.15	1.29				-	4.92	3.71	3.76	3.09	2.35	2.32
3	1.19	1.26				-	4.90	3.68	3.71	3.08	2.31	2.29
4	1.17	1.27				-	4.87	3.66	3.67	3.04	2.30	2.28
5	1.19	1.26				-	4.83	3.63	3.62	3.06	2.27	2.25
6	1.17	1.23				-	4.55	3.57	3.64	3.05	2.24	2.22
7	1.12	1.22				-	4.44	3.52	3.62	2.99	2.21	2.36
8	1.13	1.25				-	4.41	3.72	3.64	2.96	2.19	2.34
9	1.14	1.22				-	4.35	3.74	3.72	2.93	2.18	2.31
10	1.12	1.25				-	4.31	3.76	3.66	2.94	2.17	2.31
11	1.15	1.24				-	4.30	3.77	3.62	2.95	2.16	2.36
12	1.12	1.23				-	4.26	3.81	3.60	2.89	2.15	2.32
13	1.15	1.21				-	4.19	3.85	3.54	2.81	2.29	2.30
14	1.15	1.19				-	4.18	3.81	3.52	2.80	2.22	2.30
15	1.16	1.20				-	4.14	3.76	3.50	2.78	2.19	2.34
16	1.12	-				-	4.20	3.65	3.49	2.76	2.20	2.37
17	1.14	-				-	4.15	3.70	3.48	2.73	2.17	2.36
18	1.12	-				-	4.01	3.67	3.44	2.74	2.18	2.31
19	1.13	-				-	4.02	3.68	3.42	2.70	2.16	2.29
20	1.12	-				-	3.99	3.69	3.39	2.66	2.12	2.26
21	1.22	-				-	3.94	3.60	3.37	2.61	2.16	2.27
22	1.19	-				-	3.91	3.84	3.34	2.61	2.17	2.26
23	1.15	-				5.24	3.90	3.80	3.32	2.60	2.22	2.26
24	1.14	-				5.32	3.81	3.98	3.35	2.57	2.24	2.22
25	1.16	-				5.24	3.77	4.00	3.28	2.61	2.21	2.18
26	1.15	-				5.30	3.69	4.02	3.24	2.57	2.19	2.17
27	1.16	-				5.02	3.64	3.98	3.21	2.56	2.21	2.19
28	1.17	-				5.00	3.60	3.95	3.19	2.53	2.34	2.16
29	1.16	-				5.00	3.56	3.92	3.17	2.52	2.29	2.19
30	1.13	-				4.99	3.62	3.87	3.14	2.49	2.28	2.16
31	1.21	-				4.98	-	3.86	-	2.42	2.25	-

Raccoon River at Van Meter, Iowa

Location.- Water-stage recorder, lat. 41°32'0", long. 93°56'50", in SW¼ sec. 22, T. 78 N., R. 27 W., at highway bridge a third of a 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. Zero of gage is 841.12 feet above mean sea level (general adjustment of 1912).
Drainage area.- 3,410 square miles.
Records available.- April 1915 to November 1927, October 1932 to September 1936 in reports of U. S. Geological Survey; April 1915 to December 1932 in report of Iowa State Planning Board.
Average discharge.- 15 years (1915-27, 1933-36), 1,058 second-feet.
Extremes.- Maximum discharge during year, 12,200 second-feet Mar. 5 (gage height, 13.86 feet); minimum, 14 second-feet Sept. 1 (gage height, 1.38 feet).
1915-36: Maximum discharge observed, 40,000 second-feet Sept. 20, 1926 (gage height, 18.96 feet); minimum, that of Sept. 1, 1936.
Remarks.- Records good except those for period of ice effect, Dec. 20 to Mar. 2, which were computed on basis of one discharge measurement, gage heights, and weather records, and are poor. Some diurnal fluctuation during low water caused by operation of power plant at Adel, 10 miles above gage.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 14

1.6	42	3.0	524	6.0	2,600
1.8	78	3.3	686	8.0	4,500
2.0	123	3.6	861	10.0	6,780
2.2	181	4.0	1,100	13.0	10,800
2.4	252	4.5	1,450		
2.7	378	5.0	1,800		

Mar. 15 to Sept. 30

1.4	16	2.7	355
1.6	39	3.0	493
1.8	74	3.5	768
2.0	121	4.0	1,090
2.2	177	4.5	1,440
2.4	241	5.0	1,800

Same as previous table above gage height 5.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	951	453	156	65	1,800	922	2,810	597	*140	36	20
2	91	458	237	184	61	2,960	859	1,920	1,340	*132	35	61
3	86	429	313	205	59	5,370	756	1,510	890	*106	32	36
4	86	981	383	219	56	9,280	798	1,260	768	*118	32	30
5	86	861	365	222	54	11,000	890	1,060	608	108	52	311
6	82	619	360	205	54	11,200	859	922	890	104	44	570
7	84	473	396	191	52	10,200	798	798	608	101	38	565
8	82	424	374	191	50	9,280	798	703	534	94	34	318
9	84	392	356	198	50	9,280	798	636	†3,180	83	32	165
10	88	356	305	198	50	8,720	756	922	†4,600	64	30	121
11	93	330	166	212	50	8,720	738	1,230	†1,540	61	27	321
12	95	276	288	219	50	8,320	669	1,020	922	61	26	828
13	97	256	347	215	50	7,670	646	922	*733	61	26	287
14	97	268	334	215	50	6,900	608	798	*652	59	26	124
15	93	260	313	208	50	5,590	597	686	*592	55	25	187
16	93	241	288	205	50	3,900	565	641	*539	53	25	1,460
17	419	241	222	195	50	3,230	488	597	*459	52	24	1,340
18	483	226	230	175	50	2,780	459	539	*416	52	23	859
19	276	248	166	175	50	2,440	444	473	*299	53	22	426
20	191	234	172	166	50	2,200	416	439	*306	63	24	248
21	166	234	178	150	50	2,000	421	412	255	55	32	168
22	159	162	178	142	‡76	1,880	394	330	252	50	32	162
23	142	145	166	134	78	†3,140	355	322	231	50	32	134
24	121	234	153	123	78	†3,320	364	303	215	47	30	104
25	139	234	145	93	424	†2,520	355	539	196	50	23	96
26	109	226	136	88	981	†2,000	351	1,230	186	49	20	708
27	121	313	136	84	**765	1,680	403	1,440	*145	42	19	407
28	118	356	139	78	550	1,480	295	1,260	*154	39	19	186
29	111	305	139	72	1,280	1,340	359	1,060	*162	38	19	157
30	104	284	145	70	-	1,160	339	798	*148	35	17	132
31	369	-	147	68	-	1,020	-	680	-	35	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,481	483	62	145	0.043	0.05
November	11,017	981	145	367	.108	.12
December	7,730	453	136	249	.073	.08
Calendar year 1935	284,375	8,820	59	779	.228	3.09
January	5,056	222	68	163	.048	.06
February	5,333	1,280	50	184	.054	.06
March	152,380	11,200	1,020	4,915	1.44	1.66
April	17,500	922	295	583	.171	.19
May	28,260	2,810	303	912	.267	.31
June	22,317	4,500	145	744	.218	.24
July	2,116	140	35	68.1	.020	.02
August	872	52	16	28.1	.0082	.009
September	10,531	1,460	20	351	.103	.11
Water year 1935-36	267,587	11,200	16	731	.214	2.91

*Computed from once-daily gage reading. †Computed from graph drawn on basis of gage readings.
‡Result of discharge measurement. **Interpolated.

Fox River at Wayland, Mo.

Location.- Water-stage recorder, lat. 40°23'45", long. 91°35'50", in NW¼ sec. 31, T. 65 N., R. 6 W., at bridge on State Highway 4 three-quarters of a mile west of Wayland. Prior to June 12, 1936, wire-weight gage at same site and datum. Zero of gage is 501.48 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 400 square miles.

Records available.- October 1929 to September 1936, February 1922 to September 1929 at site 2 miles upstream.

Extremes.- Maximum discharge observed during year, 8,060 second-feet Feb. 26 (gage height, 17.65 feet); no flow on many days.
1929-36: Maximum discharge, 25,000 second-feet June 29, 1933 (gage height, 21.53 feet); no flow on many days during 1930, 1934, 1936.

Remarks.- Records poor prior to June 12; good thereafter. Discharge for periods of ice effect, Dec. 1-3, 10-12, Dec. 20 to Jan. 6, Jan. 18 to Feb. 23, computed on basis of one discharge measurement, gage heights, and weather records. Prior to installation of recorder, gage was read once daily below and twice daily above 8.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	5	49	11	11	669	34	45	8	1.4	0	0
2	11	6	45	11	11	552	38	187	7	.9	0	0
3	6	13	33	13	11	436	41	180	6	.8	0	0
4	5	1,550	24	13	11	645	39	112	5	.7	0	0
5	4.4	621	28	16	11	*600	41	88	4.9	.6	0	.1
6	4.2	158	32	20	11	361	931	53	5	.4	.2	.1
7	4.9	*60	37	48	9	218	323	48	*6	.3	.2	0
8	4.4	47	53	44	9	202	165	38	6	.2	.1	0
9	4.2	37	50	40	9	194	124	32	6	.2	.1	0
10	4.7	34	41	42	9	187	100	28	14	.2	0	0
11	3.5	35	37	39	9	*520	83	24	11	.2	0	0
12	3.1	37	29	37	9	621	78	381	8	.2	0	0
13	2.9	49	27	43	9	268	68	187	11	.1	0	.3
14	8	37	25	78	8	172	62	718	9	.1	0	22
15	6	26	18	*150	8	144	53	172	6	0	0	22
16	9	20	26	194	8	124	46	78	4.7	0	0	490
17	4.4	20	34	187	8	100	38	51	3.3	0	0	434
18	6	19	41	83	8	83	34	41	3.1	0	0	151
19	9	22	62	64	8	78	32	31	2.2	0	0	72
20	10	23	29	49	8	83	30	25	2.0	.1	0	36
21	7	35	20	41	8	131	34	22	1.2	.1	0	22
22	6	25	16	37	16	94	46	18	2.1	0	0	12
23	4.9	*22	13	33	37	131	57	16	2.0	0	0	8
24	8	20	11	26	874	151	41	18	2.4	0	0	6
25	5	18	11	23	3,150	94	*35	16	2.0	0	0	54
26	4.7	16	11	20	7,400	72	29	15	1.6	0	0	1,090
27	7	422	11	18	2,470	62	34	14	1.8	0	0	4,030
28	8	323	11	16	1,790	52	50	13	2.4	0	0	2,140
29	6	138	11	13	718	43	94	11	1.8	0	0	331
30	9	61	11	13	-	41	59	9	1.7	0	0	112
31	4.9	-	11	11	-	38	-	8	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	193.2	12	2.9	6.23	0.016	0.02	383
November	3,899	1,550	5	130	.325	.36	7,730
December	857	62	11	27.6	.069	.08	1,700
Calendar year 1935	123,766.1	12,900	1.8	339	.848	11.49	245,500
January	1,433	194	11	46.2	.116	.13	2,840
February	16,648	7,400	8	574	1.44	1.55	33,020
March	7,216	669	38	233	.582	.67	14,310
April	2,839	931	29	94.6	.236	.26	5,630
May	2,679	718	8	86.4	.216	.25	5,310
June	147.2	14	1.2	4.91	.012	.01	292
July	6.5	1.4	0	.21	.00052	.0006	13
August	.6	.2	0	.02	.00005	.00006	1
September	9,032.5	4,030	0	301	.752	.84	17,920
Water year 1935-36	44,951.0	7,400	0	123	.308	4.17	89,150

*Estimated.

Wyaconda River above Canton, Mo.

Location.- Wire-weight gage, lat. 40°8'30", long. 91°33'55", in SE¼ sec. 28, T. 62 N., R. 6 W., at bridge on State Highway 96 1 mile above Sugar Creek and 2 miles west of Canton. Zero of gage is 515.47 feet above mean sea level (general adjustment of 1929).

Drainage area.- 393 square miles.

Records available.- October 1932 to September 1936.

Extremes.- Maximum discharge during year, 6,960 second-feet Feb. 27 (gage height, 22.84 feet); no flow June 19-21, July 4 to Sept. 13.
1932-36: Maximum discharge, 17,700 second-feet June 30, 1933 (gage height, 30.00 feet); no flow on many days during 1934 and 1936.

Remarks.- Records fair except those for periods of ice effect, Dec. 1-7, 12, 13, Dec. 20 to Jan. 14, Jan. 20 to Feb. 25, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Gage read once daily below and twice daily above 10 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	18	98	6	13	476	38	46	3.0	2.0		0
2	3.8	8	57	6	10	404	35	440	2.5	1.2		0
3	2.2	15	44	8	10	368	31	368	1.5	.6		0
4	2.5	458	36	13	10	476	38	139	1.5	0		0
5	2.5	920	25	25	10	494	54	92	1.2	0		0
6	2.5	265	28	44	8	249	656	65	1.2	0		0
7	2.2	112	44	44	8	167	512	48	1.5	0		0
8	2.5	65	67	36	8	146	181	38	1.2	0		0
9	2.8	146	75	25	8	146	125	28	2.0	0		0
10	11	62	60	22	8	146	98	25	2.2	0		0
11	8	38	20	22	8	265	86	24	2.0	0		0
12	10	42	19	25	6	1,030	76	33	2.8	0		0
13	8	47	25	118	6	404	66	40	2.8	0		0
14	7	36	33	125	6	203	58	55	3.5	0		10
15	7	30	34	174	6	153	51	68	3.0	0		153
16	5	27	40	203	6	125	42	34	1.5	0		174
17	4.8	23	57	153	6	98	32	29	.3	0		1,150
18	4.4	21	92	105	6	86	24	20	.3	0		299
19	4.8	20	76	86	6	78	23	15	0	0		132
20	12	22	13	52	6	86	23	10	0	0		61
21	9	29	10	40	6	132	24	8	0	0		34
22	4.4	31	10	32	6	118	26	7	.9	0		22
23	14	12	8	25	8	98	55	6	1.8	0		14
24	7	19	6	22	25	160	43	6	3.2	0		9
25	5	15	6	19	548	132	30	16	4.0	0		7
26	7	21	6	16	6,150	86	26	9	1.8	0		15
27	8	174	6	16	6,460	69	26	8	1.0	0		2,730
28	8	620	6	13	3,650	47	39	7	.3	0		4,120
29	10	233	6	13	920	46	92	4.0	.4	0		1,710
30	8	112	6	13	-	42	72	3.2	.6	0		494
31	7	-	6	13	-	36	-	3.0	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	196.4	14	2.2	6.34	0.016	0.02	390
November	3,641	920	8	121	.308	.34	7,220
December	1,019	98	6	32.9	.084	.10	2,020
Calendar year 1935	161,396.4	13,900	2.2	442	1.12	15.29	320,100
January	1,514	203	6	48.8	.124	.14	3,000
February	17,928	6,460	6	618	1.57	1.69	35,560
March	6,566	1,030	36	212	.539	.62	13,080
April	2,682	656	23	89.4	.227	.25	5,320
May	1,694.2	440	3.0	54.7	.139	.16	3,360
June	48.0	4.0	0	1.60	.0041	.005	95
July	3.8	2.0	0	.12	.00031	.0004	7.5
August	0	0	0	0	0	0	0
September	11,134	4,120	0	371	.944	1.05	22,080
Water year 1935-36	46,426.4	6,460	0	127	.323	4.38	92,070

North Fabius River at Monticello, Mo.

Location.- Wire-weight gage, lat. 40°6'30", long. 91°42'55", in SW¼SE¼ sec. 6 (revised), T. 61 N., R. 7 W., at bridge on State Highway 96 1 mile south of Monticello. Zero of gage is 541.85 feet above mean sea level (Missouri State highway data).

Drainage area.- 452 square miles.

Records available.- February 1922 to September 1936.

Average discharge.- 13 years (1923-36), 316 second-feet.

Extremes.- Maximum discharge observed during year, 10,800 second-feet Feb. 25 (gage height, 25.68 feet); no flow on many days.
1922-36: Maximum discharge, 17,400 second-feet June 30, 1933 (gage height, 30.8 feet, from floodmarks); no flow on many days during 1934 and 1936.

Remarks.- Records fair except those for periods of ice effect, Dec. 2-5, Dec. 20 to Feb. 24, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Gage read once daily below and twice daily above 10.0 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	6	84	14	29	320	36	45	4.4	4.4	0	0
2	6	11	65	14	29	320	30	201	3.2	3.0	0	.6
3	5	20	58	14	34	320	24	187	2.8	2.0	0	.4
4	4.8	187	65	18	34	288	23	173	2.5	1.3	0	.4
5	4.4	642	72	29	34	288	124	104	2.5	.9	0	.3
6	4.0	229	74	46	34	229	642	70	1.8	.4	0	.3
7	3.2	46	77	58	34	201	392	47	2.2	.4	0	.2
8	4.8	78	117	58	34	187	304	30	4.0	.4	0	0
9	4.8	104	32	52	34	166	131	23	4.0	0	0	0
10	15	56	27	52	29	159	110	23	4.4	0	0	0
11	13	41	23	52	29	273	91	34	6	0	0	0
12	13	38	37	52	29	304	84	243	18	0	0	0
13	13	37	38	72	34	320	72	131	9	0	0	4.0
14	9.0	35	46	110	40	304	62	124	6	0	0	5
15	7	34	58	138	40	166	52	124	6	0	0	187
16	5	33	56	145	40	145	38	72	3.5	0	0	131
17	6	32	55	145	40	117	29	52	3.8	0	0	138
18	7	31	98	138	40	98	23	39	2.0	0	0	243
19	7	31	98	124	40	91	17	25	1.3	0	0	152
20	4.0	30	58	72	40	104	17	19	1.2	0	0	64
21	6	30	34	46	40	104	18	22	.9	.3	0	58
22	8	28	21	40	40	104	48	27	3.8	0	0	40
23	6	27	18	34	40	104	84	17	1.5	0	0	84
24	4.4	25	18	34	320	166	40	14	2.2	0	0	84
25	3.5	27	14	29	10,600	117	27	15	4.0	0	0	91
26	5	30	14	29	6,810	77	21	16	2.5	0	0	258
27	6	173	14	29	2,590	68	32	15	2.0	0	0	5,640
28	7	201	14	29	620	64	72	15	1.0	0	0	7,560
29	6	273	14	29	450	45	110	6	1.3	0	0	3,770
30	1.8	187	14	29	-	38	84	6	5	0	0	1,320
31	1.2	-	14	29	-	34	-	5	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	197.9	15	1.2	6.38	0.014	0.02	393
November	2,722	642	6	90.7	.201	.22	5,400
December	1,427	117	14	46.0	.102	.12	2,830
Calendar year 1935	179,215.5	12,700	1.2	491	1.09	14.73	355,500
January	1,760	145	14	56.8	.126	.15	3,490
February	22,207	10,600	29	766	1.69	1.82	44,050
March	5,321	320	34	172	.381	.44	10,550
April	2,837	642	17	94.6	.209	.23	5,630
May	1,924	243	5	62.1	.137	.16	3,820
June	112.8	18	.9	3.76	.0083	.009	224
July	13.1	4.4	0	.42	.00093	.001	26
August	0	0	0	0	0	0	0
September	19,831.2	7,560	0	661	1.46	1.63	39,330
Water year 1935-36	56,353.0	10,600	0	159	.352	4.80	115,700

North Fabius River at Taylor, Mo.

Location.- Water-stage recorder, lat. 39°56'5", long. 91°31'35", in NE¼SE¼ sec. 2, T. 59 N., R. 6 W., at bridge on U. S. Highway 61 at Taylor. Zero of gage is 469.65 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 930 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge during year, 12,100 second-feet Feb. 26 (gage height, 14.50 feet); minimum, 0.3 second-foot Aug. 25, 26 (gage height, 1.82 feet).
1930-36: Maximum discharge, 30,300 second-feet June 30, 1933 (gage height, 22.85 feet, from floodmarks); minimum, 0.1 second-foot July 23-25, 1934 (gage height, 1.72 feet).
Maximum stage known, 23.5 feet, from floodmarks, Nov. 19, 1928.

Remarks.- Records good except those for period of ice effect, Jan. 17 to Feb. 25, which were computed on basis of one discharge measurement, gage height record, and weather records and are poor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	23	257	31	54	900	116	370	42	9	1.3	1.1
2	21	35	172	35	55	625	113	1,010	19	9	1.3	531
3	20	65	123	45	56	625	110	565	18	10	1.3	81
4	19	425	119	72	57	722	107	425	18	9	1.3	20
5	19	1,060	123	70	58	755	143	292	16	8	1.5	10
6	19	755	110	84	60	478	274	217	15	6	1.7	6
7	18	378	123	86	60	310	690	161	14	4.3	1.7	3.9
8	18	237	150	95	61	257	478	123	12	3.1	1.5	2.3
9	17	283	186	84	62	241	355	107	12	2.7	1.5	1.9
10	19	270	172	86	62	237	274	92	11	2.3	1.5	1.7
11	25	154	147	89	63	332	237	79	11	1.9	1.5	1.5
12	38	116	92	133	64	1,240	217	77	12	1.7	1.9	57
13	32	92	84	233	64	1,150	198	198	15	1.5	1.9	95
14	29	79	107	283	64	595	179	378	18	1.5	1.7	40
15	28	68	107	310	64	378	175	332	19	1.3	1.7	86
16	23	65	140	283	64	332	143	168	16	1.3	1.7	249
17	20	60	150	245	64	278	116	113	14	1.1	1.5	725
18	18	53	154	206	64	233	104	92	10	1.1	1.5	755
19	16	53	172	168	66	209	86	72	10	1.1	1.5	690
20	16	51	209	116	67	209	79	58	9	1.1	1.7	332
21	19	49	92	86	70	237	81	43	8	1.1	1.1	179
22	19	49	86	74	70	249	84	39	9	1.3	.9	95
23	19	48	65	63	100	332	92	35	10	1.3	.5	61
24	19	43	65	63	1,000	310	136	33	9	1.1	.5	46
25	21	45	51	54	4,000	301	104	35	10	1.1	.3	35
26	23	49	48	54	11,600	249	110	36	10	1.1	.3	681
27	22	206	35	53	11,100	213	113	33	9	1.1	.5	4,530
28	22	825	32	53	5,230	179	147	31	8	1.3	.5	6,930
29	21	658	32	53	2,360	157	257	29	8	1.3	.5	3,790
30	23	378	29	53	-	136	221	26	8	1.3	.5	3,100
31	24	-	30	53	-	123	-	25	-	1.3	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	670	38	16	21.6	0.023	0.03	1,330
November	6,672	1,060	23	222	.239	.27	13,250
December	3,462	257	29	112	.120	.14	6,870
Calendar year 1935	405,257	20,600	16	1,110	1.19	16.23	803,800
January	3,413	310	31	110	.118	.14	6,770
February	36,759	11,600	54	1,268	1.36	1.47	72,910
March	12,592	1,240	123	406	.437	.50	24,980
April	5,539	690	79	185	.199	.22	10,990
May	5,294	1,010	25	171	.184	.21	10,500
June	400	42	8	13.3	.014	.02	793
July	90.3	10	1.1	2.91	.0031	.004	179
August	37.3	1.9	.3	1.20	.0013	.002	74
September	23,136.4	6,930	1.1	771	.829	.92	45,890
Water year 1935-36	98,065.0	11,600	.3	268	.288	3.93	194,500

Middle Fabius River near Baring, Mo.

Location.- Water-stage recorder, lat. 40°19'55", long. 92°12'50", in NW¼NW¼ sec. 26, T. 64 N., R. 12 W., at bridge on State Highway 15 6 miles north of Baring. Zero of gage is about 679.1 feet above mean sea level (Missouri State highway data).

Drainage area.- 156 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge observed during water year 1934-35, 4,880 second-feet May 24 (gage height, 19.78 feet); no flow Oct. 11-19.
Maximum discharge during water year 1935-36, 5,000 second-feet Sept. 27 (gage height, 20.10 feet); no flow on many days.
1930-36: Maximum discharge, 7,730 second-feet June 29, 1933 (gage height, 24.23 feet, from floodmarks); no flow on many days.

Remarks.- Records fair except those for periods of ice effect, Jan. 21 to Feb. 12, Dec. 16-20, 24-31, 1935, Jan. 1, Jan. 23 to Feb. 27, 1936, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	4.6	492	31	15	53	66	145	-		3.8	1.6
2	3.7	4.4	508	23	15	60	40	1,770	-		5	9
3	1.8	225	1,030	42	20	53	30	2,430	-		7	5
4	1.2	611	764	53	20	391	24	1,000	-		57	2.9
5	.8	699	401	30	25	930	21	243	-		14	1.7
6	.5	335	196	40	25	302	18	243	-		5	1.1
7	.3	73	68	136	25	157	23	262	-		3.8	1.1
8	.2	34	93	1,230	40	139	62	229	-		2.8	26
9	.1	19	78	1,540	50	232	58	1,230	-		2.4	20
10	.1	15	53	590	75	1,250	100	333	-		3.8	12
11	.1	11	45	238	150	1,270	497	167	-		3.2	3.8
12	0	9	22	151	200	484	392	714	-		2.3	1.8
13	0	8	20	238	196	215	189	962	-		1.4	.8
14	0	7	24	196	471	163	112	845	-		1.2	.6
15	0	6	26	104	829	122	56	554	-		1.0	.4
16	0	6	151	98	325	96	34	541	-		1.6	.4
17	0	6	252	64	98	66	38	391	-		6	.3
18	0	35	280	73	83	52	636	176	-		6	.3
19	97	151	238	145	78	48	402	279	3,880		6	.3
20	835	73	210	196	50	61	134	818	-		3.0	.2
21	154	244	127	100	38	76	81	808	-		1.8	.2
22	30	1,150	93	50	46	65	50	550	-		1.6	.2
23	16	545	109	30	39	44	30	3,190	-		1.6	.2
24	11	127	93	25	205	34	22	3,890	-		1.2	.1
25	29	53	78	25	1,550	312	22	876	-		1.1	.2
26	21	40	60	25	529	676	18	254	-		1.1	.4
27	12	53	45	20	127	228	14	317	-		1.1	.2
28	9	370	28	20	78	151	16	796	-		.7	.1
29	7	224	60	15	-	122	33	727	-		.7	.1
30	6	238	53	15	-	117	20	406	-		.7	.1
31	5	-	31	15	-	101	-	322	-		1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,251.8	835	0	40.4	0.259	0.30	2,480
November	5,376.0	1,150	4.4	179	1.15	1.28	10,660
December	5,728	1,030	20	185	1.19	1.37	11,360
Calendar year							
January	5,558	1,540	15	179	1.15	1.33	11,020
February	5,402	1,550	15	193	1.24	1.29	10,710
March	8,070	1,270	34	260	1.67	1.92	16,010
April	3,238	636	14	108	.692	.77	6,420
May	25,468	3,890	145	822	5.27	6.08	50,520
June	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-
August	148.9	57	.7	4.80	.031	.04	295
September	91.1	26	.1	3.04	.019	.02	181
Water year							

Note.- These records supersede those published in Water-Supply Paper 785.

Middle Fabius River near Baring, Mo.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	1.0	22	2.6	7	151	16	26	0.8	0.3	0	0
2	.1	.8	22	3.8	6	128	18	134	.6	.2	0	.2
3	.2	12	17	6	6	134	22	67	.7	.1	0	.2
4	.2	328	16	9	6	151	23	40	.7	0	.1	.2
5	.1	148	10	14	6	112	53	24	.8	0	.8	.3
6	.1	42	13	23	6	46	139	19	.8	0	.2	.2
7	.1	13	20	22	6	65	106	14	.8	0	.2	.2
8	.2	7	32	17	6	66	53	11	.6	0	.2	.2
9	.2	5	31	12	6	64	41	10	.8	0	.2	.2
10	.4	4.8	20	11	6	91	44	11	1.3	0	.2	.1
11	.4	4.8	16	12	6	215	34	18	.8	0	.2	.1
12	.4	4.2	11	20	6	267	29	22	.9	0	.2	.1
13	.4	3.8	9	48	4.5	106	26	19	.8	0	.2	123
14	.6	3.8	11	122	4.5	81	22	18	.7	0	.2	268
15	.6	2.2	12	134	4.5	68	20	18	.6	0	.2	43
16	.4	3.5	13	163	4.5	58	16	9	.4	0	.2	265
17	.4	3.8	13	139	4.5	43	13	6	.3	0	.2	797
18	.4	4.0	13	106	4.5	39	11	6	.3	0	.2	156
19	.3	4.2	13	81	4.5	38	11	3.4	.3	0	.2	17
20	.3	5	13	52	4.5	55	11	3.2	.3	0	.1	7
21	.4	6	11	35	4.5	52	12	2.8	.2	0	.1	4.0
22	.4	6	8	28	4.5	45	24	2.0	.4	0	.1	2.3
23	.4	6	6	20	4.5	51	29	1.9	.5	0	.1	1.6
24	.4	4.2	3.4	15	1,070	52	17	2.2	.4	0	0	150
25	.4	4.0	2.6	13	2,050	38	13	3.2	.3	0	0	100
26	.4	6	2.6	9	2,560	30	12	2.8	.3	0	0	1,240
27	.6	163	1.9	9	1,390	26	15	2.3	.2	0	0	4,270
28	.6	117	1.9	9	226	22	29	1.8	.2	0	0	2,530
29	.6	81	1.9	9	202	20	32	1.5	.2	0	0	327
30	.6	29	1.9	9	-	18	24	1.1	.3	0	0	112
31	.8	-	1.9	7	-	17	-	1.0	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	11.5	0.8	0.1	0.37	0.0023	0.003	23
November	1,023.1	328	.8	34.1	.219	.24	2,030
December	370.1	32	1.9	11.9	.076	.09	734
Calendar year							
January	1,160.4	163	2.6	37.4	.240	.28	2,300
February	7,620.5	2,560	4.5	263	1.69	1.82	15,120
March	2,349	267	17	75.8	.486	.56	4,660
April	915	139	11	30.5	.196	.22	1,810
May	501.0	134	1.0	16.2	.104	.12	994
June	16.3	1.3	.2	.54	.0035	.004	32
July	.6	.3	0	.02	.00013	.0001	1.2
August	4.1	.8	0	.13	.00083	.001	8.1
September	10,514.9	4,370	0	350	2.24	2.50	20,860
Water year 1935-36	24,486.5	4,370	0	66.9	.429	5.84	48,570

North Fork of South Fabius River at Edina, Mo.

Location.- Chain gage, lat. 40°10'45", long. 92°10'35", in SE¼NE¼ sec. 13, T. 62 N., R. 12 W., at bridge on State Highway 15 at Edina. Zero of gage is about 719.1 feet above mean sea level (Missouri State highway data).

Drainage area.- 72 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,240 second-feet Feb. 26 (gage height, 11.14 feet); no flow on many days.
1930-36: Maximum discharge observed, 13,300 second-feet June 29, 1933 (gage height, 14.64 feet); no flow on many days.

Remarks.- Records fair. Discharge estimated, owing to ice effect, Dec. 12, 14, 21, Jan. 7, 10, 25, Feb. 1, 15, 21. Gage read to hundredths occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	-	-	-	1.7	-	-	-	0.2	-	0	-
2	-	0	-	-	-	-	-	-	-	0	-	0
3	-	-	-	-	-	46	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	0	-	3.9	-	-	-	-	-	-	-	-	.2
6	-	-	-	-	-	-	-	-	.1	-	-	-
7	-	-	-	.5	-	23	-	7	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	0	-
9	-	3.5	-	-	-	-	-	4.6	-	0	-	-
10	-	-	-	2.6	-	-	-	-	-	-	-	0
11	0	-	-	-	-	-	8	3.2	-	-	-	-
12	-	-	6	-	-	-	-	-	-	-	-	0
13	-	-	-	-	-	-	-	-	-	0	-	-
14	-	-	3.9	-	-	-	-	-	-	-	-	0
15	0	-	-	-	1.1	-	-	-	-	-	-	-
16	-	1.0	-	-	-	-	-	1.9	0	-	-	43
17	-	-	-	-	-	16	-	-	-	-	0	-
18	-	-	-	-	-	-	1.7	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	7
20	-	-	-	-	-	15	-	-	0	0	0	-
21	-	-	6	-	.8	-	-	-	-	-	-	1.2
22	-	.6	-	-	-	-	-	.8	-	0	0	-
23	-	.8	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	.6	-	-	0	-
25	-	-	-	.8	524	-	2.6	-	0	0	-	-
26	0	-	-	-	1,160	-	-	-	-	-	-	187
27	-	-	-	-	81	-	-	-	0	-	0	754
28	-	-	-	-	-	8	8	-	-	-	-	754
29	-	-	-	-	66	-	-	-	-	-	0	-
30	-	10	-	-	-	-	-	-	-	-	-	-
31	-	-	.4	-	-	3.2	-	-	-	-	0	-

South Fabius River near Taylor, Mo.

Location.- Wire gage, lat. 39°53'50", long. 91°35'0", in NE¼ sec. 20, T. 59 N., R. 6 W., about 4½ miles above junction with North Fabius River and 4½ miles southwest of Taylor. Prior to May 14, 1936, wire gage at site 3½ miles downstream.

Drainage area.- 620 square miles. Prior to May 14, 1936, 630 square miles.

Records available.- May 1936 to September 1936, December 1934 to May 1936 at former site.

Extremes.- Maximum discharge observed during year, 10,600 second-feet Feb. 26 (gage height, 21.85 feet, former site and datum); no flow July 17 to Sept. 1.
1934-36: Maximum discharge observed, 12,400 second-feet June 19, 1935 (gage height, 23.38 feet, former site and datum); no flow July 17 to Sept. 1, 1936.

Remarks.- Records poor. Discharge for periods of ice effect, Dec. 21 to Jan. 3 and Jan. 16 to Feb. 23, computed on basis of one discharge measurement, gage heights, weather records, and records for North Fabius River at Taylor, Mo. Discharge for periods of backwater from Mississippi River, Mar. 15 to Apr. 19, Apr. 28 to May 7, computed on basis of three discharge measurements, gage heights, and records for nearby streams. Discharge for Feb. 24 to Mar. 1 obtained from gage-height graph based on gage readings. Gage read once daily, more often during periods of high water. Station operated in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	14	260	27	23	767	66	90	15	3		0
2	8	96	96	30	23	500	62	700	13	4		5
3	6	*116	89	40	23	400	60	500	11	3		850
4	9	137	72	64	23	419	70	350	9	2		1,000
5	7	585	37	96	23	380	90	†260	7	2		280
6	6	292	33	137	23	343	150	180	7	1.5		124
7	5	275	57	137	23	275	250	130	7	1		72
8	5	201	66	93	23	244	150	106	5	1		44
9	16	201	61	93	23	161	†112	76	7	.5		29
10	12	400	72	93	23	149	110	35	7	.5		20
11	6	260	79	93	23	174	105	‡40	6	.5		18
12	7	88	76	79	23	720	100	‡45	6	.5		16
13	6	79	67	187	23	767	95	53	5	.4		208
14	7	57	57	308	23	459	90	86	5	.3		1,000
15	6	47	115	244	23	300	80	91	5	.1		400
16	6	37	174	200	22	200	70	65	5	.2		170
17	6	35	149	150	22	150	60	56	4	0		235
18	6	30	109	100	22	†126	55	48	4	0		850
19	6	25	106	65	22	110	50	42	3	0		312
20	6	26	96	55	22	110	37	39	3	0		147
21	9	22	80	45	23	140	33	33	2	0		111
22	20	20	60	35	24	150	32	29	4	0		74
23	18	18	50	30	275	250	30	26	4	0		50
24	9	16	40	28	2,510	230	30	24	5	0		38
25	6	14	30	†25	7,300	220	32	26	5	0		500
26	8	21	28	25	9,970	170	25	46	3	0		151
27	10	260	27	24	8,770	130	28	37	3	0		2,760
28	13	585	26	24	5,770	105	60	26	4	0		3,390
29	10	480	26	24	3,180	90	150	21	2	0		3,680
30	12	542	25	24	-	80	100	18	2	0		2,970
31	13	-	26	24		72	-	16	-	0		-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	272	20	5	8.8	0.014	0.02
November	4,979	585	14	166	.263	.29
December	2,289	260	25	73.8	.117	.13
Calendar year 1935	296,947	11,200	5	814	1.29	17.54
January	2,599	308	24	83.8	.133	.15
February	38,077	9,970	22	1,313	2.08	2.24
March	8,391	767	72	271	.430	.50
April	2,382	250	25	79.4	.126	.14
May	3,294	700	16	106	.169	.19
June	168	15	2	5.6	.0090	.01
July	20.5	4	0	.66	.0011	.001
August	0	0	0	0	0	0
September	19,504	3,680	0	650	1.05	1.17
Water year 1935-36	81,975.5	9,970	0	224	.357	4.84

†Result of discharge measurement. *Discharge interpolated. ‡Discharge estimated.

Note.- Computations based on drainage area of 630 square miles Oct. 1 to May 13 and 620 square miles May 14 to Sept. 30.

61000 O—36——16

Little Fabius River near Edina, Mo.

Location.- Chain gage, lat. 40°3'35", long. 92°10'30", in NW¼SW¼ sec. 30, T. 61 N., R. 11 W., at bridge on State Highway 15, 6 miles south of Edina.

Drainage area.- 25.2 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,660 second-feet Sept. 26 (gage height, 13.46 feet); no flow on many days.
1930-36: Maximum discharge observed, 1,850 second-feet May 28, 1935 (gage height, 13.96 feet); no flow on many days.
Maximum stage known, about 16.7 feet, from floodmarks, date unknown.

Remarks.- Records fair. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	17	-	-	-	0
2	0	-	-	-	-	-	-	-	-	-	-	850
3	-	-	-	1.4	-	31	-	-	-	-	-	-
4	-	72	14	-	-	-	-	-	-	0	-	-
5	0	-	-	-	-	-	-	1.5	-	-	0	10
6	-	-	-	-	-	-	-	-	0	-	-	-
7	-	-	10	-	-	4.6	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	0	-
9	-	-	8	-	-	-	-	-	-	-	-	-
10	0	-	-	-	-	-	-	-	0	-	-	-
11	-	-	-	2.6	-	-	-	-	-	0	-	-
12	-	.6	-	-	0.2	-	-	-	-	-	-	.2
13	-	-	-	101	-	-	-	-	0	0	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	6	-	-	-	-	0	1.4
16	-	-	-	12	-	-	0.3	-	-	-	-	622
17	-	-	-	-	-	2.8	-	-	-	-	0	-
18	-	-	3.3	-	-	-	-	-	-	-	-	-
19	0	.6	-	-	0	-	-	-	-	-	-	1.5
20	-	-	-	-	-	-	-	-	0	-	0	-
21	0	-	-	.5	-	-	.2	0	-	-	-	.5
22	-	.2	-	-	-	-	.2	-	0	-	-	-
23	0	-	-	-	-	-	-	0	-	0	-	-
24	-	-	-	-	700	-	-	-	-	-	-	-
25	-	-	-	-	245	-	-	0	-	0	-	-
26	-	-	-	-	1,480	-	-	-	0	-	-	952
27	-	191	-	.2	-	-	-	-	-	0	-	-
28	-	-	-	-	-	-	-	-	-	-	0	32
29	-	-	-	-	-	-	-	-	-	0	0	40
30	0	-	-	-	-	.4	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-

North River at Bethel, Mo.

Location.- Chain gage, lat. 39°52', long. 92°1', in NE¼NW¼ sec. 33, T. 54 N., R. 10 W., at bridge on State Highway 15 at Bethel. Zero of gage is about 683.4 feet above mean sea level (Missouri State highway data).

Drainage area.- 58 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,260 second-feet Sept. 27 (gage height, 11.26 feet); no flow on many days.
1930-36: Maximum discharge, 5,950 second-feet Aug. 1, 1932 (gage height, 19.50 feet); no flow on many days.

Remarks.- Records poor. Discharge estimated, owing to ice effect, Nov. 23, Jan. 16, Feb. 19. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	-	-		0
2	0	-	-	0.2	-	-	-	-	-	-		0
3	-	-	-	-	-	-	-	-	-	0.1		0
4	-	-	-	-	-	-	-	-	-	-		5
5	-	-	-	-	-	-	-	-	0.5	-		8
6	-	-	-	-	-	13	-	-	-	470		4.5
7	-	13	-	1.6	-	-	-	-	-	-		1.2
8	-	-	-	-	-	-	-	0	-	-		.9
9	-	-	-	-	-	-	-	-	-	-		5
10	0	-	-	-	-	6	-	-	-	-		1.1
11	-	-	-	-	-	-	0.9	-	-	-		.8
12	-	-	-	-	-	-	-	-	-	-		.4
13	-	-	1.8	-	-	-	-	-	-	-		1.7
14	-	-	-	-	-	15	-	11	-	-		78
15	.1	-	-	2.0	-	-	-	-	-	-		11
16	-	-	-	-	-	-	-	-	-	-		40
17	-	-	-	-	-	1.1	-	-	-	-		171
18	-	-	-	-	-	-	-	-	-	0		15
19	-	-	-	-	1.0	-	-	-	-	-		6
20	-	-	-	-	-	-	-	.7	.1	-		4.5
21	-	-	-	-	-	-	-	-	-	0		1.9
22	1.2	-	-	-	-	-	-	.7	-	-		1.5
23	-	*.3	-	-	-	-	-	-	-	0		1.2
24	-	-	-	-	-	-	-	-	-	-		159
25	-	-	-	-	-	-	-	-	-	-		135
26	-	-	-	-	720	2.4	-	-	0	-		21
27	-	-	.8	-	-	-	-	-	-	-		670
28	.8	-	-	-	-	-	.7	-	-	-		502
29	-	-	-	-	-	-	-	-	-	0		171
30	-	-	-	-	-	-	-	-	-	0		30
31	-	-	-	-	-	-	-	-	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January							
February							
March							
April							
May							
June							
July							
August	0	0	0	0	0	0	0
September	2,246.7	870	0	74.9	1.29	1.44	4,460
Water year							

*Result of discharge measurement.

North River at Palmyra, Mo.

Location.- Wire-weight gage, lat. 39°49'5", long. 91°31'10", in SE¼SW¼ sec. 13, T. 58 N., R. 6 W., on U. S. Highway 61 about 1 mile north of Palmyra. Zero of gage is 465.80 feet above mean sea level (general adjustment of 1912).

Drainage area.- 373 square miles.

Records available.- December 1934 to September 1936.

Extremes.- Maximum discharge observed during year, 15,000 second-feet Feb. 26 (gage height, 21.00 feet), from rating curve extended above 8,000 second-feet; no flow July 10 to Sept. 2, Sept. 7-10.
1934-36: Maximum discharge observed, that of Feb. 26, 1936; no flow July 10 to Sept. 2, Sept. 7-10, 1936.
Maximum stage known, about 28.0 feet, from floodmarks, date unknown.

Remarks.- Records poor. Discharge for period of ice effect, Jan. 23 to Feb. 24, computed on basis of one discharge measurement, gage heights, weather records, and records for North Fabius River at Taylor, Mo. Discharge for Sept. 3-6, 11, 12 estimated on basis of records for South Fabius River near Taylor, Mo. Gage read once daily, more often during periods of high water. Discharge for Feb. 25-29 determined from gage height graph based on gage readings. Diversion by city of Palmyra and by Chicago, Burlington & Quincy Railroad about 1,000 feet upstream. Station operated in cooperation with Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	2	33	16	10	380	38	55	8	3		0
2	2	2	28	18	10	282	34	3,700	7	2.5		0
3	2	2	24	17	10	230	37	867	7	2.5		10
4	2	242	22	16	10	213	41	320	7	2		100
5	2	293	18	20	10	198	55	148	6	2		40
6	2	83	19	38	10	137	42	102	6	1.5		10
7	2	61	20	34	10	118	41	82	6	1		0
8	2	39	42	28	10	102	34	65	6	1		0
9	2	71	37	73	10	88	37	50	6	.5		0
10	2	225	30	112	10	82	37	50	5	0		0
11	2	83	20	177	10	320	34	49	5	0		10
12	2	42	18	172	10	264	34	40	6	0		25
13	2	28	16	86	10	264	34	34	6	0		50
14	2	24	18	98	10	128	32	65	6	0		7
15	2	20	24	61	10	95	31	50	5	0		3
16	1.5	19	63	57	10	82	28	34	5	0		14
17	1.5	18	51	51	9	63	24	23	4	0		7
18	1.5	16	39	38	9	58	23	128	4	0		3
19	1.5	15	30	30	10	55	23	67	3	0		32
20	1.5	15	26	28	10	53	21	50	3	0		20
21	2	14	20	24	11	53	21	28	2.5	0		13
22	2	13	18	20	11	51	21	23	5	0		8
23	2	12	15	14	50	50	21	20	4	0		4
24	1.5	11	16	11	1,500	380	20	19	4	0		24
25	1.5	11	16	*11	2,620	148	20	16	3	0		38
26	2	10	15	10	11,000	82	20	16	3	0		8
27	2	17	15	10	4,660	65	21	14	3	0		653
28	2	94	15	10	1,200	57	50	13	2.5	0		1,650
29	2	61	14	10	506	50	42	12	2.5	0		781
30	2	38	14	10	-	43	35	11	2.5	0		380
31	2	-	15	10	-	40	-	10	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	58.5	2	1.5	1.89	0.0051	0.006
November	1,581	293	2	52.7	.141	.16
December	751	63	14	24.2	.065	.07
Calendar year 1935	158,048.5	7,830	1.5	433	1.16	15.77
January	1,310	177	10	42.3	.113	.13
February	21,746	11,000	9	750	2.01	2.17
March	4,231	380	40	136	.365	.42
April	951	55	20	31.7	.085	.09
May	6,161	3,700	10	199	.534	.62
June	143.0	8	2.5	4.77	.013	.01
July	16.0	3	0	.52	.0014	.002
August	0	0	0	0	0	0
September	3,890	1,650	0	130	.349	.39
Water year 1935-36	40,838.5	11,000	0	112	.300	4.07

*Result of discharge measurement.

Bear Creek near Hannibal, Mo.

Location.- Chain gage, lat. 39°42', long. 91°28', in SW¼ sec. 28, T. 57 N., R. 5 W., at bridge on U. S. Highway 36, a quarter of a mile below Chicago, Burlington, & Quincy Railroad bridge and 5½ miles west of Hannibal. Zero of gage is about 569.5 feet above mean sea level (general adjustment of 1929).

Drainage area.- 14 square miles.

Records available.- March 1930 to September 1936, fragmentary (discontinued).

Extremes.- Maximum discharge observed during year, 42 second-feet Nov. 9; maximum gage height observed, 2.87 feet Sept. 28; no flow on many days.
1930-36: Maximum discharge observed, 2,360 second-feet Aug. 1, 1932 (gage height, 12.10 feet); no flow on many days.

Remarks.- Records poor. Discharge estimated, owing to ice effect, Dec. 5, Jan. 29, Feb. 6. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	-	-	-	-		-	-	-	-	-
2		-	0.6	-	-	-		-	-	0.3	-	-
3		-	-	-	-	-		-	-	-	0	0
4		-	-	-	-	1.4		-	-	-	0	-
5		-	.6	-	-	-		-	-	-	-	-
6		-	-	-	0.1	-		-	-	-	-	-
7		-	-	-	-	-		-	-	-	-	-
8		-	-	-	-	-		-	-	-	-	-
9		42	.6	1.0	-	-		-	-	-	-	-
10		-	-	-	-	-		-	-	-	-	-
11		-	-	-	-	-		-	-	-	-	-
12		-	-	-	-	-		-	-	-	0	-
13		1.3	-	-	-	-		-	-	-	-	-
14		-	-	-	-	-		-	-	-	-	-
15		.7	-	-	-	-		-	-	-	-	-
16		-	-	-	-	-		-	-	0	-	-
17		-	-	-	-	-		-	-	-	-	-
18		-	-	-	-	1.0		-	-	0	-	-
19		.8	-	-	-	-		-	-	-	0	-
20		.6	-	-	-	-		-	-	-	-	-
21		-	-	-	-	-		-	-	0	0	-
22		-	-	-	-	-		-	0.3	-	-	-
23		-	-	-	-	-		-	-	-	-	-
24		-	-	-	-	-		-	.3	-	-	-
25		.6	-	-	-	-		-	-	-	-	-
26		-	-	-	-	-		.04	-	-	-	-
27		2.1	-	-	-	-		.4	-	-	-	-
28		-	-	-	-	-		-	-	-	-	23
29		-	-	.2	-	-		-	-	-	-	-
30		-	-	-	-	-		-	-	-	-	-
31		-	-	-	-	-		-	-	-	-	-

Salt River near Shelbina, Mo.

Location.- Water-stage recorder, lat. 39°44', long. 92°1', in SW¼NE¼ sec. 17, T. 57 N., R. 10 W., at bridge on State Highway 15, 3 miles north of Shelbina. Zero of gage is 664.89 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 481 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge during year, 7,040 second-feet Feb. 27 (gage height, 17.40 feet); no flow on many days.
1930-36: Maximum discharge observed, 16,000 second-feet July 1, 1933 (gage height, 22.62 feet); no flow on many days during 1934 and 1936.
Maximum stage known, 23.54 feet, from floodmarks, June 1928 (discharge, 18,000 second-feet).

Remarks.- Records poor. Discharge estimated Jan. 25 to Feb. 23 and for period of ice effect, Jan. 14-20.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	5	124	3.0		452	26	51	6			0
2	1.2	6	81	3.3		247	24	619	5			0
3	.6	8	30	5		211	23	792	5			22
4	.5	89	24	7		217	23	315	4.8			29
5	.7	264	19	10		217	24	140	4.2			4.8
6	.5	162	18	13		178	30	81	3.9			1.0
7	.3	110	21	24		152	34	58	4.2			2.6
8	.6	46	32	30		110	45	50	3.6			1.2
9	.4	36	69	31		98	51	39	3.6			0
10	.3	31	85	29		94	48	31	40			0
11	.1	26	83	23		108	41	29	383			0
12	.2	23	41	22	4	332	38	31	204			0
13	.3	17	30	28		315	33	40	69			0
14	.7	15	28	27		181	31	32	50			14
15	.7	15	30	27		116	30	29	28			58
16	1.0	13	30	28		94	27	27	21			47
17	2.6	12	32	28		76	24	23	18			264
18	2.8	11	39	26		63	23	22	14			131
19	2.8	11	40	25		58	13	20	12			63
20	2.6	12	24	25		55	18	18	11			21
21	2.6	14	18	30		52	16	13	10			80
22	2.6	11	21	21		59	14	11	6			3.6
23	2.6	9	20	15		60	13	8	3.6			2.6
24	3.0	9	14	11	124	69	13	8	2.6			1.4
25	3.3	8	11	7	1,600	74	11	8	1.4			21
26	3.6	10	6	6	5,830	69	11	8	.8			36
27	3.6	71	4.5	5	6,500	59	11	8	.3			989
28	3.9	366	3.9	4.0	3,920	47	15	8	0			3,140
29	4.2	383	3.3	3.0	1,640	39	18	7	0			3,180
30	4.2	224	3.3	3.0	-	33	38	7	0			1,170
31	4.8	-	3.0	3.0	-	30	-	6	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	58.9	4.8	0.1	1.90	0.0040	0.005	117
November	2,017	383	5	67.2	.140	.16	4,000
December	988.0	124	3.0	31.9	.066	.08	1,960
Calendar year 1935	190,109.3	9,690	.1	521	1.08	14.70	377,100
January	522.3	31	3.0	16.8	.035	.04	1,040
February	19,706	6,500	-	680	1.41	1.52	39,090
March	3,965	452	30	128	.266	.31	7,860
April	766	51	11	25.5	.053	.06	1,520
May	2,539	792	6	81.9	.170	.20	5,040
June	915.0	383	0	30.5	.063	.07	1,810
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	9,210.2	3,180	0	307	.638	.71	18,270
Water year 1935-36	40,687.4	6,500	0	111	.231	3.16	80,710

Salt River near Hunnewell, Mo.

Location.- Wire-weight gage, lat. 39°40'5", long. 91°54'10", in SW¼NW¼ sec. 10, T. 56 N., R. 9 W., 1½ miles (revised) below Black Creek and 2 miles west of Hunnewell. Zero of gage is 615.83 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 626 square miles.

Records available.- April 1930 to September 1936.

Extremes.- Maximum discharge observed during year, 9,590 second-feet Feb. 26 (gage height, 18.83 feet); no flow on many days.
1930-36: Maximum discharge observed, 15,400 second-feet July 1, 1933 (gage height, 21.20 feet); no flow on many days during 1933, 1934, 1936.
Maximum stage known, about 21.8 feet, from floodmarks, date unknown.

Remarks.- Records good except those for days of rapidly changing stage and those for periods of ice effect, Dec. 21-30, Jan. 18-27, Feb. 9-22 (computed on basis of one discharge measurement, gage heights, and weather records), which are poor. Gage read once daily below and twice daily above 10 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	10	223	8	4.3	704	50	39	5	0.7		0
2	2.0	11	91	9	5	478	48	1,560	4.1	.8		0
3	1.8	11	44	9	5	382	34	1,660	3.3	.8		0
4	1.7	16	40	9	6	382	27	780	2.8	.6		0
5	1.4	140	26	18	6	326	35	223	2.5	.4		0
6	1.4	354	25	16	5	246	41	122	2.0	0		.4
7	1.4	234	19	16	6	191	41	101	1.9	0		57
8	1.3	223	31	22	6	160	52	63	1.4	0		7
9	1.3	108	33	33	5	140	58	56	1.1	0		4.3
10	1.1	51	72	30	5	140	52	31	18	0		2.5
11	3.6	52	91	27	5	131	51	30	552	0		.2
12	1.7	52	46	27	7	590	40	31	223	0		0
13	1.4	29	34	43	7	412	39	43	56	0		.6
14	1.6	16	24	40	7	382	31	31	28	0		.3
15	1.6	14	70	41	7	140	27	24	13	0		0
16	2.0	14	444	43	7	131	29	23	10	0		0
17	1.3	12	478	46	5	122	20	27	6	0		96
18	1.1	10	212	46	5	82	14	131	6	0		820
19	1.1	9	24	40	5	67	13	48	6	0		382
20	1.1	9	11	34	7	63	13	19	3.8	0		160
21	1.3	9	13	30	7	65	16	13	3.8	0		62
22	1.9	9	13	30	7	80	12	8	3.8	0		26
23	5	9	13	26	980	72	11	8	1.8	0		14
24	6	10	13	16	940	77	11	11	1.3	0		12
25	6	9	10	13	2,050	103	11	6	1.1	0		5
26	6	9	10	10	9,370	75	16	4.6	.9	0		6
27	7	140	8	7	8,500	70	28	8	.8	0		666
28	7	150	7	6	7,500	51	24	6	.8	0		2,500
29	7	478	8	5	1,320	45	23	4.6	.8	0		4,150
30	8	478	8	5	-	43	24	6	.7	0		2,610
31	9	-	9	4.3	-	41	-	5	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	96.4	9	1.1	3.11	0.0050	0.006	191
November	2,676	478	9	89.2	.142	.16	5,310
December	2,150	478	7	69.4	.111	.13	4,260
Calendar year 1935	251,590.6	10,900	1.1	689	1.10	14.96	499,000
January	709.3	46	4.3	22.9	.037	.04	1,410
February	30,789.3	9,370	4.3	1,062	1.70	1.83	61,070
March	5,993	704	41	193	.308	.36	11,890
April	891	58	11	29.7	.047	.05	1,770
May	5,122.2	1,660	4.6	165	.264	.30	10,160
June	961.7	552	.7	32.1	.051	.06	1,910
July	3.3	.8	0	.11	.00018	.0002	6.5
August	0	0	0	0	0	0	0
September	11,581.3	4,150	0	386	.617	.69	22,970
Water year 1935-36	60,973.5	9,370	0	167	.267	3.63	120,900

Salt River near New London, Mo.

Location.- Water-stage recorder, lat. 39°36'44", long. 91°24'30", in NE¼NW¼ sec. 36, T. 56 N., R. 5 W., 250 feet upstream from U. S. Highway 61, 2 miles north of New London. Zero of gage is 477.13 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 2,480 square miles.

Records available.- February 1922 to September 1936.

Average discharge.- 14 years, 1,588 second-feet.

Extremes.- Maximum discharge during year, 36,500 second-feet Feb. 28 (gage height, 22.90 feet, from graph based on gage readings); no flow Aug. 21 to Sept. 1.
1922-36: Maximum discharge, 58,700 second-feet June 21, 1928 (gage height, 28.8 feet, from floodmarks); no flow Aug. 3-14, 1934, Aug. 21 to Sept. 1, 1936.

Remarks.- Records good except those for periods of ice effect, Dec. 22 to Jan. 1, Jan. 18 to Feb. 22, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor.

Rating table, water year 1935-36, except periods of ice effect (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Nov. 3, May 2-7)

0.95	0	2.5	336	15.0	15,400
1.0	.2	2.9	514	18.0	21,700
1.1	1.2	3.4	772	21.0	30,100
1.2	5	4.0	1,120	23.0	36,800
1.3	12	5.0	1,930		
1.5	40	6.5	3,320		
1.7	80	8.0	4,900		
1.9	130	10.0	7,500		
2.2	226	12.0	10,300		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	60	718	69	40	6,530	223	109	69	12	0.2	0
2	22	42	468	80	40	2,640	192	982	60	12	.2	.2
3	22	45	296	80	40	1,580	170	3,620	54	8	.2	315
4	18	676	226	90	40	1,260	163	3,420	44	6	.2	691
5	18	4,060	182	109	40	1,060	199	1,580	40	4.6	.2	296
6	16	4,020	160	154	40	940	316	772	35	3.5	.3	160
7	14	1,730	142	189	40	772	537	491	27	3.5	.5	107
8	14	772	142	192	40	664	514	358	24	3.1	.6	69
9	16	810	223	170	40	560	358	278	24	2.0	.7	49
10	20	560	336	160	40	537	296	219	35	2.0	.6	35
11	22	1,120	296	166	32	491	278	182	27	2.0	.4	26
12	20	1,120	296	192	32	491	260	189	390	2.3	.3	30
13	19	882	260	226	32	998	223	260	514	1.6	.2	47
14	17	491	206	336	32	1,410	192	296	260	1.6	.2	16
15	14	296	189	468	32	882	166	226	226	1.1	.2	12
16	13	216	940	491	32	610	154	173	145	1.1	.2	42
17	16	170	940	514	32	491	133	130	99	1.0	.2	29
18	17	139	537	380	40	380	127	160	71	1.0	.1	22
19	16	122	380	336	40	336	120	166	56	1.6	.1	243
20	14	112	296	260	32	296	104	243	44	1.6	.1	380
21	22	102	192	176	32	260	102	186	37	1.1	0	278
22	23	85	192	130	49	260	99	136	37	1.0	0	166
23	22	78	130	92	239	358	90	127	27	.9	0	117
24	20	71	117	80	1,830	1,580	82	107	22	.7	0	82
25	18	65	104	80	9,540	3,030	80	87	17	.5	0	380
26	19	65	92	69	18,400	1,580	80	80	12	.3	0	514
27	23	109	80	69	30,300	772	80	92	11	.2	0	446
28	30	637	80	69	35,800	491	82	125	11	.2	0	3,990
29	27	1,180	69	58	27,900	380	67	104	10	.2	0	11,400
30	24	998	69	49	-	296	73	85	11	.2	0	8,690
31	38	-	58	40	-	260	-	80	-	.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	617	38	13	19.9	0.0080	0.009	1,220
November	20,633	4,060	42	688	.277	.31	40,920
December	8,416	940	58	271	.109	.13	16,690
Calendar year 1935	898,428	26,500	13	2,461	.992	13.48	1,782,000
January	5,574	514	40	180	.073	.08	11,060
February	124,826	35,800	32	4,304	1.74	1.88	247,600
March	32,195	6,530	260	1,039	.419	.48	63,860
April	5,560	537	67	185	.075	.08	11,030
May	15,063	3,620	80	486	.196	.23	29,880
June	2,439	514	10	81.3	.033	.04	4,840
July	77.1	12	.2	2.49	.0010	.001	153
August	5.7	.7	0	.18	.00007	.00008	11
September	28,632.2	11,400	0	954	.385	.43	56,790
Water year 1935-36	244,038.0	35,800	0	667	.269	3.67	484,100

Crooked Creek near Shelbina, Mo.

Location.- Chain gage, lat. 39°36', long. 92°1', in NW¼SW¼ sec. 33, T. 56 N., R. 10 W., at bridge on State Highway 15, 6 miles south of Shelbina. Zero of gage is 673.64 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 70 square miles.

Records available.- April 1930 to September 1936, fragmentary (discontinued).

Extremes.- Maximum discharge observed during year, 2,660 second-feet Feb. 26 (gage height, 13.68 feet); no flow on many days.
1930-36: Maximum discharge observed, that of Feb. 26, 1936; no flow on many days.

Remarks.- Records poor. Discharge estimated, owing to ice effect, Dec. 31, Jan. 13. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	-	-	-	-
2	0	0.1	-	-	-	-	2.1	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	0
4	-	-	1.0	2.1	-	18	-	14	-	-	0	-
5	0	-	-	-	0.4	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	0	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	3.4	-	-	-	-	3.4	-	-	0	-	-
9	-	41	-	-	-	-	-	-	-	-	-	-
10	0	-	.5	-	-	-	-	-	-	-	-	0
11	-	-	-	1.3	-	11	-	-	-	-	-	-
12	0	-	-	-	.6	-	-	-	-	-	-	-
13	-	-	-	1.0	-	-	2.4	-	-	-	-	-
14	-	-	-	-	-	12	-	-	-	-	-	-
15	-	1.1	-	-	-	-	-	.8	-	-	-	-
16	-	-	-	-	-	-	-	-	.1	0	-	-
17	-	-	-	-	-	4.3	-	-	-	-	-	-
18	-	-	-	-	-	-	-	82	-	-	-	0
19	0	-	7	-	.9	-	-	-	-	-	0	-
20	-	.2	-	-	-	-	-	-	-	-	-	-
21	-	-	-	.4	-	3.2	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	.2	-	-	-	-	-	-	-	0	-	-
24	-	-	-	-	522	-	.9	-	-	-	-	-
25	0	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	2660	-	-	-	0	-	0	72
27	-	-	-	-	384	-	-	-	0	-	-	-
28	-	-	.5	.4	-	-	-	-	-	-	-	107
29	-	17	-	-	-	-	-	-	0	-	-	-
30	-	12	-	-	-	-	1.0	-	-	-	-	-
31	-	-	.5	-	-	-	-	-	-	-	-	-

Davis Creek near Mexico, Mo.

Location.- Chain gage, lat. 39°10'45", long. 91°54'50", in NE¼SE¼ sec. 21, T. 51 N., R. 9 W., at bridge on State Highway 22, 2 miles northwest of Mexico. Zero of gage is 728.93 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 59 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,230 second-feet Mar. 24 (gage height, 10.60 feet); no flow on many days.
1930-36: Maximum discharge observed, 2,820 second-feet May 19, 1931 (gage height, 14.40 feet); no flow on many days.
Maximum stage known, about 17 feet, from floodmarks, date unknown.

Remarks.- Records poor. Discharge estimated, owing to ice effect, Nov. 25, Jan. 4, 6, 8, 11, 18, 19, 29, Feb. 11, 14, 22. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	-	-	-	-	-	-	-	-	-	0	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	0	70	-	-	-	-	-	-	-	-	-	-
4	-	550	-	2	-	-	-	-	0.4	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	2	-	7	-	0.9	.3	-	0	-
7	-	-	-	-	-	-	-	-	-	-	0	-
8	-	-	-	2	-	7	-	-	-	-	0	-
9	-	-	-	-	-	-	2.7	-	-	-	-	-
10	-	-	-	-	-	8	2.7	-	-	-	-	-
11	-	-	-	5	1	12	2.6	-	-	-	-	-
12	-	29	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	7	2.4	-	-	-	-	-
14	-	-	-	-	1	-	-	-	-	-	-	-
15	0	-	-	-	-	-	-	-	-	-	-	-
16	-	-	26	-	-	3.8	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	1	-	-	-	-	-	-	-	-
19	-	-	-	1	-	2.7	-	-	-	-	0	0
20	-	-	-	-	-	3.1	-	-	-	-	0	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	2	-	-	.7	-	-	-	-
23	-	-	-	-	-	-	-	.7	-	0	-	-
24	-	-	-	-	-	1,230	.9	-	-	-	-	-
25	-	1.2	-	-	-	-	.9	-	-	0	-	-
26	-	-	-	-	874	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	.8	0	-	-	182
28	-	-	2.6	-	-	-	-	-	-	-	-	424
29	-	-	-	1	-	7	-	-	-	-	-	-
30	-	-	2.6	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	0	-	-

Youngs Creek near Mexico, Mo.

Location.- Chain gage, lat. 39°18'40", long. 91°58'40", in NW¼SW¼ sec. 5, T. 52 N., R. 9 W., at bridge on State Highway 15, 11 miles north of Mexico.

Drainage area.- 67.4 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,420 second-feet Feb. 26 (gage height, 5.83 feet); no flow on many days.
1930-36: Maximum discharge observed, 3,670 second-feet May 26, 1933 (gage height, 9.89 feet); no flow on many days.
Maximum stage known, about 15.1 feet, from floodmarks, date unknown.

Remarks.- Records poor. Discharge estimated Aug. 1-6, 8-11. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-			-	-		-	-	-		0
2	-	-			-	14		-	-	-		110
3	0	-			-	-		-	-	-		17
4	-	104			-	-		-	-	-		5
5	-	-			-	-		-	-	-		1.7
6	-	-			-	-		-	-	-		.6
7	-	-			-	-		-	-	-		.4
8	-	-			-	-		-	-	-		.3
9	-	-			-	-		-	-	-		.3
10	-	-			-	-		-	-	-		.2
11	-	-			-	-		-	-	-		.1
12	-	-			-	7		-	-	-		0
13	-	-			-	12		0.5	-	-		0
14	-	5			-	10		-	-	-		0
15	-	-			-	-		-	-	-		0
16	-	-			-	3.6		-	-	-		0
17	-	-			-	-		-	-	-		1.0
18	-	1.5			-	-		-	-	-		.8
19	-	-			0.1	1.7		-	-	-		.5
20	-	-			-	-		-	-	-		.3
21	-	-			-	1.7		-	-	-		.2
22	-	-			-	-		-	-	-		.1
23	-	-			-	-		-	-	0		295
24	-	.4			-	178		-	-	-		73
25	-	-			-	-		-	0	-		19
26	-	-			1,420	-		-	-	-		19
27	-				-	4.2		-	0	0		178
28	-	-			-	3.1		-	-	-		1,130
29	-	-			-	-		-	-	0		397
30	-	-			-	-		-	-	-		27
31	-	-			-	-		-	-	-		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January							
February							
March							
April							
May							
June							
July	0	0	0	0	0	0	0
August	2,276.5	1,130	0	75.9	1.13	1.26	4,520
September							
Water year							

Elk Fork of Salt River near Paris, Mo.

Location.- Water-stage recorder, lat. 39°26'25", long. 92°0'5", in SE¼SE¼ sec. 22, T. 54 N., R. 10 W., at bridge on State Highway 15, 2½ miles south of Paris. Zero of gage is 631.24 feet above mean sea level (general adjustment of 1929).

Drainage area.- 262 square miles.

Records available.- April 1930 to September 1936; fragmentary prior to February 1935.

Extremes.- Maximum discharge during year, 9,360 second-feet Feb. 26 (gage height, 12.20 feet); no flow June 24 to July 20, July 26 to Sept. 1.
1930-36: Maximum discharge observed, 10,100 second-feet June 12, 1931 (gage height, 12.50 feet); no flow on many days.
Maximum stage known, 19.1 feet, from floodmarks, date unknown.

Remarks.- Records good except those estimated for period of ice effect, Feb. 16-24, which are poor.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	3.5	20	2.8	2.8	116	12	23	3.2	0		143
2	.2	7	12	3.9	2.8	96	12	137	2.5	0		445
3	.4	10	11	6	2.8	78	12	226	1.4	0		203
4	1.5	389	8	12	2.8	63	12	70	1.2	0		52
5	1.7	605	7	14	2.5	51	57	37	.9	0		26
6	1.2	131	7	16	2.5	39	137	24	.9	0		15
7	1.2	46	7	13	2.3	31	100	18	1.1	0		10
8	1.2	23	7	12	2.6	30	51	15	2.2	0		7
9	1.4	45	10	11	2.2	29	35	12	1.7	0		5
10	1.7	44	11	10	1.8	24	28	10	1.5	0		3.7
11	1.5	25	9	12	2.2	45	25	17	.9	0		2.5
12	1.2	18	9	30	2.3	96	20	65	.6	0		2.3
13	1.0	12	8	80	2.6	84	17	37	.4	0		2.2
14	.8	10	8	108	2.5	46	15	18	.3	0		1.5
15	.7	7	38	57	2.5	34	14	13	.2	0		1.0
16	.7	6	38	30	3	25	12	12	.2	0		1.0
17	.5	5	36	20	3	21	10	9	.1	0		.9
18	.4	4.6	26	14	3	17	9	11	.1	0		.7
19	.4	4.1	17	11	3	15	8	13	.1	0		.6
20	.3	3.7	16	5	3	16	7	8	.1	2.8		.3
21	.7	3.2	10	6	3	16	6	4.8	.1	4.8		.2
22	1.0	2.6	7	5	3	14	6	3.5	.1	2.2		.1
23	1.1	2.6	6	3.7	75	24	6	4.8	.1	.9		2.5
24	1.0	2.6	5	3.2	1,240	98	6	7	0	.5		31
25	.9	2.6	5	3.5	880	93	5	9	0	.1		11
26	1.4	3.2	4	3.2	7,400	63	7	16	0	0		17
27	2.0	38	4	2.8	6,500	34	12	8	0	0		363
28	2.2	62	3	2.8	471	24	17	8	0	0		1,020
29	2.2	51	3	2.8	168	18	25	10	0	0		710
30	2.2	34	2.8	2.8	-	16	11	7	0	0		108
31	2.5	-	2.8	2.5	-	13	-	4.8	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	35.6	2.5	0.2	1.15	0.0044	0.005	71
November	1,600.7	605	2.6	53.4	.204	.23	3,170
December	375.6	38	2.8	11.5	.044	.05	709
Calendar year							
January	505.8	108	2.5	16.3	.062	.07	1,000
February	16,792.2	7,400	1.8	579	2.21	2.38	33,310
March	1,369	116	13	44.2	.169	.19	2,720
April	694	137	5	23.1	.088	.10	1,380
May	857.9	226	3.5	27.7	.106	.12	1,700
June	19.9	3.2	0	.66	.0025	.003	39
July	11.3	4.8	0	.36	.0014	.002	22
August	0	0	0	0	0	0	0
September	3,185.5	1,020	.1	106	.405	.45	6,320
Water year 1935-36	25,429.5	7,400	0	69.5	.265	3.60	50,440

Spencer Creek near Frankford, Mo.

Location.- Chain gage, lat. 39°31', long. 91°21', in SE¼NW¼ sec. 28, T. 55 N., R. 4 W., at bridge on U. S. Highway 61, 80 feet below St. Louis & Hannibal Railway bridge, 800 feet above Plum Creek, and 2½ miles northwest of Frankford. Zero of gage is about 488.6 feet above mean sea level (Missouri State highway data).

Drainage area.- 200 square miles.

Records available.- March 1930 to September 1936, fragmentary (discontinued).

Extremes.- Maximum discharge observed during year, 4,450 second-feet Feb. 26 (gage height, 10.44 feet); no flow on many days.
1930-36: Maximum discharge observed, 12,000 second-feet July 24, 1935 (gage height, 15.50 feet); no flow on many days.
Maximum stage known, about 16.5 feet, from floodmarks, date unknown.

Remarks.- Records poor. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	1.2	-	-	0	-	22	2.5	-	-	0	0
2	-	-	19	-	-	-	-	49	0.1	0	-	-
3	0.3	-	-	3.8	-	118	-	-	-	-	-	0
4	-	2,060	-	-	-	-	-	-	-	-	-	-
5	.2	610	-	-	.2	-	-	-	-	-	-	-
6	-	125	-	-	-	70	92	5	.1	-	-	-
7	-	-	-	-	-	-	-	-	-	0	0	-
8	-	-	-	.6	2.4	-	-	-	-	-	0	-
9	-	35	104	-	-	134	-	2.0	0	0	-	-
10	.5	-	-	-	-	-	26	-	-	-	-	0
11	.5	-	-	35	-	-	-	-	-	-	-	-
12	-	246	-	-	-	-	-	-	-	-	-	0
13	-	-	-	-	2.4	-	-	2.2	0	-	-	-
14	-	-	17	65	-	-	-	-	-	-	0	0
15	-	-	-	-	-	-	11	1.3	-	0	-	-
16	.6	-	232	-	-	-	7	1.0	0	-	-	0
17	-	-	-	-	2.0	-	-	1.6	-	-	-	-
18	-	-	-	20	-	18	-	-	-	0	-	-
19	.6	19	19	-	-	19	-	-	-	-	-	-
20	-	-	-	-	-	-	5	-	0	0	-	-
21	-	-	19	-	-	-	-	-	-	-	0	-
22	-	11	-	-	-	-	-	-	0	-	0	-
23	.5	-	-	4.6	-	14	-	.7	0	-	-	-
24	-	-	-	3.8	-	960	2.2	-	-	-	-	0
25	-	5	-	-	-	-	-	.8	-	-	-	0
26	.7	-	-	-	4,450	-	-	-	0	-	-	-
27	1.2	41	-	-	810	-	4.2	-	-	0	-	-
28	-	-	-	-	-	-	-	-	-	-	-	2,300
29	-	-	-	-	-	-	-	.7	-	-	0	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	0	-	-	-	-	-	-	-	-	-

Peno Creek at Frankford, Mo.

Location.- Chain gage, lat. 39°28'50", long. 91°18'15" (revised), in NW¼SW¼ sec. 1, T. 54 N., R. 4 W., at bridge on U. S. Highway 61, 1 mile southeast of Frankford. Zero of gage is 527.40 feet above mean sea level (general adjustment of 1929).

Drainage area.- 54.2 square miles.

Records available.- March 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 1,730 second-feet Sept. 28 (gage height, 6.40 feet); no flow on many days.
1930-36: Maximum discharge observed, 6,050 second-feet Aug. 1, 1932 (gage height, 13.64 feet); no flow on many days.
Maximum stage known, about 16.8 feet, from floodmarks, date unknown.

Remarks.- Records poor. Discharge estimated, owing to ice effect, Feb. 10, 14, 15, 19, 21, 24. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	-	-	-	3.0	-	8	-	-	-	0	-
2	-	2.8	-	-	-	25	-	11	-	-	-	-
3	0	-	-	-	-	-	-	-	2.8	-	-	-
4	-	712	-	8	-	-	8	-	-	0	-	-
5	0	-	-	-	-	-	-	-	2.5	-	-	0
6	-	-	6	5	-	-	-	7	2.5	-	-	-
7	-	13	7	-	-	11	-	-	-	-	-	-
8	0	-	-	6	3.9	-	10	-	-	-	0	-
9	-	760	-	-	-	-	-	7	1.1	-	-	-
10	-	-	-	-	3	-	-	-	-	-	-	-
11	.4	-	-	10	-	19	11	-	1.4	0	-	0
12	.5	-	6	-	-	-	-	-	-	-	-	0
13	-	26	-	-	-	-	-	-	.6	-	-	0
14	.5	-	6	-	3	14	-	7	-	-	-	0
15	-	-	-	-	2	-	-	-	-	-	0	0
16	-	11	-	8	-	-	8	6	-	-	-	0
17	-	-	-	-	-	-	-	-	-	-	-	0
18	-	-	-	6	-	-	7	-	-	0	-	0
19	.8	6	-	-	1	7	-	-	-	-	-	0
20	-	-	-	-	-	7	6	-	.2	0	-	0
21	-	-	-	5	1	7	-	7	-	-	0	0
22	-	4.8	-	-	-	-	-	-	-	-	0	0
23	-	4.8	-	4.8	-	-	-	6	.2	-	-	0
24	-	-	-	4.8	50	114	-	-	-	-	-	0
25	1.0	-	.4	3.6	-	-	7	-	-	0	-	0
26	1.0	-	-	-	-	-	-	-	0	-	-	0
27	-	-	.4	3.0	-	-	-	-	0	-	-	1,100
28	2.1	-	-	-	-	12	-	7	-	-	-	1,730
29	-	-	-	-	-	-	-	7	0	-	0	33
30	-	10	-	-	41	-	-	-	0	0	-	11
31	-	-	.5	-	-	7	-	-	-	-	-	-

West Fork of Cuivre River near Laddonia, Mo.

Location.- Chain gage, lat. 39°11'45", long. 91°38'50", in SW¼NW¼ sec. 13, T. 51 N., R. 7 W., at bridge on U. S. Highway 54, 3 miles south of Laddonia. Zero of gage is 733.56 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 32 square miles.

Records available.- April 1930 to September 1936 (fragmentary).

Extremes.- Maximum discharge observed during year, 850 second-feet Sept. 28 (gage height, 9.92 feet); no flow on many days.
1930-36: Maximum discharge observed, 2,780 second-feet Aug. 16, 1934 (gage height, 11.44 feet); no flow on many days.
Maximum stage known, about 12.3 feet, from floodmarks, date unknown.

Remarks.- Records poor. Stage-discharge relation affected by ice Nov. 25, Jan. 10, 11, 13. Gage read occasionally.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	-	-	-	0.3	-	0.2	-	-	-	*0	0.5
2	0	-	-	-	-	-	-	-	-	-	*0	169
3	0	-	-	-	.3	-	-	-	-	-	*0	58
4	0	395	0.2	-	-	-	.2	-	0	-	0	1.7
5	-	-	-	-	-	-	-	-	-	-	0	0
6	-	-	-	0.8	-	-	.6	0	-	-	0	*0
7	0	-	-	.7	-	-	-	-	0	-	0	.2
8	0	-	-	-	-	-	-	-	-	-	0	0
9	-	-	5	-	-	-	.2	-	-	-	*0	0
10	0	-	4.6	*.6	-	3.9	-	-	-	-	0	0
11	-	-	-	*.5	-	-	.3	0.1	-	-	0	0
12	0	-	-	-	-	-	-	-	-	-	0	0
13	-	-	.7	*.5	-	-	-	.1	-	-	0	0
14	0	-	.7	-	.1	-	.2	-	-	-	0	0
15	-	-	-	-	-	-	-	-	-	-	0	0
16	0	-	21	-	-	-	.1	-	-	-	*0	0
17	-	-	-	.5	-	-	-	-	-	-	0	0
18	-	-	2.1	.4	-	-	0	-	-	-	0	0
19	-	-	-	-	-	-	-	0	-	-	0	0
20	-	.3	-	-	.1	.6	-	0	-	0	0	*0
21	-	-	.5	-	-	-	0	-	-	-	0	0
22	-	.3	-	-	-	-	-	-	0	-	0	0
23	0	.3	.4	-	-	.3	0	-	-	0	*0	0
24	-	-	-	.3	-	-	0	-	-	-	0	0
25	-	*.2	-	-	-	-	-	-	-	-	0	0
26	.2	-	-	-	730	-	-	-	-	-	0	0
27	-	-	-	-	-	-	0	-	0	-	0	439
28	-	-	-	.3	-	-	-	-	-	-	0	676
29	-	-	-	-	-	-	-	-	-	-	0	169
30	-	-	-	.3	-	.5	-	-	-	-	*0	17
31	-	-	.1	-	-	-	-	-	-	-	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October							
November							
December							
Calendar year							
January							
February							
March							
April							
May							
June							
July							
August	0	0	0	0	0	0	0
September	1,530.4	676	0	51.0	1.59	1.77	3,040
Water year							

*Estimated.

Cuivre River near Troy, Mo.

Location.- Wire-weight gage, lat. 39°0'59", long. 90°59'0", in SE¼ sec. 14, T. 49 N., R. 1 W., at bridge on U. S. Highway 61, 2 miles north of Troy. Zero of gage is 450.48 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 903 square miles.

Records available.- February 1922 to September 1936.

Average discharge.- 14 years, 720 second-feet.

Extremes.- Maximum discharge observed during year, 19,000 second-feet Nov. 5 (gage height, 22.69 feet); no flow Aug. 29.
1922-36: Maximum discharge, 52,600 second-feet May 18, 1929 (gage height, 25.75 feet, from floodmarks, former site and datum); no flow Aug. 29, 1936.

Remarks.- Records fair except those for days of rapidly changing stage and those for period of ice effect, Dec. 26 to Jan. 3, Jan. 20 to Feb. 25 (computed on basis of one discharge measurement, gage heights, and weather records), which are poor. Gage read once daily below and twice daily above 10 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	228	215	46	26	534	112	40	18	2.5	0.3	0.2
2	8	202	165	53	26	470	99	44	20	2.3	.4	982
3	7	1,020	143	60	26	392	83	42	17	2.0	.3	280
4	6	6,120	132	81	22	348	74	45	17	1.8	.4	132
5	6	9,200	128	155	22	293	70	42	12	1.1	.3	63
6	5	1,490	119	165	22	228	67	43	11	1.0	.4	27
7	6	601	115	130	22	202	65	44	12	.7	.4	18
8	6	306	392	146	22	165	75	36	11	.8	.5	13
9	8	7,620	439	143	22	165	77	37	12	.7	.4	14
10	7	5,120	293	190	22	190	74	40	12	.8	.4	14
11	7	2,480	165	165	22	190	68	31	14	.7	.3	10
12	7	2,720	153	155	22	163	63	32	30	.6	.4	7
13	7	781	121	160	22	165	65	33	28	.4	.2	4.5
14	7	439	115	190	22	151	67	31	16	.5	.3	4.1
15	6	306	148	178	22	141	62	28	13	.6	.2	2.7
16	7	240	899	148	22	151	59	29	12	.7	.4	2.9
17	4.5	190	502	137	22	143	60	27	12	.7	.2	2.7
18	6	178	334	119	22	119	62	26	10	.7	.1	2.9
19	6	155	240	60	22	99	54	25	8	.6	.1	2.5
20	6	132	202	60	22	93	53	23	7	.6	.1	2.2
21	7	89	160	68	22	93	54	24	3.9	.6	.1	2.0
22	7	108	123	68	22	87	56	22	8	.4	.1	1.5
23	7	93	106	60	30	85	53	21	3.9	.5	.1	1.6
24	7	93	85	53	470	706	54	20	3.9	.4	.1	1.3
25	8	91	83	40	1,240	899	47	20	3.7	.4	.1	1.5
26	7	83	53	35	7,800	334	42	21	3.3	.4	.1	1.1
27	10	293	46	35	7,440	240	43	36	2.9	.3	.1	12,900
28	26	1,440	46	30	1,900	163	42	29	3.3	.4	.1	14,600
29	18	706	40	30	820	137	40	22	2.9	.3	0	7,080
30	16	334	40	26	-	117	39	22	2.5	.4	.1	1,540
31	17	-	46	26	-	112	-	19	-	.4	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	260.5	26	4.5	8.40	0.0093	0.01	517
November	42,858	9,200	83	1,429	1.58	1.76	85,010
December	5,848	899	40	189	.209	.24	11,600
Calendar year 1935	341,842.5	16,200	4.5	937	1.04	14.06	678,000
January	3,012	190	26	97.2	.108	.12	5,970
February	20,196	7,800	22	696	.771	.83	40,060
March	7,375	899	85	238	.264	.30	14,630
April	1,879	112	39	62.6	.069	.08	3,730
May	954	45	19	30.8	.034	.04	1,890
June	330.3	30	2.5	11.0	.012	.01	655
July	24.3	2.5	.3	.78	.00086	.001	48
August	7.1	.5	0	.23	.00025	.0003	14
September	37,713.7	14,600	.2	1,257	1.39	1.55	74,800
Water year 1935-36	120,457.9	14,600	0	329	.364	4.94	238,900

Des Plaines River at Lemont, Ill.

Location.- Chain gage, lat. 41°40'54", long. 88°0'9", in NW¼ sec. 20, T. 37 N., R. 11 E., at Stephens Street Bridge, a quarter of a mile north of Lemont and 8 miles above confluence with Chicago Sanitary Canal. Zero of gage is 584.10 feet above mean sea level.

Drainage area.- 687 square miles.

Records available.- November 1914 to September 1936.

Average discharge.- 21 years (1915-36), 415 second-feet (not including overflow into Chicago Sanitary Canal).

Extremes.- Maximum discharge observed during year, 4,190 second-feet Sept. 17; maximum gage height observed, 6.11 feet Feb. 27 (ice jam); no flow at various times during July and August.

1915-36: Maximum discharge, 5,520 second-feet Mar. 18, 1919; no flow on various dates.

Remarks.- Records poor. Gage read to hundredths twice daily. Discharge for periods of ice effect, Jan. 23 to Feb. 7, Feb. 16-18, Feb. 23 to Mar. 10, computed on basis of gage heights, weather records, and relation curve to spill at Willow Springs. During high water part of flow spills into Chicago Sanitary Canal at Willow Springs, 7 miles above gage. This overflow, in second-feet, during the year (not included in the table of daily discharge) was as follows:

Feb. 25	56	Mar. 1	118	Mar. 12	184	Sept. 16	1,725
26	608	2	42	13	255	17	1,800
27	730	5	10	14	133	18	1,752
28	455	6	25	15	17	19	1,120
29	267	7	52	Sept. 14	299	20	339
		8	23	15	1,585	21	27

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Sept. 13

2.37	0	3.0	224	4.4	1,470
2.4	.3	3.2	383	4.6	1,660
2.5	4.4	3.4	570	4.8	1,900
2.6	19	3.6	770	5.0	2,170
2.7	57	3.8	980	5.2	2,500
2.8	103	4.0	1,170	5.4	2,870
2.9	160	4.2	1,300		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	66	366	126	80	2,100	492	437	42	21	0	218
2	47	173	342	126	80	1,980	455	512	62	16	0	232
3	27	198	277	137	80	1,900	401	522	89	21	0	270
4	42	410	254	149	80	1,850	383	473	120	21	.9	300
5	47	670	239	160	80	1,950	419	428	154	14	3.7	277
6	38	920	239	166	80	1,970	419	375	143	12	3.7	247
7	30	1,380	270	160	80	2,000	502	325	114	8.1	3.7	186
8	27	1,300	300	149	94	1,960	670	292	98	7.1	2.4	160
9	21	1,090	375	143	103	1,940	660	254	85	5.2	1.6	179
10	19	870	428	143	94	1,910	670	232	89	8.1	2.0	179
11	62	980	401	149	85	1,900	770	205	89	9.5	3.7	173
12	75	980	350	160	85	2,170	820	211	80	24	5.2	325
13	57	1,090	317	173	80	2,680	820	239	62	21	5.2	650
14	52	1,090	300	186	85	2,500	770	205	42	12	16	1,570
15	47	980	317	211	85	2,170	720	166	34	9.5	71	3,180
16	34	770	317	239	80	2,030	660	149	34	5.2	62	3,970
17	27	630	358	224	75	1,660	620	132	27	3.0	47	4,150
18	27	560	333	198	75	1,560	560	120	27	1.6	34	3,970
19	30	531	317	173	75	1,300	492	166	21	.5	24	3,570
20	24	512	285	160	75	1,170	455	143	16	1.6	16	2,780
21	24	531	224	149	71	980	419	114	12	.5	11	2,060
22	38	492	224	149	75	980	383	98	14	0	8.1	1,600
23	38	446	211	140	90	920	350	89	14	0	9.5	1,270
24	30	419	198	130	560	920	333	80	12	0	16	1,100
25	30	383	198	130	1,380	1,040	300	71	12	0	47	920
26	30	383	218	120	2,360	980	285	62	9.5	0	89	840
27	30	350	198	110	2,900	870	270	62	11	.5	126	980
28	24	392	173	100	2,560	770	270	62	12	.2	192	1,350
29	19	455	166	90	2,350	670	308	62	16	0	232	1,430
30	19	392	149	80	-	610	358	62	24	0	300	1,350
31	19	-	137	80	-	551	-	47	-	0	254	-

Monthly discharge in second-feet, of Des Plaines River at Lemont, Ill., 1934-36

Month	Observed					Total flow including Willow Springs diversion		
	Second-foot-days	Maximum	Minimum	Mean		Mean	Per square mile	Run-off in inches
October 1934	263.1	19	2.4	8.49		8.49	0.012	0.01
November	6,312	720	11	210		210	.306	.34
December	11,256	720	109	363		363	.528	.61
Calendar year 1934	22,004.1	720	0	60.3		60.3	.088	1.18
January 1935	17,526	1,780	34	565		565	.822	.95
February	15,604	1,780	103	557		557	.811	.84
March	43,383	2,330	383	1,399		1,411	2.05	2.36
April	21,406	2,170	285	714		715	1.04	1.16
May	32,110	3,280	277	1,036		1,105	1.61	1.86
June	12,314	820	196	410		410	.597	.67
July	10,523	1,090	80	351		351	.511	.59
August	7,389	820	27	235		235	.342	.39
September	2,304	186	14	76.8		76.8	.112	.12
Water year 1934-35	180,650.1	3,280	2.4	495		502	.731	9.90
October 1935	1,109	75	19	35.8		35.8	0.052	0.06
November	19,443	1,380	66	648		648	.943	1.05
December	8,481	422	137	274		274	.399	.46
Calendar year 1935	191,852	3,280	14	526		533	.776	10.51
January 1936	4,610	239	80	149		149	.217	.25
February	13,997	2,900	71	483		556	.809	.87
March	47,991	2,680	551	1,548		1,576	2.29	2.64
April	15,034	820	270	501		501	.729	.81
May	7,395	522	47	206		206	.300	.35
June	1,564.5	154	9.5	52.2		52.2	.076	.08
July	222.6	24	0	7.18		7.18	.010	.01
August	1,586.7	300	0	51.2		51.2	.075	.09
September	89,486	4,150	160	1,316		1,598	2.33	2.60
Water year 1935-36	159,919.8	4,150	0	437		468	.681	9.27

Note.- Records of monthly discharge for water year 1934-35 republished in order to give the total flow including Willow Spring diversion.

Illinois River at Morris, Ill.

Location.- Water-stage recorder, lat. 41°21'15", long. 88°25'43", in NE¼ sec. 9, T. 33 N., R. 7 E., below mouth of Mazon River. Zero of gage is 478.50 feet above mean sea level (general adjustment of 1929).

Records available.- October 1919 to September 1936; January 1903 to December 1904 at station near Monooka.

Average discharge.- 17 years (1919-36), 13,220 second-feet.

Extremes.- Maximum discharge during year, 36,400 second-feet Feb. 27; maximum gage height, 15.21 feet Feb. 25 (affected by ice); minimum daily discharge, 6,610 second-feet June 19, Aug. 13; minimum daily gage height, 5.31 feet June 19.

1919-36: Maximum discharge observed, 62,300 second-feet Apr. 2, 1933 (gage height, 19.1 feet); minimum, 5,120 second-feet Aug. 21, 1929 (gage height, 3.9 feet).

A stage of 26.2 feet occurred in 1831.

Remarks.- Records fair below and good above 10,000 second-feet. Stage-discharge relation affected by ice Dec. 26 to Jan. 5, Jan. 21 to Feb. 25; discharge computed on basis of two discharge measurements, gage heights, weather records and records of flow at Dresden Island. Records include flow diverted from Lake Michigan by Chicago Sanitary Canal. Discharge computed from once daily gage reading furnished by U. S. Weather Bureau Dec. 25 to Jan. 24. The diurnal regulation produced by the Chicago Sanitary District's hydroelectric plant at Lockport causes a daily range in stage at Morris at low water of about 2 feet. The instantaneous gage height rarely goes below 5.0 feet.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 25, Feb. 27 to Sept. 30

5.0	5,920	7.0	10,800	9.0	16,300	13.0	28,800
5.5	7,080	7.5	12,100	10.0	19,300	14.0	32,500
6.0	8,280	8.0	13,400	11.0	22,300	15.0	36,900
6.5	9,530	8.5	14,800	12.0	25,400		

Dec. 26 to Feb. 26

6.0	10,100	11.0	23,200
7.0	12,600	12.0	26,000
8.0	15,100	13.0	29,200
9.0	17,700	14.0	32,800
10.0	20,400	15.0	36,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,530	10,000	10,800	10,000	7,900	28,400	12,400	12,800	8,810	7,000	9,030	8,280
2	8,780	9,780	9,780	9,500	7,800	24,200	11,800	17,800	9,620	6,960	8,280	8,780
3	8,780	10,300	11,300	10,000	8,000	22,300	11,800	22,000	8,400	6,980	8,530	8,040
4	8,280	11,600	10,800	9,800	7,600	20,700	11,300	24,800	8,650	7,560	8,040	8,040
5	8,530	12,100	10,000	9,800	7,700	19,300	12,100	25,400	8,440	7,380	8,530	7,800
6	8,530	12,600	10,500	10,600	7,700	16,000	11,800	24,200	8,520	7,530	8,530	7,800
7	8,530	13,700	10,500	10,100	7,600	15,100	12,400	21,400	8,410	7,470	8,530	9,030
8	8,530	13,700	10,000	11,100	7,800	14,600	11,100	18,100	8,370	8,120	8,280	7,800
9	8,530	13,200	10,300	10,600	7,300	15,100	10,800	16,900	8,430	8,020	7,800	7,560
10	9,280	12,600	11,300	10,100	6,900	14,000	11,300	15,700	8,520	8,450	8,280	7,800
11	8,530	12,400	11,600	10,400	7,800	13,700	11,600	15,100	8,060	8,140	9,040	8,040
12	8,780	12,900	11,600	10,400	7,400	14,600	11,300	13,300	8,240	8,040	7,800	9,540
13	8,780	14,000	12,100	10,600	7,700	14,300	10,800	12,600	8,280	8,300	6,610	10,600
14	8,530	14,000	11,100	10,600	7,400	13,700	10,800	12,000	8,340	8,590	9,350	12,400
15	8,530	13,700	10,300	11,800	7,600	13,200	10,500	11,200	7,990	8,670	7,320	12,700
16	8,530	14,300	9,780	12,100	7,400	13,200	10,300	10,800	8,240	8,100	8,780	16,300
17	9,530	13,200	9,780	12,400	7,200	13,400	10,300	10,900	7,960	8,180	7,560	14,700
18	9,530	12,600	10,800	11,800	7,700	12,400	9,800	11,500	7,900	9,020	9,000	13,000
19	9,530	12,400	11,100	10,800	7,600	12,400	9,940	10,400	6,610	8,500	7,800	11,400
20	9,530	11,800	9,780	10,600	7,500	12,100	9,730	10,400	6,880	8,240	6,840	10,400
21	9,530	12,400	10,800	11,000	7,700	11,800	9,540	9,940	6,840	9,320	8,280	9,700
22	9,780	12,400	10,800	10,400	7,700	11,300	10,200	9,980	7,090	7,560	7,560	9,060
23	9,530	12,400	10,000	9,500	7,700	11,600	10,500	9,980	6,980	8,780	7,320	9,340
24	9,530	11,800	10,300	8,700	12,800	13,400	9,160	9,690	7,030	8,780	8,040	9,150
25	9,530	11,100	10,300	7,800	31,000	14,800	9,480	9,620	7,000	8,530	8,060	8,160
26	9,780	11,800	10,200	7,800	33,600	16,000	9,620	9,420	7,360	8,530	10,100	7,740
27	9,530	11,300	10,300	7,800	35,100	15,100	9,340	9,310	7,140	8,530	8,280	12,300
28	9,780	11,800	10,500	7,800	29,100	14,600	10,300	9,100	6,840	8,280	9,030	10,500
29	9,530	11,100	10,700	7,800	30,600	14,000	10,800	8,870	7,200	8,780	8,280	10,000
30	9,780	11,100	10,500	7,900	-	13,200	11,500	8,420	7,080	8,280	8,280	10,400
31	9,780	-	10,300	7,900	-	11,800	-	8,760	-	8,040	8,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	282,180	9,780	8,280	9,103		
November	368,080	14,300	9,780	12,270		
December	327,920	12,100	9,780	10,580		
Calendar year 1935	5,089,990	34,600	8,280	13,950		
January	307,500	12,400	7,800	9,919		
February	346,900	35,100	6,900	11,960		
March	470,300	28,400	11,300	15,170		
April	322,310	12,400	9,340	10,740		
May	420,390	25,400	8,420	13,560		
June	235,230	9,620	6,610	7,841		
July	252,660	9,320	6,960	8,150		
August	255,440	10,100	6,610	8,240		
September	296,340	16,300	7,560	9,878		
Water year 1935-36	3,885,250	35,100	6,610	10,620		

Illinois River at Peoria, Ill.

Location.- Staff gage, lat. 40°42'8", long. 89°33'52" in NW¼ sec. 2, T. 8 N., R. 8 E., at foot of Grant Street, Peoria, 4½ miles above mouth of Kickapoo Creek. Zero of gage is 428.39 feet above mean sea level (general adjustment of 1929).

Records available.- March 1910 to September 1936, March 1903 to July 1906 at station 3½ miles downstream.

Average discharge.- 26 years (1910-36), 16,510 second-feet.

Extremes.- Maximum discharge observed during year, 37,500 second-feet Mar. 6; maximum gage height observed, 20.00 feet Mar. 5; minimum, 7,120 second-feet July 4 (gage height, 7.80 feet).

1910-36: Maximum discharge, 58,300 second-feet Oct. 9, 1926 (gage height, 25.05 feet); minimum, that of July 4, 1936.

Maximum stage known, 26.6 feet in 1844.

Remarks.- Records good except those for period of ice effect, Dec. 21 to Jan. 4, Jan. 12-18, Jan. 20 to Mar. 1, which were computed on basis of gage heights and weather records and by comparison with records for stations at Morris and Beardstown and are fair. Gage read to half-tenths once daily. Gage-height record furnished by Corps of Engineers, U. S. Army. Discharge determined on basis of slope as obtained by use of an auxiliary staff gage on highway bridge at Pekin, 9.3 miles downstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,110	9,970	15,300	11,100	9,100	30,400	22,500	13,900	12,400	8,000	8,320	8,320
2	8,700	9,970	15,000	11,100	9,000	35,300	21,400	14,700	12,300	8,020	8,320	8,440
3	8,560	10,200	13,700	11,200	9,000	36,200	20,300	15,800	12,700	8,160	8,210	8,800
4	8,680	10,300	14,200	11,500	9,000	36,100	20,800	15,600	12,100	7,120	8,320	8,800
5	8,790	10,600	13,900	11,700	8,900	36,500	20,500	17,100	11,700	7,820	8,210	8,690
6	8,560	11,900	14,100	12,000	8,900	37,500	20,800	19,100	11,700	7,620	8,110	8,330
7	8,670	12,900	14,100	11,400	8,900	34,900	20,400	20,800	11,400	7,620	8,110	8,000
8	8,710	13,600	14,100	11,600	8,900	34,200	19,000	22,500	11,100	7,620	8,220	8,440
9	8,320	13,600	14,100	11,600	8,900	32,600	20,100	22,500	11,000	7,430	8,070	8,650
10	8,900	15,000	14,100	11,800	8,900	31,600	19,300	22,700	11,100	7,720	8,320	8,330
11	8,620	16,300	14,100	11,800	8,900	31,700	18,400	21,600	10,800	7,780	8,210	8,200
12	8,660	16,200	13,600	11,800	8,900	29,800	18,500	22,000	11,000	7,760	8,070	7,530
13	9,020	15,700	14,300	12,200	8,900	30,000	18,700	21,800	10,100	7,910	8,210	7,980
14	8,910	16,500	14,300	12,800	8,900	29,900	17,900	21,200	9,980	7,910	8,060	8,760
15	8,790	17,400	15,000	13,600	8,900	28,000	18,300	20,500	10,400	8,020	8,120	9,520
16	8,790	17,800	14,300	14,000	8,800	28,100	17,400	19,300	9,950	8,170	8,020	12,300
17	8,430	16,800	13,300	14,000	8,800	26,700	17,300	19,400	9,400	8,100	8,210	10,900
18	8,500	17,200	13,500	14,000	8,800	26,500	17,000	19,100	9,970	8,420	8,220	13,700
19	8,790	17,000	13,400	13,300	8,800	25,800	15,600	19,100	9,450	8,220	7,810	14,900
20	8,900	17,000	13,100	12,600	8,900	25,500	15,800	18,700	9,300	8,220	7,960	15,400
21	8,790	17,800	12,000	12,200	8,800	24,200	17,000	17,200	8,880	8,350	7,810	16,000
22	9,220	16,800	11,500	11,500	8,800	22,500	15,700	16,800	8,400	8,360	7,620	15,500
23	9,240	16,100	11,000	11,000	8,800	22,700	15,100	16,200	8,460	8,320	7,960	15,200
24	9,100	15,700	10,900	10,000	8,800	22,100	15,000	16,600	8,110	8,320	7,610	15,500
25	9,590	16,200	11,000	9,300	8,800	22,700	14,200	16,400	7,800	8,010	7,620	14,400
26	9,240	16,600	11,100	9,200	9,300	22,700	14,800	15,400	7,890	8,320	7,220	14,500
27	9,270	14,600	11,400	9,200	10,300	21,400	14,100	15,200	7,890	8,220	8,650	13,800
28	9,400	15,500	11,600	9,200	19,000	23,300	14,100	14,900	7,960	8,420	8,210	14,100
29	9,420	16,200	11,500	9,200	25,300	25,400	13,700	14,200	8,100	8,640	8,440	14,200
30	9,270	15,000	11,400	9,200	-	24,300	14,500	13,200	8,420	8,220	8,440	14,500
31	9,400	-	11,300	9,200	-	22,700	-	13,000	-	8,320	8,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	276,350	9,590	8,320	8,915		
November	446,440	17,800	9,970	14,880		
December	406,200	15,300	10,900	13,100		
Calendar year 1935	6,737,030	40,100	8,200	18,460		
January	354,300	14,000	9,200	11,430		
February	285,900	25,300	8,800	9,859		
March	877,300	37,500	21,400	28,300		
April	528,200	22,500	13,700	17,610		
May	556,500	22,700	13,000	17,950		
June	299,760	12,700	7,800	9,992		
July	249,140	8,640	7,120	8,037		
August	250,880	8,650	7,220	8,093		
September	341,690	16,000	7,530	11,390		
Water year 1935-36	4,874,660	37,500	7,120	13,320		

Illinois River at Beardstown, Ill.

Location.- Staff gage, lat. 40°1'13", long. 90°26'12", in NE¼ sec. 15, T. 18 N., R. 12 W., at highway bridge on State Street, Beardstown, 9½ miles below mouth of Sangamon River. Zero of gage is 419.89 feet above mean sea level (general adjustment of 1929).

Records available.- October 1920 to September 1936.

Average discharge.- 16 years, 23,680 second-feet.

Extremes.- Maximum discharge observed during year, 57,300 second-feet Mar. 5 (gage height, 19.8 feet); minimum, 9,140 second-feet July 8-14 (gage height, 7.4 feet).
1920-36: Maximum discharge observed, 105,000 second-feet Oct. 9, 1926 (maximum gage height, 26.25 feet Oct. 12, 1926); minimum discharge, that of July 8-14, 1936.
Maximum discharge known, about 115,000 second-feet Apr. 4, 1904.

Remarks.- Records good except those for period of ice effect, Dec. 22 to Feb. 27, which were computed on basis of one discharge measurement, gage heights, and weather records and by comparison with records for stations at Peoria and Morris are fair. Gage read to tenths once daily. Gage-height record furnished by the U. S. Weather Bureau.

Rating table, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

7.4	9,140	8.5	12,600	12.0	24,100	18.0	50,000
7.7	10,100	9.0	14,200	14.0	31,700	20.0	60,500
8.0	11,000	10.0	17,400	16.0	40,200		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,000	11,300	18,100	12,000	11,400	*38,900	29,300	16,800	16,400	9,760	9,450	9,450
2	11,000	11,300	17,700	12,400	11,600	*46,600	28,900	*16,400	15,800	9,760	9,450	9,450
3	11,000	11,300	17,700	12,800	11,600	*52,500	28,100	*18,400	15,500	9,760	9,450	9,450
4	10,700	*11,200	17,400	12,800	11,600	*56,900	27,700	19,000	15,200	9,450	9,450	9,760
5	10,700	*12,300	17,100	13,200	11,600	*57,300	27,000	19,700	14,800	9,450	9,450	9,760
6	10,700	*13,200	17,100	13,500	11,600	*57,100	26,600	20,400	14,500	9,450	9,450	9,760
7	10,700	*14,800	17,100	13,500	11,500	*56,800	25,900	21,000	14,200	9,450	9,450	9,760
8	10,400	16,100	17,100	13,700	11,400	56,800	25,200	21,400	13,900	9,140	9,450	9,760
9	10,400	*15,500	16,800	14,000	11,400	55,200	24,800	21,700	13,600	9,140	9,450	9,760
10	10,400	*16,200	16,800	14,400	11,700	53,100	24,100	22,100	13,600	9,140	9,450	9,760
11	10,400	*16,900	16,800	14,400	11,700	51,000	23,600	22,400	13,600	9,140	9,450	9,760
12	10,400	*17,600	16,400	14,400	11,700	48,500	23,100	22,700	13,200	9,140	9,450	9,760
13	10,400	*17,800	16,400	14,800	11,700	46,900	22,700	23,400	13,200	9,140	9,450	*11,000
14	10,400	*18,300	16,400	14,800	11,500	45,400	22,400	23,400	13,200	9,140	9,450	12,000
15	10,400	19,400	16,400	16,300	11,500	43,500	21,700	23,400	12,600	9,450	9,450	12,000
16	10,400	19,700	16,400	16,700	11,500	42,100	21,400	23,400	12,600	9,450	9,450	*11,500
17	10,400	19,700	16,400	16,800	10,800	40,700	21,000	23,100	12,300	9,450	9,450	*12,500
18	10,400	19,700	16,400	16,500	10,000	38,900	20,700	22,700	12,000	9,450	9,450	*14,600
19	10,400	19,700	16,400	16,300	10,000	37,600	20,400	22,400	12,000	9,450	9,450	15,200
20	10,400	19,700	15,800	16,000	10,000	35,800	19,700	22,100	11,600	9,450	9,450	14,800
21	10,400	19,700	14,200	14,800	10,000	34,600	19,400	21,400	11,600	9,450	9,450	14,800
22	10,400	19,400	12,500	13,600	10,000	33,300	19,000	21,000	11,600	9,450	9,450	14,800
23	10,400	19,400	13,000	13,000	10,000	32,500	18,700	20,400	11,300	9,450	9,450	14,800
24	10,400	19,000	12,200	12,500	*10,000	*30,400	18,400	20,000	11,000	9,450	9,450	14,500
25	10,400	19,000	12,000	12,000	*13,000	*30,100	18,100	19,400	10,700	9,450	9,450	14,500
26	10,700	18,700	12,000	11,800	*14,800	30,500	18,100	19,000	10,400	9,450	9,450	14,500
27	10,700	18,700	12,000	11,800	*18,700	30,100	17,700	18,700	10,400	9,450	9,450	*14,200
28	11,000	18,700	12,000	11,800	*24,800	30,500	17,400	18,400	10,400	9,450	9,450	*15,700
29	11,000	18,700	12,000	11,800	*32,000	30,500	17,100	17,700	10,100	9,450	9,450	*17,400
30	11,000	18,400	12,000	11,800	-	30,500	17,100	17,400	9,760	9,450	9,450	19,000
31	11,000	-	12,000	11,400	-	29,700	-	17,100	-	9,450	9,450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	328,400	11,000	10,400	10,590		
November	511,400	19,700	11,200	17,050		
December	472,600	18,100	12,000	15,250		
Calendar year 1935	9,565,100	70,800	10,400	26,210		
January	425,600	16,800	11,400	13,730		
February	369,100	32,000	10,000	12,730		
March	1,304,300	57,300	29,700	42,070		
April	665,500	29,300	17,100	22,180		
May	636,400	23,400	16,400	20,530		
June	381,060	16,400	9,760	12,700		
July	291,710	9,760	9,140	9,410		
August	292,950	9,450	9,450	9,450		
September	373,990	19,000	9,450	12,470		
Water year 1935-36	6,053,010	57,300	9,140	16,540		

*Corrected for backwater from La Moine River.

Kankakee River at Davis, Ind.

Location.- Chain gage, lat. 41°24', long. 86°42', in sec. 13, T. 34 N., R. 3 W., at highway bridge on U. S. Route 30 at Davis, 4 miles east of Hanna. Zero of gage is 665.12 feet above mean sea level.

Drainage area.- 510 square miles.

Records available.- July 1905 to July 1906, April 1931 to September 1936 in reports of U. S. Geological Survey; July 1925 to May 1929 in reports of the Indiana Department of Conservation.

Extremes.- Maximum discharge observed during year, 1,080 second-feet Feb. 27 (gage height, 8.20 feet); minimum, 171 second-feet Aug. 2-4, 8-13.
1925-29, 1931-36: Maximum discharge observed, 1,700 second-feet Dec. 15, 1927 (gage height, 9.50 feet); minimum, 168 second-feet Aug. 5, 6, 13, 14, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 22 to Jan. 1, Jan. 21 to Feb. 25, which were computed on the basis of gage heights, records for stations at Shelby and Momence, and weather records and are poor.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

3.1	171	4.0	302	6.5	742
3.2	184	4.5	387	7.0	840
3.4	212	5.0	468	7.5	940
3.6	241	5.5	558	8.2	1,080
3.8	271	6.0	648		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	271	271	366	290	270	840	434	558	318	271	198	226
2	271	271	366	350	270	761	434	648	350	256	171	241
3	271	666	366	366	260	666	434	920	334	241	171	241
4	271	558	350	400	250	648	434	840	316	241	171	226
5	271	522	350	400	240	594	434	761	318	241	184	212
6	271	451	350	383	240	558	540	685	318	241	184	212
7	271	434	434	366	240	522	540	612	302	226	184	212
8	302	400	504	366	235	504	504	540	302	226	171	212
9	271	400	486	383	230	504	486	522	302	241	171	212
10	271	400	434	366	230	486	486	486	302	226	171	212
11	271	434	434	366	230	504	486	468	286	226	171	198
12	271	522	417	366	230	504	486	468	286	226	171	212
13	271	522	417	400	235	486	451	468	286	226	171	241
14	271	486	400	434	240	486	434	434	286	212	198	241
15	271	451	400	434	240	486	434	417	286	212	212	241
16	271	434	417	434	225	504	400	400	271	212	198	226
17	256	434	417	417	190	486	400	400	271	212	198	226
18	271	400	400	400	180	468	400	383	271	212	212	226
19	271	451	400	383	180	451	383	383	271	212	212	226
20	271	417	400	383	180	451	383	383	271	212	212	226
21	271	400	383	370	180	468	400	366	256	198	198	226
22	271	417	360	350	180	451	400	366	256	198	198	212
23	271	400	330	330	190	451	383	350	256	212	184	212
24	271	417	310	310	230	540	383	366	256	212	184	226
25	271	383	285	290	850	558	366	350	256	198	184	212
26	271	366	300	280	1,060	540	366	350	256	198	212	212
27	271	366	300	275	1,080	504	366	350	256	198	256	241
28	271	366	300	275	1,000	486	434	334	256	198	241	318
29	271	383	300	270	920	468	558	334	241	198	241	286
30	271	383	300	270	-	451	558	334	271	198	226	271
31	271	-	290	265	-	434	-	318	-	198	226	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	8,417	302	256	272	0.533	0.61
November	12,505	558	271	417	.818	.91
December	11,566	504	286	373	.731	.84
Calendar year 1936	168,416	1,200	220	461	.904	12.29
January	10,972	434	265	354	.694	.80
February	10,285	1,080	180	355	.696	.75
March	16,260	840	434	525	1.03	1.19
April	13,197	558	366	440	.863	.96
May	14,594	920	318	471	.924	1.06
June	8,509	350	241	284	.557	.62
July	6,778	271	198	219	.429	.49
August	6,081	256	171	196	.384	.44
September	6,885	318	198	230	.451	.50
Water year 1935-36	126,049	1,080	171	344	.675	9.17

Kankakee River at Shelby, Ind.

Location.- Water-stage recorder, lat. 41°11', long. 87°21', in sec. 35, T. 32 N., R. 8 W., at Chicago, Indianapolis & Louisville Railway bridge 1 mile south of Shelby.

Drainage area.- 1,780 square miles.

Records available.- April 1930 to September 1936 in reports of U. S. Geological Survey: November 1922 to March 1930 in reports of the Indiana Department of Conservation.

Average discharge.- 13 years (1923-36), 1,492 second-feet.

Extremes.- Maximum discharge during year, about 3,700 second-feet Feb. 27, 28 (gage height not determined); minimum, 422 second-feet Aug. 9, 11, 12, 13 (gage height, 1.15 feet).
1922-36: Maximum discharge observed, 5,540 second-feet Dec. 21, 1927 (gage height, 11.40 feet); minimum, 378 second-feet Aug. 4, 5, 1934 (gage height, 0.80 feet).

Remarks.- Records good except those for periods of ice effect or no gage-height record, Oct. 1-12, Dec. 21 to Mar. 9, which were computed on basis of weather records and records for station at Momence and are poor. Discharge determined from chain-gage readings Oct. 19 to Nov. 8, Nov. 10-20.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	670	702	1,160	940	780	3,400	1,600	1,700	932	624	446	559
2	660	702	1,120	970	760	3,300	1,600	2,000	932	624	446	559
3	650	702	1,120	1,000	750	3,200	1,550	2,500	932	611	434	572
4	640	760	1,090	1,070	725	3,150	1,500	2,650	895	598	434	572
5	630	895	1,040	1,100	700	3,100	1,500	2,760	877	585	434	559
6	630	1,130	1,040	1,080	670	3,000	1,600	2,820	860	585	446	546
7	625	1,300	1,140	1,050	680	2,800	1,650	2,820	843	572	446	533
8	625	1,250	1,200	1,070	630	2,600	1,700	2,760	827	559	434	520
9	650	1,160	1,340	1,100	610	2,300	1,700	2,500	827	559	422	520
10	660	1,130	1,480	1,120	600	2,100	1,650	2,200	811	546	434	508
11	660	1,170	1,480	1,150	600	2,000	1,600	1,950	796	533	422	508
12	660	1,300	1,430	1,160	620	1,950	1,600	1,800	765	533	422	533
13	660	1,430	1,340	1,180	630	1,900	1,550	1,750	765	520	422	585
14	660	1,520	1,300	1,200	630	1,850	1,500	1,700	750	520	446	611
15	660	1,560	1,300	1,250	590	1,800	1,450	1,600	736	508	470	611
16	670	1,480	1,300	1,300	570	1,800	1,400	1,500	721	496	483	598
17	670	1,170	1,300	1,280	560	1,800	1,350	1,400	707	496	458	598
18	690	1,340	1,300	1,240	530	1,800	1,300	1,350	693	483	470	585
19	702	1,300	1,300	1,180	500	1,700	1,260	1,300	693	483	546	572
20	702	1,300	1,200	1,110	490	1,700	1,210	1,260	679	483	508	572
21	702	1,300	1,100	1,040	490	1,650	1,210	1,210	665	483	496	559
22	702	1,340	1,070	950	500	1,650	1,210	1,160	652	483	483	559
23	702	1,300	1,050	890	540	1,600	1,210	1,120	652	483	470	546
24	702	1,250	1,020	860	920	1,750	1,210	1,120	638	470	458	546
25	675	1,250	980	840	2,200	1,900	1,160	1,120	638	470	446	533
26	702	1,200	960	850	3,000	2,000	1,120	1,080	624	470	470	533
27	702	1,200	940	860	3,700	2,050	1,120	1,030	624	470	638	585
28	702	1,200	925	870	3,700	1,950	1,210	1,010	611	458	652	707
29	702	1,200	925	870	3,500	1,850	1,350	990	611	458	638	721
30	702	1,160	925	840	-	1,750	1,550	950	624	446	611	707
31	702	-	925	800	-	1,650	-	932	-	446	585	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	20,869	702	625	673	0.382	0.44
November	35,701	1,560	702	1,190	.676	.75
December	35,800	1,480	925	1,155	.656	.76
Calendar year 1935	551,570	3,480	625	1,511	.859	11.66
January	32,220	1,300	800	1,039	.590	.68
February	31,175	3,700	490	1,075	611	.66
March	67,050	3,400	1,600	2,163	1.23	1.42
April	42,620	1,700	1,120	1,421	.807	.90
May	52,042	2,820	932	1,679	.954	1.10
June	22,380	932	611	746	.424	.47
July	16,055	624	446	518	.294	.34
August	14,970	652	422	483	.274	.32
September	17,217	721	508	574	.326	.36
Water year 1935-36	388,099	3,700	422	1,060	.602	8.20

Kankakee River at Momence, Ill.

Location.- Chain gage, lat. 41°9'37", long. 87°39'45", in NE¼ 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 1936.

Average discharge.- 21 years (1915-36) 1,729 second-feet.

Extremes.- Maximum discharge observed during year, 4,900 second-feet Feb. 28; maximum gage height observed, 8.66 feet Feb. 25 (ice jam); minimum, 412 second-feet Aug. 3, 4 (gage height, 1.62 feet).

1905-6, 1915-36: Maximum discharge observed, 14,000 second-feet Jan. 22, 1916, from rating curve extended above 6,500 second-feet: maximum gage height observed, 7.5 feet Jan. 21, 1916 (ice jam): minimum discharge observed, 306 second-feet Sept. 1, 16, 17, 1919 (gage height, 1.37 feet).

Remarks.- Records good. Discharge for periods of ice effect, Dec. 20 to Jan. 14, Jan. 17 to Feb. 27, Mar. 1, 3, 4 computed on basis of records for Kankakee power plant at Kankakee, Ill., one discharge measurement, gage heights, and weather records. Gage read to hundredths twice daily.

Rating table, water year 1935-36 except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

1.6	412	2.1	800	2.8	1,630	3.6	2,980
1.7	478	2.2	900	2.9	1,780	3.8	3,400
1.8	550	2.4	1,120	3.0	1,930	4.0	3,850
1.9	626	2.6	1,360	3.2	2,250	4.2	4,360
2.0	710	2.7	1,490	3.4	2,600	4.4	4,900

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	668	755	1,120	1,000	820	4,000	1,700	1,630	955	588	445	588
2	668	755	1,060	1,070	800	3,400	1,630	2,090	955	588	455	588
3	668	755	1,060	1,100	800	3,750	1,560	2,420	955	588	412	*588
4	668	850	1,010	1,130	750	3,700	1,560	2,600	955	588	412	588
5	626	955	1,010	1,170	730	3,610	*1,600	2,600	900	550	445	550
6	*626	1,120	955	1,180	700	3,610	1,630	2,790	*880	550	445	550
7	626	1,240	1,060	1,190	680	3,400	1,700	2,780	870	550	445	550
8	626	1,240	1,180	1,190	670	3,190	1,700	2,600	*860	550	445	550
9	626	1,240	1,240	1,190	640	2,790	1,700	2,600	850	550	412	514
10	668	1,240	1,300	1,190	630	2,420	1,700	2,420	850	550	445	514
11	668	1,240	1,360	1,170	620	2,250	1,630	2,250	850	514	445	550
12	668	1,300	1,360	1,180	670	2,090	1,630	2,090	800	514	445	550
13	668	1,360	1,300	1,220	730	2,090	1,560	1,930	755	514	412	588
14	668	1,420	1,300	1,250	660	1,930	1,560	1,780	755	514	478	626
15	668	1,490	1,300	1,300	620	1,930	1,490	1,700	*755	514	445	636
16	668	1,420	1,240	1,420	600	1,860	1,490	1,630	755	514	*462	668
17	668	1,420	1,240	1,320	500	1,860	1,420	*1,550	710	478	478	626
18	668	1,360	1,240	1,300	550	1,780	1,360	1,420	710	478	478	588
19	710	1,300	1,180	1,270	520	1,780	1,360	1,420	710	478	550	588
20	710	1,300	1,150	1,230	500	1,700	1,240	1,360	668	478	550	550
21	710	1,300	1,200	1,120	500	1,700	1,240	1,300	668	478	550	550
22	710	1,300	1,150	1,000	530	*1,630	1,240	1,240	626	478	514	550
23	755	1,240	1,120	920	580	1,630	1,240	1,240	626	478	478	550
24	710	1,180	1,090	900	1,300	1,860	1,180	1,210	626	478	478	550
25	710	1,180	1,050	880	2,200	1,930	1,120	1,180	626	478	478	550
26	710	1,180	1,000	900	3,000	2,090	*1,150	1,120	626	478	478	550
27	710	1,180	980	940	3,900	2,090	1,180	1,060	626	478	588	*780
28	710	*1,150	960	945	4,900	2,090	1,240	1,060	588	478	668	800
29	755	1,120	950	960	4,630	1,930	1,360	1,010	588	445	668	800
30	710	1,060	950	900	-	1,860	1,420	955	588	445	*630	800
31	710	-	950	850	-	1,860	-	955	-	445	588	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	21,134	755	626	682	0.291	0.34
November	35,650	1,490	755	1,188	.508	.57
December	35,065	1,360	950	1,131	.483	.56
Calendar year 1935	645,674	4,640	600	1,763	.753	10.23
January	34,375	1,420	850	1,109	.474	.55
February	34,830	4,900	500	1,201	.513	.55
March	73,810	4,000	1,630	2,381	1.02	1.18
April	43,590	1,700	1,120	1,453	.621	.69
May	54,000	2,790	955	1,742	.744	.86
June	22,686	955	588	756	.323	.36
July	15,807	588	445	510	.218	.25
August	15,212	668	412	491	.210	.24
September	18,020	800	514	601	.257	.29
Water year 1935-36	404,179	4,900	412	1,104	.472	6.44

*Computed on basis of weather records.

Kankakee River near Wilmington, Ill.

Location.- Water-stage recorder, lat. 41°20'48", long. 88°11'11", in NW¼ sec. 15, T. 33 N., R. 9 E., 0.4 mile below Prairie Creek and 5 miles downstream from Wilmington, Will County, Illinois. Zero of gage is 511.10 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,250 square miles.

Records available.- February 1935 to September 1936.

Extremes.- Maximum discharge during period February to September 1935, 17,500 second-feet May 9 (gage height, 5.03 feet); minimum, 448 second-feet Sept. 21 (gage height, 1.05 feet).

Maximum discharge during water year 1935-36, 17,500 second-feet May 4; maximum gage height, 9.54 feet Feb. 29 (ice jam); minimum, 204 second-feet Aug. 1 (gage height, 0.79 foot).

1935-36: Maximum discharge, 17,500 second-feet May 9, 1935, and May 4, 1936. Maximum gage height, that of Feb. 29, 1936; minimum discharge, that of Aug. 1, 1936.

Maximum stage known, 16.75 feet in 1883 and 1887.

Remarks.- Records good except those for periods of ice effect, Dec. 4, 5, Dec. 19-31, 1935, Jan. 1-11, Jan. 16-21, Jan. 24 to Mar. 4, 1936, which are fair and were computed on basis of summation of records for stations at Momence and Chebanse, one discharge measurement, gage heights, and weather records. Discharge for June 15-17, July 3-22, Sept. 25, 26, 1935, computed on basis of range lines and summation records for stations at Momence and Chebanse. There is a slight diurnal regulation from power plants upstream at low flows.

Rating table for Feb. 16, 1935, to Sept. 30, 1936 except period of ice effect
(gage height, in feet, and discharge, in second-feet)

9	300	14	960	22	3,240	32	7,380	42	12,500
10	395	15	1,160	24	4,020	34	8,320	44	13,600
11	500	16	1,380	26	4,830	36	9,320	46	14,800
12	620	18	1,940	28	5,660	38	10,300	48	16,100
13	780	20	2,540	30	6,500	40	11,400	50	17,500

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	7,380	6,940	2,780	5,870	3,540	1,580	852
2					-	6,940	6,290	3,060	5,450	3,700	1,490	906
3					-	6,500	5,660	5,460	5,450	4,000	1,460	870
4					-	6,290	5,040	9,570	5,450	4,700	1,460	870
5					-	6,290	4,540	11,400	4,820	5,700	1,550	852
6					-	6,290	4,180	12,000	4,340	6,500	1,600	834
7					-	7,840	3,900	12,500	4,100	6,500	1,660	798
8					-	9,570	3,900	11,400	3,940	5,600	1,580	852
9					-	9,820	4,060	13,900	3,740	5,000	1,490	852
10					-	12,000	4,380	16,800	3,540	4,200	1,550	834
11					-	14,200	5,660	14,800	3,320	3,600	1,340	816
12					-	13,600	7,380	14,200	3,060	3,100	1,200	816
13					-	13,000	8,080	13,900	2,850	2,800	1,060	798
14					-	12,000	8,080	12,200	2,710	2,550	1,000	716
15					-	10,600	7,380	10,600	2,550	2,300	1,000	764
16					9,320	9,320	6,720	9,320	2,700	2,050	1,000	748
17					8,320	8,320	6,080	8,080	4,650	1,830	1,290	764
18					7,380	7,610	5,450	6,940	7,500	1,700	1,200	716
19					6,290	6,720	4,870	6,290	10,900	1,580	1,270	716
20					5,660	6,720	4,380	5,870	11,600	1,510	1,940	668
21					5,120	9,570	4,020	5,240	10,400	1,520	2,090	596
22					4,580	9,570	3,700	4,870	8,400	1,800	1,800	668
23					4,140	10,600	3,510	4,460	7,100	2,240	1,600	684
24					4,180	9,570	3,240	4,100	5,700	2,450	1,360	732
25					11,200	11,400	3,060	3,900	5,300	2,330	1,230	748
26					10,600	12,200	2,880	3,540	5,400	2,540	1,160	748
27					10,100	11,700	2,810	3,240	5,700	2,360	1,060	764
28					8,570	10,900	2,780	3,320	5,450	2,120	960	716
29					-	9,820	2,810	4,950	4,790	1,940	924	780
30					-	8,570	2,810	5,870	4,020	1,770	906	798
31					-	7,840	-	6,290	-	1,690	852	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January	-	-	-	-		-
February 16-28	95,460	11,200	4,140	7,343	1.40	0.68
March	292,750	14,200	6,290	9,444	1.80	2.08
April	144,590	8,080	2,780	4,820	.918	1.02
May	250,850	16,800	2,780	8,092	1.54	1.78
June	160,600	11,600	2,550	5,353	1.02	1.14
July	95,220	6,600	1,510	3,072	.585	.67
August	41,662	2,090	852	1,344	.256	.30
September	23,276	906	596	776	.148	.17
Water year						

ILLINOIS RIVER BASIN

Kankakee River near Wilmington, Ill.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	780	852	1,830	1,390	1,090	15,000	3,900	4,500	1,410	684	319	668
2	780	798	2,150	1,480	1,050	14,000	3,660	6,500	1,410	560	319	764
3	732	906	2,060	1,530	1,030	12,200	3,470	12,500	1,360	652	357	700
4	732	1,160	2,000	1,650	980	10,200	3,280	16,100	1,340	636	366	608
5	668	1,490	1,900	1,730	960	8,820	3,130	16,800	1,340	524	376	608
6	700	2,000	1,800	1,800	940	7,160	3,240	14,800	1,290	668	366	596
7	716	3,320	1,740	1,880	910	6,080	3,430	12,500	1,250	524	328	584
8	748	3,580	1,800	1,930	890	5,450	3,470	10,100	1,200	500	366	608
9	700	3,130	1,970	1,980	870	4,990	3,350	8,080	1,160	536	366	608
10	748	2,640	2,270	2,060	850	4,580	3,200	6,720	1,120	524	376	596
11	764	2,390	2,610	2,220	860	4,260	3,060	5,660	1,060	512	395	512
12	700	2,680	2,610	3,020	890	4,060	2,880	4,830	1,000	490	376	584
13	764	3,350	2,510	3,700	920	3,820	2,740	4,220	1,000	479	386	764
14	764	3,820	2,390	4,220	900	3,580	2,640	3,820	942	479	437	780
15	780	3,820	2,270	4,910	880	3,390	2,510	3,350	906	458	500	906
16	730	3,510	2,210	4,900	850	3,240	2,390	3,060	870	366	437	1,160
17	780	3,170	2,150	4,700	830	3,060	2,210	2,780	816	426	500	1,270
18	764	2,880	2,120	4,300	800	2,950	2,120	2,570	852	406	468	1,080
19	732	2,640	2,000	3,700	770	2,880	2,000	2,390	816	416	458	942
20	780	2,540	1,900	3,100	730	2,810	1,910	2,270	780	395	468	732
21	852	2,390	1,940	2,750	740	2,810	1,880	2,150	764	416	448	652
22	870	2,360	1,830	2,480	800	2,850	1,830	2,000	732	348	366	652
23	834	2,330	1,740	1,910	880	2,880	1,830	1,880	716	426	584	668
24	816	2,270	1,680	1,520	2,250	3,540	1,770	1,860	684	386	524	636
25	816	2,150	1,620	1,240	4,550	5,660	1,720	1,800	684	386	548	652
26	764	2,030	1,550	1,210	7,300	6,940	1,690	1,740	668	376	490	608
27	816	2,030	1,490	1,220	12,000	6,940	1,690	1,690	732	328	608	684
28	834	2,030	1,430	1,210	15,000	6,080	1,800	1,600	560	376	780	1,250
29	888	1,910	1,380	1,220	15,200	5,240	2,200	1,520	620	395	668	1,160
30	852	2,000	1,350	1,170	-	4,710	3,860	1,460	620	366	888	1,340
31	870	-	1,310	1,130	-	4,300	-	1,440	-	328	852	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	24,124	888	668	778	0.148	0.17
November	72,176	3,820	798	2,406	.458	.51
December	59,610	2,610	1,310	1,923	.366	.42
Calendar year						
January	73,260	4,910	1,130	2,363	.450	.52
February	76,720	15,200	730	2,646	.504	.54
March	174,480	15,000	2,810	5,628	1.07	1.23
April	78,860	3,900	1,690	2,629	.501	.56
May	162,690	16,800	1,440	5,248	1.00	1.15
June	28,702	1,410	560	957	.182	.20
July	14,366	684	328	463	.088	.10
August	14,720	888	319	475	.090	.10
September	23,372	1,340	512	779	.148	.17
Water year 1935-36	803,080	16,800	319	2,194	.418	5.67

Iroquois River near Chebanse, Ill.

Location.- Chain gage, lat. 41°0'29", long. 87°48'22", in SW¼ 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 confluence 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 1936.

Average discharge.- 13 years, 1,541 second-feet.

Extremes.- Maximum discharge observed during year, 15,500 second-feet May 4; maximum gage height observed, 15.26 feet Feb. 28 (ice jam); minimum discharge, 12 second-feet Aug. 3, 4 (gage height, 0.64 foot).

1923-36: Maximum discharge observed, 27,000 second-feet May 18, 1933 (gage height, about 18.1 feet); minimum, 11 second-feet Aug. 6-8, 1934 (gage height, 0.59 foot).

Maximum discharge known, about 54,000 second-feet in spring of 1913 (gage height, about 19.6 feet)

Remarks.- Records good. Discharge for period of ice effect, Dec. 19 to Jan. 13, Jan. 20 to Feb. 29, computed on basis of two discharge measurements, gage heights, weather records, and observer's notes. Gage read to hundredths twice daily.

Rating table, water year 1935-36 except periods of ice effect
(gage height, in feet, and discharge, in second-feet)

0.64	18	0.9	69	1.4	265	2.0	558	3.0	1,130	5.0	2,840	9.0	7,950
.7	26	1.0	101	1.6	360	2.2	662	3.5	1,480	6.0	3,940	11.0	11,100
.8	45	1.2	180	1.8	457	2.6	890	4.0	1,890	7.0	5,140	13.0	14,300

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	72	558	260	130	10,100	1,640	2,540	307	59	20	116
2	50	66	584	310	160	8,550	1,560	5,660	270	56	19	94
3	43	84	507	340	160	5,400	1,410	11,100	242	54	18	74
4	47	128	457	400	160	4,060	1,340	13,500	229	54	18	64
5	52	384	408	500	160	3,390	1,270	12,500	216	52	19	64
6	52	1,560	360	550	160	2,740	1,270	10,500	200	50	20	94
7	47	1,980	384	610	160	2,250	1,410	7,950	184	47	23	84
8	52	1,640	408	660	160	1,720	1,410	6,220	172	45	22	72
9	50	1,130	610	680	160	1,480	1,270	4,660	168	43	20	59
10	47	950	830	720	160	1,410	1,130	3,500	164	41	20	54
11	56	830	890	770	160	1,410	1,720	2,640	156	39	20	50
12	59	1,340	830	870	160	1,340	950	2,250	148	37	22	56
13	56	1,800	772	1,150	160	1,270	890	1,800	140	37	20	72
14	56	1,980	636	1,890	160	1,200	830	1,560	136	37	30	97
15	56	1,640	558	2,540	160	1,130	772	1,270	120	35	26	312
16	59	1,270	584	2,440	160	1,010	716	1,070	112	33	25	432
17	56	1,070	584	2,070	160	1,010	662	950	104	33	23	303
18	54	950	584	1,800	160	950	584	830	101	32	22	196
19	47	830	550	1,410	160	950	558	772	101	30	20	140
20	59	772	460	1,080	160	890	507	716	94	30	23	108
21	61	716	470	930	160	890	482	636	87	26	35	80
22	66	716	400	700	160	950	457	558	84	26	54	66
23	66	689	360	450	160	1,010	432	532	78	26	64	56
24	61	636	320	280	750	1,560	408	482	74	26	61	50
25	61	558	300	200	1,900	4,060	384	482	74	26	50	45
26	66	507	280	180	4,500	4,540	384	507	72	23	47	50
27	72	482	270	170	8,500	4,060	384	482	69	23	45	69
28	72	482	250	160	10,200	3,170	1,010	432	66	23	78	136
29	72	457	230	160	9,600	2,440	1,800	384	64	22	128	216
30	72	457	210	160	-	2,250	2,540	360	61	20	140	482
31	72	-	230	160	-	1,890	-	336	-	20	140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,798	72	43	58.0	0.027	0.03
November	26,176	1,980	66	873	.412	.46
December	14,874	890	210	480	.226	.26
Calendar year 1935	559,418	9,500	32	1,533	.723	9.81
January	24,600	2,540	160	794	.375	.43
February	39,130	10,200	160	1,349	.636	.69
March	79,080	10,100	890	2,551	1.20	1.38
April	30,180	2,540	384	1,006	.475	.53
May	97,179	13,500	336	3,135	1.48	1.71
June	4,093	307	61	136	.064	.07
July	1,105	59	20	35.6	.017	.02
August	1,272	140	18	41.0	.019	.02
September	3,791	482	45	126	.059	.07
Water year 1935-36	323,278	13,500	18	883	.417	5.67

Fox River at Algonquin, Ill.

Location.- Water-stage recorder, lat. 42°9'59", long. 88°17'25", in NW¼ sec. 34, T. 43 N., R. 8 E., about 20 feet above Chicago Street Bridge in Algonquin and 400 feet above Crystal Lake outlet. Zero of gage is 729.31 feet above mean sea level.

Drainage area.- 1,364 square miles.

Records available.- October 1915 to September 1936.

Average discharge.- 21 years, 769 second-feet.

Extremes.- Maximum discharge during year, 2,750 second-feet Mar. 16 (gage height, 3.02 feet); minimum, 14 second-feet July 23 (gage height, 0.64 foot).
1915-36: Maximum discharge observed, 8,000 second-feet Mar. 31, 1916 (gage height, 5.3 feet); minimum, 1 second-foot Aug. 23, 1934 (gage height, 0.50 foot).

Remarks.- Records excellent. Discharge occasionally regulated at dam 16 miles above gage.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	142	220	483	301	199	681	1,570	493	108	108	43	154
2	119	213	428	324	192	691	1,480	502	241	125	39	227
3	137	270	493	309	199	746	1,310	521	234	119	39	234
4	125	650	598	309	199	907	1,210	465	220	119	59	213
5	137	848	598	286	192	1,060	1,240	270	213	108	39	192
6	131	919	589	294	179	1,110	1,200	179	206	103	47	173
7	119	895	618	294	179	1,150	1,100	160	234	97	43	241
8	125	836	734	301	179	1,200	1,020	179	241	87	39	286
9	114	734	813	301	173	1,320	1,040	213	234	87	43	309
10	160	779	790	294	173	1,540	1,060	255	255	87	64	294
11	137	872	650	294	173	1,890	1,090	263	263	87	47	309
12	125	872	681	301	173	2,150	1,110	270	241	87	47	419
13	125	802	650	294	179	2,320	1,110	309	206	82	59	639
14	142	757	629	294	179	2,570	1,020	263	173	78	73	979
15	137	746	618	301	185	2,660	1,060	154	199	78	92	1,050
16	119	723	569	309	185	2,750	1,080	108	173	55	82	1,310
17	125	670	521	309	185	2,660	1,080	114	142	51	73	1,480
18	125	589	511	309	185	2,570	1,020	142	154	64	64	1,450
19	119	569	419	278	179	2,480	872	142	148	64	92	1,350
20	125	530	301	270	179	2,480	802	131	154	59	87	1,260
21	125	550	367	278	179	2,400	824	114	148	47	78	1,240
22	142	560	358	278	185	2,320	725	103	137	43	64	1,260
23	131	511	437	255	185	2,230	502	87	137	51	131	1,210
24	125	465	447	241	241	2,120	465	125	119	64	103	1,190
25	119	456	428	255	474	2,100	376	119	108	55	114	1,100
26	125	465	393	270	598	2,070	428	108	108	55	142	1,060
27	119	410	376	270	550	1,830	419	125	125	55	148	1,200
28	148	384	358	255	629	1,810	465	125	125	47	179	1,250
29	137	456	341	234	681	1,830	483	125	108	55	179	1,240
30	131	465	332	206	-	1,780	521	108	131	43	160	1,210
31	148	-	309	199	-	1,600	-	87	-	47	154	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	4,038	160	114	130	0.095	0.11
November	18,216	919	213	607	.445	.50
December	15,839	813	301	511	.375	.43
Calendar year 1935	212,145	2,840	114	581	.426	5.78
January	8,713	324	199	281	.206	.24
February	7,388	681	173	255	.187	.20
March	57,025	2,750	681	1,840	1.35	1.56
April	27,680	1,570	376	923	.677	.76
May	6,359	521	87	205	.150	.17
June	5,285	263	108	176	.129	.14
July	2,307	125	43	74.4	.055	.06
August	2,623	179	39	84.6	.062	.07
September	24,539	1,480	154	818	.600	.67
Water year 1935-36	180,002	2,750	39	492	.361	4.91

Fox River at Dayton, Ill.

Location.- Float gages above and below dam, lat. 41°23'14", long. 88°47'21", in SE¼ 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 1936. November 1914 to February 1925 records collected at Wedron, 4 miles upstream (drainage area, 2,500 square miles).

Average discharge.- 21 years (1915-36), 1,442 second-feet.

Extremes.- Maximum daily discharge during year, 8,950 second-feet Feb. 26; minimum, 147 second-feet July 29, 31.
1925-36: Maximum daily discharge, 14,300 second-feet Apr. 1, 1929; minimum, 1 second-foot Aug. 29, 1934, when wheels were shut down.

Remarks.- Records fair. Daily discharge computed from electrical output of power plant and flow over dam. Records collected by North Counties Hydroelectric Co., under general supervision of U. S. Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	364	378	1,070	677	337	4,060	2,480	921	284	245	152	392
2	378	532	789	616	326	3,760	2,300	1,370	304	282	184	404
3	364	753	838	519	307	3,320	2,310	1,480	331	267	183	472
4	349	1,840	721	759	355	4,770	2,020	1,340	535	244	166	605
5	350	4,290	724	682	339	7,060	2,020	1,310	444	224	153	473
6	349	2,890	1,260	540	307	5,200	2,320	1,110	415	201	167	473
7	323	2,420	1,430	612	326	4,160	2,700	877	402	168	166	349
8	247	2,070	1,540	682	339	6,290	2,300	578	402	185	153	332
9	321	1,960	1,430	634	326	5,400	2,150	536	402	267	166	455
10	332	1,960	1,660	540	272	5,160	2,150	688	472	244	167	473
11	376	2,230	1,340	627	248	5,080	2,150	892	432	287	154	509
12	403	2,880	1,380	636	307	4,710	2,130	871	432	166	153	1,250
13	351	2,650	1,340	566	308	3,990	2,000	964	392	201	166	1,950
14	365	2,260	1,270	564	308	4,370	2,010	880	379	167	269	4,640
15	323	1,960	1,200	833	326	4,010	1,870	740	333	153	201	3,660
16	364	1,880	1,200	634	289	4,370	1,800	704	302	184	267	4,280
17	375	1,820	1,220	612	228	4,370	1,700	559	363	167	184	5,270
18	349	1,580	1,110	542	289	4,050	1,720	714	349	223	166	3,940
19	304	1,640	869	497	308	3,750	1,510	631	321	223	200	3,150
20	321	1,560	325	417	328	3,730	1,370	605	322	184	267	2,750
21	284	1,430	417	393	386	3,720	1,300	514	285	166	184	2,420
22	323	1,350	806	544	310	3,740	1,320	432	225	184	224	2,220
23	348	1,230	605	423	312	3,420	1,300	457	225	153	200	2,060
24	363	1,120	716	356	2,450	3,750	1,040	432	283	166	201	1,940
25	364	1,040	634	354	7,590	3,700	892	408	304	154	244	1,900
26	349	1,100	542	354	8,950	3,440	892	336	268	183	381	1,820
27	334	1,180	516	354	7,150	3,160	783	376	268	194	392	3,140
28	333	1,240	677	308	5,100	2,870	1,070	389	201	167	429	3,140
29	304	1,160	570	338	5,080	2,720	898	364	225	147	414	2,750
30	348	1,080	495	325	-	2,700	915	331	225	167	532	2,440
31	390	-	612	385	-	2,510	-	347	-	147	414	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	10,648	403	247	343	0.133	0.15
November	51,483	4,290	378	1,716	.668	.75
December	29,326	1,660	325	946	.368	.42
Calendar year 1935	566,430	8,560	247	1,552	.604	8.18
January	16,323	833	308	527	.205	.24
February	43,501	8,950	228	1,500	.584	.63
March	127,340	7,060	2,510	4,108	1.60	1.84
April	51,420	2,700	783	1,714	.667	.74
May	22,156	1,480	331	715	.278	.32
June	10,125	535	201	338	.132	.15
July	6,080	282	147	196	.076	.09
August	7,279	532	152	235	.091	.10
September	59,657	5,270	332	1,989	.774	.86
Water year 1935-36	435,338	8,950	147	1,189	.463	6.29

Vermilion River at Lowell, Ill.

Location.- Chain gage, lat. 41°15'18", long. 89°0'49", in SE¼ sec. 8, T. 32 N., R. 2 E., at highway bridge a quarter of a mile northwest of Lowell, La Salle County, and 10 miles above mouth. Zero of gage is 500.90 feet above mean sea level.

Drainage area.- 1,230 square miles.

Records available.- May 1931 to September 1936.

Extremes.- Maximum discharge observed during year, 11,500 second-feet Feb. 25 (gage height, 8.28 feet); minimum, 7.7 second-feet Aug. 25 (gage height, 1.19 feet).
1931-36: Maximum discharge observed, 22,200 second-feet May 12, 1933 (gage height, 10.76 feet); minimum, 5.9 second-feet Aug. 2-4, 1934 (gage height, 1.13 feet).
Highest stage known, about 16 feet during an ice jam.

Remarks.- Records good except those for period of ice effect, Dec. 21 to Feb. 24, which were computed on basis of two discharge measurements, gage heights, observer's notes, and weather records and are fair. Gage read to hundredths twice daily.

Rating table, water year 1935-36 except period of ice effect
(gage height, in feet, and discharge, in second feet)

1.1	5.0	1.8	94	3.0	690	6.5	5,990
1.2	8.0	1.9	123	3.5	1,070	7.0	7,290
1.3	12	2.0	156	4.0	1,590	7.5	8,810
1.4	20	2.2	235	4.5	2,210	8.0	10,500
1.5	31	2.4	330	5.0	3,000	8.5	12,200
1.6	49	2.6	439	5.5	3,870		
1.7	70	2.8	560	6.0	4,880		

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	28	160	80	90	3,510	624	410	149	16	9.2	100
2	18	27	140	95	90	2,670	592	990	136	17	8.4	87
3	17	80	135	110	90	1,950	560	1,950	123	15	8.4	51
4	16	320	133	125	90	1,590	529	2,670	111	14	8.4	38
5	16	624	149	140	80	1,260	529	2,360	106	14	9.6	31
6	16	725	126	155	80	990	560	1,830	100	13	11	45
7	18	624	167	145	80	830	592	1,480	89	12	10	62
8	18	468	186	130	80	760	624	910	80	12	10	47
9	19	356	201	125	80	690	592	910	82	12	10	38
10	20	295	214	115	80	657	560	795	82	12	10	29
11	20	510	193	110	80	657	529	657	77	11	12	24
12	20	468	201	115	80	657	498	592	72	11	12	62
13	18	657	206	140	80	624	439	795	66	11	9.6	356
14	17	690	193	210	80	529	410	498	60	11	10	725
15	14	624	193	430	80	498	382	468	55	11	9.6	592
16	12	498	182	510	75	498	356	410	49	10	9.6	795
17	13	439	171	410	75	468	330	382	44	10	9.2	760
18	13	382	163	340	75	439	320	356	38	12	9.2	468
19	13	356	146	270	75	410	295	330	31	15	9.2	382
20	14	320	140	240	80	410	253	325	27	15	9.2	253
21	17	290	130	210	90	382	235	300	22	14	8.4	178
22	16	258	125	195	95	382	227	280	21	13	8.8	117
23	16	227	130	180	95	382	210	262	21	12	8.4	97
24	15	210	120	170	2,000	657	201	248	21	11	8.0	72
25	14	193	120	160	11,200	1,070	193	244	19	10	7.7	60
26	14	186	120	140	5,990	1,830	182	231	19	10	19	66
27	14	210	110	130	9,820	1,590	186	231	18	11	23	30
28	18	214	90	120	5,760	1,160	201	222	18	11	30	1,830
29	22	182	80	110	4,670	990	210	210	18	10	70	2,210
30	26	156	80	105	-	830	266	193	16	10	100	1,830
31	19	-	80	100	-	690	-	167	-	9.2	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	523	26	12	16.9	0.014	0.02
November	10,417	725	27	347	.282	.31
December	4,582	214	80	148	.120	.14
Calendar year 1935	371,591	11,200	12	1,018	.828	11.24
January	5,615	510	80	181	.147	.17
February	41,540	11,200	75	1,426	1.16	1.25
March	30,060	3,510	382	970	.789	.91
April	11,685	624	182	390	.317	.35
May	21,706	2,670	167	700	.569	.66
June	1,770	149	16	59.0	.048	.05
July	375.2	17	9.2	12.1	.0098	.01
August	552.9	100	7.7	17.8	.014	.02
September	11,435	2,210	24	381	.310	.35
Water year 1935-36	140,061.1	11,200	7.7	383	.311	4.24

Bureau Creek at Princeton, Ill.

Location.- Wire-weight gage, lat. 41°22'2", long. 89°28'52", in center of S½ sec. 12, T. 16 N., R. 9 E., on highway bridge 1½ miles west of Princeton.

Drainage area.- 186 square miles.

Records available.- March to September 1936.

Extremes.- Maximum discharge observed during period, 2,240 second-feet Sept. 13 (gage height, 40.68 feet); minimum, 0.1 second-foot July 12, 14 (gage height, 33.14 feet). Maximum stage known, 44.9 feet Oct. 11, 1931.

Remarks.- Records good. Gage read to hundredths once daily to Apr. 19 and twice daily thereafter.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

33.13	0	33.80	29	35.00	226
33.20	.5	33.90	38	35.50	348
33.30	2.1	34.00	50	36.00	483
33.40	5.0	34.20	77	37.00	805
33.50	9.0	34.40	107	38.00	1,170
33.60	14	34.60	142	39.00	1,560
33.70	21	34.80	182	40.00	1,960

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						374	90	59	29	1.5	0.5	8.5
2						374	96	74	32	1.5	.7	6.0
3						348	161	76	28	1.0	.7	80
4						1,960	85	69	26	.7	1.7	27
5						1,250	87	64	22	.7	2.8	14
6						608	133	62	21	.5	1.5	7.6
7						455	161	50	19	.4	1.3	4.6
8						608	161	50	18	.2	1.0	1.7
9						608	152	45	20	.2	.7	1.3
10						640	142	50	19	.2	1.9	.8
11						640	104	48	19	.1	.7	.3
12						455	124	54	15	.1	.7	237
13						297	116	152	14	.2	.5	260
14						260	104	107	10	.1	.7	248
15						215	97	80	9.0	.1	7	133
16						204	87	71	6.4	.2	3.1	1,840
17						182	78	55	7.2	.2	1.0	1,130
18						152	76	172	6.8	.7	.7	374
19						161	63	142	5.6	1.3	.8	260
20						161	69	97	5.0	1.0	2.1	182
21						161	74	78	4.2	.7	1.1	161
22						161	71	66	3.6	.7	1.5	124
23						152	69	56	2.8	.5	9.0	101
24						172	62	53	2.3	1.1	1.3	91
25						161	60	50	2.3	1.3	.7	73
26						152	60	48	1.7	1.0	2.6	80
27						142	58	40	1.3	.7	1.7	193
28						124	64	38	1.3	.7	48	226
29						116	66	34	1.1	.7	18	172
30						105	59	31	1.7	.5	3.1	142
31						85	-	30	-	.7	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	11,483	1,960	85	370	1.99	2.29
April	9,829	161	58	94.3	.507	.57
May	9,101	172	30	67.8	.365	.42
June	354.3	32	1.1	11.8	.063	.07
July	19.5	1.5	.1	.63	.0034	.004
August	112.3	48	.5	3.62	.019	.02
September	6,178.2	1,840	.3	206	1.11	1.24
Water year						

West Bureau Creek at Wyanet, Ill.

Location.- Wire-weight gage, lat. 41°21'54", long. 89°34'8", at northeast corner of sec. 21, T. 16 N., R. 6 E., on highway bridge, half a mile east of Wyanet.

Drainage area.- 83.3 square miles.

Records available.- March to September 1936.

Extremes.- Maximum discharge observed during period, 665 second-feet Mar. 4 (gage height, 34.35 feet); no flow on many days during July and August.
Maximum stage known, 44.5 feet Oct. 11, 1931.

Remarks.- Records good except those below 6 second-feet, which are poor. Gage read to hundredths once daily to April 18 and twice daily thereafter.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

31.34	0	31.8	5.8	32.3	29	32.8	91	33.6	272
31.44	.1	31.9	8.8	32.4	38	32.9	108	33.8	330
31.5	.4	32.0	12	32.5	48	33.0	127	34.0	393
31.6	1.6	32.1	17	32.6	61	33.2	168	34.5	558
31.7	3.4	32.2	22	32.7	75	33.4	217	34.8	665

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						180	33	21	5.3	0.2	0	0.2
2						204	34	26	8.5	.2	0	12
3						457	28	23	6.4	.2	0	7.6
4						665	30	22	5.6	.2	(*)	1.6
5						217	34	21	3.4	.2	(*)	.6
6						146	64	21	8.2	.2	(*)	.1
7						110	62	20	5.1	.2	(*)	(*)
8						136	47	18	3.9	(*)	(*)	(*)
9						136	49	15	4.1	(*)	(*)	(*)
10						127	47	16	10	(*)	(*)	(*)
11						146	48	15	7.3	(*)	(*)	(*)
12						119	40	16	4.8	(*)	0	18
13						77	38	27	3.9	(*)	0	72
14						83	34	15	2.8	(*)	0	23
15						80	32	14	3.4	(*)	0	8.8
16						68	28	12	2.1	(*)	(*)	523
17						58	23	12	1.5	(*)	0	62
18						57	23	14	1.2	(*)	0	28
19						54	23	11	.9	(*)	0	17
20						62	23	10	.8	(*)	(*)	12
21						64	26	8.8	1.2	(*)	(*)	21
22						64	23	8.2	.4	(*)	0	7.9
23						61	22	7.6	.3	(*)	0	5.8
24						67	22	8.5	.3	(*)	0	15
25						56	21	8.2	.2	(*)	0	6.4
26						52	20	8.5	.2	(*)	2.4	7.6
27						51	21	8.2	.2	(*)	4.8	204
28						44	25	7.6	.2	0	12	53
29						40	23	7.0	.2	0	2.8	31
30						38	21	5.6	.2	0	.5	26
31						28	-	5.3	-	0	(*)	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	3,747	665	28	121	1.45	1.67
April	964	64	20	32.1	.385	.43
May	432.5	26	5.3	14.0	.168	.19
June	92.6	10	.2	3.09	.037	.04
July	† 2.71	.2	0	.087	.0010	.001
August	†23.49	12	0	.758	.0091	.01
September	†1,163.98	523	(*)	38.8	.466	.52
Water year						

*Discharge less than 0.1 second-foot.
†Estimated flow on days less than 0.1 second-foot included.

East Bureau Creek near Bureau, Ill.

Location.- Wire-weight gage, lat. 41°20'6", long. 89°22'53", in SW¼SE¼ sec. 30, T. 16 N., R. 10 E., on county road bridge 0.5 mile below Brush Creek and 3½ miles north of Bureau.

Drainage area.- 109 square miles.

Records available.- March to September 1936.

Extremes.- Maximum discharge observed during period, 303 second-feet Mar. 1 (gage height, 39.97 feet); no flow several times during July, August, and September.

Remarks.- Records good except those below 12 second-feet, which are fair, and those for Apr. 17 to June 23, which were computed on basis of records for West Bureau Creek at Wyanet, Bureau Creek at Princeton, and two discharge measurements and are poor. Gage read to hundredths twice daily.

Rating table, water year 1935-36 (gage height, in feet, and discharge, in second-feet)

36.73	0	37.4	15	38.2	66
36.8	.3	37.5	19	38.4	84
36.9	1.3	37.6	24	38.6	104
37.0	3.0	37.7	30	38.8	125
37.1	5.2	37.8	36	39.0	149
37.2	7.8	37.9	43	39.5	220
37.3	11	38.0	50	40.0	303

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						303	41	25	12			0
2						236	42	38	14			11
3						252	39	36	12			3.2
4						252	39	32	11			0
5						162	47	29	10			0
6						120	54	28	10			0
7						104	66	26	11			0
8						104	54	24	10			0
9						104	54	23	10			0
10						104	54	22	11			0
11						109	50	24	10			0
12						99	48	30	8			7.5
13						80	44	49	7			33
14						75	43	35	6			12
15						75	39	27	4			3.6
16						70	36	24	3.5			75
17						62	32	22	3			36
18						58	28	25	3			18
19						58	26	20	2.5			12
20						58	24	19	2.5			7.0
21						58	26	18	2.0			34
22						58	25	17	1.5			9.3
23						58	24	16	1.0			5.2
24						62	24	15	0			5.0
25						54	23	14	0			2.8
26						54	23	14	0			7.5
27						54	24	14	0			94
28						47	26	13	0			50
29						44	24	12	0			36
30						43	23	12	0			29
31						39	-	11	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October						
November						
December						
Calendar year						
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	3,056	303	39	98.6	0.905	1.04
April	1,102	66	23	36.7	.337	.38
May	712	49	11	23.0	.211	.24
June	165.0	14	0	5.50	.050	.06
July	0	0	0	0	0	0
August	0	0	0	0	0	0
September	491.1	94	0	16.4	.150	.17
Water year						

61009 O—38——18

Mackinaw River near Green Valley, Ill.

Location.- Chain gage, lat. 40°26'40", long. 89°38'0", in sec. 15, T. 23 N., R. 5 W., at highway bridge on State Route 24 3 miles north of Green Valley.

Drainage area.- 1,100 square miles.

Records available.- March 1921 to September 1936.

Average discharge.- 15 years, 723 second-feet.

Extremes.- Maximum discharge observed during year, 17,900 second-feet Feb. 27 (gage height, 11.85 feet); minimum, 28 second-feet Aug. 27 (gage height, 0.33 foot).
1921-36: Maximum discharge observed, 21,800 second-feet May 19, 1927 (gage height, 14.2 feet); minimum, 18 second-feet July 8-11, 1934.

Remarks.- Records good. Discharge for period of ice effect, Jan. 23 to Feb. 23, computed on basis of one discharge measurement, gage heights, observer's notes, and weather records. Gage read to hundredths twice daily.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	98	161	92	140	2,280	433	294	166	59	36	76
2	56	144	144	105	130	1,790	433	1,250	166	59	36	64
3	53	105	144	120	120	1,440	405	1,790	157	58	35	65
4	53	433	128	178	115	1,250	380	2,900	148	58	35	66
5	51	1,130	128	274	120	1,190	380	2,500	139	56	37	97
6	51	580	161	215	120	950	405	1,370	130	55	38	122
7	50	380	170	196	120	830	380	1,130	130	54	36	76
8	51	294	234	178	120	780	380	1,010	122	54	35	59
9	51	294	206	178	120	680	357	730	122	53	35	54
10	54	314	196	161	115	680	357	580	122	51	35	48
11	53	294	170	161	115	630	335	540	122	50	35	42
12	52	335	161	178	105	580	335	540	105	49	54	39
13	51	380	161	466	100	540	335	540	105	48	60	1,370
14	51	433	161	630	95	502	314	502	97	47	49	1,930
15	50	380	170	780	90	466	294	433	90	46	42	630
16	49	335	170	830	85	433	274	380	90	44	42	433
17	49	314	161	540	90	405	254	357	83	44	39	1,010
18	49	294	161	405	90	380	244	380	83	43	37	502
19	49	274	152	335	80	357	234	380	76	43	35	290
20	49	254	144	335	75	357	234	334	76	43	157	206
21	51	244	128	314	75	357	244	290	69	41	65	157
22	49	234	128	294	75	357	244	268	69	41	42	130
23	49	215	120	270	80	357	234	258	69	40	39	97
24	47	196	120	240	1,440	405	224	258	67	39	43	148
25	49	187	128	200	4,720	780	215	258	66	83	40	186
26	49	196	120	175	8,040	1,440	215	247	65	51	39	122
27	49	196	105	175	17,000	1,070	215	236	64	43	32	2,580
28	51	196	105	165	9,170	830	215	216	62	41	139	3,170
29	56	206	95	130	6,760	630	244	206	61	39	73	2,660
30	53	178	90	130	-	540	254	196	60	38	69	1,400
31	53	-	90	140	-	502	-	176	-	38	130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,584	56	47	51.1	0.046	0.05
November	9,113	1,130	98	304	.276	.31
December	4,512	234	90	146	.133	.15
Calendar year 1935	336,231	9,170	47	921	.837	11.36
January	8,590	830	92	277	.252	.29
February	49,505	17,000	75	1,707	1.55	1.67
March	25,788	2,280	357	767	.697	.80
April	9,067	433	215	302	.275	.31
May	20,549	2,900	176	663	.603	.70
June	2,981	166	60	99.4	.090	.10
July	1,508	83	38	48.6	.044	.05
August	1,629	157	32	52.5	.048	.06
September	17,829	3,170	39	594	.540	.60
Water year 1935-36	150,655	17,000	32	412	.375	5.09

Money Creek above Lake Bloomington, Ill.

Location.- Water-stage recorder, lat. 40°37'13", long. 88°54'59" in SE¼SW¼ sec. 18, T. 25 N., R. 3 E., 200 feet north of line between sec. 12 and 19, McLean County, and about 1 mile above Lake Bloomington.

Drainage area.- 45 square miles.

Records available.- June 1933 to September 1936.

Extremes.- Maximum discharge during year, 1,440 second-feet Feb. 26 and May 2 (gage height, 7.2 feet); no flow at various times during October, July, and August. 1933-36: Maximum discharge, 1,440 second-feet May 9, 1935, Feb. 26 and May 2,1936 (gage height, 7.2 feet); no flow at various times each summer. Maximum stage known, about 9 or 10 feet.

Remarks.- Records excellent except those for periods of ice effect, Jan. 20-22, Jan. 25 to Feb. 24, which were computed on basis of one discharge measurement, gage heights, weather records,and records of inflow into Lake Bloomington, and are good.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	0	1.6	7.2	4.0	360
.6	.02	1.8	14	4.5	460
.7	.06	2.0	27	5.0	566
.8	.15	2.2	48	5.5	679
.9	.30	2.4	75	6.0	798
1.0	.58	2.6	108	6.2	847
1.2	1.5	3.0	180	6.4	930
1.4	3.3	3.5	270	6.8	1,150
				7.2	1,440

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.04	0.92	7.7	4.6	6.0	96	28	37	12.8	2.0	0	4.9
2	.04	1.1	5.7	4.9	6.0	83	28	813	12.4	1.6	0	14.4
3	.03	1.2	6.5	6.2	6.0	71	24	294	10.2	1.3	0	51
4	.02	26	5.1	8.6	6.7	67	21	182	9.5	.97	0	31
5	.01	47	5.0	8.4	6.0	57	24	144	9.2	.74	0	14.8
6	.01	27	7.0	8.9	5.2	48	34	113	9.2	.51	0	8.9
7	0	16.8	8.4	8.0	4.3	44	21	89	8.9	.35	0	5.3
8	0	12.4	8.9	7.2	4.0	39	18.6	72	8.0	.20	0	3.4
9	.01	11.6	9.2	7.2	3.6	36	18.0	61	7.7	.12	0	2.4
10	.04	14.0	8.0	7.0	3.2	34	18.6	56	8.0	.10	35	1.8
11	.08	19.2	6.0	7.0	2.8	33	17.4	99	7.2	.04	8.2	1.4
12	.10	36	8.0	12.7	3.0	30	16.3	67	6.2	.01	2.1	5.9
13	.12	36	8.0	67	3.9	26	15.8	56	5.3	0	.64	220
14	.08	27	7.7	52	4.0	26	15.3	44	5.1	0	.23	130
15	.04	22	8.0	41	4.0	24	14.4	39	4.6	0	.09	46
16	.04	19.2	7.0	26	4.1	19.9	13.8	35	4.2	0	1.8	47
17	.03	16.8	7.4	23	3.7	18.6	12.4	31	3.8	0	8.1	44
18	.02	15.3	6.7	17.4	3.4	18.0	12.4	34	3.4	0	2.5	24
19	.02	14.8	4.3	12.8	3.0	18.0	12.0	36	3.3	0	.73	15.3
20	.02	14.0	4.8	11.5	2.9	19.2	11.6	26	2.9	0	124	11.2
21	.04	12.8	4.6	10.5	2.9	21	12.8	22	2.5	0	30	8.6
22	.06	10.9	5.1	9.2	2.8	21	11.6	19.9	2.4	0	9.3	6.7
23	.07	9.4	5.7	8.0	8.5	21	10.6	18.6	2.2	0	3.8	5.5
24	.11	9.2	6.0	7.0	350	125	10.6	25	2.2	0	1.8	4.6
25	.11	9.8	4.2	6.5	622	108	10.6	19.9	2.1	0	4.3	3.6
26	.10	9.5	3.1	6.3	1,040	77	10.6	19.2	2.0	0	62	6.6
27	.10	10.9	2.3	6.0	545	61	11.2	17.4	1.9	0	16.7	387
28	.19	10.2	2.8	6.0	157	47	16.3	15.8	1.7	0	138	263
29	.25	6.7	3.5	5.9	122	40	25	14.4	1.4	0	57	113
30	.33	8.0	3.6	5.9	-	36	30	14.0	1.4	0	19.0	71
31	.35	-	4.4	6.0	-	30	-	13.2	-	0	8.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2.46	0.35	0	0.079	0.0018	0.002
November	475.72	47	.92	15.9	.353	.39
December	185.7	9.2	2.3	5.99	.133	.15
Calendar year 1935	18,105.12	966	0	49.6	1.10	14.962
January	418.7	67	4.6	13.5	.300	.35
February	2,936.0	1,040	2.8	101	2.24	2.42
March	1,394.7	125	18.0	45.0	1.00	1.15
April	514.9	30	10.6	17.2	.382	.43
May	2,527.4	813	13.2	81.5	1.81	2.09
June	161.7	12.8	1.4	5.39	.120	.13
July	7.94	2.0	0	.256	.0057	.007
August	533.99	138	0	17.2	.382	.44
September	1,552.3	387	1.4	51.7	1.15	1.28
Water year 1935-36	10,711.51	1,040	0	29.3	.651	8.839

Money Creek at Lake Bloomington, Ill.

Location.- Water-stage recorder in pumping plant above dam, lat. 40°39'38", long. 88°56'12", in SE¼ sec. 1, T. 25 N., R. 2 E., 2.6 miles above mouth, McLean County. Zero of gage is 700.00 feet above mean sea level.

Drainage area.- 61 square miles.

Records available.- October 1930 to September 1936.

Remarks.- Flow regulated by storage in Lake Bloomington (area of lake at level of crest of spillway, 531 acres). Discharge corrected for storage but not for evaporation and seepage and does not include three small diversions. Pumpage record furnished by City of Bloomington. Rainfall record (mean of three gages within basin) furnished by the State Water Survey.

Monthly discharge and rainfall, water year October 1935 to September 1936

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Gain or loss in storage (million gallons)	Adjusted for storage				Rainfall (inches)
				Run-off (million gallons)	Discharge per square mile		Run-off (inches)	
					Million gallons per day	Second-feet		
October	0	91.85	-96.2	-4.35	-0.0023	-0.0036	-0.004	1.13
November	282.1	86.85	+245.1	614.05	.336	.519	.58	5.19
December	76.3	92.97	0	169.27	.090	.138	.16	0.98
Calendar year 1935	14,378.8	1,018.67	-3.6	15,393.87	.691	1.07	14.511	40.21
January	302.4	93.31	+3.6	399.31	.211	.327	.38	1.28
February	2,185.1	105.54	+28.3	2,318.94	1.31	2.03	2.19	1.98
March	698.7	102.31	-24.8	776.11	.410	.635	.73	1.57
April	141.7	88.39	-5.3	224.79	.123	.190	.21	1.29
May	1,403.8	92.37	-1.8	1,494.37	.790	1.22	1.41	4.79
June	.7	94.60	-110.0	-14.70	-.0080	-.012	-.01	.24
July	0	111.07	-202.7	-91.63	-.048	-.075	-.09	1.16
August	0	101.10	+239.8	340.90	.180	.279	.32	6.39
September	1,011.0	94.56	+103.0	1,208.56	.660	1.02	1.14	8.58
Water year 1935-36	6,101.8	1,154.82	+179.0	7,435.62	.333	.515	7.016	34.58

Spoon River at Seville, Ill.

Location.- Wire-weight gage, lat. 40°29'10", long. 90°20'34" in SW¼ sec. 24, T. 6 N., R. 1 E., at highway bridge in Seville, Fulton County. Zero of gage is 467.78 feet above mean sea level.
Drainage area.- 1,600 square miles.
Records available.- July 1914 to September 1936.
Average discharge.- 22 years, 1,017 second-feet.
Extremes.- Maximum discharge observed during year, 16,300 second-feet Feb. 29 (gage height, 24.32 feet); minimum, 12 second-feet Aug. 17 (gage height, 2.67 feet).
1914-36: Maximum discharge observed, 28,900 second-feet Aug. 22, 1924 (gage height, 30.5 feet), from rating curve extended above 18,000 second-feet; minimum, 3.8 second-feet July 31, Aug. 27-29, 1914 (gage height, 1.35 feet).
Remarks.- Records good. Discharge for period of ice effect, Dec. 21 to Feb. 25, computed on basis of two discharge measurements, gage heights, weather records, and observer's notes. Gage read to hundredths twice daily.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 29

3.3	77	4.8	400	12.0	4,370
3.4	93	5.2	554	14.0	5,750
3.6	127	5.6	722	16.0	7,200
3.8	164	6.0	897	18.0	8,680
4.0	203	7.0	1,380	20.0	10,200
4.4	288	8.0	1,920	22.0	12,200
		10.0	3,070	24.0	15,600

Mar. 1 to Sept. 30

2.6	9
2.7	13
2.8	19
3.0	34
3.2	55
3.4	83
3.6	117
3.8	156
4.0	198
4.4	288

Same as previous table above gage height 4.4 feet.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	193	454	280	205	11,100	554	368	187	50	15	80
2	118	164	454	310	205	8,380	554	852	187	50	14	146
3	108	1,230	384	360	205	3,320	596	1,280	187	43	13	86
4	96	4,910	368	500	205	3,130	554	1,090	176	44	13	63
5	90	5,540	384	510	200	3,200	596	680	166	41	17	77
6	83	2,420	384	560	180	2,600	722	596	156	40	20	94
7	83	1,280	554	470	180	1,870	765	514	156	38	19	65
8	83	765	596	420	190	1,700	680	474	146	38	18	53
9	85	1,090	554	420	205	1,650	638	454	176	34	18	41
10	96	1,490	494	420	205	1,600	596	474	166	31	16	37
11	103	1,090	400	400	200	1,600	596	514	176	28	15	35
12	110	1,190	353	600	200	1,700	554	435	166	28	14	418
13	118	1,280	353	760	200	1,490	554	808	146	29	15	3,070
14	110	990	400	650	200	1,230	514	1,040	130	23	14	1,330
15	174	852	400	790	200	1,140	494	596	117	26	13	368
16	203	765	454	700	190	1,040	474	474	110	28	12	7,050
17	136	680	384	600	190	990	418	400	101	20	12	3,130
18	110	638	325	520	190	897	384	384	91	19	19	1,380
19	100	638	312	480	190	852	384	353	86	18	16	596
20	90	638	288	430	190	852	366	338	83	18	1,330	300
21	96	596	320	400	180	897	418	312	71	18	638	198
22	100	514	340	370	180	808	494	288	71	17	220	166
23	100	474	320	350	180	808	454	288	71	15	117	136
24	103	400	300	320	3,950	943	384	276	65	15	83	115
25	103	418	280	300	5,350	943	368	265	62	17	53	99
26	103	454	260	280	10,000	808	368	265	63	37	43	897
27	110	596	230	270	11,900	765	368	265	59	59	36	4,440
28	154	680	220	240	14,800	722	384	242	51	43	31	3,700
29	154	554	220	220	14,800	680	400	231	54	29	27	1,700
30	174	454	230	210	-	638	418	209	53	21	32	943
31	164	-	260	205	-	596	-	198	-	17	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	3,602	203	83	116	0.072	0.08
November	32,983	5,540	164	1,099	.687	.77
December	11,275	596	220	364	.228	.26
Calendar year 1935	565,232	9,820	67	1,549	.968	13.13
January	13,345	790	205	430	.269	.31
February	65,270	14,800	180	2,251	1.41	1.52
March	58,949	11,100	596	1,902	1.19	1.37
April	15,051	680	368	502	.314	.35
May	14,963	1,280	198	483	.302	.35
June	3,529	187	51	118	.074	.08
July	934	59	15	30.1	.019	.02
August	2,956	1,330	12	95.4	.060	.07
September	30,813	7,050	35	1,027	.642	.72
Water year 1935-36	253,670	14,800	12	693	.433	5.90

Brush Creek at Lake Bracken, near Galesburg, Ill.

Location.- Water-stage recorder, lat. 40°51'30", long. 90°20'57", in NE¼ sec. 14, T. 10 N., R. 1 E., at spillway of Lake Bracken Reservoir, 6 miles south of Galesburg, Knox County.
Drainage area.- 9.14 square miles.
Records available.- April 1932 to September 1936.
Remarks.- Records good. Flow regulated by storage in Lake Bracken (area of Lake at level of crest of spillway, 700 feet above mean sea level, 204.4 acres). Discharge corrected for storage and leakage but not for evaporation and seepage. Pumpage and lake-level records furnished by the Chicago, Burlington & Quincy Railroad. Rainfall record (mean of 3 gages within the basin) furnished by the State Water Survey.

Monthly discharge and rainfall, 1932-36

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Gain or loss in storage (million gallons)	Adjusted for storage				Rainfall (inches)
				Run-off (million gallons)	Discharge per square mile			
					Million gallons per day	Second-feet	Run-off (inches)	
April 21-30, 1932...	9.11	8.52	0.00	17.63	0.193	0.298	0.11	0.45
May.....	39.13	28.08	-10.94	56.37	.199	.308	.36	2.79
June.....	87.85	25.25	.00	113.10	.412	.638	.71	5.12
July.....	75.46	27.25	-10.84	91.87	.324	.502	.58	4.10
August.....	197.32	27.56	+21.68	246.56	.870	1.35	1.56	7.70
September.....	15.21	26.44	-16.26	25.39	.095	.143	.16	2.25
The period.....	424.08	143.10	-16.26	550.92	.370	.572	3.48	22.41
October 1932.....	15.82	29.24	+10.26	61.32	0.216	0.335	0.39	3.73
November.....	13.76	30.01	-10.84	32.93	.120	.186	.21	.88
December.....	130.15	35.70	+21.68	187.53	.662	1.02	1.18	3.53
January 1933.....	193.22	34.12	+10.84	238.18	.841	1.30	1.50	2.27
February.....	95.78	29.35	-5.42	119.71	.468	.724	.75	.83
March.....	114.11	27.88	+49.67	191.66	.676	1.05	1.21	2.96
April.....	246.32	26.15	-49.67	222.80	.813	1.26	1.41	2.67
May.....	584.19	26.90	.00	611.09	2.16	3.34	3.85	8.20
June.....	64.82	28.23	-16.26	76.79	.280	.433	.48	2.10
July.....	12.99	30.06	-37.29	5.76	.020	.031	.04	1.49
August.....	.91	29.73	-31.21	-.57	-.0020	-.0031	-.004	2.92
September.....	.82	28.23	-15.61	13.44	.049	.076	.08	3.30
Water year 1932-33	1,472.89	355.60	-67.85	1,760.64	.528	.816	11.096	35.08
October.....	0.83	31.09	-24.92	+7.00	+0.025	+0.038	+0.04	2.03
November.....	.76	30.29	-34.88	-3.83	-.014	-.022	-.02	.41
December.....	.75	31.82	-19.06	+13.51	+.048	+.074	+.09	.96
Calendar year 1933	1,315.50	353.85	-173.81	1,495.54	.448	.694	9.426	30.34
January 1934.....	.72	32.68	-19.06	+14.34	+.051	+.078	+.09	.68
February.....	.60	29.90	-32.69	-2.19	-.0086	-.013	-.01	.48
March.....	.64	31.36	-9.09	+22.91	+.081	+.125	+.14	.88
April.....	.61	28.86	-18.18	+11.29	+.041	+.064	+.07	2.21
May.....	.57	30.39	-39.59	-8.63	-.030	-.047	-.05	.81
June.....	.48	30.86	-34.23	-2.89	-.011	-.016	-.02	3.45
July.....	.45	31.85	-33.09	-.79	-.0028	-.0043	-.005	3.85
August.....	.39	33.61	-44.06	-10.06	-.036	-.055	-.06	2.15
September.....	.43	30.24	+68.88	+99.55	+.363	+.562	+.63	8.62
Water year 1933-34	7.23	372.95	-239.97	+140.21	+.042	+.065	+.895	26.53
October.....	0.44	29.34	-20.68	9.10	0.032	0.050	0.06	1.51
November.....	.41	28.80	+93.69	122.90	.448	.693	.77	5.81
December.....	.66	33.11	+59.53	93.30	.329	.509	.59	.82
Calendar year 1934	6.40	371.00	-28.57	348.83	.105	.162	2.205	31.27
January 1935.....	.78	33.56	+87.51	121.85	.430	.665	.77	1.83
February.....	80.69	29.35	+109.47	219.51	.856	1.35	1.38	2.32
March	281.11	32.09	+10.84	324.04	1.14	1.77	2.04	4.13
April.....	188.53	29.01	-5.42	212.12	.774	1.20	1.34	2.64
May.....	446.96	29.13	.00	476.09	1.68	2.60	3.00	5.31
June.....	322.10	29.13	+10.84	362.07	1.32	2.04	2.28	5.97
July.....	123.08	29.68	-37.95	114.81	.405	.627	.72	2.97
August.....	45.18	29.67	-15.83	59.02	.208	.322	.37	3.52
September.....	2.72	29.57	.00	32.29	.118	.182	.20	3.93
Water year 1934-35	1,492.66	362.44	+292.00	2,147.10	.644	.996	13.52	43.76
October.....	0.90	29.32	-26.01	4.21	0.015	0.023	0.03	1.60
November.....	210.08	29.61	+47.26	286.95	1.05	1.62	1.81	5.81
December.....	86.65	33.96	-5.42	115.19	.407	.629	.73	1.25
Calendar year 1935	1,788.78	364.08	+175.29	2,328.15	.698	1.08	14.67	44.28
January 1936.....	90.22	30.01	+10.84	131.07	.463	.716	.83	1.20
February.....	351.87	35.89	+27.11	414.87	1.57	2.42	2.61	1.90
March.....	153.63	31.43	-32.53	152.53	.538	.833	.96	0.89
April.....	48.44	28.89	+5.42	82.75	.302	.467	.52	1.95
May.....	114.15	29.09	-5.42	137.82	.486	.752	.87	2.84
June.....	2.79	31.05	-42.06	-8.22	-.030	-.046	-.05	0.66
July.....	.85	34.16	-66.10	-31.09	-.110	-.170	-.20	1.38
August.....	.76	35.13	-48.74	-12.85	-.045	-.070	-.08	2.68
September.....	.69	32.77	+14.29	47.75	.174	.269	.30	6.84
Water year 1935-36	1,061.03	381.31	-121.36	1,320.98	.395	.611	8.33	29.00

Note.- Discharge from spillway includes small amount of leakage through the dam.

Sangamon River at Monticello, Ill.

Location.- Chain gage, lat. 40°1'40", long. 88°35'15", in SW¼ sec. 12, T. 18 N., R. 5 E., at Illinois Central Railroad bridge 0.5 mile west of Monticello.

Drainage area.- 550 square miles.

Records available.- February 1908 to December 1912, June 1914 to September 1936.

Average discharge.- 22 years (1914-36), 402 second-feet.

Extremes.- Maximum discharge during year, 7,400 second-feet Feb. 26 (gage height, 14.22 feet, from floodmarks); minimum, 5.6 second-feet Aug. 27 (gage height, 1.90 feet). 1908-12, 1914-36: Maximum discharge observed, 15,400 second-feet Oct. 4, 1926 (gage height, 13.4 feet); minimum, 1 second-foot several times in July and August, 1914, August and September, 1930.

Remarks.- Records good. Discharge for periods of ice effect, Dec. 18 to Jan. 12, Jan. 20 to Feb. 24, computed on basis of two discharge measurements, gage heights, weather records, and observer's notes. Gage read to hundredths twice daily.

Rating tables, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 29						Mar. 1 to Sept. 30			
2.05	10	4.0	105	9.0	890	1.9	3.6	6.0	265
2.2	14	4.5	146	10.0	1,340	2.0	5.0	7.0	395
2.4	20	5.0	199	11.0	1,970	2.2	9.3	8.0	570
2.7	33	6.0	314	12.0	3,130	2.5	20	9.0	830
3.0	47	7.0	448	13.0	4,730	3.0	44	10.0	1,250
3.5	74	8.0	638	14.2	7,400	4.0	101	11.0	1,970
						5.0	171	11.5	2,480

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	38	166	75	73	2,480	381	427	129	19	4.7	16
2	14	38	127	90	73	1,500	339	639	115	18	4.6	20
3	14	38	127	108	73	890	313	1,100	108	17	4.4	27
4	12	71	119	147	73	743	289	1,970	101	16	4.3	13
5	11	400	112	147	73	639	265	2,150	95	14	5.4	115
6	11	726	119	162	72	532	277	1,430	89	12	5.4	95
7	11	830	156	165	72	443	265	930	77	11	4.9	54
8	10	619	210	157	72	411	245	714	77	10	4.6	28
9	12	374	278	173	72	361	235	570	74	9.3	4.4	21
10	14	362	254	185	71	367	225	494	71	8.3	11	16
11	15	416	221	177	70	339	216	443	65	7.6	6.6	12
12	15	726	210	237	70	325	207	443	59	7.3	5.4	10
13	17	830	188	524	70	301	198	411	54	6.6	4.9	42
14	15	830	188	660	68	289	189	367	54	6.3	7.3	89
15	13	638	177	778	67	265	189	325	49	5.9	5.5	83
16	13	600	177	600	67	245	171	289	46	9.0	5.2	68
17	13	387	166	407	66	235	164	265	46	8.0	4.9	56
18	16	350	157	362	66	225	150	265	44	5.7	4.4	34
19	15	326	150	302	65	216	143	245	39	5.4	4.2	23
20	16	314	136	260	65	207	143	235	36	5.2	129	14
21	35	290	133	226	64	245	150	225	34	4.9	18	12
22	35	243	124	180	63	339	143	198	32	4.7	7.6	11
23	31	221	110	143	107	427	143	180	30	4.6	5.4	9.9
24	29	198	100	120	1,100	339	136	171	28	4.3	4.9	9.0
25	27	189	87	113	2,610	930	129	207	26	8.3	4.4	8.5
26	24	183	76	102	4,730	1,250	129	198	24	5.2	4.2	8.0
27	23	138	61	103	6,420	1,500	129	189	22	5.0	3.6	59
28	30	177	60	100	6,420	1,050	255	171	22	4.9	7.3	95
29	30	177	60	95	4,390	685	339	157	20	5.7	9.6	143
30	29	177	66	86	-	570	411	136	19	5.2	15	157
31	31	-	70	80	-	443	-	129	-	4.9	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	696	35	10	19.2	0.035	0.04
November	10,961	830	38	365	.664	.74
December	4,384	278	60	141	.256	.30
Calendar year 1935	153,560	3,130	10	421	.765	10.37
January	7,133	778	75	230	.418	.48
February	27,302	6,420	63	941	1.71	1.84
March	19,111	2,480	207	616	1.12	1.29
April	8,568	411	129	219	.398	.44
May	15,673	2,150	129	506	.920	1.06
June	1,685	129	19	56.2	.102	.11
July	259.3	19	4.3	8.36	.015	.02
August	323.1	129	3.6	10.4	.019	.02
September	1,328.5	157	8.0	44.3	.081	.09
Water year 1935-36	95,323.9	6,420	3.6	260	.473	6.43

Sangamon River at Riverton, Ill.

Location.- Chain gage, lat. 39°50'34", long. 89°32'52", in NE¼ sec. 16, T. 16 N., R. 4 W., at bridge on State Highway 10 in Riverton, 4½ miles below mouth of South Fork. Zero of gage is 508.76 feet above mean sea level.

Drainage area.- 2,560 square miles.

Records available.- February 1908 to December 1912, August 1914 to September 1936.

Average discharge.- 22 years (1914-36), 1,705 second-feet.

Extremes.- Maximum discharge observed during year, 13,300 second-feet Feb. 28 (gage height, 19.38 feet); minimum, 29 second-feet Aug. 14 and 27.
1908-12, 1914-36: Maximum discharge observed, 30,200 second-feet Oct. 4, 1926 (gage height, 32.0 feet, former site and datum), from rating curve extended above 12,000 second-feet; minimum, 3.0 second-feet Oct. 3-15, 1914 (gage height, 6.9 feet, former site and datum).

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Jan. 15, Jan. 24 to Feb. 24 (computed on basis of two discharge measurements, gage heights, weather records and observer's notes), and those for June 17 to Sept. 30, which are fair. Gage read to hundredths twice daily. Some regulation of low-water flow and seasonal storage by municipal reservoir at Decatur.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	90	382	230	260	12,700	2,050	2,090	332	69	45	43
2	47	93	382	245	240	12,500	1,620	2,740	285	67	45	45
3	43	117	357	320	230	11,200	1,410	2,320	254	65	43	56
4	46	141	308	500	230	9,070	1,160	1,930	308	59	41	110
5	44	900	332	560	225	*6,500	1,130	1,850	264	56	43	125
6	46	840	308	580	230	4,070	1,130	1,890	234	52	45	118
7	43	750	308	570	240	2,790	1,100	2,010	207	51	45	133
8	39	780	382	610	250	2,010	930	2,270	190	50	44	133
9	43	870	463	680	240	1,770	870	2,180	190	50	42	149
10	49	1,340	491	740	230	1,580	900	1,770	198	48	38	125
11	54	1,660	491	810	225	1,440	930	1,620	198	48	34	110
12	57	1,810	491	900	230	1,300	780	1,580	296	45	32	95
13	54	1,890	519	1,000	280	1,200	750	1,240	165	47	30	81
14	51	1,690	519	1,100	340	1,200	721	1,200	157	48	29	69
15	49	1,620	519	1,210	340	1,130	691	1,130	149	49	32	58
16	46	1,480	491	1,340	330	1,020	663	992	133	51	50	51
17	42	1,270	463	1,270	320	960	605	810	118	52	47	41
18	37	1,060	435	1,200	315	870	547	750	102	47	60	40
19	43	960	408	870	310	840	547	721	88	49	49	39
20	51	840	382	960	305	840	491	663	88	57	46	35
21	57	780	345	960	300	930	491	605	102	55	46	40
22	68	721	320	780	310	992	519	576	118	46	44	40
23	80	634	295	663	570	1,200	491	519	110	42	41	36
24	71	576	265	590	1,870	3,830	435	491	80	42	42	49
25	65	519	240	510	4,380	4,580	408	491	72	52	41	58
26	57	519	226	455	6,150	3,710	408	491	70	70	37	72
27	65	491	228	410	10,800	3,420	408	605	73	72	30	190
28	72	491	230	370	12,700	2,740	900	547	71	55	30	234
29	82	435	230	334	13,000	2,690	1,240	519	71	47	34	274
30	98	408	233	300	-	2,640	1,620	491	69	44	37	234
31	88	-	230	280	-	2,360	-	408	-	43	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,741	98	37	56.2	0.022	0.03
November	25,775	1,890	90	859	.336	.37
December	11,275	519	226	364	.142	.16
Calendar year 1935	650,682	12,700	37	1,783	.696	9.44
January	21,347	1,340	230	689	.269	.31
February	55,450	13,000	225	1,912	.747	.81
March	104,082	12,700	840	3,357	1.31	1.51
April	25,946	2,050	408	865	.338	.38
May	37,499	2,740	408	1,210	.473	.55
June	4,792	332	69	160	.062	.07
July	1,628	72	42	52.5	.021	.02
August	1,262	60	29	40.7	.016	.02
September	2,883	274	35	96.1	.038	.04
Water year 1935-36	293,680	13,000	29	802	.313	4.27

*Estimated on basis of weather records.

La Moine River at Ripley, Ill.

Location.- Water-stage recorder, lat. 40°1'31", long. 90°37'55", in NE¼ sec. 33, T. 1 N., R. 2 W., at highway bridge a quarter of a mile east of Ripley and 2 miles above Town Branch. Zero of gage is 431.1 feet above mean sea level (general adjustment of 1929).
Drainage area.- 1,310 square miles.
Records available.- March 1921 to September 1936.
Average discharge.- 15 years, 758 second-feet.
Extremes.- Maximum discharge during year, 12,500 second-feet Feb. 28 (gage height, 25.94 feet); minimum, 8.4 second-feet Sept. 12 (gage height, 3.41 feet).
1921-36: Maximum discharge observed, 12,500 second-feet July 25, 1924, and Feb. 28, 1936; maximum gage height, 25.94 feet Feb. 28; minimum, that of Sept. 12, 1936. Maximum known stage, 26.0 feet, date unknown.
Remarks.- Records excellent except those for period of ice effect, Dec. 16 to Feb. 23 (computed on basis of two discharge measurements, gage heights, and weather records), those during backwater from Illinois River, Mar. 1-19 (corrected by a well-defined rating based on 12 discharge measurements, gage heights at Ripley and on Illinois River at Beardstown, and curve of normal fall from Beardstown to mouth of La Moine River), and those below 10 second-feet, which are good.

Rating tables, water year 1935-36 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 28				Feb. 29 to Sept. 30			
3.6	36	10.0	1,630	3.4	8.1	3.0	778
4.0	79	14.0	3,120	3.7	19	10.0	1,380
4.5	147	18.0	4,970	4.0	37	14.0	3,010
5.0	231	22.0	8,200	4.5	91	18.0	4,970
6.0	437	26.0	12,600	5.0	163	22.0	8,200
8.0	1,010			6.0	338	26.0	12,600

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	109	327	125	120	11,200	318	547	65	28	12	10
2	94	104	298	140	120	8,010	298	3,430	61	24	12	15
3	74	161	250	170	120	5,280	308	1,370	56	23	12	34
4	67	1,620	269	360	120	1,980	328	889	54	23	12	15
5	58	2,440	337	350	120	1,560	328	538	53	22	12	10
6	52	2,480	260	360	120	1,310	328	398	50	22	12	9.0
7	49	1,760	288	325	120	1,000	440	328	50	21	12	8.7
8	46	767	347	285	118	853	461	280	47	20	12	8.7
9	44	1,430	358	225	116	828	358	253	47	19	12	8.7
10	47	1,950	337	205	115	803	308	253	64	18	12	8.7
11	48	1,630	*327	210	115	803	298	378	50	17	11	8.4
12	48	1,350	*317	305	114	880	289	318	50	16	11	57
13	53	1,410	*307	1,170	113	853	280	236	53	16	11	1,510
14	56	1,160	*298	1,000	114	709	262	358	55	15	11	578
15	55	800	*278	880	115	617	244	280	48	14	11	182
16	50	621	265	350	115	571	227	199	42	14	12	1,300
17	45	539	250	710	115	527	210	160	39	13	12	2,540
18	42	474	240	630	116	483	197	328	36	13	11	1,140
19	40	424	230	355	115	461	178	189	34	13	11	418
20	37	437	220	290	115	472	170	148	32	13	13	170
21	37	424	205	270	115	472	175	129	29	13	18	102
22	38	358	190	230	115	461	188	113	32	13	11	73
23	36	298	180	210	380	509	227	109	31	12	11	50
24	38	250	170	205	3,250	1,550	213	164	29	12	11	39
25	40	224	155	175	4,380	1,000	175	166	28	12	10	33
26	44	244	145	150	8,130	853	166	105	27	12	10	160
27	49	327	130	130	11,200	571	172	104	28	12	9.6	2,120
28	72	650	120	120	12,400	472	188	95	28	12	9.6	2,520
29	68	695	108	120	11,900	419	202	87	28	12	9.6	2,060
30	74	474	110	120	-	378	218	79	29	12	9.3	812
31	110	-	115	120	-	338	-	72	-	12	9.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,735	120	36	56.0	0.043	0.05
November	25,610	2,480	104	854	.652	.73
December	7,431	358	108	240	.183	.21
Calendar year 1935	454,704	9,080	36	1,246	.951	12.91
January	10,775	1,170	120	348	.266	.31
February	54,205	12,400	113	1,869	1.43	1.54
March	46,223	11,200	338	1,491	1.14	1.31
April	7,754	461	166	258	.197	.22
May	12,103	3,430	72	390	.298	.34
June	1,275	65	27	42.5	.032	.04
July	498	28	12	16.1	.012	.01
August	352.4	18	9.3	11.4	.0087	.01
September	15,998.2	2,540	8.4	533	.407	.45
Water year 1935-36	183,959.6	12,400	8.4	503	.384	5.22

*Estimated.

Kaskaskia River at Vandalia, Ill.

Location.- Chain gage, lat. 38°57'35", long. 89°5'20", in SE¼ sec. 16, T. 6 N., R. 1 E., at Gallatin Street Bridge, Vandalia, 3½ miles above Hickory Creek. Zero of gage is 453.30 feet above mean sea level.

Drainage area.- 1,980 square miles.

Records available.- February 1908 to December 1912, August 1914 to September 1936.

Average discharge.- 22 years (1914-36), 1,372 second-feet.

Extremes.- Maximum discharge observed during year, 7,290 second-feet Mar. 26 (gage height, 19.33 feet); minimum, 10 second-feet Sept. 16 (gage height, 1.51 feet). 1908-12, 1914-36: Maximum discharge observed, 20,000 second-feet Oct. 4, 1926; maximum gage height, 25.0 feet, present datum, June 5, 1917); minimum discharge observed 3.5 second-feet Aug. 22, 1911.

Remarks.- Records good except those for periods of ice effect, Dec. 25 to Jan. 11, Jan. 19 to Feb. 25, which were computed on basis of two discharge measurements, weather records, and records for Embarrass River at Ste. Marie. Gage read to hundredths twice daily.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 11						Nov. 12 to Sept. 30			
2.0	38	5.0	488	14.0	3,710	1.5	10	3.0	140
2.5	66	6.0	740	16.0	4,690	1.7	15	4.0	296
3.0	107	8.0	1,330	17.0	5,230	2.0	36	5.0	500
3.5	172	10.0	1,950	18.0	5,850	2.5	81	7.0	1,030
4.0	263	12.0	2,780	19.1	7,000	Same as previous table above gage height 7.0 feet.			

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	78	196	110	140	5,520	1,670	1,950	296	66	40	13
2	48	66	196	120	150	4,740	1,450	1,480	278	62	34	18
3	46	66	175	200	150	4,490	1,240	1,360	260	58	29	54
4	43	66	161	300	170	4,390	1,090	1,270	392	56	27	57
5	43	180	147	365	200	4,240	1,210	1,150	278	98	25	42
6	40	440	147	430	230	3,190	3,430	1,090	243	76	24	71
7	40	263	296	480	230	2,440	3,240	1,030	227	60	24	66
8	40	142	455	520	220	1,730	1,580	1,030	211	53	22	49
9	40	234	645	650	205	1,480	1,150	1,000	196	48	20	37
10	43	1,610	546	700	190	1,330	1,550	918	182	47	18	30
11	40	2,700	412	665	170	1,150	1,610	1,240	175	46	18	25
12	40	2,240	352	750	160	1,030	1,360	1,520	161	45	18	19
13	40	1,270	314	806	650	918	1,120	1,210	147	42	18	18
14	40	750	296	834	3,050	834	1,000	1,000	140	40	104	15
15	40	620	314	696	3,250	1,000	890	806	134	37	92	13
16	40	523	314	670	3,120	1,360	806	670	128	35	116	11
17	43	500	296	620	2,150	1,150	723	595	122	36	61	14
18	46	455	278	583	1,350	890	645	595	110	34	48	14
19	54	433	260	455	1,000	806	595	806	110	34	38	14
20	57	412	196	410	770	1,300	570	670	104	32	33	14
21	54	412	196	360	560	3,900	546	723	98	30	25	14
22	46	352	211	320	480	4,740	500	670	98	29	26	13
23	43	314	196	285	420	2,870	477	546	98	28	18	14
24	40	296	182	255	1,550	4,390	455	455	92	27	26	14
25	40	260	170	235	4,100	6,000	433	412	86	25	18	13
26	40	243	150	220	5,710	7,000	412	412	81	24	17	12
27	40	243	135	215	6,510	5,920	806	392	76	24	20	13
28	48	243	120	190	7,000	4,590	3,620	352	71	27	20	28
29	57	227	115	180	6,400	3,430	4,910	333	66	34	19	412
30	60	211	110	170	-	2,530	3,520	296	71	58	16	314
31	118	-	110	160	-	1,890	-	296	-	44	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,463	118	40	47.2	0.024	0.03
November	15,849	2,700	66	528	.267	.30
December	7,691	645	110	248	.125	.14
Calendar year 1935	516,540	10,800	40	1,415	.715	9.69
January	12,964	834	110	418	.211	.24
February	50,345	7,000	140	1,736	.877	.95
March	91,248	7,000	806	2,943	1.49	1.72
April	42,608	4,910	412	1,420	.717	.80
May	26,277	1,950	296	848	.428	.49
June	4,731	392	66	158	.080	.09
July	1,375	98	24	44.4	.022	.03
August	1,028	116	14	33.2	.017	.02
September	1,441	412	11	48.0	.024	.03
Water year 1935-36	257,020	7,000	11	702	.355	4.84

Kaskaskia River at New Athens, Ill.

Location.- Water-stage recorder, lat. 38°19'22", long. 89°52'57", in SW¼ sec. 28, T. 2 S., R. 7 W., 0.5 mile below highway bridge at New Athens, St. Clair County. Zero of gage is 359.50 above mean sea level (general adjustment of 1929).

Drainage area.- 5,220 square miles.

Records available.- January 1935 to September 1936. January 1907 to December 1912, June 1914 to September 1921 at site 0.66 mile upstream.

Average discharge.- 14 years (1907-12, 1914-21, 1934-36), 4,053 second-feet.

Extremes.- Maximum discharge during year, 8,880 second-feet Mar. 5 (gage height, 20.19 feet); minimum, 61 second-feet Sept. 26 (gage height, 1.56 feet).
1907-12, 1914-21, 1935-36; Maximum discharge observed, 63,100 second-feet Aug. 26, 1915 (gage height, 35.7 feet, former site); minimum, that of Sept. 26, 1936.

Remarks.- Records good. Discharge for Mar. 14-22 corrected for backwater from Mississippi River on basis of gage heights and stages of Mississippi River at Chester; for periods of ice effect, Dec. 25 to Jan. 14, Jan. 24 to Mar. 3, computed on basis of two discharge measurements, weather records, and gage heights from Fayetteville gage (read to hundredths twice daily) 8⅛ miles upstream.

Rating table, water year 1935-36 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.5	54	3.5	358	7.0	1,380	14.0	4,850
1.9	102	4.0	463	8.0	1,740	16.0	6,000
2.3	154	4.5	582	9.0	2,170	18.0	7,200
2.7	216	5.0	718	10.0	2,650	20.0	8,700
3.0	267	6.0	1,030	12.0	3,750	21.0	9,700

Revised daily discharge, in second-feet, Sept. 13-30, 1935

Sept. 13	200	Sept. 19	170	Sept. 25	145
14	210	20	165	26	150
15	200	21	160	27	155
16	190	22	155	28	155
17	185	23	150	29	155
18	175	24	145	30	160

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	284	463	360	440	8,380	6,480	5,700	510	170	85	72
2	153	348	452	360	430	8,540	6,300	6,480	486	161	84	164
3	164	338	429	350	400	8,540	6,240	6,180	498	233	83	630
4	157	378	418	350	380	8,700	6,000	5,120	463	200	84	549
5	148	608	398	350	360	8,790	5,020	3,920	429	181	90	286
6	140	932	378	1,300	340	8,620	4,680	2,870	429	242	96	164
7	135	1,310	522	2,170	330	8,220	4,900	2,260	463	242	94	118
8	130	1,670	777	2,400	340	7,900	5,760	1,940	463	187	90	118
9	128	2,170	1,240	3,000	360	7,620	6,120	1,700	429	167	88	165
10	126	2,700	1,670	3,640	380	7,340	5,940	1,600	408	171	85	143
11	124	4,140	1,940	3,320	390	7,080	5,640	1,520	378	151	83	118
12	120	5,460	1,780	3,000	400	6,300	5,120	1,450	348	136	82	104
13	119	6,000	1,380	2,450	870	4,460	4,630	1,380	338	124	80	97
14	119	6,000	1,060	2,000	3,840	2,650	4,020	1,520	338	118	78	95
15	117	5,580	839	1,740	4,670	1,930	3,260	1,670	311	114	78	90
16	115	4,140	704	1,670	4,900	1,600	2,600	1,560	293	119	77	85
17	114	2,450	634	1,560	5,050	1,530	2,120	1,380	276	267	76	82
18	114	1,560	608	1,380	5,240	2,000	1,820	1,200	258	258	72	78
19	118	1,170	595	1,170	5,080	2,180	1,630	1,030	242	200	72	74
20	132	964	570	964	4,800	2,030	1,450	996	233	187	76	72
21	140	901	570	777	4,040	1,870	1,340	1,030	216	173	92	68
22	140	839	510	676	3,500	3,250	1,240	1,030	216	132	96	66
23	140	839	463	648	3,170	5,180	1,130	964	208	118	92	66
24	140	839	440	610	3,230	5,880	1,060	901	200	110	86	65
25	134	777	420	570	4,080	6,420	1,030	870	197	107	84	64
26	127	676	410	530	6,230	6,840	964	777	192	102	80	62
27	134	608	390	520	7,550	7,200	901	704	194	100	78	62
28	140	546	390	500	7,900	7,410	901	634	192	96	76	66
29	147	510	380	490	8,220	7,270	1,470	595	181	95	72	96
30	161	474	370	480	-	6,960	4,020	558	179	90	70	258
31	216	-	370	460	-	6,660	-	534	-	88	67	-

Kaskaskia River at New Athens, Ill.

(Continued)

Discharge, in second-feet, January 1935 to September 1936

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
January 18-31, 1935	67,350	6,660	1,880	4,811	0.922	0.48
February	79,610	5,660	1,350	2,843	.545	.57
March	239,490	15,000	1,230	7,725	1.48	1.71
April	159,820	10,500	1,540	5,327	1.02	1.14
May	497,430	22,800	1,380	16,050	3.07	3.54
June	98,510	12,100	1,640	3,284	.629	.70
July	71,098	5,240	774	2,293	.439	.51
August	12,886	1,380	205	416	.080	.09
September	5,625	220	145	180	.034	.04
October, 1935	4,245	216	114	137	0.026	0.03
November	55,211	6,000	284	1,840	.352	.39
December	21,570	1,940	370	696	.133	.15
January, 1936	39,795	3,640	350	1,284	.246	.28
February	86,920	8,220	330	2,997	.574	.62
March	179,350	8,790	1,530	5,785	1.11	1.28
April	103,786	6,480	901	3,460	.663	.74
May	60,073	6,430	534	1,938	.371	.43
June	9,568	510	179	319	.061	.07
July	4,939	267	88	156	.030	.03
August	2,546	96	67	82.1	.016	.02
September	4,177	630	62	139	.027	.03
Water year 1935-36	572,080	8,790	62	1,563	.299	4.07

Note.- Records for January to September 1935 supersede those published in Water-Supply Paper 785.

Centralia Reservoir Creek near Centralia, Ill.

Location.- Water-stage recorder, lat. 38°33'34", long. 89°0'23" in NW¼NE¼ sec. 5, T. 1 N., R. 2 E., at bridge over outlet of Centralia Reservoir, 1 mile above confluence with Crooked Creek and 7½ miles northeast of Centralia, Marion County.

Drainage area.- 7 square miles.

Records available.- March 1932 to September 1936.

Remarks.- Flow regulated by storage in reservoir (area of reservoir at level of crest of spillway, 261 acres). Discharge corrected for storage but not for evaporation and seepage. Pumpage record furnished by City of Centralia. Rainfall record (mean of three gages within basin) furnished by the State Water Survey.

Monthly discharge and rainfall, water year October 1935 to September 1936

Month	Discharge from spillway (million gallons)	Pumpage (million gallons)	Gain or loss in storage (million gallons)	*Adjusted for storage: Run-off (million gallons)	*Adjusted for storage: Discharge per square mile: Million gallons per day	*Adjusted for storage: Discharge per square mile: Second-feet	*Adjusted for storage: Run-off (inches)	Rainfall (inches)
October	0	37.6	-51.6	-14.0	-0.065	-0.100	-0.12	2.35
November	0	38.0	+20.8	58.8	.280	.433	.48	5.08
December	0	39.7	-30.6	9.1	.042	.065	.07	1.32
Calendar year 1935	786.8	466.5	577.7	1,831.0	.717	1.11	15.03	47.86
January	0	45.2	+2.4	47.6	.219	.339	.39	1.41
February	0	51.9	+14.1	66.0	.325	.503	.54	1.64
March	0	46.0	+82.7	128.7	.593	.918	1.06	1.70
April	0	43.0	-15.8	27.2	.130	.200	.22	2.04
May	0	45.9	-72.0	-26.1	-.120	-.186	-.21	1.41
June	0	44.2	-72.2	-28.0	-.133	-.206	-.23	3.88
July	0	54.4	-106.5	-52.1	-.240	-.371	-.43	1.34
August	0	53.3	-109.1	-55.8	-.257	-.398	-.46	1.02
September	0	49.4	-64.9	-15.5	-.074	-.114	-.15	3.77
Water year 1935-36	0	548.6	-402.7	145.9	.057	.088	1.18	26.96

*Figures with minus sign indicate that evaporation and seepage from the reservoir exceeded the inflow.

Big Muddy River at Plumfield, Ill.

Location.- Chain gage, lat. 37°53'32", long. 89°1'11", in southwest corner of sec. 20, T. 7 S., R. 2 E., at highway bridge on Route 149 at Plumfield, 2.6 miles below mouth of Middle Fork. Zero of gage is 354.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 753 square miles.

Records available.- August 1914 to September 1936, June 1908 to December 1912 at Chicago, Burlington & Quincy Railroad bridge 2.4 miles upstream.

Average discharge.- 22 years (1914-36), 721 second-feet.

Extremes.- Maximum daily discharge during water year 1934-35, 13,700 second-feet Mar. 13; maximum gage height, 28.13 feet Mar. 14; minimum discharge observed, 0.8 second-foot Sept. 23 (gage height, 1.20 feet).
Maximum daily discharge during water year 1935-36, 3,190 second-feet Apr. 10 (gage height, 17.38 feet); no flow at various times during July and August.
1914-36: Maximum discharge observed, 16,300 second-feet Feb. 1, 1916 (gage height, 30.2 feet); no flow at various times in 1914 and 1936.

Remarks.- Records fair. Discharge for periods of ice effect, Dec. 21, 1935, to Jan. 1, Jan. 21 to Feb. 24, 1936, computed on basis of one discharge measurement, gage heights, and weather records. Gage read twice daily.

Discharge, in second-feet, water year October 1934 to September 1935

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	886	25	*1,960	586	208	42	*1,850	122	874	*1,050	93	11
2	816	19	*1,810	432	233	40	*2,030	122	491	*920	43	8.5
3	432	20	*1,550	268	360	38	*1,890	734	458	*840	29	7.3
4	148	190	*1,100	181	408	38	*1,140	*1,420	480	734	26	6.1
5	58	612	*1,220	110	420	40	*1,200	*2,160	447	546	208	4.9
6	34	830	1,050	89	396	55	*1,390	*3,050	248	414	348	4.7
7	22	760	664	83	312	508	*1,660	*4,580	113	228	381	4.4
8	18	312	336	148	248	844	*2,110	*4,940	370	188	308	3.7
9	14	124	148	651	228	872	*2,740	*4,130	403	158	81	7.9
10	12	55	110	970	469	664	*3,150	*2,920	248	70	28	10
11	9.8	40	89	1,110	625	*4,320	*2,860	*2,550	149	36	23	8.8
12	9.0	30	83	1,130	612	*10,800	*2,140	*2,050	198	30	16	5.8
13	7.6	22	65	830	469	*13,700	*1,610	*1,550	188	25	27	4.4
14	6.4	19	62	456	573	*11,500	*1,400	1,180	140	19	43	3.5
15	5.4	16	48	258	900	*10,300	*1,220	1,020	93	17	248	3.0
16	4.2	14	42	181	1,020	*8,700	1,050	1,070	60	13	392	4.4
17	3.7	12	42	495	928	*6,260	638	1,070	848	9.3	218	4.9
18	4.2	11	42	942	677	*5,600	674	*1,100	*1,640	8.2	77	4.2
19	3.9	9.6	172	*1,590	360	*4,900	1,130	*1,170	*2,270	7.6	198	3.5
20	4.2	8.4	677	*2,310	190	*3,820	1,400	*1,300	*3,130	13	131	2.8
21	4.4	96	956	*3,230	132	*2,570	1,690	*1,590	*3,720	298	131	2.0
22	4.2	*2,730	1,050	*5,100	103	*2,700	1,870	*2,110	*4,320	568	93	1.3
23	4.2	*4,330	914	*5,020	83	*2,150	1,840	*3,030	*4,860	710	46	1.0
24	3.6	*5,050	573	*4,250	68	*1,700	1,490	*3,870	4,560	734	32	1.6
25	7.2	*9,680	612	*2,390	62	*1,300	956	3,450	*3,690	796	21	1.6
26	18	*6,000	830	*1,900	58	*1,220	502	*2,260	*2,820	848	18	1.1
27	24	*4,390	1,030	*1,400	52	1,450	188	*2,000	*2,120	848	14	4.9
28	36	*3,370	1,150	*1,100	45	*1,570	105	*1,500	*1,700	874	10	7.6
29	172	*2,710	1,220	*850	-	*1,620	85	*1,150	*1,390	914	8.5	7.3
30	77	*2,540	1,150	664	-	*1,650	97	*1,050	*1,150	848	7.9	5.5
31	42	-	858	312	-	*1,750	-	*980	-	359	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	2,891.0	886	3.6	93.3	0.124	0.14
November	47,025.0	9,680	8.4	1,568	2.08	2.32
December	21,613	1,960	42	697	.926	1.07
Calendar year 1934	101,840.1	9,680	3.6	279	.371	5.05
January	39,036	5,100	83	1,259	1.67	1.92
February	10,244	1,020	45	366	.486	.51
March	102,721	13,700	38	3,314	4.40	5.07
April	42,105	3,150	85	1,404	1.86	2.08
May	61,228	4,940	122	1,975	2.62	3.02
June	43,178	4,860	60	1,439	1.91	2.13
July	13,123.1	1,050	7.6	423	.562	.65
August	3,314.4	392	7.9	107	.142	.16
September	147.7	11	1.0	4.92	.0065	.007
Water year 1934-35	386,626.2	13,700	1.0	1,059	1.41	19.08

*Discharge determined using rate of change in stage as a factor.

Note.- These records supersede those published in Water-Supply Paper 785.

Big Muddy River at Plumfield, Ill.

(Continued)

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	51	70	19	12	*1,910	228	34	2.8	3.7	0	0.6
2	18	32	60	23	12	*1,250	208	34	2.5	4.7	0	1.5
3	13	20	54	29	13	*1,400	193	38	4.9	5.8	0	.3
4	8.8	16	46	38	15	*970	188	34	4.7	4.4	0	.1
5	6.7	28	41	54	19	*800	188	32	4.2	3.3	0	.3
6	5.5	41	36	149	16	662	*1,240	29	3.7	2.5	0	.3
7	4.2	338	41	502	16	392	*1,600	29	4.2	2.5	.1	.2
8	2.8	524	89	758	19	268	*2,190	27	4.7	1.6	2.3	.1
9	3.0	338	328	*998	19	208	*2,860	34	4.2	2.1	2.3	.1
10	3.3	218	662	*960	19	198	*3,190	34	3.7	1.1	2.0	.5
11	2.8	590	602	*820	17	208	*2,540	27	3.7	1.1	1.1	.6
12	2.6	*1,080	414	722	15	198	*2,250	21	3.3	1.1	.6	.5
13	3.5	*1,170	248	502	34	158	*1,880	17	2.8	.8	.3	.4
14	4.7	*1,330	158	348	188	122	*1,700	14	2.5	.4	.2	.1
15	4.7	*1,460	122	248	392	97	*1,400	13	2.5	.2	.2	.3
16	2.8	*1,710	101	188	524	74	*950	11	2.5	.2	.4	.3
17	2.3	*1,840	93	149	546	60	524	10	2.3	.2	.2	.2
18	2.0	*1,650	93	122	524	51	238	15	2.5	.2	.1	.4
19	3.7	*1,400	89	101	414	43	122	18	2.1	.3	0	.5
20	9.0	*1,150	77	85	238	93	89	17	2.0	.2	0	.5
21	13	*940	67	67	131	480	70	15	1.8	.4	0	.5
22	11	809	54	54	85	746	60	12	1.5	.4	1.0	.3
23	8.8	546	41	51	70	*1,240	54	9.9	2.3	.4	.4	1.0
24	5.5	298	27	48	168	*1,220	48	7.9	2.3	.3	.3	1.0
25	3.7	168	21	32	403	*1,030	48	6.7	2.5	.4	.2	1.0
26	3.5	113	18	21	614	*900	43	5.8	2.3	.2	.3	.6
27	3.3	85	15	16	*1,260	822	38	5.5	2.5	.2	.3	.4
28	13	81	11	14	*1,470	770	34	4.7	2.5	.2	0	.7
29	23	77	11	13	*1,690	770	34	4.2	2.1	.1	0	.5
30	36	70	13	12	-	614	36	3.3	1.8	0	1.0	.6
31	63	-	16	12	-	626	-	3.3	-	0	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	311.2	33	2.0	10.0	0.013	0.01
November	18,173	1,840	16	606	.805	.90
December	3,718	662	11	120	.159	.18
Calendar year 1935	337,299.4	13,700	1.0	924	1.23	16.64
January	7,155	998	12	231	.307	.35
February	8,943	1,690	12	308	.409	.44
March	18,980	1,910	43	612	.813	.94
April	24,248	3,190	34	808	1.07	1.19
May	566.3	38	3.3	18.3	.024	.03
June	87.4	4.9	1.5	2.91	.0039	.004
July	39.0	5.8	0	1.26	.0017	.002
August	13.8	2.3	0	.445	.00059	.0007
September	14.4	1.5	.1	.480	.00064	.0007
Water year 1935-36	82,249.1	3,190	0	225	.299	4.05

*Discharge determined using rate of change in stage as a factor.

Big Muddy River at Murphysboro, Ill.

Location.- Water-stage recorder, lat. 37°44'55", long. 89°20'45", in SE¼ sec. 8, T. 9 S., R. 2 W., at Illinois Central Railroad bridge across mouth of Lewis Creek, at Murphysboro, Jackson County. Zero of gage is 335.5 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,170 square miles.

Records available.- December 1916 to September 1936. Fragmentary prior to 1931.

Extremes. Maximum discharge during year, 5,870 second-feet Apr. 12 (gage height, 15.51 feet, affected by backwater); no flow Aug. 13 to Sept. 1.
1917-36: Maximum discharge, 25,000 second-feet Mar. 15, 1935 (gage height, 34.06 feet, affected by backwater); no flow Aug. 13 to Sept. 1, 1936.
Maximum stage known, 34.9 feet (present datum) Feb. 2, 1916 (discharge, about 28,000 second-feet).

Remarks.- Records good except those for periods of excessive backwater, Mar. 16, May 7 and 8, which are poor. Stage-discharge relation affected by backwater from Mississippi River Feb. 29 to Apr. 21, May 4-11. Discharge for Nov. 16-19 computed on basis of Route 13 gage readings and allowing for fall to recorder. Discharge for all effective stages above 3.0 feet computed on basis of slope as obtained by use of auxiliary chain gage on Route 13 bridge, 7,700 feet upstream.

Discharge, in second-feet, water year October 1935 to September 1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	77	187	58	44	3,660	1,420	125	8.4	2.2	3.2	0
2	23	75	179	62	43	3,520	857	138	7.2	5.2	1.5	.3
3	23	88	161	72	41	3,410	695	138	10	5.2	.9	11
4	24	95	151	88	44	3,170	566	122	9.0	3.5	.7	32
5	24	122	138	116	48	2,980	632	116	8.4	2.2	.4	44
6	25	223	131	223	50	2,610	2,180	85	7.8	1.5	.4	32
7	24	562	141	837	55	2,070	3,980	74	11	.9	.2	32
8	24	596	183	1,210	56	1,440	4,700	64	12	1.5	.1	29
9	24	593	511	1,520	60	870	5,130	55	12	2.5	.1	24
10	22	773	950	1,720	58	980	5,200	64	11	9.6	.1	18
11	21	1,850	1,050	1,800	55	1,080	5,620	72	9.6	9.6	.1	26
12	19	3,280	1,030	1,750	55	850	5,880	78	8.4	8.4	.1	83
13	18	4,040	800	1,490	223	632	5,140	100	7.2	7.8	0	72
14	17	4,140	640	1,180	740	504	5,180	100	6.1	6.6	0	44
15	18	4,180	455	853	1,560	108	4,860	85	5.6	5.6	0	24
16	35	4,040	340	604	1,700	78	3,390	68	4.7	6.1	0	15
17	61	3,330	281	476	1,970	53	3,300	64	3.9	10	0	44
18	50	2,840	244	373	2,000	50	2,430	78	3.5	41	0	315
19	46	2,570	219	310	1,940	151	1,350	88	2.8	66	0	262
20	53	2,380	202	253	1,250	955	722	114	2.2	64	0	128
21	105	2,220	164	219	884	1,070	362	85	2.0	60	0	60
22	95	2,090	161	191	595	1,700	262	66	2.5	70	0	29
23	65	1,650	138	141	378	2,010	206	53	4.3	53	0	20
24	47	1,290	128	148	449	2,160	175	43	3.5	43	0	74
25	46	808	119	144	682	2,310	154	34	3.5	25	0	823
26	47	553	100	128	1,380	2,310	138	28	3.2	20	0	676
27	47	346	88	108	3,320	2,400	128	24	2.8	14	0	276
28	58	258	78	88	4,680	2,420	128	21	2.2	13	0	108
29	120	215	70	72	4,090	2,230	128	16	1.3	12	0	58
30	201	198	66	60	-	1,880	125	13	1.3	8.4	0	215
31	111	-	62	51	-	1,490	-	10	-	5.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	1,515	201	17	48.9	0.023	0.03
November	45,482	4,180	75	1,516	.699	.78
December	9,167	1,050	62	296	.136	.16
Calendar year 1935	970,724.4	25,000	8.2	2,660	1.23	16.64
January	16,345	1,800	51	527	.243	.28
February	28,450	4,680	41	981	.452	.49
March	51,151	3,660	50	1,650	.760	.88
April	65,038	5,880	125	2,168	.999	1.11
May	2,221	138	10	71.6	.033	.04
June	177.4	12	1.3	5.91	.0027	.003
July	583.0	70	.9	18.8	.0087	.010
August	7.8	3.2	0	.25	.00012	.0001
September	3,574.3	823	0	119	.055	.06
Water year 1935-36	223,711.5	5,880	0	611	.282	3.84

Discharge measurements of streams in the Hudson Bay and upper Mississippi River basins at points other than regular gaging stations are listed in the following table:

Miscellaneous discharge measurements in Hudson Bay and upper Mississippi River basins during the water year October 1935 to September 1936*

Date	Stream	Tributary to-	Locality	Discharge
				Sec.-ft.
Aug. 8	Red River	Hudson Bay	Wahpeton, N. Dak.	5.79
8	Otter Tail River	Red River	Outlet of Otter Tail Lake, Minn.	49.8
Apr. 28	Sand Hill River	....do	Beltrami, Minn.	103
May 5	Mississippi River	Gulf of Mexico	Aitkin, Minn.	7,640
Mar. 30	....do	....do	Hastings, Minn.	35,900
Apr. 6	....do	....do	....do	24,300
14	....do	....do	....do	18,600
17	....do	....do	....do	20,800
May 5	....do	....do	....do	16,300
Apr. 1	....do	....do	Red Wing, Minn.	48,000
Mar. 27	....do	....do	Wabasha, Minn.	80,900
Oct. 4	....do	....do	U. S. Engineers Dam No. 5, Minneiska, Minn.	11,300
Nov. 4	....do	....do	....do	22,500
Dec. 3	....do	....do	....do	9,830
Feb. 17	....do	....do	....do	7,830
25	....do	....do	....do	10,600
Apr. 5	....do	....do	....do	66,600
May 23	....do	....do	....do	41,300
June 1	....do	....do	....do	23,800
29	....do	....do	....do	11,300
23	....do	....do	U. S. Engineers Dam No. 6, Trempealeau, Wis.	12,900
25	....do	....do	....do	12,600
July 13	....do	....do	....do	8,380
17	....do	....do	....do	8,40(
23	....do	....do	....do	6,400
27	....do	....do	....do	6,010
Aug. 6	....do	....do	....do	5,750
Sept. 30	....do	....do	....do	7,530
Apr. 14	....do	....do	Genoa, Wis.	58,200
28	....do	....do	....do	66,300
May 29	....do	....do	....do	35,600
Oct. 9 & 10	....do	....do	Lansing, Iowa	14,500
Mar. 28	....do	....do	....do	96,600
Apr. 10	....do	....do	....do	70,400
13	....do	....do	....do	62,800
29	....do	....do	....do	69,500
July 15	....do	....do	....do	10,200
Aug. 21	....do	....do	....do	6,780
Sept. 10	....do	....do	....do	13,500
May 28	....do	....do	Lynxville, Wis.	47,500
July 15	....do	....do	8 miles above Prairie du Chien, Wis.	10,800
Apr. 2-3	....do	....do	Prairie du Chien, Wis.	89,200
9	....do	....do	....do	84,700
13	....do	....do	....do	69,700
24	....do	....do	....do	92,000
26	....do	....do	Dubuque, Iowa	115,000
May 8	Rice River	Mississippi River	U. S. Highway 210 near Aitkin, Minn.	1,260
Mar. 22	Sand Creek	Minnesota River	Jordan, Minn.	1,110
25	....do	....do	....do	942
Dec. 13	Ditch	Rebecca Lake Outlet	Hastings, Minn.	.87
13	Rebecca Lake Outlet (above ditch)	Mississippi River	....do	5.00
13	Rebecca Lake Outlet (below ditch)	Mississippi River	....do	5.58
Mar. 22	Vermilion River	Mississippi River	....do	1,990
23	....do	....do	....do	1,680
24	....do	....do	....do	1,200
27	....do	....do	....do	136
June 12	....do	....do	....do	10.1
Mar. 24	Vermilion Slough	....do	Near Etter, Minn.	647
Apr. 8	....do	....do	....do	2,490
May 5	....do	....do	....do	2,330
Mar. 21	Cannon River	....do	Near Red Wing, Minn.	5,710
22	....do	....do	....do	9,410
23	....do	....do	....do	11,400
20	Rush River	....do	Near Maiden Rock, Wis.	1,200
23	....do	....do	....do	4,420
24	....do	....do	....do	5,720
26	....do	....do	....do	713
June 22	....do	....do	....do	49.9
Mar. 30	Chippewa River	....do	State Highway 35 near Nelson, Wis.	29,100
Apr. 6	....do	....do	....do	9,970
15	....do	....do	....do	53,900
Mar 24	Buffalo River	....do	Wisconsin Highway 35 near Alma, Wis.	3,180
May 4	Zumbro River	....do	Theilman, Minn.	1,340
June 12	....do	....do	....do	419
July 17	....do	....do	....do	188
Aug. 28	....do	....do	....do	1,510
Mar. 11	....do	....do	Kellogg, Minn.	3,590
12	....do	....do	....do	4,560

*Measurements on East Fork of Peno Creek near Bowling Green, Mo., for the years ending Sept. 30, 1930-36, are given at end of this table.

Miscellaneous discharge measurements in Hudson Bay and upper Mississippi River basins during the water year October 1935 to September 1936--Continued

Date	Stream	Tributary to-	Locality	Discharge
				Sec.-ft.
Mar. 12	Zumbro River	Mississippi River	Kellogg, Minn.	6,270
22	....do	....do	....do	12,800
23	....do	....do	....do	13,100
11	South Fork of Zumbro River.	....do	Rochester, Minn.	2,140
12	....do	....do	....do	757
June 12	Whitewater River	....do	Beaver, Minn.	102
17	....do	....do	....do	60.9
Aug. 28	....do	....do	....do	404
28	....do	....do	....do	296
Mar. 11	....do	....do	Weaver, Minn.	4,460
13	Waumandea Creek	....do	Near Fountain City, Wis.	344
21	....do	....do	....do	966
22	....do	....do	....do	725
Sept. 9	....do	....do	....do	163
Mar. 21	Garvin Brook	....do	Minnesota City, Minn.	361
21	....do	....do	....do	421
23	....do	....do	....do	1,640
18	Trempealeau River	....do	Near Trempealeau, Wis.	1,460
23	....do	....do	....do	7,280
26	....do	....do	....do	3,850
30	....do	....do	....do	1,240
July 16	....do	....do	....do	184
Sept. 9	....do	....do	....do	1,030
Mar. 25	Black River	....do	Lytles, Wis.	36,000
26	....do	....do	....do	33,000
Apr. 1	....do	....do	....do	8,000
Mar. 12	La Crosse River	....do	La Crosse, Wis.	856
14	....do	....do	....do	1,310
17	....do	....do	....do	866
21	....do	....do	....do	1,490
24	....do	....do	....do	1,340
13	Root River	....do	Near La Cresent, Minn.	6,170
18	....do	....do	....do	6,300
19	....do	....do	....do	9,380
June 10	....do	....do	....do	3,240
Mar. 13	Coon Creek	....do	Near Stoddard, Wis.	176
Oct. 25	Upper Iowa River	....do	Lane Bridge, near New Albin, Iowa	245
Mar. 19	....do	....do	....do	5,720
Apr. 15	....do	....do	....do	617
June 10	....do	....do	....do	870
Mar. 20	....do	....do	State Highway 182 near New Albin, Iowa.	5,560
28	....do	....		
28	....do	....do	....do	1,520
Apr. 3	....do	....do	....do	711
Mar. 27	Wisconsin River	....do	Bridgeport, Wis.	18,600
31	....do	....do	....do	32,700
Apr. 2	....do	....do	....do	49,700
3	....do	....do	....do	43,200
9	....do	....do	....do	14,300
24	....do	....do	....do	25,700
25	Turkey River	....do	U. S. Highway 52, Milleville, Iowa.	526
July 30	Spring Branch	Maquoketa River	Above U. S. fish hatchery, 3 miles southeast of Manchester, Iowa.	1.86
30	....do	....do	Below U. S. fish hatchery, 3 miles southeast of Manchester, Iowa.	4.44
Oct. 3	Long Branch	South Fork of Salt River.	NW¼NW¼ sec. 35, T. 53 N., R. 10 W., 10 miles south of Paris, Mo.	0
Nov. 24	....do	....do	....do	.09
Mar. 19	....do	....do	....do	2.22
June 27	....do	....do	....do	0
July 23	....do	....do	....do	0
Aug. 19	....do	....do	....do	0

East Fork of Peno Creek for the years ending Sept. 30, 1930-36

1930				
Mar. 28	East Fork of Peno Creek.	Peno Creek	SE¼NW¼ sec. 33, T. 54 N., R. 3 W., 5 miles northwest of Bowling Green, Mo.	1.2
June 27	....do	....do	....do	.03
Aug. 12	....do	....do	....do	0
Sept. 12	....do	....do	....do	0
Oct. 30	....do	....do	....do	0
1931				
Jan. 8	....do	....do	....do	0
Feb. 9	....do	....do	....do	**.03
Apr. 1	....do	....do	....do	1.0
June 17	....do	....do	....do	**.1
July 31	....do	....do	....do	0
Oct. 1	....do	....do	....do	0
1932				
Feb. 19	....do	....do	....do	1.9
Apr. 19	....do	....do	....do	.29
June 15	....do	....do	....do	1.0
Sept. 19	....do	....do	....do	0
Nov. 26	....do	....do	....do	**.02
Dec. 30	....do	....do	....do	1.3
1933				
Apr. 1	....do	....do	....do	14

**Estimated.

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Miscellaneous discharge measurements in Hudson Bay and upper Mississippi River basins during the water year October 1935 to September 1936--Continued

Date	Stream	Tributary to-	Locality	Discharge
1933				
June 7	East Fork of Peno Creek.	Peno Creek.....	SE¼NW¼ sec. 33, T. 54 N., R. 3 W., 5 miles northwest of Bowling Green, Mo.	.02
Aug. 11	....do.....	....do.....	....do.....	0
Oct. 5	....do.....	....do.....	....do.....	0
1934				
Feb. 26	....do.....	....do.....	....do.....	0
Mar. 6	....do.....	....do.....	....do.....	**.4
May 3	....do.....	....do.....	....do.....	**.2
June 27	....do.....	....do.....	....do.....	0
Sept. 24	....do.....	....do.....	....do.....	0
Nov. 14	....do.....	....do.....	....do.....	**.05
1935				
Jan. 15	....do.....	....do.....	....do.....	**.20
Feb. 25	....do.....	....do.....	....do.....	7.33
May 0	....do.....	....do.....	....do.....	10.8
Aug. 6	....do.....	....do.....	....do.....	**.10
Oct. 3	....do.....	....do.....	....do.....	0
Nov. 19	....do.....	....do.....	....do.....	.40
1936				
Mar. 20	....do.....	....do.....	....do.....	.82

**Estimated.

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