UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary

GEOLOGICAL SURVEY
W. C. MENDENHALL, Director

Water-Supply Paper 879

SURFACE WATER SUPPLY *of the* UNITED STATES 1939

PART 9
COLORADO RIVER BASIN

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ILLUSTRATION

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1939. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of flow of streams and measurements of stage and contents of lakes and reservoirs have been made at about 8,240 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1939, 4,160 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

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

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 of water 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. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a run-off of 0.0372 inch from one square mile.

"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 that 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 mean daily gage height to these rating tables gives the mean daily discharge, from which the monthly and yearly mean discharge are computed.

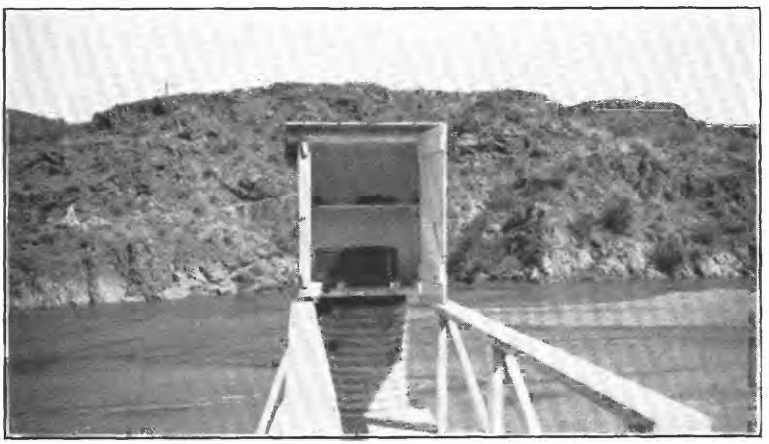
The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (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 peak discharge for the year with the time of its occurrence is given below the table of monthly discharge for some stations. Selected lower peaks are also given if the peak discharge exceeded the mean discharge for that day by more than 10 percent. This supplementary information is generally not given for stations having drainage areas of less than 10 square miles or more than 10,000 square miles.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the mean daily discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the mean daily gage height. 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 figures for that month 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

A. COLORADO RIVER AT LEES FERRY, ARIZ.
Note landing tower.



B. WILLIAMS RIVER AT PLANET, ARIZ.

GAGING-STATION STRUCTURES.

given is the minimum daily discharge. The column headed "Mean" gives 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 on (1) the permanency of the stage-discharge relation and (2) 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 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent.

Yield indicated by monthly means at some stations may vary widely from natural yield, owing to diversions, amount consumed, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "run-off in inches" are not published unless reservoir records are included indicating the extent of the regulation, or satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and run-off in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, so that 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 the increase in data and the 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 explained below.

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

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

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

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., Georgia School of Technology.
Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Charlottesville, Va., House B, University Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., Engineering Building, University of Maryland.
Columbia, S. C., 119 United States Courthouse.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 316 Federal Building.
Louisville, Ky., 641 Federal Building.
Madison, Wis., 337 N. State Capitol.
Montgomery, Ala., 507 Post Office Building.
Ocala, Fla., Post Office Building.
St. Paul, Minn., 808 New Post Office Building.
South Charleston, W. Va., Naval Ordnance Plant.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex.

West of the Mississippi River:
Austin, Tex., 300 State Highway Building.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 230 Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 412 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Los Angeles, Calif., G-31 Post Office and Courthouse.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 906 Customhouse, 1114 Market Street.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 208 Federal Office Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 406 Federal Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

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

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.....	1881 to Sept. 1890
12th A, pt. 2	....do.....	1881 to June 30, 1891.
13th A, pt. 3	....do.....	1881 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)....	1881 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).	1895
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.

Stream-flow data in reports of the Geological Survey--Continued

Report	Character of data	Year
W 15.....	Descriptions, measurements, and gage heights for streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights for streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights for streams east of the Mississippi River and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights for streams west of the Mississippi River except Missouri River and tributaries.	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 that contain records for years after 1901 are given in the table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1939. 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, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

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

Numbers of water-supply papers containing results of stream measurements, 1899-1939

(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
1901.....	68, 75	68, 75	68, 75	68, 75	k 68, 68, 75	68, 75	k 68, 68, 75	66, 75	66, 75	68, 75	66, 75	66, 75	66, 75	68, 75
1902.....	82	b 82, 83	m 82, 83	k 83, 86	84	k 83, 84	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.....	c 124, p 125, q 128	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905.....	c 186, p 186, q 187	q 167, 168	169	170	171	172	k 169, 173	174	175, t 177	176, s 177	177	178	178	u 177, 178
1906.....	c 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	505	606	607	608	609	610	611	612	613	614
1926.....	521	622	623	624	625	526	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	563	684	655	656	667	868	689	670	671	672	673	674
1929.....	681	582	583	584	685	688	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.....	728	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.....	758	757	758	759	760	761	762	783	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
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	861	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884

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.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597-E	1927	California, Surface water supply of Sacramento River Basin.
636-D	1927	California, Surface water supply of San Joaquin River Basin.
636-E	1927	California, Surface water supply of Pacific slope basins in.
637-A	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
850	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
870	1935	Washington, Summary of records of surface waters of.
469	1921	Wyoming, Surface water of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Utah, Wyo.) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (Md., Va., W. Va., etc.), 1907.
358	1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records contained in the reports noted above, records of discharge have been published in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama.....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1928	Stream-gaging report 1.....	Arkansas Geological Survey.
Connecticut.	1926	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Georgia.....	1920	Bull. 38, Water powers of Georgia....	Geological Survey of Georgia.
Illinois....	1937	Stream-flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana.....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	a1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.

a Includes records for the years 1927-30.

State reports containing compilation of records of discharge--Continued

State	Year ending	Report	Issued by
Kansas.....	[b]1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	[c]1924	....do.....	Do.
Do.....	[d]1928	....do.....	Kansas State Board of Agriculture.
Do.....	[e]1935	Stream-flow data of Kansas.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, vol. 20, 2d series, Water Resources of Missouri.	Missouri Geological Survey and Water Resources.
Nebraska...	1914	1st Hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	[f]1928	2d hydrographic report.....	Do.
New Jersey.	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	[g]1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico.	1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	[h]1936	Bull. 39, Discharge records of North Carolina streams.	Do.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	[i]1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	[j]1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	[k]1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	[l]1932	Stream-flow records of Pennsylvania....	Department of Forests and Waters.
Tennessee..	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	[m]1930	Bull. 40, Surface waters of Tennessee..	Do.
Utah.....	1905	5th Biennial Report, State Engineer....	Office of the State Engineer.
Virginia...	1927	Bull. 31, Water resources of Virginia..	Conservation and Development Commission.
Washington.	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin..	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	[n]1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

b Includes records for the years 1895-1919.
c Includes records for the years 1919-24.
d Includes records for the years 1924-28.
e Includes records for the years 1928-35.
f Includes records for the years 1914-28.
g Includes records for the years 1928-34.
h Includes records for the years 1889-1936; records of daily and monthly discharge are not included.
i Includes records for the years 1914-24.
j Includes records for the years 1924-30.
k Includes records for the years 1930-36.
l Includes records for the years 1928-32.
m Includes average weekly discharge for the years 1920-30.
n Includes records for the years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table on the following page contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1938 to September 1939 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey except as noted, nor have they been published elsewhere, but they are available in the files of the organization named.

Records of daily discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Ash Creek	Near Toquerville, Utah	1939	Bureau of Reclamation.
Do	Rainbow Bridge, near New Harmony, Utah.	1939	Do.
Ashley Creek	Below Dry Fork, near Vernal, Utah	1939	Do.
Big (Kolob) Creek	Kolob Mountain, near Virgin, Utah	1939	Do.
Boulger Creek	Near Proposed Diversion, 9 miles east of Fairview, Utah.	1938-39	Do.
Brush Creek	Tyzach ranch, near Vernal, Utah	1939	Do.
Do	Buckle ranch, near Jensen, Utah	1939	Do.
Colorado River	2½ miles above Palisade, Colo	*1934-39	Do.
Dry Fork	Above Sinks, near Vernal, Utah	1939	Do.
Gooseberry Creek	Gooseberry dam site, 8 miles northeast of Fairview, Utah.	1928-29, 1931, 1938-39	Bureau of Reclamation and Water Storage Commission.
Kanarra Creek	Near Kanarraville, Utah	1939	Bureau of Reclamation.
Kanarra Dry Wash	....do	1939	Do.
Moody Creek	Lower dam site, near Central, Utah	1939	Do.
Santa Clara Creek	Pine Valley, Utah	1939	Do.
Do	Near Central, Utah	1939	Do.
Do	Near Gunlock, Utah	1939	Do.
Do	Below Winsor Dam, near Santa Clara, Utah.	1939	Do.
Sheep Creek (North Fork).	Above Lucerne Valley canal, near Manila, Utah.	1939	Do.
Do	Below Lucerne Valley canal, near Manila, Utah.	1939	Do.
Sheep Creek (South Fork).	Near Manila, Utah	1939	Do.
White River	Below Left Fork, 1 mile east of Soldier Summit, Utah.	1938-39	Do.
White River (Left Fork).	Above forks, near Soldier Summit, Utah.	1938-39	Do.
(‡)	Mexican Springs, N. Mex	1936-39	Soil Conservation Service.

*Records for some earlier years published in water-supply papers of Geological Survey. Discharge as recorded does not include water diverted around station for development of power.
‡Run-off from four areas comprising less than 3,000 acres each, seven areas comprising between 3,000 and 10,000 acres each, and three areas comprising between 10,000 and 50,000 areas each.

COOPERATION

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

Arizona (all stations except Virgin River at Littlefield): Office of the State water commissioner, Jesse C. Wamslee; the Salt River Valley Water Users' Association (for certain stations in Salt River Basin); and the Metropolitan Water District of Southern California (for certain stations on Williams River and on Colorado River below Boulder Dam).

Colorado: Office of the State enginesr, M. C. Hinderlider.

New Mexico: Office of the State engineer, Thomas M. McClure; and the New Mexico Interstate Stream Commiesion, Thomas M. McClure, secretary.

Utah: Office of the State engineer, T. H. Humpherys.

Wyoming: The State engineer, John D. Quinn, succeeded by L. C. Bishop.

Financial assistance was furnished by the Corps of Engineers, U. S. Army, in the operation of the station on Queen Creek near Florence Junction, Ariz.

Assistance in collecting the records was rendered also by the following municipalties, organizations, corporations, and individuals.

Arizona: Gila water commissioner, Charles A. Firth, appointed by the United States District Court.

Colorado: Denver Board of Water Commissioners, Bureau of Reclamation, and Uncompahgre Valley Water Users' Association.

New Mexico: Office of Indian Affairs.

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Utah: National Park Service, Bureau of Reclamation, Office of Indian Affairs, and Utah Power & Light Co.

Wyoming: United States Weather Bureau.

Funds for the construction, repair, and improvement of gaging stations were allocated to the Geological Survey by the Federal Emergency Administration of Public Works.

DIVISION OF WORK

Data for stations in the several States were collected and prepared for publication under the supervision of the district engineers, as follows: In Arizona (except for Virgin River at Littlefield) and for all stations on Colorado River below the Arizona-Utah State line, J. H. Gardiner; in Colorado (except for Los Pinos River at Ignacio), Robert Follansbee, the work being done in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in New Mexico and for Los Pinos River at Ignacio, Colo., Berkeley Johnson; in Utah (except for the five stations named below) and for Virgin River at Littlefield, Ariz., A. B. Purton; in Wyoming and for five stations in Utah, namely, Green River near Linwood, Blacks Fork above Blacks Fork ranger station, Blacks Fork at Blacks Fork ranger station, East Fork of Smith Fork at China Meadows, near Robertson, Wyo., and White River near Watson, Robert Follansbee.

COLORADO RIVER BASIN

COLORADO RIVER MAIN STEM

Colorado River near Grand Lake, Colo.

Location.- Water-stage recorder, lat. 40°14', long. 105°51', in sec. 13, T. 3 N., R. 76 W., half a mile upstream from Grand Lake outlet and 3 miles south of Grand Lake.
Drainage area.- 101 square miles.
Records available.- July 1904 to September 1909, September 1910 to September 1918, and May 1934 to September 1939.
Average discharge.- 18 years, 129 second-feet.
Extremes.- Maximum discharge during year, 557 second-feet June 1 (gage height, 4.12 feet); minimum daily discharge, 4.8 second-feet July 29.
1904-9, 1910-18, 1934-39: Maximum discharge, 1,840 second-feet June 15, 16, 1918 (gage height, 7.0 feet, former site and datum); minimum, 1.6 second-feet July 17, 1934 (gage height, 1.32 feet).
Remarks.- Records excellent except those for periods of ice effect, Nov. 6-9, Nov. 12 to Mar. 29 (computed on basis of three discharge measurements and weather records), and periods of missing gage heights, Apr. 4-6, 8-21 (computed on basis of records for station near Granby), which are fair. Diversions for irrigation above station. Transmountain diversion by Grand River ditch through La Poudre Pass to Cache la Poudre River Basin.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30					
1.8	12	1.5	5.0	2.2	40	3.0	190
2.0	22	1.6	7.0	2.4	60	3.5	340
2.2	38	1.8	14	2.6	90	4.0	514
2.4	61	2.0	24	2.8	139		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	27	21	17	18	18	35	287	510	71	9.4	24
2	30	28	20	17	18	18	41	326	401	66	7.6	23
3	31	27	20	17	18	18	51	343	364	61	5.4	20
4	29	26	20	18	17	18	53	287	401	59	6.2	18
5	31	27	20	17	17	18	62	297	453	55	5.0	16
6	34	26	20	17	17	17	56	340	453	51	5.6	20
7	34	27	19	17	17	17	50	275	398	45	24	20
8	34	28	19	17	17	17	54	238	313	44	37	24
9	38	28	18	18	17	17	61	253	275	41	30	23
10	38	28	18	18	17	17	58	306	256	38	23	20
11	36	29	18	17	17	18	50	306	256	34	20	21
12	33	27	18	17	17	18	55	287	238	33	22	22
13	31	24	18	17	16	18	60	263	247	30	22	22
14	32	22	17	17	16	18	68	275	253	27	22	22
15	33	21	17	17	16	18	68	316	269	22	20	21
16	33	21	17	17	16	18	66	367	253	24	21	22
17	37	22	17	17	16	19	61	330	236	23	19	23
18	40	23	17	18	16	19	56	340	211	20	20	22
19	34	23	18	18	16	19	62	394	177	20	20	22
20	30	22	18	18	16	20	68	425	156	18	20	22
21	31	21	18	18	16	21	82	418	154	16	18	21
22	31	22	18	18	16	23	104	432	136	14	23	21
23	30	22	18	19	17	24	134	439	114	11	25	22
24	29	22	18	18	17	26	116	408	107	7.8	18	36
25	28	23	18	18	17	27	100	381	107	7.8	21	36
26	27	21	17	18	17	27	114	326	97	6.2	20	32
27	27	21	18	18	17	27	152	278	88	5.2	22	32
28	27	20	18	18	17	28	227	294	84	5.4	25	31
29	27	20	18	18	-	30	294	326	77	4.8	27	34
30	26	21	18	18	-	32	287	388	74	5.4	24	31
31	26	-	17	18	-	32	-	435	-	5.0	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	979	40	26	31.6	1,940
November	719	29	20	24.0	1,430
December	566	21	17	18.3	1,120
Calendar year 1938	40,703	696	17	112	80,740
January	545	19	17	17.6	1,080
February	469	18	16	16.8	930
March	657	32	17	21.2	1,300
April	2,745	294	35	91.5	5,440
May	10,380	439	238	335	20,590
June	7,158	510	74	239	14,200
July	871.2	71	48	28.1	1,730
August	605.2	37	5.0	19.5	1,200
September	723	36	16	24.1	1,430
Water year 1938-39	26,417.4	510	4.8	72.4	52,390

Colorado River near Granby, Colo.

Location.- Water-stage recorder, lat. 40°07', long. 105°54', in sec. 22, T. 2 N., R. 76 W., 1¾ miles upstream from Willow Creek and 4 miles northeast of Granby.

Drainage area.- 322 square miles.

Records available.- June 1908 to September 1911 and May 1934 to September 1939.

Extremes.- Maximum discharge during year, 2,070 second-feet June 1 (gage height, 3.87 feet); minimum daily discharge, 42 second-feet Feb. 22, Mar. 1, 2.
1908-11, 1934-39: Maximum discharge, 4,100 second-feet June 20, 1909 (gage height, 5.5 feet, former datum); minimum occurred during period of incomplete record in winter.

Remarks.- Records excellent except those below 125 second-feet, which are good, and those for period of ice effect, Nov. 13 to Apr. 1 (computed on basis of four discharge measurements and weather records), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	75	52	49	51	42	95	833	1,980	548	190	73
2	93	77	51	50	50	42	96	992	1,680	512	190	71
3	93	77	51	50	50	43	96	1,120	1,450	488	168	65
4	93	77	52	51	49	43	115	1,040	1,560	476	157	61
5	93	69	54	49	49	43	133	1,030	1,800	452	140	57
6	96	52	54	50	49	43	115	1,110	1,850	423	140	63
7	98	61	53	51	48	44	101	965	1,640	390	223	69
8	104	61	52	51	47	44	115	798	1,390	374	232	71
9	104	77	52	51	47	44	133	763	1,240	363	202	71
10	104	77	55	50	46	45	115	938	1,080	353	168	67
11	106	75	53	49	45	46	101	974	1,070	337	143	69
12	104	65	50	48	47	46	115	947	1,080	318	133	73
13	104	55	49	49	46	47	140	848	1,170	294	126	75
14	104	52	48	49	44	48	168	848	1,260	280	123	75
15	104	55	49	49	44	49	164	1,070	1,360	258	118	75
16	101	58	50	49	44	51	146	1,300	1,390	249	115	73
17	106	59	49	50	43	53	126	1,220	1,270	240	106	71
18	109	60	49	51	43	56	118	1,170	1,130	211	96	69
19	104	59	50	51	43	53	129	1,350	904	190	91	65
20	98	58	51	52	44	52	129	1,560	756	179	86	61
21	93	56	52	51	43	55	160	1,550	686	160	80	39
22	91	55	50	50	42	58	227	1,560	644	153	80	59
23	91	55	49	50	43	62	294	1,620	574	140	80	63
24	84	57	49	49	43	68	284	1,580	595	129	80	76
25	82	59	48	50	43	72	266	1,450	630	120	80	82
26	82	56	49	50	44	72	275	1,240	651	123	80	75
27	80	52	50	51	44	74	308	1,050	616	133	82	73
28	80	51	51	52	43	78	434	1,000	602	136	82	75
29	77	51	50	52	-	82	637	1,200	581	126	86	89
30	76	52	50	53	-	86	749	1,520	587	146	89	96
31	75	-	49	52	-	92	-	1,860	-	185	73	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,924	109	75	94.3	5,800
November	1,843	77	51	61.4	3,660
December	1,571	55	48	50.7	3,120
Calendar year 1938	149,622	2,890	35	410	296,800
January	1,559	53	48	50.3	3,090
February	1,274	51	42	45.5	2,530
March	1,733	92	42	55.9	3,440
April	6,084	749	95	203	12,070
May	36,606	1,860	763	1,180	72,610
June	33,206	1,980	567	1,107	65,860
July	8,484	548	120	274	16,830
August	3,839	232	73	124	7,610
September	2,122	96	57	70.7	4,210
Water year 1938-39	101,245	1,980	42	277	200,800

Colorado River at Hot Sulphur Springs, Colo.

Location.- Water-stage recorder, lat. 40°05', long. 106°05', in sec. 1, T. 1 N., R. 78 W., 1 mile east of Hot Sulphur Springs and 3 miles upstream from Beaver Creek.
Drainage area.- 782 square miles.
Records available.- July 1904 to September 1909 and September 1910 to September 1924, October 1925 to September 1928, and October 1933 to September 1939 in reports of Geological Survey. July 1904 to September 1909, September 1910 to September 1924, and October 1925 to September 1939 in reports of State engineer.
Average discharge.- 33 years (1904-9, 1910-24 1925-39) 713 second-feet (revised).
Extremes.- Maximum discharge during year, 3,630 second-feet June 1 (gage height, 3.74 feet); minimum daily discharge, 98 second-feet Dec. 14.
1904-9, 1910-24, 1925-39: Maximum discharge, 10,300 second-feet June 15, 1921 (gage height, 8.7 feet, former site and datum); minimum occurred during period of no record in winter.
Remarks.- Records excellent except those for period of ice effect, Nov. 13 to Mar. 31, which were computed on basis of four discharge measurements and weather records, and are good. Diversions for irrigation above station. Transmountain diversion through Pioneer bore of Moffat tunnel from Fraser River Basin to South Platte River Basin. Total flow diverted during water year 1938-39 was 30,860 acre-feet (see p. 40 for record by months). Transmountain diversion by Grand River ditch through La Poudre Pass to Cache la Poudre River Basin.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second feet)
(Shifting-control method used Oct. 1-4, Apr. 1-28)

0.3	78	0.8	254	1.4	570	2.5	1,680	4.0	4,100
.4	106	1.0	350	1.6	720	3.0	2,360		
.6	172	1.2	450	2.0	1,100	3.5	3,200		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	208	184	112	112	114	110	246	1,630	3,470	747	286	136
2	208	184	108	114	110	110	277	1,890	2,880	664	286	130
3	204	176	108	116	106	110	375	2,110	2,360	619	246	115
4	196	188	110	116	108	110	430	1,980	2,480	598	237	109
5	188	200	116	110	110	115	480	1,970	2,880	584	220	109
6	196	176	110	112	112	115	415	2,150	3,070	552	204	112
7	208	166	108	116	114	120	320	1,860	2,720	492	330	130
8	208	204	106	120	108	122	305	1,580	2,290	462	345	136
9	204	184	112	118	110	125	390	1,550	2,000	440	291	133
10	204	216	116	114	108	125	365	1,840	1,800	430	254	124
11	200	184	106	112	106	135	291	1,910	1,680	410	216	124
12	196	180	102	110	116	135	310	1,900	1,660	390	200	130
13	188	140	100	108	110	130	390	1,770	1,740	365	188	130
14	184	116	98	106	110	130	435	1,720	1,850	350	184	130
15	186	120	102	108	110	140	420	1,970	1,950	325	180	127
16	184	126	108	110	112	150	375	2,260	1,970	315	172	124
17	184	126	116	110	108	165	310	2,190	1,800	305	165	124
18	188	130	108	112	104	155	277	2,120	1,580	282	154	118
19	184	126	110	114	106	155	340	2,350	1,310	259	145	112
20	172	119	112	116	108	160	325	2,690	1,100	246	130	106
21	180	112	116	118	110	165	365	2,670	1,000	220	127	106
22	200	108	116	114	112	175	516	2,690	970	200	130	100
23	184	104	112	110	114	190	712	2,810	846	188	124	106
24	180	100	112	108	116	205	656	2,760	828	176	121	118
25	176	106	110	108	112	215	598	2,560	864	161	124	136
26	184	102	106	106	112	210	598	2,250	873	165	121	130
27	180	104	108	110	112	215	688	1,880	310	176	127	130
28	184	108	108	110	112	230	960	1,730	765	208	133	133
29	180	110	110	112	-	245	1,340	1,910	747	192	150	147
30	180	116	116	116	-	265	1,540	2,450	712	204	150	158
31	180	-	108	115	-	255	-	3,000	-	291	143	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,900	208	172	190	11,700
November	4,308	216	100	144	8,540
December	3,585	116	98	109	6,710
Calendar year 1938	278,554	4,890	92	763	552,400
January	3,478	120	105	112	6,900
February	3,089	116	104	110	6,130
March	4,987	255	110	161	9,890
April	15,049	1,540	246	502	29,850
May	66,150	3,000	1,550	2,134	131,200
June	51,005	3,470	712	1,700	101,200
July	11,016	747	161	355	21,850
August	5,861	345	121	190	11,660
September	3,723	158	100	124	7,380
Water year 1938-39	177,969	3,470	98	488	353,000

Colorado River at Glenwood Springs, Colo.

Location.- Water-stage recorder, lat. 39°33', long. 107°19', in sec. 9, T. 6 S., R. 89 W., at Glenwood Springs, half a mile upstream from Roaring Fork. Zero of gage is 5,720.71 feet above mean sea level.

Drainage area.- 4,560 square miles.

Records available.- January 1900 to September 1939. May to July 1899, at site just above Roaring Fork.

Average discharge.- 40 years, 3,014 second-feet.

Extremes.- Maximum discharge during year, 13,100 second-feet May 23 (gage height, 8.48 feet); minimum daily discharge, 520 second-feet Feb. 18.
1900-39: Maximum discharge, 30,100 second-feet June 14, 15, 1918 (gage height, 12.55 feet); minimum daily discharge, 286 second-feet Jan. 22, 1935.

Remarks.- Records excellent. Diversions for irrigation above station. During low-water period flow is regulated by Shoshone power plant, 6 miles upstream.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

2.7	475	3.6	1,090	5.2	3,460	7.0	8,200
3.0	640	4.0	1,520	5.6	4,280	8.0	11,440
3.2	765	4.4	2,060	6.0	5,220	9.0	14,900
3.4	915	4.8	2,720	6.5	6,660		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	1,020	821	835	765	706	1,510	7,140	11,600	3,520	1,630	793
2	1,170	983	907	821	700	732	1,460	7,530	11,700	3,440	1,640	793
3	1,170	1,040	899	793	688	739	1,510	8,390	10,300	3,380	1,560	843
4	1,160	1,100	899	899	713	752	1,800	8,680	9,740	3,230	1,520	828
5	1,160	1,090	940	682	835	779	2,000	8,710	10,500	3,060	1,300	807
6	1,150	1,080	949	907	821	746	2,250	9,060	11,000	2,950	1,130	821
7	1,130	793	907	915	700	739	2,120	8,940	10,500	2,810	1,380	851
8	1,160	1,040	924	752	807	752	1,670	7,890	9,540	2,720	1,310	891
9	1,200	899	958	907	821	821	1,740	7,080	8,620	2,280	1,400	949
10	1,240	1,070	940	821	851	828	1,810	7,660	7,720	2,410	1,390	940
11	1,260	1,120	1,100	867	713	821	1,830	8,520	7,320	2,300	1,280	992
12	1,230	1,110	940	883	739	821	1,700	8,740	7,140	2,220	1,140	958
13	1,180	843	940	883	779	851	1,600	8,620	7,170	2,120	1,040	983
14	1,170	765	700	891	765	915	1,830	8,260	7,500	2,020	1,010	966
15	1,160	983	688	700	772	924	2,090	8,740	7,910	1,880	1,020	983
16	1,130	835	821	746	915	924	2,190	9,900	7,720	1,770	1,000	940
17	1,040	932	940	800	752	932	2,060	10,800	7,410	1,700	1,040	807
18	1,080	974	875	851	520	940	1,880	10,400	6,840	1,670	1,020	907
19	1,070	958	793	821	793	940	1,740	10,200	6,030	1,570	974	932
20	1,180	958	843	843	851	966	1,730	11,400	5,170	1,490	899	765
21	1,080	891	851	867	525	1,170	1,770	12,300	4,640	1,430	899	720
22	1,030	875	915	899	664	1,170	2,160	12,500	4,300	1,400	851	807
23	1,000	851	875	867	530	1,200	2,990	12,800	4,150	1,210	793	700
24	899	670	821	688	580	1,480	3,700	12,700	4,130	1,330	793	814
25	1,020	658	779	676	779	1,580	3,620	11,700	4,190	1,210	835	807
26	992	752	732	688	800	1,770	3,500	10,400	3,980	1,180	793	843
27	1,010	726	746	726	752	1,960	3,580	8,840	4,080	1,160	758	821
28	1,170	726	732	752	628	2,080	4,170	8,140	3,880	1,180	779	949
29	958	694	779	915	-	1,880	5,270	8,460	3,720	1,240	843	899
30	1,040	782	851	821	-	1,640	6,540	9,350	3,660	1,500	758	867
31	974	-	875	915	-	1,540	-	10,400	-	1,570	800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	34,443	1,260	899	1,111	68,320
November	27,188	1,120	658	906	53,930
December	26,740	1,100	688	863	53,040
Calendar year 1938	1,230,215	20,400	490	3,370	2,440,000
January	25,431	915	676	820	50,440
February	20,558	915	520	734	40,780
March	34,098	2,080	705	1,100	67,630
April	74,020	6,540	1,460	2,467	146,800
May	294,050	12,800	7,080	9,485	583,200
June	212,160	11,700	3,660	7,072	420,800
July	62,950	3,520	1,160	2,031	124,900
August	33,585	1,640	758	1,083	66,610
September	25,976	992	700	866	51,520
Water year 1938-39	871,199	12,800	520	2,387	1,728,000

Colorado River near Cameo, Colo.

Location.- Water-stage recorder, lat. 39°13', long. 108°15', in sec. 6, T. 10 S., R. 97 W., 3.4 miles upstream from Plateau Creek and 6.7 miles northeast of Cameo.

Drainage area.- 8,055 square miles.

Records available.- October 1933 to September 1939.

Extremes.- Maximum discharge during year, 19,900 second-feet May 23 (gage height, 8.44 feet); minimum daily discharge, 1,160 second-feet Aug. 27.
1933-39: Maximum discharge, 36,000 second-feet June 16, 1935 (gage height, 10.91 feet); minimum daily discharge, 738 second-feet Feb. 28, 1935.

Remarks.- Records good Oct. 1 to Mar. 18; others excellent. Discharge for periods of ice effect, Nov. 25 to Dec. 5, Dec. 18 to Mar. 18, computed on basis of combined flow of Colorado River and Roaring Fork at Glenwood Springs. Many diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,970	1,830	1,650	1,600	1,400	1,300	2,350	9,300	17,800	5,370	2,440	1,340
2	1,950	1,850	1,720	1,580	1,280	1,300	2,380	9,880	18,300	5,160	2,340	1,310
3	1,930	1,830	1,750	1,560	1,250	1,320	2,470	11,000	16,200	5,040	2,220	1,270
4	1,940	1,850	1,800	1,600	1,280	1,340	2,680	11,800	15,100	4,780	2,130	1,290
5	1,940	1,950	1,880	1,520	1,480	1,360	3,050	12,200	16,400	4,640	2,030	1,420
6	1,970	1,950	1,990	1,520	1,480	1,380	3,180	13,000	17,500	4,440	1,860	1,760
7	2,000	1,890	1,820	1,600	1,420	1,340	3,320	13,200	16,600	4,280	1,990	2,240
8	2,160	1,820	1,790	1,580	1,380	1,320	3,070	11,600	14,900	4,050	2,180	2,280
9	2,180	1,810	1,810	1,580	1,400	1,400	2,890	10,300	13,400	3,770	2,070	2,070
10	2,180	1,810	1,820	1,560	1,380	1,480	2,920	10,600	12,000	3,680	2,090	2,070
11	2,180	1,950	1,938	1,560	1,320	1,500	2,910	11,300	11,300	3,450	2,020	2,070
12	2,150	1,990	1,950	1,580	1,300	1,500	2,810	13,000	11,300	3,390	1,860	2,750
13	2,110	1,950	1,780	1,600	1,300	1,510	2,680	12,600	11,200	3,230	1,710	2,170
14	2,070	1,880	1,780	1,520	1,320	1,550	2,780	11,800	11,800	3,120	1,570	2,130
15	2,040	1,850	1,670	1,400	1,360	1,600	3,020	12,200	12,400	2,910	1,480	1,990
16	2,050	1,760	1,760	1,370	1,400	1,600	3,180	13,900	12,100	2,750	1,480	1,830
17	2,110	1,680	1,850	1,350	1,420	1,620	3,070	15,000	11,500	2,680	1,430	1,750
18	2,010	1,750	2,000	1,400	1,250	1,660	2,880	15,100	10,600	2,540	1,460	1,620
19	2,000	1,760	1,600	1,420	1,200	1,700	2,650	14,800	9,440	2,440	1,410	1,660
20	1,950	1,750	1,580	1,440	1,350	1,720	2,730	16,500	8,260	2,280	1,320	1,600
21	2,020	1,780	1,600	1,480	1,500	1,810	2,640	18,000	7,420	2,140	1,250	1,520
22	1,940	1,740	1,620	1,500	1,340	2,000	2,890	18,600	6,710	2,030	1,270	1,460
23	1,870	1,660	1,600	1,500	1,240	2,100	3,680	19,100	6,520	1,950	1,220	1,390
24	1,860	1,670	1,520	1,350	1,300	2,140	4,820	18,800	6,520	1,780	1,210	1,390
25	1,700	1,620	1,480	1,250	1,400	2,420	4,940	17,400	6,520	1,850	1,190	1,410
26	1,800	1,580	1,420	1,200	1,420	2,620	4,560	15,200	6,470	1,740	1,220	1,420
27	1,790	1,600	1,400	1,280	1,400	2,880	4,500	13,200	6,080	1,660	1,160	1,430
28	1,770	1,610	1,400	1,320	1,350	2,990	5,020	12,200	5,960	1,650	1,220	1,470
29	1,870	1,600	1,420	1,450	-	2,890	6,300	12,600	5,750	1,820	1,250	1,630
30	1,750	1,580	1,450	1,520	-	2,620	8,060	14,500	5,520	2,030	1,250	1,670
31	1,780	-	1,520	1,500	-	2,420	-	16,300	-	2,290	1,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	61,040	2,180	1,750	1,969	121,100
November	52,350	1,990	1,520	1,745	103,800
December	52,360	2,000	1,400	1,689	103,900
Calendar year 1938	2,053,150	30,500	1,080	5,625	4,072,000
January	45,770	1,600	1,200	1,476	90,780
February	37,790	1,500	1,200	1,350	74,960
March	56,390	2,990	1,300	1,819	111,800
April	104,410	8,060	2,350	3,480	207,100
May	424,980	19,100	9,300	13,710	842,900
June	331,570	18,300	5,520	11,050	657,700
July	94,920	5,370	1,650	3,062	188,300
August	50,610	2,440	1,160	1,633	100,400
September	51,410	2,750	1,270	1,714	102,000
Water year 1938-39	1,363,600	19,100	1,150	3,736	2,705,000

Colorado River near Cisco, Utah

Location.- Water-stage recorder, lat. 38°49', long. 109°18', in NW¼ sec. 17, T. 23 S., R. 24 E., 1 mile downstream from Dolores River and 11 miles south of Cisco.

Drainage area.- 24,100 square miles.

Records available.- November 1914 to September 1917 and October 1922 to September 1939. October 1913 to November 1914, at Moab, 30 miles downstream. Records equivalent.

Average discharge.- 21 years, 8,395 second-feet.

Extremes.- Maximum discharge during year, 25,400 second-feet May 24 (gage height, 9.63 feet); minimum, 886 second-feet Aug. 27 (gage height, 1.00 feet).
1914-17, 1922-39: Maximum discharge, 76,800 second-feet June 19, 1917 (gage height, 19.7 feet); minimum discharge observed, 558 second-feet July 21, 1934 (gage height, 0.44 foot).

Remarks.- Records excellent except those for period of ice effect, Dec. 24 to Mar. 18, and periods of missing gage heights, Nov. 6-9, 24-27, 30, Mar. 26-31, Apr. 4, which were computed on basis of records for other stations on Colorado River and are fair. Diversions for irrigation and power above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,030	3,030	3,120	2,500	2,650	2,650	5,650	16,600	22,100	5,890	2,590	1,630
2	3,120	3,210	3,030	2,550	2,650	2,600	6,340	17,700	24,100	5,660	2,760	1,590
3	3,030	3,490	3,210	2,600	2,400	2,600	7,430	19,700	23,300	5,540	2,590	1,520
4	2,760	3,580	3,300	2,700	2,350	2,600	9,000	20,500	20,900	5,370	2,350	1,460
5	2,850	3,490	3,210	2,700	2,350	2,600	10,900	20,500	20,500	5,170	2,170	2,500
6	2,940	3,400	3,300	2,700	2,500	2,600	10,900	21,300	22,100	4,890	2,220	3,300
7	2,940	3,600	3,300	2,600	2,700	2,600	10,300	22,500	22,900	4,580	2,590	6,340
8	5,320	3,500	3,210	2,800	2,600	2,600	9,070	20,500	20,900	4,370	2,400	4,580
9	4,370	2,900	3,030	2,750	2,500	2,700	8,500	17,300	18,900	3,970	3,120	3,970
10	4,580	3,210	3,120	2,800	2,550	2,900	9,070	16,600	17,300	3,690	2,750	3,870
11	4,270	3,780	3,120	2,850	2,450	3,000	9,070	18,100	15,800	3,490	2,500	4,890
12	4,170	3,970	3,210	2,850	2,350	3,000	8,780	19,700	15,400	3,370	2,270	5,550
13	4,070	3,970	3,210	2,800	2,450	3,000	8,500	19,700	15,400	3,120	1,960	5,540
14	3,970	3,580	2,940	2,800	2,350	2,950	8,220	18,500	15,800	2,850	1,640	5,000
15	3,870	3,210	2,660	2,700	2,450	3,100	8,220	17,300	16,600	2,690	1,470	4,580
16	3,780	3,210	2,590	2,550	2,550	3,300	7,890	18,100	16,600	2,590	1,340	4,170
17	3,780	3,400	2,500	2,400	2,500	3,200	7,180	19,300	15,100	2,370	1,220	3,780
18	3,970	3,580	2,760	2,450	2,600	3,600	5,450	19,700	14,300	2,340	1,140	3,400
19	3,970	3,580	2,850	2,550	2,350	4,070	5,990	18,900	12,900	2,230	1,110	3,120
20	3,870	3,400	2,850	2,600	2,200	4,170	5,760	19,300	11,200	2,130	1,060	2,940
21	3,680	3,400	2,760	2,600	2,500	4,470	6,100	21,700	9,660	1,930	1,060	2,760
22	3,680	3,400	2,940	2,600	2,600	5,320	6,450	23,300	8,780	1,770	1,030	2,590
23	3,580	3,400	2,940	2,600	2,450	6,100	7,950	24,100	7,690	1,650	950	2,420
24	3,490	3,100	2,900	2,650	2,300	6,930	10,300	25,000	7,430	1,690	960	2,340
25	3,300	2,800	2,700	2,600	2,400	7,950	10,900	23,700	7,430	1,570	970	2,220
26	3,120	2,800	2,500	2,400	2,650	8,500	10,300	21,300	7,430	1,510	950	2,250
27	3,120	2,800	2,400	2,250	2,800	9,000	9,360	18,100	7,130	1,470	904	2,140
28	3,030	2,760	2,300	2,300	2,750	9,000	9,660	16,200	6,930	1,510	1,290	2,220
29	2,940	2,590	2,300	2,300	-	8,500	11,200	16,200	6,450	1,530	2,010	2,500
30	3,120	2,900	2,400	2,600	-	8,000	14,300	17,300	6,100	1,730	2,200	2,590
31	3,030	-	2,450	2,700	-	7,000	-	20,100	-	2,350	1,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	110,750	5,320	2,760	3,573	219,700
November	99,040	3,970	2,590	3,301	196,400
December	89,130	3,300	2,300	2,875	176,800
Calendar year 1938	3,771,460	52,800	1,840	10,330	7,481,000
January	80,850	2,850	2,250	2,608	160,400
February	69,950	2,800	2,200	2,498	138,700
March	140,610	9,000	2,600	4,536	278,900
April	259,540	14,300	5,650	8,651	514,800
May	608,800	25,000	16,200	19,640	1,208,000
June	437,180	24,100	6,100	14,570	867,100
July	94,560	5,880	1,470	3,050	187,600
August	55,364	3,120	904	1,786	109,800
September	97,860	6,340	1,460	3,262	194,100
Water year 1938-39	2,143,634	25,000	904	5,873	4,252,000

Colorado River at Lees Ferry, Ariz.

Location.- Water-stage recorder, lat. 36°51'45", long. 111°36'15", in NE¼SF¼ sec. 13, T. 40 N., R. 7 E., at head of Marble Gorge, at Lees Ferry, just upstream from Paria River, 28 miles downstream from Arizona-Utah State line, 79 miles downstream from San Juan River, and 355 miles upstream from Boulder Dam. Zero of gage is 3,106.16 feet (general adjustment of 1929) or 3,106.35 feet (general adjustment of 1912) above mean sea level.

Drainage area.- 107,900 square miles.

Records available.- June 1921 to September 1939.

Average discharge.- 18 years (1921-39), 17,520 second-feet.

Extremes.- Maximum discharge during year, 49,700 second-feet May 26 (gage height, 13.86 feet); minimum, 2,220 second-feet Aug. 29 (gage height, 5.59 feet).

1921-39: Maximum discharge, 220,000 second-feet June 18, 1921 (gage height, 26.5 feet, from floodmarks), from rating curve extended above 120,000 second-feet on basis of rating curve for station near Grand Canyon; minimum, 750 second-feet Dec. 27, 1924 (gage height, 4.2 feet).

Maximum discharge known, about 300,000 second-feet July 7, 1884 (gage height, 31.5 feet, present site and datum, from floodmark at mouth of Paria River), from rating curve extended above 120,000 second-feet, verified at 220,000 second-feet by comparison with rating curve for station near Grand Canyon.

Remarks.- Records excellent. Discharge for period of missing gage heights, Oct. 19-21 (well sealed), and days of ice effect, Nov. 29, 30, computed on basis of partial gage-height record and records for station at Grand Canyon. Diversions above station for irrigation. During the year 125 discharge measurements made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,380	8,400	4,900	4,430	5,470	5,470	23,200	22,800	33,100	12,600	3,420	3,480
2	7,090	8,220	4,720	4,220	5,610	5,470	21,400	28,000	35,700	11,900	3,190	3,550
3	7,090	8,400	4,600	3,970	5,580	5,450	19,600	33,000	36,500	11,300	3,110	3,500
4	6,590	8,190	5,390	3,940	5,530	5,470	18,300	36,200	41,500	10,700	3,060	3,950
5	6,490	8,160	5,900	4,170	5,360	5,580	18,100	39,500	39,500	10,200	3,380	5,110
6	6,370	8,300	6,190	4,670	5,100	5,670	19,200	41,000	38,300	9,810	4,130	6,600
7	6,430	8,660	6,310	5,100	4,770	5,780	22,200	42,700	40,900	9,370	4,510	7,750
8	6,160	9,000	6,590	5,150	4,700	5,700	25,300	45,500	42,500	8,830	4,540	11,600
9	6,070	8,780	6,620	5,280	4,720	5,610	25,200	48,200	42,000	8,550	4,590	11,200
10	7,360	8,590	6,930	5,610	4,920	5,750	22,500	46,000	39,300	8,160	4,360	11,100
11	11,400	8,440	7,710	6,040	5,310	5,580	21,200	41,300	36,200	7,770	4,270	10,000
12	11,600	8,480	7,780	5,950	5,560	6,070	21,100	40,900	33,400	7,460	5,090	10,900
13	11,600	8,120	7,840	5,900	5,260	6,960	21,300	41,700	30,400	7,220	4,710	22,200
14	11,900	8,220	7,950	5,700	4,940	8,020	20,100	45,300	28,400	6,960	4,910	19,600
15	10,900	6,480	8,020	5,640	4,800	8,780	18,500	43,000	27,400	6,480	5,070	14,800
16	11,400	8,660	7,960	5,750	4,840	9,310	17,800	41,900	26,700	6,540	4,660	15,300
17	11,700	8,590	7,740	5,610	5,150	9,630	17,900	39,500	26,900	6,260	4,350	12,900
18	10,600	8,300	7,160	5,780	5,390	10,000	17,600	39,600	27,100	5,820	4,040	11,400
19	10,000	7,840	6,870	5,920	5,500	10,200	16,900	40,500	25,900	5,450	3,640	10,600
20	9,630	7,570	6,310	5,700	5,470	10,300	16,100	40,200	24,100	5,090	3,310	10,100
21	9,630	7,710	6,490	5,840	5,670	10,100	15,400	39,100	22,800	4,840	3,090	9,180
22	9,960	7,640	6,870	5,750	5,780	16,100	16,100	39,800	20,800	4,640	2,940	8,020
23	10,400	7,640	7,020	5,840	5,560	22,500	15,100	44,400	18,800	4,490	2,760	7,490
24	10,400	7,340	6,800	6,280	5,500	26,100	15,400	47,500	16,800	4,370	2,650	6,700
25	9,960	7,210	6,770	6,370	5,340	26,000	15,900	47,900	15,300	4,250	2,510	6,320
26	9,680	7,090	6,710	6,310	5,260	27,100	16,600	48,300	13,900	3,990	2,440	5,930
27	9,310	6,800	6,620	6,220	5,260	26,800	21,600	46,500	13,400	3,810	2,400	6,110
28	9,430	6,370	6,220	6,190	5,450	26,100	21,400	41,900	13,400	3,660	2,370	7,770
29	9,310	5,720	5,560	6,280	-	27,400	21,000	38,400	13,400	3,530	2,370	7,320
30	9,000	5,420	4,650	6,130	-	27,900	22,500	34,600	13,100	3,460	2,440	5,560
31	8,740	-	4,500	5,560	-	26,400	-	33,000	-	3,380	2,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	283,570	11,900	6,070	9,147	562,500
November	236,340	9,000	5,420	7,878	468,800
December	201,940	8,020	4,500	6,514	400,500
Calendar year 1938	7,882,760	100,300	4,190	21,600	15,640,000
January	171,500	6,370	3,940	5,532	340,200
February	147,800	5,780	4,700	5,279	293,200
March	403,300	27,900	5,450	13,010	799,900
April	581,700	23,300	15,100	19,390	1,153,800
May	1,255,400	48,300	22,800	40,500	2,490,000
June	839,500	42,500	13,100	27,980	1,665,100
July	210,870	12,600	5,380	6,802	418,300
August	110,960	5,090	2,370	3,580	220,100
September	276,040	22,200	3,480	9,201	547,500
Water year 1938-39	4,718,940	48,300	2,370	13,930	9,360,000

Colorado River at Bright Angel Creek, near Grand Canyon, Ariz.

Location.-Water-stage recorder, lat. 36°05'55", long. 112°05'30", at Kaibab Bridge, a quarter of a mile upstream from Bright Angel Creek, 11 miles by trail northeast of Grand Canyon Village, Coconino County, and 267 miles upstream from Boulder Dam. Zero of gage is 2,418.7 feet above mean sea level (preliminary adjustment of 1929).

Drainage area.- 138,700 square miles.

Records available.- October 1922 to September 1939.

Average discharge.- 17 years, 17,310 second-feet.

Extremes.- Maximum discharge during year, 49,000 second-feet May 26 (gage height, 18.07 feet); minimum, 2,670 second-feet Sept. 1 (gage height, 1.26 feet).
1922-39: Maximum discharge, 127,000 second-feet July 2, 1927 (gage height, 29.25 feet); minimum, 700 second-feet Dec. 28, 1924 (gage height, -0.70 foot).
Maximum discharge known, 300,000 second-feet about July 8, 1884 (computed on basis of flood studies at Lees Ferry). Crest discharge of flood of June 19, 1921, 220,000 second-feet (gage height 37.5 feet, from floodmarks), from rating curve extended logarithmically above 120,000 second-feet.

Remarks.- Records excellent. During the year 191 discharge measurements were made. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,070	9,000	5,900	4,750	5,920	6,040	25,500	22,500	32,800	13,400	3,980	2,890
2	7,830	8,790	5,300	4,740	5,820	6,050	23,700	24,200	34,600	13,000	3,920	3,670
3	7,660	8,740	5,120	4,610	5,950	6,020	22,000	29,600	37,900	12,400	3,580	3,880
4	7,770	8,820	5,350	4,450	5,920	6,050	20,300	33,400	39,300	11,700	3,550	3,860
5	7,140	8,520	5,880	4,410	5,790	6,040	19,500	37,000	40,300	11,200	3,490	5,140
6	7,040	8,440	6,340	4,800	5,690	6,150	21,900	39,800	37,500	10,600	3,730	7,640
7	6,870	8,690	6,620	5,360	5,400	6,240	23,800	40,600	37,400	10,200	4,570	8,540
8	6,890	9,010	6,870	5,600	5,090	6,160	25,400	42,600	39,900	9,880	4,930	10,300
9	6,620	9,270	7,150	5,610	5,060	6,130	24,800	45,300	41,200	9,370	4,930	12,200
10	6,580	9,140	7,220	5,790	5,060	6,080	24,000	44,400	39,000	9,130	4,930	11,100
11	8,760	9,050	7,650	6,050	5,410	5,980	22,600	40,800	36,500	8,680	4,690	13,200
12	12,400	9,010	8,370	6,260	5,880	6,100	21,300	39,500	34,400	8,270	4,620	13,800
13	11,800	8,970	8,430	6,270	5,910	6,650	22,000	40,100	31,900	7,880	5,400	17,300
14	12,500	8,650	8,260	6,310	5,610	7,540	21,500	41,100	29,400	7,650	5,010	25,200
15	12,100	8,840	8,200	6,120	5,340	8,460	20,200	42,600	28,000	7,400	5,230	18,100
16	11,300	9,010	8,280	6,060	5,230	9,240	18,700	41,500	27,100	7,050	5,380	14,800
17	12,100	9,140	8,380	6,090	5,350	10,000	18,100	38,400	26,800	6,990	4,920	15,600
18	12,000	8,970	8,130	6,130	5,740	10,400	18,500	38,000	27,000	6,720	4,570	12,600
19	11,000	8,680	7,640	6,050	6,040	10,600	18,200	39,300	26,600	6,410	4,270	11,600
20	10,500	8,100	7,250	6,120	6,050	10,900	17,200	39,400	24,600	6,040	3,900	10,700
21	10,200	7,950	6,800	5,930	5,930	11,200	16,300	38,100	23,500	5,690	3,580	9,970
22	10,300	8,130	7,080	6,170	6,050	12,000	15,800	37,500	21,900	5,430	3,400	9,130
23	10,600	8,100	7,520	6,020	6,180	21,100	15,300	40,700	20,100	5,190	3,240	8,250
24	11,100	7,980	7,620	6,170	6,060	27,400	15,500	44,400	18,500	5,040	3,100	7,720
25	10,800	7,680	7,350	6,690	6,080	27,300	16,100	46,600	16,300	4,880	3,020	7,080
26	10,400	7,540	7,320	6,760	5,910	28,500	16,800	48,100	14,900	4,720	2,910	6,720
27	10,100	7,400	7,270	6,610	5,830	28,000	20,300	46,600	14,100	4,580	2,830	6,300
28	9,820	7,100	7,040	6,480	5,870	27,000	21,800	42,600	13,900	4,350	2,880	6,640
29	9,870	6,680	6,610	6,450	-	27,500	21,000	39,600	13,900	4,240	2,890	8,630
30	9,530	6,160	5,910	6,580	-	28,000	21,900	36,000	13,600	4,040	2,790	7,380
31	9,220	-	5,010	6,430	-	27,800	-	33,700	-	4,000	2,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	298,870	12,500	6,580	9,641	592,800
November	251,560	9,270	6,160	8,385	499,000
December	217,870	8,430	5,010	7,028	432,100
Calendar year 1938	7,997,130	99,400	4,580	21,910	15,860,000
January	181,870	6,760	4,410	5,867	360,700
February	160,150	6,160	5,060	5,720	317,700
March	412,630	28,500	5,980	13,310	818,400
April	610,500	25,500	15,300	20,350	1,210,900
May	1,214,000	48,100	22,500	39,160	2,407,900
June	842,900	41,200	13,600	28,100	1,671,900
July	235,950	13,400	4,000	7,611	468,000
August	123,090	5,400	2,790	3,971	244,100
September	299,940	25,200	2,890	9,998	594,900
Water year 1938-39	4,849,330	48,100	2,790	13,290	9,618,000

Lake Mead at Boulder Dam, Ariz.-Nev.

Location.- Water-stage indicator, lat. 36°00'59", long. 114°44'10" in SW¼ sec. 3, T. 30 N., R. 23 W. Gila and Salt River meridian, on State line in center of Boulder Dam, in Colorado River. Datum of gage is mean sea level (general adjustment of 1912, subject to correction), or 0.38 foot above mean sea level (general adjustment of 1929, subject to correction).

Drainage area.- 169,800 square miles.

Records available.- February 1935 to September 1939.

Extremes.- Maximum contents during year, 24,350,000 acre-feet June 27 to July 5 (elevation of water surface, 1,183.45 feet); minimum, 21,120,000 acre-feet Mar. 15-23 (elevation, 1,156.10 feet).
1935-39: Maximum contents, that of June 27 to July 5, 1939.

Remarks.- All elevations shown are in agreement with general adjustment of 1912. Record of contents determined from once-daily gage readings at 7 a.m., Pacific standard time. Storage is used for irrigation, municipal water supply, flood control, and power development. Total capacity, 29,406,000 acre-feet (elevation, 1,221.4 feet, at top of automatic spillway gates); contents not available for release, 3,325,000 acre-feet (elevation 895.0 feet, gate sills in outlet towers). Figures shown in table are those for total contents. Storage began Feb. 1, 1935. Records of daily elevations and contents furnished by Bureau of Reclamation.

Capacity table, dated 1935 (elevation, in feet, and contents, in thousands of acre-feet)
(Based on Bureau of Reclamation survey and Colorado River profile survey)

895	3,325	1,100	15,438	1,210	27,813
980	6,950	1,140	19,368	1,220	29,207
1,020	9,262	1,170	22,721		
1,060	12,080	1,190	25,176		

Elevation, in feet, at 7 a.m. Pacific Standard time, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	173.8	171.35	168.65	168.7	165.05	157.15	158.5	163.1	176.5	183.45	181.2	177.2
2	173.75	171.25	168.6	168.7	164.65	156.85	158.75	163.25	176.9	183.45	181.05	177.05
3	173.7	171.1	168.55	168.65	164.5	156.65	158.95	163.45	177.2	183.45	180.95	176.9
4	173.65	170.95	168.5	168.65	164.3	156.6	159.15	163.7	177.55	183.45	180.8	176.85
5	173.6	170.75	168.45	168.65	164.05	156.65	159.35	164.0	177.9	183.4	180.7	176.7
6	173.55	170.6	168.5	168.55	163.9	156.65	159.5	164.4	178.3	183.35	180.55	176.7
7	173.5	170.35	168.45	168.55	163.45	156.6	159.6	164.85	178.75	183.35	180.35	176.9
8	173.4	170.2	168.45	168.55	163.2	156.55	159.85	165.3	179.15	183.35	180.25	177.05
9	173.3	170.0	168.45	168.55	162.85	156.45	160.05	165.8	179.55	183.35	180.1	177.05
10	173.2	169.85	168.45	168.55	162.6	156.35	160.25	166.25	180.0	183.3	179.95	177.05
11	173.05	169.7	168.45	168.5	162.25	156.3	160.5	166.85	180.4	183.2	179.85	177.1
12	172.9	169.55	168.5	168.45	161.95	156.35	160.7	167.35	180.75	183.15	179.75	177.8
13	172.85	169.35	168.45	168.45	161.6	156.3	160.85	167.85	181.1	183.1	179.6	178.4
14	172.8	169.2	168.45	168.4	161.2	156.2	161.05	168.25	181.35	183.05	179.45	178.6
15	172.7	169.05	168.35	168.4	160.85	156.15	161.2	168.75	181.6	182.95	179.35	178.9
16	172.65	168.9	168.35	168.4	160.9	156.15	161.4	169.3	181.8	182.9	179.2	179.05
17	172.6	168.9	168.4	168.4	160.86	156.1	161.5	169.75	182.00	182.75	179.1	179.16
18	172.55	168.9	168.45	168.4	160.45	156.1	161.6	170.2	182.2	182.7	179.05	179.3
19	172.5	168.9	168.5	168.3	160.15	156.1	161.75	170.6	182.35	182.6	178.9	179.4
20	172.4	168.9	168.55	168.15	159.8	156.1	161.85	171.05	182.6	182.5	178.8	179.4
21	172.35	168.9	168.55	168.0	159.55	156.1	162.0	171.5	182.8	182.4	178.7	179.4
22	172.3	168.85	168.6	167.95	159.25	156.1	162.1	171.85	182.95	182.3	178.55	179.35
23	172.2	168.8	168.55	167.75	158.9	156.15	162.15	172.3	183.1	182.2	178.4	179.3
24	172.15	168.8	168.6	167.6	158.65	156.25	162.25	172.7	183.2	182.05	178.3	179.3
25	172.05	168.8	168.6	167.35	158.35	156.4	162.35	173.2	183.3	182.0	178.15	179.3
26	172.0	168.75	168.65	167.15	158.05	156.75	162.4	173.7	183.35	181.9	178.0	179.25
27	171.9	168.75	168.65	166.9	157.7	157.0	162.5	174.3	183.4	181.7	177.9	179.15
28	171.8	168.7	168.65	166.55	157.4	157.35	162.6	174.85	183.4	181.6	177.75	179.1
29	171.7	168.7	168.65	166.2	-	157.6	162.75	175.35	183.45	181.5	177.6	179.0
30	171.6	168.7	168.65	165.8	-	157.9	162.9	175.8	183.45	181.4	177.45	178.95
31	171.45	-	168.65	165.4	-	158.2	-	176.2	-	181.3	177.35	-

Note.- Add 1,000 feet to gage heights in table to obtain elevation above mean sea level.

Contents, in thousands of acre-feet, of Lake Mead at Boulder Dam, Ariz.-Nev. for water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,170	22,880	22,560	22,570	22,140	21,240	21,390	21,920	23,500	24,350	24,070	23,580
2	23,170	22,870	22,560	22,570	22,090	21,200	21,420	21,930	23,550	24,350	24,060	23,570
3	23,160	22,850	22,550	22,560	22,080	21,180	21,440	21,960	23,580	24,350	24,040	23,550
4	23,160	22,830	22,540	22,560	22,050	21,180	21,460	21,980	23,630	24,350	24,020	23,540
5	23,150	22,810	22,540	22,560	22,020	21,180	21,490	22,020	23,670	24,350	24,010	23,520
6	23,140	22,790	22,540	22,550	22,010	21,180	21,500	22,060	23,720	24,340	23,990	23,520
7	23,140	22,760	22,540	22,550	21,960	21,180	21,510	22,120	23,770	24,340	23,970	23,550
8	23,130	22,740	22,540	22,550	21,930	21,170	21,540	22,170	23,820	24,340	23,960	23,570
9	23,110	22,720	22,540	22,550	21,890	21,160	21,570	22,230	23,870	24,340	23,940	23,570
10	23,100	22,700	22,540	22,550	21,860	21,150	21,590	22,280	23,930	24,330	23,920	23,570
11	23,080	22,690	22,540	22,540	21,820	21,140	21,620	22,350	23,980	24,330	23,910	23,570
12	23,070	22,670	22,540	22,540	21,780	21,150	21,640	22,410	24,020	24,310	23,900	23,660
13	23,060	22,640	22,540	22,540	21,740	21,140	21,660	22,470	24,060	24,310	23,880	23,730
14	23,050	22,630	22,540	22,530	21,700	21,130	21,680	22,510	24,090	24,300	23,860	23,750
15	23,040	22,610	22,530	22,530	21,660	21,120	21,700	22,570	24,120	24,290	23,850	23,790
16	23,040	22,590	22,530	22,530	21,660	21,120	21,720	22,640	24,150	24,290	23,830	23,810
17	23,030	22,590	22,530	22,530	21,660	21,120	21,730	22,690	24,170	24,270	23,820	23,820
18	23,020	22,590	22,540	22,530	21,610	21,120	21,740	22,740	24,200	24,230	23,810	23,840
19	23,020	22,590	22,540	22,520	21,580	21,120	21,760	22,790	24,220	24,230	23,790	23,850
20	23,010	22,590	22,550	22,500	21,540	21,120	21,770	22,840	24,250	24,230	23,780	23,850
21	23,000	22,590	22,550	22,480	21,510	21,120	21,790	22,900	24,270	24,220	23,770	23,850
22	22,990	22,590	22,560	22,480	21,480	21,120	21,800	22,940	24,290	24,210	23,750	23,850
23	22,980	22,580	22,550	22,460	21,440	21,120	21,810	22,990	24,310	24,210	23,730	23,840
24	22,980	22,580	22,560	22,440	21,410	21,140	21,820	23,040	24,320	24,180	23,720	23,840
26	22,960	22,580	22,560	22,410	21,370	21,150	21,830	23,100	24,330	24,170	23,700	23,840
26	22,960	22,570	22,560	22,390	21,340	21,190	21,840	23,160	24,340	24,160	23,680	23,830
27	22,950	22,570	22,560	22,360	21,300	21,220	21,850	23,230	24,350	24,140	23,670	23,820
28	22,930	22,570	22,560	22,320	21,270	21,260	21,860	23,300	24,350	24,120	23,650	23,810
29	22,920	22,570	22,560	22,270	-	21,290	21,880	23,360	24,350	24,110	23,630	23,800
30	22,910	22,570	22,560	22,230	-	21,320	21,890	23,410	24,350	24,100	23,610	23,800
31	22,890	-	22,560	22,180	-	21,360	-	23,460	-	24,090	23,600	-

Monthly elevation and contents, water year 1938-39

Date	Elevation in feet	Capacity in thousands of acre-feet	Change in contents in thousands of acre-feet
Sept. 30	173.8	23,170	
Oct. 31	171.45	22,890	-280
Nov. 30	168.7	22,570	-320
Dec. 31	168.65	22,560	-10
Calendar year 1938	-	-	+7,510
Jan. 31	165.4	22,180	-380
Feb. 28	157.4	21,270	-910
Mar. 31	158.2	21,360	+90
Apr. 30	162.9	21,890	+530
May 31	176.2	23,460	+1,570
June 30	183.45	24,350	+890
July 31	181.3	24,090	-260
Aug. 31	177.35	23,600	-490
Sept. 30	178.95	23,800	+200
Water year 1938-39	-	-	+630

Colorado River near Willow Beach, Ariz.

Location.- Water-stage recorder, lat. 35°53'30", long. 114°41'15", in sec. 19, T. 29 N., R. 22 W., 2 miles upstream from Willow Beach and 10 miles downstream from Boulder Dam. Zero of gage is 594.8 feet (general adjustment of 1912, subject to correction) or 595.2 feet (general adjustment of 1929, subject to correction) above mean sea level.

Drainage area.- 169,900 square miles.

Records available.- April 1934 to September 1939.

Extremes.- Maximum discharge during year, 48,400 second-feet Feb. 13 (gage height, 36.72 feet); minimum, 3,280 second-feet Mar. 6 (gage height, 24.11 feet); minimum daily discharge, 4,260 second-feet Dec. 11.
1935-39 (regulated): Maximum discharge, that of Feb. 13, 1939; minimum, 33 second-feet Feb. 11, 1935; minimum daily discharge, 152 second-feet Feb. 10, 1935.
Minimum unregulated discharge, 1,920 second-feet Aug. 14, 1934 (gage height, 28.06 feet).

Remarks.- Records excellent. Diversions for irrigation above Boulder Dam. Discharge completely regulated at Boulder Dam since Feb. 1, 1935. Mountain standard time used. During the year 242 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,800	15,100	7,660	4,780	29,100	19,600	11,900	10,300	9,660	11,000	11,100	10,700
2	8,760	17,200	7,600	4,760	21,900	21,000	12,000	10,900	9,680	11,400	11,100	10,900
3	8,620	17,600	7,540	6,000	19,800	15,300	9,770	11,000	9,660	11,200	11,700	11,000
4	8,400	17,500	7,620	6,120	18,600	5,430	9,560	10,900	9,790	11,300	12,300	11,100
5	8,300	17,800	7,140	6,320	20,800	4,440	10,000	10,800	9,790	11,300	12,200	9,860
6	8,430	17,800	5,900	6,060	22,500	6,420	10,500	9,790	9,660	11,400	12,200	9,150
7	8,470	17,700	6,180	5,860	25,900	8,960	10,600	9,480	9,560	11,100	12,100	9,170
8	10,400	17,800	6,140	5,380	23,400	9,710	10,900	9,380	9,870	11,400	12,200	8,780
9	13,200	17,600	6,100	6,000	24,100	11,500	10,600	9,560	10,700	11,400	12,000	9,060
10	15,100	17,400	5,260	6,120	24,300	9,140	10,200	9,500	10,800	11,100	12,200	8,570
11	13,600	17,500	4,260	6,220	24,300	8,520	10,700	9,560	10,800	11,300	12,500	10,400
12	13,300	17,600	5,690	6,490	24,700	8,470	10,300	9,480	10,800	11,200	12,600	9,750
13	13,100	17,400	11,500	6,660	27,900	9,430	10,600	9,480	10,800	11,200	12,600	9,780
14	13,300	17,400	13,000	6,000	27,400	9,760	10,500	9,560	10,800	11,300	12,500	9,620
15	13,200	17,400	6,300	4,900	17,300	9,770	10,900	9,460	11,100	11,300	11,800	9,410
16	13,360	8,980	6,360	6,060	6,440	8,400	10,700	9,400	10,700	11,300	11,400	8,200
17	13,400	7,620	5,690	6,270	14,900	11,000	10,400	9,530	11,300	11,100	11,200	7,870
18	13,400	7,640	5,060	9,040	26,200	9,820	10,200	9,430	11,200	11,500	11,100	8,990
19	13,400	7,710	6,180	12,300	25,300	9,930	10,000	9,480	10,900	11,700	11,100	10,000
20	13,500	7,620	6,380	13,800	24,000	9,960	10,000	9,530	11,000	11,700	11,100	11,300
21	13,400	7,460	6,320	14,300	24,300	9,600	10,500	9,530	10,800	11,600	11,100	12,100
22	13,300	7,580	6,280	15,900	24,900	9,770	10,500	9,610	11,000	11,200	11,000	11,500
23	13,200	7,540	6,220	18,600	24,600	10,200	10,800	9,430	11,000	11,300	11,200	11,600
24	13,200	7,660	5,560	19,500	23,800	11,800	10,600	9,560	11,100	11,000	11,300	9,500
25	15,100	7,480	4,620	19,500	25,200	10,700	10,400	9,660	11,100	11,200	11,400	11,500
26	14,900	7,450	4,470	21,300	25,300	6,730	10,800	9,630	11,000	11,200	11,400	11,800
27	15,100	7,600	5,840	26,000	24,700	10,600	10,700	9,610	11,200	11,200	11,500	11,700
28	14,900	7,450	6,220	26,100	24,900	9,350	10,700	9,630	11,400	11,100	11,400	11,700
29	15,100	7,500	6,180	29,300	-	9,440	11,100	9,680	10,800	11,100	11,500	11,500
30	15,100	7,620	6,000	32,000	-	9,980	10,800	9,660	11,000	10,800	11,600	9,970
31	14,900	-	5,670	31,000	-	9,790	-	9,560	-	10,800	11,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	390,180	15,100	8,300	12,590	773,900
November	375,710	17,800	7,450	12,520	745,200
December	200,940	13,000	4,260	6,482	398,600
Calendar year 1938	3,410,340	17,800	4,260	9,343	6,764,000
January	388,620	32,000	4,760	12,540	770,800
February	646,540	29,100	6,440	23,090	1,282,400
March	314,520	21,000	4,440	10,150	623,800
April	317,230	12,000	9,560	10,570	629,200
May	302,080	11,000	9,400	9,745	599,200
June	318,970	11,400	9,560	10,630	632,700
July	348,800	11,700	10,800	11,250	691,600
August	361,900	12,600	11,000	11,670	717,800
September	306,480	12,100	8,200	10,220	607,900
Water year 1938-39	4,271,970	32,000	4,260	11,700	8,473,000

Colorado River at Needles, Calif.

Location.- Water-stage recorder, lat. 34°50'50", long. 114°36'15", in NW¼ sec. 29, T. 9 N., R. 23 E., San Bernardino meridian, at Needles, Calif., 18 miles upstream from gaging station near Topock, Ariz., 57.5 miles upstream from Parker Dam, and 98 miles downstream from Boulder Dam. Zero of gage is 466.23 feet (general adjustment of 1929) or 466.39 feet (general adjustment of 1912) above mean sea level.

Records available.- April 1931 to September 1939.

Extremes.- Maximum and minimum elevations for the water years 1930-31 to 1938-39 are given in the following table:

Water year	Maximum		Minimum	
	Date	Elevation (feet)	Date	Elevation (feet)
1930-31	May 25	469.81	July 21	*†466.97
1931-32	May 25	471.83	Jan. 28-29	*†467.24
1932-33	June 25	472.10	Oct. 9-10	*†467.11
1933-34	May 17	469.99	Aug. 16	*466.94
1934-35	June 20	469.75	Oct. 2	466.53
1935-36	July 15	469.45	Jan. 18	467.59
1936-37	June 26	469.54	Jan. 12, 19, 26	†467.6
1937-38	July 3	470.18	Dec. 28	467.71
1938-39	Jan. 30	471.21	Mar. 6	466.56

*Minimum recorded.
†Minimum daily.

1931-39: Maximum elevation, 472.10 feet June 25, 1933; minimum, 466.53 feet Oct. 2, 1934.

Remarks.- Records good. Elevations shown are in agreement with general adjustment of 1929. Pacific Standard time used. Records prior to June 3, 1935, furnished by Metropolitan Water District of Southern California. Flow regulated by storage in Lake Mead above Boulder Dam since Feb. 1, 1935.

Elevation, in feet, 1931-39

1931

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	468.44	469.23	467.95	467.20	-
2							-	468.57	469.24	467.9	467.38	-
3							-	468.49	469.16	467.84	467.08	-
4							-	468.34	469.11	467.80	467.18	-
5							-	468.39	469.11	467.89	467.49	-
6							-	468.42	469.16	467.90	467.67	-
7							-	468.43	469.19	467.84	467.78	-
8							-	468.44	469.19	468.14	467.80	-
9							-	468.38	469.34	468.30	467.56	-
10							-	468.47	469.45	468.11	467.52	-
11							-	468.50	469.35	468.03	467.50	-
12							-	468.51	469.33	467.83	467.64	-
13							-	468.61	469.32	-	467.5	-
14							-	468.67	469.33	-	467.5	-
15							-	468.72	469.49	-	467.56	-
16							-	468.72	469.40	-	-	-
17							467.77	468.61	469.21	-	-	-
18							467.83	468.78	469.01	-	-	-
19							467.86	468.65	468.94	-	-	-
20							467.89	468.66	468.87	-	-	-
21							468.03	468.76	468.94	466.97	-	-
22							468.11	468.94	468.90	467.01	-	-
23							468.22	469.19	468.81	466.98	-	467.16
24							468.32	469.57	468.78	467.11	-	467.1
25							468.22	469.69	468.75	467.01	-	467.2
26							468.17	469.59	468.57	467.11	-	467.43
27							468.27	469.38	468.40	467.24	-	467.35
28							468.29	469.14	468.17	467.11	-	467.82
29							468.33	469.02	468.1	467.04	-	468.49
30							468.42	468.94	468.0	467.00	467.08	468.51
31							-	469.07	-	467.11	-	-

Note.- Elevations below 467.8 feet during periods when no record is shown July 13-20, Aug. 16-29, and Aug. 31 to Sept. 22. Elevations June 29 to Aug. 2, Aug. 13-14, and Sept. 24-26, determined by comparison with station near Topock, Ariz.

Elevation, in feet, of Colorado River at Needles, Calif., 1931-39--Continued

1931-32

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467.80	-	-	-	467.59	468.59	469.0	469.6	471.26	471.43	468.48	470.56
2	-	-	-	-	467.61	468.64	466.9	469.64	470.97	471.39	468.57	470.23
3	-	-	-	-	467.62	468.80	468.85	469.65	471.03	471.30	469.01	469.27
4	-	-	-	-	467.59	468.82	468.8	469.6	471.04	471.34	468.86	468.75
5	-	-	-	-	467.60	468.89	468.75	469.6	470.94	471.31	468.73	468.29
6	-	-	-	-	467.55	469.04	468.74	469.86	470.81	471.25	469.05	468.15
7	468.67	-	-	-	467.59	469.06	469.04	470.04	470.77	471.20	469.11	467.87
8	468.55	-	-	-	467.74	469.00	469.44	470.37	470.73	471.04	468.89	467.83
9	468.55	-	-	467.70	468.02	468.78	469.62	470.52	470.84	470.88	468.78	467.67
10	468.08	-	-	467.73	468.98	468.58	469.96	470.41	470.96	470.82	468.74	467.66
11	467.94	-	-	467.65	469.75	468.46	470.14	470.55	470.84	470.69	468.65	467.55
12	467.81	-	-	467.64	469.63	468.49	470.08	470.38	470.91	470.43	468.49	467.65
13	467.71	-	-	467.71	470.36	468.39	469.67	470.14	470.92	470.37	468.30	467.76
14	-	467.92	-	467.89	470.0	468.46	469.41	470.22	470.66	470.26	468.10	467.76
15	-	467.97	-	467.91	469.7	468.79	469.28	470.31	470.54	470.16	467.95	467.77
16	-	468.16	-	467.88	469.4	468.86	469.07	470.46	470.60	470.42	467.91	467.67
17	-	466.49	-	467.85	469.1	468.79	469.25	470.54	470.64	470.07	467.88	467.59
18	-	468.45	-	467.93	468.81	468.67	469.77	470.93	470.91	470.06	-	467.54
19	-	468.34	-	467.88	468.52	468.59	469.89	471.10	471.17	469.82	-	467.53
20	-	467.90	-	467.79	468.33	468.56	469.74	471.29	471.22	469.73	-	-
21	-	467.82	-	467.68	468.47	468.56	469.61	471.37	471.23	469.36	-	-
22	-	-	-	467.57	468.36	468.80	469.82	471.50	471.42	469.31	-	-
23	-	-	-	467.54	468.43	469.02	469.87	471.54	471.31	469.33	-	-
24	468.02	-	-	467.51	468.36	469.11	469.99	471.64	471.17	469.31	467.80	-
25	468.52	-	-	467.4	468.57	469.28	470.14	471.75	471.22	469.31	468.06	-
26	468.24	-	-	467.25	468.54	469.47	470.15	471.62	471.28	469.20	468.85	-
27	-	-	-	467.25	468.45	469.54	470.00	471.54	471.31	468.99	468.56	-
28	-	-	-	467.24	468.40	469.5	469.77	471.68	471.31	468.71	466.88	-
29	-	-	-	467.24	468.49	469.4	469.7	471.71	471.43	468.59	468.67	467.25
30	-	-	-	467.26	-	469.25	469.6	471.56	471.45	468.53	468.40	467.93
31	-	-	-	467.33	-	469.15	-	471.35	-	468.49	469.61	-

Note.- Elevations below 468.2 feet during periods for which no record is given. Elevations Jan. 25, Mar. 28 to Apr. 5, Apr. 29 to May 1, and May 4-5 determined on basis of records for station near Topock, Ariz.

1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467.80	467.86	468.20	-	467.93	467.92	468.23	468.37	470.54	470.72	468.11	-
2	467.59	467.84	468.17	-	468.03	468.08	468.10	468.33	470.71	470.46	468.0	-
3	467.76	467.8	468.14	-	468.04	468.12	468.07	468.35	471.18	470.20	467.95	-
4	467.71	467.8	468.07	-	467.99	468.41	468.11	468.29	471.40	469.92	467.9	-
5	467.4	467.8	468.05	-	467.84	468.51	468.10	468.55	471.64	469.80	467.85	-
6	467.3	467.8	467.96	-	467.87	468.53	468.17	468.86	471.49	469.76	467.8	-
7	467.25	467.81	467.92	-	467.95	468.52	468.28	469.03	471.63	469.68	467.76	-
8	467.2	467.83	467.91	-	467.88	468.51	468.33	469.08	471.84	469.58	467.8	-
9	467.11	467.78	467.87	-	467.81	468.55	468.41	468.86	472.01	469.42	468.01	-
10	467.11	467.85	467.83	467.48	467.74	468.46	468.38	468.96	471.95	469.52	468.03	-
11	467.14	467.88	468.03	-	467.83	468.32	468.39	468.95	471.98	470.00	468.09	-
12	467.12	467.84	468.11	-	467.79	468.19	468.56	469.09	471.85	470.19	468.41	-
13	467.19	467.89	468.02	-	467.78	468.29	468.53	469.00	471.70	469.69	468.42	-
14	467.22	467.84	468.07	-	467.71	468.59	468.49	469.00	471.56	469.74	468.17	-
16	467.27	467.70	468.03	-	467.50	468.62	468.56	469.09	471.63	469.32	467.94	468.71
16	467.24	467.74	467.99	467.65	467.38	468.70	468.56	469.15	471.76	469.14	467.92	468.58
17	467.22	467.76	467.89	467.93	467.83	468.71	468.47	469.01	471.83	468.97	467.7	468.05
18	467.20	467.74	467.81	467.87	467.67	468.70	468.38	468.87	471.82	468.99	467.6	467.81
19	467.21	467.77	-	467.81	467.76	468.77	468.30	468.79	471.70	468.91	467.5	467.74
20	467.23	467.75	-	468.05	467.76	468.78	468.24	468.66	471.87	468.73	467.4	467.70
21	467.37	467.72	-	468.02	467.65	468.62	468.13	468.60	471.84	468.57	467.32	467.87
22	467.38	467.62	-	468.00	467.75	468.62	468.06	468.63	471.73	468.42	467.30	467.81
23	467.45	467.66	-	467.82	467.78	468.64	468.05	468.67	471.77	468.26	467.47	467.69
24	467.54	467.72	-	467.78	467.89	468.66	468.01	468.72	471.99	468.27	-	467.50
26	467.48	467.77	-	467.79	467.86	468.56	467.96	469.92	472.05	468.16	-	468.12
26	467.56	467.75	-	467.77	467.94	468.46	467.97	470.40	471.98	468.25	-	468.53
27	467.57	467.87	-	467.87	467.96	468.43	468.00	470.59	471.74	468.21	-	468.16
28	467.67	468.02	-	467.92	467.92	468.43	468.10	470.54	471.38	468.05	-	467.75
29	467.82	468.00	-	467.96	-	468.45	468.09	470.36	471.16	468.01	-	467.63
30	467.88	468.03	-	467.86	-	468.35	468.29	470.39	470.90	468.16	-	467.66
31	467.92	-	-	467.83	-	468.23	-	470.41	-	468.17	-	-

Note.- Elevations below 467.8 feet during period when no record is shown. Elevations Oct. 5-8, Nov. 3-6, Aug. 2-6, and 17-20 determined by comparison with station near Topock, Ariz.

Elevation, in feet, of Colorado River at Needles, Calif., 1931-39--Continued

1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	467.71	467.98	467.88	467.81	-	467.91	467.93	468.37	469.23	-	-	467.57
2	-	467.96	467.85	467.88	-	467.93	467.90	468.60	469.15	-	-	467.81
3	-	467.92	467.83	468.01	-	468.01	467.92	468.75	469.39	-	-	468.02
4	467.31	467.86	467.99	468.18	-	468.00	467.92	468.81	469.34	-	-	468.12
5	-	467.62	468.30	468.15	-	468.01	-	468.92	469.17	-	-	467.79
6	-	467.80	468.12	468.10	-	467.92	-	468.90	469.22	-	467.39	467.52
7	-	467.74	468.20	468.22	467.81	467.93	-	468.81	469.34	-	467.35	467.40
8	467.90	467.72	467.98	468.18	467.83	467.77	-	469.12	469.31	-	467.18	-
9	468.05	467.78	468.00	468.16	467.82	467.72	-	469.21	469.16	-	467.12	-
10	468.39	467.93	468.07	468.12	467.93	467.77	-	469.03	468.88	-	467.13	-
11	468.81	467.95	468.12	468.07	467.93	467.79	-	469.01	468.70	-	-	-
12	468.62	468.00	468.03	468.04	467.84	467.80	-	468.9	468.60	-	-	-
13	468.30	468.03	467.91	467.91	467.86	467.91	-	468.94	468.48	-	-	-
14	468.31	468.15	467.90	468.17	467.93	467.92	-	469.15	468.30	-	-	-
15	468.30	468.16	467.88	468.24	468.00	467.61	-	469.57	468.21	-	-	-
16	468.19	468.12	468.12	468.13	468.01	467.88	-	469.66	468.11	-	-	-
17	468.07	468.10	468.01	468.05	468.14	468.03	-	469.93	468.01	-	466.99	-
18	468.37	468.06	467.99	467.99	468.11	467.95	-	469.91	467.94	-	467.02	-
19	468.24	467.86	468.13	467.87	468.07	467.93	-	469.81	-	-	467.04	-
20	468.13	467.93	468.15	467.77	467.96	467.92	-	469.74	-	-	467.03	-
21	468.24	468.07	467.99	467.66	467.98	467.95	468.13	469.65	-	-	467.14	-
22	468.31	468.06	468.08	467.61	467.96	467.96	468.18	469.61	-	-	467.20	-
23	468.07	468.00	468.00	467.65	468.03	467.98	468.53	469.78	-	-	467.16	-
24	468.08	467.93	467.90	467.72	467.90	468.02	468.50	469.76	-	-	467.12	-
25	468.13	467.96	467.88	467.80	467.87	467.95	468.50	469.58	-	-	467.33	-
26	468.06	467.95	467.87	467.86	467.89	468.08	468.46	469.55	-	-	467.19	-
27	467.97	467.94	467.88	467.85	467.97	468.08	468.42	469.46	467.54	-	467.14	-
28	467.95	467.85	467.72	467.81	468.04	468.01	468.42	469.50	467.51	-	467.12	-
29	467.99	467.97	467.71	-	-	467.88	468.46	469.42	467.49	-	467.10	-
30	467.93	467.96	467.66	-	-	467.82	468.47	469.3	467.40	-	467.08	-
31	467.83	-	467.68	-	-	467.84	-	469.2	-	-	467.04	-

Note.- Elevations below 467.9 feet during periods when no record is shown. Elevations May 12, 30, and 31 determined by comparison with station near Topock, Ariz.

1934-35

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	466.6	467.41	467.71	467.37	467.55	468.14	468.53	468.38	469.47	469.41	468.90	468.75
2	466.6	467.37	467.66	467.35	467.45	468.35	468.53	468.35	469.34	469.50	468.88	468.65
3	467.34	467.36	467.65	467.33	467.35	468.45	468.44	468.41	469.39	469.67	468.91	468.56
4	467.32	467.40	467.54	467.30	467.46	468.30	468.45	468.41	469.38	469.65	468.93	468.68
5	467.27	467.42	467.46	467.28	467.87	466.27	468.41	468.44	469.44	469.54	468.95	468.67
6	467.23	467.43	467.38	467.25	467.98	466.15	468.29	468.48	469.52	469.62	468.93	468.54
7	467.22	467.43	467.38	467.22	467.99	467.94	468.19	468.57	469.51	469.57	468.87	468.62
8	467.32	467.39	467.44	467.21	467.73	467.95	468.17	468.55	469.37	469.51	468.83	468.65
9	467.26	467.35	467.60	467.20	467.79	468.09	468.24	468.66	469.38	469.57	468.83	468.61
10	467.21	467.34	467.46	467.13	467.62	468.13	468.08	468.61	469.44	469.22	468.79	468.50
11	467.24	467.33	467.43	467.15	467.45	468.12	468.07	468.59	469.42	468.90	468.71	468.46
12	467.29	467.34	467.42	467.16	467.35	468.18	468.25	468.69	469.54	468.83	468.74	468.65
13	467.27	467.37	467.44	467.12	467.3	468.32	468.24	468.61	469.48	468.83	468.68	468.69
14	467.25	467.41	467.42	467.22	467.25	468.30	468.17	468.60	469.42	468.77	468.75	468.68
15	467.22	467.44	467.41	467.08	467.2	468.36	468.28	468.59	469.34	468.80	468.86	468.64
16	467.22	467.49	467.36	467.50	467.34	468.34	468.38	468.63	469.24	468.88	468.88	468.61
17	467.20	467.52	467.37	467.98	467.35	468.34	468.29	468.63	469.44	468.96	468.83	468.54
18	467.18	467.53	467.65	468.15	467.67	468.34	468.25	468.63	469.63	468.88	468.71	468.52
19	467.16	467.53	467.50	468.10	467.74	468.44	468.28	468.61	469.68	468.86	468.69	468.45
20	467.14	467.60	467.63	468.05	467.75	468.63	468.35	468.72	469.71	468.71	468.69	468.46
21	467.14	467.67	467.70	468.18	467.75	468.51	468.44	468.75	469.63	468.65	468.68	468.53
22	467.09	467.77	467.75	468.17	467.80	468.48	468.43	468.69	469.70	468.71	468.69	468.49
23	467.09	467.76	467.75	468.07	467.82	468.46	468.29	468.69	469.68	468.86	468.83	468.54
24	467.14	467.69	467.67	467.89	467.98	468.40	468.32	469.12	469.57	468.83	468.88	468.55
25	467.22	467.57	467.61	467.83	467.98	468.49	468.33	469.43	469.19	468.77	468.88	468.56
26	467.28	467.63	467.64	467.95	467.93	468.55	468.38	469.48	469.09	468.79	468.88	468.66
27	467.32	467.63	467.61	467.94	467.94	468.57	468.37	469.36	469.14	468.81	468.88	468.64
28	467.38	467.63	467.49	467.97	467.98	468.73	468.45	469.23	469.25	468.82	468.89	468.58
29	467.43	467.64	467.44	467.85	-	468.63	468.46	469.28	469.25	468.92	468.88	468.68
30	467.43	467.66	467.42	467.80	-	468.45	468.42	469.36	469.29	468.95	468.86	468.70
31	467.43	-	467.40	467.55	-	468.52	-	469.53	-	468.93	468.83	-

Note.- Elevations Oct. 1, 2, Jan. 1-7. Feb. 3, 11-15 determined on basis of records for station near Topock, Ariz.

Elevation, in feet, of Colorado River at Needles, Calif., 1931-39--Continued

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468.80	468.60	468.28	467.91	468.10	468.28	468.68	469.04	468.96	469.25	469.18	469.17
2	468.81	468.47	467.86	468.04	468.10	468.24	468.60	468.74	468.97	469.19	469.25	469.18
3	468.85	468.54	467.96	468.18	468.15	468.34	468.78	468.71	468.97	469.22	469.27	469.18
4	468.90	468.61	467.98	468.17	468.10	468.40	468.77	468.73	468.97	469.24	469.31	469.14
5	468.87	468.66	467.97	468.22	468.10	468.44	468.81	468.61	469.02	469.23	469.32	469.08
6	468.84	468.62	467.90	468.15	468.13	468.45	468.72	468.49	469.16	469.22	469.25	469.13
7	468.85	468.54	467.79	468.04	468.17	468.42	468.76	468.52	469.22	469.21	469.24	469.13
8	468.85	468.58	467.97	468.10	468.18	468.56	468.79	468.60	469.19	469.22	469.20	469.11
9	468.80	468.53	468.02	468.06	468.21	468.57	468.82	468.56	469.20	469.27	469.20	469.08
10	468.70	468.53	467.98	467.98	468.15	468.69	468.86	468.58	469.16	469.30	469.25	466.94
11	468.63	468.42	467.98	467.97	468.19	468.76	468.82	468.76	469.07	469.33	469.19	468.90
12	468.51	468.39	468.06	468.03	468.19	468.70	468.88	468.95	469.01	469.37	469.04	468.97
13	468.47	468.33	468.06	468.05	468.33	468.60	468.67	468.90	468.95	469.36	468.97	468.93
14	468.46	468.34	468.00	468.06	468.35	468.75	468.59	468.90	468.95	469.39	468.98	468.97
15	468.47	468.48	468.03	468.02	468.31	468.73	468.71	468.87	469.03	469.41	469.01	469.07
16	468.48	468.42	468.05	467.91	468.33	468.73	469.00	468.83	469.01	469.39	469.10	469.11
17	468.55	468.44	468.08	467.86	468.36	468.73	469.03	468.57	469.05	469.33	469.18	469.20
18	468.62	468.51	468.12	467.73	468.35	468.79	469.02	468.61	469.04	469.21	469.14	469.32
19	468.61	468.50	468.11	467.84	468.32	468.80	468.97	468.68	469.16	469.16	469.13	469.31
20	468.66	468.47	468.12	467.79	468.36	468.67	468.93	468.81	469.17	469.06	469.17	469.29
21	468.72	468.49	468.12	467.87	468.35	468.59	468.88	468.87	469.12	469.04	469.14	469.25
22	468.66	468.63	468.05	467.87	468.26	468.62	468.88	468.69	469.12	469.06	469.12	469.19
23	468.75	468.85	467.96	467.80	468.25	468.67	468.80	468.66	469.10	469.01	469.13	469.06
24	468.83	468.89	467.90	467.91	468.19	468.59	468.81	468.72	469.15	469.12	469.06	469.06
25	468.88	468.96	467.87	467.94	468.18	468.71	468.85	468.67	469.18	469.13	469.11	469.06
26	468.89	468.96	467.88	467.93	468.21	468.86	468.98	468.71	469.26	469.13	469.01	469.11
27	468.90	468.80	467.91	467.93	468.25	469.01	468.98	468.81	469.33	469.13	469.00	469.00
28	468.89	468.67	467.96	467.92	468.26	469.01	469.00	468.90	469.36	469.19	469.08	468.93
29	468.83	468.62	467.92	467.91	468.24	468.95	469.12	468.92	469.33	469.18	469.12	468.93
30	468.80	468.67	467.90	467.98	-	468.90	469.12	468.96	469.28	469.21	469.11	468.89
31	468.70	-	467.90	468.04	-	468.90	-	468.60	-	469.13	469.18	-

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468.88	468.36	468.74	468.41	468.02	468.81	468.85	468.82	468.34	469.39	468.98	469.22
2	468.90	468.43	468.71	468.12	467.92	468.74	468.80	468.85	468.34	469.40	468.98	469.27
3	468.93	468.45	468.65	467.8	468.14	468.80	468.74	468.82	468.30	469.37	468.99	469.32
4	468.84	468.35	468.56	468.01	468.10	468.90	468.78	468.85	468.27	469.44	469.00	469.27
5	468.75	468.35	468.57	467.8	467.93	468.86	468.70	468.85	468.27	469.43	468.96	469.20
6	468.83	468.43	468.41	468.11	468.05	468.81	468.78	468.87	468.31	469.46	468.93	469.17
7	468.85	468.52	468.29	468.22	468.05	468.76	468.84	468.85	468.36	469.36	468.98	469.17
8	468.85	468.42	468.33	468.21	468.01	468.74	468.74	468.83	468.41	469.27	469.08	469.12
9	468.92	468.32	468.33	468.16	468.09	468.92	468.85	468.75	468.40	469.30	469.17	469.05
10	468.95	468.37	468.52	467.99	468.11	468.95	469.06	468.66	468.44	469.26	469.19	469.06
11	468.92	468.40	468.52	467.8	468.11	469.04	469.05	468.68	468.61	469.21	469.05	469.06
12	468.61	468.57	468.46	467.6	468.19	469.11	468.99	468.73	468.69	469.12	468.96	468.97
13	468.50	468.54	468.38	467.8	468.36	469.32	468.95	468.73	468.70	469.09	468.92	469.01
14	468.86	468.62	468.35	467.8	468.35	469.40	469.00	468.73	468.70	469.10	466.77	468.96
15	468.97	468.72	468.36	467.90	468.38	469.38	468.94	468.68	468.67	469.08	468.82	468.79
16	469.01	468.65	468.43	467.83	468.43	469.36	468.84	468.66	468.66	469.06	469.07	468.77
17	468.99	468.79	468.36	467.83	468.60	469.23	468.85	468.61	468.73	469.01	469.24	468.84
18	469.00	468.69	468.34	467.7	468.68	469.07	468.90	468.58	468.81	468.99	469.29	468.91
19	468.93	468.65	468.32	467.6	468.66	469.07	468.95	468.55	468.91	468.94	469.25	468.89
20	468.86	468.67	468.30	467.83	468.64	469.00	469.11	468.54	468.94	468.88	469.23	468.88
21	468.92	468.82	468.21	467.98	468.54	468.92	469.05	468.58	469.04	468.83	469.19	468.89
22	469.01	468.80	468.19	467.99	468.52	468.74	469.09	468.63	469.13	468.83	469.16	468.94
23	468.95	468.80	468.18	467.89	468.53	468.60	469.13	468.61	469.15	468.77	469.04	468.97
24	469.00	468.79	468.16	467.88	468.53	468.50	469.16	468.56	469.17	468.86	468.91	468.95
25	469.00	468.77	468.30	467.8	468.57	468.66	469.10	468.51	469.40	469.08	468.79	468.95
26	468.91	468.64	468.26	467.6	468.67	468.51	469.04	468.49	469.51	469.20	468.93	468.95
27	468.74	468.67	468.24	467.88	468.77	468.45	468.98	468.43	469.40	469.22	469.15	468.99
28	468.71	468.75	468.33	467.92	468.88	468.55	468.93	468.41	469.41	469.26	469.11	469.01
29	468.83	468.81	468.25	468.08	-	468.67	468.86	468.39	469.40	469.19	468.99	469.04
30	468.53	468.76	468.31	468.11	-	468.73	468.79	468.41	469.51	469.13	469.08	469.01
31	468.32	-	468.43	468.09	-	468.81	-	468.42	-	468.97	469.23	-

Note.- Elevations Jan. 3, 5, 11-14, 18, 19, 25, 26, May 5-8, and July 28 to Aug. 4 computed on basis of partial record and records for station near Topock, Ariz.

24H730—40——3

Elevation, in feet, of Colorado River at Needles, Calif., 1931-39--Continued

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
.1	469.01	468.37	468.23	467.99	468.37	468.34	468.93	468.95	468.90	468.83	469.04	468.77
2	468.99	468.38	468.30	468.03	468.51	468.39	468.87	469.00	468.88	469.59	468.97	468.80
3	468.98	468.35	468.21	468.12	468.53	468.55	468.95	469.01	468.95	469.70	468.92	468.93
4	468.96	468.36	468.20	467.87	468.53	468.60	469.02	468.90	468.98	469.25	468.92	469.00
5	468.85	468.39	468.15	468.04	468.58	468.34	469.00	468.93	468.92	469.26	468.97	468.95
6	468.77	468.35	468.14	468.01	468.49	467.95	469.05	468.98	468.88	469.25	468.98	468.97
7	468.75	468.30	468.02	468.16	468.51	468.14	468.95	468.96	468.82	469.15	468.87	469.04
8	468.72	468.24	468.16	468.21	468.39	468.07	468.94	469.06	468.77	469.07	468.80	469.05
9	468.69	468.12	468.20	468.20	468.55	468.21	468.85	469.14	468.76	468.95	468.86	469.07
10	468.67	468.22	468.23	468.16	468.54	468.22	468.87	469.09	468.81	468.82	468.93	469.04
11	468.65	468.30	468.22	468.04	468.45	468.22	468.98	469.07	468.86	468.83	468.96	469.03
12	468.6	468.29	468.15	468.26	468.45	468.23	469.03	469.02	468.78	468.83	468.93	468.91
13	468.55	468.16	468.14	468.23	468.35	468.46	469.07	468.99	468.78	468.77	468.96	468.81
14	468.5	468.22	467.83	468.24	468.43	468.60	469.14	469.00	468.80	468.86	469.03	468.76
15	468.45	468.24	467.95	468.17	468.34	468.56	469.09	468.93	468.73	468.78	468.99	468.75
16	468.4	468.21	467.98	468.17	468.48	468.63	469.07	468.87	468.79	468.83	468.95	468.73
17	468.43	468.30	467.94	468.23	468.45	468.63	468.99	468.96	468.94	468.79	468.93	468.64
18	468.45	468.45	467.95	468.15	468.38	468.64	469.01	469.07	468.95	468.88	468.89	468.60
19	468.36	468.46	467.94	468.55	468.37	468.63	469.26	469.06	468.80	468.90	468.90	468.54
20	468.17	468.35	468.01	468.61	468.28	468.67	469.29	469.02	468.71	468.95	468.83	468.58
21	468.10	468.23	467.83	468.53	468.29	468.75	469.25	469.01	468.68	468.01	468.83	468.64
22	468.14	468.30	467.97	468.46	468.07	468.77	469.01	468.99	468.58	468.95	468.93	468.70
23	468.18	468.30	467.97	468.41	468.21	468.81	468.99	468.98	468.70	468.83	468.94	468 73
24	468.24	468.35	468.08	468.51	468.23	468.86	468.97	468.98	468.79	468.80	468.96	468.65
25	468.31	468.41	468.08	468.40	468.20	468.87	468.84	469.00	469.36	468.78	469.04	468.60
26	468.31	468.33	467.92	468.60	468.16	468.91	469.06	468.98	469.50	468.91	469.12	468.63
27	468.34	468.27	468.10	468.60	468.12	468.89	468.95	468.98	469.49	468.96	468.99	468.68
28	468.29	468.20	467.83	468.56	468.44	468.90	468.90	469.01	469.58	468.96	468.85	468.74
29	468.22	468.25	467.88	468.53	-	468.87	468.84	469.02	469.53	468.99	468.79	468.82
30	468.26	468.13	467.89	468.52	-	468.95	468.84	468.97	468.73	469.01	468.78	468.83
31	468.27	-	468.00	468.48	-	468.95	-	468.90	-	467.04	468.76	-

Note.- Elevations Oct. 11-16 determined on basis of records for station near Topock, Ariz.

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468.89	469.53	468.0	467.55	470.44	469.81	467.80	468.26	468.10	468.66	468.94	469.00
2	468.85	469.56	467.98	467.31	470.27	469.55	468.20	468.16	468.12	468.51	469.02	468.88
3	468.75	469.66	468.04	467.09	469.33	469.41	468.22	468.22	468.13	468.70	469.07	468.93
4	468.66	469.67	468.05	467.35	469.27	467.97	467.70	468.36	468.25	468.74	469.16	469.05
5	468.60	469.60	467.99	467.57	469.66	467.18	467.73	468.38	468.38	468.79	469.35	469.05
6	468.55	469.59	467.91	467.63	468.99	466.83	467.87	468.26	468.47	468.84	469.30	469.09
7	468.53	469.60	467.63	467.55	470.29	466.91	467.82	467.99	468.37	468.90	469.24	468.67
8	468.54	469.69	467.63	467.46	469.78	467.51	467.76	467.84	468.43	468.81	469.16	468.68
9	468.70	469.92	467.66	467.40	469.72	467.98	467.85	467.87	468.50	468.90	469.18	468.69
10	469.09	469.85	467.67	467.34	469.71	467.97	467.81	467.96	468.78	468.87	469.16	468.73
11	469.27	469.74	467.48	467.50	469.48	467.57	467.72	467.91	468.75	468.75	469.19	468.61
12	469.13	469.72	467.28	467.52	469.54	467.42	467.82	467.92	468.77	468.75	469.24	468.66
13	469.08	469.67	467.46	467.69	469.62	467.47	467.78	467.94	468.68	468.64	469.23	468.78
14	469.00	469.59	468.48	467.69	470.26	467.82	467.84	467.99	468.63	468.69	469.22	468.83
16	469.02	469.56	468.75	467.56	469.66	467.95	467.79	468.09	468.63	468.62	469.12	468.87
16	469.04	469.39	467.80	467.36	467.74	467.66	467.87	468.03	468.67	468.61	469.05	468.83
17	469.01	468.17	467.78	467.32	466.81	467.89	467.93	468.15	468.63	468.67	468.91	468.63
18	469.08	468.03	467.63	467.55	469.03	467.79	467.82	468.24	468.66	468.63	468.85	468.64
19	469.17	468.1	467.38	468.22	469.66	467.79	467.76	468.21	468.76	468.66	468.82	468.67
20	469.19	468.0	467.65	468.88	469.83	467.87	467.78	468.18	468.76	468.67	468.84	468.87
21	469.21	468.0	467.87	468.99	469.65	467.84	467.81	468.12	468.83	468.72	468.88	469.08
22	469.20	468.0	467.95	469.11	469.63	467.88	467.83	468.12	468.77	468.71	468.92	469.15
23	469.14	468.0	467.83	469.27	469.84	467.88	467.92	468.11	468.68	468.71	468.94	469.13
24	468.99	468.0	467.73	469.51	469.95	467.89	468.00	468.07	468.52	468.72	468.98	469.29
25	468.92	468.0	467.52	469.55	469.75	468.51	468.04	468.12	468.42	468.73	469.03	469.17
26	469.13	468.0	467.28	469.60	469.81	467.83	468.03	468.20	468.60	468.87	469.04	469.24
27	469.31	468.0	467.03	470.02	469.75	467.32	468.09	468.06	468.78	468.94	469.03	469.24
28	469.52	468.0	467.18	470.26	469.87	467.88	468.11	468.08	468.74	468.92	469.03	469.18
29	469.61	468.0	467.60	470.26	-	467.60	468.16	468.13	468.80	468.90	469.04	469.15
30	469.62	468.0	467.64	470.45	-	467.69	468.30	468.16	468.64	468.93	469.05	469.02
31	469.62	-	467.61	470.48	-	467.86	-	468.14	-	468.91	469.05	-

Note.- Elevations Nov. 19 to Dec. 1 determined on basis of records for station near Topock, Ariz.

Colorado River near Topock, Ariz.

Location.- Water-stage recorder, lat. 34°41'15", long. 114°27'45", in NW¼ sec. 13, T. 15 N., R. 21 W., in Mohave Canyon, 3 miles downstream from Topock, 40 miles upstream from Parker Dam, and 116 miles downstream from Boulder Dam. Zero of gage is 423.02 feet (general adjustment of 1929) or 423.08 feet (general adjustment of 1912) above mean sea level. Auxiliary gage, water-stage recorder at highway bridge 2.7 miles upstream.

Drainage area.- 174,300 square miles.

Records available.- February 1917 to September 1939.

Extremes.- Maximum discharge during year, 34,900 second-feet Feb. 2 (gage height, 24.18 feet); maximum gage height, 25.53 feet Sept. 7; minimum discharge, 3,520 second-feet Dec. 13; minimum daily discharge, 3,730 second-feet Dec. 13; minimum gage height, 13.86 feet Oct. 7.

1917-34 (unregulated); Maximum discharge, 174,000 second-feet June 22, 1921; minimum, 1,480 second-feet Aug. 17, 1934.

1935-39 (regulated): Maximum discharge, that of Feb. 2, 1939; minimum, 375 second-feet Feb. 14, 1935; minimum daily discharge, 422 second-feet Feb. 14, 1935.

Remarks.- Records excellent Oct. 1 to Nov. 4 and good Nov. 5 to Sept. 30. Mountain standard time used. Backwater at station began Nov. 4 as result of increase in stage in Lake Havasu. Fall between main and auxiliary gages used as a factor in computing discharge for May 1 to Sept. 30, and result verified by comparison with records for station at Willow Beach. Diversions above station for irrigation. Discharge regulated at Boulder Dam; no regulation between Boulder Dam and this station. During the year 128 discharge measurements were made.

Elevation, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	436.98	438.65	442.06	441.67	446.62	445.25	442.62	443.36	443.10	443.77	444.10	444.68
2	437.01	438.57	442.07	441.65	446.72	444.57	442.59	443.33	443.08	443.69	444.12	444.61
3	437.00	438.82	442.14	441.48	446.10	444.56	443.32	443.34	443.09	443.79	444.17	444.57
4	437.10	439.22	442.15	441.44	445.51	443.77	443.06	443.34	443.12	443.81	444.13	444.65
5	436.98	439.36	442.19	441.72	446.14	442.07	442.68	443.34	443.10	443.78	444.45	445.06
6	437.01	439.49	442.12	441.77	444.82	441.73	442.61	443.32	443.17	443.76	444.46	446.47
7	436.95	439.48	441.86	441.85	444.98	441.54	442.86	443.24	443.13	443.77	444.43	448.17
8	436.97	439.40	441.79	441.69	445.39	442.50	442.87	443.08	443.08	443.74	444.40	447.17
9	437.00	439.94	441.74	441.58	445.03	442.74	442.96	443.13	443.08	443.82	444.45	446.58
10	438.10	440.04	441.72	441.39	445.06	443.23	442.93	443.18	443.24	443.86	444.44	445.98
11	438.38	440.34	441.56	441.67	445.04	443.00	442.95	443.19	443.32	443.84	444.42	445.53
12	438.43	440.79	441.30	441.79	444.87	442.34	443.06	443.18	443.32	443.89	444.42	445.90
13	438.19	441.30	440.92	441.83	444.76	442.50	443.10	443.21	443.31	443.87	444.50	446.48
14	438.08	441.81	441.96	441.80	445.12	442.49	443.12	443.22	443.38	443.97	444.51	446.19
15	438.23	442.32	442.58	441.65	445.22	443.08	443.10	443.18	443.50	444.06	444.49	446.65
16	438.22	442.98	442.20	441.17	443.62	442.82	443.08	443.19	443.41	443.97	444.54	445.38
17	438.28	442.26	442.09	441.27	441.81	442.34	443.11	443.19	443.45	444.00	444.32	446.13
18	438.20	441.87	442.02	441.61	443.20	443.28	443.14	443.17	443.31	444.04	444.38	444.91
19	438.06	441.89	441.87	441.88	445.02	442.70	443.08	443.17	443.54	444.02	444.33	444.68
20	437.93	441.90	441.82	442.78	445.09	442.87	443.08	443.05	443.64	444.14	444.38	445.01
21	437.88	441.95	441.93	442.90	444.84	442.98	442.99	443.06	443.51	444.11	444.39	445.30
22	437.95	441.92	441.92	443.12	444.88	442.82	443.03	442.99	443.68	444.15	444.47	445.67
23	437.98	441.74	441.77	443.27	444.96	442.76	442.92	442.99	443.69	444.09	444.45	445.77
24	437.97	441.86	441.81	443.69	445.10	442.82	443.05	442.96	443.78	444.07	444.46	445.93
25	437.99	441.88	441.85	443.89	444.92	443.07	443.14	442.98	443.63	444.10	444.51	446.42
26	438.32	441.93	441.68	443.85	445.17	443.52	443.09	442.99	443.74	444.14	444.58	446.52
27	438.50	441.97	441.43	443.92	445.21	442.04	443.12	443.00	443.86	444.22	444.58	446.55
28	438.59	442.00	441.26	444.54	445.12	442.88	443.13	442.98	443.62	444.22	444.59	446.59
29	438.68	442.03	441.46	445.06	-	442.68	443.20	443.07	443.82	444.19	444.61	446.59
30	438.75	442.06	441.56	445.74	-	442.32	443.30	443.11	443.62	444.21	444.61	446.53
31	438.68	-	441.61	446.28	-	442.60	-	443.17	-	444.13	444.65	-

Note.- Elevations in the above table are to general adjustment of 1929.

Discharge, in second-feet, of Colorado River near Topock, Ariz., water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,600	15,200	7,430	5,890	31,100	24,400	10,100	10,600	9,810	10,900	10,300	10,900
2	8,600	15,000	7,500	5,770	30,600	20,200	11,300	10,300	9,070	10,400	10,200	10,600
3	8,440	16,200	7,500	4,980	24,600	19,600	12,900	10,400	9,020	10,900	10,500	10,300
4	8,600	17,500	7,430	4,930	19,700	13,900	11,500	10,400	9,130	11,000	10,600	10,400
5	8,400	17,700	7,680	5,890	19,200	9,440	9,640	10,300	8,970	10,600	12,200	11,400
6	8,170	17,900	7,500	6,000	19,600	5,530	9,200	10,300	9,210	10,500	11,600	13,000
7	8,090	17,600	6,240	6,300	21,600	4,760	10,100	9,790	9,020	10,500	11,400	10,400
8	8,130	17,300	6,060	5,890	25,400	8,170	10,500	8,770	8,950	10,200	11,200	9,270
9	8,210	17,400	6,000	5,610	24,000	9,080	10,600	8,780	9,100	10,600	11,700	8,610
10	12,700	17,400	6,060	4,870	24,200	11,100	10,300	8,920	9,800	10,700	11,500	8,820
11	13,800	17,300	6,000	5,660	24,800	10,100	10,200	8,960	10,100	10,400	11,400	8,330
12	14,000	17,300	5,430	5,830	24,300	7,940	10,500	8,990	10,100	10,600	11,500	10,300
13	12,900	17,400	3,730	6,060	24,800	8,370	10,400	9,140	10,100	10,300	11,800	11,200
14	13,000	17,400	9,400	6,180	26,600	8,330	10,700	9,100	10,200	10,500	11,800	10,400
15	12,800	17,300	10,700	6,590	26,600	10,300	10,300	9,030	10,600	10,700	11,700	9,460
16	13,100	15,600	6,950	4,860	16,100	9,440	10,200	8,900	9,800	10,100	11,400	8,890
17	13,000	9,790	6,590	5,040	6,250	7,780	10,300	8,900	10,200	10,400	10,100	8,060
18	13,100	,820	6,350	5,720	13,600	10,600	10,400	8,900	9,500	10,400	10,400	7,360
19	13,100	7,560	5,660	7,070	25,100	9,200	10,200	9,070	10,400	10,100	10,100	6,560
20	12,800	7,500	5,600	12,600	25,500	9,680	10,100	8,730	10,800	11,000	10,400	8,420
21	12,900	7,700	6,000	13,600	23,700	9,960	9,720	8,940	10,100	11,100	10,500	9,740
22	13,000	7,680	6,200	13,700	23,900	9,480	10,100	8,750	10,700	10,900	10,700	11,200
23	13,000	7,430	6,200	14,700	24,500	9,440	9,920	8,980	10,100	10,400	10,400	11,300
24	12,900	7,620	6,150	16,000	24,800	9,720	10,200	8,860	11,200	10,200	10,300	12,000
25	13,300	7,430	6,050	17,300	23,600	10,800	10,300	9,100	10,200	10,400	10,700	12,100
26	14,600	7,500	5,600	17,800	24,000	12,900	10,100	9,070	10,900	10,700	10,800	11,300
27	14,800	7,560	4,930	18,200	24,000	6,990	10,300	9,220	11,500	11,000	10,700	11,200
28	14,800	7,560	4,650	20,000	23,500	10,400	10,300	9,050	10,400	10,800	10,600	11,400
29	15,000	7,500	5,770	23,900	-	9,720	10,500	9,050	11,400	10,800	10,800	11,300
30	14,800	7,430	6,060	26,000	-	8,500	10,800	9,140	9,910	10,800	10,800	11,100
31	14,800	-	6,000	29,500	-	10,000	-	9,350	-	10,200	10,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	373,440	15,000	8,090	12,050	740,700
November	379,380	17,900	7,430	12,650	752,500
December	199,420	10,700	3,730	6,433	395,500
Calendar year 1938	3,317,390	17,900	3,730	9,089	6,580,000
January	332,440	29,500	4,860	10,720	659,400
February	645,550	31,100	6,250	23,060	1,280,400
March	325,930	24,400	4,760	10,510	646,500
April	311,680	12,900	9,200	10,390	618,200
May	287,790	10,600	8,730	9,280	570,800
June	300,290	11,500	8,950	10,000	595,600
July	328,100	11,100	10,100	10,580	650,800
August	339,000	12,200	10,100	10,940	672,400
September	305,320	13,000	6,560	10,180	605,600
Water year 1938-39	4,128,340	31,100	3,730	11,310	8,188,400

Lake Havasu near Parker Dam, Ariz.-Calif.

(Formerly published as Parker Reservoir near Parker Dam, Calif.)

Location.- Water-stage recorder, lat. 34°19', long. 114°09', in SW¼ sec. 28, T. 3 N., R. 27 E., San Bernardino meridian, at intake pumping plant of Metropolitan Water District of Southern California, 1.8 miles upstream from Parker Dam, which is 156 miles downstream from Boulder Dam. Zero of gage is 0.545 foot above mean sea level (general adjustment of 1929), at mean sea level (general adjustment of 1912), or 0.832 foot above mean sea level (datum of Metropolitan Water District of Southern California).

Drainage area.- 180,800 square miles at Parker Dam.

Records available.- July 1938 to September 1939.

Extremes.- Maximum contents during year, 622,500 acre-feet Sept. 7 (elevation of water surface, 447.72 feet); minimum, 23,400 acre-feet Oct. 7 (elevation, 405.36 feet). 1938-39: Maximum contents, that of Sept. 7, 1939.

Remarks.- All elevations shown are in agreement with general adjustment of 1929. Daily elevations and contents are as of 11.59 p.m., mountain standard time. Storage began July 1, 1938. Lake is used for flood control, for re-regulation of river for irrigation demand, and as a basin from which water is pumped by Metropolitan Water District of Southern California to Colorado River aqueduct (see page 201). Usable capacity of reservoir, 688,000 acre-feet (elevation 450.54 feet, top of regulating gates); storage not available for release and not included in contents here shown, 28,600 acre-feet (elevation 400.54 feet, sill of regulating gates). Drawdown below elevation 440.54 feet (contents 472,000 acre-feet) not legally permissible except in an extreme emergency.

Capacity table (elevation, in feet, and capacity, in acre-feet)
(Based on survey by Metropolitan Water District of Southern California)

400.54	0	433	521,200
401	1,840	444	542,200
405	21,300	445	563,200
410	54,200	446	584,600
420	162,000	447	606,600
430	288,400	448	629,100
440	461,200	449	652,100
441	480,700	450	675,100
442	500,700	450.54	688,000

Elevation, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	405.60	424.18	441.30	441.12	442.94	440.74	440.34	440.98	440.88	441.08	441.00	441.10
2	405.60	425.06	441.34	441.18	443.04	440.64	440.42	441.00	440.90	440.96	440.90	441.12
3	405.58	426.06	441.38	441.12	442.94	440.78	440.72	441.02	440.90	441.00	440.90	441.14
4	405.68	427.18	441.42	441.06	442.06	440.60	440.62	441.00	440.88	441.00	440.86	441.32
5	405.52	428.44	441.46	441.04	441.40	440.54	440.78	440.96	440.88	441.00	440.94	442.14
6	405.42	429.58	441.48	441.26	440.74	440.38	440.72	441.04	440.82	440.96	441.00	445.66
7	405.38	430.68	441.38	441.16	440.42	440.10	440.76	441.14	440.80	441.00	441.02	446.74
8	405.42	431.80	441.26	441.04	440.62	440.06	440.78	441.14	440.74	440.98	440.98	445.70
9	405.42	433.00	441.14	441.10	440.46	440.04	440.84	441.12	440.70	441.00	440.88	445.24
10	405.46	434.12	441.06	441.12	440.44	440.32	440.90	441.10	440.74	441.06	440.88	444.34
11	407.20	435.30	440.96	441.14	440.42	440.46	440.90	441.08	440.74	441.04	440.86	443.50
12	407.64	436.48	440.80	441.32	440.32	440.36	440.84	441.08	440.76	441.00	440.86	443.82
13	407.40	437.50	440.62	441.22	440.30	440.32	440.90	441.08	440.78	440.98	440.84	444.94
14	407.26	438.58	440.62	441.12	440.36	440.32	440.94	441.08	440.76	441.00	440.88	444.18
15	407.32	439.64	441.46	440.80	440.62	440.48	440.98	441.10	440.86	440.94	440.64	443.36
16	408.16	440.70	441.60	440.82	440.04	440.54	441.02	441.06	440.74	440.84	440.84	443.14
17	409.74	441.06	441.50	441.04	439.78	440.36	441.02	441.02	440.68	440.84	440.86	443.02
18	411.20	441.04	441.46	441.14	440.48	440.64	441.00	440.98	440.78	440.80	440.70	442.88
19	412.56	441.04	441.38	441.08	440.64	440.58	440.96	440.98	440.78	440.76	440.92	442.66
20	413.76	441.06	441.22	440.96	440.64	440.68	440.90	440.94	440.86	440.74	440.96	442.62
21	414.92	441.10	441.24	440.96	440.40	440.78	440.80	440.86	440.86	440.78	440.94	442.66
22	416.06	441.14	441.42	441.08	440.32	440.78	440.70	440.90	440.94	440.84	440.86	442.84
23	416.88	441.16	441.38	441.16	440.40	440.70	440.60	440.84	440.92	440.76	440.92	442.98
24	417.30	441.12	441.34	441.24	440.62	440.72	440.60	440.82	441.00	440.72	440.90	443.24
25	417.78	441.14	441.32	441.20	440.62	440.72	440.66	440.82	440.98	440.98	440.88	444.06
26	418.58	441.16	441.24	440.86	440.98	440.90	440.74	440.86	441.06	440.94	440.98	444.36
27	419.56	441.18	441.04	440.84	440.98	440.46	440.78	440.90	441.14	441.10	440.98	444.54
28	420.52	441.22	440.88	441.34	440.86	440.48	440.80	440.92	441.08	441.06	441.02	444.82
29	421.46	441.24	440.90	441.80	-	440.42	440.86	440.88	441.12	441.08	441.04	444.66
30	422.34	441.28	440.98	442.24	-	440.28	440.92	440.86	441.04	441.12	441.04	444.42
31	423.26	-	441.04	442.58	-	440.34	-	440.84	-	441.08	441.08	-

Available contents, in thousands of acre-feet, of Lake Havasu near Parker Dam, Ariz.-Calif., October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24.9	204.8	486.7	483.1	519.9	475.3	467.7	480.3	478.3	482.1	480.5	482.7
2	24.9	216.8	487.3	484.3	521.8	473.3	469.2	480.5	478.7	479.7	478.5	483.1
3	24.7	230.8	488.3	482.9	519.7	476.1	475.1	480.9	478.7	480.5	478.7	483.5
4	24.7	246.3	489.1	481.7	501.9	472.7	477.1	480.5	478.3	480.7	477.9	486.9
5	24.3	265.0	489.9	481.3	488.5	471.3	476.1	479.7	478.1	480.5	479.5	503.5
6	23.8	282.1	490.3	485.7	475.5	468.5	475.1	481.3	477.1	479.7	480.7	577.1
7	23.5	298.7	488.1	483.9	469.2	463.0	475.7	483.3	476.7	480.5	480.9	600.9
8	23.7	316.5	486.7	481.5	472.9	462.2	476.1	483.5	475.3	480.3	480.3	577.8
9	23.7	336.3	483.5	482.5	470.0	462.0	477.5	482.9	474.5	480.7	478.1	568.0
10	30.0	355.4	481.7	482.9	469.4	467.1	478.5	482.7	475.3	481.9	478.3	549.3
11	34.4	375.4	479.9	483.3	469.2	469.8	478.5	482.3	475.5	481.5	477.9	531.4
12	37.2	396.4	476.5	487.1	467.1	468.1	477.5	482.3	476.1	480.7	477.7	538.4
13	35.6	414.8	470.9	485.1	466.8	467.3	478.7	482.1	476.1	480.3	477.3	561.7
14	34.8	434.1	477.1	482.9	468.1	467.1	479.5	482.3	475.7	480.5	478.3	545.9
15	35.1	454.4	489.9	476.5	473.1	470.4	480.3	482.5	477.7	479.5	477.5	528.7
16	40.8	474.5	490.5	476.9	481.8	471.5	481.1	481.9	475.5	477.3	477.3	523.9
17	52.1	481.9	490.7	481.3	486.9	468.1	480.9	481.1	478.3	477.5	477.9	521.6
18	63.8	481.5	489.9	483.3	470.2	473.3	480.7	480.1	476.3	476.7	474.7	518.4
19	75.7	481.5	488.3	482.3	473.5	472.3	479.7	480.3	476.3	476.7	478.9	514.0
20	86.4	481.9	484.9	479.9	473.5	474.1	478.7	479.3	477.9	476.5	479.7	513.2
21	97.3	482.5	485.5	479.9	468.6	476.1	476.7	477.7	477.9	476.1	479.5	514.0
22	108.7	483.3	488.9	482.3	467.3	476.3	474.7	478.5	479.5	477.3	477.7	517.6
23	117.2	483.7	488.3	483.7	468.8	474.7	472.5	477.5	478.9	476.9	478.9	520.5
24	121.8	482.9	487.5	485.3	471.1	475.1	472.7	476.9	480.7	476.1	478.5	526.2
25	127.0	483.3	486.9	484.7	472.9	474.9	473.9	477.1	480.3	480.3	477.7	543.4
26	135.8	483.7	485.3	477.9	480.3	478.7	475.3	477.7	481.9	479.5	480.1	549.5
27	146.6	484.1	481.5	477.3	479.7	469.8	476.3	478.5	483.5	482.5	479.9	553.5
28	158.3	484.9	478.3	487.5	477.7	470.2	476.7	478.9	482.1	481.7	481.1	555.2
29	169.4	485.5	478.5	496.7	-	469.2	477.7	478.1	482.9	482.3	481.5	555.8
30	180.9	486.1	480.1	505.5	-	466.6	479.1	477.7	481.5	483.1	481.5	550.8
31	192.7	-	481.5	512.1	-	467.7	-	477.5	-	482.1	482.1	-

Note.- Contents show storage above sill of regulating gates.

Monthly elevation and contents, water year 1938-39

Date	Elevation in feet	Contents in acre-feet	Change in contents in acre-feet
Sept. 30	405.06	24,900	-
Oct. 31	423.26	192,700	+167,800
Nov. 30	441.28	486,100	+293,400
Dec. 31	441.04	481,500	-4,600
Jan. 31	442.58	512,000	+30,600
Feb. 28	440.86	477,700	-34,400
Mar. 31	440.34	467,700	-10,000
Apr. 30	440.92	479,100	+11,400
May 31	440.84	477,500	-1,600
June 30	441.04	481,500	+4,000
July 31	441.08	482,100	+600
Aug. 31	441.08	482,100	0
Sept. 30	444.42	550,800	+68,700
Water year 1938-39	-	-	+525,900

Colorado River below Parker Dam, Ariz.-Calif.

(Formerly published as Colorado River below Parker Dam, Calif.)

Location.- Water-stage recorder, lat. 34°15'30", long. 114°09'10", in NE¼ sec. 32, T. 11 N., R. 18 W. Gila and Salt River meridian or NE¼SW¼ sec. 16, T. 2 N., R. 27 E. San Bernardino meridian, 4.1 miles downstream from Parker Dam, 11 miles northeast of Parker, Ariz., and 160 miles downstream from Boulder Dam. Zero of gage is 346.16 feet (general adjustment of 1929) or 345.61 feet (general adjustment of 1912) above mean sea level.

Drainage area.- 180,800 square miles.

Records available.- February to December 1934 (gage heights and fragmentary discharge records), January 1935 to September 1939.

Extremes.- Maximum discharge during year, 38,500 second-feet Sept. 7 (gage height, 30.31 feet); minimum, 1,650 second-feet Jan. 17 (gage height, 19.37 feet); minimum daily discharge, 2,610 second-feet Jan. 17.

1935-39 (regulated): Maximum discharge, 42,400 second-feet Feb. 8, 1937; minimum, 250 second-feet July 1, 1938, caused by closure of construction-diversion tunnel at Parker Dam; minimum daily discharge, 1,440 second-feet Feb. 15, 1935.

An unregulated discharge probably less than 1,350 second-feet occurred Aug. 18, 1934 (lowest unregulated discharge since 1917 and probably since a much earlier date).

Remarks.- Records excellent except those for Sept. 7, which are fair. Diversions above station for irrigation. Discharge regulated at Boulder and Parker Dams. Records collected on basis of mountain standard time. Water spilled from Gene Reservoir on Colorado River acqueduct returned to Lake Havasu above station; water spilled from Copper Basin Reservoir (none this year) would return to river 2 miles below station; some water probably returned to river both above and below station by percolation from both reservoirs. During the year 221 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,530	7,920	6,670	5,030	26,300	26,100	9,810	9,940	9,030	10,500	10,400	9,910
2	8,550	7,680	6,650	5,080	28,500	21,800	9,880	9,900	9,050	10,400	10,400	9,910
3	8,530	7,900	6,650	5,080	26,300	19,400	9,920	9,880	9,050	10,400	10,400	9,930
4	8,500	7,850	6,670	5,100	26,200	17,100	9,940	9,880	9,030	10,400	10,400	9,950
5	8,420	7,920	6,720	5,200	26,100	7,420	9,920	9,840	9,030	10,400	11,000	10,200
6	8,090	7,900	6,700	4,790	25,900	6,990	9,860	9,560	8,990	10,400	11,400	14,000
7	8,100	7,830	6,670	6,320	25,100	6,920	9,860	9,090	8,990	10,400	11,400	33,200
8	8,100	6,920	6,600	6,890	24,900	9,050	9,840	9,050	8,950	10,400	11,500	23,700
9	7,990	6,970	6,590	5,330	24,900	9,190	9,810	9,030	8,930	10,400	11,500	15,800
10	8,970	6,970	6,590	5,220	24,900	9,210	9,790	9,030	9,620	10,400	11,500	17,800
11	11,600	6,880	6,570	4,760	24,700	9,110	9,790	9,070	10,400	10,400	11,500	17,500
12	13,900	6,890	6,560	3,480	24,200	8,630	9,810	9,090	10,300	10,400	11,500	17,800
13	13,400	6,960	6,560	6,170	24,100	8,630	9,810	9,090	10,200	10,300	11,500	24,000
14	12,900	7,020	6,560	6,410	24,300	8,810	9,750	9,070	10,100	10,300	11,400	21,800
15	13,100	6,570	6,400	9,210	24,500	8,910	9,750	9,070	10,100	10,300	11,400	19,100
16	11,200	6,510	6,410	6,350	23,400	9,090	9,790	9,050	10,100	10,200	11,400	12,700
17	8,510	6,520	6,270	2,610	8,720	9,110	9,770	9,050	9,980	10,300	10,700	10,500
18	8,320	6,600	6,300	4,730	7,050	9,190	9,840	9,070	10,300	10,300	10,100	9,900
19	8,090	6,680	6,320	6,280	24,400	9,230	9,900	9,010	10,400	10,300	10,000	9,520
20	8,120	6,640	6,460	14,000	24,800	9,150	9,900	8,950	10,300	10,300	10,100	9,480
21	8,280	6,590	6,410	13,800	24,900	9,110	9,900	8,990	10,300	10,300	10,100	9,440
22	8,140	6,640	5,920	13,600	24,200	9,540	9,840	9,030	10,300	10,300	10,100	9,440
23	7,970	6,620	6,080	14,900	23,300	9,810	9,790	9,010	10,400	10,400	9,920	9,480
24	7,830	6,600	6,040	16,500	23,000	9,810	9,750	8,950	10,400	10,400	9,880	9,480
25	7,950	6,600	5,980	17,700	22,600	9,860	9,810	8,910	10,400	10,400	9,810	9,960
26	8,020	6,600	5,930	21,400	22,200	9,860	9,860	8,910	10,000	10,300	9,790	10,800
27	8,170	6,600	5,920	20,300	24,000	9,670	9,860	8,910	10,400	10,400	9,890	10,800
28	8,370	6,600	5,630	19,800	25,300	9,620	9,880	8,930	10,500	10,500	9,950	10,900
29	8,320	6,640	5,300	20,800	-	9,600	9,900	8,930	10,500	10,500	9,920	11,200
30	8,210	6,650	5,160	22,800	-	9,580	9,920	8,970	10,500	10,500	9,900	13,800
31	8,020	-	5,020	26,700	-	9,540	-	9,010	-	10,500	9,850	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	282,200	13,900	7,830	9,103	559,700
November	209,470	7,920	6,510	6,982	415,500
December	194,400	6,720	5,020	6,271	385,600
Calendar year 1938	3,029,490	31,000	1,890	8,300	8,009,000
January	326,340	26,700	2,610	10,530	647,300
February	656,770	26,500	7,050	23,460	1,302,700
March	329,040	26,100	6,920	10,610	652,600
April	295,250	9,940	9,750	9,842	585,600
May	284,270	9,940	8,910	9,170	563,800
June	296,550	10,500	8,930	9.885	588,200
July	321,700	10,500	10,200	10.380	638,100
August	328,610	11,500	9,790	10,600	651,800
September	412,000	33,200	9,440	13,730	817,200
Water year 1938-39	3,936,600	33,200	2,610	10,790	7,808,000

Colorado River near Picacho, Calif.

Location.- Water-stage recorder, lat. 33°02'00", long. 114°33'00", in NW¼ sec. 22, T. 13 S., R. 23 E., San Bernardino meridian, 4 miles downstream from Picacho, 14½ miles upstream from Imperial Dam (for All-American canal), 133 miles downstream from Parker Dam, and 289 miles downstream from Boulder Dam. Zero of gage is 167.38 feet above mean sea level (general adjustment of 1929).

Drainage area.- 186,100 square miles.

Records available.- July 1934 to September 1939.

Extremes.- Maximum discharge during year, 40,800 second-feet Sept. 5 (elevation, 186.13 feet); minimum, 1,460 second-feet Jan. 18 (elevation, 178.62 feet); minimum daily discharge, 3,230 second-feet Jan. 18; minimum elevation, 177.90 feet Oct. 7.
1935-39 (regulated): Maximum discharge, that of Sept. 5, 1939; minimum, 990 second-feet July 4, 1938; minimum daily discharge, 1,450 second-feet Feb. 17, 1935.
For a period extending back to 1902 or longer, and unregulated minimum discharge of 538 second-feet and an unregulated minimum daily discharge of 568 second-feet both occurred Aug. 3, 1934.

Remarks.- Records excellent except those for Sept. 5, which are fair, and those for Sept. 6-10, which are good. Diversions for irrigation above station. Discharge regulated at Boulder Dam since Feb. 1, 1935, and at Parker Dam since July 1, 1938. During the period Sept. 5-10 there was considerable flood flow from tributaries above station and below Parker Dam. Records are on basis of Mountain standard time. Elevation of spillway crest of Imperial Dam, 181.0 feet. Normal operating level of Imperial Reservoir, 179.5 feet. During the year 158 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

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

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	259,110	12,500	7,190	8,358	513,900
November	201,120	7,710	6,180	6,704	398,900
December	195,040	7,350	5,280	6,292	386,900
Calendar year 1938	2,754,530	21,600	1,560	7,547	5,464,000
January	279,060	20,000	3,230	9,002	553,500
February	617,300	25,000	7,600	22,050	1,224,400
March	330,350	23,600	6,970	10,660	655,200
April	268,430	9,610	8,520	8,948	532,400
May	250,320	8,890	7,590	8,075	496,500
June	248,310	9,060	7,470	8,277	492,500
July	276,700	9,270	8,600	8,926	548,800
August	282,600	10,100	8,190	9,116	560,500
September	426,270	27,400	8,470	14,210	845,500
Water year 1938-39	3,634,610	27,400	3,230	9,958	7,209,000

Colorado River at Yuma, Ariz.

Location.- Water-stage recorder, lat. 32°43'45", long. 114°37'15", in NW¼NE¼ sec. 35, T. 16 S., R. 22 E. San Bernardino meridian, 1,800 feet downstream from highway bridge at Yuma, 5 miles downstream from Gila River, 8 miles upstream from international boundary at California-Mexico line, and 19 miles downstream from Imperial Dam. Zero of gage is 102.79 feet above mean sea level (general adjustments of 1912 and 1929) or 102.25 feet (Yuma project datum).

Drainage area.- 244,800 square miles.

Records available.- April 1878 to September 1939 (prior to January 1902, gage heights only).

Extremes.- Maximum discharge during year, 34,900 second-feet Sept. 7 (gage height, 24.57 feet); minimum, 1,710 second-feet Jan. 14 (gage height, 17.19 feet), caused by regulation at Laguna Dam; minimum daily discharge, 2,030 second-feet Jan. 14; minimum gage height, 16.36 feet Sept. 23.
1902-39: Maximum daily discharge, 240,000 second-feet Jan. 22, 1916; minimum daily, 18 second-feet Aug. 25-27, 1934, caused by diversion of river flow at Laguna Dam.

Remarks.- Records excellent. Many diversions for irrigation from Colorado River and tributaries. All-American canal began diverting intermittently at Imperial Dam, 19 miles upstream, Oct. 18, 1938. Yuma main canal diverts at Laguna Dam, 14 miles upstream. Much of the water diverted by All-American and Yuma main canals is returned to river below station. All-American canal returns some through Pilot Knob wasteway, 7 miles downstream, and Yuma main canal returns that part not required for irrigation through Yuma main canal wasteway, half a mile downstream. See pp. 36, 37 for records of canal and wasteway. Regulation on Colorado River at Boulder, Parker, and Imperial Dams. No regulation on Gila River below Gillespie Dam. Records collected on basis of mountain standard time. During the year 231 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

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

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	172,050	5,970	5,010	5,550	341,300
November	138,620	5,720	3,300	4,621	274,900
December	139,040	5,310	3,430	4,485	275,800
Calendar year 1938	2,102,520	20,700	3,160	5,760	4,170,000
January	214,990	19,200	2,030	6,935	426,400
February	564,110	22,800	7,820	20,150	1,118,900
March	299,020	21,400	5,380	9,646	593,100
April	221,300	8,100	6,930	7,377	438,900
May	193,940	7,430	5,270	6,256	384,700
June	191,150	6,840	5,710	6,372	379,100
July	213,680	7,370	6,570	6,893	423,800
August	204,780	7,690	5,650	6,606	406,200
September	385,640	24,800	4,030	12,850	764,900
Water year 1938-39	2,938,320	24,800	2,030	8,050	5,828,000

All-American canal above Pilot Knob wasteway, Calif.

Location.- Water-stage recorder, lat. 32°45', long. 114°42', in SE¼ sec. 24, T. 16 S., R. 21 E., San Bernardino meridian, at bridge on U. S. Highway 80, a mile upstream from Pilot Knob wasteway, 5½ miles northwest of Yuma, and 19½ miles downstream from head at Imperial Dam. Zero of gage is 148.49 feet above mean sea level (general adjustment of 1929).

Records available.- October 1938 to September 1939.

Remarks.- Records good except those for Sept. 10-22 (computed on basis of discharge measurements made almost daily by Bureau of Reclamation at points upstream, field estimates of leakage at Pilot Knob check and waste gates, seepage losses, and records for All-American canal below Pilot Knob wasteway and Yuma main canal at siphon-drop powerhouse, and, for period Sept. 23-27, by slope method), which are poor. Auxiliary staff gage at same datum 2.78 miles upstream used to obtain slope. Water passing this station is quantity available for irrigation in Imperial and Coachella Valleys, except for canal losses and waste at Pilot Knob wasteway. Flow in canal at this point began Feb. 5, 1939. All flow in February and March was turned out of canal at Pilot Knob wasteway.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Feb.	Mar.	Sept.	Day	Feb.	Mar.	Sept.	Day	Feb.	Mar.	Sept.
1	0	509	0	11	70	121	300	21	180	0	80
2	0	512	0	12	72	46	120	22	133	0	300
3	0	500	0	13	76	4	120	23	344	0	650
4	0	531	0	14	85	0	140	24	461	0	530
5	16	509	0	15	89	0	90	25	497	0	430
6	44	503	0	16	145	0	70	26	494	0	370
7	61	506	0	17	152	0	70	27	494	0	220
8	76	491	0	18	358	0	70	28	500	0	20
9	76	252	0	19	273	0	100	29	-	0	0
10	66	160	100	20	268	0	100	30	-	0	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
January	0	0	0	0	0
February	5,030	500	0	180	9,980
March	4,644	531	0	150	9,210
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	3,860	650	0	129	7,660
Water year 1938-39	13,534	650	0	37.1	26,850

All-American canal below Pilot Knob wasteway, Calif.

Location.- Water-stage recorder, lat. 32°43', long. 114°44', in NW¼ sec. 35, T. 16 S., R. 21 E., San Bernardino meridian, 1.6 miles downstream from Pilot Knob wasteway, 6½ miles west of Yuma, and 22 miles downstream from head at Imperial Dam. Zero of gage is 147.70 feet above mean sea level (general adjustment of 1929).

Records available.- April to September 1939.

Remarks.- Records excellent. This station is below Pilot Knob wasteway, through which water can be returned to Colorado River or diverted to Imperial canal at its head. Water passing this station is quantity available for irrigation in Imperial and Coachella Valleys except for canal losses. Flow in canal at this point began Sept. 11, 1939.

Discharge, in second-feet, 1939

Sept.		Sept.		Sept.		Sept.	
11	21	16	65	21	43	26	13
12	65	17	69	22	182	27	2
13	60	18	60	23	577	28	0
14	85	19	60	24	289	29	0
15	67	20	57	25	30	30	0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
April 26-30	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	1,745	577	0	58.2	3,460
The period	-	-	-	-	3,460

Note.- Water-stage recorder installed Apr. 26, 1939; no flow occurred prior to Sept. 11.

Yuma main canal at siphon-drop power plant, near Yuma, Ariz.

Location.- Two gages, consisting of staff gage on forebay and water-stage recorder on tailrace at power plant, lat. 32°46'30", long. 114°38'00", in SE¼SE¼ sec. 10, T. 16 S., R. 22 E., San Bernardino meridian, 500 feet downstream from turnout in All-American canal to Yuma main canal, 3⅜ miles north of Yuma, and 10⅜ miles downstream from head of Yuma main canal at Laguna Dam. Zero of each gage is at mean sea level (Yuma project datum) or 0.70 foot above mean sea level (general adjustment of 1929).

Records available.- October 1938 to September 1939.

Remarks.- Records excellent except those for period of missing gage heights for forebay gage, Sept. 11-22, which are fair. Daily discharge determined from flow through turbines, computed from relation between discharge, head, and gate openings, to which is added small discharge bypassed around power plant through waste gates. Bypassed discharge computed on basis of gage readings at forebay, and record of gate openings, by orifice formula. Rating of turbines checked by current-meter measurements. Discharge for Sept. 11-17 computed on basis of rating for tailrace gage and that for Sept. 18-22 on basis of two discharge measurements. Record shows quantity of water available for irrigation on Valley division of Yuma project and quantity available for spill through Yuma main canal wasteway 3 miles downstream. Record of daily discharge Oct. 1-31 and record of gage height at forebay and of turbine gate openings for remainder of year furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,740	1,700	1,720	1,770	1,740	1,710	1,500	1,650	1,670	1,700	1,670	1,670
2	1,750	1,720	1,730	1,770	1,750	1,730	1,760	1,640	1,680	1,710	1,670	1,420
3	1,700	1,730	1,750	1,730	1,750	1,710	1,700	1,650	1,680	1,670	1,680	1,690
4	1,670	1,740	1,770	1,760	1,760	1,750	1,670	1,690	1,680	1,660	1,680	1,620
5	1,680	1,560	1,730	1,760	1,770	1,760	1,710	1,700	1,660	1,650	1,650	246
6	1,690	1,630	1,740	1,760	1,720	1,700	1,710	1,710	1,670	1,660	1,660	0
7	1,740	1,720	1,760	1,770	1,730	1,680	1,710	1,720	1,680	1,700	1,650	0
8	1,760	1,710	1,750	1,760	1,720	1,720	1,740	1,660	1,680	1,720	1,620	0
9	1,750	1,720	1,760	1,730	1,730	1,720	1,740	1,650	1,670	1,730	1,670	0
10	1,700	1,710	1,760	1,750	1,750	1,740	1,680	1,670	1,660	1,670	1,680	0
11	1,680	1,720	1,770	1,770	1,670	1,520	1,650	1,680	1,690	1,660	1,680	418
12	1,720	1,730	1,730	1,760	1,770	1,760	1,680	1,690	1,650	1,650	1,430	635
13	1,720	1,740	1,740	1,760	1,700	1,710	1,690	1,680	1,630	1,680	1,690	779
14	1,740	1,720	1,750	1,750	1,710	1,700	1,700	1,520	1,640	1,710	1,660	596
15	1,590	1,720	1,750	1,780	1,730	1,700	1,450	1,650	1,660	1,430	1,650	621
16	1,640	1,720	1,760	1,740	1,750	1,740	1,720	1,660	1,680	1,690	1,680	678
17	1,700	1,720	1,450	1,750	1,750	1,750	1,670	1,670	1,640	1,650	1,690	650
18	1,700	1,740	1,760	1,770	1,750	1,750	1,660	1,690	1,730	1,630	1,680	610
19	1,720	1,750	1,730	1,760	1,760	1,760	1,700	1,710	1,650	1,660	1,690	610
20	1,740	1,750	1,740	1,770	1,710	1,700	1,700	1,710	1,640	1,700	1,710	610
21	1,750	1,720	1,750	1,500	1,690	1,670	1,710	1,710	1,670	1,700	1,650	610
22	1,750	1,720	1,750	1,770	1,720	1,700	1,720	1,670	1,680	1,710	1,630	360
23	1,740	1,730	1,770	1,730	1,730	1,720	1,700	1,660	1,690	1,710	1,670	684
24	1,710	1,730	1,770	1,740	1,740	1,750	1,660	1,680	1,710	1,640	1,700	1,360
25	1,690	1,750	1,770	1,760	1,480	1,760	1,620	1,660	1,710	1,640	1,700	1,390
26	1,690	1,590	1,750	1,760	1,760	1,760	1,630	1,660	1,650	1,650	1,710	1,440
27	1,710	1,640	1,750	1,760	1,700	1,690	1,680	1,520	1,620	1,680	1,700	1,420
28	1,720	1,720	1,750	1,770	1,680	1,680	1,700	1,700	1,630	1,700	1,660	1,410
29	1,740	1,730	1,760	1,780	-	1,720	1,440	1,660	1,660	1,710	1,630	1,420
30	1,750	1,730	1,760	1,710	-	1,740	1,720	1,620	1,690	1,710	1,660	1,000
31	1,680	-	1,770	1,700	-	1,750	-	1,650	-	1,660	1,660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	53,060	1,760	1,590	1,712	105,200
November	51,310	1,750	1,560	1,710	101,800
December	54,000	1,770	1,450	1,742	107,100
Calendar year	-	-	-	-	-
January	54,150	1,780	1,500	1,747	107,400
February	48,120	1,770	1,480	1,719	95,440
March	53,250	1,760	1,520	1,718	105,600
April	50,120	1,760	1,440	1,671	99,410
May	51,570	1,720	1,520	1,664	102,300
June	49,950	1,730	1,540	1,665	99,070
July	51,840	1,730	1,430	1,672	102,800
August	51,610	1,710	1,430	1,665	102,400
September	24,147	1,670	0	805	47,890
Water year 1938-39	593,127	1,780	0	1,625	1,176,000

Yuma main canal below Colorado River siphon, at Yuma, Ariz.

Location.- Two gages to determine head on Colorado River siphon: At intake, water-stage recorder, lat. 32°43'45", long. 114°37'15", in SW¼SE¼ sec. 26, T. 16 S., R. 22 E., San Bernardino meridian, on California side of river, 500 feet downstream from Yuma main canal wasteway and 3 miles downstream from siphon-drop power plant. At outlet, water-stage recorder in NW¼NE¼ sec. 35, T. 16 S., R. 22 E., San Bernardino meridian, on Arizona side of river. Both gages are a quarter of a mile downstream from highway bridge over Colorado River at Yuma. Zero of each gage is 100.00 feet (Yuma project datum) or 100.54 feet (general adjustment of 1929) above mean sea level.

Records available.- October 1938 to September 1939.

Remarks.- Records good. Daily discharge computed from relation between discharge and head on siphon, which is determined by the difference between simultaneous readings of stage at intake and outlet gages. Record shows quantity of water delivered to Valley division of Yuma project for irrigation. Record for Oct. 1-31 furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	675	650	224	503	629	270	646	629	595	671	546
2	129	644	562	238	462	590	321	674	576	485	626	421
3	521	554	361	392	412	531	610	623	501	707	637	380
4	649	475	253	412	344	454	654	592	422	740	579	448
5	679	414	576	388	310	423	572	543	649	728	463	79
6	587	308	597	331	519	602	501	415	708	700	420	0
7	487	598	518	259	557	644	457	401	699	620	580	0
8	251	650	440	232	534	643	410	616	684	493	623	0
9	136	649	353	423	472	623	312	652	625	412	588	0
10	604	585	256	344	441	569	719	614	535	656	573	0
11	695	512	224	282	373	386	771	534	412	698	568	210
12	695	468	535	300	349	339	726	495	690	695	510	317
13	604	423	555	207	503	530	631	406	726	666	448	263
14	501	601	527	194	569	531	619	379	721	537	605	138
15	20	635	433	232	538	519	504	588	706	466	653	275
16	33	617	292	503	495	501	402	689	631	448	659	278
17	519	532	197	513	448	490	664	689	514	684	654	288
18	637	461	180	455	396	404	675	653	350	714	615	434
19	626	402	366	411	367	302	598	575	664	663	534	478
20	546	408	371	353	563	597	537	427	704	594	460	486
21	462	574	346	280	584	635	538	357	693	539	633	500
22	399	584	259	246	584	642	479	643	685	486	653	325
23	381	495	203	450	548	604	479	679	641	397	625	310
24	602	352	209	503	481	514	671	662	501	669	591	489
25	694	258	208	472	416	359	727	592	396	731	557	615
26	668	243	252	444	363	323	712	522	642	716	529	553
27	679	261	408	390	594	635	650	486	690	690	454	662
28	582	410	414	260	657	686	510	429	701	598	610	659
29	402	416	393	206	-	678	263	682	683	514	675	626
30	320	606	291	498	-	552	116	735	667	363	685	588
31	635	-	230	528	-	440	-	711	-	642	629	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,113	695	20	488	29,980
November	14,810	675	243	494	29,380
December	11,459	650	180	370	22,730
Calendar year	-	-	-	-	-
January	10,970	528	194	354	21,760
February	13,382	657	310	478	26,540
March	16,375	686	302	528	32,480
April	16,077	771	116	536	31,890
May	17,779	735	357	574	35,260
June	18,245	726	314	608	36,190
July	18,586	740	363	600	36,860
August	18,107	685	420	584	35,910
September	10,468	662	0	349	20,760
Water year 1938-39	181,371	771	0	497	359,700

Yuma main canal wasteway at Yuma, Ariz.

Location.- Computed flow, lat. 32°44'00", long. 114°37'15", in SW¼SE¼ sec. 26, T. 16 S., R. 22 E., San Bernardino meridian, 500 feet upstream from intake of Colorado River siphon on Yuma main canal, half a mile north of Yuma, and 3 miles downstream from siphon-drop power plant.

Records available.- October 1928 to September 1939 (1928-37, published as separate table in records for Colorado River at Yuma, Ariz.)

Remarks.- Records good except those for Sept. 11-22, which are fair. Discharge computed as difference between discharge of Yuma main canal at siphon-drop power plant and that of same canal below Colorado River siphon, with deduction for small irrigation diversions made from canal between those stations. Record of diversions for irrigation furnished by Bureau of Reclamation. All flow in Yuma main canal wasteway is returned to Colorado River half a mile downstream from station on Colorado River at Yuma, and all flow bypasses that station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,370	1,020	1,070	1,550	1,240	1,080	1,230	999	1,040	1,100	999	1,120
2	1,620	1,070	1,170	1,530	1,280	1,140	1,440	966	1,100	1,220	1,040	999
3	1,170	1,180	1,390	1,330	1,340	1,160	1,080	1,020	1,180	963	1,040	1,310
4	1,020	1,260	1,520	1,340	1,420	1,300	1,000	1,100	1,260	920	1,100	1,170
5	1,000	1,150	1,150	1,360	1,460	1,340	1,140	1,160	1,010	915	1,220	167
6	1,100	1,320	1,140	1,430	1,200	1,090	1,200	1,300	958	950	1,260	0
7	1,250	1,120	1,240	1,510	1,170	1,040	1,250	1,320	874	1,060	1,060	0
8	1,510	1,060	1,310	1,530	1,190	1,070	1,330	1,040	996	1,230	987	0
9	1,610	1,070	1,410	1,310	1,260	1,090	1,430	992	1,040	1,320	1,070	0
10	1,090	1,120	1,500	1,410	1,310	1,170	954	1,050	1,120	1,010	1,100	0
11	975	1,210	1,550	1,490	1,200	1,130	871	1,150	1,280	962	1,110	208
12	1,020	1,260	1,200	1,460	1,420	1,420	954	1,200	953	955	920	516
13	1,110	1,320	1,180	1,550	1,190	1,170	1,050	1,270	897	1,010	1,240	516
14	1,240	1,120	1,220	1,560	1,130	1,170	1,080	1,140	910	1,170	1,040	488
15	1,570	1,080	1,310	1,550	1,190	1,180	946	966	954	984	987	346
16	1,610	1,100	1,470	1,240	1,260	1,240	1,320	966	1,050	1,240	1,010	400
17	1,180	1,190	1,250	1,230	1,300	1,260	1,000	976	1,230	959	1,040	362
18	1,060	1,280	1,580	1,320	1,350	1,350	981	1,040	1,380	906	1,060	176
19	1,090	1,350	1,360	1,350	1,390	1,460	1,100	1,140	979	987	1,160	132
20	1,190	1,340	1,370	1,420	1,140	1,100	1,160	1,280	926	1,100	1,250	124
21	1,290	1,140	1,400	1,220	1,090	1,030	1,170	1,350	971	1,150	1,010	110
22	1,350	1,130	1,490	1,520	1,140	1,060	1,240	1,020	995	1,270	967	35
23	1,360	1,240	1,570	1,280	1,160	1,110	1,220	971	1,050	1,300	1,040	374
24	1,100	1,380	1,560	1,230	1,260	1,240	982	1,020	1,210	961	1,110	871
25	988	1,490	1,560	1,280	1,060	1,400	883	1,070	1,310	894	1,140	769
26	1,020	1,350	1,500	1,320	1,400	1,430	907	1,140	1,000	920	1,180	777
27	1,030	1,380	1,340	1,370	1,110	1,060	1,050	1,030	920	985	1,250	748
28	1,140	1,310	1,340	1,510	1,020	994	1,190	1,270	919	1,100	1,040	751
29	1,340	1,310	1,370	1,570	-	1,040	1,180	967	968	1,200	945	794
30	1,430	1,120	1,470	1,210	-	1,180	1,600	880	1,020	1,350	955	412
31	1,040	-	1,540	1,170	-	1,310	-	939	-	1,010	1,030	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	37,873	1,620	975	1,222	75,120
November	36,470	1,490	1,020	1,216	72,340
December	42,530	1,580	1,070	1,372	84,360
Calendar year 1938	368,766	1,700	0	1,010	731,400
January	43,150	1,570	1,170	1,392	85,590
February	34,700	1,460	1,020	1,239	68,830
March	36,834	1,460	994	1,188	73,060
April	33,938	1,600	871	1,131	67,320
May	33,734	1,350	880	1,088	66,910
June	31,500	1,380	874	1,050	62,480
July	33,121	1,350	894	1,068	65,690
August	33,370	1,260	920	1,076	66,190
September	13,647	1,310	0	455	27,070
Water year 1938-39	410,867	1,620	0	1,126	815,000

Arapaho Creek below Monarch Lake, Colo.

Location.- Water-stage recorder, lat. 40°18', long. 105°46', in SE¼ sec. 15, T. 2 N., R. 75 W., 700 feet downstream from Roaring Fork and 10 miles east of Granby. Zero of gage is 8,244.30 feet above mean sea level (general adjustment of 1929).

Drainage area.- 59 square miles.

Records available.- June 1935 to September 1939.

Extremes.- Maximum discharge during year, 628 second-feet May 31 (gage height, 2.73 feet); minimum daily discharge, 6.5 second-feet Jan. 17 to Feb. 6, Feb. 10-14.
1934-39: Maximum discharge, 1,380 second-feet June 22, 1938 (gage height, 4.31 feet), from rating curve extended above 900 second-feet; minimum not determined.

Remarks.- Records good except those for periods of ice effect, Nov. 6-9, 11-16, Nov. 20 to Apr. 1 (computed on basis of three discharge measurements and weather records), and those for period of missing gage heights, Apr. 19-21, 23, 24 (computed on basis of records for Colorado River near Granby), all of which are fair. Flow partially regulated by Monarch Lake. Small diversions above station for irrigation. Several second-feet diverted around station by power canal during summer.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	10	9.5	7.5	6.5	8	12	294	562	194	68	13
2	17	10	9.5	8	6.5	8	10	353	458	188	62	13
3	17	10	9	8	6.5	8	11	391	426	188	56	12
4	17	10	9	7.5	6.5	8	9.5	342	506	184	50	12
5	17	11	9	7.5	6.5	8	9.0	361	592	168	44	12
6	17	10	9	7.5	6.5	8	9.5	372	566	153	43	12
7	16	10	8.5	7.5	7	8	9.5	294	490	141	53	13
8	16	10	8.5	7.5	7	8	9.5	252	422	135	64	14
9	16	12	8.5	7	7	8.5	9.5	276	383	132	60	15
10	16	13	8.5	7	6.5	8.5	10	342	330	129	53	14
11	16	12	8	7	6.5	8.5	11	320	353	126	44	16
12	16	11	8	7	6.5	8.5	15	305	368	118	44	16
13	15	10	8	7	6.5	8.5	16	266	430	112	43	16
14	14	10	8	7	6.5	8.5	16	302	458	110	41	16
15	14	10	8	7	7	8.5	17	387	482	101	40	17
16	13	11	8	7	7	9	18	383	494	99	40	17
17	13	14	8	6.5	7	9	17	312	470	96	37	17
18	14	12	8	6.5	7	9	17	320	305	83	33	17
19	16	12	8	6.5	7	9	18	372	273	76	31	17
20	17	11	8	6.5	7	9.5	19	430	235	66	24	16
21	18	10	8	6.5	7	9.5	21	395	214	62	19	15
22	18	10	8.5	6.5	7	10	23	418	191	58	18	14
23	19	9.5	8	6.5	7.5	10	25	454	191	53	17	13
24	19	9.5	8	6.5	7.5	11	30	446	204	48	17	14
25	17	9.5	8	6.5	8	11	36	361	225	44	14	13
26	17	9	8	6.5	8	11	38	284	235	44	14	13
27	14	9	8	6.5	8	12	44	242	228	51	13	14
28	14	9.5	8	6.5	8	12	72	245	228	51	13	14
29	13	9.5	8	6.5	-	12	172	387	208	51	13	15
30	12	9.5	8	6.5	-	13	259	554	197	60	13	17
31	11	-	8	6.5	-	13	-	579	-	68	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	487	19	11	15.7	966
November	314.0	14	9	10.5	623
December	257.5	9.5	8	8.3	511
Calendar year 1938	44,782.6	1,070	6.6	123	88,810
January	214.5	8	6.5	6.9	425
February	195.5	8	6.5	7.0	388
March	293.5	13	8	9.5	582
April	983.5	259	9	32.8	1,950
May	11,039	579	242	356	21,900
June	10,724	592	191	357	21,270
July	3,189	194	44	103	6,330
August	1,093	68	12	35.3	2,170
September	437	17	12	14.6	867
Water year 1938-39	29,227.5	592	6.5	80.1	57,980

Willow Creek near Granby, Colo.

Location.- Water-stage recorder, lat. 40°11', long. 106°00', in NW¼ sec. 34, T. 3 N., R. 77 W., 100 feet downstream from Gold Run Creek and 7 miles northwest of Granby. Zero of gage is 8,240.99 feet above mean sea level (general adjustment of 1929).

Drainage area.- 105 square miles.

Records available.- April 1935 to September 1939.

Extremes.- Maximum discharge during year, 563 second-feet May 20 (gage height, 3.69 feet); minimum daily discharge, 10 second-feet Sept. 18-22.
1935-39: Maximum discharge, 811 second-feet May 16, 1938 (gage height, 4.49 feet); minimum not determined, occurred during period of ice effect.

Remarks.- Records good except those for period of ice effect, Nov. 7 to Mar. 29 (computed on basis of three discharge measurements and weather records) and those for period of missing gage heights, July 23-30 (computed on basis of recorded range in stage and records for nearby stations), all of which are fair. Water diverted above station for irrigation of hay meadows.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	15	13	11	11	12	21	383	370	57	27	14
2	16	15	13	11	11	12	21	414	327	52	24	13
3	16	14	13	12	11	13	26	464	298	51	22	12
4	16	16	12	12	11	13	29	433	298	49	21	12
5	16	14	12	11	11	13	31	464	315	46	20	12
6	16	14	12	11	11	13	30	506	305	44	22	13
7	16	14	12	11	11	13	32	453	281	41	30	14
8	16	15	12	11	11	13	32	409	250	40	24	14
9	17	15	12	11	11	13	34	428	226	37	22	14
10	17	16	12	11	11	13	33	495	204	36	19	12
11	17	16	12	11	11	13	31	512	189	35	19	12
12	16	15	12	11	11	13	34	492	178	34	19	13
13	16	15	11	11	11	13	39	436	168	33	18	12
14	16	14	11	11	11	14	46	412	164	31	18	12
15	16	13	11	11	11	14	47	417	160	28	17	11
16	15	14	11	11	11	14	44	442	151	27	17	11
17	15	14	11	11	11	14	35	450	140	27	16	11
18	15	14	11	11	11	14	35	470	132	26	16	10
19	15	14	11	11	12	15	36	518	121	26	15	10
20	13	14	11	11	12	15	39	539	112	25	14	10
21	14	14	11	11	12	16	50	515	110	23	14	10
22	15	14	11	11	12	16	77	500	100	23	15	10
23	14	14	11	11	12	17	137	498	88	23	14	11
24	14	14	11	11	12	18	129	470	86	23	14	12
25	15	13	11	12	12	19	115	428	82	23	15	12
26	15	13	11	12	12	20	118	368	74	24	15	11
27	15	13	11	12	12	22	144	320	68	24	15	11
28	15	13	11	12	12	22	216	298	64	24	17	12
29	14	13	11	11	-	23	303	298	61	25	17	13
30	14	13	11	11	-	24	341	322	59	25	16	12
31	15	-	11	11	-	22	-	348	-	25	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	476	17	13	15.4	944
November	425	16	13	14.2	843
December	356	13	11	11.5	706
Calendar year 1938	33,605	776	6	92.1	66,650
January	347	12	11	11.2	688
February	317	12	11	11.3	629
March	486	24	12	15.7	964
April	2,306	341	21	76.8	4,570
May	13,482	539	298	435	26,740
June	5,181	370	59	173	10,280
July	1,007	57	23	32.5	2,000
August	567	30	14	18.3	1,120
September	356	14	10	11.9	706
Water year 1938-39	25,305	539	10	69.3	50,190

Fraser River near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°54'00", long. 105°46'35", in NE¼ sec. 4, T. 2 S., R. 75 W., 1⅛ miles northwest of West Portal and 2⅛ miles downstream from point of diversion for Moffat tunnel.

Drainage area.- 28 square miles.

Records available.- September 1910 to September 1930 and September 1933 to September 1939 in reports of Geological Survey. September 1910 to September 1939 in reports of State engineer.

Average discharge.- 29 years, 43.7 second-feet (including diversion through Moffat tunnel).

Extremes.- Maximum discharge during year, 167 second-feet June 5 (gage height, 1.44 feet); minimum daily discharge, 3.0 second-feet Sept. 16-22.
1910-39: Maximum discharge, 820 second-feet June 13, 1918 (gage height, 2.9 feet); minimum, 2 second-feet Mar. 30, 1912.

Remarks.- Records good except those for periods of ice effect and those for period of missing gage heights, which are fair. Transmountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since June 9, 1936. Records of flow past station combined with those of diverted flow are equivalent to records prior to June 9, 1936. Small diversion through Berthoud Pass. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	14	11	9.8	8.9	*8.2	*9.0	65	32	29	6.2	3.9
2	5.2	13	11	9.4	*8.6	*8.2	†10	74	22	7.8	5.9	3.7
3	5.2	14	11	9.4	*8.0	*8.4	†11	65	20	7.2	5.6	3.7
4	5.2	15	11	9.4	*7.8	*8.4	†12	54	20	7.2	5.2	3.7
5	5.2	15	11	*9.4	*7.8	*8.6	†13	45	40	7.2	5.2	3.7
6	5.3	*15	11	9.4	S.0	*8.2	†14	35	156	7.2	5.6	3.9
7	5.8	*15	11	9.4	7.8	*8.2	†15	23	126	6.8	7.5	3.9
8	5.3	*16	11	9.4	7.8	8.0	†12	24	101	6.8	5.9	3.9
9	5.3	*16	11	9.4	7.S	7.5	†12	24	87	6.8	5.2	3.4
10	5.5	15	11	9.4	8.9	7.5	†12	23	59	6.8	4.9	3.2
11	5.8	*16	11	S.9	9.4	7.5	†13	23	44	6.8	4.9	3.2
12	5.5	*17	11	7.8	9.4	*7.5	†16	23	39	5.8	4.9	3.2
13	5.5	*17	11	8.9	S.4	*7.5	†17	23	54	5.8	4.9	3.2
14	5.5	*17	*11	8.9	7.8	*7.5	†18	21	46	6.2	4.9	3.2
15	5.5	*15	*11	9.4	7.5	*7.5	†17	20	50	6.2	4.9	3.2
16	5.5	14	11	9.4	7.5	*8.0	†16	21	40	6.2	4.6	3.0
17	5.5	13	10	S.9	S.9	*8.0	†16	22	29	6.8	4.6	3.0
18	5.5	13	*10	8.9	*7.5	*8.0	17	20	14	5.8	4.6	3.0
19	5.8	12	*10	8.0	*8.0	*8.0	†16	20	13	5.8	4.6	3.0
20	7.S	12	10	8.4	9.4	*8.0	†16	20	13	5.8	4.6	3.0
21	30	13	10	S.0	*8.8	*8.2	†20	20	14	5.8	4.6	3.0
22	17	*12	9.8	8.0	*8.4	*8.4	†27	21	13	5.8	4.6	3.0
23	15	*11	9.S	8.0	*8.0	*8.4	†27	21	12	5.2	4.4	3.2
24	15	*11	9.8	*7.8	*8.2	*8.6	†25	22	11	5.2	4.4	3.2
25	15	*11	9.8	*7.2	8.4	*8.6	†24	23	11	5.2	4.6	3.2
26	16	*12	*9.8	*7.8	8.0	*9.0	27	24	11	5.8	4.4	3.2
27	16	*13	*9.6	*8.2	8.0	*8.6	38	22	10	6.2	4.6	3.2
28	15	*13	*9.6	8.4	*7.8	*8.8	41	20	9.9	5.2	4.6	3.7
29	15	*13	9.4	8.4	-	*8.8	52	19	9.5	5.8	5.2	3.9
30	14	12	9.4	8.4	-	*8.6	54	19	9.5	6.2	4.4	3.7
31	15	-	10	8.0	-	*8.8	-	26	-	6.8	4.4	-

Month	Observed				Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet		Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean			
October	293.9	30	5.0	9.48	583	436	1,020	16.6
November	415	17	11	13.8	823	0	823	13.8
December	323.0	11	9.4	10.4	641	0	641	10.4
Calendar year 1938	5,605.4	107	4.8	15.4	11,120	22,750	33,870	46.8
January	270.1	9.8	7.2	8.71	536	0	536	8.71
February	230.8	9.4	7.5	8.24	458	0	458	8.24
March	253.5	9.0	7.5	8.18	503	0	503	8.18
April	617.0	54	9.0	20.6	1,220	0	1,220	20.6
May	882	74	19	28.5	1,750	4,380	6,130	99.6
June	1,115.9	156	9.5	37.2	2,210	6,220	8,430	142
July	213.7	29	5.2	6.89	424	2,280	2,700	44.1
August	154.9	7.5	4.4	5.00	307	1,000	1,310	21.3
September	101.3	3.9	3.0	3.38	201	653	854	14.4
Water year 1938-39	4,871.1	156	3.0	13.3	9,660	14,970	24,620	34.0

*Stage-discharge relation affected by ice; discharge computed on basis of two discharge measurements and weather records.
†Gage height missing; discharge computed on basis of records for Ranch Creek near Fraser.

Fraser River at Granby, Colo.

Location.- Water-stage recorder, lat. 40°05', long. 105°57', in sec. 1, T. 1 N., R. 76½ W., just downstream from Tenmile Creek, half a mile southwest of Granby and 2½ miles upstream from mouth.

Drainage area.- 285 square miles.

Records available.- August 1904 to September 1909, and September 1937 to September 1939. Records for August 1904 to September 1909 at site just below Tenmile Creek (published erroneously in Water-Supply Paper 617 as 2 miles downstream from Tenmile Creek).

Extremes.- Maximum discharge during year, 984 second-feet June 1 (gage height, 2.60 feet); minimum daily discharge, 25 second-feet Sept. 22.
1904-9, 1938-39: Maximum daily discharge, 1,860 second-feet June 14, 15, 1906; minimum discharge, probably that of Sept. 22, 1939.

Remarks.- Records good except those for period of ice effect, Nov. 14 to Mar. 31, which were computed on basis of four discharge measurements and weather records and are fair. Transmountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since June 9, 1936. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	62	54	36	34	37	106	420	815	157	68	35
2	57	62	52	36	33	37	151	490	656	116	57	33
3	62	59	52	37	33	38	176	506	534	100	44	29
4	61	71	54	37	34	38	196	474	573	91	43	28
5	61	71	58	36	34	38	217	479	632	89	40	28
6	66	55	56	35	34	39	157	501	732	85	43	31
7	73	64	54	34	34	41	116	405	644	73	83	39
8	68	75	52	34	33	42	109	375	539	70	66	39
9	64	77	54	34	33	45	148	395	501	62	54	36
10	64	85	58	34	32	46	129	452	474	59	47	31
11	62	85	56	34	32	47	109	436	410	55	46	30
12	61	77	48	33	33	48	118	436	390	52	44	30
13	57	54	43	32	34	49	170	415	400	51	40	31
14	57	54	40	32	35	50	183	436	431	47	37	31
15	59	58	42	32	35	52	160	469	425	43	36	30
16	55	66	44	32	34	54	139	463	405	47	35	28
17	55	69	45	32	34	56	109	447	365	44	34	28
18	55	66	43	32	34	58	102	458	304	40	35	27
19	59	64	39	32	34	58	140	501	261	40	30	27
20	52	60	39	32	35	56	123	528	235	37	26	27
21	66	59	41	32	36	58	151	517	235	34	29	26
22	79	57	41	32	37	62	239	539	232	29	33	25
23	66	58	40	32	37	68	296	573	193	28	29	27
24	61	60	38	32	38	72	242	573	170	27	28	30
25	62	64	37	33	38	78	232	556	163	27	30	33
26	64	62	36	33	38	78	235	517	167	28	30	33
27	64	54	38	34	37	78	273	436	145	37	36	33
28	66	53	39	34	37	82	342	400	129	47	36	31
29	61	54	39	35	-	88	410	425	121	41	43	36
30	61	56	38	35	-	96	410	617	116	49	43	35
31	64	-	37	35	-	105	-	820	-	87	40	-

Month	Observed					Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	1,917	79	52	61.8	3,800	1,220	5.020	81.7
November	1,911	85	53	63.7	3,790	0	3.790	63.7
December	1,407	56	36	45.4	2,790	0	2.790	45.4
Calendar year 1938	75,244	1,040	31	206	149,200	44,200	193.400	267
January	1,043	37	32	33.6	2,070	0	2.070	33.6
February	972	38	32	34.7	1,930	0	1.930	34.7
March	1,794	105	37	57.9	3,560	0	3.560	57.9
April	5,678	410	102	189	11,260	0	11,260	189
May	14,759	620	375	476	29,270	8,550	37,820	615
June	11,417	815	116	381	22,650	12,570	35.220	592
July	1,792	157	27	57.8	3,550	4,880	8 430	137
August	1,285	83	26	41.5	2,550	2,230	4.780	77.7
September	927	39	25	30.9	1,840	1,410	3.250	54.6
Water year 1938-39	44,902	815	25	123	89,060	30,860	119.900	166

Vasquez Creek near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°55'15", long. 105°47'05", in NW¼ sec. 33, T. 1 S., R. 75 W., a quarter of a mile upstream from mouth, 1¼ miles downstream from Moffat tunnel diversion, and 2¼ miles northwest of West Portal. Zero of gage is 8,768.48 feet above mean sea level (U. S. Bureau of Public Roads bench mark).

Drainage area.- 27.8 square miles.

Records available.- June 1907 to October 1909 and August 1934 to September 1939.

Extremes.- Maximum discharge during year not determined; minimum daily discharge, 0.2 second-foot July 29.

1934-39: Maximum discharge, 396 second-feet June 15, 1935 (gage height, 2.64 feet); minimum daily discharge, 0.2 second-foot July 12, 1937, July 29, 1939.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 3-28, Dec. 11-15, Jan. 25-29, Feb. 21, 22, computed on basis of one discharge measurement and weather records and that for period of unreliable gage heights, May 28 to July 7, computed on basis of records for Fraser River near West Portal and St. Louis Creek near Fraser. Trans-mountain diversion through Pioneer bore of Moffat tunnel to South Platte River Basin since May 26, 1937. Records of flow past station combined with those of diverted flow are equivalent to records prior to May 26, 1937. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	15	13	8.5	6.0	7.4	7.8	34	11	35	5.1	2.7
2	4.3	15	12	8.5	5.7	7.8	8.2	39	10	5	4.6	2.7
3	4.6	15	10	8.5	5.7	8.2	9.3	39	8	3	4.0	2.5
4	4.3	15	9.6	8.5	5.7	8.2	9.3	42	8	3	4.0	2.5
5	4.3	16	9.6	8.9	5.7	8.2	9.6	47	20	3	4.3	2.5
6	4.3	14	9.3	8.9	5.7	8.2	12	47	32	3	4.0	2.9
7	4.8	13	9.3	8.9	5.7	8.2	12	38	39	2	5.7	2.9
8	4.6	12	9.3	8.9	5.7	8.2	8.9	40	38	2.5	4.6	2.0
9	4.3	12	9.3	8.9	6.3	8.2	9.3	49	32	2.5	4.0	2.0
10	4.6	11	9.3	8.5	6.3	8.2	8.9	55	26	2.2	3.7	1.3
11	4.3	11	9.0	8.5	6.0	8.2	8.5	54	8	2.0	3.7	1.8
12	4.0	11	8.4	8.2	6.0	7.8	8.5	48	7	1.8	3.4	1.8
13	4.0	12	8.0	8.2	6.0	7.4	10	42	20	1.3	3.4	1.8
14	4.3	12	8.2	7.8	5.7	7.4	10	39	53	1.1	3.2	2.5
15	4.3	13	9.0	7.8	5.7	7.0	10	23	55	1.1	3.2	2.0
16	4.3	13	9.6	7.4	5.7	7.8	8.9	11	44	1.1	3.2	1.8
17	4.6	13	9.3	7.0	5.7	7.0	9.6	10	27	.9	2.9	1.8
18	4.0	13	8.5	6.2	6.0	6.7	12	7.6	7	.7	2.7	1.8
19	4.0	13	8.9	7.4	6.0	6.7	12	5.1	2	1.0	2.7	1.8
20	7.6	13	8.5	6.7	6.3	7.6	10	4.8	4	.9	2.7	1.0
21	18	12	8.5	6.3	6.3	8.2	10	4.3	3	.9	2.7	.5
22	17	12	8.5	6.0	6.3	8.5	14	4.3	3	.4	2.7	.3
23	17	12	8.5	6.0	6.3	7.4	18	14	3	.3	2.5	.3
24	19	11	8.5	5.7	6.3	7.4	14	35	2	.5	2.5	.4
25	19	11	8.5	6.0	6.3	7.4	12	14	2	.3	2.9	.4
26	18	11	8.2	6.2	6.3	7.4	14	4.8	2	.3	2.7	.4
27	17	12	8.2	6.4	6.7	6.2	17	3.4	2	.4	2.5	.4
28	16	12	8.5	6.4	6.7	7.8	27	3.0	2	.6	2.7	.4
29	15	13	8.5	6.6	-	7.4	33	3.0	2	.2	2.9	1.0
30	15	13	8.2	6.7	-	7.4	34	3.0	10	2.0	3.2	1.8
31	15	-	8.2	6.7	-	6.7	-	15	-	5.1	2.9	-

Month	Observed					Diversion by Moffat tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	275.7	19	4.0	8.89	547	784	1,330	21.7
November	381	16	11	12.7	756	0	756	12.7
December	280.4	13	8.0	9.05	556	0	656	9.05
Calendar year 1938	4,969.7	218	.3	13.6	9,850	21,460	31,300	43.2
January	233.2	8.9	5.7	7.52	463	0	463	7.52
February	169.8	6.7	5.7	6.03	335	0	335	6.03
March	238.4	8.2	6.7	7.69	473	0	473	7.69
April	387.8	34	7.8	12.9	769	0	769	13.9
May	778.5	55	3.0	25.1	1,540	4,170	5,710	93.0
June	482	55	2	16.1	956	6,350	7,310	123
July	84.1	35	.2	2.71	167	2,600	2,770	44.9
August	105.3	5.7	2.5	3.40	209	1,230	1,440	23.4
September	48.0	2.9	.3	1.60	95	757	852	14.3
Water year 1938-39	3,463.2	55	.2	9.49	6,870	15,890	22,760	31.4

St. Louis Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°54'45", long. 105°52'35", in sec. 34, T. 1 S., R. 76 W., a third of a mile downstream from confluence of East and West Branches and 4½ miles southwest of Fraser.

Drainage area.- 32.8 square miles.

Records available.- August 1934 to September 1939.

Extremes.- Maximum discharge during year, 256 second-feet May 31 (gage height, 2.32 feet); minimum daily discharge, 6.4 second-feet Mar. 1-4, 9, 10.
1934-39: Maximum discharge, 353 second-feet June 15, 1935 (gage height, 2.58 feet); minimum, 3.2 second-feet Apr. 9, 1935 (gage height, 0.75 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 3 to Dec. 6, Dec. 14-16, 27, Jan. 24-26 (computed on basis of one discharge measurement and weather records), and those for period of missing gage heights, Mar. 1-6, (computed on basis of records for Fraser River near West Portal), all of which are fair. No regulation or diversion.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	14	16	11	8.8	6.4	8.8	45	186	77	40	20
2	25	14	15	11	8.8	6.4	9.6	49	158	74	36	19
3	25	15	14	11	8.8	6.4	10	50	158	73	34	18
4	25	16	14	11	8.8	6.4	11	51	186	70	32	17
5	25	17	15	11	8.4	6.6	12	56	202	70	30	18
6	25	16	15	11	8.0	6.8	14	56	200	69	31	22
7	28	15	14	11	7.6	6.8	12	50	177	66	39	21
8	25	15	14	12	7.6	6.8	11	49	166	62	31	22
9	26	14	14	12	8.0	6.4	11	57	145	61	29	19
10	25	13	14	12	8.0	6.4	11	64	140	58	28	19
11	24	13	14	12	8.8	6.8	11	66	138	57	27	20
12	22	14	13	11	8.4	8.0	11	66	145	56	25	19
13	22	15	13	11	9.2	7.8	12	63	156	53	25	18
14	22	16	12	11	8.4	7.6	13	69	169	52	25	19
15	22	17	12	12	8.4	6.8	12	79	177	53	25	17
16	21	17	12	11	8.0	6.8	12	84	169	51	24	17
17	21	17	13	11	8.8	6.8	14	76	158	50	22	17
18	19	16	13	10	8.4	8.0	16	79	138	48	22	16
19	20	16	13	10	8.4	8.0	12	97	123	45	22	16
20	20	15	13	12	8.0	10	10	108	108	44	22	15
21	21	15	13	10	7.6	8.8	12	114	103	43	22	16
22	20	14	13	9.6	7.6	8.4	20	130	95	41	21	16
23	20	14	12	9.6	7.6	8.4	22	135	93	40	21	17
24	17	13	12	9.6	7.6	8.8	20	128	95	38	21	22
25	17	13	12	9.6	7.2	8.4	20	114	93	37	22	24
26	16	14	12	9.6	7.2	7.6	21	97	88	37	21	22
27	15	14	10	9.6	7.2	8.0	26	90	86	42	21	21
28	14	15	12	9.2	7.2	8.0	37	97	86	39	23	20
29	15	16	11	9.2	-	9.2	45	114	84	35	23	22
30	14	16	11	8.8	-	8.8	45	128	82	46	25	19
31	14	-	11	9.2	-	7.6	-	163	-	45	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	649	28	14	20.9	1,290
November	449	17	13	15.0	891
December	402	16	10	13.0	797
Calendar year 1938	17,006.8	284	5.7	46.6	33,750
January	328.0	12	8.8	10.6	651
February	226.8	9.2	7.2	8.10	450
March	233.8	10	6.4	7.54	464
April	501.4	45	8.8	16.7	995
May	2,622	163	45	84.6	5,200
June	4,094	202	82	136	8,120
July	1,631	77	35	52.6	3,240
August	811	40	21	26.2	1,610
September	568	24	15	18.9	1,130
Water year 1938-39	12,516.0	202	6.4	34.3	24,840

Ranch Creek above forks, near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°56'30", long. 105°44'00", in SW¼ sec. 24, T. 1 S., R. 75 W., 0.8 mile upstream from North Fork and 4 miles east of Fraser.

Drainage area.- 3.8 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 34 second-feet May 31 (gage height, 2.73 feet); minimum daily discharge, 0.4 second-foot Apr. 1-3, 10, 11, 16, 17, 19, 20, probably less during period of ice effect.
1937-39: Maximum discharge, 67 second-feet June 21, 1938 (gage height, 3.45 feet); minimum daily discharge, that of Apr. 1-3, 10, 11, 16, 17, 19, 20, 1939.

Remarks.- Records fair. Discharge for period of ice effect and missing gage heights, Oct. 20 to Apr. 24, and period of backwater from beaver dams, July 17 to Aug. 16, Sept. 19-28, computed on basis of records for Ranch Creek near Fraser. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7						0.4	5.5	29	12	4.1	1.6
2	3.1						.4	7.1	28	12	4.0	1.6
3	3.1						.4	7.3	28	11	3.7	1.6
4	2.8						.5	6.7	30	11	3.5	1.6
5	2.8						.6	7.7	31	10	3.3	1.6
6	3.2						.5	7.3	30	9.5	3.6	1.7
7	3.4						.5	5.5	29	9.3	3.7	1.8
8	3.2						.5	5.3	27	8.8	3.4	1.8
9	3.2						.5	6.9	26	8.4	3.2	1.6
10	3.2						.4	8.4	26	8.2	3.0	1.6
11	3.1						.4	7.3	25	7.3	2.9	1.6
12	3.1						.5	6.9	25	7.6	2.7	1.6
13	3.0						.5	5.9	26	7.1	2.6	1.6
14	3.0						.5	8.8	26	6.3	2.4	1.6
15	2.8						.5	11	26	6.5	2.3	1.6
16	2.7						.4	12	25	6.1	2.2	1.6
17	2.8						.4	16	24	5.8	1.8	1.6
18	2.7						.5	18	23	5.4	1.8	1.6
19	2.5						.4	19	21	5.0	1.8	1.6
20	2.3						.4	18	20	4.8	1.8	1.6
21	2.4						.6	19	20	4.6	1.7	1.5
22	2.4						.8	22	17	4.6	1.6	1.6
23	2.4						.8	23	16	4.3	1.6	1.6
24	2.4						.7	22	16	4.2	1.7	1.6
25	2.4						.7	22	15	4.2	1.7	1.6
26	2.2						.9	20	14	4.2	1.6	1.6
27	2.0						1.6	20	14	4.1	1.6	1.6
28	2.0						2.5	21	14	4.0	1.6	1.6
29	2.0						3.2	23	14	4.0	1.7	1.6
30	1.9						3.7	25	13	4.1	1.7	1.7
31	2.0						-	28	-	4.2	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	82.8	3.4	1.9	2.67	164
November	30.0	-	-	1.0	60
December	24.8	-	-	.8	49
Calendar year	-	-	-	-	-
January	13.6	-	-	.6	37
February	11.2	-	-	.4	22
March	12.4	-	-	.4	25
April	24.7	3.7	.4	.82	49
May	436.6	28	5.3	14.1	866
June	678	31	13	22.6	1,340
July	208.5	12	4.0	6.73	414
August	75.9	4.1	1.6	2.45	151
September	48.6	1.8	1.6	1.62	96
Water year 1938-39	1,682.1	31	-	4.53	3,270

Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°55'15", long. 105°47'05", in NE¼ sec. 22, T. 1 S., R. 75 W., 150 yards downstream from South Fork and 3 miles east of Fraser.

Drainage area.- 19.9 square miles.

Records available.- August 1934 to September 1939.

Extremes.- Maximum discharge during year, 184 second-feet May 31 (gage height, 2.68 feet); minimum daily discharge, 3.5 second-feet Mar. 10-12.
1934-39: Maximum discharge, 299 second-feet June 15, 1935 (gage height, 3.37 feet); minimum daily discharge, 1.5 second-feet (estimated), Feb. 3-7, Mar. 18-21, 1935.

Remarks.- Records good. Discharge for period of ice effect, Nov. 6-10, computed on basis of weather records. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	6.5	6.7	4.8	3.8	3.6	5.0	31	129	31	9.2	4.6
2	10	6.3	6.7	4.8	3.8	3.6	5.2	37	113	29	9.0	4.9
3	10	8.5	6.5	4.8	3.9	3.6	5.5	38	112	27	9.0	4.6
4	9.8	8.2	6.3	4.6	4.0	3.6	6.1	39	123	26	7.8	4.4
5	9.5	9.5	6.5	4.6	3.9	3.6	6.9	40	132	25	7.8	4.6
6	10	7.8	6.5	4.4	3.9	3.6	6.3	39	127	23	8.8	5.2
7	11	7.5	6.5	4.3	3.8	3.6	5.7	36	108	21	9.8	5.4
8	11	8.0	6.5	4.3	3.8	3.7	5.7	38	97	20	8.0	5.5
9	10	8.5	6.5	4.3	3.9	3.6	5.7	43	92	19	7.3	5.0
10	10	7.8	6.5	4.3	3.9	3.5	5.5	47	89	19	7.1	4.8
11	9.8	6.9	6.5	4.2	3.9	3.5	5.4	47	86	17	6.7	4.9
12	9.2	6.9	6.3	4.2	3.9	3.5	5.9	47	86	16	6.3	4.4
13	9.2	7.8	6.3	4.0	4.0	3.6	6.5	47	85	16	6.3	4.4
14	9.0	8.2	6.3	4.0	3.9	3.6	6.7	55	84	16	6.1	4.8
15	8.8	8.5	6.1	4.0	3.8	3.6	6.1	65	85	17	5.9	4.3
16	8.5	9.0	5.9	4.0	3.8	3.6	5.4	67	84	16	5.5	4.0
17	8.8	8.8	5.9	4.2	3.8	3.6	5.4	68	80	14	5.4	3.9
18	8.5	8.2	5.5	4.0	3.8	3.6	5.7	77	76	13	5.2	3.9
19	8.8	8.0	6.5	4.0	3.8	3.7	5.6	87	66	12	4.9	3.8
20	9.0	8.0	5.5	4.0	3.8	3.8	5.4	93	59	12	4.9	3.7
21	8.5	7.8	5.4	4.0	3.9	4.3	6.9	96	59	11	4.9	3.6
22	8.8	7.3	5.4	4.0	3.9	4.4	10	107	53	11	4.8	3.7
23	9.0	7.3	5.4	4.0	3.8	5.2	10	121	50	10	4.6	3.9
24	8.0	7.3	5.4	3.9	3.8	5.4	9.2	118	49	10	4.6	4.6
25	8.0	7.5	5.2	3.9	3.7	5.2	8.8	103	46	9.8	4.9	4.3
26	7.3	7.3	5.2	4.0	3.6	6.7	10	88	42	10	4.6	4.4
27	6.7	7.1	5.2	4.2	3.6	5.7	14	81	39	10	4.6	4.3
28	6.7	7.1	4.9	4.2	3.6	5.9	21	83	37	9.8	4.8	4.2
29	6.5	7.1	4.9	4.0	-	6.1	26	96	36	9.2	4.6	4.9
30	6.3	7.1	4.9	4.0	-	5.0	26	113	34	9.8	4.9	4.2
31	6.5	-	4.8	3.9	-	4.9	-	132	-	9.8	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	273.0	11	6.3	8.81	541
November	231.8	9.5	6.3	7.73	460
December	181.7	6.7	4.8	5.86	360
Calendar year 1938	10,923.6	235	3.9	29.9	21,660
January	129.9	4.8	3.9	4.19	258
February	107.1	4.0	3.6	3.82	212
March	130.9	6.7	3.5	4.22	260
April	287.5	26	5.0	8.58	511
May	2,179	132	31	70.3	4,320
June	2,357	132	34	78.6	4,680
July	498.8	31	9.2	16.1	989
August	193.3	9.8	4.6	6.24	383
September	133.2	5.5	3.6	4.44	264
Water year 1938-39	6,673.2	132	3.5	18.3	13,240

Ranch Creek near Tabernash, Colo.

Location.- Water-stage recorder, lat. 39°59'55", long. 105°49'10", in sec. 6, T. 1 S., R. 75 W., a quarter of a mile upstream from Meadow Creek and 1½ miles east of Tabernash.

Drainage area.- 50.7 square miles.

Records available.- September 1934 to September 1939.

Extremes.- Maximum discharge during year, 324 second-feet May 31 (gage height, 3.70 feet); minimum daily discharge, 4.4 second-feet Sept. 21, 22.
1934-39: Maximum discharge, 506 second-feet June 15, 1935 (gage height, 4.40 feet); no flow Feb. 15 to Mar. 13, 1937.

Remarks.- Records good except those for periods of ice effect, Oct. 24 to Feb. 10, Mar. 20 to Apr. 10 (computed on basis of three discharge measurements, weather records, and records for station near Fraser), and those for period of uncertain rating, Aug. 20 to Sept. 30, all of which are fair. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	9.0	11	10	9.0	6.5	10	88	258	44	14	6.9
2	16	8.5	11	10	9.0	6.5	12	111	218	41	11	6.9
3	17	12	11	10	7.7	6.5	15	118	210	40	11	6.3
4	16	11	11	10	8.8	6.5	17	115	224	36	9.2	6.0
5	16	13	12	8.8	9.0	6.5	18	125	234	35	9.6	6.0
6	18	11	10	8.8	9.0	6.3	17	127	218	32	11	7.7
7	22	10	10	8.1	9.5	6.3	16	102	194	27	18	8.8
8	20	11	10	8.5	9.0	6.5	20	99	175	27	13	8.8
9	18	12	12	10	9.0	6.5	19	115	166	25	11	8.1
10	19	10	11	10	9.0	6.9	22	128	161	23	9.6	6.9
11	18	9.6	10	9.6	9.2	7.3	24	122	152	21	8.8	7.3
12	17	10	9.0	9.6	9.2	7.3	26	127	144	20	8.5	7.7
13	16	11	8.0	9.2	9.2	8.1	31	123	144	19	8.1	8.5
14	16	11	7.5	7.8	9.6	8.8	33	141	144	18	7.7	7.3
15	16	12	8.5	9.2	9.2	6.9	27	168	144	18	7.3	6.5
16	15	13	9.0	8.5	9.2	6.9	23	170	135	20	6.5	6.3
17	15	12	9.5	7.7	8.8	6.9	21	168	123	17	5.8	4.9
18	14	12	9.5	7.2	8.1	7.3	22	179	108	16	5.8	4.9
19	15	11	9.5	7.8	8.4	8.1	22	198	96	14	4.9	4.9
20	13	12	9.5	8.0	8.1	8.0	22	208	86	13	5.1	4.7
21	14	11	9.0	8.8	8.4	8.0	28	210	88	12	5.8	4.4
22	13	11	8.5	8.5	7.7	9.0	42	226	79	12	4.9	4.4
23	12	9.5	8.0	8.0	7.3	9.5	46	240	71	10	5.1	5.1
24	12	9.5	8.5	8.0	7.7	11	38	232	69	11	4.7	6.3
25	12	9.5	9.0	8.0	7.7	12	34	212	71	10	5.4	6.0
26	13	10	8.5	8.0	7.3	11	35	190	59	12	6.0	6.0
27	11	10	7.5	8.0	6.9	10	45	164	54	14	6.5	6.3
28	11	11	8.0	8.0	6.5	10	62	161	51	14	7.3	6.5
29	10	12	8.5	8.0	-	9.0	79	177	49	12	7.7	8.1
30	9.2	12	9.0	9.0	-	8.0	75	212	47	14	8.1	6.9
31	9.2	-	10	9.0	-	8.0	-	244	-	16	7.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	458.4	22	9.2	14.8	909
November	326.6	13	8.5	10.9	648
December	293.5	12	7.5	9.47	582
Calendar year 1938	21,261.9	417	6.0	58.3	42,170
January	270.1	10	7.3	8.71	536
February	237.5	9.6	6.5	8.48	471
March	246.1	12	6.3	7.94	488
April	901	79	10	30.0	1,790
May	5,000	244	88	161	9,920
June	3,972	258	47	132	7,880
July	643	44	10	20.7	1,280
August	254.7	18	4.7	8.22	505
September	193.4	8.8	4.4	6.45	384
Water year 1938-39	12,796.3	258	4.4	35.1	25,390

North Fork of Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°57'00", long. 105°44'20", in northeast corner of sec. 23, T. 1 S., R. 75 W., 0.6 mile upstream from mouth and 4 miles east of Fraser.

Drainage area.- 3.4 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 38 second-feet May 31 (gage height. 1.75 feet); minimum less than 0.5 second-foot at times during winter.
1937-39: Maximum discharge, 62 second-feet June 21, 1938 (gage height, 2.00 feet); minimum, less than 0.5 second-foot at times during winter of 1938-39.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Oct. 18 to Apr. 25, which were computed on basis of records for Ranch Creek near Fraser and are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4						0.6	3.6	30	6.6	2.3	1.2
2	2.7						.6	4.3	28	6.3	2.2	1.2
3	2.6						.7	5.0	28	5.9	1.9	1.0
4	2.3						.8	5.0	30	5.7	1.8	1.0
5	2.3						.9	5.3	31	5.6	1.7	1.1
6	2.4						.8	5.1	30	5.0	1.7	1.3
7	2.6						.7	4.4	27	4.9	2.3	1.6
8	2.4						.7	4.4	22	4.7	1.8	1.6
9	2.3						.7	5.1	21	4.2	1.7	1.3
10	2.2						.7	4.8	20	3.9	1.6	1.1
11	2.2						.7	5.3	19	3.9	1.5	1.2
12	2.1						.7	5.0	19	3.8	1.3	1.2
13	2.0						.8	5.3	20	3.6	1.3	1.3
14	2.0						.8	6.4	20	3.3	1.3	1.5
15	2.0						.8	7.4	22	3.6	1.3	1.2
16	2.0						.7	7.6	20	3.3	1.3	1.1
17	1.9						.7	8.4	19	3.1	1.2	1.0
18	1.8						.7	9.7	16	2.8	1.2	1.0
19	1.7						.7	12	14	2.7	1.2	1.0
20	1.6						.7	14	13	2.4	1.2	.9
21	1.4						.8	14	12	2.3	1.1	.9
22	1.2						1.3	17	11	2.3	1.1	.9
23	1.1						1.3	19	10	2.2	1.0	.9
24	1.0						1.2	20	10	2.2	1.1	1.0
25	1.0						1.1	17	9.5	2.2	1.2	.9
26	.9						1.3	16	8.8	2.4	1.2	.9
27	.9						1.6	16	8.0	2.3	1.2	.9
28	.9						2.3	16	7.8	2.3	1.3	1.0
29	.9						2.7	20	7.5	2.2	1.3	1.2
30	.9						2.7	24	7.0	2.2	1.5	.9
31	.9						-	28	-	2.3	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	54.6	2.7	0.9	1.76	108
November	24.0	-	-	.8	48
December	21.7	-	-	.7	43
Calendar year	-	-	-	-	-
January	15.5	-	-	.5	31
February	14.0	-	-	.5	28
March	15.5	-	-	.5	31
April	30.8	2.7	.6	1.03	61
May	335.1	28	3.6	10.8	665
June	540.6	31	7.0	18.0	1,070
July	110.2	6.6	2.2	3.55	219
August	45.1	2.3	1.0	1.45	89
September	33.3	1.6	.9	1.11	66
Water year 1938-39	1,240.4	31	-	3.40	2,460

Middle Fork of Ranch Creek near Fraser, Colo.

Location.- Water-stage recorder, lat. 39°56'00", long. 105°44'40", on line between secs. 25 and 26, T. 1 S., R. 75 W., 1.6 miles upstream from South Fork and 4.2 miles east of Fraser.

Drainage area.- 4.4 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 68 second-feet May 31 (gage height, 1.51 feet); minimum, 0.6 second-feet Sept. 22 (gage height, 0.48 foot), probably less during period of ice effect.
1937-39: Maximum discharge, 124 second-feet June 21, 1938 (gage height, 1.88 feet); minimum not determined, occurred during period of ice effect.

Remarks.- Records good except those for period of ice effect or missing gage heights, Oct. 25 to Apr. 24, which were computed on basis of records for Ranch Creek near Fraser and are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3						0.8	5.6	42	8.9	3.0	1.2
2	2.4						.8	6.8	40	8.6	2.9	1.1
3	2.3						.9	6.8	43	7.7	2.6	1.0
4	2.3						1.0	7.1	48	7.4	2.6	.9
5	2.3						1.2	8.3	49	7.1	2.5	1.0
6	2.4						1.0	8.0	42	6.8	2.8	1.1
7	2.5						1.0	6.6	36	6.1	3.1	1.2
8	2.3						1.0	6.6	33	5.8	2.6	1.2
9	2.2						1.0	8.3	32	5.1	2.3	1.0
10	2.2						.9	9.2	32	4.9	2.2	.9
11	2.0						.9	8.6	30	4.4	2.2	1.1
12	1.9						1.0	6.3	30	4.1	1.9	1.1
13	1.8						1.1	6.8	30	4.0	1.9	1.1
14	1.8						1.1	8.6	29	4.0	1.8	1.2
15	1.8						1.0	9.5	30	4.0	1.7	1.1
16	1.7						.9	11	28	3.7	1.5	1.0
17	1.7						.9	11	24	3.6	1.4	.9
18	1.5						1.0	6.3	21	3.4	1.4	.9
19	1.5						.9	21	19	3.3	1.3	.8
20	2.0						.9	25	18	3.1	1.3	.7
21	1.9						1.2	28	18	3.0	1.3	.7
22	1.9						1.6	30	16	3.0	1.2	.7
23	2.4						1.6	36	15	2.9	1.1	.9
24	2.4						1.5	36	14	2.8	1.2	1.0
25	2.4						1.5	30	13	2.8	1.3	.9
26	2.2						1.6	24	13	3.0	1.2	.9
27	2.0						2.3	22	11	3.0	1.2	.8
28	2.0						3.7	24	11	2.9	1.2	1.1
29	2.0						4.1	30	11	2.8	1.3	1.3
30	1.9						4.3	38	9.8	2.9	1.3	1.0
31	2.0						-	46	-	2.9	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	64.0	2.5	1.5	2.06	127
November	45.0	-	-	1.5	89
December	31.0	-	-	1.0	61
Calendar year	-	-	-	-	-
January	21.7	-	-	.7	43
February	16.8	-	-	.6	33
March	21.7	-	-	.7	43
April	42.7	4.3	.8	1.42	85
May	529.4	46	5.6	17.1	1,050
June	787.8	49	9.8	26.3	1,560
July	138.0	8.9	2.8	4.45	274
August	56.5	3.1	1.1	1.82	112
September	29.8	1.3	.7	.99	59
Water year 1938-39	1,784.4	49	-	4.89	3,540

South Fork of Ranch Creek near West Portal, Colo.

Location.- Water-stage recorder, lat. 39°54'45", long. 105°44'40", in SE¼ sec. 35, T. 1 S., R. 75 W., 2.8 miles upstream from mouth and 5 miles northeast of West Portal.

Drainage area.- 2.4 square miles.

Records available.- November 1936 to September 1939.

Extremes.- Maximum discharge during year, 58 second-feet May 22 (gage height, 1.36 feet); minimum, less than 0.6 second-foot at times during period of ice effect.
1936-39: Maximum discharge, 59 second-feet June 1, 1938 (gage height, 1.43 feet); minimum, probably between 0.2 and 0.4 second-foot at times during period of ice effect.

Remarks.- Records good except those for period of missing gage heights, or ice effect, Oct. 25 to Apr. 24, which were computed on basis of records for Ranch Creek near Fraser and are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3						0.5	3.8	29	4.6	1.9	0.7
2	1.4						.6	4.6	27	4.4	1.8	.7
3	1.4						.6	4.9	27	4.1	1.7	.7
4	1.3						.7	5.6	27	3.9	1.6	.7
5	1.3						.8	6.6	26	3.6	1.6	.7
6	1.5						.7	6.4	24	3.5	1.7	.8
7	1.5						.6	5.8	23	3.2	2.0	.8
8	1.5						.6	6.2	21	3.1	1.4	.7
9	1.4						.6	7.7	20	3.0	1.2	.7
10	1.4						.6	8.8	19	2.9	1.1	.7
11	1.3						.6	9.7	16	2.7	1.0	.7
12	1.3						.6	9.4	17	2.6	1.0	.7
13	1.3						.7	9.9	16	2.5	1.0	.7
14	1.3						.7	13	14	2.4	.9	.7
15	1.2						.7	14	14	2.4	.9	.7
16	1.2						.6	15	13	2.3	.9	.7
17	1.2						.6	17	12	2.2	.9	.6
18	1.2						.6	19	11	2.1	.9	.6
19	1.2						.6	23	10	2.1	.9	.6
20	1.2						.6	31	9.7	2.0	.9	.6
21	1.1						.7	32	9.9	2.0	.8	.6
22	1.1						1.1	39	8.8	2.0	.8	.6
23	1.0						1.1	43	7.7	1.9	.8	.6
24	1.0						1.0	35	7.5	1.9	.8	.7
25	1.0						1.0	30	6.9	2.0	.8	.7
26	.9						1.0	26	6.6	2.1	.7	.7
27	.8						1.5	23	6.2	2.0	.7	.7
28	.8						2.3	22	5.8	1.9	.7	.7
29	.8						2.6	23	5.4	1.9	.8	.8
30	.8						3.0	25	5.1	2.0	.8	.7
31	.8						-	31	-	1.9	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	36.5	1.5	0.8	1.18	72
November	21.0	-	-	.7	42
December	18.6	-	-	.6	37
Calendar year	-	-	-	-	-
January	16.5	-	-	.5	33
February	11.2	-	-	.4	22
March	16.5	-	-	.5	33
April	27.9	3.0	.5	.93	56
May	550.4	43	3.8	17.8	1,090
June	447.6	29	5.1	14.9	888
July	81.2	4.6	1.9	2.62	161
August	33.8	2.0	.7	1.09	67
September	20.6	.8	.6	.69	41
Water year 1938-39	1,281.8	43	-	3.51	2,540

Meadow Creek near Tabernash, Colo.

Location.- Water-stage recorder, lat. 40°02'55", long. 105°46'20", in sec. 15, T. 1 N., R. 75 W., 5 miles northeast of Tabernash.

Drainage area.- 7.0 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 188 second-feet May 31 (gage height, 3.52 feet); minimum daily discharge recorded, 0.6 second-foot Sept. 28.
1936-39: Maximum discharge, 197 second-feet June 3, 1938 (gage height, 3.67 feet); probably no flow at times during ice periods.

Remarks.- Records good above 3 second-feet and fair below. Discharge for period of missing gage heights, Oct. 19-22, interpolated, and that for periods of ice effect, Nov. 1 to Apr. 9, Apr. 23-25, computed on basis of three discharge measurements and weather records. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4						1.0	57	114	11	4.0	2.6
2	1.4						1.0	48	81	10	3.2	2.8
3	1.3						1.1	50	79	9.6	2.9	2.7
4	1.2						1.2	52	93	9.0	2.6	2.6
5	1.4						1.3	52	96	8.8	2.6	1.8
6	1.7						1.3	46	80	8.1	3.1	2.0
7	2.5						1.4	41	62	7.7	6.4	2.2
8	2.3						1.6	24	52	7.5	3.3	2.2
9	2.6						1.8	42	50	7.2	2.8	1.9
10	2.3						2.1	49	48	6.8	2.7	1.7
11	1.9						2.1	43	43	6.4	2.6	1.6
12	1.6						2.0	35	48	5.8	2.6	1.6
13	1.6						1.9	37	44	5.0	2.5	1.6
14	1.5						1.8	54	46	4.4	2.1	1.6
15	1.5						1.8	71	48	4.4	2.0	1.5
16	1.5	*1.0					2.2	68	39	4.5	2.0	1.4
17	1.4						2.1	65	32	3.9	1.8	1.9
18	1.2						2.1	72	25	3.4	1.8	1.9
19	1.2						2.1	91	19	3.3	1.9	1.8
20	1.2						2.1	100	16	3.1	2.1	.7
21	1.1						2.1	103	19	3.1	2.1	.8
22	1.1						2.2	114	15	2.9	2.2	1.7
23	1.1						2.6	116	14	2.8	2.0	2.5
24	1.1						3.1	94	18	2.7	2.2	2.6
25	1.1						4.4	66	17	2.6	2.3	1.4
26	1.1						5.8	50	14	3.6	2.3	.6
27	1.1						7.7	46	13	4.4	2.6	.7
28	1.1						15	58	13	3.3	2.6	.9
29	1.1						35	83	12	3.1	2.6	1.1
30	1.1						49	104	11	3.8	2.8	1.0
31	1.1						-	118	-	4.5	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	448	2.6	1.1	1.45	89
November	30.0	-	-	1.0	60
December	27.9	-	-	.9	55
Calendar year 1938	5,422.2	159	-	14.9	10,750
January	27.9	-	-	.9	55
February	22.4	-	-	.8	44
March	40.3	-	-	1.3	80
April	160.9	49	1.0	5.36	319
May	2,049	118	24	66.1	4,060
June	1,261	114	11	42.0	2,500
July	166.7	11	2.6	5.38	331
August	81.5	6.4	1.8	2.63	162
September	51.4	2.8	.6	1.71	102
Water year 1938-39	3,963.8	118	-	10.9	7,860

*Discharge measurement.

Strawberry Creek near Granby, Colo.

Location.- Water-stage recorder, lat. 40°05'10", long. 105°49'30", in SW¼SW¼ sec. 32, T. 2 N., R. 75 W., 0.6 mile downstream from Little Strawberry Creek and 6 miles east of Granby.

Drainage area.- 12.6 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 71 second-feet May 2 (gage height, 2.12 feet); no flow at times in August and September and probably at times during extremely cold weather.

1936-39: Maximum discharge, 132 second-feet May 29, 1938 (gage height, 2.91 feet); no flow at times in August and September 1939, and probably at times during extremely cold weather in each year.

Remarks.- Records good except those for period of ice effect or missing gage heights, Nov. 9-30, which were computed on basis of one discharge measurement and weather records and are fair. No records Dec. 1 to Apr. 20.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 30

0.8	0.2
.9	.6
1.0	1.4
1.1	2.8

Apr. 21 to Sept. 30

0.63	0	1.1	10
.7	.7	1.2	14
.8	2.1	1.4	24
.9	4.3	1.6	48
1.0	7.0	2.1	69

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.6					-	54	24	9.4	5.4	0
2	1.0	.6					-	58	18	9.1	3.6	0
3	1.1	.6					-	58	12	8.2	2.1	0
4	1.1	.8					-	57	12	7.6	2.0	0
5	1.1	.9					-	58	13	6.7	2.0	0
6	1.4	1.0					-	54	12	6.2	2.3	0
7	2.2	1.0					-	48	14	4.8	6.7	.4
8	2.4	1.0					-	46	20	5.6	4.3	.6
9	2.0	1.5					-	47	18	5.4	2.8	.5
10	2.0	1.7					-	46	18	4.8	1.5	0
11	2.0	1.6					-	45	16	4.6	.4	0
12	1.5	1.4					-	40	14	3.4	.4	0
13	1.4	1.2					-	39	14	3.9	.7	0
14	1.3	1.2					-	38	13	3.6	.6	.1
15	1.2	1.3					-	39	13	2.0	.4	.1
16	1.2	1.5					-	42	14	4.1	.3	0
17	1.2	1.7					-	43	13	3.6	.2	.5
18	.8	1.7					-	44	12	3.0	.4	1.1
19	.7	1.6					-	43	12	2.8	.2	0
20	.7	1.6					-	41	10	2.1	0	.7
21	.7	1.6					14	41	12	1.8	0	0
22	.7	1.4					22	41	5.6	1.5	0	0
23	.6	1.2					26	37	3.4	2.3	0	.2
24	.6	1.2					21	33	12	2.1	0	1.3
25	.5	1.3					18	32	14	2.1	0	1.3
26	.5	1.4					20	32	13	2.3	0	1.4
27	.5	1.4					29	27	12	4.8	.2	1.3
28	.5	1.5					41	23	9.7	3.0	0	1.3
29	.6	1.6					47	18	10	2.3	0	2.1
30	.6	1.4					49	18	10	3.0	0	1.7
31	.6	-					-	21	-	5.1	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33.7	2.4	0.5	1.09	67
November	38.4	1.7	.6	1.28	76
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 21-30	287	49	14	28.7	569
May	1,263	58	18	40.7	2,510
June	393.7	24	3.4	13.1	781
July	131.2	9.4	1.5	4.23	260
August	36.5	6.7	0	1.18	72
September	14.6	2.1	0	.49	29
Water year	-	-	-	-	-

Williams River below Steelman Creek, Colo.

Location.- Water-stage recorder, lat. 39°46'45", long. 105°55'30", in sec. 20, T. 3 S., R. 76 W., just downstream from Steelman Creek and 7 miles southeast of Leal.

Drainage area.- 16.3 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. July 1933 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 257 second-feet June 5 (gage height, 2.03 feet); minimum discharge not determined, occurred during period of ice effect.
1933-39: Maximum discharge, 441 second-feet June 21, 1938 (gage height, 2.48 feet); minimum discharge recorded, 2.0 second-feet (discharge measurement) Mar. 26, 1935.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Nov. 3 to Apr. 26, which were computed on basis of records for station near Leal and are fair. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	7.3					4.0	36	164	69	23	7.9
2	12	6.8					4.0	47	140	66	21	7.9
3	12	6.6					4.2	53	150	63	20	7.0
4	12	6.4					4.6	54	186	60	19	7.0
5	12	6.2					4.8	59	203	61	18	7.3
6	14	6.0					4.8	57	182	60	20	8.2
7	16	6.0					4.6	40	158	57	24	9.1
8	16	6.0					4.8	38	140	54	18	9.4
9	14	6.0					5.2	49	131	51	16	7.9
10	14	6.0					4.8	59	128	49	15	7.3
11	14	5.8					4.6	57	122	47	14	8.2
12	14	5.6					4.8	57	134	45	13	7.6
13	14	5.8					5.0	50	161	44	13	7.9
14	14	5.8					5.0	65	175	42	12	8.2
15	14	5.8					5.2	86	175	41	11	7.9
16	14	5.8					5.0	84	168	38	11	8.2
17	14	5.8					5.0	70	150	37	10	7.6
18	12	5.8					5.0	73	122	35	10	7.3
19	9.7	5.8					5.0	97	106	33	9.7	7.3
20	13	5.4					5.2	110	93	30	9.4	7.3
21	10	5.4					6.0	122	86	29	9.7	7.6
22	10	5.4					6.6	154	78	28	9.4	7.3
23	11	5.2					7.6	147	78	26	8.8	7.3
24	12	5.4					7.0	131	79	25	9.4	9.4
25	11	5.4					6.6	108	81	23	9.7	11
26	9.7	5.4					7.2	84	78	26	8.8	11
27	9.1	5.4					7.9	76	76	27	10	9.4
28	8.5	5.2					12	89	75	23	10	9.7
29	9.1	5.2					22	119	73	23	10	10
30	8.5	5.2					32	144	75	31	9.4	8.5
31	7.6	-					-	161	-	27	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	373.2	16	7.6	12.0	740
November	173.9	7.3	5.2	5.80	345
December	148.8	-	-	4.8	295
Calendar year 1938	12,540.8	325	-	34.4	24,870
January	133.3	-	-	4.3	264
February	109.2	-	-	3.9	217
March	114.7	-	-	3.7	228
April	210.5	32	4.0	7.02	418
May	2,576	161	36	83.1	5,110
June	3,767	203	73	126	7,470
July	1,270	69	23	41.0	2,520
August	410.5	24	8.2	13.2	814
September	247.7	11	7.0	8.26	491
Water year 1938-39	9,534.8	203	-	26.1	18,910

Williams River near Leal, Colo.

Location.- Water-stage recorder, lat. 39°50', long. 106°03', in sec. 31, T. 2 S., R. 77 W., just downstream from Kinney Creek and 2 miles north of Leal.

Drainage area.- 84 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. July 1933 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,030 second-feet May 31 (gage height, 3.20 feet); minimum daily discharge, 18 second-feet Mar. 3-9.

1933-39: Maximum discharge, 1,530 second-feet June 21, 1938 (gage height, 3.81 feet), from rating curve extended above 1,000 second-feet; minimum daily discharge, 14 second-feet Mar. 22, 1936.

Remarks.- Records excellent except those for days of ice effect, Dec. 14, 18, Feb. 22, which were computed on basis of weather records and are fair. One small diversion above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 8 to Nov. 3, Apr. 9-30, Aug. 16 to Sept. 30)

0.4	15	0.7	40	1.0	84	1.6	214	2.2	435
.5	22	.8	50	1.2	122	1.8	274	2.4	540
.6	30	.9	67	1.4	164	2.0	346	3.0	900

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	34	31	27	21	19	23	164	702	234	86	40
2	45	31	31	26	21	19	24	183	594	220	77	37
3	46	33	30	27	22	18	25	188	600	211	72	34
4	46	42	30	27	22	18	28	183	732	198	66	33
5	45	37	31	28	22	18	32	204	810	188	66	34
6	47	36	31	27	22	18	28	209	762	188	67	39
7	54	36	30	26	22	18	28	162	672	174	95	40
8	54	37	30	26	22	18	29	153	588	162	74	41
9	47	37	30	26	21	18	31	186	534	153	64	37
10	48	37	30	26	22	19	29	222	502	146	60	34
11	47	36	30	25	21	19	28	225	485	140	56	38
12	45	32	29	25	21	20	30	217	502	134	54	36
13	44	31	28	25	21	20	33	204	564	128	50	36
14	42	33	23	25	21	20	36	245	660	124	47	36
15	42	33	29	24	21	20	34	312	630	120	46	34
16	40	34	28	25	21	20	31	331	594	118	45	34
17	41	34	28	24	22	20	30	298	534	114	41	34
18	37	34	23	24	21	19	30	298	450	106	40	32
19	39	34	29	24	21	20	32	381	396	98	38	31
20	34	33	28	24	21	21	31	460	338	95	37	30
21	36	32	28	24	21	21	38	496	323	91	38	31
22	35	32	28	23	21	23	60	582	294	84	38	30
23	32	30	28	23	21	25	67	636	284	81	35	31
24	33	33	28	23	21	25	60	564	288	77	35	35
25	33	32	28	22	21	25	54	475	288	76	39	44
26	33	30	28	23	20	25	58	372	271	81	36	45
27	34	30	28	21	20	27	77	335	261	95	39	40
28	34	30	28	21	21	24	108	372	252	88	45	39
29	32	31	28	21	-	24	144	470	242	74	42	42
30	34	30	28	21	-	24	160	564	245	100	45	37
31	34	-	28	21	-	24	-	684	-	102	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,259	54	32	40.6	2,500
November	1,004	42	30	33.5	1,990
December	887	31	23	28.6	1,760
Calendar year 1938	56,159	1,430	19	154	111,400
January	754	28	21	24.3	1,500
February	594	22	20	21.2	1,180
March	649	27	18	20.9	1,290
April	1,418	160	23	47.3	2,810
May	10,375	684	153	335	20,580
June	14,387	810	242	480	28,540
July	4,000	234	74	129	7,930
August	1,613	95	35	52.0	3,200
September	1,084	45	30	36.1	2,150
Water year 1938-39	38,024	810	18	104	75,430

Williams River near Parshall, Colo.

Location.- Water-stage recorder, lat. 40°00', long. 106°11', in sec. 1, T. 1 S., R. 79 W., 2¼ miles upstream from Battle Creek and 4 miles south of Parshall. Zero of gage is 7,805.00 feet above mean sea level.

Drainage area.- 184 square miles.

Records available.- July 1904 to September 1924 and October 1933 to September 1939 in reports of U. S. Geological Survey. July 1904 to September 1924 and June 1933 to September 1939 in reports of State engineer.

Average discharge.- 26 years (1904-24, 1933-39), 166 second-feet.

Extremes.- Maximum discharge during year, 795 second-feet June 1 (gage height, 3.24 feet); minimum daily discharge, 18 second-feet Sept. 18-22.

1904-24, 1933-39: Maximum discharge observed, 2,750 second-feet from rating curve extended above 800 second-feet; minimum daily discharge, 10 second-feet Sept. 15-17, 1934.

Remarks.- Records excellent except those for period of ice effect, Nov. 7 to Mar. 28, which were computed on basis of three discharge measurements, weather records, and records for station near Leal and are fair. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1 to Nov. 6, July 31 to Aug. 27, Sept. 14-30)

0.9	14	1.2	39	1.5	84	1.8	158	2.5	430
1.0	21	1.3	50	1.6	106	2.0	220	3.0	675
1.1	29	1.4	65	1.7	130	2.2	295	3.5	930

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	69	43	46	41	37	34	48	326	695	217	113	49
2	71	44	44	42	36	36	47	362	635	201	97	47
3	73	40	45	44	32	37	53	372	585	194	88	34
4	69	54	47	38	29	35	62	362	635	185	82	20
5	67	54	49	39	27	35	71	372	675	173	74	19
6	67	50	46	37	33	36	62	398	665	167	76	21
7	73	46	47	35	34	38	54	318	615	155	123	24
8	74	46	50	33	36	39	52	269	565	141	111	24
9	73	47	48	38	33	38	58	313	520	133	95	25
10	71	54	48	38	36	40	50	385	495	125	86	22
11	64	50	40	38	30	38	47	376	495	120	78	22
12	62	47	41	39	29	37	50	376	490	113	76	21
13	60	47	39	32	31	39	64	354	530	178	58	50
14	59	48	40	35	34	37	76	403	570	102	49	52
15	58	50	44	32	35	33	76	470	575	99	48	52
16	56	52	44	36	36	41	65	490	560	99	46	52
17	58	56	44	33	31	41	53	448	525	91	49	33
18	56	58	40	37	27	41	52	444	485	80	49	18
19	56	60	43	40	32	46	62	510	426	74	48	18
20	50	56	41	38	33	42	62	565	385	71	48	18
21	56	52	44	41	33	41	86	570	367	65	49	18
22	48	43	46	31	28	46	147	660	336	62	48	18
23	48	44	40	32	35	50	182	715	308	56	44	19
24	48	44	41	35	35	54	152	660	300	52	41	20
25	47	48	39	36	37	65	141	605	295	50	44	27
26	48	50	39	33	36	63	150	530	271	52	42	27
27	47	47	37	36	34	57	176	462	255	69	41	28
28	47	44	39	37	33	52	238	475	238	76	53	26
29	42	42	40	38	-	50	300	525	227	71	54	32
30	42	44	39	37	-	48	331	570	227	88	54	26
31	43	-	40	38	-	48	-	605	-	144	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,802	74	42	58.1	3,570
November	1,460	60	40	48.7	2,900
December	1,330	50	37	42.9	2,640
Calendar year 1938	67,436	1,140	29	185	133,800
January	1,139	44	31	36.7	2,260
February	922	37	27	32.9	1,830
March	1,337	65	33	43.1	2,650
April	3,067	331	47	102	6,080
May	14,290	715	269	461	28,340
June	13,950	695	227	465	27,670
July	3,433	217	50	111	6,810
August	2,014	123	41	65.0	3,990
September	862	52	18	28.7	1,710
Water year 1938-39	45,606	715	18	125	90,450

Blue River at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'50", long. 106°03'05", in sec. 18, T. 5 S., R. 77 W., at edge of Dillon, a short distance upstream from Snake River and Tenmile Creek. Zero of gage is 8,821.42 feet above mean sea level.

Drainage area.- 129 square miles.

Records available.- October 1910 to September 1939.

Average discharge.- 29 years, 122 second-feet.

Extremes.- Maximum discharge during year, 580 second-feet May 23 (gage height, 3.10 feet); minimum daily discharge, 16 second-feet Feb. 3.
1910-39: Maximum discharge observed, 1,180 second-feet June 2, 1914, June 14, 1924; maximum gage height observed, 4.35 feet June 2, 1914; minimum discharge observed, 7.4 second-feet Mar. 22, 1933 (discharge measurement).

Remarks.- Records excellent except those for period of ice effect, Nov. 6 to Apr. 8 (computed on basis of four discharge measurements and weather records), and those for July 7 to Sept. 30, all of which are fair. Chain gage read twice daily at temporary site July 22 to Sept. 30. Practically all water diverted above station is returned to river.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	48	37	27	19	22	37	271	470	224	101	52
2	70	50	35	27	17	21	36	296	450	219	101	52
3	68	50	33	28	16	20	38	307	440	216	113	47
4	65	51	34	28	18	20	39	307	470	211	113	50
5	65	51	35	26	20	21	35	318	498	208	108	48
6	67	47	32	25	21	20	29	366	503	206	111	48
7	72	43	32	24	21	21	30	339	465	203	87	48
8	80	39	33	22	19	23	31	303	420	201	87	46
9	78	40	31	23	19	22	32	285	385	198	81	48
10	77	40	33	24	18	24	32	299	370	188	70	48
11	74	41	30	24	18	26	32	344	366	181	76	48
12	70	43	27	25	17	24	33	357	352	176	61	46
13	68	38	24	24	19	25	36	339	344	165	59	45
14	67	37	22	22	18	26	39	348	375	156	57	50
15	64	38	23	20	20	25	42	361	400	142	57	48
16	63	39	25	23	21	28	40	410	395	136	59	52
17	63	40	27	23	17	31	37	425	385	130	55	50
18	63	41	24	24	17	28	39	415	361	122	54	48
19	62	42	26	24	21	29	39	430	316	110	50	47
20	59	39	25	22	23	31	41	508	288	101	50	47
21	54	37	26	23	22	33	48	530	268	98	48	46
22	54	32	27	21	21	35	60	547	254	99	48	44
23	53	31	24	22	20	38	72	564	245	96	48	46
24	51	29	25	21	21	36	86	564	239	96	48	44
25	50	30	24	19	22	38	94	503	245	106	48	46
26	49	33	25	18	21	39	105	435	248	106	48	47
27	49	36	23	19	22	36	128	375	242	103	47	46
28	49	37	25	20	20	35	163	370	236	101	48	47
29	48	33	26	21	-	33	219	395	233	108	47	46
30	47	35	27	22	-	34	245	430	227	111	46	44
31	47	-	26	21	-	35	-	445	-	101	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,916	80	47	61.8	3,800
November	1,190	51	29	39.7	2,360
December	866	37	22	27.9	1,720
Calendar year 1938	45,227	708	14	124	89,720
January	712	28	18	23.0	1,410
February	548	23	16	19.6	1,090
March	879	39	20	28.4	1,740
April	1,937	245	29	64.6	3,840
May	12,186	564	271	393	24,170
June	10,492	503	227	350	20,810
July	4,618	224	96	149	9,160
August	2,078	113	46	67.0	4,120
September	1,429	52	44	47.6	2,830
Water year 1938-39	38,851	564	16	106	77,050

Blue River below Green Mountain Reservoir, near Kremmling, Colo.

Location.- Water-stage recorder, lat. 39°56', long. 106°21', in NE¼ sec. 33, T. 1 S., R. 80 W., just downstream from Spring Creek, about 4 miles downstream from Green Mountain Dam and 10 miles southeast of Kremmling.

Drainage area.- 623 square miles.

Records available.- October 1937 to September 1939.

Extremes.- Maximum discharge during year, 3,190 second-feet May 23 (gage height, 5.33 feet); minimum daily discharge, 93 second-feet Feb. 22.
1937-39: Maximum discharge, 4,000 second-feet June 4, 1938 (gage height, 5.93 feet); minimum daily discharge, 80 second-feet Feb. 18-24, 1938.

Remarks.- Records good except those for period of ice effect, Nov. 12 to Apr. 2, which were computed on basis of four discharge measurements and weather records and are fair. Many diversions above station for irrigation. Green Mountain Dam is under construction.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	288	193	150	130	115	105	210	1,290	2,740	954	420	266
2	288	200	155	135	110	110	220	1,520	2,280	933	407	263
3	292	186	145	130	110	110	228	1,580	2,100	905	378	246
4	284	200	150	130	110	105	246	1,460	2,360	884	359	228
5	277	214	155	130	110	105	266	1,670	2,600	849	340	228
6	274	180	155	130	110	110	246	1,830	2,480	842	348	242
7	288	161	155	130	110	115	218	1,430	2,200	807	399	266
8	325	180	155	125	110	115	210	1,210	2,040	772	374	292
9	317	193	150	125	105	125	242	1,290	1,790	744	344	336
10	292	207	160	130	105	120	224	1,710	1,640	712	321	281
11	295	193	145	125	105	120	207	1,750	1,670	700	310	274
12	284	165	135	130	100	125	221	1,760	1,660	664	299	281
13	270	150	135	125	100	125	263	1,620	1,760	631	295	277
14	263	155	120	130	105	130	295	1,660	2,030	593	288	277
15	256	160	125	120	105	120	292	1,980	2,060	567	281	274
16	252	165	130	125	100	125	266	2,220	1,910	552	274	263
17	249	160	130	125	96	130	228	2,160	1,840	538	266	256
18	242	165	130	120	94	135	210	1,930	1,580	509	263	238
19	235	160	125	120	96	135	249	2,220	1,340	477	256	228
20	221	155	130	125	96	125	249	2,570	1,210	455	252	214
21	218	145	130	128	94	135	299	2,560	1,140	437	252	214
22	214	134	130	125	93	140	411	2,740	1,090	420	252	210
23	204	125	130	125	96	155	528	2,840	1,050	399	238	204
24	197	120	130	120	98	160	509	2,590	1,090	386	238	210
25	193	115	125	120	98	155	482	2,240	1,120	375	242	221
26	197	115	125	115	100	165	491	1,830	1,080	374	242	232
27	200	125	120	115	100	175	578	1,600	1,030	403	246	232
28	200	130	125	120	105	180	751	1,670	1,020	420	274	228
29	193	140	125	120	-	178	996	2,050	1,010	399	274	246
30	193	145	125	115	-	190	1,180	2,380	982	411	284	238
31	193	-	130	115	-	200	-	2,480	-	442	277	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,694	325	193	248	15,260
November	4,836	214	115	161	9,590
December	4,230	160	120	136	8,390
Calendar year 1938	231,639	3,620	80	635	459,500
January	3,858	135	115	124	7,650
February	2,876	115	93	103	5,700
March	4,223	200	105	136	8,380
April	11,015	1,180	207	367	21,850
May	59,840	2,840	1,210	1,930	118,700
June	49,902	2,740	982	1,663	98,980
July	18,557	954	374	599	36,810
August	9,293	420	238	300	18,430
September	7,465	336	204	249	14,810
Water year 1938-39	183,789	2,840	93	504	364,600

Snake River at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'50", long. 106°03'05", in sec. 18, T. 5 S., R. 77 W., at private bridge at Dillon, 100 yards upstream from mouth. Zero of gage is 8,820.54 feet above mean sea level.

Drainage area.- 92 square miles.

Records available.- October 1910 to September 1919, December 1929 to September 1939.

Average discharge.- 19 years, 71.8 second-feet.

Extremes.- Maximum discharge during year, 580 second-feet May 22 (gage height, 3.45 feet); minimum daily discharge, 5.9 second-feet Mar. 14.
1910-19, 1929-39: Maximum discharge, 1,200 second-feet June 13, 1935 (gage height, 4.25 feet), from rating curve extended above 500 second-feet; minimum daily discharge, 3 second-feet Nov. 9, 1912.

Remarks.- Records excellent above 25 second-feet and good below except those for periods of ice effect or missing gage heights, which are fair. One diversion around station for power.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	9.6	10	*10	*10	*10	9.6	112	378	106	30	13
2	16	10	*10	*10	*9	*9	11	139	373	106	39	13
3	16	12	*9	*11	*8	*10	12	135	391	102	29	11
4	15	11	8.9	*11	*9	*9	13	133	418	99	29	11
5	14	*10	8.9	*10	*10	*10	14	153	432	93	28	11
6	16	*9	8.9	*11	*11	*9	12	161	386	93	28	11
7	26	*9	8.9	*11	*11	*10	11	174	355	88	29	11
8	29	*9	8.9	*9	*10	*11	12	156	327	86	26	13
9	21	*10	8.9	*9	*10	*10	12	195	315	80	25	9.2
10	18	*10	9.2	*10	*9	*10	11	238	303	75	24	9.2
11	13	*11	9.2	*10	*9	9.2	11	253	287	72	23	10
12	11	*11	9.6	*11	*9	*8	11	256	287	71	22	11
13	11	*10	*9	*10	*10	6.4	13	211	307	62	20	9.6
14	11	*9	*8	10	*10	5.9	14	177	323	50	19	11
15	11	*10	*9	*10	*11	6.7	14	228	323	46	19	11
16	10	*11	*9	9.6	*12	7.0	14	253	307	45	18	11
17	11	11	*10	10	*10	7.0	14	231	295	44	18	10
18	11	10	*9	9.6	*10	7.5	16	235	260	44	19	10
19	11	11	*9	9.2	12	8.1	14	327	221	40	19	9.6
20	11	*11	*10	9.6	11	8.4	14	368	198	35	19	9.2
21	12	*11	*10	9.6	*12	8.9	19	382	189	32	20	8.9
22	11	*10	*10	11	*12	9.2	29	427	183	30	19	8.9
23	12	*10	*9	*10	*12	11	32	414	180	29	18	8.4
24	13	*9	*10	*10	*12	11	28	378	180	29	16	8.6
25	13	*9	*10	*9	*11	11	26	335	183	30	16	8.6
26	11	*9	*10	*8	10	11	31	279	169	32	14	9.2
27	11	*9	*9	*9	11	11	38	260	141	39	14	9.2
28	10	*10	*9	*10	*10	9.6	59	291	122	34	14	9.6
29	10	*10	*10	11	-	9.6	72	335	114	29	14	9.6
30	9.2	*10	*10	12	-	9.2	86	351	112	38	18	9.6
31	9.6	-	*9	11	-	9.6	-	368	-	33	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	418.8	29	9.2	13.5	831
November	301.6	12	9	10.1	598
December	289.4	10	8	9.34	574
Calendar year 1938	31,347.5	682	6.6	85.9	62,170
January	311.6	12	8	10.1	618
February	291	12	8	10.4	577
March	283.3	11	5.9	9.14	562
April	672.6	86	9.6	22.4	1,330
May	7,955	427	112	257	15,780
June	8,059	432	112	269	15,980
July	1,792	106	29	57.8	3,550
August	660	39	14	21.3	1,310
September	305.4	13	8.4	10.2	606
Water year 1938-39	21,339.7	432	5.9	58.5	42,320

*Stage-discharge relation affected by ice; discharge computed on basis of three discharge measurements and weather records.

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Tenmile Creek at Dillon, Colo.

Location.- Water-stage recorder, lat. 39°36'45", long. 106°03'15", in sec. 18, T. 5 S., R. 77 W., at Dillon, 250 feet downstream from highway bridge and 200 yards upstream from mouth. Prior to Aug. 5, 1939, water-stage recorder at site 250 feet upstream, different datum. Zero of gage is 8,817.97 feet above mean sea level.

Drainage area.- 113 square miles.

Records available.- October 1910 to September 1919 and April 1930 to September 1939.

Average discharge.- 19 years (1910-19, 1929-39), 129 second-feet.

Extremes.- Maximum discharge during year, 1,030 second-feet May 22 (gage height, 4.98 feet, former site and datum); minimum daily discharge, 15 second-feet Feb. 3, 12.
1910-19, 1930-39: Maximum discharge, 2,010 second-feet June 1, 1933 (gage height, 5.82 feet, former site and datum), from rating curve extended above 1,000 second-feet; minimum, 2 second-feet Feb. 15-17, 20, 1918.

Remarks.- Records good except those for period of ice effect, Nov. 6 to Mar. 31 (computed on basis of four discharge measurements and weather records), and those for period of missing gage heights, July 29 to Aug. 4 (computed on basis of records for Blue and Snake Rivers at Dillon), all of which are fair. Diversions for irrigation and mining above station. Robinson Reservoir (capacity, 2,520 acre-feet) constructed above station in November 1936.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	36	34	24	18	19	39	342	639	190	89	49
2	42	36	32	24	16	18	33	371	499	180	89	46
3	43	37	30	25	15	18	35	366	531	170	82	43
4	43	36	31	25	17	18	36	391	639	161	75	38
5	43	38	32	24	18	19	40	474	681	159	59	40
6	44	36	30	23	19	18	39	468	577	151	59	43
7	52	35	29	21	19	19	39	338	493	146	59	44
8	52	34	31	20	17	20	38	319	451	148	59	45
9	45	36	28	21	17	19	36	401	434	145	59	43
10	44	36	30	22	16	21	35	505	396	138	54	40
11	58	37	27	22	16	23	36	505	396	136	51	43
12	49	39	24	23	15	21	37	468	386	126	51	43
13	46	36	22	21	17	22	40	428	417	114	50	40
14	43	34	21	20	16	23	44	499	445	110	48	37
15	44	34	22	19	18	22	43	618	428	106	48	37
16	45	35	23	21	19	24	42	660	391	106	46	41
17	44	36	24	21	17	27	42	583	376	102	44	40
18	40	37	22	22	17	25	43	544	338	92	43	36
19	40	38	24	22	18	26	39	674	281	90	42	33
20	39	35	23	25	21	28	41	765	257	87	40	32
21	40	33	24	30	19	30	48	758	245	81	42	32
22	37	29	25	25	18	31	70	800	238	78	42	32
23	36	28	22	22	18	33	89	793	227	76	40	31
24	35	26	23	19	19	31	87	653	234	69	38	33
25	35	27	22	18	20	33	78	544	238	68	43	36
26	35	30	23	17	18	34	83	456	223	76	42	36
27	35	33	21	18	19	32	110	417	213	90	42	35
28	35	34	22	18	18	31	156	487	206	89	44	34
29	36	30	23	19	-	30	223	583	199	95	44	38
30	36	32	25	20	-	33	297	611	203	98	59	35
31	36	-	23	19	-	36	-	625	-	89	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,294	58	35	41.7	2,570
November	1,023	39	26	34.1	2,030
December	792	34	21	25.5	1,570
Calendar year 1938	49,200	1,040	18	135	97,590
January	670	30	17	21.6	1,330
February	495	21	15	17.7	982
March	784	36	18	25.3	1,560
April	2,018	297	33	67.3	4,000
May	16,446	800	319	531	32,620
June	11,281	681	199	376	22,380
July	3,569	190	68	115	7,080
August	1,635	89	38	52.7	3,240
September	1,155	49	31	38.5	2,290
Water year 1938-39	41,162	800	15	113	81,650

Roaring Fork at Aspen, Colo.

Location.- Water-stage recorder, lat. 39°11'20", long. 106°48'55", in sec. 7, T. 10 S., R. 84 W., at Aspen, three-quarters of a mile upstream from Hunter Creek.

Drainage area.- 109 square miles.

Records available.- January 1911 to September 1921 and January 1934 to September 1939 in reports of Geological Survey. January 1911 to September 1921 and April 1932 to September 1939 in reports of State engineer. Records since May 24, 1935, equivalent to earlier records if flow diverted above station is added to flow past station.

Average discharge.- 17 years, 166 second-feet (including flow diverted through Twin Lakes tunnel).

Extremes.- Maximum discharge during year, 567 second-feet May 20 (gage height, 3.53 feet); minimum daily discharge, 10 second-feet Sept. 20-25, 27.
1911-21, 1933-39: Maximum discharge, 3,170 second-feet June 18, 1917 (gage height, 7.2 feet, former site and datum, from high-water marks), from rating curve extended above 1,200 second-feet; minimum daily discharge, 15 second-feet July 15, 16, 1934; minimum daily discharge since diversion through Twin Lakes tunnel began, 5.8 second-feet Sept. 21, 1937.

Remarks.- Records excellent above 100 second-feet and good below except those for periods of ice effect or missing gage heights, Nov. 13 to Jan. 18, Jan. 24 to Mar. 14, which were computed on basis of two discharge measurements and records for Crystal River near Redstone and are fair. Transmountain diversion at point 15 miles upstream through Twin Lakes tunnel to Arkansas River Basin since May 24, 1935. Records of diverted flow furnished by State engineer.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	39	39	26	24	24	35	291	479	118	31	15
2	38	40	38	26	22	24	38	341	375	111	27	14
3	38	37	37	26	24	25	43	316	383	97	27	12
4	42	42	38	27	25	26	48	310	423	85	24	11
5	42	43	37	27	24	25	49	330	475	82	22	11
6	43	39	37	27	23	26	50	320	415	78	21	17
7	60	38	36	28	23	27	48	244	348	73	26	23
8	68	40	36	27	23	28	54	207	327	72	23	22
9	60	40	37	26	24	28	60	231	313	68	21	21
10	55	38	37	25	23	28	52	306	292	63	20	15
11	50	38	37	24	24	27	50	348	320	62	18	18
12	50	38	36	24	25	26	52	344	310	57	16	17
13	50	38	34	25	24	25	61	310	310	52	15	18
14	50	39	28	25	23	26	68	341	355	50	14	16
15	55	40	31	24	25	25	61	403	327	47	14	14
16	62	41	33	26	24	28	54	391	292	46	13	14
17	61	43	31	25	22	28	47	363	271	41	12	13
18	50	42	30	26	23	28	44	371	231	40	19	11
19	49	42	31	26	25	29	50	447	196	38	20	11
20	44	42	30	26	24	30	50	507	172	36	19	10
21	40	41	31	27	23	32	60	479	160	32	14	10
22	40	40	31	26	22	35	88	479	157	27	15	10
23	38	38	31	26	23	37	124	491	162	26	14	10
24	38	36	27	23	24	36	102	423	160	26	13	10
25	38	38	25	22	25	37	90	375	155	24	13	10
26	37	36	26	22	25	37	92	324	146	25	12	11
27	38	37	25	25	24	39	102	320	136	27	13	10
28	38	38	25	25	24	36	152	371	128	30	16	11
29	38	37	24	25	-	34	225	431	122	35	18	14
30	39	38	25	24	-	32	273	503	120	51	19	12
31	39	-	25	25	-	31	-	459	-	40	16	-

Month	Observed					Diversion by Twin Lakes tunnel (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	1,428	66	37	46.1	2,830	679	3,510	57.1
November	1,178	43	36	39.3	2,340	361	2,700	45.3
December	988	39	24	31.9	1,960	518	2,480	40.3
Calendar year 1938	42,239	954	16	116	83,790	46,330	130,100	180
January	784	28	22	25.3	1,560	391	1,950	31.6
February	664	25	22	23.7	1,320	522	1,840	33.1
March	919	39	24	29.6	1,820	0	1,820	29.6
April	2,322	273	35	77.4	4,610	46	4,660	78.2
May	11,376	507	207	367	22,560	15,100	37,660	613
June	8,060	479	120	269	15,990	14,900	30,890	519
July	1,659	118	24	53.5	3,290	3,710	7,000	114
August	563	31	12	18.2	1,120	559	1,680	27.2
September	411	23	10	13.7	815	274	1,090	18.3
Water year 1938-39	30,352	507	10	83.2	60,220	37,050	97,280	134

Roaring Fork at Glenwood Springs, Colo.

Location.- Water-stage recorder, lat. 39°33', long. 107°20', in sec. 9, T. 6 S., R. 89 W., at Glenwood Springs, 1,500 feet upstream from mouth. Zero of gage is 5,720.73 feet above sea level (general adjustment of 1912).

Drainage area.- 1,460 square miles.

Records available.- April 1906 to September 1909, September 1910 to September 1931, and October 1933 to September 1939 in reports of U. S. Geological Survey. April 1906 to September 1909 and September 1910 to October 1939 in reports of State engineer.

Average discharge.- 32 years, 1,516 second-feet.

Extremes.- Maximum discharge during year, 5,820 second-feet June 1 (gage height, 4.61 feet); minimum, 220 second-feet Feb. 3 (gage height, 0.70 foot); minimum daily discharge, 268 second-feet Feb. 3.

1906-9, 1910-39: Maximum discharge, 17,600 second-feet June 14, 1918, and June 14, 1921; minimum, 145 second-feet Jan. 21, 1935 (gage height, 0.65 foot); minimum daily discharge, 179 second-feet Jan. 21, 1935.

Remarks.- Records excellent above 500 second-feet and good below. Diversions above station for irrigation. Transmountain diversion through Twin Lakes tunnel to Arkansas River Basin. Total flow diverted during water year 1938-39 was 37,050 acre-feet (see p. 59 for record by months). Records of diverted flow furnished by State engineer.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-3, Mar. 8 to Apr. 10, July 16 to Sept. 6)

0.7	220	1.5	860	3.5	3,560
.8	280	2.0	1,410	4.0	4,520
1.0	415	2.5	1,980	4.5	5,580
1.2	570	3.0	2,680		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	624	562	554	430	366	319	530	2,380	5,270	1,750	740	422
2	615	597	530	460	280	306	588	2,660	4,100	1,700	651	422
3	651	588	506	482	268	338	651	2,730	3,850	1,630	615	408
4	642	597	514	482	359	345	710	2,840	4,440	1,590	579	401
5	642	633	506	380	422	326	770	3,130	5,120	1,530	562	415
6	660	588	506	490	394	300	780	3,360	4,840	1,490	570	597
7	690	546	490	438	408	326	720	2,760	4,220	1,390	670	1,110
8	790	562	498	430	373	359	690	2,370	3,920	1,310	633	970
9	800	606	490	460	387	332	780	2,510	3,670	1,280	588	1,010
10	760	615	490	415	306	352	760	3,070	3,270	1,220	538	800
11	740	624	498	401	366	352	700	3,450	3,580	1,180	514	926
12	730	615	490	430	345	319	690	3,450	3,490	1,120	468	981
13	720	536	475	415	373	338	740	2,980	3,880	1,050	438	915
14	710	546	366	408	366	366	800	2,980	4,240	1,010	415	830
15	720	562	475	366	387	319	800	3,670	4,120	937	394	750
16	740	597	570	430	366	352	760	3,780	3,630	915	387	700
17	760	606	514	394	293	359	700	3,600	3,520	860	380	670
18	750	570	401	401	300	373	651	3,560	2,910	800	359	606
19	690	562	506	401	387	394	700	4,080	2,410	740	359	562
20	651	579	498	394	359	430	710	4,680	2,100	710	338	538
21	624	570	490	408	345	468	790	4,680	1,960	651	345	546
22	606	546	475	401	319	498	1,050	4,840	1,900	615	338	522
23	597	522	452	401	319	546	1,360	4,960	2,080	579	326	514
24	579	438	380	332	373	554	1,320	4,400	2,160	562	319	506
25	570	546	387	306	359	579	1,140	3,880	2,180	546	312	506
26	562	475	475	312	352	588	1,080	3,270	2,060	538	312	514
27	546	506	380	359	366	624	1,210	3,110	1,970	546	312	514
28	546	506	452	460	306	579	1,520	3,310	1,940	670	338	530
29	538	506	475	430	-	538	2,040	4,000	1,880	730	387	642
30	538	538	460	387	-	514	2,240	4,900	1,810	800	430	624
31	554	-	438	430	-	498	-	4,620	-	830	438	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	20,345	800	538	656	40,350
November	16,846	633	438	562	33,410
December	14,741	570	366	476	29,240
Calendar year 1938	607,688	11,000	277	1,665	1,205,000
January	12,733	490	306	411	25,260
February	9,844	422	268	352	19,530
March	12,691	624	300	416	25,670
April	27,980	2,240	530	933	55,500
May	110,010	4,960	2,370	3,549	218,200
June	96,540	5,270	1,810	3,218	191,500
July	31,279	1,750	538	1,009	62,040
August	14,055	740	312	453	27,880
September	19,451	1,110	401	648	38,580
Water year 1938-39	386,715	5,270	268	1,059	767,100

Crystal River near Redstone, Colo.

Location.- Water-stage recorder, lat. 39°18', long. 107°13', in NE¼ sec. 9, T. 9 S., R. 88 W., 75 feet downstream from Nettle Creek and 7 miles downstream from Redstone.

Drainage area.- 197 square miles.

Records available.- May 1935 to September 1939. 1908-9 at site 3 miles downstream; records not equivalent.

Extremes.- Maximum discharge during year, 1,960 second-feet June 5 (gage height, 4.00 feet); minimum daily discharge, 51 second-feet Feb. 2.
1935-39: Maximum discharge, 4,400 second-feet June 21, 1938 (gage height, 5.96 feet), from rating curve extended above 2,200 second-feet; minimum daily discharge, 50 second-feet Feb. 25, 1938.

Remarks.- Records excellent except those for Oct. 1 to Dec. 31, which are good. Discharge for period of missing gage heights, Dec. 15-17, and period of ice effect, Dec. 26-31, computed on basis of weather records; that for Nov. 5 interpolated. Diversions above station for irrigation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-10, Oct. 16 to Dec. 25, Apr. 28 to June 6)

0.6	46	1.4	166	2.8	720
.8	68	1.6	222	3.0	890
1.0	94	2.0	340	3.5	1,390
1.2	126	2.4	490	4.0	1,940

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	124	102	91	66	62	130	699	1,570	526	139	84
2	120	124	99	90	51	62	139	776	1,260	512	133	80
3	120	130	96	91	66	66	162	809	1,300	482	126	73
4	120	123	102	91	72	66	177	899	1,530	470	120	68
5	118	116	102	93	70	60	208	1,010	1,810	466	113	74
6	126	108	99	94	67	58	208	1,010	1,640	450	110	280
7	135	97	97	97	67	64	191	752	1,350	410	135	403
8	164	105	99	96	67	66	188	685	1,300	382	120	334
9	153	113	99	91	68	66	208	792	1,210	368	110	286
10	151	113	99	90	64	66	183	1,020	1,010	350	104	216
11	148	116	100	88	69	64	164	1,140	1,190	340	97	325
12	144	115	99	90	70	62	159	1,060	1,230	325	93	350
13	144	102	96	90	69	69	172	872	1,490	307	88	268
14	142	104	76	90	66	72	188	908	1,610	289	87	214
15	153	108	90	90	67	68	177	1,130	1,480	286	81	172
16	157	112	100	84	67	76	169	1,080	1,260	268	79	142
17	172	113	90	79	62	76	159	1,020	1,190	259	78	128
18	164	112	88	79	63	75	151	1,040	854	239	75	115
19	155	112	93	79	70	76	162	1,340	671	214	72	107
20	142	112	91	78	67	87	166	1,430	579	214	70	97
21	139	110	94	76	66	97	214	1,420	574	200	73	97
22	137	108	94	76	63	110	289	1,490	632	186	74	97
23	131	104	94	76	64	130	358	1,540	768	162	70	97
24	128	87	81	61	68	135	334	1,390	768	151	66	112
25	128	110	84	62	66	137	298	1,170	720	140	66	110
26	120	87	86	63	66	151	289	1,010	664	135	67	110
27	112	93	80	70	63	151	328	1,100	657	144	70	104
28	108	94	82	74	62	135	450	1,210	644	225	80	108
29	105	90	84	73	-	126	584	1,540	602	183	116	124
30	105	100	82	69	-	120	632	1,650	557	164	105	110
31	108	-	86	69	-	121	-	1,580	-	148	91	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,165	172	105	134	8,260
November	3,242	130	87	108	6,430
December	2,868	102	76	92.5	5,690
Calendar year 1938	173,879	3,390	50	476	344,900
January	2,542	97	61	82.0	5,040
February	1,846	72	51	65.9	3,660
March	2,774	151	58	89.5	5,500
April	7,237	632	130	241	14,350
May	34,572	1,650	685	1,115	68,570
June	32,120	1,640	557	1,071	63,710
July	8,995	526	135	290	17,840
August	2,908	139	66	93.8	5,770
September	4,885	403	68	163	9,690
Water year 1938-39	108,154	1,650	51	296	214,500

West Divide Creek below Willow Creek, near Raven, Colo.

Location.- Water-stage recorder, lat. 39°17', long. 107°31', in NE¼ sec. 14, T. 9 S., R. 91 W., a quarter of a mile downstream from Willow Creek and 15 miles south of Raven.
Drainage area.- 32.7 square miles.
Records available.- October 1938 to September 1939.
Extremes.- Maximum discharge during year, 225 second-feet May 5 (gage height, 1.80 feet), from rating curve extended above 160 second-feet; no flow Aug. 18-29.
Remarks.- Records excellent above 10 second-feet and good below except those for periods of ice effect, Nov. 5-7, 13-17, Nov. 21 to Dec. 9, Dec. 12, Jan. 2, Jan. 17 to Mar. 15, Mar. 20-29, which were computed on basis of weather records and are fair. No diversions above station.

Flow increased above station by diversion from Clear Fork of East Muddy Creek (Gunnison River Basin) through Clear Fork ditch and by diversion from Thompson Creek (Roaring Fork Basin) through Thompson Creek feeder ditch in the amounts given in the following table:

Ditch	Month	Diversion (acre-feet)
Clear Fork ditch	June	610
	July	41
Thompson Creek feeder ditch	May	35
	June	218
	July	8
Total	-	912

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Jan. 16)

0.1	0	0.7	18	1.3	106
.3	.8	.9	40	1.5	152
.5	4.0	1.1	67	1.7	200

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.5	2.1	1.8		1.2	17	157	96	12	1.4	0.4
2	.7	1.6	1.4	1.8		1.2	26	157	84	9.4	.8	.4
3	.7	1.8	1.4	1.6		1.3	29	162	76	8.8	.5	.2
4	.6	1.9	2.1	1.5		1.3	31	169	78	6.4	.3	.1
5	.6	1.8	1.6	1.8		1.3	40	183	76	5.8	.2	.1
6	.8	1.7	1.4	1.7		1.3	38	183	65	3.6	.4	.9
7	1.0	1.6	1.4	1.2		1.3	31	162	61	3.4	3.4	1.8
8	1.2	3.0	2.1	1.2		1.4	31	159	56	3.4	1.1	1.0
9	2.1	2.7	1.8	1.2		1.4	36	169	50	3.2	.7	.9
10	2.3	2.5	1.7	1.0		1.4	31	176	51	3.0	.4	.6
11	1.7	2.1	1.5	1.0		1.4	22	174	51	2.7	.3	.7
12	1.6	2.1	1.5	1.4		1.5	31	157	51	2.3	.2	1.2
13	1.5	1.7	1.4	1.4		1.5	38	135	50	1.8	.1	1.1
14	1.4	1.6	1.5	1.0		1.6	36	140	49	1.5	.1	.7
15	1.4	1.6	1.4	1.1		1.7	33	142	44	1.1	.1	.5
16	1.5	1.7	1.9	1.4		1.8	28	159	41	.9	.1	.4
17	1.7	2.1	1.5	1.2		1.9	27	135	38	.8	.1	.4
18	1.6	2.7	1.2	1.2		2.5	30	130	36	.7	0	.3
19	1.6	2.5	1.4	1.2		2.7	33	133	36	.7	0	.3
20	2.1	3.0	1.5	1.2		2.9	36	128	32	.5	0	.2
21	1.9	2.1	1.2	1.2		3.4	51	117	30	.4	0	.2
22	1.7	1.8	1.2	1.2		4.2	75	108	27	.3	0	.2
23	1.6	1.5	1.6	1.2		6.0	82	96	24	.2	0	.3
24	1.5	1.0	1.7	1.2		10	71	82	21	.2	0	.3
25	1.2	1.0	1.4	1.2		17	59	71	21	.2	0	.3
26	1.1	1.2	1.4	1.2		16	64	82	19	.2	0	.3
27	1.5	1.4	1.6	1.2		15	86	71	16	.4	0	.3
28	1.8	1.4	1.8	1.2		14	124	64	16	.7	0	.5
29	1.6	1.4	1.9	1.2		13	147	71	12	1.6	0	1.1
30	1.6	1.5	2.1	1.2		12	152	73	12	1.2	.1	.9
31	1.6	-	1.8	1.2		12	-	82	-	1.7	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	43.6	2.3	0.6	1.40	86
November	55.5	3.0	1.0	1.85	110
December	49.5	2.1	1.2	1.60	98
Calendar year	-	-	-	-	-
January	40.1	1.8	1.0	1.29	80
February	33.6	-	-	1.2	67
March	155.2	17	1.2	5.01	308
April	1,536	152	17	51.2	3,040
May	4,027	183	64	130	7,990
June	1,319	96	12	44.0	2,620
July	79.1	12	.2	2.55	157
August	10.8	3.4	0	.35	21
September	16.6	1.8	.1	.55	33
Water year 1938-39	7,364.9	183	0	20.2	14,610

Plateau Creek near Collbran, Colo.

Location.- Water-stage recorder, lat. 39°15', long. 107°50', in NW¼ sec. 24, T. 9 S., R. 94 W., 7 miles east of Collbran.

Drainage area.- 88 square miles.

Records available.- August 1921 to September 1927 (monthly discharge) and October 1933 to September 1939 in reports of Geological Survey. August 1921 to September 1939 in reports of State engineer.

Average discharge.- 18 years, 102 second-feet (revised).

Extremes.- Maximum discharge during year, 828 second-feet May 19 (gage height, 4.24 feet); minimum daily discharge, 5.5 second-feet Aug. 19, 20, 23.
1921-39: Maximum discharge, 2,800 second-feet May 28, 1922 (gage height, 6.72 feet, former datum), from rating curve extended above 1,300 second-feet; minimum daily discharge, 3 second-feet Sept. 21, 1926.

Remarks.- Records excellent except those for period of ice effect, Nov. 13 to Dec. 2, and those for period of missing gage heights, Dec. 26 to Mar. 20, which were computed on basis of two discharge measurements and weather records and are fair. Five small diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	20	21	16	16	19	28	335	340	16	18	8.2
2	14	21	20	16	14	19	36	362	225	19	15	7.2
3	14	21	20	17	13	21	43	372	183	18	13	6.3
4	14	22	20	16	14	18	49	362	169	17	12	6.0
5	15	22	20	15	15	16	59	420	199	15	10	14
6	20	24	19	17	15	17	55	478	164	14	13	51
7	28	20	18	18	18	18	44	426	130	12	16	50
8	32	23	18	17	21	18	50	438	113	15	11	20
9	26	24	18	18	19	19	61	506	93	15	8.9	15
10	30	22	16	18	17	20	55	576	83	15	8.6	13
11	29	20	18	17	16	19	49	608	83	15	13	21
12	30	20	18	16	17	20	56	520	78	14	8.6	23
13	38	18	18	16	19	21	65	450	69	13	8.9	20
14	39	18	18	17	19	22	57	464	61	14	7.2	16
15	51	19	18	18	19	21	46	499	55	16	8.2	12
16	44	20	18	18	20	22	41	414	43	16	6.3	10
17	45	22	17	15	19	23	34	357	36	16	6.0	8.6
18	32	21	18	16	19	24	37	438	33	15	5.8	6.6
19	28	21	18	16	20	24	43	552	31	16	5.5	6.3
20	25	20	16	16	19	25	44	506	30	15	5.5	6.3
21	25	20	16	17	18	25	69	450	27	14	6.3	6.9
22	25	19	16	19	19	27	122	408	24	13	6.0	6.6
23	20	19	18	18	20	29	145	340	22	13	5.5	6.0
24	19	17	18	17	21	30	122	263	24	9.6	6.0	6.3
25	19	17	16	16	22	31	95	199	21	9.2	6.0	6.9
26	20	18	16	17	22	31	88	175	19	11	6.3	7.8
27	20	19	15	18	20	31	145	172	17	18	6.9	7.2
28	20	20	16	18	19	27	225	169	17	23	8.6	8.6
29	18	21	15	17	-	24	279	189	16	18	20	17
30	19	21	15	18	-	23	322	215	15	15	11	10
31	20	-	16	18	-	23	--	221	-	15	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	795	51	14	25.6	1,580
November	609	24	17	20.3	1,210
December	546	21	15	17.6	1,080
Calendar year 1938	52,997	1,520	12	145	105,100
January	526	19	15	17.0	1,040
February	512	22	13	18.3	1,020
March	707	31	16	22.8	1,400
April	2,564	322	28	85.5	5,090
May	11,884	608	169	383	23,570
June	2,440	340	15	81.3	4,840
July	464.8	23	9.2	15.0	922
August	293.1	20	5.5	9.45	581
September	403.8	51	6.0	13.5	801
Water year 1938-39	21,744.7	608	5.5	59.6	43,130

Plateau Creek near Cameo, Colo.

Location.- Water-stage recorder, lat. 39°11', long. 108°16', in SW¼ sec. 18, T. 10 S., R. 97 W., 1.1 miles upstream from mouth and 4 miles northeast of Cameo.

Drainage area.- 604 square miles.

Records available.- April 1936 to September 1939.

Extremes.- Maximum discharge during year, 1,130 second-feet May 11 (gage height, 4.07 feet); minimum daily discharge, 20 second-feet Aug. 25, 26.
1936-39: Maximum discharge, 2,550 second-feet May 29, 1938 (gage height, 6.07 feet), from rating curve extended above 1,400 second-feet; minimum daily discharge, 19 second-feet July 24, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 25, Dec. 15 to Mar. 8, which were computed on basis of two discharge measurements, weather records, and records for Gunnison River near Grand Junction and are fair. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	109	122	82	88	64	191	640	425	41	33	28
2	82	115	111	88	75	66	235	700	341	41	32	31
3	86	115	109	88	78	70	291	724	244	43	32	28
4	84	113	111	86	82	62	277	688	216	43	32	27
5	90	120	106	90	84	58	345	748	232	41	32	39
6	96	109	106	95	80	60	313	874	206	37	47	88
7	104	94	104	105	84	60	241	790	165	39	47	136
8	124	106	106	105	86	62	241	706	136	35	40	82
9	122	129	104	105	84	62	288	790	120	31	33	54
10	122	134	111	105	70	66	264	910	111	31	31	50
11	122	126	120	100	74	92	228	982	100	28	27	64
12	120	120	111	98	74	86	219	874	104	28	28	68
13	122	96	100	96	78	106	257	712	94	27	28	86
14	126	106	77	96	76	94	260	634	86	27	27	80
15	124	111	80	95	76	77	216	736	75	26	27	61
16	129	113	90	94	78	117	209	652	69	26	23	56
17	136	117	100	93	66	143	173	550	54	26	25	56
18	126	106	105	96	68	141	165	568	50	24	24	54
19	120	109	108	98	68	146	188	724	57	25	22	50
20	117	111	105	100	66	156	185	766	54	23	22	47
21	115	111	98	105	64	170	216	658	50	24	23	47
22	111	109	96	110	62	200	280	592	49	23	24	49
23	111	106	90	110	62	216	358	539	46	22	23	45
24	111	84	86	100	64	216	317	400	42	23	21	46
25	109	86	78	90	68	209	260	298	39	21	20	46
26	106	111	72	92	70	216	244	238	42	26	20	49
27	106	115	75	96	68	235	288	225	41	27	21	47
28	106	115	78	100	62	200	430	203	39	33	34	66
29	104	122	78	98	-	188	562	200	40	37	39	69
30	104	122	80	98	-	159	646	222	40	45	31	61
31	106	-	80	96	-	159	-	248	-	42	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,423	136	82	110	6,790
November	3,340	134	84	111	6,620
December	2,997	122	72	96.7	5,940
Calendar year 1938	113,913	2,160	47	312	225,900
January	3,010	110	82	97.1	5,970
February	2,055	88	62	73.4	4,080
March	3,956	235	58	128	7,850
April	8,387	646	165	280	16,640
May	18,591	982	200	600	36,870
June	3,367	425	39	112	6,680
July	967	45	21	31.2	1,920
August	896	47	20	28.9	1,780
September	1,710	136	27	57.0	3,390
Water year 1938-39	52,699	982	20	144	104,500

Buzzard Creek near Heiberger, Colo.

Location.- Water-stage recorder, lat. 39°17', long. 107°43', in NE¼ sec. 13, T. 9 S., R. 93 W., 1.1 miles downstream from Hightower ranger station and 3 miles east of Heiberger.

Drainage area.- 76.5 square miles.

Records available.- April 1936 to September 1939.

Extremes.- Maximum discharge during year, 359 second-feet May 5 (gage height, 3.44 feet); no flow July 16 to Sept. 30.
1936-39: Maximum discharge, 720 second-feet Apr. 30, 1938 (gage height, 4.45 feet); no flow at times in each year.

Remarks.- Records fair. None for Nov. 15 to Mar. 22. Discharge for period of ice effect, Mar. 23-26, computed on basis of records for station near Collbran; that for period of missing gage heights, May 13 to July 15, computed on basis of four discharge measurements and records for station near Collbran. One diversion above station to West Divide Creek for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	3.4				-	30	239	110	2.4		
2	1.0	4.8				-	37	233	100	1.8		
3	1.0	5.1				-	46	215	68	1.8		
4	1.0	5.1				-	60	227	54	1.7		
5	1.2	4.2				-	71	257	50	1.4		
6	1.4	3.9				-	55	269	45	1.3		
7	1.9	4.4				-	37	210	38	1.3		
8	3.7	4.6				-	43	174	28	1.0		
9	5.3	5.5				-	62	202	21	.8		
10	3.7	5.5				-	41	221	19	.4		
11	3.9	5.3				-	27	215	15	.2		
12	4.2	5.3				-	33	191	14	.2		
13	3.9	5.3				-	68	145	13	.2		
14	4.2	5.5				-	52	138	10	.2		
15	4.6	-				-	28	150	7.4	.1		
16	4.4	-				-	17	150	6.0	0		
17	3.5	-				-	14	150	4.5	0		
18	3.7	-				-	19	152	3.9	0		
19	3.2	-				-	22	152	3.1	0		
20	3.1	-				-	30	150	3.2	0		
21	2.7	-				-	75	140	3.6	0		
22	2.9	-				-	115	135	3.8	0		
23	3.1	-				14	122	120	4.1	0		
24	2.6	-				15	102	90	2.7	0		
25	2.6	-				32	82	76	3.1	0		
26	2.3	-				30	92	58	3.7	0		
27	2.4	-				27	134	56	3.5	0		
28	2.4	-				25	185	50	3.3	0		
29	2.9	-				18	221	47	3.0	0		
30	2.7	-				19	242	47	2.6	0		
31	2.7	-				22	-	52	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	89.2	5.3	1.0	2.88	177
November 1-14	67.9	5.5	3.4	4.85	135
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 23-31	202	32	14	22.4	401
April	2,160	242	14	72.0	4,280
May	4,711	269	47	152	9,340
June	646.5	110	2.6	21.6	1,280
July	14.8	2.4	0	.48	29
August	0	0	0	0	0
September	0	0	0	0	0
Water year	-	-	-	-	-

Buzzard Creek near Collbran, Colo.

Location.- Water-stage recorder, lat. 39°16', long. 107°52', in sec. 14, T. 9 S., R. 94 W., half a mile upstream from Brush Creek and 7 miles east of Collbran.

Drainage area.- 139 square miles.

Records available.- August 1921 to September 1927 (monthly discharge only) and October 1933 to September 1939 in reports of Geological Survey. August 1921 to September 1939 in reports of State engineer.

Average discharge.- 18 years, 54.6 second-feet.

Extremes.- Maximum discharge during year, 318 second-feet May 6 (gage height, 3.88 feet); minimum daily discharge, 0.5 second-foot Sept. 20.

1921-39: Maximum discharge, 1,270 second-feet May 8, 1922 (gage height, 7.8 feet), from rating curve extended above 800 second-feet; minimum, 0.1 second-foot Aug. 27, 1934 (gage height, 0.76 foot).

Remarks.- Records good except those for periods of missing gage heights, Oct. 1, Nov. 7-12, and period of backwater from beaver dam, Oct. 30 to Nov. 2 (computed on basis of records for station near Heiberger), and period of ice effect, Dec. 13 to Mar. 28 (computed on basis of three discharge measurements and weather records), all of which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	7.7	4.9	5.2	5.0	5.4	90	235	129	2.8	1.2	1.0
2	4.5	7.7	5.6	5.2	4.2	5.0	116	248	116	2.3	1.1	.9
3	5.0	7.7	5.6	5.6	4.9	5.6	137	226	71	2.3	1.1	.9
4	5.6	7.7	5.8	5.8	5.6	5.8	168	222	57	2.2	1.3	.9
5	6.4	7.9	6.0	5.4	5.8	5.0	177	240	52	1.9	1.4	.9
6	6.4	6.2	6.2	5.8	5.6	6.4	118	267	47	1.7	1.6	1.1
7	6.4	6.4	6.4	5.6	6.0	7.4	85	228	39	1.8	2.3	1.1
8	7.7	6.8	6.4	5.6	5.2	8.0	106	188	30	1.3	1.5	1.1
9	9.2	7.6	6.4	5.8	5.4	9.0	118	203	23	1.2	1.4	.8
10	7.2	7.6	6.4	5.6	5.0	9.2	85	219	20	1.2	1.4	.8
11	6.8	7.0	6.6	5.6	5.4	9.8	66	213	15	.9	1.4	1.0
12	6.8	6.8	6.6	5.8	5.0	11	76	194	15	.8	1.4	1.3
13	7.0	6.8	6.0	5.6	5.6	11	107	164	13	.8	1.3	1.3
14	7.2	7.0	5.0	5.8	5.4	12	99	144	11	.6	1.2	1.2
15	7.0	7.2	5.4	5.2	5.6	13	67	160	8.4	.6	1.2	1.0
16	7.2	7.2	5.8	5.8	5.4	13	61	160	6.4	.7	1.1	.8
17	7.7	7.7	5.4	5.4	4.7	14	46	153	5.0	.8	1.0	.7
18	7.2	7.4	5.2	5.5	5.0	15	48	152	4.5	.8	1.0	.7
19	7.0	7.4	5.4	5.8	5.8	15	61	164	3.4	.9	.9	.6
20	7.0	6.8	5.2	5.6	5.0	16	60	161	3.8	.8	.9	.6
21	7.2	6.4	5.8	6.2	5.0	19	89	145	4.1	.8	1.0	.7
22	7.4	6.0	5.8	5.6	5.0	25	134	139	4.3	.7	1.0	.9
23	7.9	5.6	5.2	6.2	5.2	30	158	136	4.7	.8	.9	1.0
24	7.9	5.0	4.8	4.7	5.4	39	139	100	3.0	.8	.9	1.0
25	7.7	4.5	4.6	4.7	5.4	50	113	79	3.4	.8	.9	1.1
26	7.7	4.5	5.2	4.9	5.8	48	124	61	4.3	.8	.9	1.1
27	7.7	4.5	5.0	5.2	5.6	46	147	58	4.1	.8	1.0	1.1
28	7.7	4.5	5.2	5.4	5.2	44	204	53	3.8	1.7	1.2	1.4
29	7.7	4.7	5.0	5.8	-	42	233	48	3.6	1.9	1.2	1.5
30	7.7	4.7	5.0	5.6	-	48	248	50	3.3	1.8	1.2	1.5
31	7.7	-	5.2	6.0	-	57	-	63	-	1.5	1.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	217.1	9.2	3.5	7.00	431
November	195	7.9	4.5	6.50	387
December	173.1	6.6	4.6	5.58	343
Calendar year 1938	27,753.2	672	.5	76.0	55,050
January	172.0	6.2	4.7	5.55	341
February	148.2	6.0	4.2	5.29	294
March	644.6	57	5.0	20.8	1,280
April	3,480	248	46	116	6,900
May	4,873	267	48	157	9,670
June	708.1	129	3.0	23.6	1,400
July	38.8	2.8	.6	1.25	77
August	37.1	2.3	.9	1.20	74
September	29.9	1.5	.5	1.00	59
Water year 1938-39	10,716.9	267	.5	29.4	21,260

Taylor River below Taylor Park Reservoir, Colo.

Location.- Water-stage recorder, lat. 38°49', long. 106°36', in sec. 24, T. 14 S., R. 83 W., a quarter of a mile downstream from Taylor Park Reservoir Dam and 16 miles northeast of Almont.

Drainage area.- 155 square miles.

Records available.- October 1938 to September 1939. June 1929 to August 1934, summation of records for Taylor River, Texas and Willow Creeks at site at Taylor Park practically equivalent.

Extremes.- Maximum discharge during year, 814 second-feet July 22 (gage height, 3.48 feet); minimum daily discharge, 25 second-feet Oct. 11 to Nov. 9, Nov. 13 to Mar. 28, Apr. 21 to May 22.

Remarks.- Records excellent. Discharge for period Jan. 1 to May 24, computed on basis of needle-valve rating and occasional staff-gage readings.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	25	25	25	25	25	38	25	781	244	565	635
2	52	25	25	25	25	25	38	25	726	235	565	645
3	52	25	25	25	25	25	38	25	676	232	570	660
4	52	25	25	25	25	25	47	25	693	226	570	720
5	52	25	25	25	25	25	47	25	737	220	570	754
6	52	25	25	25	25	25	47	25	737	210	570	748
7	52	25	25	25	25	25	60	25	645	195	520	737
8	52	25	25	25	25	25	60	25	580	170	501	600
9	52	25	25	25	25	25	60	25	540	165	501	506
10	52	73	25	25	25	25	73	25	501	172	441	449
11	25	125	25	25	25	25	73	25	501	545	461	433
12	25	57	25	25	25	25	73	25	492	545	501	433
13	25	25	25	25	25	25	80	25	506	560	510	433
14	25	25	25	25	25	25	80	25	520	645	540	284
15	25	25	25	25	25	25	80	25	510	693	560	241
16	25	25	25	25	25	25	80	25	483	688	560	170
17	25	25	25	25	25	25	80	25	449	560	585	117
18	25	25	25	25	25	25	80	25	417	620	605	135
19	25	25	25	25	25	25	95	25	374	570	640	123
20	25	25	25	25	25	25	75	25	340	660	655	123
21	25	25	25	25	25	25	25	25	315	792	655	127
22	25	25	25	25	25	25	25	25	301	814	655	101
23	25	25	25	25	25	25	25	38	290	808	655	192
24	25	25	25	25	25	25	25	38	290	808	655	304
25	25	25	25	25	25	25	25	47	294	808	655	354
26	25	25	25	25	25	25	25	170	287	770	655	401
27	25	25	25	25	25	25	25	346	274	693	655	401
28	25	25	25	25	25	25	25	470	265	605	655	401
29	25	25	25	25	-	33	25	625	259	565	655	340
30	25	25	25	25	-	33	25	770	256	565	625	301
31	25	-	25	25	-	33	-	764	-	565	610	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,045	52	25	33.7	2,070
November	930	125	25	31.0	1,840
December	775	25	25	25.0	1,540
Calendar year	-	-	-	-	-
January	775	25	25	25.0	1,540
February	700	25	25	25.0	1,390
March	799	33	25	25.8	1,580
April	1,554	95	25	51.8	3,080
May	3,818	770	25	123	7,570
June	14,039	781	256	468	27,850
July	15,948	814	165	514	31,630
August	18,120	655	441	585	35,940
September	11,868	754	101	396	23,540
Water year 1938-39	70,371	814	25	193	139,600

Taylor River at Almont, Colo.

Location.- Water-stage recorder, lat. 38°40', long. 106°51', in sec. 22, T. 51 N., R. 1 E., in Almont, 800 feet upstream from confluence with East River. Zero of gage is 8,011.98 feet above mean sea level (general adjustment of 1912).

Drainage area.- 440 square miles.

Records available.- July 1910 to September 1931 and October 1933 to September 1939 in reports of Geological Survey. July 1910 to September 1939 in reports of State engineer.

Average discharge.- 29 years, 365 second-feet.

Extremes.- Maximum discharge during year, 1,180 second-feet June 1 (gage height, 3.35 feet); minimum daily discharge, 44 second-feet Jan. 26.
1910-39: Maximum discharge, 3,760 second-feet June 9, 1920 (gage height, 5.0 feet), from rating curve extended above 2,300 second-feet; minimum before storage began in Taylor Park Reservoir, 50 second-feet several days in August 1913 (gage height, 1.2 feet); minimum daily discharge, 24 second-feet Mar. 12, 1938.

Remarks.- Records excellent except those for periods of ice effect, Nov. 25 to Dec. 3, Dec. 13 to Mar. 8, Mar. 12, 18, which were computed on basis of two discharge measurements and weather records and are fair. Flow partly regulated by Taylor Park Reservoir (capacity, 106,000 acre-feet), 24 miles upstream from station. Diversions from tributaries above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.3	36	2.0	240	2.8	720
1.4	54	2.2	335	3.0	880
1.6	100	2.4	445	3.5	1,320
1.8	165	2.6	570		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	100	82	56	56	66	90	272	1,160	368	648	672
2	130	106	78	58	54	66	109	300	1,080	362	648	688
3	124	100	86	62	52	66	118	285	996	357	640	712
4	121	100	95	58	54	74	127	276	1,030	340	633	752
5	118	100	88	56	52	70	148	305	1,080	330	633	792
6	134	86	83	60	54	68	144	315	1,050	310	648	792
7	182	72	86	58	60	68	140	280	936	300	633	800
8	193	112	88	58	58	74	158	254	856	290	591	720
9	154	118	88	58	56	76	168	280	800	280	584	584
10	144	121	88	58	56	74	165	225	760	272	524	544
11	137	208	86	54	58	74	172	340	752	557	524	524
12	121	193	81	56	56	95	168	340	752	640	577	518
13	118	109	74	58	56	81	179	315	760	664	577	512
14	121	90	72	58	60	76	193	340	766	720	612	406
15	121	98	74	56	66	81	186	346	752	776	640	300
16	127	115	80	58	62	69	176	335	712	776	633	285
17	124	118	72	50	56	72	165	325	672	640	648	165
18	112	98	76	54	58	80	162	362	633	688	664	193
19	93	124	78	56	61	86	176	401	564	656	712	182
20	95	124	80	54	68	81	204	434	512	720	728	176
21	93	115	82	58	64	63	154	434	469	848	728	182
22	93	103	80	60	58	103	196	469	434	864	720	165
23	93	76	74	56	62	124	212	463	428	864	712	200
24	93	81	72	47	64	121	158	428	428	856	720	362
25	90	86	66	45	64	106	148	396	423	856	712	406
26	90	82	72	44	68	106	165	423	418	816	712	469
27	93	74	64	50	74	100	190	619	412	768	704	463
28	95	74	60	56	64	90	224	784	406	704	712	463
29	95	74	58	56	-	88	240	960	396	656	712	412
30	98	80	58	54	-	81	256	1,110	384	680	688	362
31	95	-	56	58	-	83	-	1,120	-	664	664	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,634	193	90	117	7,210
November	3,137	208	72	105	6,220
December	2,375	95	56	76.6	4,710
Calendar year 1938	118,246	1,820	24	324	234,500
January	1,720	62	44	55.5	3,410
February	1,671	74	52	59.7	3,310
March	2,582	124	66	83.3	5,120
April	5,093	258	90	170	10,100
May	13,536	1,120	225	437	26,850
June	20,823	1,160	384	694	41,300
July	18,630	864	272	601	36,950
August	20,289	728	524	654	40.240
September	13,801	600	165	460	27,370
Water year 1938-39	107,291	1,160	44	294	212,800

Gunnison River at Iola, Colo.

Location.- Water-stage recorder, lat. 38°29', long. 107°06', in NW¼ sec. 28, T. 49 N., R. 2 W., 1,000 feet upstream from highway bridge and 3,000 feet northeast of Iola.

Drainage area.- 2,490 square miles.

Records available.- October 1899 to November 1903 and April 1938 to September 1939.

Extremes.- Maximum discharge during year, 3,340 second-feet May 31; maximum gage height, 4.90 feet (ice jam) Dec. 19; minimum daily discharge, 130 second-feet Feb. 19.
1899-1903, 1938-39: Maximum discharge observed, 6,130 second-feet June 18, 1903 (gage height, 6.0 feet, former site and datum); minimum daily discharge (prior to construction of Taylor Park Reservoir), 221 second-feet at times in period July to October 1902; minimum daily discharge, that of Feb. 19, 1939.

Remarks.- Records excellent except those for period of ice effect, Dec. 19 to Mar. 26, which were computed on basis of three discharge measurements and weather records and are fair. Diversions for irrigation above station.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 26		Mar. 27 to Sept. 30			
0.S	140	0.9	250	2.0	1,390
.9	200	1.0	320	2.5	2,050
1.0	270	1.1	400	3.0	3,020
1.1	35S	1.2	490	3.2	3,450
1.2	460	1.5	800		
1.4	674				

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	286	409	323	210	260	150	670	1,980	3,210	1,040	934	800
2	270	450	358	220	250	150	833	2,220	2,830	1,010	910	800
3	279	460	2S8	240	200	150	934	2,050	2,600	970	910	778
4	288	460	242	250	170	170	1,020	1,990	2,700	899	S77	778
5	279	481	288	270	160	180	1,030	2,200	2,960	866	888	833
6	409	470	2SS	260	180	180	994	2,310	2,850	800	922	855
7	575	349	296	250	160	160	855	2,000	2,480	723	1,150	970
8	863	389	242	250	160	150	S11	1,S40	2,170	660	1,070	982
9	597	450	279	260	170	160	922	1,810	2,040	620	1,020	899
10	502	481	314	270	170	170	946	2,050	1,870	580	922	778
11	450	543	256	250	150	190	844	2,150	1,S70	630	S33	789
12	419	554	242	260	160	200	S11	2,100	1,870	767	899	767
13	389	460	22S	270	170	190	S66	1,850	1,900	778	866	756
14	399	429	176	2S0	1S0	180	994	1,890	1,960	800	888	680
15	440	440	170	2S0	180	171	946	1,990	1,900	844	S99	500
16	470	470	214	290	160	190	866	2,020	1,S10	855	899	500
17	491	522	270	270	150	240	734	1,9S0	1,720	S11	866	384
18	470	460	323	260	133	290	690	1,930	1,550	756	877	336
19	419	450	290	270	130	350	745	2,020	1,400	734	S88	313
20	378	450	270	290	140	400	800	2,330	1,310	712	899	299
21	378	481	300	300	160	560	866	2,420	1,220	811	910	285
22	378	470	310	310	160	1,200	1,110	2,600	1,150	855	S99	278
£3	36S	378	290	30S	150	1,S00	1,320	2,640	1,160	844	877	271
24	349	460	250	310	140	1,650	1,220	2,3S0	1,190	855	866	344
25	340	38S	230	300	150	1,500	1,070	2,140	1,210	877	844	392
26	332	256	230	260	170	1,420	1,090	1,920	1,210	888	833	463
27	349	249	250	220	180	1,250	1,170	1,940	1,150	922	S11	481
28	36S	263	220	210	180	888	1,400	2,150	1,110	994	844	500
29	358	263	210	230	-	778	1,700	2,600	1,080	934	S88	540
30	378	279	210	260	-	660	1,870	3,120	1,050	899	888	500
31	3S9	-	210	270	-	640	-	3,170	-	934	855	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,462	663	270	402	24,720
November	12,665	554	249	422	25,120
December	8,067	358	170	260	16,000
Calendar year	-	-	-	-	-
January	8,178	310	210	264	16,220
February	4,723	260	130	169	9,370
March	16,367	1,800	150	52S	32,460
April	30,127	1,S70	670	1,004	59,760
May	67,790	3,170	1,S10	2,187	134,500
June	54,530	3,210	1,050	1,S18	108,200
July	25,668	1,040	580	S28	50,910
August	27,932	1,150	811	901	55,400
September	17,851	982	271	595	35,410
Water year 193S-39	286,360	3,210	130	785	568,100

Gunnison River near Grand Junction, Colo.

Location.- Water-stage recorder, lat. 39°02', long. 108°34', in NW¼ sec. 35, T. 1 S., R. 1 W., Ute meridian, half a mile downstream from point of diversion of Redlands power canal and 2 miles upstream from mouth.

Drainage area.- 8,020 square miles.

Records available.- October 1894 to December 1895 and May 1897 to September 1899 (at site near mouth) and April 1917 to September 1928 and January 1934 to September 1939 (at present site) in reports of U. S. Geological Survey. April 1917 to September 1930 and January 1934 to September 1939 in reports of State engineer.

Average discharge (river and power canal).- 19 years (1917-30, 1933-39), 3,047 second-feet (revised).

Extremes.- Combined flow (river and power canal): Maximum discharge, 8,260 second-feet May 6; minimum daily discharge, 307 second-feet July 23.
1917-30, 1933-39: Maximum discharge, 35,700 second-feet May 23, 1920 (gage height, 14.95 feet), from rating curve extended above 21,400 second-feet; minimum daily discharge, 106 second-feet July 20, 1934.

Remarks.- Records excellent except those for July 1 to Sept. 30, which are good, and those for period of ice effect, Feb. 26 to Mar. 9 (computed on basis of records for Colorado River near Cameo), which are fair. Diversions above station for irrigation. Combined flow of river and Redlands power canal minus about 40 second-feet diverted during irrigation season represents entire flow that enters Colorado River from Gunnison River Basin. Discharge tables include flow of power canal.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	856	1,080	1,130	1,060	1,080	1,080	2,020	7,060	6,760	1,080	892	618
2	840	1,170	1,230	1,050	981	1,040	2,340	7,210	6,870	1,040	830	578
3	786	1,400	1,350	1,090	929	1,020	2,850	7,520	6,010	1,040	755	506
4	773	1,350	1,200	1,140	911	1,020	3,610	7,120	5,500	1,010	660	482
5	848	1,150	1,170	1,170	1,010	1,000	4,140	7,110	6,290	954	629	482
6	838	1,400	1,140	1,080	1,050	1,000	4,280	7,830	6,890	867	570	632
7	816	1,420	1,130	1,230	1,050	1,020	3,980	7,590	6,250	771	750	1,290
8	1,050	1,270	1,070	1,120	978	1,100	4,070	6,210	5,450	696	1,310	1,080
9	1,990	1,230	1,140	1,140	981	1,200	3,430	5,550	5,000	576	1,320	1,250
10	1,830	1,420	1,140	1,140	926	1,250	4,040	5,930	4,700	487	1,040	1,360
11	1,580	1,540	1,150	1,120	900	1,190	3,890	6,660	4,490	447	908	1,510
12	1,500	1,540	1,170	1,060	1,010	1,130	3,050	6,790	4,750	396	744	1,890
13	1,430	1,520	1,140	1,030	904	1,080	3,050	6,180	5,050	347	564	1,760
14	1,390	1,340	1,020	1,030	960	1,130	3,470	5,490	5,350	337	543	1,960
15	1,380	1,190	996	1,020	1,040	1,120	3,530	5,420	5,180	354	579	1,520
16	1,390	1,220	858	1,000	970	1,090	3,130	5,630	4,670	347	466	1,490
17	1,480	1,330	1,080	970	1,010	1,250	2,680	5,720	3,700	382	455	1,290
18	1,580	1,390	1,300	1,000	928	1,380	2,200	5,040	3,420	428	418	1,230
19	1,580	1,270	1,150	1,050	858	1,470	2,000	4,960	2,950	435	375	1,080
20	1,470	1,210	1,100	1,020	985	1,520	2,240	5,640	2,510	388	352	968
21	1,400	1,290	1,030	977	967	1,680	2,450	6,570	2,150	342	359	912
22	1,360	1,300	1,080	964	943	1,600	3,380	6,790	1,710	328	381	845
23	1,340	1,200	1,080	1,020	928	2,300	4,580	7,040	1,480	307	380	773
24	1,280	1,160	1,010	1,120	967	3,080	5,160	6,780	1,490	328	410	776
25	1,210	1,070	895	1,000	1,090	3,590	4,520	5,900	1,470	378	394	693
26	1,160	1,090	930	911	1,220	3,830	3,720	5,030	1,520	378	366	656
27	1,160	1,220	906	856	1,200	3,700	3,650	4,300	1,500	423	362	689
28	1,100	1,150	977	853	1,150	3,420	4,400	4,190	1,330	494	372	784
29	1,090	1,130	1,080	1,010	-	2,810	5,660	4,750	1,290	606	723	854
30	1,060	1,160	1,090	1,120	-	2,500	6,580	5,540	1,150	916	676	889
31	1,020	-	1,080	1,010	-	2,040	-	6,370	-	888	631	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	38,587	1,990	773	1,245	76,540
November	38,240	1,540	1,070	1,275	75,850
December	33,822	1,350	858	1,091	67,080
Calendar year 1938	1,255,902	17,300	524	3,441	2,491,000
January	32,361	1,230	853	1,044	64,190
February	27,926	1,220	858	997	55,390
March	53,640	3,830	1,000	1,730	106,400
April	107,900	6,580	2,000	3,597	214,000
May	189,940	7,830	4,190	6,127	376,700
June	117,180	6,890	1,150	3,906	232,400
July	17,760	1,080	307	573	35,230
August	19,214	1,320	352	620	38,110
September	30,847	1,960	482	1,028	61,180
Water year 1938-39	707,417	7,830	307	1,938	1,403,000

Reservoirs in Gunnison River Basin

Taylor Park Reservoir.- Staff gage, lat. 38°49', long. 106°36', at dam in sec. 16, T. 14 S., R. 83 W., on Taylor River, just downstream from Taylor Park and 17 miles northeast of Almont, Colo. Maximum contents during year, 108,510 acre-feet May 31 (gage height, 9,331.10 feet above mean sea level, Bureau of Reclamation datum); minimum, 37,850 acre-feet Sept. 30 (gage height, 9,285.45 feet).

Dam completed by Bureau of Reclamation in September 1937. Capacity of reservoir 106,230 acre-feet between elevations 9,180 feet (bottom of outlet gates) and 9,330 feet (crest of spillway). No dead storage. Water used for irrigation in Uncompahgre Valley. Records furnished by Uncompahgre Valley Water Users' Association.

No other reservoirs of any consequence in Gunnison River Basin. Figures given in the following table are of usable contents.

Gage height, and contents, water year October 1938 to September 1939

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	9,292.55	45,660	-
Oct. 31	9,298.20	52,660	+7,000
Nov. 30	9,300.70	55,980	+3,320
Dec. 31	9,303.50	59,900	+3,920
Calendar year 1938	-	-	+40,270
Jan. 31	9,306.00	63,600	+3,700
Feb. 28	9,308.00	66,700	+3,100
Mar. 31	9,310.00	69,900	+3,200
Apr. 30	9,314.40	77,120	+7,220
May 31	9,331.10	108,510	+31,390
June 30	9,330.65	107,565	-945
July 31	9,319.50	86,300	-21,265
Aug. 31	9,300.55	55,770	-30,530
Sept. 30	9,285.45	37,850	-17,920
Water year 1938-39	-	-	-7,810

East River at Almont, Colo.

Location.- Water-stage recorder, lat. 38°40', long. 106°51', in sec. 22, T. 51 N., R. 1 E., at Almont, 400 feet upstream from mouth. Zero of gage is 8,009.51 feet above mean sea level (general adjustment of 1912).

Drainage area.- 295 square miles.

Records available.- April to October 1905, July 1910 to April 1922 and October 1934 to September 1939.

Average discharge.- 12 years (1910-13, 1916-20, 1934-39), 380 second-feet.

Extremes.- Maximum discharge during year, 1,590 second-feet May 23 (gage height, 3.92 feet); minimum daily discharge, 46 second-feet Jan. 25.
1905, 1910-22, 1934-39: Maximum discharge, 6,500 second-feet June 15, 1921 (gage height, 6.6 feet, former site and datum); minimum, 19 second-feet Aug. 13, 1913.

Remarks.- Records good except those for periods of ice effect, Nov. 23 to Dec. 3, Dec. 14 to Mar. 12, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	105	72	54	52	62	150	976	1,230	340	122	9e
2	90	112	70	56	52	62	147	1,080	984	331	112	91
3	93	107	76	58	50	62	157	976	968	314	107	86
4	91	107	78	56	52	64	162	1,050	1,070	292	110	83
5	91	114	78	54	50	60	201	1,210	1,160	278	122	85
6	100	101	80	58	52	60	204	1,180	1,060	249	144	105
7	124	98	86	60	56	60	188	968	871	224	204	207
8	142	98	78	58	54	62	210	885	817	210	207	207
9	128	110	75	60	52	64	256	952	759	188	210	217
10	116	116	82	58	52	62	252	1,120	680	177	162	171
11	116	112	80	58	54	64	236	1,170	728	177	160	204
12	124	105	80	58	52	68	238	1,120	692	157	147	210
13	128	90	78	60	56	72	260	966	753	147	150	198
14	132	101	68	60	58	72	292	1,020	810	147	155	174
15	132	101	70	58	60	64	260	1,110	778	136	147	157
16	137	112	72	58	58	63	256	1,060	704	136	137	147
17	132	105	68	54	56	58	214	1,020	680	134	124	122
18	130	93	70	56	56	58	220	1,060	558	128	120	82
19	124	105	72	58	58	61	260	1,130	479	116	114	75
20	122	100	74	56	60	64	280	1,300	411	110	114	77
21	118	96	76	60	58	70	349	1,300	386	102	116	75
22	114	91	74	60	54	83	447	1,390	377	98	105	78
23	110	74	70	58	58	122	540	1,450	406	91	101	78
24	110	78	64	48	60	139	468	1,300	406	93	101	80
25	105	76	62	46	62	144	416	1,140	401	91	101	83
26	94	72	64	48	64	144	436	992	391	97	93	90
27	94	68	60	50	64	144	524	968	363	100	86	86
28	90	68	58	54	62	132	645	1,050	358	122	86	90
29	91	66	56	52	-	134	810	1,280	354	137	101	122
30	100	70	54	52	-	126	685	1,400	349	136	105	116
31	100	-	54	54	-	134	-	1,270	-	134	98	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,469	142	90	112	6,880
November	2,851	116	66	95.0	5,650
December	2,199	96	54	70.9	4,360
Calendar year 1938	138,002	2,450	54	378	273,680
January	1,730	60	46	55.8	3,430
February	1,572	64	50	56.1	3,120
March	2,634	144	58	85.0	5,220
April	9,985	985	147	333	19,800
May	34,895	1,450	885	1,126	69,210
June	19,983	1,230	349	666	39,640
July	5,190	340	91	167	10,290
August	3,981	210	86	128	7,900
September	3,692	217	75	123	7,320
Water year 1938-39	92,181	1,450	46	253	182,800

Tomichi Creek at Sargents, Colo.

Location.- Water-stage recorder, lat. 38°24', long. 106°25', in SW¼ sec. 21, T. 48 N., R. 5 E., half a mile downstream from Marshall Creek and three-quarters of a mile south of Sargents.

Drainage area.- 155 square miles.

Records available.- May 1917 to September 1922 and April 1938 to September 1939.

Extremes.- Maximum discharge during year, 291 second-feet May 10 (gage height, 1.89 feet); minimum daily discharge, 16 second-feet Mar. 4-6, 8, 9, July 24, 25, Aug. 19, Sept. 4.

1917-22, 1938-39: Maximum discharge, 792 second-feet June 9, 1921 (gage height, 4.05 feet, former site and datum), from rating curve extended above 600 second-feet; minimum discharge recorded, 6 second-feet Nov. 16, 1920.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Nov. 7 to Apr. 21, which were computed on basis of five discharge measurements and weather records and are fair. Diversions above station for irrigation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 6, Sept. 8-25)

0.6	17	0.9	54	1.5	186
.7	27	1.0	72	1.8	266
.8	39	1.2	114		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	33	36	26	27	18	62	222	191	37	26	21
2	29	34	34	27	24	17	75	233	167	33	26	22
3	31	35	34	28	24	17	90	233	160	33	25	19
4	31	42	36	28	25	16	85	233	155	31	25	16
5	29	40	36	27	26	16	88	241	152	28	24	18
6	35	31	34	27	24	16	86	244	140	28	26	21
7	74	27	34	26	26	17	84	233	126	27	33	22
8	74	42	34	27	27	16	80	228	116	25	27	22
9	50	52	36	25	27	16	84	238	110	25	25	23
10	48	42	36	24	25	17	90	263	105	24	24	23
11	45	44	34	23	25	17	88	249	103	22	22	25
12	44	38	34	24	25	17	86	246	94	23	21	23
13	42	32	29	25	24	18	92	233	82	21	20	22
14	44	29	26	24	24	18	86	233	76	22	20	21
15	45	32	28	23	25	17	82	238	68	35	20	22
16	45	34	28	23	25	18	76	244	61	38	20	20
17	45	36	27	25	22	19	72	226	59	31	19	19
18	39	34	25	27	22	20	66	233	58	28	17	18
19	39	32	28	26	23	22	68	260	58	27	16	18
20	35	32	30	26	24	24	71	249	58	26	17	16
21	37	34	32	24	22	28	86	241	54	25	18	18
22	35	32	30	25	18	34	128	258	48	23	19	18
23	34	30	28	25	18	40	136	249	45	20	17	18
24	33	29	26	24	16	50	131	238	46	16	17	17
25	35	32	24	22	19	52	124	230	45	16	17	18
26	34	36	25	23	19	50	133	204	44	18	21	20
27	34	38	24	25	19	48	133	191	39	19	25	21
28	34	38	23	27	18	44	152	184	38	22	26	20
29	33	36	24	27	-	46	184	184	37	25	25	22
30	33	36	24	26	-	44	209	189	42	38	23	21
31	33	-	25	26	-	50	-	186	-	29	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,228	74	29	39.6	2,440
November	1,062	52	27	35.4	2,110
December	924	36	23	29.8	1,830
Calendar year	-	-	-	-	-
January	785	28	22	25.3	1,560
February	645	27	18	23.0	1,280
March	842	52	16	27.2	1,670
April	3,030	209	62	101	6,010
May	7,132	263	184	230	14,150
June	2,577	191	37	85.9	5,110
July	815	38	16	26.3	1,620
August	683	33	16	22.0	1,350
September	606	25	16	20.2	1,200
Water year 1938-39	20,329	263	16	55.7	40,330

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Tomichi Creek at Gunnison, Colo.

Location.- Water-stage recorder, lat. 38°32', long. 106°56', in sec. 11, T. 49 N., R. 1 W., half a mile upstream from mouth and 1 mile south of Gunnison.

Drainage area.- 1,020 square miles.

Records available.- April 1938 to September 1939. November, December 1910 (gage heights only, former datum).

Extremes.- Maximum discharge during year, 1,530 second-feet Mar. 24 (gage height, 2.93 feet), from rating curve extended above 900 second-feet; minimum daily discharge, 39 second-feet July 12.
1938-39: Maximum discharge, that of Mar. 24, 1939; minimum daily discharge, that of July 12, 1939.

Remarks.- Records good except those for period of missing gage heights, Nov. 4-10 (computed on basis of recorded range in stage and records for Uncompahgre River at Colona), and those for period of ice effect, Nov. 21 to Mar. 15 (computed on basis of two discharge measurements, weather records, and records for Uncompahgre River at Colona), all of which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	156	110	80	80	72	440	425	395	83	94	73
2	86	163	100	85	68	66	540	435	390	80	98	80
3	90	163	100	90	70	70	645	455	345	76	112	73
4	89	170	115	95	78	66	640	460	325	74	114	68
5	89	185	110	80	80	60	623	465	340	68	112	66
6	111	150	110	90	72	62	596	470	325	60	112	66
7	199	125	100	80	78	70	502	460	295	56	195	70
8	302	130	105	85	80	60	455	435	266	56	227	80
9	274	175	105	78	85	62	496	420	248	51	188	83
10	204	160	105	72	72	66	535	445	199	45	153	76
11	204	150	105	68	74	72	460	460	178	40	136	76
12	167	156	100	72	76	72	425	440	174	39	125	74
13	153	114	90	78	74	76	460	405	164	42	117	76
14	150	109	76	76	74	85	475	370	167	43	114	73
15	153	116	80	70	80	80	355	400	146	44	101	71
16	160	126	85	68	78	89	290	445	112	44	94	73
17	163	128	74	76	58	114	235	460	85	44	89	70
18	160	121	66	95	56	125	215	440	70	43	85	63
19	150	109	90	80	76	132	215	410	68	44	78	63
20	146	121	100	80	74	156	231	440	68	42	76	62
21	143	120	105	74	56	188	253	450	70	42	76	57
22	143	105	100	76	50	276	305	475	68	43	78	59
23	136	90	90	74	56	574	345	470	68	42	73	59
24	134	85	76	68	66	1,080	365	435	71	43	70	57
25	134	105	68	66	72	1,060	330	420	76	46	65	57
26	131	110	74	68	76	897	305	390	94	47	68	59
27	146	115	72	76	78	867	290	345	91	54	68	56
28	156	115	70	90	68	640	300	325	88	60	83	56
29	156	115	72	85	-	562	355	325	85	56	83	56
30	153	115	74	90	-	425	410	345	80	56	85	52
31	156	-	76	78	-	415	-	365	-	74	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,734	302	86	153	9,390
November	3,902	185	85	130	7,740
December	2,803	115	66	90.4	5,560
Calendar year	-	-	-	-	-
January	2,433	95	66	78.5	4,830
February	2,005	85	50	71.6	3,980
March	8,639	1,080	60	279	17,140
April	12,081	645	215	403	23,960
May	13,085	475	325	422	25,950
June	5,152	395	68	172	10,220
July	1,637	83	39	52.8	3,250
August	3,249	227	65	105	6,440
September	2,004	83	52	66.8	3,970
Water year 1938-39	61,724	1,080	39	169	122,400

Quartz Creek near Ohio, Colo.

Location.- Water-stage recorder, lat. 38°34', long. 106°38', in SW¼ sec. 27, T. 50 N., R. 3 E., half a mile downstream from Willow Creek and 1 mile southwest of Ohio.

Drainage area.- 101 square miles.

Records available.- April 1938 to September 1939.

Extremes.- Maximum discharge during year, 291 second-feet May 22 (gage height, 1.99 feet); minimum daily discharge, 17 second-feet Sept. 10, probably less during period of no records.
1938-39: Maximum discharge, 572 second-feet May 30, 1938 (gage height, 2.71 feet); minimum daily discharge, that of Sept. 10, 1939.

Remarks.- Records good except those for period of ice effect, Nov. 5-11, which were computed on basis of one discharge measurement and weather records and are fair. No records Nov. 12 to Mar. 16. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	69				-	42	147	144	51	36	26
2	35	69				-	46	140	135	49	34	26
3	36	56				-	52	137	130	46	29	24
4	37	42				-	60	130	147	44	27	22
5	39	40				-	67	144	154	44	28	21
6	51	36				-	70	167	147	41	34	23
7	67	24				-	60	130	123	40	43	21
8	60	26				-	69	128	121	38	37	22
9	50	28				-	72	149	115	37	33	21
10	49	27				-	63	186	117	35	32	17
11	48	26				-	56	175	115	34	32	21
12	49	-				-	57	170	112	34	32	22
13	54	-				-	62	157	115	33	32	23
14	54	-				-	56	172	112	33	30	24
15	49	-				-	55	200	104	33	30	24
16	56	-				-	50	197	92	31	33	24
17	56	-				28	39	188	79	30	33	24
18	54	-				29	42	188	74	29	31	23
19	52	-				24	48	208	70	30	30	22
20	48	-				27	50	222	66	26	30	22
21	51	-				30	62	228	64	28	30	21
22	55	-				35	79	236	60	29	30	21
23	54	-				37	86	233	59	29	31	21
24	51	-				35	75	208	57	26	27	19
25	46	-				42	69	186	56	25	29	23
26	44	-				41	72	157	54	25	29	21
27	46	-				40	72	157	51	26	30	19
28	46	-				35	94	167	51	26	33	20
29	42	-				36	132	183	51	32	31	21
30	44	-				32	140	177	52	41	28	20
31	51	-				36	-	177	-	36	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,513	67	35	48.8	3,000
November 1-11	443	69	24	40.3	879
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 17-31	507	42	24	33.8	1,010
April	1,997	140	39	66.6	3,960
May	5,444	236	128	176	10,800
June	2,827	154	51	94.2	5,610
July	1,061	51	25	34.2	2,100
August	972	43	27	31.4	1,930
September	658	26	17	21.9	1,310
Water year	-	-	-	-	-

Cebolla Creek at Powderhorn, Colo.

Location.- Water-stage recorder, lat. 38°17'30", long. 107°07'00", in SE¼ sec. 29, T. 47 N., R. 2 W., 250 feet downstream from Powderhorn Creek and half a mile north of Powderhorn.

Drainage area.- 334 square miles.

Records available.- April 1938 to September 1939.

Extremes.- Maximum discharge during year, 481 second-feet Apr. 23 (gage height, 1.68 feet); minimum daily discharge recorded, 27 second-feet July 24.
1938-39: Maximum discharge, 1,060 second-feet May 29, 1938 (gage height, 2.40 feet); minimum daily discharge recorded, that of July 24, 1939.

Remarks.- Records good except those for periods of ice effect or missing gage heights, Nov. 15, 16, Mar. 16 to Apr. 18, which were computed on basis of one discharge measurement, weather records, and records for Quartz Creek near Ohio and are fair. No records Nov. 18 to Mar. 15. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	79				-	82	265	256	55	44	60
2	53	79				-	92	290	224	51	44	55
3	60	79				-	105	270	212	53	53	49
4	62	82				-	110	265	212	51	49	44
5	60	84				-	115	275	247	46	47	40
6	93	60				-	110	305	220	40	79	49
7	166	46				-	120	238	180	38	127	62
8	149	87				-	125	216	163	37	77	60
9	108	90				-	110	220	156	35	58	60
10	93	70				-	100	270	156	36	55	60
11	87	72				-	105	270	166	36	55	67
12	79	65				-	110	247	160	35	56	60
13	82	37				-	105	229	153	33	58	53
14	87	55				-	100	212	130	33	56	51
15	90	70				-	96	220	117	33	56	49
16	114	76				49	88	238	111	35	55	49
17	120	82				52	86	204	111	32	51	47
18	99	-				44	100	200	106	33	53	47
19	93	-				48	111	275	111	31	53	47
20	87	-				54	133	355	102	33	53	47
21	90	-				62	188	350	90	34	53	47
22	84	-				66	247	345	82	30	56	47
23	82	-				64	290	310	82	29	51	46
24	79	-				82	220	247	79	27	55	44
25	82	-				80	192	220	74	28	58	47
26	79	-				76	216	204	70	34	56	47
27	79	-				66	234	192	62	35	56	47
28	93	-				68	270	200	62	44	65	47
29	93	-				62	305	216	55	62	74	49
30	84	-				64	270	234	55	72	67	47
31	79	-				74	-	234	-	51	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,761	166	53	89.1	5,480
November 1-17	1,215	90	37	71.5	2,410
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 16-31	1,011	82	44	63.2	2,010
April	4,535	305	82	151	9,000
May	7,816	355	192	252	15,500
June	4,006	256	55	134	7,950
July	1,222	72	27	39.4	2,420
August	1,832	127	44	59.1	3,630
September	1,524	67	40	50.8	3,020
Water year	-	-	-	-	-

Lake Fork at Gateview, Colo.

Location.- Water-stage recorder, lat. 38°07'50", long. 107°13'25", in sec. 29, T. 47 N., R. 3 W., at old village of Gateview, a quarter of a mile upstream from Indian Creek and about 15 miles upstream from mouth. Prior to Oct. 1, 1938, datum 1 foot higher. Zero of gage is 7,833.02 feet above mean sea level (unadjusted).

Drainage area.- 324 square miles.

Records available.- April 1938 to September 1939.

Extremes.- Maximum discharge during year, 1,110 second-feet June 5 (gage height, 2.72 feet); minimum daily discharge, 49 second-feet Mar. 16, probably less during period of no record.

1938-39: Maximum discharge, 2,620 second-feet June 21, 1938 (gage height, 5.00 feet, present datum), from rating curve extended above 1,800 second-feet; minimum daily discharge, that of Mar. 16, 1939.

Remarks.- Records good except those for period of missing gage heights, Oct. 9-14, (computed on basis of records for nearby stations), and those for periods of ice effect, Nov. 14-30, Mar. 16-31 (computed on basis of one discharge measurement, weather records, and records for nearby stations), all of which are fair. No records Dec. 1 to Mar. 15. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 5, Apr. 1 to May 11)

0.4	78	1.6	410	2.7	1,090
1.0	210	2.0	610		
1.3	295	2.4	860		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	138				-	127	320	853	330	196	96
2	80	124				-	118	394	718	320	182	96
3	102	127				-	124	406	742	316	168	86
4	118	109				-	122	435	902	312	160	86
5	117	131				-	118	510	1,020	306	151	84
6	149	120				-	122	570	938	309	166	92
7	182	111				-	111	440	825	298	230	111
8	203	107				-	116	378	778	292	208	129
9	300	122				-	122	402	790	289	182	151
10	260	113				-	122	535	790	274	166	153
11	190	92				-	116	628	839	265	153	160
12	180	84				-	118	646	832	256	142	171
13	180	73				-	124	555	923	241	129	179
14	185	73				-	133	490	954	235	124	175
15	191	74				-	127	495	881	225	118	162
16	235	71				49	118	515	730	225	113	153
17	241	100				56	105	450	676	218	109	142
18	228	84				66	102	460	590	203	107	135
19	208	71				78	105	622	490	191	102	122
20	193	86				150	105	760	402	177	94	116
21	179	86				145	116	778	346	166	90	116
22	171	64				140	146	860	350	160	98	111
23	160	65				380	173	818	382	153	94	98
24	155	51				360	168	694	390	146	92	100
25	149	55				260	182	580	386	144	94	100
26	153	57				190	184	505	382	144	96	98
27	151	59				155	200	515	378	162	92	96
28	129	60				145	241	646	354	182	96	94
29	124	60				135	298	825	350	191	102	96
30	133	58				120	326	811	354	210	105	92
31	140	-				115	-	797	-	218	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,280	300	80	170	10,470
November	2,645	138	51	88.2	5,250
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 16-31	2,544	380	49	159	5,050
April	4,389	326	102	146	8,710
May	17,840	860	320	575	35,390
June	19,345	1,020	346	645	38,370
July	7,158	330	144	231	14,200
August	4,053	230	90	131	8,040
September	3,600	179	84	120	7,140
Water year	-	-	-	-	-

North Fork of Gunnison River near Somerset, Colo.

Location.- Water-stage recorder, lat. 38°56', long. 107°26', in sec. 10, T. 13 S., R. 90 W., 2 miles east of Somerset.

Drainage area.- 521 square miles.

Records available.- March 1934 to September 1939.

Extremes.- Maximum discharge during year, 2,690 second-feet May 5 (gage height, 4.17 feet); minimum daily discharge, 48 second-feet Feb. 20, 21.
1934-39: Maximum discharge, 5,360 second-feet Apr. 30, May 16, 1938, from rating curve above 3,000 second-feet; maximum gage height, 5.62 feet May 16, 1938; minimum daily discharge, 28 second-feet Sept. 19, 1934.

Remarks.- Records excellent except those for periods of ice effect, Nov. 8-11, 14-16, Nov. 24 to Mar. 7, which were computed on basis of three discharge measurements and weather records and are fair. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-10, Sept. 13-30)

0.8	39	1.5	194	2.7	900
.9	54	1.8	306	3.1	1,360
1.1	92	2.1	446	4.0	2,470
1.3	138	2.4	630		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	101	100	70	62	56	315	2,170	1,560	278	154	88
2	94	114	96	72	54	60	421	2,290	1,370	270	121	84
3	92	107	94	68	52	66	548	2,170	1,320	255	110	74
4	90	107	92	66	56	64	630	2,260	1,380	236	103	70
5	90	112	90	68	58	58	728	2,430	1,430	225	101	80
6	88	90	88	66	56	64	638	2,430	1,300	214	124	141
7	92	61	88	64	58	68	489	2,020	1,090	197	167	221
8	136	68	82	62	60	72	512	1,820	1,010	194	131	188
9	128	66	86	60	54	76	646	1,920	911	185	110	173
10	116	92	84	62	50	72	560	2,090	830	182	103	151
11	114	100	86	60	52	74	484	2,160	870	173	99	221
12	110	103	83	58	50	76	512	1,970	900	164	92	228
13	107	61	80	60	52	86	662	1,780	933	161	90	179
14	105	70	64	58	50	96	710	1,780	988	154	88	156
15	107	100	74	60	50	99	536	1,830	860	148	90	141
16	107	120	76	62	52	99	469	1,820	710	146	92	126
17	121	116	70	60	49	114	416	1,650	638	141	88	116
18	112	103	68	62	52	119	416	1,620	518	148	86	112
19	107	112	70	64	50	143	495	1,770	446	143	80	103
20	103	116	72	66	48	179	512	1,890	391	138	80	96
21	101	110	82	65	48	228	782	1,860	373	136	80	96
22	99	103	78	68	50	270	1,180	1,900	368	138	80	101
23	96	94	72	66	52	298	1,350	1,850	391	136	72	99
24	94	76	68	62	52	332	1,200	1,660	416	133	68	94
25	94	66	64	58	54	359	977	1,410	411	133	67	92
26	92	100	68	60	58	368	988	1,170	373	131	67	90
27	92	105	66	62	56	359	1,280	1,120	337	131	74	88
28	94	105	68	64	54	306	1,680	1,180	332	159	86	92
29	90	105	66	62	-	290	2,010	1,360	324	154	116	99
30	92	100	68	64	-	243	2,170	1,530	298	133	96	92
31	90	-	68	66	-	255	-	1,520	-	143	88	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,147	136	88	102	6,240
November	2,883	120	61	96.1	5,720
December	2,416	100	64	77.9	4,790
Calendar year 1938	225,929	4,300	57	619	448,100
January	1,965	72	58	63.4	3,900
February	1,489	62	48	53.2	2,950
March	5,049	368	56	163	10,010
April	24,336	2,170	315	811	48,270
May	56,430	2,430	1,120	1,820	111,900
June	23,078	1,560	298	769	45,770
July	5,279	278	131	170	10,470
August	3,003	167	67	96.9	5,960
September	3,691	228	70	123	7,320
Water year 1938-39	132,766	2,430	48	364	263,300

East Muddy Creek near Bardine, Colo.

Location.- Water-stage recorder, lat. 39°01', long. 107°22', in sec. 17, T. 12 S., R. 89 W., a quarter of a mile downstream from Spring Creek and 6½ miles above Bardine.

Drainage area.- 136 square miles.

Records available.- May 1935 to September 1939.

Extremes.- Maximum discharge during year, 624 second-feet May 5 (gage height, 2.13 feet); minimum daily discharge, 10 second-feet Aug. 24, 26, 27, Sept. 3, 4, probably less during period of no record.
1935-39: Maximum discharge, 1,330 second-feet Apr. 30, 1938 (gage height, 2.88 feet), from rating curve extended above 600 second-feet; minimum daily discharge, 6 second-feet Aug. 28, 1936.

Remarks.- Records excellent except those for periods of missing gage heights, Oct. 16-18, 21-23, 25, Nov. 4-9, Mar. 13 to Apr. 20, which were computed on basis of two discharge measurements and records for North Fork of Gunnison River near Somerset and are fair. No records Nov. 11 to Mar. 12. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 28-30)

Oct. 1 to Nov. 10		Mar. 13 to Sept. 30			
0.6	16	0.6	10	1.2	144
.7	33	.7	23	1.4	212
		.8	42	1.6	298
		.9	62	1.8	402
		1.0	86	2.0	530

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	21				-	76	426	208	27	36	13
2	19	23				-	100	432	157	27	22	11
3	18	23				-	120	426	132	25	19	10
4	18	22				-	140	482	129	25	16	10
5	16	23				-	160	503	132	23	19	11
6	18	24				-	120	516	120	22	20	20
7	19	28				-	94	426	100	20	27	22
8	31	32				-	98	380	92	20	20	16
9	30	26				-	135	414	81	20	19	15
10	26	30				-	120	432	74	20	18	13
11	23	-				-	94	432	72	19	16	19
12	21	-				-	98	391	69	18	15	20
13	21	-				19	135	328	69	18	15	18
14	21	-				20	145	303	67	16	15	15
15	21	-				20	115	313	62	15	14	14
16	21	-				22	92	323	58	14	14	14
17	21	-				24	100	289	52	14	14	14
18	21	-				28	80	270	48	15	13	14
19	21	-				36	94	280	48	18	11	13
20	21	-				44	110	293	46	19	11	13
21	20	-				54	160	270	44	20	13	13
22	20	-				60	232	261	40	22	13	13
23	21	-				66	266	244	38	22	11	13
24	19	-				70	224	208	36	22	10	13
25	19	-				62	187	180	36	22	11	13
26	19	-				62	183	147	34	22	10	13
27	19	-				60	228	132	32	22	10	13
28	21	-				56	328	132	31	25	13	14
29	21	-				50	402	129	29	36	14	16
30	19	-				52	426	135	29	25	14	14
31	19	-				64	-	144	-	40	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	643	31	16	20.7	1,280
November 1-10	252	32	21	25.2	500
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 13-31	869	70	19	45.7	1,720
April	4,862	426	76	162	9,640
May	9,641	516	129	311	19,120
June	2,165	208	29	72.2	4,290
July	673	40	14	21.7	1,330
August	490	36	10	15.8	972
September	430	22	10	14.3	853
Water year	-	-	-	-	-

Leroux Creek near Cedaredge, Colo.

Location.- Water-stage recorder, lat. 38°55', long. 107°48', in sec. 16, T. 13 S., R. 93 W., 200 feet upstream from head gate of Overland ditch and 7.2 miles northeast of Cedaredge.

Drainage area.- 43.0 square miles.

Records available.- October 1936 to September 1939.

Extremes.- Maximum discharge during year, 599 second-feet May 10 (gage height, 4.00 feet); minimum daily discharge, 7.0 second-feet Sept. 24, probably less during period of no record.

1936-39: Maximum discharge, 1,120 second-feet May 28, 1938 (gage height, 5.01 feet), from rating curve extended above 550 second-feet; minimum daily discharge, 4.5 second-feet Nov. 24, 1936, probably less during period of no record.

Remarks.- Records good except those for periods of ice effect, Nov. 7-9, 13-16, 18, 24-30, which were computed on basis of one discharge measurement and weather records and are fair. No records Dec. 1 to Mar. 30. One small diversion and several small reservoirs above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12					23	301	135	22	18	12
2	11	12					26	312	110	22	17	12
3	11	13					32	279	95	25	16	11
4	11	14					41	299	89	24	16	10
5	11	13					54	399	84	22	17	14
6	12	14					67	331	74	22	21	32
7	14	11					65	290	64	22	24	28
8	15	12					71	312	55	22	18	20
9	15	13					86	331	50	24	16	15
10	14	12					74	368	44	24	16	14
11	15	11					60	334	43	24	17	19
12	17	12					59	279	40	22	16	24
13	22	10					71	246	39	22	12	18
14	21	11					67	259	34	22	14	18
15	23	12					60	264	30	21	14	14
16	22	12					59	239	27	20	13	12
17	20	11					56	202	29	21	14	11
18	17	11					59	210	29	22	13	10
19	17	11					73	257	29	20	14	9.5
20	16	10					85	244	28	19	13	9.2
21	16	11					117	214	28	18	12	8.5
22	16	11					154	194	27	16	12	8.3
23	14	11					182	174	26	16	11	7.6
24	14	9					160	150	25	15	12	7.0
25	13	10					135	126	24	16	14	7.8
26	12	9					115	115	23	16	13	8.0
27	12	10					119	110	23	15	12	8.3
28	12	10					242	103	22	18	12	8.5
29	12	10					275	106	22	16	16	11
30	12	11					292	124	22	17	15	8.5
31	12	-				22	-	130	-	17	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	460	23	11	14.8	912
November	339	14	9	11.3	672
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,979	292	23	99.3	5,910
May	7,302	399	103	236	14,480
June	1,370	135	22	45.7	2,720
July	622	25	15	20.1	1,230
August	460	24	11	14.8	912
September	396.2	32	7.0	13.2	786
Water year	-	-	-	-	-

Surface Creek near Cedaredge, Colo.

Location.- Water-stage recorder, lat. 38°59', long. 107°51', in NW¼NW¼ sec. 12, T. 12 S., R. 94 W., 1 mile downstream from Caesar Creek and 8½ miles northeast of Cedaredge.

Drainage area.- 28.5 square miles.

Records available.- June to September 1939.

Extremes.- Maximum discharge during period, 73 second-feet July 1 (gage height, 1.78 feet); minimum daily discharge, 5.8 second-feet Sept. 23.

Remarks.- Records excellent above 10 second-feet and good below. Discharge regulated by many small reservoirs.

Rating table, June 20, 1939 to Sept. 30, 1939, (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 20 to July 6)

0.8	4	1.1	16	1.S	70
.9	7	1.3	28		
1.0	11	1.6	51		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	60	30	10
2									-	44	31	11
3									-	44	31	10
4									-	32	45	9.0
5									-	31	48	14
6									-	63	27	29
7									-	65	26	28
8									-	67	24	24
9									-	65	24	21
10									-	63	27	14
11									-	69	26	18
12									-	69	38	19
13									-	58	42	14
14									-	51	25	22
15									-	45	18	12
16									-	43	19	14
17									-	45	20	11
18									-	44	28	9.4
19									-	44	29	9.8
20									34	60	29	9.0
21									49	62	30	9.4
22									39	53	28	9.S
23									44	51	28	5.6
24									58	38	29	8.2
25									56	36	28	10
26									50	39	22	9.4
27									49	45	22	7.8
28									56	41	21	10
29									56	38	24	10
30									59	35	14	12
31									-	32	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June 20-30	550	59	34	50.0	1,090
July	1,532	69	31	49.4	3,040
August	844	48	11	27.2	1,670
September	400.6	29	5.8	13.4	795
The period	-	-	-	-	6,600

Surface Creek at Cedaredge, Colo.

Location.- Water-stage recorder and concrete control, lat. 38°52', long. 107°55', in sec. 20, T. 13 S., R. 94 W., at Cedaredge.

Drainage area.- 43 square miles.

Records available.- May 1917 to September 1927 and October 1933 to September 1939 in reports of Geological Survey. May 1917 to September 1939 in reports of State engineer.

Average discharge.- 22 years, 31.4 second-feet (revised).

Extremes.- Maximum discharge during year, 120 second-feet Apr. 30 (gage height, 1.04 feet); no flow Sept. 25.
1917-39: Maximum discharge, 715 second-feet May 24, 1920 (gage height, 1.95 feet); no flow Sept. 25, 1939, and practically no flow at times during some winters.

Remarks.- Records good except those for period of missing gage heights, Oct. 23-28 (computed on basis of records for Leroux Creek near Cedaredge), and those for periods of ice effect, Nov. 7-9, Nov. 12 to Apr. 4 (computed on basis of four discharge measurements and weather records), all of which are fair. Flow regulated by many reservoirs. Water is diverted into Surface Creek Basin from adjacent streams. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 9-19, June 25 to July 11, Sept. 26-30)

0	0	0.4	20	0.8	74
.1	1.1	.5	30	.9	91
.2	5.6	.6	43		
.3	12	.7	57		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.9	14					10	88	71	19	15	7.5
2	8.2	13					13	77	60	18	14	6.9
3	8.2	12					17	62	51	18	13	6.2
4	9.4	12					19	88	51	15	13	3.4
5	10	12					24	82	51	13	11	3.4
6	11	12					23	77	51	2[illegible]	12	16
7	13	7.0					11	71	47	2[illegible]	14	17
8	14	5.5					9.4	67	44	2[illegible]	13	12
9	10	5.9					15	66	43	2[illegible]	11	11
10	11	8.2					15	72	38	2[illegible]	11	6.9
11	14	4.7					11	67	33	29	8.8	11
12	14	5.0					12	59	33	2[illegible]	10	12
13	17	4.5					17	53	29	2[illegible]	8.8	9.4
14	11	4.6				*4.8	16	60	25	22	11	11
15	8.8	4.8					9.4	74	22	18	8.8	6.2
16	9.4	4.8					6.9	81	24	18	8.2	8.2
17	10	4.2			*3.1		4.7	74	22	2[illegible]	7.5	7.5
18	11	4.2					6.2	74	18	2[illegible]	11	5.2
19	10	4.2					25	74	16	2[illegible]	11	5.2
20	8.2	4.0					33	91	16	2[illegible]	14	4.7
21	8.2	4.3		*4.5			51	89	26	2[illegible]	17	4.2
22	7.5	4.3					74	91	25	2[illegible]	13	4.2
23	7.5	4.3					66	84	28	1[illegible]	8.2	3.8
24	7.5	3.8					35	79	33	1[illegible]	11	.7
25	6.4	4.0					26	69	24	1[illegible]	14	0
26	6.0	3.6					38	64	19	2[illegible]	11	2.7
27	6.0	4.0					57	66	18	2[illegible]	10	4.7
28	8.0	4.0					77	64	24	2[illegible]	7.5	5.6
29	11	4.0					72	71	24	2[illegible]	11	8.2
30	11	4.2					77	69	20	2[illegible]	8.2	8.2
31	12	-					-	69	-	1[illegible]	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	306.2	17	6.0	9.88	607
November	187.1	14	3.6	6.24	371
December	139.5	-	-	4.5	277
Calendar year 1938	13,999.4	316	-	38.4	27,770
January	124	-	-	4.0	246
February	98	-	-	3.5	194
March	186	-	-	6.0	369
April	872.6	77	4.7	29.1	1,730
May	2,292	91	53	73.9	4,550
June	986	71	16	32.9	1,960
July	677	29	13	21.8	1,340
August	345.2	17	7.5	11.1	685
September	213	17	0	7.10	422
Water year 1938-39	6,426.6	91	0	17.6	12,750

*Discharge measurement.

Uncompahgre River at Colona, Colo.

Location.- Water-stage recorder, lat. 38°19'50", long. 107°46'40", in NW¼ sec. 17, T. 47 N., R. 8 W., a quarter of a mile east of Colona.

Drainage area.- 437 square miles.

Records available.- March 1935 to September 1939. April 1903 to June 1906 and April 1917 to November 1934, at site 3 miles upstream; records equivalent.

Extremes.- Maximum discharge during year, 1,060 second-feet June 5 (gage height, 3.65 feet); minimum daily discharge, 50 second-feet Sept. 1.
1903-6, 1917-39: Maximum discharge, 4,080 second-feet June 13, 14, 1921; minimum, 16 second-feet Sept. 3, 1918.

Remarks.- Records good except those for periods of ice effect, Dec. 15-20, Dec. 25 to Jan. 20, Jan. 26-30, Feb. 3-24, which were computed on basis of seven discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	144	118	82	79	77	218	560	704	311	131	50
2	116	158	111	84	72	70	257	644	626	302	124	58
3	116	149	111	86	74	77	299	604	752	308	118	58
4	113	168	122	90	76	72	296	587	890	306	105	68
5	111	177	113	85	78	65	293	668	938	302	97	83
6	139	155	113	95	76	67	320	674	800	288	124	108
7	180	139	105	85	78	87	260	488	728	270	315	115
8	332	144	107	86	80	72	284	425	692	254	198	154
9	236	163	107	80	82	76	354	492	746	250	162	154
10	209	155	109	77	75	81	326	582	794	242	140	150
11	203	152	107	73	76	88	254	609	806	206	128	222
12	188	144	107	72	78	86	269	525	752	198	113	226
13	188	122	98	75	76	118	314	438	884	198	102	214
14	191	134	83	72	74	132	323	393	872	182	100	190
15	218	127	88	68	76	116	266	448	782	166	90	166
16	239	130	89	68	78	155	230	466	686	162	85	147
17	218	130	78	75	60	218	200	405	620	147	74	134
18	194	127	70	94	59	251	194	409	530	137	70	124
19	183	120	94	77	70	302	218	582	438	128	70	118
20	168	127	96	77	68	335	224	740	364	118	68	115
21	160	127	98	72	56	332	302	800	360	108	66	102
22	158	125	96	74	60	320	393	830	357	95	66	97
23	152	107	94	77	66	344	434	776	368	83	64	95
24	149	94	77	72	72	320	393	656	378	81	62	83
25	152	109	74	69	76	287	338	502	357	81	60	81
26	149	113	78	77	76	266	413	438	344	81	58	81
27	147	120	78	85	76	248	368	474	344	81	58	85
28	142	120	76	87	72	203	479	582	329	102	60	81
29	139	120	77	78	-	206	545	650	326	147	58	92
30	142	120	78	80	-	177	545	704	317	144	66	88
31	139	-	80	76	-	183	-	688	-	166	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,289	332	111	171	10,490
November	4,020	177	94	134	7,970
December	2,932	122	70	94.6	5,820
Calendar year 1938	144,366	2,900	54	396	286,400
January	2,448	94	68	79.0	4,860
February	2,039	82	56	72.8	4,040
March	5,431	344	65	175	10,770
April	9,609	545	194	320	19,060
May	17,837	830	393	575	35,380
June	17,914	938	317	597	35,530
July	5,644	311	81	182	11,190
August	3,094	315	58	99.8	6,140
September	3,539	226	50	118	7,020
Water year 1938-39	79,796	938	50	219	158,300

Uncompahgre River at Delta, Colo.

Location.- Water-stage recorder, lat. 38°45', long. 108°05', in SW¼ sec. 13, T. 15 S., R. 96 W., at west edge of Delta, 1¼ miles upstream from mouth. Prior to October 1931, water-stage recorder at site 150 feet upstream, datum 0.79 foot higher than present datum (prior to Aug. 1, 1927, datum 0.03 foot higher than present datum).

Drainage area.- 1,110 square miles.

Records available.- April 1924 to September 1931 and September 1938 to September 1939. April 1903 to October 1923, at site 3¼ miles upstream; records equivalent.

Extremes.- Maximum discharge during period, September 1938 to September 1939, 2,480 second-feet Sept. 4, 1938 (gage height, 5.17 feet), from rating curve extended above 1,400 second-feet; minimum daily discharge, 87 second-feet Mar. 6, Apr. 17.
1903-31, 1938-39: Maximum discharge, 2,880 second-feet June 29, 1927 (gage height, 5.93 feet, former site, present datum), from rating curve extended above 1,400 second-feet; minimum daily discharge, 7 second-feet July 10-15, 17, 21, 24-28, 1910.

Remarks.- Records excellent. Diversions above station for irrigation.

Discharge, in second-feet, Sept. 1-30, 1938

Sept. 1	231	Sept. 7	438	Sept.13	892	Sept.19	447	Sept.25	433
2	832	8	672	14	667	20	415	26	410
3	1,230	9	569	15	625	21	375	27	349
4	1,250	10	539	16	554	22	304	28	316
5	524	11	713	17	534	23	594	29	292
6	337	12	1,080	18	499	24	280	30	352

Note.- Mean discharge Sept. 1-30, 557 second-feet (run-off, 33,170 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	238	182	150	106	97	208	238	494	136	175	136
2	316	308	156	133	99	95	257	265	397	166	147	139
3	328	375	147	141	105	99	312	312	358	140	139	141
4	312	366	163	133	117	104	451	227	490	156	139	141
5	216	384	153	122	110	90	456	182	614	153	133	156
6	300	397	153	144	108	87	466	257	447	144	125	205
7	388	362	150	136	102	90	366	216	349	133	388	300
8	842	345	147	139	104	108	276	122	345	125	358	300
9	729	296	150	133	117	125	345	128	341	122	269	461
10	609	257	153	133	110	153	384	205	358	122	235	456
11	539	223	153	120	125	246	254	257	366	113	205	656
12	509	198	156	120	120	219	172	238	284	102	160	392
13	494	182	150	122	125	227	128	178	254	102	144	509
14	475	166	128	117	136	358	141	166	254	104	139	392
15	461	147	150	113	120	235	163	150	178	106	122	466
16	433	208	156	113	110	261	104	175	160	120	113	456
17	410	192	150	110	92	358	e7	175	296	110	108	401
18	442	169	139	117	108	392	92	160	257	104	104	379
19	375	150	150	115	136	406	125	201	254	102	102	349
20	424	153	153	115	133	475	166	384	242	99	104	337
21	419	160	156	108	108	480	185	447	182	102	108	320
22	379	160	160	110	117	456	223	461	166	106	108	273
23	345	130	178	108	113	451	300	401	166	104	113	261
24	316	113	128	106	108	466	388	288	169	104	110	216
25	304	128	113	104	113	406	261	212	169	102	108	201
26	312	128	122	106	110	442	133	156	172	104	104	227
27	298	141	122	125	108	419	97	166	156	106	106	250
28	227	160	136	128	95	308	120	231	136	110	115	269
29	219	169	128	120	-	276	216	328	141	153	122	300
30	223	178	130	120	-	227	250	375	136	153	120	312
31	212	-	130	113	-	205	-	461	-	208	128	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12,162	842	212	393	24,160
November	6,583	397	113	219	13,060
December	4,532	182	113	146	8,990
Calendar year	-	-	-	-	-
January	3,754	144	104	121	7,450
February	3,158	136	92	113	6,260
March	8,361	480	87	270	16,580
April	7,126	466	87	238	14,130
May	7,762	461	122	250	15,400
June	8,361	614	136	279	16,580
July	3,821	208	99	123	7,580
August	4,651	388	102	150	9,230
September	9,401	656	136	313	18,650
Water year 1938-39	79,692	842	87	218	158,070

Peak discharge.- Sept. 4, 1938 (1 a.m.) 2,480 sec.-ft.; Oct. 8 (12:30 p.m.) 1,080 sec.-ft.; Sept. 11 (6 a.m.) 903 sec.-ft.

Roubideau Creek near Delta, Colo.

Location.- Water-stage recorder, lat. 38°42', long. 108°09', in sec. 7, T. 51 N., R. 11 W., 600 feet upstream from Buttermilk Creek and 5½ miles southwest of Delta.

Drainage area.- 165 square miles.

Records available.- March to September 1939.

Extremes.- Maximum discharge during period, 563 second-feet May 1 (gage height, 3.02 feet); minimum daily discharge, 3.0 second-feet Aug. 18, Sept. 1-3.

Remarks.- Records good. A few small diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	21	444	37	4.4	4.4	3.6
2						-	33	409	34	5.1	4.4	3.6
3						-	55	393	28	5.6	4.2	3.6
4						-	93	374	25	4.9	4.2	3.8
5						-	119	367	24	5.1	4.2	4.4
6						-	126	355	22	4.9	4.7	5.4
7						-	106	267	19	4.9	4.7	6.5
8						-	103	219	16	5.1	4.7	9.4
9						-	143	200	15	5.1	4.9	8.1
10						-	168	203	14	4.9	4.9	9.0
11						-	132	198	13	4.7	4.7	9.4
12						-	124	176	12	4.4	4.7	8.1
13						-	161	154	9.8	5.1	4.2	8.6
14						-	192	141	8.6	4.7	3.9	8.6
15						-	154	134	7.7	4.7	3.8	11
16						-	126	128	8.6	4.4	3.8	11
17						-	103	115	5.6	4.2	3.8	10
18						-	101	106	6.0	3.9	3.6	9.8
19						-	122	99	5.8	3.9	3.8	11
20						-	147	106	7.7	3.9	3.8	11
21						-	209	98	9.0	3.9	4.0	11
22						-	288	85	9.0	3.9	5.1	10
23						-	333	75	7.3	3.9	6.5	11
24						-	284	64	6.5	3.8	5.6	13
25						-	257	56	6.0	3.9	5.4	14
26						-	257	49	6.3	4.2	4.4	14
27						-	302	42	6.0	4.7	4.2	13
28						29	393	41	5.6	4.9	4.4	12
29						39	416	35	5.4	4.7	4.2	11
30						28	432	33	5.1	4.4	3.8	11
31						23	-	37	-	4.4	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	5,500	432	21	183	10,910
May	5,203	444	33	168	10,320
June	385.0	37	5.1	12.8	764
July	140.6	5.6	3.8	4.54	279
August	136.8	6.5	3.6	4.41	271
September	275.9	14	3.6	9.20	547
The period	-	-	-	-	23,090

Roubideau Creek at mouth, near Delta, Colo.

Location.- Water-stage recorder, lat. 38°44', long. 108°09', in sec. 19, T. 15 S., R. 96 W., half a mile upstream from mouth and 5 miles west of Delta.

Drainage area.- 245 square miles.

Records available.- March to September 1939.

Extremes.- Maximum discharge during period, 802 second-feet May 1 (gage height, 3.84 feet); minimum daily discharge, 32 second-feet Aug. 26.

Remarks.- Records good. A few small diversions above station for irrigation. Increase in discharge between station near Delta and mouth is mostly return flow from irrigated lands under lower end of Ironstone canal.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	56	604	91	44	55	44
2						-	76	555	93	47	55	44
3						-	107	514	82	50	47	44
4						-	153	466	80	45	48	38
5						-	196	456	82	45	47	45
6						-	256	453	70	41	48	74
7						-	202	350	68	41	72	102
8						-	150	283	66	44	102	119
9						-	214	262	60	45	89	122
10						-	277	262	62	40	74	129
11						-	211	253	64	40	53	158
12						-	181	226	66	36	45	137
13						-	259	202	45	38	41	140
14						-	354	190	47	38	40	134
15						-	316	187	52	40	41	170
16						-	250	187	68	68	38	150
17						-	184	161	68	37	38	137
18						-	153	140	66	36	36	129
19						-	184	129	74	38	41	129
20						-	232	129	76	38	38	134
21						-	274	117	56	37	42	132
22						-	392	105	47	41	40	129
23						60	501	102	50	38	38	127
24						76	434	91	55	41	36	132
25						76	363	91	52	37	34	134
26						74	354	80	50	41	32	134
27						91	402	72	45	45	35	127
28						87	546	74	44	50	38	117
29						82	558	72	44	68	44	112
30						74	601	70	44	72	41	110
31						58	-	80	-	72	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 23-31	678	91	58	75.3	1,340
April	8,436	601	56	281	16,730
May	6,963	604	70	225	13,810
June	1,867	93	44	62.2	3,700
July	1,361	72	36	43.9	2,700
August	1,468	102	32	47.4	2,910
September	3,433	170	38	114	6,810
The period	24,206	604	32	126	48,000

Kahnah Creek near Whitewater, Colo.

Location.- Water-stage recorder and concrete control, lat. 38°59', long. 108°14', in sec. 34, T. 12 S., R. 97 W., a quarter of a mile downstream from intake of pipe line for Grand Junction water supply and 17 miles east of Whitewater.

Drainage area.- 55.0 square miles.

Records available.- October 1917 to September 1921 and October 1933 to September 1939 in reports of U. S. Geological Survey. October 1917 to September 1921 and August 1922 to September 1939 in reports of State engineer.

Average discharge (including flow diverted by pipe line above station).- 21 years, 40.9 second-feet.

Extremes (combined flow).- Maximum discharge during year, 448 second-feet May 10; minimum daily discharge, 7.0 second-feet Mar. 6.
1917-21, 1922-39: Maximum discharge, 1,630 second-feet June 6, 1921 (gage height, 4.5 feet, former site and datum), from rating curve extended above 700 second-feet; minimum daily discharge, 5.7 second-feet Apr. 1, 1938.

Remarks.- Records excellent except those for periods of ice effect, Nov. 7-9, Nov. 13 to Mar. 18, which were computed on basis of three discharge measurements and weather records and are fair. Figures of diverted flow for Grand Junction water supply (obtained from several readings made each day on Cippoletti weir) furnished by State engineer and added to monthly discharge to give total flow of stream. Records of combined flow excellent. Regulation by a few small reservoirs above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	6.5	2.8	2.1	2.4	2.4	9.0	140	71	36	7.8	3.6
2	11	6.5	2.2	2.1	2.4	2.6	9.0	150	54	34	6.6	2.8
3	12	6.5	1.8	2.1	2.8	2.8	14	200	46	32	4.8	2.6
4	13	6.5	2.0	2.1	3.0	2.8	14	229	42	34	4.8	2.8
5	16	6.9	1.8	2.6	3.4	2.2	16	283	40	34	5.4	4.8
6	13	4.2	1.6	2.8	3.2	1.8	14	301	36	36	5.4	8.4
7	13	3.8	2.9	3.2	3.6	2.0	8.4	283	31	36	8.4	16
8	17	4.6	4.2	3.4	3.8	2.3	11	283	29	34	6.0	11
9	13	4.2	4.2	3.4	3.8	2.5	17	292	26	32	6.6	9.0
10	11	6.5	4.4	3.2	3.6	2.7	14	296	28	29	7.2	7.8
11	11	6.0	4.2	3.1	3.4	3.0	15	238	25	28	9.0	9.9
12	11	6.0	3.8	3.0	3.2	2.8	12	212	22	28	16	9.9
13	10	5.3	3.0	2.9	3.1	3.1	14	188	22	26	15	9.0
14	9.1	4.8	2.6	2.9	3.1	2.9	13	204	21	22	17	9.9
15	6.5	5.4	2.6	2.8	3.1	2.8	9.0	192	19	21	17	7.8
16	6.0	5.6	2.8	2.8	3.2	3.4	7.8	156	18	18	16	7.2
17	7.4	5.0	3.0	2.8	3.0	4.3	6.0	122	17	19	16	6.0
18	6.0	4.4	3.6	2.8	2.6	5.3	7.2	148	16	26	16	4.8
19	6.5	4.8	3.6	2.9	2.8	7.2	9.9	152	24	25	15	4.8
20	6.9	5.0	3.8	2.9	2.4	8.4	12	133	18	28	11	4.8
21	8.3	4.8	3.6	3.4	2.2	9.9	19	129	21	19	9.0	3.6
22	9.1	4.4	3.2	3.6	2.2	11	26	111	19	18	9.9	3.0
23	9.1	2.9	2.8	3.4	2.3	11	29	93	29	15	7.8	4.2
24	8.3	1.4	2.2	3.0	2.6	11	24	82	34	15	4.8	3.0
25	7.4	1.2	2.0	2.7	2.8	13	21	64	32	14	3.6	3.6
26	7.4	1.2	1.9	2.8	2.8	12	25	59	38	12	2.8	3.0
27	6.9	1.8	1.9	3.1	2.6	11	32	54	34	11	3.0	3.6
28	6.9	2.2	2.0	3.2	2.4	8.4	48	50	36	8.4	6.0	2.8
29	6.6	2.4	2.0	3.1	-	7.8	71	48	34	8.4	11	3.6
30	6.5	3.0	2.0	2.8	-	7.2	104	48	38	8.4	7.8	3.0
31	6.5	-	2.1	2.6	-	7.8	-	52	-	8.4	6.0	-

Month	Observed					Diverted by Grand Junction pipe line (acre-feet)	Adjusted for diversion	
	Second-foot-days	Discharge in second-feet			Run-off in acre-feet		Run-off in acre-feet	Mean (second-feet)
		Maximum	Minimum	Mean				
October	295.3	17	6.0	9.53	586	419	1,000	16.3
November	133.8	6.9	1.2	4.46	265	348	613	10.3
December	86.6	4.4	1.6	2.79	172	353	525	8.54
Calendar year 1938	14,591.6	496	.5	40.0	28,940	4,920	33,860	46.8
January	89.6	3.6	2.1	2.89	178	320	498	8.09
February	81.8	3.8	2.2	2.92	162	289	451	8.12
March	177.4	13	1.8	5.72	352	315	667	10.9
April	630.3	104	6.0	21.0	1,250	424	1,670	28.1
May	5,022	301	48	162	9,960	480	10,440	170
June	920	71	16	30.7	1,820	493	2,310	39.0
July	715.6	36	8.4	23.1	1,420	536	1,960	31.8
August	282.7	17	2.8	9.12	561	536	1,100	17.8
September	175.3	15	2.6	5.84	348	433	781	13.1
Water year 1938-39	8,610.4	301	1.2	23.6	17,070	4,950	22,020	30.4

Dolores River at Dolores, Colo.

Location.- Water-stage recorder, lat. 37°28', long. 108°30', in sec. 9, T. 37 N., R. 15 W., in Dolores, a quarter of a mile upstream from Lost Canyon Creek.

Drainage area.- 508 square miles.

Records available.- June 1895 to October 1903 and August 1910 to December 1912 (at site just downstream from Lost Canyon Creek), May 1922 to September 1927 (monthly discharge), and October 1933 to September 1939 in reports of U. S. Geological Survey. June 1895 to October 1903, August 1910 to December 1912, and April 1922 to September 1939 in reports of State engineer.

Average discharge.- 18 years (1921-39), 474 second-feet.

Extremes.- Maximum discharge during year, 1,810 second-feet May 6 (gage height, 4.95 feet); minimum daily discharge, 32 second-feet Feb. 10.
1895-1903, 1910-12, 1922-39: Maximum discharge, 10,000 second-feet Oct. 5, 1911 (gage height, 10.2 feet, former site and datum), from rating curve extended above 2,800 second-feet; minimum daily discharge, 8 second-feet Aug. 16, 1896.

Remarks.- Records good except those for periods of ice effect, Nov. 7, 8, Nov. 24 to Mar. 22, which were computed on basis of four discharge measurements and records for Animas River at Durango and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	107	83	42	44	46	263	1,260	953	132	97	73
2	107	120	78	41	40	50	356	1,320	888	129	79	70
3	116	96	67	47	36	52	502	1,250	894	131	68	59
4	113	97	80	46	39	55	588	1,290	946	131	68	55
5	111	113	85	41	35	54	620	1,480	1,010	127	69	57
6	120	84	90	50	52	50	661	1,610	870	120	70	91
7	140	85	80	50	54	54	536	1,230	740	114	113	202
8	219	90	70	55	53	56	588	1,220	661	105	118	248
9	204	107	66	52	41	56	763	1,340	609	100	86	240
10	173	113	55	50	32	58	703	1,470	578	96	74	182
11	165	96	45	48	35	56	542	1,490	552	92	66	272
12	158	80	40	47	40	62	604	1,350	516	84	60	341
13	160	76	45	46	42	72	718	1,180	488	78	55	308
14	169	59	50	46	44	86	724	1,010	465	70	53	248
15	176	92	50	50	47	90	552	987	422	70	54	189
16	202	102	56	39	50	96	492	960	371	76	51	156
17	200	104	52	38	55	140	438	846	322	70	47	132
18	176	97	53	43	54	190	469	822	287	62	45	114
19	158	88	51	50	46	210	588	1,070	257	53	44	98
20	145	102	63	62	41	230	646	1,270	240	49	42	96
21	138	98	58	60	36	270	858	1,270	221	49	41	92
22	132	91	56	54	39	310	1,110	1,330	209	49	42	86
23	125	76	80	48	44	360	1,180	1,300	202	50	41	80
24	118	60	40	44	46	383	926	1,140	200	50	40	72
25	113	67	44	39	56	386	804	894	198	49	40	72
26	111	50	42	41	69	398	858	792	182	46	48	86
27	109	60	43	42	62	356	953	816	167	52	53	113
28	107	60	44	40	55	278	1,140	858	154	74	59	109
29	100	60	47	36	-	254	1,300	876	143	147	73	96
30	98	75	47	35	-	214	1,270	966	134	138	94	85
31	100	-	43	40	-	216	-	946	-	116	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,370	219	98	141	8,670
November	2,605	120	50	86.8	5,170
December	1,803	90	40	58.2	3,580
Calendar year 1938	217,994	3,810	34	597	432,400
January	1,422	62	35	45.9	2,820
February	1,267	69	32	46.0	2,550
March	5,188	398	46	167	10,290
April	21,752	1,300	263	725	43,140
May	35,643	1,610	792	1,150	70,700
June	13,879	1,010	134	463	27,530
July	2,713	147	48	87.5	5,380
August	1,970	118	40	63.5	3,910
September	4,122	341	55	137	8,180
Water year 1938-39	96,754	1,610	32	265	191,900

Dolores River near McPhee, Colo.

Location.- Water-stage recorder, lat. 37°34', long. 108°34', in NE¼ sec. 12, T. 38 N., R. 16 W., 0.8 mile downstream from Beaver Creek and 4½ miles northwest of McPhee.

Drainage area.- 803 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 1,900 second-feet Mar. 25 (gage height, 3.82 feet), from rating curve extended above 1,300 second-feet; minimum daily discharge, 2.1 second-feet July 20,22.

Remarks.- Records excellent except those for periods of ice effect, Dec. 5, 6, Dec. 26 to Mar. 19 (computed on basis of three discharge measurements, weather records, and records for San Juan River at Pagosa Springs), those for Oct. 1-6 (estimated), and those below 10 second-feet, all of which are fair. Diversions above station for irrigation. Montezuma Irrigation District diverts water from Dolores River, just below station, for irrigation in McElmo Creek Basin.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 7-25, June 15 to Aug. 4, Sept. 16-30)

0.6	2.0	1.0	10	1.4	40	1.8	168	2.6	752
.7	3.0	1.1	14	1.5	57	2.0	296	3.0	1,102
.8	4.6	1.2	20	1.6	79	2.2	436	3.2	1,280
.9	6.8	1.3	28	1.7	116	2.4	590		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	14	79	25	33	44	551	1,040	512	5.3	5.0	5.3
2	7.0	27	64	23	30	42	630	1,100	438	4.6	5.0	4.6
3	7.0	32	61	32	22	44	961	979	431	4.8	4.8	4.4
4	7.0	26	68	31	31	42	1,090	1,000	475	5.0	93	4.3
5	7.0	32	80	21	15	40	908	1,160	574	4.8	20	5.9
6	7.0	32	76	22	22	42	821	1,280	431	4.3	12	10
7	13	101	72	27	50	44	582	900	263	4.4	10	48
8	54	79	61	36	45	46	582	856	168	4.0	18	42
9	105	79	61	30	35	48	804	935	116	3.8	9.7	33
10	79	57	45	30	15	50	786	1,070	79	4.0	7.4	10
11	75	38	42	29	20	48	543	1,140	64	4.0	7.8	33
12	72	27	33	29	30	50	590	996	34	4.0	8.1	137
13	66	40	36	28	33	52	719	812	19	4.0	7.1	90
14	64	35	47	29	35	60	752	606	16	4.0	6.6	40
15	68	101	42	30	38	80	520	551	12	4.4	6.6	12
16	90	109	52	26	42	98	424	512	14	3.3	6.1	8.1
17	101	75	47	20	45	200	324	409	12	3.6	5.3	7.8
18	79	72	48	23	48	300	468	352	11	3.2	5.0	8.8
19	61	50	35	29	37	400	497	590	9.7	2.7	4.8	5.9
20	50	68	61	36	25	528	497	847	10	2.1	4.8	4.7
21	40	54	48	41	20	744	769	873	10	2.2	5.3	5.5
22	38	42	50	34	28	882	1,080	935	11	2.1	5.0	5.5
23	32	54	72	30	33	1,080	1,170	935	10	2.4	4.8	4.8
24	24	16	25	28	33	1,130	882	752	10	3.2	5.3	5.0
25	15	22	30	24	39	1,140	727	497	9.4	3.8	4.4	5.0
26	13	48	35	25	55	944	778	352	9.7	4.6	4.0	6.1
27	11	57	33	29	48	795	821	345	8.1	5.0	5.3	7.1
28	10	57	31	31	45	528	952	380	8.1	9.0	7.1	14
29	14	59	25	25	-	543	1,090	402	7.1	11	6.6	7.8
30	12	70	26	25	-	453	1,080	497	5.5	10	11	6.8
31	13	-	30	30	-	438	-	512	-	5.0	6.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,241.0	105	7.0	40.0	2,460
November	1,573	109	14	52.4	3,120
December	1,515	80	25	48.9	3,000
Calendar year	-	-	-	-	-
January	878	41	20	28.3	1,740
February	952	55	15	34.0	1,890
March	10,935	1,140	40	353	21,690
April	22,398	1,170	324	747	44,430
May	23,615	1,280	345	762	46,840
June	3,777.6	574	5.5	126	7,490
July	138.6	11	2.1	4.47	275
August	312.3	93	4.0	10.1	619
September	581.4	137	4.3	19.4	1,150
Water year 1938-39	67,916.9	1,280	2.1	186	134,700

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Dolores River at Gateway, Colo.

Location.- Water-stage recorder, lat. 38°41', long. 108°58', in SW¼ sec. 15, T. 51 N., R. 19 W., 0.3 mile southwest of Gateway, 0.3 mile downstream from West Creek, and 8 miles upstream from Colorado-Utah State line. Zero of gage is 4,547.44 feet above mean sea level (unadjusted).

Drainage area.- 4,350 square miles.

Records available.- March 1937 to September 1939.

Extremes.- Maximum discharge during year, 4,000 second-feet Apr. 5 (gage height, 6.46 feet); minimum daily discharge, 52 second-feet Aug. 27.
1937-39: Maximum discharge, 13,000 second-feet Apr. 25, 1938 (gage height, 11.65 feet); minimum daily discharge, that of Aug. 27, 1939.

Remarks.- Records excellent above 400 second-feet and good below except those for periods of missing gage heights, Jan. 9-11, 15-17, Mar. 5-10, which were computed on basis of records for Gunnison River near Grand Junction and White River near Watson and are fair. Diversions above station for irrigation. Montezuma Irrigation District diverts water from Dolores River Basin, just below station at Dolores, for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	182	176	174	128	132	171	1,220	2,120	950	241	112	132
2	185	182	202	130	134	182	1,580	2,060	930	220	110	107
3	202	213	209	143	110	192	2,180	2,040	902	213	93	99
4	165	189	206	179	116	196	3,040	1,990	911	209	86	80
5	165	182	223	174	122	200	3,870	1,860	945	209	83	84
6	168	182	230	152	154	210	3,610	1,910	988	196	136	162
7	202	185	192	202	176	225	2,780	2,080	1,000	185	238	1,180
8	364	162	196	182	192	250	2,140	1,960	893	176	330	628
9	416	145	206	175	185	370	2,040	1,610	812	174	182	388
10	380	185	223	165	182	500	2,260	1,460	760	168	120	448
11	356	213	220	160	165	444	2,060	1,570	733	165	103	658
12	356	234	216	154	176	460	1,710	1,720	720	160	91	610
13	303	270	174	130	162	416	590	1,720	685	150	81	513
14	274	216	152	141	209	534	1,700	1,490	707	136	75	436
15	259	168	154	140	176	547	1,670	1,270	694	126	70	372
16	252	199	174	135	174	468	1,460	1,170	632	118	67	326
17	256	209	230	130	182	484	1,170	1,090	530	118	65	303
18	259	192	220	139	179	539	1,020	988	522	114	62	281
19	270	182	202	141	150	623	982	906	428	107	59	252
20	307	227	216	152	174	755	1,090	884	356	96	58	230
21	296	227	248	176	174	884	1,180	1,160	299	90	56	199
22	281	216	230	196	174	1,300	1,400	1,370	263	86	55	176
23	263	171	206	209	176	1,760	1,830	1,420	252	83	57	162
24	245	124	168	179	171	2,050	2,000	1,400	277	81	56	150
25	230	120	136	171	171	2,300	1,860	1,260	296	78	55	152
26	220	152	136	152	189	2,250	1,540	1,180	303	79	53	160
27	220	171	103	132	182	2,550	1,480	920	299	78	52	168
28	209	157	116	139	182	2,250	1,540	834	277	78	68	174
29	202	154	139	150	-	1,810	1,700	848	259	83	619	185
30	199	165	139	160	-	1,470	2,010	902	256	94	341	196
31	182	-	132	154	-	1,240	-	970	-	120	189	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,858	416	165	253	15,590
November	5,568	270	120	186	11,040
December	5,772	248	103	186	11,450
Calendar year 1938	452,653	11,400	89	1,240	897,800
January	4,870	209	128	157	9,660
February	4,669	209	110	167	9,260
March	27,630	2,550	171	891	54,800
April	55,712	3,870	982	1,857	110,500
May	44,162	2,120	834	1,425	87,590
June	17,879	1,000	252	596	35,460
July	4,231	241	78	136	8,390
August	3,822	619	52	123	7,580
September	9,031	1,180	80	301	17,910
Water year 1938-39	191,204	3,870	52	524	379,200

Green River at Warren Bridge, near Daniel, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 110°07', in sec. 8, T. 35 N., R. 111 W., at Warren Bridge, 12 miles north of Daniel. Zero of gage is 7,468.09 feet above mean sea level (unadjusted).

Drainage area.- 468 square miles.

Records available.- October 1931 to September 1939.

Extremes.- Maximum discharge during year, 1,890 second-feet June 1 (gage height, 3.87 feet); minimum daily discharge, 94 second-feet Feb. 21, 25, 26.
1931-39: Maximum discharge, 3,260 second-feet June 26, 1932 (gage height, 5.08 feet), from rating curve extended above 1,100 second-feet; minimum not determined, occurred during winter.

Remarks.- Records excellent except those for periods of ice effect, Nov. 6 to Apr. 7, Apr. 14-24, which were computed on basis of seven discharge measurements and weather records and are good. Natural regulation by lakes in Green River Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	290	170	145	115	105	420	1,120	1,840	1,570	973	302
2	223	274	175	140	110	110	400	1,080	1,770	1,630	1,020	286
3	223	256	180	140	112	110	390	1,130	1,560	1,670	868	278
4	223	249	185	135	110	115	380	1,200	1,400	1,580	745	262
5	238	178	190	130	115	110	370	1,270	1,340	1,480	663	246
6	282	178	185	130	115	105	350	1,220	1,320	1,460	614	238
7	286	184	180	128	120	105	335	1,100	1,250	1,410	587	242
8	294	192	175	120	115	105	338	973	1,060	1,350	554	270
9	318	200	170	120	110	105	342	919	964	1,310	517	262
10	330	204	170	120	100	105	350	955	946	1,340	469	242
11	310	190	165	125	100	105	350	1,090	850	1,390	421	230
12	306	180	160	125	100	105	350	1,090	793	1,420	376	230
13	306	170	160	130	105	105	378	902	769	1,490	345	254
14	286	170	160	130	105	110	390	817	902	1,500	330	325
16	282	170	155	130	106	110	420	817	1,120	1,420	330	410
16	310	170	150	125	105	115	430	964	1,300	1,310	330	511
17	418	170	150	120	105	120	400	1,230	1,400	1,210	340	475
18	422	180	150	115	110	120	390	1,280	1,300	1,120	345	404
19	378	190	140	115	100	125	420	1,260	1,140	991	345	355
20	362	200	140	115	96	130	450	1,210	1,000	876	340	315
21	350	195	140	120	94	130	480	1,100	893	825	340	286
22	338	190	140	120	98	135	520	982	809	793	330	270
23	322	180	150	115	105	135	510	910	842	722	320	262
24	306	175	150	115	100	145	520	834	946	678	310	258
25	294	170	150	115	94	160	486	825	1,000	656	306	266
26	290	165	140	120	94	210	455	777	1,040	642	298	282
27	274	160	135	125	98	290	480	738	1,080	621	298	266
28	266	160	130	125	100	340	594	785	1,120	642	302	254
29	246	165	135	125	-	420	772	982	1,280	715	302	246
30	260	165	140	125	-	430	973	1,400	1,420	817	306	234
31	270	-	150	125	-	440	-	1,790	-	850	310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,239	422	223	298	18,330
November	5,720	290	160	191	11,350
December	4,870	190	130	157	9,660
Calendar year 1938	205,405	2,590	-	563	407,500
January	3,868	145	115	125	7,670
February	2,937	120	94	105	5,830
March	5,055	440	105	163	10,030
April	13,443	973	335	448	26,660
May	32,730	1,790	738	1,056	64,920
June	34,454	1,840	769	1,148	68,340
July	35,488	1,670	621	1,145	70,390
August	13,934	1,020	298	449	27,640
September	8,761	511	230	292	17,380
Water year 1938-39	170,499	1,840	94	467	338,200

Green River at Green River, Wyo.

Location.- Chain gage, lat. 41°32', long. 109°29', in sec. 22, T. 18 N., R. 107 W., 100 feet downstream from railroad bridge at town of Green River. Zero of gage is 6,071.07 feet above mean sea level (general adjustment of 1929).

Drainage area.- 7,070 square miles.

Records available.- May 1895 to October 1900 and March 1915 to September 1939.

Average discharge.- 34 years (1895-99, 1900-1906, 1915-39), 1,872 second-feet.

Extremes.- Maximum discharge observed during year, 4,830 second-feet June 3 (gage height, 3.71 feet); maximum gage height, 5.80 feet Mar. 24 (ice jam); minimum daily discharge, 400 second-feet Jan. 9.
1895-1906, 1915-39: Maximum discharge observed, 22,200 second-feet June 19, 1918 (gage height, 12.3 feet); minimum observed, 180 second-feet Nov. 17, 1898.

Remarks.- Records fair. Discharge for period of ice effect, Nov. 8 to Mar. 24, computed on basis of two discharge measurements and records for station near Linwood, Utah. Diversions above station for irrigation. Gage-height records collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	790	1,180	720	600	550	490	1,860	1,320	3,940	1,700	1,350	604
2	790	1,240	750	590	450	520	1,810	1,670	4,470	1,770	1,350	604
3	798	1,240	780	580	475	560	1,720	1,970	4,740	1,980	1,290	604
4	782	1,240	780	570	520	530	1,700	2,180	4,420	2,120	1,210	592
5	798	1,190	780	569	540	510	1,640	2,540	4,160	2,220	1,180	582
6	978	1,130	780	560	550	500	1,590	2,970	3,760	2,260	1,060	576
7	1,120	860	780	530	550	540	1,480	3,450	3,390	2,160	978	570
8	1,530	880	800	430	540	560	1,330	3,450	3,240	2,100	990	570
9	3,040	890	740	400	520	580	1,250	3,260	3,190	2,020	930	570
10	1,740	830	680	440	500	600	1,250	3,240	2,970	1,910	890	576
11	1,490	790	580	480	490	640	1,290	3,260	2,680	1,820	850	576
12	1,380	740	520	470	470	680	1,190	3,970	2,700	1,810	840	587
13	1,300	740	520	490	480	720	1,180	4,300	2,490	1,740	806	587
14	1,290	760	520	500	500	800	1,110	4,000	2,200	1,700	774	582
15	1,220	800	540	500	520	870	1,150	3,500	1,950	1,650	750	604
16	1,210	780	560	490	520	920	1,190	3,140	1,840	1,670	729	609
17	1,510	780	540	490	510	1,000	1,250	3,040	1,820	1,640	687	592
18	1,860	860	530	520	470	1,200	1,220	3,340	2,140	1,590	687	587
19	1,910	900	520	510	490	1,400	1,150	3,860	3,500	1,480	674	592
20	1,740	860	520	490	460	1,700	1,080	4,190	3,650	1,430	662	614
21	1,590	800	530	460	440	2,000	1,110	4,420	3,470	1,350	650	604
22	1,490	740	530	480	480	2,500	1,120	4,470	3,320	1,270	650	565
23	1,480	680	550	500	500	3,000	1,130	4,080	2,750	1,240	638	530
24	1,400	700	580	480	480	4,000	1,250	3,730	2,460	1,180	650	535
25	1,370	740	550	480	470	3,600	1,350	3,340	2,120	1,120	638	570
26	1,320	740	530	520	460	3,420	1,380	3,390	1,950	1,120	632	592
27	1,270	740	510	520	460	3,600	1,320	3,520	1,740	1,110	614	550
28	1,250	780	540	530	460	2,780	1,220	3,320	1,670	1,150	614	582
29	1,210	740	560	550	-	2,490	1,110	2,920	1,650	1,150	604	576
30	1,210	760	580	560	-	2,060	1,120	2,750	1,640	1,290	626	555
31	1,180	-	600	560	-	1,950	-	3,040	-	1,250	609	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	42,046	3,040	782	1,356	83,400
November	26,110	1,240	680	870	51,790
December	19,000	800	510	613	37,690
Calendar year 1938	681,869	10,000	-	1,868	1,352,000
January	15,849	600	400	511	31,440
February	13,855	550	440	495	27,480
March	46,720	4,000	490	1,507	92,670
April	39,530	1,860	1,060	1,318	78,410
May	101,530	4,470	1,320	3,278	201,600
June	85,020	4,740	1,640	2,867	170,600
July	50,000	2,260	1,110	1,613	99,170
August	25,612	1,350	604	826	50,800
September	17,437	614	530	581	34,590
Water year 1938-39	483,809	4,740	400	1,326	959,600

Green River near Linwood, Utah

Location.- Water-stage recorder, lat. 40°58', long. 109°35', in SW¼ sec. 29, T. 3 N., R. 21 E., a quarter of a mile upstream from Henrys Fork, 2 miles south of Wyoming-Utah State line, and 5 miles southeast of Linwood. Zero of gage is 5,844.64 feet above mean sea level (unadjusted).

Drainage area.- 14,300 square miles.

Records available.- October 1928 to September 1939.

Average discharge.- 11 years, 1,674 second-feet.

Extremes.- Maximum discharge during year, 5,380 second-feet May 14 (gage height, 5.30 feet); minimum daily discharge, 450 second-feet Jan. 9.
1928-39: Maximum discharge, 15,200 second-feet June 4, 1936 (gage height, 10.11 feet, from recorded range of stage and floodmarks), from rating curve extended above 11,000 second-feet; minimum, 196 second-feet Nov. 27, 1934 (gage height, -0.10 foot).

Remarks.- Records good except those for period of ice effect or missing gage heights, Nov. 11 to Mar. 23, which were computed on basis of three discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	743	1,330	780	560	480	550	3,240	1,990	2,870	1,790	1,450	586
2	770	1,340	720	550	470	610	3,080	2,310	3,540	1,780	1,640	572
3	779	1,350	720	530	460	630	3,050	3,030	4,700	1,810	1,540	565
4	770	1,390	730	510	492	620	3,020	3,650	4,940	1,950	1,450	565
5	995	1,370	740	500	510	600	2,920	4,040	4,630	2,140	1,420	565
6	1,220	1,280	730	487	520	630	2,860	4,390	3,970	2,300	1,360	565
7	1,340	1,140	710	480	540	640	2,790	4,670	3,410	2,300	1,240	586
8	2,060	1,100	700	470	500	660	2,680	4,960	3,080	2,200	1,140	586
9	3,870	923	680	450	480	680	2,390	4,820	3,020	2,120	1,090	593
10	3,370	905	650	470	470	720	2,140	4,460	2,950	2,100	1,050	656
11	2,170	850	620	500	470	780	2,110	4,190	2,780	1,980	1,020	608
12	1,760	810	600	510	490	850	2,110	4,100	2,630	1,900	968	572
13	1,590	780	580	510	500	920	2,110	4,580	2,540	1,830	959	593
14	1,470	770	560	510	540	1,050	2,020	5,180	2,330	1,810	905	586
15	1,410	760	570	520	570	1,200	2,020	4,780	2,080	1,770	851	624
16	1,350	790	580	520	550	1,430	2,100	4,240	1,880	1,700	815	725
17	1,530	800	560	500	560	1,800	2,100	3,830	1,810	1,600	788	600
18	1,720	830	550	520	530	2,100	2,110	3,710	1,780	1,580	743	572
19	2,050	840	540	540	510	2,700	2,120	3,880	2,020	1,510	698	558
20	2,140	830	540	550	480	3,100	2,050	4,310	2,900	1,420	680	572
21	1,940	790	560	500	520	3,500	1,870	4,390	3,150	1,310	664	579
22	1,770	750	550	520	540	4,100	1,910	4,390	3,170	1,250	656	579
23	1,700	710	540	520	540	4,600	1,990	4,310	3,170	1,170	640	565
24	1,650	700	560	500	520	4,770	2,040	3,970	2,900	1,120	632	565
25	1,530	710	580	480	500	4,890	2,220	3,660	2,630	1,070	632	565
26	1,470	700	550	480	480	4,780	2,420	3,420	2,410	1,050	624	565
27	1,450	710	510	500	480	5,040	2,550	3,460	2,180	1,030	616	593
28	1,400	730	520	520	500	4,870	2,420	3,490	1,980	1,030	608	656
29	1,370	780	530	530	-	4,360	2,170	3,310	1,900	1,040	600	600
30	1,350	800	540	530	-	3,880	1,980	2,870	1,820	1,090	624	586
31	1,320	-	550	530	-	3,420	-	2,620	-	1,650	608	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	50,057	3,870	743	1,615	99,290
November	27,568	1,390	700	919	54,680
December	18,830	780	510	607	37,350
Calendar year 1938	825,703	9,980	300	2,262	1,638,000
January	15,797	560	450	510	31,330
February	14,202	570	460	507	28,170
March	70,480	5,040	550	2,274	139,800
April	70,590	3,240	1,870	2,353	140,000
May	121,010	5,180	1,990	3,904	240,000
June	85,170	4,940	1,780	2,839	168,900
July	50,400	2,300	1,030	1,626	99,970
August	28,711	1,640	600	926	56,950
September	17,702	725	558	590	35,110
Water year 1938-39	570,517	5,180	450	1,563	1,132,000

Green River at Green River, Utah

Location.- Water-stage recorder, lat. 39°00', long. 110°09', in NW¼SW¼ sec. 15, T. 21 S., R. 16 E., 1 mile southeast of Green River and 22 miles upstream from San Rafael River.

Drainage area.- 40,600 square miles.

Records available.- October 1894 to October 1899, February 1905 to December 1911, and June 1924 to September 1939. December 1910 to June 1924, at Little Valley, 7 miles downstream; records equivalent.

Average discharge.- 39 years (1894-99, 1905-39), 7,131 second-feet.

Extremes.- Maximum discharge during year, 21,000 second-feet Mar. 21 (gage height, 10.30 feet); minimum, 989 second-feet Sept. 5 (gage height, 5.06 feet).
1894-99, 1905-39: Maximum discharge, about 68,800 second-feet May 29, 1897 (gage height, about 16.5 feet, present datum); minimum, 255 second-feet Nov. 26, 1931 (gage height, 4.17 feet); minimum gage height, 4.08 feet Aug. 1, Dec. 5, 1934.

Remarks.- Records excellent except those for Dec. 26 to Mar. 3, which are fair. Discharge for periods of ice effect, Dec. 26, 27, Feb. 3 to Mar. 5, computed on basis of weather records. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,430	3,400	1,730	1,430	1,770	2,100	9,850	9,370	10,400	4,400	1,820	1,070
2	2,410	3,400	2,000	1,450	1,870	2,200	8,920	11,100	11,400	4,100	1,870	1,040
3	2,410	3,540	2,010	1,680	1,900	2,250	7,850	12,800	11,800	3,810	1,850	1,080
4	2,410	3,950	2,180	1,720	1,950	2,300	7,440	13,800	12,600	3,540	1,920	1,040
5	2,410	3,810	2,410	1,720	2,000	2,400	7,240	15,700	13,600	3,400	1,960	989
6	2,670	3,670	2,900	1,920	1,900	2,410	7,640	16,800	13,600	3,270	2,180	1,410
7	2,560	3,540	3,400	2,130	1,800	2,240	8,480	17,400	12,800	3,140	2,200	4,270
8	3,140	3,540	3,400	2,110	1,700	2,280	8,700	17,400	12,800	3,140	2,260	1,720
9	3,950	3,540	3,400	2,110	1,550	2,340	8,920	17,400	12,800	3,140	2,240	1,770
10	4,870	3,400	3,270	2,300	1,450	2,410	8,480	16,800	11,800	3,140	2,140	2,240
11	4,550	3,400	3,400	2,450	1,500	2,130	7,640	15,100	10,600	3,270	2,050	1,980
12	4,710	3,270	3,400	2,560	1,600	2,160	7,040	14,600	9,600	3,140	1,960	3,670
13	5,900	3,140	3,270	2,450	1,650	2,280	6,840	15,100	9,140	3,020	1,800	3,580
14	5,200	3,020	3,140	2,300	1,750	2,430	6,840	15,100	8,480	2,900	1,700	3,020
15	4,400	2,900	2,560	2,200	1,800	2,560	6,460	14,600	8,060	2,780	1,670	2,780
16	4,100	3,020	2,050	2,140	1,900	2,780	6,080	15,100	7,850	2,560	1,620	3,540
17	3,670	3,020	2,280	2,030	1,950	3,140	6,080	14,600	7,640	2,430	1,560	3,020
18	3,950	2,780	2,140	2,050	2,050	3,810	6,460	14,600	7,240	2,320	1,530	2,560
19	4,550	2,670	2,280	2,140	2,100	5,200	7,040	14,600	7,040	2,240	1,470	2,260
20	4,400	2,450	2,450	2,280	2,200	10,800	7,440	14,100	6,650	2,200	1,390	2,130
21	4,240	2,560	2,560	2,340	2,250	15,800	6,840	14,100	6,270	2,130	1,340	2,050
22	3,950	2,560	2,560	2,110	2,100	14,100	6,080	14,600	6,080	2,030	1,300	2,010
23	4,100	2,780	2,560	2,070	1,900	13,800	5,900	15,700	5,900	2,000	1,220	1,890
24	4,240	2,670	2,560	2,390	1,750	12,800	5,900	15,700	6,080	1,940	1,180	1,770
25	4,400	2,560	2,450	2,410	1,850	11,600	6,080	14,600	6,270	1,870	1,140	1,720
26	4,100	1,670	2,450	2,340	1,900	11,100	6,840	14,100	6,080	1,780	1,080	1,720
27	3,950	1,220	2,450	2,130	2,000	11,600	9,140	13,800	5,900	1,730	1,070	1,750
28	3,810	1,480	2,450	2,010	2,050	12,100	9,140	13,100	5,540	1,650	1,040	1,840
29	3,670	1,560	1,240	1,920	-	11,800	8,920	11,800	5,200	1,600	1,220	1,870
30	3,540	1,730	1,250	1,890	-	11,100	8,700	10,800	4,710	1,580	1,150	1,800
31	3,400	-	1,320	1,800	-	10,600	-	10,400	-	1,550	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	118,090	5,900	2,410	3,809	234,200
November	86,250	3,950	1,220	2,875	171,100
December	77,460	3,400	1,240	2,499	153,600
Calendar year 1938	2,490,240	30,600	1,000	6,823	4,939,000
January	64,560	2,560	1,430	2,083	128,100
February	52,190	2,250	1,450	1,864	103,500
March	196,620	15,800	2,100	6,343	390,000
April	224,980	9,850	5,900	7,499	446,200
May	444,770	17,400	9,370	14,350	882,200
June	264,130	13,600	4,710	8,804	523,900
July	81,800	4,400	1,550	2,639	162,200
August	49,890	2,260	1,040	1,609	98,960
September	63,589	4,270	989	2,120	126,100
Water year 1938-39	1,724,329	17,400	989	4,724	3,420,000

Beaver Creek near Daniel, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 110°09', in sec. 18, T. 35 N., R. 111 W., at Hansen ranch, half a mile downstream from forks, 1 mile upstream from mouth, 2 miles southwest of Warren Bridge, and 11 miles northwest of Daniel.

Drainage area.- 141 square miles.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge during period, 179 second-feet Apr. 8 (gage height, 5.32 feet); minimum daily discharge, 0.1 second-foot at times.

Remarks.- Records excellent above 10 second-feet and good below except those for period of missing gage heights or ice effect, Nov. 1 to Apr. 6, which were computed on basis of seven discharge measurements and weather records and are fair. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.9	0.05	3.2	2.0	3.5	13	4.0	49
3.0	.10	3.3	5.0	3.6	18	4.5	97
3.1	.5	3.4	9.0	3.8	32	5.0	147

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		29	17	15	14	11	60	48	2.9	0.2	0.1	0.2
2		27	18	15	13	10	75	47	2.6	.4	.1	.2
3		25	18	15	13	10	85	46	1.8	.3	.1	.2
4		23	18	15	13	10	100	46	1.6	.1	.1	.2
5		23	19	15	13	10	110	45	1.2	.1	.2	.3
6		22	18	14	13	10	126	44	1.2	.1	.2	.3
7		22	18	14	13	11	127	43	2.9	.1	.2	.5
8		22	17	14	13	11	129	41	5.4	.1	.2	.8
9		22	17	14	12	12	117	37	13	.1	.3	.5
10		23	17	14	12	12	84	22	16	.1	.3	.5
11		22	16	14	12	12	79	40	12	.1	.3	.5
12		20	16	14	13	13	80	69	3.5	.1	.3	.6
13		19	16	15	13	13	102	31	1.0	.1	.3	.5
14		19	16	15	13	14	122	20	.8	.2	.3	.1
15		18	16	15	13	14	141	15	1.1	.1	.3	.1
16		18	16	15	13	14	126	16	.4	.1	.3	.1
17		19	16	15	13	15	92	25	3.2	.3	.3	.4
18		19	15	15	13	15	93	21	9.8	.1	.3	.3
19		19	15	15	13	15	115	18	11	.1	.2	.1
20		18	15	15	13	16	124	18	14	.1	.1	.4
21		16	16	15	12	16	120	18	11	.1	.1	.5
22		14	16	14	12	17	118	16	3.5	.1	.1	1.7
23		12	15	14	12	18	105	14	1.8	.1	.1	.6
24		13	15	14	12	20	93	16	.3	.1	.1	.1
25		15	16	14	12	23	103	32	.3	.1	.1	.1
26		16	15	14	12	24	72	28	.3	.1	.1	.4
27		16	15	14	11	25	62	17	.3	.1	.1	1.0
28		17	15	14	11	27	59	12	.3	.1	.1	.6
29		17	15	15	-	31	54	9.8	.3	.1	.1	.1
30		17	16	15	-	36	50	9.0	.3	.2	.1	.5
31		-	16	15	-	44	-	6.6	-	.2	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	582	29	12	19.4	1,150
December	504	19	15	16.3	1,000
Calendar year	-	-	-	-	-
January	451	15	14	14.5	895
February	352	14	11	12.6	698
March	529	44	10	17.1	1,050
April	2,923	141	50	97.4	5,800
May	870.4	69	6.6	28.1	1,730
June	123.8	16	.3	4.13	246
July	4.2	.4	.1	.14	8.3
August	5.6	.3	.1	.18	11
September	12.4	1.7	.1	.41	25
The period	-	-	-	-	12,610

Horse Creek near Daniel, Wyo.

Location.- Water-stage recorder, lat. 42°56', long. 110°12', in sec. 10, T. 34 N., R. 112 W., 12 miles northwest of Daniel. Zero of gage is 7,349.88 feet above mean sea level (general adjustment of 1929).

Drainage area.- 124 square miles.

Records available.- October 1931 to September 1939.

Extremes.- Maximum discharge during year, 392 second-feet May 30 (gage height, 1.87 feet); minimum daily discharge, 3.1 second-feet July 24-26.
1931-39: Maximum discharge, 1,070 second-feet May 31, 1936 (gage height, 3.53 feet), from rating curve extended above 800 second-feet; minimum daily discharge, 1.7 second-feet July 16, 19, 1934.

Remarks.- Records good above 10 second-feet and fair below except those for periods of ice effect or missing gage heights, Oct. 7 to Nov. 30, Apr. 1-24, which were computed on basis of one discharge measurement, weather records, and records for Fontenelle Creek near Fontenelle and are poor. No records Dec. 1 to Mar. 30. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	20					74	128	282	24	9.0	10
2	16	18					70	131	193	32	16	11
3	18	16					66	160	163	29	16	10
4	18	17					64	200	148	24	15	10
5	19	16					60	244	157	22	15	10
6	20	16					52	193	154	24	13	10
7	18	16					48	176	123	27	15	11
8	36	17					48	148	101	26	13	12
9	28	17					56	160	126	16	14	12
10	22	18					50	169	163	9.8	14	11
11	19	18					48	197	126	6.5	14	11
12	18	17					50	180	106	6.5	14	13
13	17	16					54	133	97	6.2	14	14
14	16	15					62	142	92	6.8	13	14
15	16	15					72	176	88	6.2	13	13
16	18	15					76	193	97	5.2	12	13
17	22	15					72	282	106	4.6	12	12
18	22	15					64	276	92	4.6	11	13
19	20	16					68	276	81	3.9	11	12
20	18	16					74	226	81	3.9	11	11
21	17	15					82	193	72	3.9	11	11
22	17	15					90	190	59	3.3	10	12
23	17	14					96	176	51	3.3	10	13
24	16	14					94	169	51	3.1	10	12
25	16	13					88	169	48	3.1	11	14
26	16	13					70	139	44	3.1	10	14
27	15	12					62	126	40	3.6	12	13
28	15	11					62	160	32	3.6	11	13
29	15	12					106	266	24	4.9	11	12
30	16	12					118	349	21	6.5	11	12
31	19	-					-	336	-	6.5	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	573	36	13	18.5	1,140
November	460	20	11	15.3	912
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,096	118	48	69.9	4,160
May	6,063	349	126	196	12,030
June	3,018	282	21	101	5,990
July	333.1	32	3.1	10.7	661
August	383.0	16	9.0	12.4	760
September	359	14	10	12.0	712
Water year	-	-	-	-	-

Cottonwood Creek near Daniel, Wyo.

Location.- Water-stage recorder, lat. 42°47', long. 110°09', in sec. 11, T. 32 N., R. 112 W., 1½ miles downstream from forks and 7 miles southwest of Daniel.

Drainage area.- 204 square miles.

Records available.- October 1938 to September 1939. April 1916 to September 1919 and October 1931 to November 1932 at site 4 miles downstream; records not equivalent.

Extremes.- Maximum discharge during year, 248 second-feet May 31 (gage height, 5.96 feet); minimum daily discharge, 6.0 feet Sept. 4.

Remarks.- Records good except those for period of ice effect, Nov. 6 to Apr. 3 (computed on basis of eight discharge measurements and weather records), and those for periods of missing gage heights, Apr. 5-9, 13-17, 19-23, May 13-21, June 30 to July 4 (computed on basis of records for adjacent stations), all of which are fair. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	54	17	13	12	12	120	69	228	26	21	8.2
2	25	50	17	13	11	13	140	71	204	27	17	6.6
3	24	41	17	13	11	13	160	80	166	28	17	6.3
4	24	47	17	13	12	13	196	93	144	29	17	6.0
5	35	41	17	13	12	13	210	99	125	30	17	6.3
6	36	34	17	13	12	14	215	99	137	33	16	6.6
7	30	35	16	13	12	14	215	84	158	37	16	7.0
8	44	36	16	13	12	14	180	80	141	26	17	8.2
9	57	37	16	13	11	15	80	73	144	21	17	10
10	44	36	15	13	11	15	65	88	177	18	16	9.4
11	37	34	15	13	11	15	61	180	144	17	15	8.8
12	35	32	14	13	12	16	71	220	121	15	15	9.4
13	33	29	14	13	12	16	77	180	110	14	14	13
14	30	27	14	14	12	17	86	160	107	13	14	16
15	30	26	15	14	12	18	94	140	104	13	15	14
16	37	26	15	14	12	19	84	140	107	12	14	11
17	71	27	15	14	12	20	71	150	112	13	13	10
18	61	27	14	14	12	21	64	150	121	14	12	8.8
19	43	26	14	14	12	22	69	150	137	12	11	8.2
20	39	24	14	13	12	23	77	140	141	11	10	7.6
21	36	21	14	13	12	25	88	140	125	11	10	7.0
22	34	18	14	13	13	28	101	137	96	11	8.8	7.6
23	33	16	14	12	13	31	110	131	75	12	8.2	8.2
24	31	15	14	12	13	35	93	131	62	11	8.2	8.2
25	30	15	14	11	13	37	86	180	53	16	8.8	10
26	32	15	13	11	13	37	62	173	48	18	8.2	11
27	35	16	13	12	12	38	50	134	37	18	8.2	10
28	35	16	13	12	12	45	47	121	29	22	7.6	8.2
29	35	16	13	12	-	52	56	121	26	24	8.2	7.0
30	37	16	13	12	-	68	61	144	26	24	8.8	7.0
31	47	-	13	12	-	108	-	228	-	24	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,145	71	24	36.9	2,270
November	853	54	15	28.4	1,690
December	457	17	13	14.7	906
Calendar year	-	-	-	-	-
January	398	14	11	12.8	789
February	336	13	11	12.0	666
March	827	108	12	26.7	1,640
April	3,089	215	47	103	6,130
May	4,086	228	69	132	8,100
June	3,405	228	26	114	6,750
July	600	37	11	19.4	1,190
August	397.8	21	7.6	12.8	789
September	265.6	16	6.0	8.85	527
Water year 1938-39	15,859.4	228	6.0	43.5	31,450

Cottonwood Creek near mouth, near Big Piney, Wyo.

Location.- Water-stage recorder, lat. 42°40', long. 110°00', in sec. 13, T. 31 N., R. 111 W., 2 miles upstream from mouth and 10 miles northeast of Big Piney. Prior to July 27, 1939, water-stage recorder at site 1 mile downstream.

Drainage area.- 229 square miles.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge during period, 209 second-feet Mar. 31; no flow Aug. 31 to Sept. 15.

Remarks.- Records poor. Discharge for period of ice effect, Nov. 11 to Apr. 9, computed on basis of seven discharge measurements and weather records, that for periods of missing gage heights, Nov. 1, Apr. 30 to May 3, July 27 to Aug. 2, computed on basis of one discharge measurement, recorded range of stage, and records for station near Daniel. Records at former site, downstream, adjusted for diversions between former and present sites, so that all records are practically equivalent. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		32	14	7	2	4.5	203	33	187	14	3	0
2		30	13	7.5	2	5	213	34	167	14	3.5	0
3		25	12	6.9	2.5	4.5	233	37	131	13	3.1	0
4		24	11	6.5	2.5	4.5	225	39	101	12	2.1	0
5		17	12	6	3	4.5	213	40	79	13	1.2	0
6		19	11	5.5	3	4.9	193	45	67	12	.9	0
7		20	11	5.5	2.5	6	153	51	74	11	.7	0
8		27	12	5.5	2	6	113	50	85	9.6	.7	0
9		27	13	5	2	6.5	83	48	89	8.4	.7	0
10		26	11	4.5	2	7	71	53	93	7.2	.8	0
11		23	10	4.5	2.5	7	65	137	103	6.4	.4	0
12		19	8.5	4	3	7	57	213	84	5.5	.4	0
13		18	9	3.5	3.0	8	49	145	70	5.8	.3	0
14		19	9.5	3	3	7.5	52	95	64	4.8	.2	0
15		20	10	3	3.5	6	45	77	61	4.0	.3	0
16		21	8.5	3.3	3	6.5	41	69	59	3.2	.1	3.8
17		19	8.5	3	3.5	7	38	83	100	2.5	.1	4.5
18		16	9	3	3.5	7.6	36	111	155	1.6	.1	3.8
19		17	9	3	3	9	37	106	140	.7	.1	3.6
20		18	8	3.5	2.5	10	40	100	131	.6	.1	2.9
21		15	7.5	3	3	11	45	101	114	.5	.1	2.7
22		13	8	2.5	3.5	13	40	95	78	.4	.1	2.7
23		12	7.5	2	4	15	35	89	55	.3	.1	1.9
24		12	8.5	2.5	4.5	20	43	93	38	.3	.1	1.2
25		13	7.5	3	5	27	41	121	29	.1	.1	2.4
26		13	7	2.5	4.5	38	35	131	24	.1	.1	5.7
27		14	6	2.5	4	50	30	112	22	.3	.1	6.0
28		14	6.5	3	4	60	29	92	20	1.0	.1	5.4
29		15	6.5	2.5	-	84	28	72	18	2.0	.1	4.5
30		15	7	2.3	-	137	30	71	16	3.0	.1	4.0
31		-	7	2.5	-	198	-	124	-	3.0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	573	32	12	19.1	1,140
December	289.0	14	6	9.32	573
Calendar year	-	-	-	-	-
January	122.0	7.5	2	3.94	242
February	86.5	5	2	3.09	172
March	782.0	198	4.5	25.2	1,550
April	2,514	233	28	83.8	4,990
May	2,667	213	33	86.0	5,290
June	2,454	187	16	81.8	4,870
July	160.3	14	.1	5.17	318
August	19.8	3.5	0	.64	39
September	55.1	6.0	0	1.84	109
The period	-	-	-	-	19,290

East Fork near Big Sandy, Wyo.

Location.- Water-stage recorder, lat. 42°40', long. 109°25', in sec. 7, T. 31 N., R. 105 W., 1 mile downstream from Jim Creek and 4 miles northeast of Big Sandy.

Drainage area.- 79.2 square miles.

Records available.- October 1938 to September 1939. May 1916 to September 1917 and May 1921 to November 1923, at site 2 miles downstream (published as East Fork at East Fork Canal); records equivalent.

Extremes.- Maximum discharge during period, 665 second-feet May 5 (gage height, 5.37 feet); minimum daily discharge, 4.2 second-feet Sept. 6.
1916-17, 1921-23, 1938-39: Maximum discharge, 1,400 second-feet June 23, 1917 (gage height, 4.6 feet, former site and datum), from rating curve extended above 400 second-feet; minimum daily discharge, 4.0 second-feet Oct. 11, 12, 1922.

Remarks.- Records excellent except those for period of ice effect or missing gage heights, Nov. 5 to Apr. 16 (computed on basis of six discharge measurements and weather records), and those below 10 second-feet, all of which are good. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 14-26)

2.6	3.5	2.9	15	3.2	37	3.8	126	4.9	450
2.7	6.0	3.0	21	3.3	48	4.1	185	5.3	630
2.8	9.5	3.1	28	3.5	75	4.4	270		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	58	25	15	8.0	7.8	20	442	446	124	24	4.5
2	-	56	26	14	7.0	8.0	20	495	298	121	21	4.5
3	-	56	25	14	7.4	8.4	20	572	225	112	19	4.5
4	-	52	24	14	7.8	8.8	21	616	231	101	17	4.5
5	-	52	25	14	8.0	9.2	20	590	222	93	16	4.5
6	-	54	25	14	8.2	8.6	20	459	200	94	14	4.2
7	-	56	26	15	8.2	8.6	20	400	159	128	14	6.7
8	-	57	27	15	8.4	8.8	21	344	136	110	13	7.8
9	-	58	26	14	8.4	9.0	22	396	147	108	12	7.4
10	-	51	25	14	7.8	9.2	22	396	161	96	11	6.0
11	-	48	24	14	8.0	9.6	22	378	149	83	9.5	5.2
12	-	45	23	14	8.2	10	23	294	145	74	8.8	5.0
13	-	44	23	14	8.2	11	25	243	147	68	8.4	5.8
14	-	45	22	14	8.4	12	27	255	149	62	7.8	10
15	-	46	22	14	8.6	11	27	336	167	57	7.4	12
16	-	46	22	14	8.6	11	29	454	157	52	6.7	11
17	-	45	23	13	8.8	12	34	486	143	47	6.0	9.5
18	-	42	23	13	9.6	13	39	472	139	44	5.8	9.2
19	-	39	23	13	8.8	14	54	442	128	38	5.5	8.4
20	-	41	23	13	7.6	15	61	330	128	33	6.0	8.1
21	-	38	23	12	7.6	16	81	267	137	30	7.8	7.4
22	-	32	23	10	7.6	17	124	237	126	27	6.4	7.0
23	-	27	22	8.4	7.8	19	141	188	126	25	5.5	7.8
24	-	25	21	9.0	8.2	20	139	198	119	23	5.0	8.1
25	-	26	20	8.7	8.0	19	130	198	121	22	4.8	8.8
26	60	27	17	8.4	7.8	19	132	222	122	22	4.5	13
27	61	26	15	8.2	7.6	18	161	234	121	22	4.5	13
28	57	25	14	8.2	7.6	19	249	280	121	22	4.5	11
29	54	24	13	8.0	-	19	400	392	122	22	4.5	11
30	52	24	15	8.0	-	19	482	500	124	22	4.5	9.5
31	56	-	16	8.6	-	20	-	490	-	24	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 26-31	340	61	52	56.7	674
November	1,265	56	24	42.2	2,510
December	681	27	13	22.0	1,350
Calendar year	-	-	-	-	-
January	376.5	15	8.0	12.1	747
February	226.2	9.6	7.0	8.08	449
March	410.0	20	7.8	13.2	813
April	2,556	482	20	86.2	5,130
May	11,606	616	188	374	23,020
June	4,916	446	119	164	9,750
July	1,906	128	22	61.5	3,780
August	289.4	24	4.5	9.34	574
September	235.4	13	4.2	7.85	467
The period	-	-	-	-	49,260

Silver Creek near Big Sandy, Wyo.

Location.- Water-stage recorder, lat. 42°45', long. 109°31', in sec. 17, T. 32 N., R. 106 W., at Miller ranch, 1 mile downstream from South Fork, 8 miles northwest of Big Sandy, and 11 miles east of Boulder.

Drainage area.- 45.4 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during period, 381 second-feet May 5 (gage height, 5.74 feet), from rating curve extended above 250 second-feet; no flow Aug. 15 to Sept. 30.

Remarks.- Records excellent except those for period of ice effect or missing gage heights, Nov. 5 to Apr. 27 (computed on basis of six discharge measurements, weather records, and records for East Fork near Big Sandy), and those for period of missing gage heights, July 20 to Aug. 14 (computed on basis of two discharge measurements and records for East Fork near Big Sandy), all of which are fair. One small diversion above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39, except period of ice effect (gage height, in feet, and discharge, in second-feet)

2.8	7.9	3.1	21	3.7	67	5.0	252
2.9	11.5	3.2	27	4.0	102	5.5	338
3.0	16	3.4	41	4.2	128		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	26	11	8.2	4.3	4.6	12	254	123	20	0.4	
2	-	25	11	8.0	4.1	4.7	12	296	111	40	.3	
3	-	25	10	7.8	4.2	4.9	12	329	91	45	.3	
4	-	24	10	7.6	4.3	5.2	13	327	80	38	.2	
5	-	24	10	7.4	4.5	5.4	12	331	70	33	.1	
6	-	24	10	7.6	4.5	5.2	12	278	65	28	.1	
7	-	25	11	7.8	4.5	5.2	12	247	61	28	.1	
8	-	25	11	8.0	4.6	5.3	12	230	56	26	.1	
9	-	24	10	7.8	4.6	5.4	13	244	66	23	.1	
10	-	23	9.6	7.8	4.4	5.6	13	242	71	20	.1	
11	-	22	9.4	7.5	4.4	5.8	13	244	63	17	.1	
12	-	21	9.2	7.5	4.6	6.0	14	193	56	15	.1	
13	-	20	9.2	7.5	4.6	6.2	15	164	49	12	.1	
14	-	21	9.0	7.5	4.6	6.6	16	176	45	9.7	.1	
15	-	21	9.0	7.5	4.6	6.4	17	196	41	9.3	0	
16	-	21	9.4	7.4	4.8	6.4	18	226	39	11	0	
17	-	20	9.4	7.4	4.9	6.6	19	247	42	10	0	
18	-	19	9.4	7.4	5.1	7.0	22	241	49	9.0	0	
19	-	17	9.4	7.2	4.8	7.4	24	225	51	7.9	0	
20	-	18	9.4	7.0	4.3	8.0	29	188	59	6.2	0	
21	-	17	9.2	6.6	4.3	8.4	37	164	63	4.5	0	
22	-	12	9.0	5.8	4.5	9.2	46	152	54	3.0	0	
23	-	11	8.8	4.3	4.5	10	56	130	44	1.7	0	
24	-	10	8.6	4.7	4.7	12	70	134	39	.9	0	
25	-	11	8.2	4.5	4.6	11	80	140	34	.8	0	
26	-	11	7.8	4.4	4.5	11	98	144	30	.8	0	
27	25	11	7.0	4.3	4.5	11	110	114	26	.6	0	
28	25	10	6.2	4.3	4.5	11	122	91	23	.5	0	
29	23	10	6.0	4.3	-	11	186	94	21	.4	0	
30	23	10	7.0	4.3	-	11	230	102	20	.4	0	
31	25	-	8.0	4.5	-	11	-	114	-	.4	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 27-31	121	25	23	24.2	240
November	558	26	10	18.6	1,110
December	282.2	11	6.0	9.10	560
Calendar year	-	-	-	-	-
January	203.9	8.2	4.3	6.58	404
February	126.8	5.1	4.1	4.53	252
March	234.5	12	4.6	7.56	465
April	1,347	230	12	44.9	2,670
May	6,257	331	91	202	12,410
June	1,642	123	20	54.7	3,260
July	422.1	45	.4	13.6	837
August	2.2	.4	0	.07	4.4
September	-	0	0	0	0
The period	-	-	-	-	22,210

New Fork below New Fork Lake, near Cora, Wyo.

Location.- Water-stage recorder, lat. 43°05', long. 110°01', in sec. 20, T. 36 N., R. 110 W., 2 miles downstream from New Fork Lake and 9 miles north of Cora.

Drainage area.- 36.2 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 325 second-feet May 10 (gage height, 5.05 feet); minimum daily discharge, 1.2 second-feet Mar. 6.

Remarks.- Records fair except those above 10 second-feet, which are excellent. Discharge for period of ice effect, Nov. 6 to Apr. 16, computed on basis of three discharge measurements at station and six measurements 2 miles downstream and weather records. Flow regulated for irrigation by New Fork Lake (capacity, 45,900 acre-feet). No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 5, Apr. 17 to May 9)

2.7	1.3	3.0	4.8	3.3	18	3.6	43	4.2	130
2.8	1.9	3.1	7.5	3.4	26	3.8	64	4.5	192
2.9	3.1	3.2	12	3.5	34	4.0	92	5.0	312

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	1.7	1.8	2.1	1.4	1.3	2.5	1.8	214	203	46	2.5
2	13	1.5	1.7	2.1	1.3	1.4	2.7	1.8	214	210	46	2.5
3	13	1.5	1.8	2.0	1.3	1.3	2.9	1.8	212	219	47	2.5
4	13	1.6	1.7	1.9	1.4	1.4	2.8	1.9	210	216	47	2.4
5	14	1.6	1.8	1.8	1.5	1.3	2.7	1.9	210	212	47	2.4
6	13	1.7	1.7	1.8	1.6	1.2	2.5	2.0	207	210	47	2.4
7	13	1.8	1.7	1.7	1.6	1.3	2.6	2.1	205	207	47	58
8	14	1.9	1.9	1.6	1.5	1.3	2.7	2.3	201	205	46	118
9	13	2.0	1.8	1.7	1.4	1.4	2.4	2.3	199	201	46	106
10	8.7	2.0	1.7	1.5	1.3	1.5	2.2	164	194	196	45	96
11	1.7	1.9	1.6	1.6	1.3	1.4	2.2	320	194	192	25	88
12	1.6	1.8	1.5	1.6	1.4	1.4	2.3	315	192	190	3.6	80
13	1.5	1.8	1.6	1.7	1.3	1.5	2.4	307	188	185	3.4	74
14	1.5	1.8	1.6	1.6	1.4	1.4	2.5	300	188	181	3.4	68
15	1.6	1.9	1.6	1.5	1.5	1.3	2.2	277	190	177	3.4	64
16	1.7	1.9	1.6	1.6	1.4	1.4	2.1	250	192	170	3.3	60
17	1.8	1.9	1.5	1.7	1.3	1.5	2.1	236	192	164	3.1	56
18	1.7	1.8	1.5	1.7	1.3	1.6	2.1	210	190	160	3.1	53
19	1.6	1.9	1.6	1.8	1.4	1.7	2.1	207	188	154	3.0	50
20	1.5	1.8	1.7	1.8	1.2	1.7	2.1	205	183	140	2.9	48
21	1.5	1.6	1.7	1.7	1.2	1.6	2.0	203	181	130	2.9	46
22	1.5	1.5	1.7	1.6	1.3	1.8	2.0	201	179	124	2.7	45
23	1.6	1.4	1.6	1.5	1.4	1.9	1.9	199	179	116	2.9	44
24	1.6	1.5	1.7	1.6	1.4	2.1	2.0	199	179	112	2.9	41
25	1.6	1.5	1.6	1.5	1.5	2.0	1.9	194	183	105	2.9	41
26	1.6	1.6	1.5	1.5	1.4	1.9	1.8	192	205	70	3.0	39
27	1.7	1.7	1.4	1.4	1.3	1.9	1.8	190	203	2.9	2.7	38
28	1.7	1.9	1.6	1.5	1.3	1.8	1.8	188	203	2.5	2.7	36
29	1.7	1.9	1.9	1.5	-	2.0	1.8	192	203	1.7	2.7	34
30	1.7	1.8	2.0	1.4	-	2.2	1.8	210	203	1.7	2.6	32
31	1.7	-	2.0	1.5	-	2.4	-	212	-	5.8	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	161.8	14	1.5	5.22	321
November	52.2	2.0	1.4	1.74	104
December	52.1	2.0	1.4	1.68	103
Calendar year	-	-	-	-	-
January	51.5	2.1	1.4	1.66	102
February	38.6	1.6	1.2	1.38	77
March	49.9	2.4	1.2	1.61	99
April	66.9	2.9	1.8	2.23	133
May	4,988.9	320	1.8	161	9,900
June	5,881	214	179	196	11,660
July	4,463.6	219	1.7	144	8,850
August	548.7	47	2.5	17.7	1,090
September	1,429.7	118	2.4	47.7	2,840
Water year 1938-39	17,784.9	320	1.2	48.7	35,280

New Fork near Pinedale, Wyo.

Location.- Water-stage recorder, lat. 42°50', long. 109°51', in sec. 15, T. 33 N., R. 109 W., a quarter of a mile upstream from Pine Creek and 2 miles south of Pinedale.

Drainage area.- 241 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 771 second-feet Mar. 25 (gage height, 7.93 feet), from rating curve extended above 350 second-feet; minimum daily discharge, 18 second-feet Apr. 29, 30.

Remarks.- Records excellent except those for period of ice effect, Nov. 6 to Mar. 24, which were computed on basis of nine discharge measurements and weather records and are good. Flow regulated for irrigation by New Fork Lake (capacity 45,900 acre-feet). Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	68	32	26	24	24	158	20	202	165	111	22
2	25	66	32	26	24	24	120	20	185	178	84	21
3	25	56	32	26	23	23	107	20	169	210	77	21
4	26	61	33	26	24	23	106	20	154	207	70	22
5	44	51	34	26	25	23	94	25	140	185	66	22
6	62	50	33	26	25	23	82	26	133	185	62	22
7	56	50	32	26	26	23	56	24	152	222	57	26
8	76	50	31	26	26	23	61	26	156	210	54	28
9	86	52	31	26	27	24	58	23	185	186	51	28
10	77	50	30	25	27	24	49	26	215	171	49	28
11	67	48	29	25	28	24	48	54	210	168	48	29
12	62	46	29	25	27	24	48	89	171	168	46	30
13	56	44	28	24	27	25	52	55	152	154	42	34
14	54	42	27	24	27	25	59	49	138	146	43	41
15	51	40	27	23	27	26	51	51	138	150	38	37
16	66	39	27	23	27	26	45	72	154	144	32	35
17	148	39	26	23	26	27	40	92	312	132	31	34
18	127	38	26	23	26	30	38	100	423	124	31	33
19	99	37	26	23	25	31	35	100	306	128	29	33
20	88	37	26	23	25	35	36	97	264	116	29	32
21	80	37	26	23	25	38	36	99	279	104	28	32
22	72	36	26	23	26	58	26	96	200	90	26	33
23	67	35	26	23	26	90	28	88	156	98	26	35
24	62	33	26	22	25	200	30	91	142	90	24	34
25	62	32	26	22	25	459	33	131	131	98	23	38
26	59	32	26	22	25	473	33	134	113	98	23	40
27	58	32	25	23	25	371	30	116	118	98	23	38
28	56	32	25	23	24	240	20	116	129	97	22	38
29	55	32	25	24	-	192	18	116	129	97	23	37
30	55	32	26	24	-	156	18	129	136	98	22	36
31	63	-	26	24	-	118	-	185	-	148	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,009	148	25	64.8	3,900
November	1,297	68	32	43.2	2,570
December	874	34	25	28.2	1,730
Calendar year	-	-	-	-	-
January	748	26	22	24.1	1,480
February	717	28	23	25.6	1,420
March	2,902	473	23	93.6	5,760
April	1,585	158	18	52.8	3,140
May	2,290	185	20	73.9	4,540
June	5,492	423	113	183	10,890
July	4,426	222	91	143	8,780
August	1,312	111	22	42.3	2,600
September	939	41	21	31.3	1,860
Water year 1938-39	24,591	473	18	67.4	48,750

New Fork near Boulder, Wyo.

Location.- Water-stage recorder, lat. 42°48', long. 109°44', in sec. 9, T. 32 N., R. 108 W., an eighth of a mile upstream from Boulder Creek and half a mile southwest of Boulder.

Drainage area.- 552 square miles (revised).

Records available.- May 1915 to September 1939.

Average discharge.- 24 years, 398 second-feet.

Extremes.- Maximum discharge during year, 1,460 second-feet June 2 (gage height, 4.38 feet); minimum daily discharge, 105 second-feet Jan. 26, Feb. 2, Mar. 6-8.
1915-39: Maximum discharge observed, 12,300 second-feet June 17, 1918 (gage height, 8.7 feet), from rating curve extended above 6,000 second-feet; minimum discharge, 42 second-feet Dec. 15-17, 1915.

Remarks.- Records excellent except those for periods of ice effect, Nov. 7, 8, Nov. 12 to Mar. 28, Apr. 8-25, which were computed on basis of seven discharge measurements and weather records and are fair. Diversions above station for irrigation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-9, Mar. 29 to Apr. 3)

1.9	116	2.4	240	3.1	545	4.4	1,480
2.1	158	2.6	310	3.5	780		
2.3	210	2.8	395	4.0	1,130		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	318	155	125	110	120	278	314	1,360	673	342	136
2	158	318	160	125	105	119	278	415	1,440	722	318	132
3	158	303	160	125	110	115	261	673	1,340	767	303	130
4	163	314	165	125	110	110	244	794	1,170	767	286	124
5	196	303	165	125	110	110	225	899	1,030	734	278	122
6	207	296	165	125	114	105	204	1,050	955	709	275	118
7	196	265	160	125	115	105	188	1,050	955	734	268	145
8	244	270	160	125	115	105	160	1,000	885	703	240	154
9	261	282	155	121	120	110	165	948	829	673	231	149
10	258	278	150	120	125	110	170	920	801	644	234	160
11	244	278	150	120	125	110	165	1,070	734	616	228	158
12	231	250	145	120	125	110	150	1,030	667	600	222	158
13	225	230	145	115	125	110	155	913	650	525	216	156
14	222	220	140	115	125	110	160	815	628	505	210	154
15	222	210	140	110	125	110	170	748	628	567	204	154
16	234	205	135	110	123	110	175	774	671	535	199	145
17	410	205	134	115	120	112	180	899	899	505	190	140
18	386	200	130	115	120	115	170	1,010	1,120	465	188	138
19	346	200	130	115	115	125	165	1,060	1,050	455	182	136
20	334	205	130	115	115	130	180	1,100	962	455	180	134
21	334	200	130	115	115	135	200	1,090	976	435	177	132
22	330	185	130	115	120	140	220	1,000	906	410	165	134
23	326	175	130	111	120	160	230	934	855	415	147	138
24	334	170	130	110	120	200	235	920	760	405	136	136
25	326	165	130	110	120	340	225	920	703	377	132	143
26	318	160	130	105	120	480	216	850	673	36'	130	145
27	314	160	125	110	120	520	186	774	650	364	130	138
28	310	160	120	110	120	360	185	722	697	326	132	124
29	303	155	120	110	-	258	182	728	703	300	136	122
30	303	155	125	115	-	289	225	885	606	306	151	120
31	310	-	125	115	-	292	-	1,120	-	405	145	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,363	410	158	270	16,590
November	6,835	318	155	228	13,560
December	4,369	165	120	141	8,670
Calendar year 1938	171,757	3,040	-	471	340,700
January	3,617	125	105	117	7,170
February	3,307	125	105	118	6,560
March	5,425	520	105	175	10,760
April	5,949	278	150	198	11,800
May	27,425	1,120	314	885	54,400
June	26,333	1,440	606	878	52,230
July	16,461	767	300	531	32,650
August	6,375	342	130	206	12,640
September	4,175	160	118	139	8,280
Water year 1938-39	118,634	1,440	105	325	235,300

Willow Creek near Cora, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 109°56', in sec. 14, T. 35 N., R. 110 W., a quarter of a mile downstream from forks and 4½ miles northeast of Cora.

Drainage area.- 41.8 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 68 second-feet Mar. 31 (gage height, 6.79 feet), from rating curve extended above 30 second-feet; minimum daily discharge, 2.3 second-feet Aug. 22, 23, Sept. 2-6.

Remarks.- Records excellent except those for period of ice effect, Nov. 5 to Mar. 15, which were computed on basis of eight discharge measurements and weather records and are good. Several small diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 5, May 12-31)

5.5	1.9	5.8	8.2	6.3	34
5.6	3.3	5.9	11.8	6.8	69
5.7	5.3	6.0	16		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	8.6	5.8	5.2	4.2	3.6	44	30	18	5.1	6.5	2.5
2	3.5	7.6	6.0	5.2	3.6	3.8	40	28	10	6.2	5.1	2.3
3	3.5	6.2	5.8	5.2	3.8	3.8	37	32	5.9	6.2	4.5	2.3
4	3.7	7.0	5.2	5.0	3.9	3.8	31	36	8.2	4.9	4.5	2.3
5	7.3	6.5	5.8	5.0	4.0	3.8	15	38	8.9	4.9	4.5	2.3
6	7.3	6.0	5.4	5.2	4.2	3.6	9.6	33	5.9	5.3	4.3	2.3
7	5.3	6.2	5.6	5.4	4.2	3.6	11	27	7.0	5.1	4.3	2.9
8	7.6	6.4	6.0	5.2	4.2	3.8	13	11	5.3	4.3	3.9	4.9
9	9.6	7.0	5.8	5.2	4.0	3.8	13	8.9	6.8	3.9	3.5	4.5
10	8.6	6.6	5.4	5.2	3.6	4.0	10	9.3	6.5	3.7	3.9	4.3
11	6.8	6.2	5.0	5.6	3.6	4.0	10	21	5.3	3.5	4.1	4.1
12	6.5	6.0	4.6	5.6	3.6	4.0	10	11	4.9	3.0	3.2	4.5
13	6.2	5.8	4.8	5.4	3.6	4.0	14	7.9	4.9	3.5	3.3	6.5
14	6.2	5.6	5.0	5.4	3.8	4.1	15	7.6	4.7	4.5	3.3	8.2
15	6.5	6.0	5.2	5.2	4.0	4.0	14	8.6	4.3	4.9	3.3	5.9
16	12	6.8	5.2	5.2	3.6	4.3	12	13	4.9	4.1	3.0	4.9
17	26	6.8	5.0	5.4	3.6	3.9	11	15	15	4.1	2.9	4.9
18	12	6.2	5.2	5.4	3.7	3.9	12	13	12	4.3	2.6	4.5
19	9.6	6.4	5.6	5.7	3.8	4.1	13	12	8.9	4.9	2.6	4.5
20	9.3	6.4	5.6	5.6	4.0	4.3	13	10	9.3	4.7	2.7	4.3
21	8.6	5.7	5.6	5.4	3.4	4.5	13	8.6	8.9	4.7	2.5	4.1
22	8.2	5.2	5.8	5.0	3.4	4.9	14	7.9	8.6	4.5	2.3	4.5
23	7.6	5.0	5.8	5.2	3.6	6.2	15	6.8	11	4.5	2.3	5.1
24	7.0	4.8	5.6	5.4	3.8	8.2	16	7.9	7.6	4.7	2.5	4.7
25	7.0	5.2	5.2	5.6	3.8	17	13	8.6	7.0	4.7	2.5	5.6
26	6.8	5.6	5.0	5.4	3.6	27	5.9	6.5	5.9	4.7	2.5	5.9
27	7.0	5.8	4.6	5.0	3.6	30	6.8	6.5	5.3	4.5	2.5	4.9
28	6.8	5.8	4.8	4.8	3.6	24	10	8.9	4.7	4.7	2.5	4.7
29	6.8	5.6	5.4	4.6	-	20	17	17	4.7	4.3	2.6	4.5
30	7.0	5.6	5.2	4.8	-	18	29	27	4.7	8.2	2.5	4.5
31	8.2	-	5.0	4.6	-	30	-	27	-	11	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	242.2	26	3.5	7.81	480
November	184.6	8.6	4.8	6.15	366
December	166.0	6.0	4.6	5.35	329
Calendar year	-	-	-	-	-
January	162.1	5.7	4.6	5.23	322
February	105.8	4.2	3.4	3.78	210
March	268.0	30	3.6	8.65	532
April	487.3	44	5.9	16.2	967
May	505.0	38	6.5	16.3	1,000
June	231.1	18	4.3	7.70	458
July	151.6	11	3.0	4.89	301
August	103.2	6.5	2.3	3.33	205
September	131.4	8.2	2.3	4.38	261
Water year 1938-39	2,738.3	44	2.3	7.50	5,430

Lake Creek near Cora, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 109°54', in sec. 19, T. 35 N., R. 109 W., just downstream from Willow Lake and 5 miles northeast of Cora.

Drainage area.- 31.6 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 95 second-feet June 29 (gage height, 7.30 feet); minimum daily discharge, 0.6 second-foot Sept. 6.

Remarks.- Records good except those below 5 second-feet, which are fair. Discharge for periods of ice effect or missing gage heights, Nov. 5-7, Nov. 21 to Apr. 13, computed on basis of seven discharge measurements and weather records. Flow partly regulated for irrigation by Willow Lake (capacity, 15,000 acre-feet). No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1, 2, Apr. 14-21, May 21 to June 29, Aug. 11-22)

5.2	0	5.6	1.5	6.0	4.0	6.4	15	7.0	63
5.3	.2	5.7	2.0	6.1	5.4	6.5	21	7.3	96
5.4	.6	5.8	2.6	6.2	7.4	6.6	28		
5.5	1.0	5.9	3.2	6.3	10.5	6.8	44		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	3.1	2.4	2.0	1.6	2.1	1.6	36	75	76	2.7	0.8
2	14	2.8	2.4	2.0	1.6	2.2	1.6	62	75	76	2.5	.8
3	32	2.6	2.4	2.0	2.3	2.2	1.6	64	75	76	2.5	.7
4	30	2.6	2.4	1.9	2.6	2.3	1.6	71	75	76	2.4	.7
5	31	2.4	2.4	1.8	2.7	2.2	1.6	73	75	81	2.3	.7
6	29	2.4	2.4	1.9	2.7	2.2	1.6	74	76	82	2.2	.6
7	25	2.4	2.4	2.1	2.5	2.3	1.5	74	75	82	2.0	.7
8	23	2.3	2.4	2.1	2.4	2.4	1.5	75	75	85	1.8	.7
9	20	2.4	2.4	1.9	2.3	2.5	1.5	75	76	86	1.6	12
10	18	2.3	2.3	1.9	2.3	2.6	1.5	76	76	84	1.5	28
11	16	2.3	2.0	1.8	2.4	2.7	1.5	78	76	84	1.4	24
12	15	2.3	1.9	1.7	2.5	2.7	1.5	80	76	84	1.4	23
13	14	2.3	1.8	1.6	2.6	2.8	1.5	78	75	82	1.4	24
14	13	2.3	1.9	1.5	2.6	2.7	1.5	78	75	81	1.3	24
15	12	2.3	2.0	1.4	2.6	2.5	1.5	80	75	80	1.2	22
16	12	2.2	1.9	1.5	2.6	2.5	1.4	81	75	78	1.2	17
17	13	2.3	2.0	1.5	2.5	2.6	1.4	82	54	76	1.1	15
18	11	2.3	2.1	1.6	2.5	2.6	1.4	83	45	71	1.0	14
19	10	2.4	2.1	1.6	2.5	2.6	1.4	84	45	70	1.0	13
20	9.6	2.4	2.0	1.6	2.0	2.6	1.4	85	45	70	1.0	12
21	9.3	2.2	2.0	1.5	2.0	2.6	1.4	82	45	69	.9	10
22	8.6	2.0	2.0	1.4	2.4	2.6	11	66	60	68	.9	9.0
23	6.8	1.9	2.1	1.6	2.3	2.7	15	66	76	67	.8	8.0
24	6.0	2.0	2.1	1.7	2.3	2.7	16	59	77	70	.8	7.0
25	5.3	2.1	2.1	1.6	2.3	2.7	19	57	77	82	.8	6.4
26	5.0	2.2	1.8	1.6	2.2	1.6	20	58	77	78	.8	5.8
27	4.1	2.5	1.8	1.7	2.2	1.6	20	58	77	76	.8	5.1
28	4.0	2.7	1.9	1.7	2.1	1.6	20	61	76	51	.9	4.7
29	3.8	2.4	2.0	1.7	-	1.6	21	71	69	4.0	.9	3.9
30	3.7	2.5	2.0	1.6	-	1.6	22	72	91	3.4	.9	3.7
31	3.4	-	2.2	1.6	-	1.6	-	75	-	2.9	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	410.0	32	2.4	13.2	813
November	70.9	3.1	1.9	2.36	141
December	65.7	2.5	1.8	2.12	130
Calendar year	-	-	-	-	-
January	53.1	2.1	1.4	1.71	105
February	65.6	2.7	1.6	2.34	130
March	72.2	2.8	1.6	2.33	143
April	195.5	22	1.4	6.52	388
May	2,214	85	36	71.4	4,390
June	2,139	91	45	71.3	4,240
July	2,151.3	86	2.9	69.4	4,270
August	42.8	2.7	.8	1.38	85
September	297.1	28	.6	9.90	589
Water year 1938-39	7,777.2	91	.6	21.3	15,420

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Duck Creek at Cora, Wyo.

Location.- Water-stage recorder, lat. 42°56', long. 110°00', in sec. 4, T. 34 N., R. 110 W., three-quarters of a mile west of Cora.

Drainage area.- 27.0 square miles.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge during period, 65 second-feet Mar. 31 (gage height, 3.07 feet), from rating curve extended above 20 second-feet; minimum daily discharge, 4.9 second-feet Mar. 14.

Remarks.- Records good except those for Nov. 1 to Mar. 10, which are fair. Flow is mainly return water from irrigated lands. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		*6.8	6.6	*6.4	5.7	5.2	14	6.3	6.5	6.8	7.7	7.6
2		*6.8	6.5	*6.4	*5.6	*5.2	8.5	6.2	6.6	7.7	7.7	7.6
3		*6.8	6.5	*6.3	*5.6	*5.3	7.3	6.0	6.5	7.2	7.7	7.6
4		*6.6	6.6	*6.2	*5.6	5.3	6.8	5.9	6.5	6.8	7.8	7.6
5		*6.2	6.6	*6.2	5.6	*5.2	6.2	5.9	6.6	7.0	7.9	7.4
6		*6.2	6.6	6.2	5.6	*5.2	6.1	5.8	6.8	7.6	8.0	7.8
7		*6.6	6.6	*6.2	5.5	*5.1	6.4	5.8	6.6	7.1	8.0	8.2
8		*8.0	6.7	*6.2	5.5	*5.1	6.4	5.8	6.7	6.8	8.0	7.9
9		8.1	6.6	*6.2	*5.5	*5.1	6.2	5.7	7.7	6.9	8.0	7.7
10		7.9	6.6	*6.2	*5.5	*5.1	6.1	6.0	6.7	7.1	8.0	7.7
11		*8.6	6.5	*6.2	5.5	5.0	6.1	7.5	6.6	7.2	7.8	7.6
12		*7.0	6.4	*6.2	*5.4	5.1	6.1	6.2	6.6	7.0	7.8	8.2
13		*6.8	6.3	*6.2	*5.4	5.1	6.4	6.0	6.8	6.9	7.6	9.0
14		*6.8	6.3	6.2	5.4	4.9	6.2	6.0	7.0	7.0	7.6	8.6
15		*6.8	6.4	*6.0	5.4	5.0	6.0	6.0	7.0	6.9	7.5	8.4
16		*6.8	6.4	*5.9	*5.6	5.1	5.8	6.0	7.7	6.8	7.6	8.2
17		*6.8	6.4	*5.8	*5.6	5.2	5.9	6.2	9.1	6.8	7.6	8.2
18		*6.7	6.4	*5.8	5.6	5.4	5.9	6.2	8.3	6 8	7.6	8.2
19		6.7	6.4	*5.8	5.5	5.4	6.0	6.3	8.2	7.0	7.6	8.1
20		*6.6	6.4	5.8	5.4	5.6	6.0	6.4	8.3	7.1	7.6	8.1
21		*6.6	6.4	5.8	5.2	5.7	6.0	6.7	7.9	7.3	7.5	8.1
22		*6.4	6.4	*5.8	5.1	6.0	6.0	6.8	7.5	7.6	7.4	8.2
23		*6.0	6.2	*5.7	*5.1	6.7	6.0	6.8	7.6	7.7	7.4	8.1
24		*6.0	6.2	*5.7	*5.2	8.1	6.2	7.4	6.8	7.9	7.4	7.9
25		*6.0	6.2	*5.7	*5.3	8.6	6.0	7.3	6.6	8 0	7.4	8.8
26		*6.2	6.2	*5.6	5.4	8.8	5.9	6.7	6.9	8 1	7.4	8.1
27		*6.2	6.2	*5.6	*5.3	10	5.8	6.6	6.8	8 2	7.4	7.9
28		6.2	6.2	*5.6	*5.2	27	5.8	6.4	6.9	8.2	7.6	7.9
29		*6.3	6.2	5.6	-	19	5.8	6.4	6.8	8.2	7.5	8.0
30		*6.5	*6.2	*5.6	-	10	6.8	6.5	6.8	8.2	7.5	8.0
31		-	*6.2	*5.6	-	13	-	6.7	-	8 3	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	202.0	8.6	6.0	6.73	401
December	198.4	6.7	6.2	6.40	394
Calendar year	-	-	-	-	-
January	184.7	6.4	5.6	5.96	366
February	152.3	5.7	5.1	5.44	302
March	226.5	27	4.9	7.31	449
April	194.7	14	5.8	6.49	386
May	196.5	7.5	5.7	6.34	390
June	213.4	9.1	6.5	7.11	423
July	228.2	8.3	6.8	7.36	453
August	237.2	8.0	7.4	7.65	470
September	240.7	9.0	7.4	8.02	477
The period	-	-	-	-	4,510

*Gage height missing; discharge computed on basis of weather records.

Pine Creek at Pinedale, Wyo.

Location.- Water-stage recorder, lat. 42°52', long. 109°52', in sec. 33, T. 34 N., R. 109 W., at Pinedale, 3 miles upstream from mouth. Zero of gage is 7,164.3 feet above mean sea level (general adjustment of 1912).

Drainage area.- 118 square miles (revised).

Records available.- April to October 1904, May 1915 to September 1939.

Average discharge.- 24 years, 136 second-feet.

Extremes.- Maximum discharge during year, 440 second-feet June 2 (gage height, 2.64 feet); minimum daily discharge, 20 second-feet Sept. 30.
1904, 1915-39: Maximum discharge, 2,310 second-feet June 17, 1918 (gage height, 5.0 feet); minimum, 2 second-feet Apr. 1-26, May 6-8, 1931.

Remarks.- Records good. Discharge for periods of ice effect, Dec. 4-15, 17-19, 22, 23, 25-28, Dec. 31 to Mar. 22, Apr. 10-15, computed on basis of 10 discharge measurements and weather records; that for periods of missing gage heights, Nov. 21-26, Apr. 17-25, computed on basis of recorded range of stage and weather records. Diversions above station for irrigation. Flow regulated by Fremont Lake. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	109	47	42	29	40	36	87	420	243	137	46
2	31	104	47	40	29	40	37	135	435	256	137	42
3	28	100	48	40	29	40	41	180	415	272	133	38
4	28	104	50	40	29	40	41	205	387	272	129	32
5	36	102	52	38	30	38	40	248	375	267	127	27
6	34	94	52	38	30	38	36	318	362	254	129	29
7	44	87	52	38	30	40	37	344	334	251	111	45
8	60	84	50	36	32	40	38	338	292	248	87	41
9	78	84	50	36	32	40	37	327	256	243	95	59
10	78	81	48	36	34	40	36	324	246	248	99	74
11	75	80	48	36	36	40	37	341	233	248	94	69
12	75	80	48	36	38	40	38	334	236	219	94	60
13	74	76	48	36	40	39	40	321	248	184	94	51
14	74	75	48	35	42	40	44	305	248	212	94	48
15	70	72	42	34	42	42	48	298	254	243	92	47
16	69	70	36	34	42	44	51	344	267	236	89	45
17	111	70	34	34	42	46	48	327	286	219	89	44
18	111	69	32	34	42	48	45	338	302	203	86	42
19	111	66	30	34	40	50	48	348	289	192	83	42
20	111	65	29	34	40	54	50	351	281	199	81	41
21	112	64	27	33	42	56	52	358	298	186	78	41
22	112	62	32	32	42	54	54	338	308	188	55	42
23	114	58	40	32	44	52	55	331	305	196	36	42
24	112	56	42	30	44	51	54	324	286	182	25	41
25	112	52	42	30	44	48	50	302	272	168	27	42
26	111	48	42	30	42	39	44	302	259	184	29	41
27	111	46	40	29	42	36	42	298	267	135	32	30
28	109	51	40	29	42	34	38	286	281	94	44	23
29	107	44	41	29	-	36	37	302	248	99	50	21
30	107	45	39	30	-	34	51	331	207	118	70	20
31	107	-	42	29	-	36	-	348	-	141	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,562	114	28	83.6	5,080
November	2,198	109	44	73.3	4,360
December	1,318	52	27	42.5	2,610
Calendar year 1938	57,888	1,190	-	159	114,800
January	1,064	42	29	34.3	2,110
February	1,060	44	29	37.5	2,080
March	1,315	56	34	42.4	2,610
April	1,305	55	36	43.5	2,590
May	9,333	358	87	301	18,510
June	8,897	435	207	297	17,650
July	6,400	272	94	206	12,690
August	2,574	137	25	83.0	5,110
September	1,265	74	20	42.2	2,510
Water year 1938-39	39,281	435	20	108	77,910

Pole Creek below Little Half Moon Lake, near Pinedale, Wyo.

Location.- Water-stage recorder, lat. 42°53', long. 109°43', in sec. 26, T. 34 N., R. 108 W., 1¼ miles downstream from Little Half Moon Lake and 7 miles east of Pinedale.

Drainage area.- 87.5 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during period, 500 second-feet June 2 (gage height, 5.25 feet); minimum daily discharge, 5.7 second-feet Sept. 21.

Remarks.- Records excellent except those for period of missing gage heights or ice effect, Jan. 2 to Apr. 20, which were computed on basis of five discharge measurements and weather records and are fair. Several small diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 27 to Jan. 1 and Apr. 21 to May 1)

2.7	1.5	3.2	48	4.0	189
2.8	8.5	3.4	75	4.5	305
2.9	17	3.7	126	5.3	514

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	74	38	17	19	18	17	246	482	216	52	14
2	-	71	38	18	18	17	18	288	495	222	49	11
3	-	68	39	19	19	17	16	322	452	222	48	9.4
4	-	69	38	20	20	17	19	360	384	222	47	9.4
5	-	67	38	21	20	17	20	404	325	213	46	7.8
6	-	67	36	21	20	17	21	436	286	207	46	7.8
7	-	65	35	21	20	17	22	433	271	193	46	8.5
8	-	64	34	22	20	17	22	407	257	187	44	8.5
9	-	62	34	22	19	18	23	376	241	174	42	8.5
10	-	61	33	23	18	18	23	360	222	165	41	7.1
11	-	62	33	24	18	18	24	373	209	161	39	7.1
12	-	61	32	23	19	18	24	352	193	152	38	7.1
13	-	58	31	22	18	18	25	325	180	146	37	9.4
14	-	58	29	22	18	18	26	288	171	142	35	9.4
15	-	57	29	22	18	15	26	267	171	138	34	8.5
16	-	56	30	22	18	16	27	269	187	134	32	7.1
17	-	54	28	21	19	17	29	310	216	126	31	7.1
18	-	53	22	21	20	16	32	358	239	121	29	7.8
19	-	53	19	21	20	16	34	394	243	112	28	6.4
20	-	51	19	21	19	16	37	402	241	103	26	6.4
21	-	49	19	20	19	15	41	386	234	96	24	5.7
22	-	49	18	18	20	15	44	358	220	86	22	6.4
23	-	47	18	19	20	15	51	330	211	83	21	7.1
24	-	46	19	20	19	15	61	300	207	75	19	7.1
25	-	45	17	20	19	16	72	276	202	72	18	7.8
26	-	45	16	19	19	16	83	255	198	68	16	7.8
27	85	42	15	19	18	16	93	234	193	64	14	7.1
28	81	41	14	20	18	16	106	222	193	61	16	7.1
29	78	41	13	20	-	15	122	232	198	57	19	6.4
30	77	40	14	20	-	15	167	291	207	58	17	6.4
31	75	-	15	20	-	16	-	399	-	56	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 27-31	396	85	75	79.2	785
November	1,676	74	40	55.9	3,320
December	811	39	13	26.2	1,610
Calendar year	-	-	-	-	-
January	638	24	17	20.6	1,270
February	532	20	18	19.0	1,060
March	511	18	15	16.5	1,010
April	1,327	167	17	44.2	2,630
May	10,253	436	222	331	20,340
June	7,530	495	171	251	14,940
July	4,132	222	56	133	8,200
August	991	52	14	32.0	1,970
September	237.2	14	5.7	7.91	470
The period	-	-	-	-	57,600

Boulder Creek above Boulder Lake, near Boulder, Wyo.

Location.- Water-stage recorder, lat. 42°51', long. 109°37', in sec. 3, T. 33 N., R. 107 W., about 1 mile upstream from Boulder Lake and 9 miles northeast of Boulder.

Drainage area.- 115 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during period, 1,280 second-feet May 30 (gage height, 5.76 feet), from rating curve extended above 700 second-feet; minimum daily discharge, 7.3 second-feet Sept. 6.

Remarks.- Records excellent except those for period of ice effect, Nov. 5 to Apr. 7 (computed on basis of five discharge measurements and weather records), and those for period of missing gage heights, Aug. 22 to Sept. 12 (computed on basis of records for East Fork near Big Sandy, all of which are fair. Records collected in cooperation with Bureau of Reclamation. No diversions above station.

Rating tables, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 30-31)

Oct. 25 to May 29						May 30 to Sept. 30							
3.4	40	3.8	111	4.4	315	2.9	5	3.3	35	3.8	132	4.6	464
3.5	52	3.9	138	4.6	420	3.0	10	3.4	48	4.0	192	5.0	725
3.6	68	4.0	167	5.0	670	3.1	16	3.5	63	4.2	264	5.5	1,100
3.7	86	4.2	232	5.5	1,035	3.2	24	3.6	83	4.4	355	5.7	1,260

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	114	62	28	21	19	36	628	1,140	382	81	8.8
2	-	111	60	26	20	19	38	712	840	371	77	8.4
3	-	101	62	25	20	19	38	870	616	345	69	8.2
4	-	104	58	24	21	19	38	982	551	312	63	7.8
5	-	90	58	24	21	19	38	1,040	610	290	57	7.6
6	-	86	54	26	21	18	40	930	584	266	51	7.3
7	-	88	56	26	21	20	44	768	470	253	47	10
8	-	96	56	28	20	20	44	698	360	237	43	13
9	-	102	54	28	20	20	44	719	371	223	38	13
10	-	98	50	27	19	21	42	782	397	209	33	13
11	-	88	48	27	18	21	41	698	355	202	31	12
12	-	82	44	28	19	20	42	504	341	199	28	11
13	-	78	44	26	19	22	44	426	350	195	25	15
14	-	94	40	27	19	21	48	444	387	189	22	16
15	-	98	42	25	21	21	52	607	464	176	21	18
16	-	104	44	25	20	22	56	906	482	157	19	18
17	-	106	38	26	20	25	57	952	436	143	18	18
18	-	90	36	27	21	30	62	1,000	408	127	18	18
19	-	84	38	27	21	28	81	990	366	114	18	17
20	-	96	40	25	20	28	94	796	341	100	19	17
21	-	72	40	23	20	28	116	656	360	88	18	16
22	-	66	38	21	20	32	135	594	355	81	17	16
23	-	60	34	21	21	32	152	480	360	75	16	16
24	-	62	36	22	22	32	167	498	345	67	14	16
25	111	66	32	21	21	34	183	456	341	63	13	16
26	106	70	28	21	20	34	202	420	360	58	13	21
27	98	72	25	22	19	34	219	426	371	57	13	22
28	94	66	24	22	19	32	290	570	376	56	12	22
29	91	60	26	23	-	32	462	885	387	56	12	22
30	88	60	28	22	-	32	594	1,210	387	57	11	20
31	98	-	26	23	-	34	-	1,200	-	69	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 25-31	686	111	88	98.0	1,360
November	2,564	114	60	85.5	5,090
December	1,321	62	24	42.6	2,620
Calendar year	-	-	-	-	-
January	766	28	21	24.7	1,520
February	564	22	19	20.1	1,120
March	790	34	18	25.5	1,570
April	3,498	594	36	117	6,940
May	22,849	1,210	420	737	45,320
June	13,511	1,140	341	450	26,800
July	5,219	382	56	168	10,350
August	926.2	81	9.2	29.9	1,840
September	446.1	22	7.3	14.9	885
The period	53,140.3	1,210	7.3	146	105,400

Boulder Creek below Boulder Lake, near Boulder, Wyo.

Location.- Water-stage recorder, lat. 42°50', long. 109°43', in sec. 14, T. 33 N., R. 108 W., 1 mile downstream from outlet of Boulder Lake and 5 miles north of Boulder.

Drainage area.- 130 square miles.

Records available.- October 1938 to September 1939. April 1904 to October 1906, May 1915 to October 1924, May 1931 to November 1932, chain gage 4 miles downstream; records not equivalent.

Extremes.- Maximum discharge during period, 1,200 second-feet (Boulder Lake dam failure) Nov. 25 (gage height, 4.54 feet); minimum daily discharge, 0.3 second-foot Oct. 29, Nov. 3, 6, 7.

Remarks.- Records good except those for period of ice effect or missing gage heights, Dec. 30 to Apr. 14, which were computed on basis of five discharge measurements and weather records and are fair. Flow slightly regulated by Boulder Lake (capacity, 11,000 acre-feet). Records collected in cooperation with Bureau of Reclamation. No diversions above station.

Rating table, Oct. 26, 1938, to Sept. 30, 1939, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 25 to Dec. 7, Apr. 28 to May 30, Aug. 22 to Sept. 9)

0.6	0.3	1.1	4.9	1.7	43	2.4	185	4.0	940
.8	.5	1.2	8.0	1.8	58	2.7	280		
.9	1.1	1.4	17	2.0	93	3.0	410		
1.0	2.6	1.6	32	2.2	135	3.5	660		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	0.4	152	36	34	34	36	342	1,050	347	86	25
2	-	.4	133	36	30	34	36	450	1,050	356	84	23
3	-	.3	115	35	31	34	36	575	970	365	82	20
4	-	.4	105	35	34	34	37	688	847	360	80	20
5	-	.4	101	35	36	34	37	770	759	352	77	19
6	-	.3	93	35	37	33	38	808	704	338	75	18
7	-	.3	88	36	36	34	39	792	640	320	72	18
8	-	.4	86	36	35	34	40	748	550	304	66	18
9	-	.4	82	36	34	35	42	720	500	288	63	18
10	-	.4	77	34	31	35	44	742	460	273	60	16
11	-	.4	73	34	32	36	45	770	430	256	56	16
12	-	.4	70	34	33	36	46	715	401	242	54	16
13	-	.4	63	34	32	36	46	620	388	230	50	16
14	-	.4	60	34	32	30	38	550	392	215	49	16
15	-	.4	56	34	35	23	24	535	410	200	46	15
16	-	.4	55	34	35	29	15	635	450	188	43	15
17	-	.4	54	35	35	39	16	748	480	177	42	14
18	-	.4	50	36	37	39	16	830	470	167	40	14
19	-	.5	49	37	36	36	18	904	445	159	39	14
20	-	.5	48	36	35	36	20	916	415	149	36	14
21	-	.5	46	34	33	37	23	880	396	142	35	14
22	-	.5	44	32	35	38	28	808	383	133	34	14
23	-	.6	44	32	36	39	34	737	370	126	34	14
24	-	37	42	33	35	39	43	660	365	115	33	14
25	-	771	42	33	35	38	44	615	360	113	31	14
26	0.4	655	40	33	34	37	66	560	316	107	31	14
27	.4	425	38	33	34	36	79	530	270	101	30	14
28	.4	300	35	33	34	34	89	540	276	95	29	14
29	.3	227	33	34	-	34	120	655	304	91	28	14
30	.4	185	34	34	-	35	206	825	329	91	26	14
31	.4	-	35	35	-	36	-	982	-	88	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 26-31	2.3	0.4	0.3	0.38	4.6
November	2,609.5	771	.3	87.0	5,180
December	2,043	152	33	65.9	4,050
Calendar year	-	-	-	-	-
January	1,068	37	32	34.5	2,120
February	956	37	30	34.1	1,900
March	1,084	39	23	35.0	2,150
April	1,401	206	15	46.7	2,780
May	21,650	982	342	698	42,940
June	15,180	1,050	270	506	30,110
July	6,488	365	88	209	12,870
August	1,537	86	26	49.6	3,050
September	485	25	14	16.2	962
The period	-	-	-	-	108,100

Fall Creek near Pinedale, Wyo.

Location.- Water-stage recorder, lat. 42°51', long. 109°43', in sec. 2, T. 33 N., R. 108 W., at McIntosh ranch, half a mile downstream from Meadow Creek, 3 miles downstream from Burnt Lake, and 8 miles east of Pinedale.

Drainage area.- 37.2 square miles.

Records available.- October 1938 to September 1939. May 1904 to October 1905 at site 1½ miles downstream (published as Fall Creek at Fayette); records equivalent.

Extremes.- Maximum discharge during period, 198 second-feet June 1 (gage height, 4.91 feet); minimum daily discharge, 2.6 feet Sept. 30.
1904-5, 1938-39: Maximum discharge, 480 second-feet June 19-21, 1904 (gage height, 3.00 feet, former site and datum), from rating curve extended above 200 second-feet; minimum daily discharge, 2 second-feet Oct. 8-14, 1905.

Remarks.- Records good except those for period of ice effect, Nov. 21 to Mar. 21 (computed on basis of four discharge measurements and weather records), and those for periods of missing gage heights, Apr. 3-5, 18-26, Sept. 30 (computed on basis of records for Pole Creek near Pinedale), all of which are fair. Practically no diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	16	16	13	9.0	8.5	8.7	82	194	89	17	6.9
2	-	17	16	14	8.7	8.5	8.5	91	181	84	16	6.7
3	-	16	16	14	8.9	8.5	8.5	126	156	78	16	6.7
4	-	17	15	14	9.0	8.5	8.5	153	135	70	16	6.7
5	-	16	15	13	9.0	8.5	8.5	180	126	63	16	6.4
6	-	17	15	13	9.0	8.5	8.5	187	125	58	15	6.7
7	-	16	15	12	9.2	8.6	8.5	176	122	54	15	6.9
8	-	16	16	12	9.2	8.7	8.7	157	109	49	14	6.7
9	-	16	16	12	9.0	8.8	9.0	149	102	45	14	6.4
10	-	16	15	12	8.7	8.8	9.3	154	95	41	13	6.7
11	-	16	14	12	8.5	8.9	9.3	166	92	38	13	6.2
12	-	16	14	12	8.3	9.0	9.7	145	89	37	13	6.0
13	-	16	14	12	8.3	9.0	10	115	86	35	12	6.0
14	-	18	14	11	8.4	9.0	11	102	90	34	11	5.5
15	-	17	14	11	8.5	8.0	11	103	96	31	11	5.3
16	-	15	14	11	8.7	8.3	11	120	103	30	11	5.3
17	-	16	14	10	8.8	8.6	11	146	106	28	10	5.1
18	-	16	14	10	8.9	8.6	11	160	106	27	9.3	4.9
19	-	17	14	11	8.8	8.5	12	168	98	27	9.0	4.9
20	-	17	14	11	8.5	8.5	12	163	96	25	9.0	4.6
21	-	16	14	11	8.5	8.3	13	154	94	24	8.7	4.9
22	-	15	14	11	8.5	8.2	13	139	90	24	8.5	4.2
23	-	15	14	11	8.9	8.5	14	129	91	22	8.2	4.4
24	16	16	13	11	8.9	8.7	15	120	95	22	8.2	3.9
25	16	16	12	10	8.9	9.0	16	116	94	21	8.0	3.5
26	16	18	12	9.1	8.8	8.5	17	102	92	21	8.0	3.0
27	16	17	11	9.2	8.7	8.2	18	86	92	19	7.7	3.0
28	16	16	11	9.4	8.6	7.7	18	89	92	18	7.7	2.8
29	16	15	11	9.4	-	7.7	24	115	92	18	7.7	2.8
30	16	16	12	9.4	-	7.7	37	161	90	18	7.4	2.6
31	16	-	13	9.2	-	8.5	-	193	-	17	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 24-31	128	16	16	16.0	254
November	487	18	15	16.2	966
December	432	16	11	13.9	857
Calendar year	-	-	-	-	-
January	349.7	14	9.1	11.3	694
February	245.2	9.2	8.3	8.76	486
March	263.3	9.0	7.7	8.49	522
April	379.7	37	8.5	12.7	753
May	4,225	193	62	136	8,380
June	3,229	194	86	108	6,400
July	1,167	89	17	37.6	2,310
August	347.6	17	7.2	11.2	689
September	155.7	6.9	2.6	5.19	309
The period	-	-	-	-	22,620

South Piney Creek near Big Piney, Wyo.

Location.- Water-stage recorder, lat. 42°31', long. 110°19', in sec. 9, T. 29 N., R. 113 W., 200 feet downstream from Beaver Creek and 10 miles southwest of Big Piney.

Drainage area.- 117 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during period, 321 second-feet May 31 (gage height, 7.56 feet), from rating curve extended above 200 second-feet; minimum daily discharge, 20 second-feet Jan. 25, Feb. 3, 11, Mar. 2-6.

Remarks.- Records excellent except those for periods of ice effect Nov. 4-7, Nov. 12 to Apr. 13 (computed on basis of eight discharge measurements and weather records) and those for period of missing gage heights, May 3-8, (computed on basis of records for North Piney Creek near Mason), which are fair. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39, except periods of ice effect (gage height, in feet, and discharge, in second-feet)

5.3	20	5.7	48	6.3	124	7.1	247
5.4	26	5.9	68	6.5	154	7.3	279
5.6	40	6.1	94	6.8	199		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		64	34	27	23	21	53	172	265	122	50	28
2		57	36	27	22	20	52	178	242	112	46	25
3		48	37	26	20	20	50	200	221	104	43	24
4		45	38	26	21	20	50	230	207	94	42	23
5		44	39	25	22	20	48	250	205	94	40	24
6		43	37	25	23	20	44	220	213	94	39	23
7		42	35	24	24	21	40	190	209	93	40	25
8		42	33	24	22	21	40	170	198	84	39	28
9		49	31	23	21	22	46	163	209	76	38	26
10		49	30	24	21	22	46	182	194	72	37	25
11		46	30	24	20	23	42	265	170	69	36	24
12		42	29	25	22	24	40	263	156	66	35	27
13		37	28	25	23	25	42	221	148	63	34	30
14		38	27	25	24	27	45	192	150	62	34	31
15		36	27	25	24	29	49	181	152	61	32	28
16		36	29	24	24	32	52	187	166	56	32	27
17		38	28	24	24	34	51	213	190	57	31	25
18		39	27	24	24	38	58	217	178	57	31	24
19		38	26	24	25	42	69	215	166	55	30	24
20		39	26	24	25	48	81	207	157	51	30	22
21		30	27	23	23	54	100	201	140	50	30	22
22		26	27	22	22	60	121	192	122	49	28	22
23		24	27	21	22	66	130	188	114	49	30	24
24		25	28	21	24	74	127	193	108	46	30	24
25		28	29	20	24	76	102	213	108	46	30	27
26		30	28	21	23	78	100	186	106	46	30	27
27		32	26	22	22	76	115	172	104	46	31	25
28		32	27	24	21	72	134	168	103	49	31	24
29		33	28	25	-	64	157	168	104	51	35	24
30		33	29	25	-	60	170	187	116	62	32	24
31	63	-	29	24	-	54	-	277	-	57	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	1,165	64	24	38.8	2,310
December	932	39	26	30.1	1,850
Calendar year	-	-	-	-	-
January	743	27	20	24.0	1,470
February	635	25	20	22.7	1,260
March	1,265	78	20	40.8	2,510
April	2,256	170	40	75.2	4,470
May	6,261	277	163	202	12,420
June	4,923	265	103	164	9,760
July	2,095	122	46	67.6	4,160
August	1,077	50	28	34.7	2,140
September	756	31	22	25.2	1,500
The period	-	-	-	-	43,850

North Piney Creek near Mason, Wyo.

Location.- Water-stage recorder, lat. 32°40', long. 110°21', in sec. 19, T. 31 N., R. 113 W., 4 miles northwest of Mason.

Drainage area.- 58 square miles.

Records available.- May 1915 to October 1916 and October 1931 to September 1939.

Extremes.- Maximum discharge during year, 354 second-feet May 31 (gage height, 3.27 feet); minimum not determined, occurred during winter.
1915-16, 1931-39: Maximum discharge, 613 second-feet June 19, 1916 (gage height, 3.93 feet); minimum not determined, probably occurred during winter.

Remarks.- Records good except those for periods of missing gage heights, Oct. 5-11, 30, 31, which were computed on basis of records for Labarge Creek near Labarge and are fair. No records Nov. 1 to Apr. 21. Several small diversions above station. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31, Apr. 22 to June 13)

1.0	14	1.4	39	2.3	146	3.3	354
1.1	18	1.8	76	2.6	200		
1.2	24	2.1	115	3.1	306		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24						-	132	318	136	60	23
2	24						-	141	271	132	56	22
3	23						-	146	242	126	54	21
4	23						-	166	253	120	51	21
5	36						-	182	277	115	49	21
6	37						-	175	273	112	48	20
7	31						-	164	236	105	47	22
8	57						-	153	196	96	46	23
9	39						-	157	200	91	44	20
10	33						-	159	180	91	44	20
11	30						-	180	169	89	42	19
12	28						-	160	171	86	40	20
13	25						-	143	182	86	38	22
14	24						-	140	193	83	37	20
15	25						-	157	204	80	36	20
16	30						-	175	204	74	34	19
17	42						-	198	184	72	33	19
18	33						-	202	162	69	33	18
19	30						-	212	146	65	32	18
20	30						-	202	132	62	31	18
21	28						-	191	122	61	30	17
22	28						82	187	114	59	30	18
23	27						89	175	112	55	30	18
24	26						96	168	116	59	29	18
25	25						80	162	122	64	28	19
26	25						70	148	132	62	25	19
27	25						73	151	132	60	23	18
28	24						83	171	135	58	24	17
29	23						100	224	141	58	25	17
30	24						116	295	140	63	23	17
31	26						-	335	-	62	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	907	57	23	29.3	1,800
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 22-30	789	116	70	87.7	1,560
May	5,551	335	132	179	11,010
June	5,459	318	112	182	10,830
July	2,551	136	55	82.3	5,060
August	1,145	60	23	36.9	2,270
September	584	23	17	19.5	1,160
Water year	-	-	-	-	-

Middle Piney Creek above Springman Creek, near Big Piney, Wyo.

Location.- Water-stage recorder, lat. 42°36', long. 110°24', in sec. 14, T. 30 N., R. 114 W., 3 miles upstream from Springman Creek, 4 miles upstream from Springman ranch, and 14 miles west of Big Piney.

Drainage area.- 42.1 square miles.

Records available.- October 1938 to July 1939 (discontinued). April 1915 to September 1918 and April 1931 to December 1932 (published as Middle Piney Creek near Big Piney), at several sites, each 2 to 4 miles downstream; only high-water records equivalent.

Extremes.- Maximum discharge during period, 74 second-feet May 31 (gage height, 6.51 feet); minimum daily discharge, 3.2 second-feet Dec. 1, 2, 5, 6.
1915-18, 1931-32, 1938-39: Maximum discharge, 282 second-feet June 16-18, 1918 (gage height, 2.65 feet, former site and datum), from rating curve extended above 170 second-feet; minimum not determined.

Remarks.- Records excellent except those for periods of missing gage heights or ice effect, Dec. 15-18, Dec. 20 to Mar. 31 (computed on basis of five discharge measurements and weather records), those for period of missing gage heights, Apr. 13-27 (computed on basis of recorded range in stage and records for South Piney near Big Piney), and those estimated July 29-31, all of which are fair. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Rating table, Oct. 28, 1938, to July 31, 1939, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 7-20)

5.3	2.8	5.6	9.8	5.9	25	6.5	73
5.4	4.8	5.7	13.5	6.1	39		
5.5	7.0	5.8	19	6.3	55		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	16	3.2	7.4	5.2	5.0	9.0	20	67	65		
2	-	15	3.2	6.0	5.4	5.2	8.7	22	60	62		
3	-	13	3.4	8.2	5.6	5.4	9.2	26	57	59		
4	-	16	3.4	8.0	5.8	5.2	10	30	59	58		
5	-	12	3.2	7.8	6.0	5.2	11	33	63	57		
6	-	9.8	3.2	8.0	6.0	5.2	11	35	63	55		
7	-	8.1	3.8	8.2	5.8	5.4	11	36	58	54		
8	-	8.4	4.6	8.4	5.7	5.4	9.8	36	54	63		
9	-	9.8	5.0	8.4	5.8	5.4	11	36	55	61		
10	-	10	5.7	8.4	6.0	5.5	11	41	53	58		
11	-	9.5	5.5	8.2	6.2	5.6	11	48	50	57		
12	-	8.1	5.5	8.2	6.4	5.8	14	44	49	57		
13	-	7.6	4.8	8.1	6.4	6.2	14	41	52	56		
14	-	6.8	4.6	7.8	6.2	6.0	13	38	53	56		
15	-	6.6	5.0	7.6	6.0	6.2	13	36	57	53		
16	-	6.3	4.8	7.6	5.8	6.2	12	39	57	52		
17	-	6.6	5.0	7.8	5.6	6.6	11	43	54	50		
18	-	5.9	4.8	8.0	5.4	7.2	10	45	49	49		
19	-	5.7	4.8	8.0	5.2	7.8	10	45	45	46		
20	-	5.7	4.6	7.6	5.1	8.2	10	46	43	42		
21	-	5.7	5.0	6.6	5.2	8.4	11	46	40	42		
22	-	6.8	5.4	5.8	5.4	8.8	12	45	38	39		
23	-	4.8	5.8	6.0	5.8	9.4	14	43	49	37		
24	-	4.4	6.0	6.0	5.6	10	12	45	53	33		
25	-	4.0	6.2	5.8	5.6	11	9.0	45	55	33		
26	-	4.0	6.2	5.3	5.4	11	8.6	41	56	32		
27	-	3.6	6.2	6.0	5.2	11	10	40	56	33		
28	16	3.6	6.0	5.8	5.0	10	11	41	59	34		
29	16	3.6	6.0	6.0	-	10	12	45	60	36		
30	15	3.6	6.4	5.6	-	9.4	16	53	64	35		
31	16	-	6.8	5.4	-	9.2	-	67	-	34		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November	231.0	16	3.6	7.70	458
December	154.3	6.8	3.2	4.98	306
Calendar year	-	-	-	-	-
January	224.0	8.4	5.3	7.23	444
February	158.8	6.4	5.0	5.67	315
March	226.9	11	5.0	7.32	450
April	335.3	16	8.6	11.2	665
May	1,253	67	20	40.4	2,490
June	1,628	67	38	54.3	3,230
July	1,498	65	32	48.3	2,970
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	11,330

Labarge Creek near Labarge, Wyo.

Location.- Water-stage recorder, lat. 42°14', long. 110°12', in sec. 18, T. 26 N., R. 112 W., 2 miles south of Labarge.

Drainage area.- 193 square miles.

Records available.- April 1932 to August 1939 (discontinued).

Extremes.- Maximum discharge during period, 350 second-feet May 13 (gage height, 3.02 feet); minimum daily discharge, 4.2 second-feet July 16-19.
1932-39: Maximum discharge, 442 second-feet May 16, 1936 (gage height, 3.57 feet), from rating curve extended above 350 second-feet; no flow July 6-17, 1934.

Remarks.- Records fair. Discharge for periods of ice effect or missing gage heights, Nov. 6 to Apr. 9, computed on basis of two discharge measurements and weather records, and that for periods of missing gage heights, Aug. 15-20, 29-31, computed on basis of records for Fontenelle Creek near Fontenelle. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	65					180	177	79	13	25	
2	57	58					175	189	74	11	38	
3	57	56					170	173	69	9.6	45	
4	57	59					165	165	65	9.6	44	
5	88	57					160	205	64	9.6	40	
6	86	58					120	211	62	9.2	44	
7	72	62					110	223	61	9.2	45	
8	129	70					110	240	60	8.8	40	
9	89	80			*49		140	219	58	6.8	38	
10	74	78					107	221	63	4.8	37	
11	69	76					99	247	58	4.4	32	
12	65	74					104	281	54	4.6	30	
13	61	70					118	276	50	4.4	30	
14	58	70					136	197	48	4.4	29	
15	58	70					156	171	46	4.4	28	
16	65	70					167	177	45	4.2	27	
17	81	70					144	173	35	4.2	24	
18	75	72					135	156	30	4.2	22	
19	69	72					149	141	23	4.2	20	
20	63	70					158	128	17	4.6	23	
21	63	70					160	117	16	5.3	24	
22	60	68					199	109	17	6.2	25	
23	58	64					205	104	17	5.9	31	
24	57	62					203	98	17	6.5	32	
25	58	60					183	98	16	7.1	30	
26	58	58					149	92	15	8.4	28	
27	57	58					128	87	13	14	32	
28	57	58					133	77	13	17	33	
29	57	56					163	58	13	19	34	
30	60	58					167	59	14	27	35	
31	65	-					-	73	-	27	35	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,079	129	56	67.1	4,120
November	1,969	80	56	65.6	3,910
December	1,674	-	-	54	3,320
Calendar year 1938	24,600	255	11	67.4	48,790
January	1,488	-	-	48	2,950
February	1,400	-	-	50	2,780
March	3,875	-	-	125	7,690
April	4,493	205	99	150	8,910
May	4,962	281	58	160	9,840
June	1,212	79	13	40.4	2,400
July	278.6	27	4.2	8.99	553
August	1,000	45	20	32.3	1,980
September	-	-	-	-	-
The period	-	-	-	-	48,450

*Discharge measurement.

Fontenelle Creek near Fontenelle, Wyo.

Location.- Water-stage recorder, lat. 42°06', long. 110°13', in sec. 3, T. 24 N., R. 113 W., 6 miles west of Fontenelle.

Drainage area.- 224 square miles.

Records available.- May 1915 to September 1919 and October 1931 to September 1939.

Extremes.- Maximum discharge during year, 268 second-feet May 12 (gage height, 2.35 feet); minimum daily discharge, 9.4 second-feet July 13-15, 22-27.
1915-19, 1931-39: Maximum discharge observed, 922 second-feet Apr. 19, 1938 (gage height, 4.00 feet, former site and datum), from rating curve extended above 375 second-feet; no flow Aug. 1-5, Aug. 23 to Sept. 15, 1934.

Remarks.- Records excellent except those below 30 second-feet, which are good, and those for period of ice effect and missing gage heights, Nov. 5 to Apr. 4, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Rating table, water year 1938-39, except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 13 to Sept. 30

0.9	7	1.2	34	1.6	96	2.3	255
1.0	15	1.3	46	1.8	136		
1.1	24	1.4	61	2.0	180		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	48	30	24	22	24	155	167	110	17	27	19
2	33	46	32	24	20	26	145	176	106	17	28	19
3	35	39	32	24	20	26	140	173	106	13	25	18
4	34	40	34	24	20	28	135	178	102	13	27	18
5	63	38	36	22	22	28	130	188	91	12	26	19
6	71	38	34	22	22	28	94	202	82	12	27	19
7	50	40	32	22	24	30	89	200	80	11	27	21
8	143	40	32	20	22	30	89	185	75	12	25	23
9	71	43	30	20	22	32	116	171	73	11	24	25
10	50	44	28	20	20	34	98	167	91	11	23	24
11	45	40	28	22	20	36	83	195	73	12	23	24
12	42	36	28	22	22	40	85	255	58	10	23	25
13	40	36	26	22	24	44	100	230	50	9.4	23	26
14	38	34	26	24	24	46	112	178	44	9.4	23	27
15	38	34	26	24	24	54	120	160	39	9.4	20	26
16	42	34	24	22	24	62	120	158	34	10	20	27
17	56	36	24	22	24	80	106	156	40	10	16	25
18	56	36	26	22	24	100	104	162	45	13	16	23
19	48	36	24	24	22	110	118	162	46	13	13	22
20	44	38	24	24	22	130	130	145	44	11	14	21
21	42	36	24	22	22	150	138	147	38	10	16	20
22	42	36	24	22	24	170	151	134	32	9.4	13	20
23	41	34	24	20	24	200	160	130	28	9.4	13	20
24	39	34	26	20	22	210	167	126	24	9.4	13	20
25	38	32	26	22	22	220	165	126	24	9.4	14	23
26	38	32	24	22	22	230	140	114	23	9.4	16	24
27	36	30	24	22	22	225	130	102	21	9.4	17	25
28	36	30	22	24	24	220	126	92	20	10	18	23
29	36	30	22	24	-	180	132	92	19	17	19	22
30	36	30	24	24	-	170	147	94	18	24	20	21
31	39	-	26	24	-	160	-	102	-	29	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,455	143	33	46.9	2,890
November	1,100	48	30	36.7	2,180
December	842	36	22	27.2	1,670
Calendar year 1938	25,572	720	20	70.1	50,710
January	696	24	20	22.5	1,380
February	626	24	20	22.4	1,240
March	3,123	230	24	101	6,190
April	3,725	167	83	124	7,390
May	4,867	255	92	157	9,650
June	1,636	110	18	54.5	3,240
July	382.6	29	9.4	12.3	759
August	631	28	13	20.4	1,250
September	659	27	18	22.3	1,330
Water year 1938-39	19,752.6	255	9.4	54.1	39,170

Blacks Fork above Blacks Fork ranger station, Utah

Location.- Water-stage recorder, lat. 40°56', long. 110°36', in sec. 5, T. 2 N., R. 12 E., 1 mile upstream from Middle Fork and 3 miles upstream from Blacks Fork ranger station.

Drainage area.- 48.8 square miles.

Records available.- October 1937 to June 1939 (discontinued).

Extremes.- Maximum discharge during period not determined; minimum daily discharge, 13 second-feet Nov. 23, probably less during period of no record.
1937-39: Maximum discharge recorded, 643 second-feet June 6, 1938 (gage height, 3.92 feet); minimum daily discharge recorded, 10 second-feet Feb. 18, 1938.

Remarks.- Records good except those for period of ice effect, Nov. 21-29 (computed on basis of weather records), and those for periods of missing gage heights, Apr. 1 to May 14, June 27-30 (computed on basis of records for station at Blacks Fork ranger station), which are poor. No records Dec. 1 to Mar. 31. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22					25	165	194			
2	25	21					26	245	163			
3	26	22					25	240	176			
4	19	22					25	302	203			
5	27	20					25	280	189			
6	27	22					26	240	163			
7	25	26					25	205	130			
8	26	27					25	200	121			
9	24	26					25	245	142			
10	25	25					26	270	108			
11	23	24					27	228	120			
12	21	23					25	180	140			
13	21	25					28	165	158			
14	21	23					32	202	174			
15	62	23					32	232	148			
16	48	19					31	236	118			
17	36	18					38	212	116			
18	31	20					46	200	93			
19	29	21					46	217	81			
20	28	20					59	203	75			
21	26	18					68	191	67			
22	24	16					88	172	70			
23	26	13					100	150	73			
24	25	14					83	138	81			
25	25	15					65	127	87			
26	24	15					70	110	82			
27	24	15					98	114	78			
28	23	14					112	132	70			
29	22	15					112	176	72			
30	23	15					136	217	74			
31	24	-					-	232	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	832	62	19	26.8	1,650
November	599	27	13	20.0	1,190
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,549	136	25	51.6	3,070
May	6,226	302	110	201	12,350
June	3,566	203	67	119	7,070
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-

Blacks Fork at Blacks Fork ranger station, Utah

Location.- Water-stage recorder, lat. 40°58', long. 110°35', in sec. 27, T. 3 N., R. 12 E., half a mile south of Blacks Fork ranger station and 1 mile downstream from East Fork.

Drainage area.- 129 square miles.

Records available.- October 1937 to July 1939 (discontinued).

Extremes.- Maximum discharge during period, 1,020 second-feet May 4 (gage height, 4.83 feet); minimum daily discharge, 31 second-feet Nov. 6, probably less during period of no record.

1937-39: Maximum discharge, 1,400 second-feet June 5, 1938 (gage height, 4.90 feet), from rating curve extended above 850 second-feet; minimum daily discharge, 19 second-feet Feb. 18, 1938.

Remarks.- Records good except those for period of ice effect, Nov. 22-30 (computed on basis of weather records), and those for periods of missing gage heights, Apr. 1-3, June 27 to July 17 (computed on basis of records for neighboring stations), which are fair. No records Dec. 1 to Mar. 31. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	59	52					44	450	498	120		
2	64	47					45	660	402	118		
3	71	44					44	655	450	112		
4	58	50					43	800	525	110		
5	74	55					44	760	459	108		
6	80	31					45	615	370	105		
7	70	48					44	540	286	102		
8	72	57					44	530	266	100		
9	65	58					44	650	323	100		
10	66	41					45	730	238	102		
11	61	33					46	655	254	102		
12	58	35					44	498	299	102		
13	55	77					51	434	333	102		
14	57	71					56	550	370	102		
15	168	67					56	660	330	100		
16	146	41					54	670	249	103		
17	99	32					64	595	249	103		
18	91	44					85	590	188	-		
19	78	55					85	660	152	-		
20	80	55					111	575	128	-		
21	75	52					171	530	100	-		
22	71	42					246	459	101	-		
23	72	33					270	394	105	-		
24	68	34					200	344	120	-		
25	69	35					171	299	154	-		
26	59	36					179	254	124	-		
27	59	36					264	279	128	-		
28	56	35					302	340	130	-		
29	55	36					306	476	128	-		
30	54	37					342	600	122	-		
31	55	-					-	620	-	-		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,255	158	54	72.7	4,470
November	1,369	77	31	45.6	2,720
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,545	342	43	118	7,030
May	16,872	800	254	544	33,470
June	7,581	525	100	253	15,040
July 1-17	1,791	120	100	105	3,550
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-

Blacks Fork near Millburne, Wyo.

Location.- Water-stage recorder, lat. 41°03', long. 110°34', in sec. 35, T. 13 N., R. 117 W., 3 miles downstream from Little West Fork, 4½ miles north of Utah-Wyoming State line, and 15 miles southwest of Millburne.

Drainage area.- 156 square miles.

Records available.- July to September 1939.

Extremes.- Maximum discharge during period, 113 second-feet Sept. 13 (gage height, 0.75 foot); minimum, 36 second-feet Sept. 3 (gage height, 0.25 foot).

Remarks.- Records excellent. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	88	41
2										-	79	38
3										-	77	37
4										-	72	38
5										-	71	46
6										-	72	54
7										-	82	71
8										-	68	60
9										-	61	48
10										-	60	46
11										-	60	54
12										-	56	52
13										-	56	91
14										-	55	94
15										-	54	77
16										-	50	70
17										-	48	65
18										101	46	60
19										100	44	58
20										96	44	56
21										94	44	54
22										93	44	54
23										89	42	56
24										86	44	54
25										84	44	62
26										86	44	58
27										91	49	52
28										86	49	65
29										96	58	59
30										101	49	50
31										94	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July 18-31	1,297	101	84	92.6	2,570
August	1,756	88	42	56.6	3,480
September	1,720	94	37	57.3	3,410
The period	-	-	-	-	9,460

Blacks Fork near Lyman, Wyo.

Location.- Water-stage recorder, lat. 41°27', long. 110°10', in sec. 21, T. 17 N., R. 113 W., 4 miles downstream from Cottonwood Creek and 12 miles northeast of Lyman.

Drainage area.- 821 square miles.

Records available.- October 1937 to September 1939.

Extremes.- Maximum discharge during year, 960 second-feet May 12 (gage height, 3.92 feet); minimum daily discharge, 0.6 second-foot Aug. 19, 20.
1937-39: Maximum discharge, 1,440 second-feet May 17, 1938 (gage height, 4.75 feet); minimum daily discharge, that of Aug. 19, 20, 1939.

Remarks.- Records good except those for period of ice effect, Nov. 5 to Mar. 23 (computed on basis of two discharge measurements and weather records), those for period of missing gage heights, June 16-21 (computed on basis of records for Bear River near Evanston), and those for Aug. 1 to Sept. 30, all of which are fair. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	39				44	119	345	455	16	23	1.5
2	15	44				46	121	430	370	16	4.0	1.1
3	14	47				50	123	420	171	14	2.8	1.0
4	12	46				50	127	355	112	14	2.8	.8
5	31	42				48	119	435	95	11	2.8	1.0
6	43	42				50	100	535	77	12	2.5	1.5
7	27	42				54	104	380	77	11	2.5	2.6
8	65	44				57	100	230	71	11	2.5	3.2
9	30	50				64	90	163	72	11	2.5	2.5
10	27	46				74	96	177	103	10	2.2	2.3
11	21	44				72	88	365	95	9.3	1.2	2.3
12	19	40				80	83	790	76	8.4	1.0	2.3
13	19	42				78	77	630	56	8.4	1.0	2.5
14	17	46	*43			74	80	395	47	7.7	1.0	2.9
15	16	44				84	100	267	43	7.4	1.0	2.9
16	21	44				92	89	272	42	7.4	1.0	2.8
17	71	42				105	82	390	46	7.2	.9	2.8
18	67	40				120	74	395	44	6.7	.7	2.8
19	64	48				160	67	296	42	6.0	.6	2.8
20	57	54				230	77	219	40	5.3	.6	2.8
21	51	52				300	68	242	38	5.1	.7	2.8
22	56	44				370	76	162	38	4.9	.7	3.4
23	56	36				410	125	127	33	4.9	.7	3.5
24	44	42				390	166	133	23	4.9	1.0	3.3
25	41	44				301	144	465	22	4.5	.8	3.4
25	38	48				234	106	395	22	4.7	.7	4.2
27	41	44				188	90	208	23	5.3	.7	4.2
28	37	48				153	84	131	19	4.9	.8	4.0
29	36	50				139	106	103	19	15	.9	3.8
30	37	54				137	208	94	19	137	1.1	3.8
31	39	-				125	-	191	-	174	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,125	71	12	36.3	2,230
November	1,350	54	38	45.0	2,680
December	1,612	-	-	52	3,200
Calendar year 1938	47,997.7	1,350	6.7	132	95,190
January	1,488	-	-	48	2,950
February	1,288	-	-	46	2,550
March	4,369	410	44	141	8,670
April	3,087	208	67	103	6,120
May	9,760	790	94	315	19,360
June	2,392	455	19	79.7	4,740
July	565.0	174	4.5	18.2	1,120
August	67.1	23	.6	2.16	133
September	80.8	4.2	.8	2.69	160
Water year 1938-39	27,183.9	790	.6	74.5	53,910

Peak discharge.- May 2 (8 p.m.) 520 sec.-ft.; May 6 (1 a.m., 5 p.m.) 570 sec.-ft.; May 12 (11 a.m.) 960 sec.-ft.; May 25 (5 p.m.) 570 sec.-ft.; July 30 (11:30 p.m.) 910 sec.-ft.
*Discharge measurement.

East Fork of Smith Fork at China Meadows, near Robertson, Wyo.

Location.- Water-stage recorder, lat. 40°57', long. 110°24', in sec. 6, T. 2 N., R. 14 E., at China Meadows, 4 miles south of Utah-Wyoming State line and 17 miles south of Robertson.

Drainage area.- 36.9 square miles.

Records available.- October 1938 to June 1939 (discontinued).

Extremes.- Maximum discharge during period, 269 second-feet May 4 (gage height, 4.33 feet); minimum not determined, occurred during period of no record.

Remarks.- Records good. None for Dec. 11 to Apr. 22. Discharge for period of ice effect, Nov. 12-16, 22-24, 29, 30, Dec. 3, 4, computed on basis of weather records. No diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	17	10				-	172	138			
2	-	17	11				-	170	110			
3	-	17	11				-	170	118			
4	-	18	11				-	214	138			
5	-	14	11				-	225	122			
6	-	14	11				-	181	102			
7	-	19	11				-	159	85			
8	-	16	9.6				-	159	83			
9	-	17	9.1				-	203	94			
10	-	16	9.6				-	216	77			
11	-	17	-				-	190	81			
12	-	16	-				-	146	88			
13	-	15	-				-	130	94			
14	-	16	-				-	148	98			
15	-	17	-				-	176	90			
16	-	17	-				-	190	77			
17	-	18	-				-	174	85			
18	-	18	-				-	168	74			
19	-	17	-				-	181	66			
20	-	15	-				-	154	58			
21	-	15	-				-	148	53			
22	30	13	-				-	130	52			
23	22	11	-				27	108	51			
24	20	12	-				32	102	52			
25	20	14	-				27	98	54			
26	21	11	-				30	92	50			
27	19	14	-				43	90	49			
28	18	11	-				65	100	50			
29	17	10	-				92	124	49			
30	17	9.6	-				156	152	51			
31	18	-	-				-	161	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 22-31	202	30	17	20.2	401
November	451.6	19	9.6	15.1	896
December 1-10	104.3	11	9.1	10.4	207
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 23-30	472	156	27	59.0	936
May	4,831	225	90	156	9,580
June	2,389	138	49	77.6	4,740
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-

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Smith Fork near Robertson, Wyo.

Location.- Water-stage recorder, lat. 41°09', long. 110°25', in sec. 31, T. 14 N., R. 115 W., 3 miles south of Robertson and 4 miles downstream from confluence of East and West Forks of Smith Fork.

Drainage area.- 144 square miles.

Records available.- October 1938 to June 1939 (discontinued).

Extremes.- Maximum discharge during period of record, 582 second-feet May 5 (gage height, 2.44 feet), from rating curve extended above 300 second-feet; minimum discharge not determined, occurred during period of no record.

Remarks.- Records excellent except those for Apr. 1-4, which were estimated and are fair. No records Nov. 13 to Mar. 31. Diversions above station for irrigation. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	20					41	400	157			
2	-	19					42	390	87			
3	-	15					41	335	73			
4	-	22					41	406	85			
5	-	17					42	478	77			
6	-	14					42	368	69			
7	-	10					40	270	73			
8	-	12					43	222	67			
9	-	15					52	285	75			
10	-	15					37	325	71			
11	-	15					28	320	58			
12	-	17					37	270	64			
13	-	-					52	187	50			
14	-	-					57	204	50			
15	-	-					53	218	58			
16	-	-					50	280	57			
17	-	-					42	260	62			
18	-	-					50	191	60			
19	-	-					64	218	55			
20	-	-					55	166	50			
21	-	-					77	146	46			
22	-	-					94	115	43			
23	-	-					118	89	42			
24	-	-					115	83	45			
25	-	-					83	89	52			
26	22	-					77	87	45			
27	22	-					91	75	43			
28	21	-					174	73	35			
29	20	-					290	75	31			
30	19	-					368	99	35			
31	19	-					-	142	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 26-31	123	22	19	20.5	244
November 1-12	191	22	10	15.9	379
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,396	368	28	79.9	4,750
May	6,866	478	73	221	13,620
June	1,815	157	31	60.5	3,600
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year	-	-	-	-	-

Henrys Fork at Linwood, Utah

Location.- Water-stage recorder, lat. 41°00', long. 109°39', in sec. 23, T. 12 N., R. 109 W., 200 feet north of Wyoming-Utah State line at Linwood. Zero of gage is 5,992.57 feet above mean sea level (general adjustment of 1912).

Drainage area.- 531 square miles.

Records available.- October 1928 to September 1939.

Extremes.- Maximum discharge during year, 603 second-feet July 31 (gage height, 4.21 feet); no flow July 20-27.
1928-39: Maximum discharge, 6,750 second-feet Aug. 3, 1936 (gage height, 7.19 feet, from floodmarks), by slope-area method; no flow several days in 1934, 1935, and 1939.

Remarks.- Records fair except those for periods of ice effect, Nov. 25 to Dec. 4, Dec. 13 to Mar. 17 (computed on basis of three discharge measurements and weather records), and those estimated for periods of missing or unreliable gage heights, July 6-18, Aug. 6-8, 10, 12-15, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	105	65	50	34	36	107	238	197	8.0	20	0.4
2	84	107	65	50	32	38	107	247	146	7.6	15	.4
3	87	95	65	48	35	42	100	271	98	9.0	12	.4
4	93	93	70	46	36	42	112	268	73	9.0	10	.4
5	128	98	76	44	38	40	107	298	69	7.6	8.0	.5
6	172	69	73	43	40	40	91	316	52	6.5	6.0	.5
7	136	56	61	44	42	44	93	304	48	7.0	4.0	.6
8	133	67	59	44	42	46	98	277	40	5.0	1.0	.8
9	100	78	62	44	40	48	95	232	34	3.0	.1	1.0
10	100	95	56	46	40	50	98	232	38	2.0	.2	1.1
11	100	87	52	46	42	48	80	271	40	1.5	.3	1.1
12	98	62	51	40	42	50	76	307	31	1.5	.3	1.2
13	95	59	50	42	44	60	78	265	24	1.0	.3	1.4
14	95	62	55	44	44	80	84	211	20	1.0	.3	1.6
15	93	69	60	46	46	89	93	202	18	.5	.3	13
16	157	91	65	40	40	140	95	226	14	.1	.3	16
17	205	89	65	44	36	200	82	253	11	.1	.3	16
18	170	78	60	46	36	277	73	238	51	.1	.4	12
19	125	105	55	44	34	217	71	229	86	.1	.4	6.9
20	118	102	50	44	32	208	71	223	95	0	.4	4.2
21	120	84	55	40	34	180	75	214	97	0	.4	6.9
22	123	76	50	38	38	172	87	186	74	0	.4	7.6
23	120	64	55	36	42	159	107	157	48	0	.4	20
24	118	58	60	38	40	144	123	133	31	0	.4	11
25	112	60	55	36	38	133	120	125	21	0	.4	9.0
26	110	60	50	34	38	133	105	118	14	0	.4	42
27	107	55	46	36	36	128	95	98	16	0	.4	21
28	107	70	48	38	38	93	100	78	12	.1	.4	17
29	102	65	50	38	-	84	138	69	10	.1	3.8	16
30	102	70	55	38	-	89	194	67	9.5	5.0	7.6	16
31	100	-	50	36	-	95	-	115	-	229	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,594	205	84	116	7,130
November	2,329	107	55	77.6	4,620
December	1,789	76	46	57.7	3,550
Calendar year 1938	41,769.9	796	6.5	114	82,840
January	1,303	50	34	42.0	2,580
February	1,081	46	32	38.6	2,140
March	3,205	277	36	103	6,360
April	2,955	194	71	98.5	5,860
May	6,468	316	67	209	12,830
June	1,517.5	197	9.5	50.6	3,010
July	304.8	229	0	9.83	605
August	96.6	20	.1	3.12	192
September	246.0	42	.4	8.20	488
Water year 1938-39	24,888.9	316	0	68.2	49,360

Peak discharge.- Oct. 5 (10 p.m.) 247 sec.-ft.; May 5 (6 p.m.) 350 sec.-ft.; June 1 (11 a.m.) 244 sec.-ft.; July 31 (1 a.m.) 603 sec.-ft.

Burnt Fork at Burntfork, Wyo.

Location.- Chain gage, lat. 41°02', long. 110°01', in sec. 11. T. 12 N., R. 112 W., a quarter of a mile west of Burntfork and 1 mile upstream from mouth. Zero of gage is 7,098.70 feet above mean sea level (general adjustment of 1912).

Drainage area.- 73 square miles.

Records available.- July 1929 to September 1939.

Extremes.- Maximum discharge observed during year, 69 second-feet May 5 (gage height, 3.06 feet); minimum daily discharge, 0.8 second-feet June 13.
1929-39: Maximum discharge, 4,360 second-feet Aug. 2, 1936 (gage height, 9.60 feet, from floodmarks), by slope-area method; no flow June 27, 30, July 2, 5-7, 17, 18, 25, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 21-27, Dec. 1 to Mar. 14, which were computed on basis of two discharge measurementa and weather records and are fair. Gage read twice daily. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	17	11	7.0	5.2	5.4	7.4	56	2.7	1.4	1.6	1.5
2	20	17	11	7.0	5.0	5.6	5.6	55	2.3	1.4	1.7	1.4
3	20	17	11	6.4	5.0	5.8	6.0	56	2.3	1.3	1.4	1.4
4	20	18	11	6.4	5.2	5.8	6.0	56	2.2	1.2	1.4	1.6
5	36	18	11	6.2	5.4	5.8	5.8	69	2.0	1.2	1.4	2.2
6	32	17	10	6.0	5.6	5.8	6.0	54	1.9	1.4	1.4	2.4
7	27	17	10	5.8	5.8	6.0	7.4	36	1.4	1.1	1.7	3.1
8	21	16	9.0	5.8	5.8	6.2	7.0	28	1.4	1.4	1.4	3.1
9	21	16	8.6	6.2	5.8	6.4	7.6	25	2.0	1.6	1.4	2.7
10	21	14	8.2	6.4	5.8	6.8	6.4	29	2.2	2.0	1.3	3.0
11	20	13	8.2	6.4	6.0	6.8	6.6	25	1.0	2.2	1.3	2.7
12	20	12	8.0	6.0	6.0	7.0	6.6	21	.9	2.4	1.3	3.0
13	32	12	7.6	6.2	6.2	7.0	6.6	17	.8	2.5	1.2	8.7
14	45	12	7.2	6.4	6.6	7.2	6.8	17	1.0	2.6	1.1	8.9
15	41	11	7.8	6.6	6.6	7.2	5.8	18	1.1	2.0	1.3	5.3
16	38	11	8.2	6.2	6.4	8.0	4.5	18	1.2	1.4	1.1	4.4
17	35	11	8.8	6.2	5.8	9.6	3.6	18	1.9	1.1	1.0	4.9
18	36	10	8.8	6.6	5.4	8.7	3.9	16	2.0	1.1	1.1	4.7
19	34	11	8.0	6.6	5.0	10	4.5	15	1.6	1.1	1.4	5.8
20	33	11	7.4	6.2	4.6	10	5.1	11	2.4	1.2	1.8	6.6
21	26	11	7.6	5.8	5.0	11	7.6	9.6	1.5	1.1	1.4	5.3
22	20	10	7.6	5.6	5.6	11	9.6	7.2	1.3	1.0	1.7	4.7
23	20	10	7.4	5.2	5.6	9.6	16	6.6	1.0	.9	1.2	4.9
24	19	11	7.8	5.2	5.6	9.1	15	6.6	1.4	1.0	1.1	4.5
25	19	11	8.0	5.4	5.6	9.1	13	5.6	1.4	1.1	1.4	6.4
26	18	11	7.8	5.2	5.6	7.4	12	4.2	1.4	1.2	1.4	5.6
27	18	11	7.2	5.6	5.4	7.8	13	4.7	1.2	1.1	1.6	5.1
28	17	12	6.4	5.6	5.4	7.4	18	4.0	1.3	1.3	1.5	6.0
29	16	11	7.0	5.6	-	8.0	37	3.9	1.3	1.6	1.6	5.4
30	17	11	7.2	5.4	-	6.6	41	3.5	1.1	1.6	1.7	5.6
31	20	-	7.6	5.2	-	7.6	-	3.4	-	1.7	1.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	780	45	16	25.2	1,550
November	390	18	10	13.0	774
December	262.4	11	6.4	8.46	520
Calendar year 1938	7,296.7	164	-	20.0	14,480
January	186.4	7.0	5.2	6.01	370
February	157.0	6.6	4.6	5.61	311
March	235.7	11	5.4	7.60	468
April	301.4	41	3.6	10.0	598
May	699.3	69	3.4	22.6	1,390
June	47.2	2.7	.8	1.57	94
July	45.2	2.6	.9	1.46	90
August	43.6	1.8	1.0	1.41	86
September	130.9	8.9	1.4	4.36	260
Water year 1938-39	3,279.1	69	.8	8.98	6,510

Yampa River at Steamboat Springs, Colo.

Location.- Water-stage recorder, lat. 40°29', long. 106°50', in sec. 17, T. 6 N., R. 84 W., at Steamboat Springs, a quarter of a mile upstream from Soda Creek. Zero of gage is 6,696.23 feet above mean sea level (general adjustment of 1912).

Drainage area.- 604 square miles.

Records available.- May 1904 to October 1906, October 1909 to September 1926 (monthly discharge only), and October 1933 to September 1939 in reports of U. S. Geological Survey. May 1904 to October 1906 and March 1910 to September 1939 in reports of State engineer.

Average discharge.- 32 years, 496 second-feet (revised).

Extremes.- Maximum discharge during year, 2,960 second-feet May 19 (gage height, 5.05 feet); minimum daily discharge, 34 second-feet July 23, 24.
1904-6, 1909-39: Maximum discharge, 6,820 second-feet June 14, 1921 (gage height, 7.08 feet); minimum daily discharge, 4 second-feet Sept. 8, 1934.

Remarks.- Records good except those for period of ice effect and those estimated, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	110	*153	124	122	*134	493	1,840	2,290	263	232	46
2	110	110	*157	122	*119	*120	608	1,960	1,890	246	168	45
3	107	112	*160	122	*117	120	771	2,000	1,730	221	149	40
4	100	122	*150	124	112	122	961	1,980	1,880	195	143	35
5	95	132	*142	*120	112	124	1,080	2,240	1,870	195	138	38
6	93	107	*135	114	114	*125	842	2,260	1,710	168	140	63
7	95	120	127	104	122	124	685	1,830	1,440	143	140	127
8	102	114	132	117	143	117	758	1,540	1,250	127	135	130
9	112	124	135	117	114	117	849	1,700	1,130	117	130	114
10	114	146	132	120	135	122	679	1,900	1,130	102	114	90
11	102	132	127	120	122	122	631	1,900	1,030	84	114	95
12	95	120	*120	120	*123	127	679	1,830	1,020	72	114	112
13	90	110	*102	120	114	135	816	1,540	1,000	74	104	97
14	93	120	*104	117	112	130	816	1,740	996	70	97	74
15	110	130	*110	117	107	135	816	1,520	927	63	†88	72
16	112	107	*130	114	120	127	727	2,160	810	58	†86	54
17	122	120	*135	112	*121	117	554	2,150	721	50	†81	56
18	124	117	*130	110	*120	110	520	2,410	643	45	†77	50
19	117	114	127	110	120	124	581	2,610	576	43	†74	50
20	110	135	124	112	*120	146	581	2,590	542	38	†70	50
21	107	127	130	110	124	171	608	2,500	620	37	†65	45
22	100	143	127	*110	114	221	830	2,450	598	35	†63	45
23	95	104	127	*105	124	309	1,140	2,480	466	34	61	46
24	95	*104	124	*102	124	442	1,160	2,300	420	34	40	65
25	93	93	122	*100	120	598	1,030	1,890	442	45	40	88
26	97	114	120	*110	117	667	1,030	1,670	433	40	43	79
27	97	110	*118	*120	127	727	1,090	1,610	384	45	45	72
28	97	132	114	124	*130	703	1,320	1,790	334	70	40	86
29	102	146	107	122	-	570	1,610	2,000	301	88	43	130
30	104	*150	120	127	-	451	1,750	1,960	278	154	43	112
31	112	-	124	130	-	438	-	1,950	-	192	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,216	124	90	104	6,380
November	3,635	150	93	121	7,190
December	3,965	160	102	128	7,860
Calendar year 1938	187,253	3,760	86	542	371,500
January	3,596	130	100	116	7,130
February	3,369	143	107	120	6,680
March	7,795	727	110	251	15,460
April	26,015	1,750	493	867	51,600
May	62,300	2,610	1,520	2,010	123,600
June	28,861	2,290	278	962	57,240
July	3,148	263	34	102	6,240
August	2,920	232	40	94.2	5,790
September	2,206	130	35	73.5	4,380
Water year 1938-39	151,016	2,610	34	414	299,600

*Stage-discharge relation affected by ice; discharge computed on basis of weather records.
†Gage height missing; discharge estimated.

Yampa River near Maybell, Colo.

Location.- Water-stage recorder, lat. 40°30', long. 108°02', in sec. 2, T. 6 N., R. 95 W., 3 miles east of Maybell.

Drainage area.- 3,410 square miles.

Records available.- April 1904 to October 1905, June 1910 to November 1912, April 1916 to September 1917, October 1917 to September 1926 (monthly discharge), and October 1933 to September 1939 in reports of U. S. Geological Survey. April 1916 to September 1939 in reports of State engineer.

Average discharge.- 23 years (1916-39), 1,686 second-feet.

Extremes.- Maximum discharge during year, 7,860 second-feet May 7 (gage height, 6.99 feet); minimum daily discharge, 55 second-feet Sept. 4.
1904-5, 1910-12, 1916-39: Maximum discharge observed, 17,900 second-feet May 19, 1917 (gage height, about 10.4 feet, former site and datum), from rating curve extended above 12,000 second-feet; minimum daily discharge, 2 second-feet July 17-19, 1934.

Remarks.- Records excellent except those for period of ice effect, Nov. 24 to Mar. 19, which were computed on basis of three discharge measurements, weather records, and records for White River near Watson, Utah and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	210	275	472	250	280	275	2,110	6,670	5,440	1,010	152	60
2	204	318	472	240	270	275	2,220	7,150	6,420	931	285	57
3	207	334	508	235	255	280	2,580	7,590	5,380	872	394	56
4	197	352	496	240	252	302	3,050	7,610	4,470	808	307	55
5	228	382	520	250	255	307	3,130	7,410	4,810	744	235	56
6	240	376	562	270	256	310	3,160	7,570	5,280	706	207	63
7	204	340	514	280	258	318	2,760	7,610	4,880	650	192	78
8	204	296	394	270	260	320	2,660	6,200	4,070	550	183	113
9	232	302	472	265	255	328	2,560	5,180	3,590	460	194	472
10	250	376	324	265	255	355	2,970	5,580	3,290	388	189	472
11	275	340	329	257	265	364	2,840	6,230	2,920	352	178	364
12	285	352	340	260	265	400	2,520	6,160	2,780	318	161	280
13	280	255	300	260	258	500	2,350	5,900	2,720	260	148	312
14	260	228	288	258	265	580	2,510	5,060	2,850	218	137	448
15	250	290	300	255	270	760	2,920	5,360	2,970	197	132	370
16	245	290	305	260	275	1,100	2,990	6,030	2,960	192	128	307
17	250	312	300	260	250	1,500	2,800	6,560	2,550	178	123	260
18	265	265	280	265	245	1,800	2,060	6,200	2,410	170	111	224
19	280	329	292	265	230	1,600	2,090	6,620	2,050	152	104	200
20	290	329	298	255	235	1,670	2,200	7,000	1,780	139	100	183
21	296	364	322	260	235	1,540	2,260	7,240	1,630	123	92	176
22	270	270	306	250	230	1,720	2,300	6,890	1,620	118	81	170
23	265	240	292	245	228	1,940	2,860	6,290	1,690	111	76	170
24	265	240	300	225	235	1,790	3,490	6,420	1,480	106	77	165
25	255	245	296	210	245	2,060	3,420	6,050	1,400	105	76	168
26	245	260	292	210	260	2,300	3,540	5,060	1,420	105	75	210
27	235	280	280	220	265	2,510	3,750	4,340	1,380	102	72	240
28	240	330	280	250	270	2,760	3,840	4,060	1,280	100	68	265
29	245	394	285	255	-	2,840	4,980	4,240	1,180	100	64	265
30	250	460	300	265	-	2,600	6,010	4,750	1,100	100	62	260
31	245	-	290	270	-	2,300	-	5,380	-	104	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,667	296	197	247	15,210
November	9,424	460	228	314	18,690
December	11,009	562	280	355	21,840
Calendar year 1938	615,288	11,500	184	1,686	1,220,000
January	7,820	280	210	252	15,510
February	7,122	280	228	254	14,130
March	37,704	2,840	275	1,216	74,780
April	88,930	6,010	2,060	2,964	176,400
May	190,210	7,610	4,060	6,136	377,300
June	87,780	6,420	1,100	2,926	174,100
July	10,469	1,010	100	338	20,760
August	4,463	394	60	144	8,850
September	6,518	472	55	217	12,930
Water year 1938-39	469,116	7,610	55	1,285	930,500

Elk River at Clark, Colo.

Location.- Water-stage recorder, lat. 40°43', long. 106°55', in sec. 28, T. 9 N., R. 85 W., at Clark.

Drainage area.- 206 square miles.

Records available.- May 1910 to November 1913, December 1913 to September 1922 (monthly discharge), and October 1933 to September 1939 in reports of U. S. Geological Survey. May 1910 to September 1922 and April 1930 to September 1939 in reports of State engineer.

Average discharge.- 21 years, 377 second-feet.

Extremes.- Maximum discharge during year, 1,860 second-feet May 19 (gage height, 4.22 feet); minimum daily discharge, 34 second-feet Sept. 4.
1910-22, 1930-39: Maximum daily discharge, 4,470 second-feet June 6, 9, 1912; minimum discharge observed, 22 second-feet Apr. 7, 1935 (gage height, 0.62 foot).

Remarks.- Records excellent except those for periods of ice effect or missing gage heights, Nov. 22 to Dec. 2, Dec. 13-18, Dec. 25 to Apr. 17, which were computed on basis of records for Yampa River near Steamboat Springs and are poor. Practically no diversion or regulation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 13)

0.7	34	1.0	75	2.0	360	3.4	1,200
.8	46	1.4	155	2.5	600	4.0	1,680
.9	60	1.7	245	3.0	920		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	74	115				160	1,380	1,540	400	170	45
2	50	72	105				180	1,380	1,140	378	133	42
3	54	69	101				210	1,320	1,050	364	117	38
4	52	70	99				240	1,250	1,250	352	109	34
5	59	69	125				270	1,290	1,340	336	99	41
6	83	60	107				230	1,260	1,250	316	99	155
7	74	81	93				220	948	1,050	288	115	324
8	79	85	89				240	868	941	273	99	230
9	85	89	91				260	1,000	894	252	87	145
10	75	87	91				240	1,130	764	242	81	113
11	70	81	103				200	1,080	764	233	77	147
12	68	87	75				230	1,050	816	227	74	164
13	63	89	76				260	900	894	212	70	135
14	62	105	79				270	1,030	983	197	69	115
15	60	117	90				270	1,210	955	185	69	99
16	59	123	104				260	1,260	848	179	63	91
17	87	109	118				255	1,200	810	170	60	81
18	85	111	118				248	1,350	686	155	57	77
19	72	115	115				239	1,510	572	153	54	75
20	68	123	107				239	1,520	540	147	50	72
21	70	123	109				360	1,380	556	141	49	72
22	66	102	109				618	1,410	495	135	47	75
23	62	109	109				718	1,420	500	127	46	123
24	60	106	109				666	1,260	530	121	46	113
25	63	115	108				572	1,070	530	117	46	111
26	63	99	109				654	934	500	115	46	113
27	60	98	107				777	934	486	113	45	107
28	57	99	105				983	997	464	115	47	95
29	56	104	104				1,130	1,190	446	137	46	115
30	57	114	105				1,240	1,360	418	141	47	95
31	60	-	108				-	1,420	-	139	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,033	87	50	65.6	4,030
November	2,885	123	60	96.2	5,720
December	3,183	125	75	103	6,310
Calendar year 1938	146,260	3,110	-	401	290,100
January	2,790	-	-	90	5,530
February	2,380	-	-	85	4,720
March	3,410	-	-	110	6,760
April	12,439	1,240	160	415	24,670
May	37,311	1,520	868	1,204	74,010
June	24,012	1,540	418	800	47,630
July	6,460	400	113	208	12,810
August	2,263	170	45	73.0	4,490
September	3,244	324	34	108	6,430
Water year 1938-39	102,410	1,540	34	281	203,100

Little Snake River near Dixon, Wyo.

Location.- Water-stage recorder, lat. 41°02', long. 107°32', in sec. 6, T. 12 N., R. 90 W., 600 feet upstream from Willow Creek and 1 mile west of Dixon. Zero of gage is 6,332.81 feet above mean sea level (unadjusted).

Drainage area.- 988 square miles.

Records available.- May 1910 to September 1923, March 1938 to September 1939.

Extremes.- Maximum discharge during year, 3,290 second-feet May 2 (gage height, 5.44 feet); minimum daily discharge, 0.6 second-foot Aug. 24-27.

1910-23, 1938-39: Maximum discharge observed, 8,960 second-feet May 23, 1920 (gage height, 8.3 feet), from rating curve extended above 5,900 second-feet; minimum daily discharge, that of Aug. 24-27, 1939.

Remarks.- Records excellent except those for period of ice effect, Nov. 7 to Mar. 22, which were computed on basis of three discharge measurements and weather records and are fair. Diversion above station for irrigation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 6)

0.6	0.5	1.1	13	1.7	76	2.2	205	3.5	980
.7	1	1.2	20	1.8	94	2.4	280	4.0	1,500
.8	2	1.3	29	1.9	116	2.6	375	4.5	2,080
.9	4	1.5	50	2.0	142	2.8	490	5.0	2,720
1.0	8	1.6	62	2.1	172	3.1	685	5.2	2,980

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	83	89	84	105	108	448	2,920	1,750	40	14	7.2
2	16	109	82	84	100	112	516	2,890	1,500	35	21	5.6
3	16	105	82	83	100	114	652	2,620	1,270	28	14	3.6
4	18	98	84	82	105	111	692	2,580	1,200	24	9.5	2.2
5	22	103	86	80	100	110	825	2,620	1,240	23	7.6	2.0
6	27	70	87	79	96	111	594	2,750	1,150	19	7.2	3.4
7	36	80	87	77	92	113	555	2,170	956	18	6.4	16
8	43	80	86	76	100	114	484	1,850	840	25	6.8	68
9	46	80	85	77	105	116	588	1,970	762	23	9.0	30
10	49	78	82	80	107	119	510	2,150	727	19	7.6	17
11	48	76	80	83	108	122	448	2,050	640	12	6.4	11
12	44	74	78	84	108	124	436	2,080	588	11	5.2	10
13	40	73	76	84	105	128	510	1,750	529	9.5	4.4	16
14	37	71	73	85	100	133	748	1,790	478	8.0	4.4	14
15	43	70	74	86	100	137	783	1,960	419	6.4	5.6	12
16	42	72	76	84	98	142	679	2,150	365	6.0	6.0	10
17	51	74	78	84	98	148	510	2,170	298	5.6	3.6	10
18	73	76	76	88	96	158	460	2,210	248	5.2	1.8	9.5
19	81	80	74	93	98	185	607	2,330	230	5.2	1.3	9.0
20	70	85	77	92	100	250	594	2,470	195	5.2	1.0	8.5
21	66	78	81	91	98	300	720	2,220	192	6.0	.9	8.0
22	73	72	79	91	98	370	1,140	2,110	208	6.0	.8	7.2
23	75	72	78	89	94	466	1,590	2,110	157	6.0	.7	16
24	68	74	80	86	92	555	1,370	1,980	121	5.2	.6	16
25	63	77	81	84	90	594	1,190	2,040	112	3.4	.6	11
26	65	76	79	86	94	672	1,120	1,390	90	4.0	.6	12
27	68	77	76	91	98	741	1,280	1,240	73	4.4	.6	14
28	69	80	74	95	102	535	1,710	1,220	57	9.5	1.4	14
29	66	84	75	100	-	466	2,170	1,290	48	7.6	2.6	14
30	65	89	78	102	-	392	2,510	1,440	42	5.2	2.0	17
31	68	-	81	100	-	380	-	1,580	-	11	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,563	81	15	50.4	3,100
November	2,416	109	70	80.5	4,790
December	2,474	89	73	79.8	4,910
Calendar year	-	-	-	-	-
January	2,679	102	76	86.4	5,310
February	2,787	108	90	99.5	5,530
March	8,136	741	108	262	16,140
April	26,439	2,510	436	881	52,440
May	64,100	2,920	1,220	2,068	127,100
June	16,485	1,750	42	550	32,700
July	396.4	40	3.4	12.8	786
August	156.4	21	.6	5.05	310
September	394.2	68	2.0	13.1	782
Water year 1938-39	128,026.0	2,920	.6	351	253,900

Little Snake River near Lily, Colo.

Location.- Water-stage recorder, lat. 40°32', long. 108°25', in sec. 20, T. 7 N., R. 98 W., 6 miles north of Lily and 6 miles upstream from mouth.

Drainage area.- 3,730 square miles.

Records available.- June to August 1904, May 1922 to September 1927, and October 1933 to September 1939 in reports of Geological Survey. June to August 1904 and May 1922 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,070 second-feet May 3 (gage height, 4.50 feet); no flow July 20-30, Aug. 2 to Sept. 7, Sept. 9.
1904, 1922-39: Maximum discharge, 14,200 second-feet May 27, 1926 (gage height, 10.5 feet); no flow at times in 1924, 1930, 1931, 1934-36, 1939.

Remarks.- Records good except those for period of ice effect or missing gage heights, Nov. 23 to Mar. 26, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	92	210	117	123	150	657	2,660	1,470	38	0.6	0
2	27	92	220	114	121	160	550	2,780	1,630	24	0	0
3	24	98	235	111	123	168	556	3,260	1,710	16	0	0
4	22	100	240	109	125	168	629	2,910	1,470	14	0	0
5	25	100	235	102	127	200	713	2,820	1,240	14	0	0
6	174	104	223	104	130	190	742	2,790	1,110	10	0	0
7	80	107	220	110	130	185	907	2,790	1,080	10	0	0
8	291	132	223	112	129	185	713	2,430	1,040	10	0	.6
9	170	325	230	113	128	190	655	2,020	961	8.5	0	0
10	95	330	235	110	125	192	622	1,990	863	7.5	0	23
11	75	208	230	106	127	198	699	2,140	788	7	0	34
12	75	189	200	105	130	200	629	2,190	750	5	0	14
13	70	85	180	102	134	205	568	2,090	671	3.8	0	8
14	62	140	170	100	138	206	550	2,090	608	3	0	72
15	62	246	165	98	145	220	650	1,820	550	1.8	0	5
16	62	254	163	100	148	244	961	1,920	491	1	0	2.6
17	62	189	164	104	146	280	1,420	2,120	439	.8	0	1.4
18	98	189	162	110	143	315	846	2,240	411	.6	0	1
19	72	277	160	112	140	490	706	2,190	350	.3	0	.9
20	107	286	155	112	140	800	615	2,310	295	0	0	.6
21	129	246	154	111	147	1,100	706	2,500	272	0	0	.6
22	118	241	152	110	150	1,270	692	2,460	229	0	0	.4
23	114	200	150	108	152	1,200	820	2,160	185	0	0	.6
24	114	180	130	101	150	1,100	1,410	2,140	182	0	0	.9
25	111	170	119	103	148	1,050	1,510	2,130	170	0	0	.7
26	107	165	118	109	142	1,020	1,320	1,960	132	0	0	.7
27	107	170	116	113	140	1,040	1,140	1,720	98	0	0	.6
28	107	180	114	117	142	1,170	1,250	1,500	70	0	0	.8
29	100	197	110	120	-	1,280	1,590	1,350	58	0	0	.9
30	98	205	112	120	-	907	2,200	1,290	48	0	0	.8
31	95	-	116	118	-	788	-	1,300	-	8	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,880	291	22	92.9	5,710
November	5,497	330	85	183	10,900
December	5,411	240	110	175	10,730
Calendar year 1938	246,970	7,950	20	677	489,800
January	3,381	120	98	109	6,710
February	3,823	152	121	137	7,580
March	16,871	1,280	150	544	33,460
April	27,056	2,200	550	902	53,660
May	68,070	3,260	1,290	2,196	135,000
June	19,371	1,710	48	646	38,420
July	176.1	38	0	5.68	349
August	.6	.6	0	.02	1.2
September	170.1	72	0	5.67	337
Water year 1938-39	152,706.8	3,260	0	418	302,900

Slater Fork near Slater, Colo.

Location.- Water-stage recorder, lat. 40°59', long. 107°23', in SW¼ sec. 21, T. 12 N., R. 89 W., about 1 mile upstream from mouth and 1½ miles south of Slater.

Drainage area.- 161 square miles.

Records available.- May 1910 to May 1912 and October 1933 to September 1939 in reports of Geological Survey. May 1910 to May 1912 and June 1931 to September 1939 in reports of State engineer.

Extremes.- Maximum discharge during year, 421 second-feet May 3 (gage height, 5.40 feet); minimum daily discharge, 1.2 second-feet July 12.
1910-12, 1931-39: Maximum daily discharge, 1,700 second-feet May 19, 1912; no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936.

Remarks.- Records good except those below 10 second-feet, which are fair, and those for period of ice effect, Nov. 6 to Mar. 18 (computed on basis of two discharge measurements and weather records), and period of missing gage heights, Sept. 5-8 (computed on basis of records for Little Snake River near Dixon, Wyo.), which are poor.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	19	22	21	22	25	47	322	244	15	8.6	5.4
2	13	23	21	20	21	26	55	341	201	14	9.2	3.3
3	13	20	20	20	22	26	72	334	179	13	7.6	2.0
4	13	21	20	20	23	26	86	312	188	9.4	6.4	1.9
5	15	19	21	19	22	25	55	324	195	7.8	5.0	6.8
6	18	13	21	19	22	26	66	331	172	7.2	3.6	16
7	18	18	21	18	22	26	61	242	137	4.9	5.3	29
8	18	18	21	18	22	26	59	223	117	5.0	5.7	25
9	20	18	20	19	23	27	82	245	112	5.0	5.9	16
10	19	17	20	19	24	27	68	258	105	3.4	4.3	14
11	18	17	19	20	24	28	60	245	94	3.7	3.8	12
12	17	17	19	20	24	28	62	250	95	1.2	2.5	24
13	18	16	18	20	23	29	87	202	91	1.4	1.8	21
14	18	16	17	20	22	30	121	209	92	1.4	1.5	16
15	17	16	18	21	22	30	104	228	86	3.6	1.3	14
16	17	17	19	20	22	31	89	234	75	3.8	2.1	12
17	20	17	19	20	22	32	67	248	67	3.7	3.4	11
18	23	18	18	21	22	30	63	258	57	3.4	2.9	9.8
19	22	18	18	22	22	38	80	298	50	3.2	2.6	9.2
20	20	20	19	22	23	40	86	297	47	2.5	3.3	8.7
21	23	18	20	22	24	41	107	250	48	1.8	3.8	8.6
22	23	17	19	22	23	51	197	248	51	1.8	3.7	8.8
23	21	17	18	21	23	56	254	251	38	3.7	3.7	9.0
24	19	18	19	20	22	68	238	231	33	3.4	4.1	10
25	19	19	20	20	23	64	189	197	33	3.4	4.3	10
26	19	18	19	20	23	68	187	173	29	4.6	3.7	14
27	18	19	18	21	24	71	213	167	24	4.7	6.2	13
28	17	20	18	21	25	57	248	174	22	5.6	6.4	12
29	16	21	18	22	-	52	272	200	18	2.3	7.2	12
30	16	22	19	23	-	46	296	230	16	7.0	8.6	12
31	16	-	20	22	-	47	-	245	-	8.0	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	557	23	13	18.0	1,100
November	547	23	13	18.2	1,080
December	599	22	17	19.3	1,190
Calendar year 1938	35,203.9	1,140	4.7	96.4	69,830
January	633	23	18	20.4	1,260
February	636	25	21	22.7	1,260
March	1,197	71	25	38.6	2,370
April	3,671	296	47	122	7,280
May	7,767	341	167	251	15,410
June	2,716	244	16	90.5	5,390
July	158.9	15	1.2	5.13	315
August	146.1	9.2	1.3	4.71	290
September	366.5	29	1.9	12.2	727
Water year 1938-39	18,994.5	341	1.2	52.0	37,670

Ashley Creek near Vernal, Utah

Location.- Water-stage recorder, lat. 40°35', long. 109°37', in sec. 1, T. 3 S., R. 20 E., three-quarters of a mile upstream from head of Utah Power & Light Co.'s canal and 12 miles northwest of Vernal.

Drainage area.- 101 square miles.

Records available.- June 1914 to September 1939. March 1900 to December 1901 (fragmentary), at site just downstream from Dry Fork. October 1911 to June 1914, at power plant 1½ miles downstream.

Average discharge.- 23 years (1914-16, 1918-39), 105 second-feet.

Extremes.- Maximum discharge during year, 649 second-feet Apr. 29 (gage height, 7.62 feet); minimum daily discharge, 30 second-feet Mar. 8-16.
1911-39: Maximum discharge, 2,050 second-feet May 29, 1921; minimum discharge recorded, 16 second-feet Mar. 21, 1937.

Remarks.- Records good except those for periods when recorder clock was not running, Nov. 25-30, Dec. 23-28, Jan. 6 (interpolated) and Jan. 20 to Mar. 23 (interpolated between weekly gage readings), which are fair. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	102	63	45	36	34	45	490	294	89	68	42
2	68	95	63	45	36	34	45	475	201	85	62	40
3	70	93	63	45	36	34	47	480	167	85	59	39
4	70	99	63	44	35	33	47	500	148	83	56	38
5	93	93	62	44	35	32	49	495	142	81	54	39
6	97	87	62	43	34	32	50	418	138	81	53	45
7	85	81	62	42	34	31	52	353	130	81	53	65
8	93	87	60	42	34	30	53	336	128	79	53	70
9	97	89	59	41	34	30	59	365	125	77	52	65
10	95	89	59	41	34	30	60	369	120	75	49	62
11	97	89	59	42	35	30	62	320	118	75	49	62
12	95	81	56	42	35	30	59	276	115	74	47	63
13	95	83	53	42	35	30	57	255	113	74	46	233
14	95	83	53	42	36	30	67	276	111	70	45	156
15	142	83	53	44	36	30	65	287	111	70	45	120
16	210	83	56	42	36	30	62	290	108	70	45	111
17	216	85	56	41	36	31	60	258	108	72	45	104
18	160	83	54	40	35	32	60	248	111	70	45	102
19	138	81	53	39	35	33	72	248	106	70	44	97
20	115	79	52	39	35	34	85	229	106	67	42	95
21	115	77	50	38	34	35	138	213	106	63	41	93
22	118	74	49	38	34	36	216	201	99	60	41	93
23	113	72	49	37	34	37	239	184	95	60	40	106
24	106	70	48	37	34	38	192	181	95	57	39	132
25	104	69	47	36	34	38	184	175	95	56	40	115
26	104	68	46	36	34	38	184	172	93	57	41	106
27	102	67	45	36	34	39	229	161	93	57	40	95
28	99	66	44	36	34	39	324	156	91	56	40	106
29	99	65	44	36	-	39	461	153	91	54	40	104
30	99	64	44	36	-	40	531	167	91	59	40	93
31	102	-	44	36	-	42	-	198	-	63	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,360	216	68	108	6,660
November	2,437	102	64	81.2	4,830
December	1,671	63	44	53.9	3,310
Calendar year 1938	42,933	900	20	118	85,140
January	1,247	45	36	40.2	2,470
February	974	36	34	34.8	1,930
March	1,051	42	30	33.9	2,080
April	3,854	531	45	128	7,640
May	8,929	500	153	288	17,710
June	3,649	294	91	122	7,240
July	2,170	89	54	70.0	4,300
August	1,456	68	39	47.0	2,890
September	2,691	233	38	89.7	5,340
Water year 1938-39	33,489	531	30	91.8	66,400

Peak discharge.- Oct. 16 (10 p.m.) 340 sec.-ft.; Apr. 29 (9 p.m.) 649 sec.-ft.; Sept. 13 (2 p.m.) 451 sec.-ft.

Duchesne River at Provo River Trail, near Hanna, Utah

Location.- Water-stage recorder, lat. 40°37', long. 110°54', in SE¼ sec. 27, T. 3 N., R. 9 W., Uinta meridian, 400 feet downstream from Provo River Trail bridge, 7 miles upstream from Hades Creek, and 12 miles northwest of Hanna. Altitude, about 8,120 feet.

Drainage area.- 39 square miles.

Records available.- July 1929 to September 1933 and October 1935 to September 1939.

Extremes.- Maximum discharge during year, 384 second-feet May 15 (gage height, 2.65 feet); minimum discharge recorded, 6 second-feet Aug. 25.
1929-33, 1935-39: Maximum discharge recorded, 588 second-feet June 24, 1932; minimum, 1 second-foot (estimated), Aug. 30, 31, 1931.

Remarks.- Records good except those for periods of missing gage heights, Nov. 5 to May 8, Aug. 15-22, which were computed on basis of records for other stations on Duchesne River and are fair. Records show flow of river at proposed diversion tunnel to Provo River. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17						180	230	37	16	8
2	12	16						220	192	34	14	7
3	14	17						220	189	33	13	7
4	12	17						250	192	31	13	7
5	16	-						300	174	29	12	10
6	16	-						280	164	29	14	14
7	13	-						260	127	28	15	16
8	14	-						250	114	26	12	12
9	14	-						302	122	25	11	10
10	14	-						315	104	24	10	10
11	13	-						285	99	24	10	11
12	12	-						233	94	23	10	12
13	11	-						242	94	23	9	19
14	11	-						302	94	21	9	16
15	29	-						333	87	21	9	13
16	29	-						322	78	20	9	12
17	24	-						289	78	19	8	11
18	21	-						279	71	18	8	10
19	18	-						305	64	18	8	10
20	19	-						282	61	16	8	9
21	18	-						260	55	16	7	9
22	18	-						227	51	15	7	9
23	17	-						197	50	14	7	10
24	16	-						172	49	14	7	10
25	16	-						156	52	13	7	12
26	16	-						150	45	13	7	12
27	15	-						161	42	13	8	10
28	15	-						184	41	14	9	14
29	14	-						219	39	16	14	12
30	15	-						242	38	26	9	10
31	17	-						251	-	20	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	499	29	10	16.1	990
November	450	-	-	15	893
December	403	-	-	13	799
Calendar year 1938	19,196	600	-	52.6	38,080
January	372	-	-	12	738
February	280	-	-	10	555
March	403	-	-	13	799
April	1,500	-	-	50	2,980
May	7,666	333	150	247	15,210
June	2,880	230	38	96.0	5,710
July	673	37	13	21.7	1,330
August	308	16	7	9.9	611
September	332	16	7	11.1	659
Water year 1938-39	15,766	333	-	43.2	31,270

Duchesne River near Tabiona, Utah

Location.- Water-stage recorder, lat. 40°18', long. 110°36', in SW¼ sec. 17, T. 2 S., R. 6 W., Uinta meridian, 5½ miles upstream from Rock Creek and 8 miles southeast of Tabiona.

Drainage area.- 352 square miles.

Records available.- January 1919 to September 1939.

Average discharge.- 20 years, 209 second-feet.

Extremes.- Maximum discharge during year, 811 second-feet May 5 (gage height, 5.86 feet); minimum, 53 second-feet Sept. 5.

1919-39: Maximum discharge, about 2,500 second-feet June 13, 1921, from rating curve extended above 1,100 second-feet; minimum discharge recorded, 27 second-feet Oct. 17, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 23-29, Dec. 1 to Mar. 8, which were computed on basis of three discharge measurements, temperature records, and records for other stations on Duchesne River and are fair. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	144				90	144	528	466	90	93	60
2	114	139				90	150	610	405	87	90	59
3	128	141				90	148	610	371	86	66	58
4	128	146				90	155	682	359	82	62	56
5	174	146				90	160	763	344	81	81	55
6	155	128				90	153	698	317	81	86	65
7	137	131				90	150	666	286	84	87	71
8	139	141				90	150	632	268	107	78	61
9	139	144				91	167	686	258	107	74	57
10	135	141	*118			89	167	739	255	111	70	56
11	128	144				87	155	769	232	111	70	63
12	124	141				89	155	676	226	107	70	86
13	118	146		*89		106	157	595	217	104	66	104
14	128	139				110	162	622	206	102	63	90
15	160	135				102	164	671	195	98	63	80
16	174	131				162	172	666	184	95	61	81
17	162	131				180	172	627	173	92	57	81
18	146	131			*96	180	177	543	173	92	60	76
19	146	144				211	198	579	166	93	61	74
20	146	139				198	209	574	154	95	66	78
21	144	126				184	236	524	145	97	67	78
22	144	114				172	288	460	136	97	67	78
23	139	110				167	331	417	127	95	67	81
24	139	114				164	321	388	123	93	67	93
25	139	116				174	288	359	121	93	66	104
26	139	118				172	263	344	113	93	67	102
27	137	116				162	263	325	102	95	70	100
28	131	116				153	311	321	97	93	71	111
29	133	118				139	399	344	95	97	92	111
30	131	118				141	472	388	92	102	68	104
31	139	-				139	-	413	-	105	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,318	174	114	139	8,560
November	3,948	146	110	132	7,830
December	3,565	-	-	115	7,070
Calendar year 1938	83,427	1,460	70	229	165,500
January	2,945	-	-	95	5,840
February	2,520	-	-	90	5,000
March	4,092	211	87	132	8,120
April	6,437	472	144	215	12,770
May	17,241	769	321	556	34,200
June	6,408	466	92	214	12,710
July	2,965	111	81	95.6	5,880
August	2,228	93	57	71.9	4,420
September	2,375	111	55	79.2	4,710
Water year 1938-39	59,042	769	55	162	117,100

Peak discharge.- Oct. 5 (5 p.m.) 424 sec.-ft.; Mar. 16 (7 p.m.) 321 sec.-ft.; Mar. 17 (8 p.m.) 321 sec.-ft.; May 5 (9:30 a.m.) 811 sec.-ft.

*Discharge measurement.

Duchesne River at Duchesne, Utah

Location.- Water-stage recorder, lat. 40°09'55", long. 110°23'50", in SW¼NE¼ sec. 1, T. 4 S., R. 5 W., Uinta meridian, in Duchesne, half a mile upstream from Strawberry River.

Drainage area.- 660 square miles.

Records available.- December 1917 to September 1939.

Average discharge.- 22 years, 378 second-feet.

Extremes.- Maximum discharge during year, 1,310 second-feet May 11 (gage height, 3.87 feet); minimum, 53 second-feet Sept. 3.
1917-39: Maximum discharge observed, 4,420 second-feet June 10, 1922 (gage height, 8.65 feet, former site and datum); minimum observed, 15 second-feet July 11, 1931.

Remarks.- Records good except those for period of ice effect, Dec. 29 to Mar. 13, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	157	270	250			170	228	782	871	176	141	73
2	163	262	232			170	228	871	690	166	126	61
3	176	246	246			170	238	880	623	163	117	53
4	179	254	232			170	235	940	630	150	111	58
5	199	270	228			170	235	1,090	602	144	109	68
6	286	232	228			170	235	1,040	540	132	117	114
7	228	217	232			170	228	960	482	129	135	173
8	228	246	232			170	220	930	447	144	117	132
9	224	254	228			170	243	1,020	424	160	103	84
10	213	254	239			170	250	1,180	424	157	89	79
11	203	254	199			170	235	1,200	393	147	89	89
12	193	213	193			170	228	1,110	395	150	81	158
13	186	239	166			180	228	900	393	141	76	246
14	193	250	169			186	228	950	403	135	73	220
15	232	243	217	*169		166	232	1,110	387	126	79	169
16	325	250	224			196	239	1,180	358	120	73	144
17	321	250	203		*154	270	243	1,100	330	114	68	147
18	286	232	189			299	250	930	321	114	73	144
19	266	246	217			308	274	991	312	117	79	135
20	262	246	217			321	294	991	299	126	97	135
21	262	235	210			294	312	910	274	129	97	129
22	254	203	199			278	377	817	250	132	97	135
23	250	199	169			266	441	705	239	132	81	144
24	250	210	182			258	453	645	239	129	86	153
25	243	232	179			258	414	594	250	132	86	173
26	243	239	166			270	372	559	235	132	86	179
27	239	235	157			282	363	546	213	132	92	169
28	228	232	166			266	408	573	199	129	97	169
29	236	239	175			235	552	660	193	153	114	193
30	235	239	180			224	698	764	182	179	109	176
31	250	-	185			220	-	862	-	169	79	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,209	325	157	233	14,300
November	7,191	270	199	240	14,260
December	6,309	250	157	204	12,610
Calendar year 1938	136,786	2,900	130	375	271,300
January	5,580	-	-	180	11,070
February	4,760	-	-	170	9,440
March	6,817	321	170	220	13,520
April	9,171	698	220	306	18,190
May	27,790	1,200	546	896	55,120
June	11,601	871	182	387	23,010
July	4,359	179	114	141	8,650
August	2,977	141	68	96.0	5,900
September	4,102	246	53	137	8,140
Water year 1938-39	97,866	1,200	53	268	194,100

Peak discharge.- Oct. 6 (2:30 a.m.) 424 sec.-ft.; May 11 (9 a.m.) 1,310 sec.-ft.; Sept. 12 (9 p.m.) 714 sec.-ft.
*Discharge measurement.

Duchesne River at Myton, Utah

Location.- Water-stage recorder, lat. 40°12', long. 110°03', in NW¼ sec. 25, T. 3 S., R. 2 W., Uinta meridian, at Myton, 3 miles downstream from Lake Fork.

Drainage area.- 2,750 square miles.

Records available.- October 1899 to November 1910, July 1911 to September 1939.

Average discharge.- 31 years (1899-1902, 1911-39), 643 second-feet.

Extremes.- Maximum daily discharge during year, 1,200 second-feet May 10, 11 (computed on basis of records for station at Duchesne); minimum discharge, 7 second-feet July 22.

1899-1939: Maximum discharge observed, 12,800 second-feet June 10, 1922 (gage height, 7.94 feet), from rating curve extended above 8,000 second-feet; minimum, less than 1 second-foot July 16, 1931, and on several days in August and September 1934.

Remarks.- Records good except those for period of ice effect, Jan. 1 to Mar. 16, and period of missing gage heights, May 9-22, which were computed on basis of records for other stations on Duchesne River and temperature records and are fair. Large diversions for irrigation above station. Flow affected by storage in reservoir on Strawberry River.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	425	425			300	456	904	822	26	50	19
2	213	440	405			300	471	928	702	23	27	12
3	213	405	430			300	482	946	609	22	20	9
4	218	425	451			300	487	964	582	23	17	10
5	387	446	446			300	497	1,080	539	29	13	13
6	466	405	430			310	508	1,040	456	26	22	20
7	405	340	430			310	482	964	400	23	29	148
8	385	380	446			310	461	940	360	23	24	179
9	350	425	425			310	476	1,050	326	20	19	93
10	321	440	446			310	518	1,200	326	22	16	55
11	297	440	395			320	482	1,200	287	19	17	60
12	282	395	350			350	446	1,100	259	19	17	78
13	268	355	302	*287		400	461	900	254	22	17	463
14	263	405	297			500	451	950	218	22	17	642
15	278	425	340			450	440	1,100	192	20	13	400
16	440	451	415		*316	350	415	1,150	175	16	12	278
17	518	482	380			502	410	1,100	160	14	11	192
18	492	415	340			857	390	950	163	12	8	175
19	451	405	360			898	405	1,000	171	10	8	183
20	430	430	400			869	461	1,000	156	9	11	167
21	420	410	395			742	466	900	102	10	11	160
22	410	355	370			674	534	800	81	8	10	163
23	380	316	321			636	620	697	62	8	11	167
24	370	340	292			620	691	669	62	7	12	179
25	355	350	302			582	652	642	72	7	12	218
26	360	375	287			560	598	576	68	7	14	254
27	390	385	292			609	560	502	50	10	12	245
28	365	375	263			620	560	593	36	11	12	218
29	355	385	292			523	674	550	24	14	17	240
30	355	405	331			492	822	609	29	29	23	175
31	400	-	326			451	-	753	-	193	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,055	518	213	357	21,930
November	12,030	482	316	401	23,860
December	11,384	451	263	367	22,580
Calendar year 1938	195,379	3,380	30	535	387,500
January	9,920	-	-	320	19,680
February	8,400	-	-	300	16,660
March	15,055	898	300	486	29,860
April	15,376	822	390	513	30,500
May	27,757	1,200	502	895	55,060
June	7,743	822	24	258	15,360
July	704	193	7	22.7	1,400
August	536	50	8	17.3	1,060
September	5,215	642	9	174	10,340
Water year 1938-39	125,175	1,200	7	343	248,300

*Discharge measurement.

Rock Creek near Mountain Home, Utah

Location.- Water-stage recorder, lat. 40°30', long. 110°35', in SW¼ sec. 9, T. 1 N., R. 6 W., Uinta meridian, at Lower Stillwater dam site "B", a third of a mile upstream from Corral Creek, 7 miles downstream from South Fork, and 12 miles northwest of Mountain Home. Prior to Apr. 12, 1939, staff gage, at site 300 feet upstream, different datum.

Drainage area.- 149 square miles.

Records available.- November 1937 to September 1939.

Extremes.- Maximum discharge during year, 745 second-feet May 16 (gage height, 4.09 feet); minimum discharge observed, 42 second-feet Mar. 6.
1937-39: Maximum discharge observed, 1,790 second-feet June 4, 1938 (gage height, 11.19 feet, former datum); minimum observed, 32 second-feet Jan. 7, 1938.

Remarks.- Records fair prior to Apr. 12, when staff gage was read once daily, and good thereafter. Discharge for periods of missing gage heights, Oct. 13-14, Nov. 24 to Dec. 7, Dec. 11-20 computed on basis of records for Duchesne River at Duchesne. Discharge for Feb. 1 to Apr. 11 interpolated between staff gage readings made every other day. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	94	70	66	60	66	64	365	519	149	87	50
2	80	90	65	64	64	67	68	419	434	145	83	47
3	90	84	70	56	58	65	71	423	431	139	79	46
4	92	94	65	53	53	64	74	511	454	136	76	48
5	86	88	65	62	54	53	78	588	415	131	74	57
6	106	78	65	57	54	42	76	540	365	128	80	80
7	94	80	65	59	51	44	74	519	308	126	89	100
8	96	80	72	62	49	46	74	527	290	120	76	81
9	92	84	56	64	51	45	74	601	293	117	70	67
10	86	88	72	44	53	44	72	664	266	114	66	63
11	90	90	55	64	53	44	71	642	266	114	65	71
12	86	94	50	67	53	43	75	532	269	110	64	80
13	84	90	40	62	53	54	72	486	278	107	61	131
14	90	88	45	56	53	64	72	570	290	104	63	120
15	166	84	65	47	56	58	72	668	275	101	59	90
16	188	84	65	60	59	51	79	673	234	97	58	81
17	149	86	60	62	60	48	74	601	232	94	55	76
18	140	99	60	56	60	46	81	544	210	93	56	71
19	127	96	65	53	54	58	97	601	197	89	56	69
20	117	84	65	54	47	69	96	584	191	87	55	66
21	110	88	65	57	50	64	122	549	177	84	52	66
22	101	90	60	72	53	59	152	494	172	81	51	67
23	94	47	55	54	58	65	172	446	172	80	50	69
24	90	50	60	54	64	71	159	397	175	79	50	69
25	86	65	60	59	55	68	142	354	179	80	49	84
26	90	70	55	47	46	64	137	341	172	79	49	87
27	88	70	55	51	55	62	150	361	163	80	51	74
28	86	65	55	53	64	59	204	412	159	80	52	88
29	90	70	60	49	-	60	272	490	154	84	63	88
30	89	70	62	47	-	60	324	566	152	105	59	75
31	101	-	57	56	-	62	-	582	-	101	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,149	188	66	102	6,250
November	2,440	99	47	81.3	4,840
December	1,879	72	40	60.6	3,730
Calendar year 1938	65,650	1,790	32	180	130,200
January	1,767	72	44	57.0	3,500
February	1,540	64	46	55.0	3,050
March	1,765	71	42	56.9	3,500
April	3,348	324	64	112	6,640
May	16,030	673	341	517	31,800
June	7,892	519	152	263	15,650
July	3,244	149	79	105	6,430
August	1,952	89	49	63.0	3,870
September	2,261	131	46	75.4	4,480
Water year 1938-39	47,267	673	40	129	93,740

Strawberry River at Duchesne, Utah

Location.- Staff gage, lat. 40°10', long. 110°25', in SW¼NE¼ sec. 2, T. 4 S., R. 5 W., Uinta meridian, three-quarters of a mile west of Duchesne and 1½ miles upstream from mouth.

Drainage area.- 1,040 square miles.

Records available.- June 1908 to November 1910, March 1914 to September 1939.

Average discharge.- 25 years (1914-39), 169 second-feet.

Extremes.- Maximum discharge observed during year, 1,140 second-feet Mar. 18 (gage height, 6.8 feet), from rating curve extended above 800 second-feet; minimum observed, 20 second-feet Aug. 24.

1908-10, 1914-39: Maximum discharge observed, 3,230 second-feet May 27, 1922, from rating curve extended above 1,500 second-feet; minimum observed, 1 second-foot on several days in July 1931.

Remarks.- Records fair. Gage read twice daily. Discharge for periods of ice effect, Nov. 26 to Dec. 4, Dec. 15 to Mar. 18, computed on basis of two discharge measurements, record for stations on Duchesne River, and temperature records. Diversions above station for irrigation. Water diverted from Strawberry Valley Reservoir (capacity, 250,000 acre-feet) to Great Salt Lake Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	74	80			55	150	285	144	61	67	46
2	83	77	80			55	156	291	139	58	63	43
3	84	74	90			55	171	291	133	56	54	41
4	85	74	110			55	177	288	126	53	51	39
5	96	75	128			55	198	279	121	51	46	42
6	100	71	125			60	200	270	115	49	59	49
7	96	66	106			60	177	250	112	46	52	79
8	91	70	104			60	182	247	110	43	51	69
9	91	72	89			60	206	236	106	42	46	57
10	88	72	86			60	203	220	106	41	42	54
11	85	74	86			70	177	220	103	38	39	55
12	84	70	86	*64		80	173	234	99	38	38	55
13	82	66	86			100	175	234	94	37	36	104
14	80	74	86			200	173	220	91	36	33	67
15	88	71	82			150	171	203	88	34	31	58
16	102	69	80			100	167	196	85	34	29	55
17	109	74	80			400	169	198	82	34	28	56
18	85	82	80		*52	800	162	193	82	32	26	53
19	84	83	83			464	169	193	82	30	24	50
20	80	88	85			307	173	189	85	28	24	49
21	80	82	85			218	186	184	80	26	23	47
22	80	86	82			213	210	175	76	24	22	49
23	78	82	80			193	234	167	75	23	22	50
24	76	79	80			184	228	167	75	22	20	57
25	74	79	75			189	226	160	72	25	20	55
26	74	80	73			191	216	156	70	27	24	53
27	72	80	70			193	208	150	68	28	23	51
28	72	80	65			175	216	146	64	28	42	53
29	69	80	60			148	236	143	63	36	61	59
30	69	80	65			143	256	143	61	150	66	53
31	70	-	65			144	-	146	-	94	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,591	109	69	83.6	5,140
November	2,284	88	66	76.1	4,530
December	2,632	128	60	84.9	5,220
Calendar year 1938	58,571	1,000	54	160	116,200
January	2,015	-	-	65	4,000
February	1,540	-	-	55	3,050
March	5,237	800	55	169	10,390
April	5,745	256	150	192	11,400
May	6,474	291	143	209	12,840
June	2,807	144	61	93.6	5,570
July	1,324	150	22	42.7	2,630
August	1,215	67	20	39.2	2,410
September	1,648	104	39	54.9	3,270
Water year 1938-39	35,512	800	20	97.3	70,450

*Discharge measurement.

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Currant Creek near Fruitland, Utah

Location.- Water-stage recorder, lat. 40°12', long. 110°54', in SE¼ sec. 21, T. 3 S., R. 9 W., Uinta meridian, 200 feet below Deep Creek, 250 feet downstream from bridge on U. S. Highway 40, and 3½ miles southwest of Fruitland.

Drainage area.- 142 square miles.

Records available.- January 1935 to September 1939.

Extremes.- Maximum discharge during year, 283 second-feet Oct. 5 (gage height, 2.65 feet); minimum, 9 second-feet Aug. 20.
1935-39: Maximum discharge observed, 370 second-feet May 16, 1938 (gage height, 3.15 feet); minimum observed, 5 second-feet Feb. 14, 1935.

Remarks.- Records good except those for period of ice effect, Jan. 7 to Mar. 3, which were computed on basis of two discharge measurements, temperature records, records for Spanish Fork near Castilla and are fair. Discharge for Mar. 4-23 based on daily gage readings. Currant Creek feeder canal, constructed by Bureau of Reclamation in 1936, diverts water from headwaters of Currant Creek to Strawberry Reservoir, from which it is further diverted through Strawberry tunnel to the Great Basin for irrigation in Strawberry Valley Project.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	39	27	26	19	23	53	142	81	29	21	12
2	29	37	25	27	17	23	57	144	75	28	19	12
3	31	33	26	27	20	23	62	133	70	27	17	12
4	29	35	28	26	23	24	73	138	67	26	16	13
5	53	36	28	26	26	25	75	133	64	25	15	16
6	37	27	27	28	25	27	67	120	60	24	18	24
7	31	28	28	26	25	28	62	114	58	24	21	21
8	33	29	29	19	26	27	67	110	55	24	18	18
9	32	30	28	20	25	27	79	102	52	23	15	16
10	31	33	28	23	20	24	67	103	51	21	15	16
11	30	32	24	25	21	27	61	98	50	19	15	18
12	28	21	20	28	24	30	60	100	48	21	14	21
13	28	24	16	26	26	24	64	102	48	34	14	22
14	29	27	24	25	25	25	65	99	48	38	14	21
15	46	28	28	24	25	32	64	102	47	44	14	18
16	41	31	29	25	25	23	67	100	46	21	14	17
17	36	31	24	24	23	58	66	98	45	21	12	16
18	34	25	21	26	24	77	71	97	44	24	12	16
19	33	29	28	25	25	99	84	93	43	28	12	16
20	33	29	28	25	24	89	85	88	41	27	11	15
21	32	23	28	26	23	79	99	85	39	18	10	15
22	31	19	24	25	22	81	115	82	38	16	10	14
23	31	21	20	22	23	77	124	90	36	15	11	15
24	31	22	26	18	26	76	114	103	35	14	10	16
25	30	26	23	19	27	79	104	104	34	15	10	19
26	30	22	22	22	26	66	93	95	34	16	11	20
27	30	23	21	24	25	55	97	77	33	17	12	19
28	29	21	22	25	24	47	114	74	31	18	14	21
29	29	25	25	24	-	45	124	70	31	21	15	21
30	30	24	26	25	-	46	139	70	30	27	16	20
31	34	-	26	22	-	49	-	70	-	28	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,014	53	28	32.7	2,010
November	830	39	19	27.7	1,650
December	779	29	16	25.1	1,550
Calendar year 1938	19,829	370	13	54.3	39,360
January	753	28	18	24.3	1,490
February	664	27	17	23.7	1,320
March	1,435	99	23	46.3	2,850
April	2,472	139	53	82.4	4,900
May	3,136	144	70	101	6,220
June	1,434	81	30	47.8	2,840
July	733	44	14	23.6	1,450
August	440	21	10	14.2	873
September	520	24	12	17.3	1,030
Water year 1938-39	14,210	144	10	38.9	28,180

Peak discharge.- Oct. 5 (4 p.m.) 283 sec.-ft.; Mar. 18 (6:30 p.m.) 189 sec.-ft.; Mar. 19 (7 p.m.) 182 sec.-ft.; July 30 (12:30 p.m.) 167 sec.-ft.; Sept. 6 (1 p.m.) 84 sec.-ft.

Uinta River near Neola, Utah

Location.- Water-stage recorder, lat. 40°32', long. 110°04', in SW¼ sec. 25, T. 2 N., R. 2 W., Uinta meridian, 600 feet downstream from bridge, 1 mile upstream from Pole Creek, and 7 miles north of Neola. Prior to November 9, 1938, water-stage recorder 500 feet upstream, different datum.

Drainage area.- 181 square miles.

Records available.- July 1921 to September 1927 (fragmentary), September 1929 to September 1939.

Average discharge.- 11 years (1925-26, 1929-39), 157 second-feet.

Extremes.- Maximum discharge during year, 1,130 second-feet Sept. 13 (gage height, 3.01 feet), from rating curve extended above 500 second-feet; minimum discharge recorded, 46 second-feet Mar. 16, but may have been less during period of ice effect.
1929-39: Maximum discharge, 2,240 second-feet June 5, 1938 (gage height, 3.33 feet, former site and datum), from rating curve extended above 1,300 second-feet; minimum not determined.
Maximum discharge known, more than 3,000 second-feet June 9, 1922 (not determined more exactly because of unstable channel conditions).

Remarks.- Records good except those for period of missing gage heights, Oct. 6-12 (computed on basis of records for station on Whiterocks River near Whiterocks) and those for period of ice effect, Dec. 13 to Mar. 13 (computed on basis of two discharge measurements and temperature records), which are fair. Water diverted from Pole Creek and used at Uinta Power & Light Co.'s plant enters river 500 feet above station. Summer flow slightly regulated by storage in several small mountain lakes and reservoirs.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	167	130			55	72	386	374	226	160	99
2	163	175	124			55	72	466	296	229	153	94
3	175	163	126			55	76	489	296	223	139	90
4	163	171	130			55	79	541	343	217	132	93
5	213	159	124			55	77	580	299	211	126	111
6	250	163	124			55	74	498	261	223	126	166
7	225	163	122			50	73	462	232	214	128	238
8	225	159	122			50	74	462	226	208	119	208
9	200	158	117			50	80	507	229	205	113	165
10	190	155	115			50	76	536	220	202	108	148
11	180	155	111			50	73	449	235	208	104	150
12	175	144	110			50	74	370	251	208	101	214
13	175	146	105			50	73	310	254	202	104	822
14	167	148	100	*72		49	74	374	282	202	106	660
15	245	146	100			48	73	444	278	202	104	453
16	280	144	100		*65	48	73	457	229	200	106	378
17	275	141	100			49	73	390	232	198	104	332
18	240	139	105			51	74	347	220	180	101	296
19	236	139	105			64	80	366	241	176	96	268
20	231	137	105			70	80	343	236	153	94	251
21	213	130	100			72	91	332	226	146	96	241
22	204	126	95			73	108	310	223	144	93	235
23	200	122	95			70	124	264	226	139	90	245
24	191	122	95			72	117	248	235	137	93	229
25	187	137	95			74	106	232	232	137	99	274
26	183	132	90			74	103	223	223	139	94	248
27	179	132	85			76	110	226	226	148	110	226
28	179	130	80			70	144	264	229	146	103	223
29	175	132	80			67	261	306	235	170	110	214
30	179	132	85			67	310	398	238	211	115	200
31	195	-	85			70	-	386	-	186	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,272	280	159	202	12,440
November	4,369	187	122	146	8,710
December	3,260	130	80	105	6,470
Calendar year 1938	85,623	1,940	50	235	169,800
January	2,325	-	-	75	4,610
February	1,680	-	-	60	3,330
March	1,844	76	48	59.5	3,660
April	2,974	310	72	99.1	5,900
May	11,966	580	223	386	23,730
June	7,529	374	220	251	14,930
July	5,784	229	137	187	11,470
August	3,453	180	90	111	6,850
September	7,573	822	90	252	15,020
Water year 1938-39	59,049	822	-	162	117,100

*Discharge measurement.

Whiterocks River near Whiterocks, Utah

Location.- Water-stage recorder, lat. 40°34', long. 109°56', in SW¼ sec. 18, T. 2 N., R. 1 E., Uinta meridian, 25 feet downstream from bridge, three-quarters of a mile upstream from heading of United States Whiterocks and Farm Creek canals, and 6½ miles north of Whiterocks.

Drainage area.- 115 square miles.

Records available.- August 1921 to September 1928 and February 1930 to September 1939. September 1899 to August 1904 and April 1907 to November 1910, at site nearby. November 1917 to June 1921, at site downstream from point of diversion of United States Whiterocks canal and above that of Farm Creek canal; records equivalent if used in conjunction with those for Whiterocks canal.

Average discharge.- 15 years (1899-1903, 1908-10, 1930-39), 121 second-feet.

Extremes.- Maximum and minimum discharge during year not recorded.
1917-28, 1930-39: Maximum discharge observed, 2,750 second-feet June 21, 1922; minimum discharge, less than 14 second-feet during winter of 1920-21.

Remarks.- Records fair. Discharge for periods of missing gage heights, Nov. 11 to Dec. 7, Mar. 15 to Apr. 18, Apr. 26 to May 21, May 24 to June 12, June 15 to July 13, Sept. 13-14, computed on basis of records for Uinta River near Neola and Ashley Creek near Vernal; that for period of ice effect, Dec. 14 to Mar. 15, computed on basis of one discharge measurement and temperature records. Flow slightly regulated by storage in small mountain lakes.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	137	-				46	400	280	86	129	49
2	110	129	-				48	420	250	86	114	49
3	131	120	-				50	450	240	84	90	49
4	118	124	-				52	480	260	82	83	52
5	153	106	-				50	500	220	82	76	68
6	195	101	-				50	460	170	80	70	110
7	173	99	-				50	440	140	80	66	160
8	176	112	56				52	400	130	78	61	129
9	155	108	55				52	420	130	78	58	97
10	148	101	56				52	450	130	76	55	85
11	146	96	56				50	360	125	76	53	85
12	131	90	53				50	320	135	74	52	137
13	126	92	50				52	280	137	72	51	500
14	124	92	-	*38			54	300	144	71	61	400
15	215	92	-				52	320	140	71	61	330
16	244	92	-				52	330	120	71	61	264
17	231	94	-				50	300	120	70	60	225
18	209	90	-				50	260	115	70	57	198
19	183	88	-				51	280	120	68	56	181
20	168	84	-				52	250	115	68	55	170
21	158	82	-				68	220	110	66	46	160
22	153	80	-				90	209	105	65	43	155
23	148	78	-				110	186	100	61	42	163
24	144	74	-				101	180	100	51	48	160
25	142	76	-				94	175	95	51	62	181
26	139	74	-				90	170	95	52	52	163
27	139	72	-				95	175	95	51	55	144
28	135	70	-				120	190	90	55	53	148
29	129	70	-				200	220	90	61	53	137
30	129	68	-				300	300	90	70	55	122
31	142	-	-				-	290	-	90	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,800	244	106	155	9,520
November	2,791	137	68	93.0	5,540
December	1,550	-	-	50	3,070
Calendar year 1938	55,931	1,310	26	153	110,900
January	1,240	-	-	40	2,460
February	980	-	-	35	1,940
March	1,085	-	-	35	2,150
April	2,283	300	46	76.1	4,530
May	9,735	500	170	314	19,310
June	4,191	280	90	140	8,310
July	2,196	90	51	70.8	4,360
August	1,931	129	51	62.3	3,830
September	4,871	500	49	162	9,660
Water year 1938-39	37,653	500	-	103	74,680

*Discharge measurement.

White River near Meeker, Colo.

Location.- Water-stage recorder, lat. 40°02', long. 107°52', in sec. 30, T. 1 N., R. 93 W., 1 mile upstream from Curtis Creek and 3⅛ miles east of Meeker.

Drainage area.- 762 square miles.

Records available.- May 1901 to October 1906 and May 1910 to November 1913 (at site 2½ miles downstream) and October 1933 to September 1939 in reports of U. S. Geological Survey. May 1901 to October 1906 and May 1910 to September 1933 in reports of State engineer.

Average discharge.- 34 years, 646 second-feet.

Extremes.- Maximum discharge during year, 2,080 second-feet May 6 (gage height, 3.18 feet); minimum daily discharge, 200 second-feet Feb. 3.
1901-6, 1910-39: Maximum daily discharge, 8,070 second-feet June 16, 1921; minimum daily discharge, 112 second-feet July 17, 1934.

Remarks.- Records excellent except those for periods of ice effect, Dec. 5 to Mar. 19, which were computed on basis of two discharge measurements, weather records, and records for Roaring Fork at Glenwood Springs and are fair. Diversions above station for irrigation.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting control method used Oct. 1 to Dec. 4, Aug. 25 to Sept. 9)

1.0	185	2.0	740	3.0	1,760
1.1	220	2.3	970	3.2	2,100
1.3	305	2.5	1,160		
1.5	405	2.7	1,370		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	375	345	325	330	250	240	390	1,380	1,960	485	395	274
2	380	365	330	340	210	230	405	1,520	1,700	477	345	256
3	385	365	320	345	200	245	429	1,580	1,440	471	305	248
4	370	370	315	350	250	260	447	1,570	1,560	471	330	252
5	385	380	310	280	290	245	459	1,730	1,810	465	310	292
6	385	325	315	340	280	230	453	1,820	1,890	435	310	441
7	400	320	320	320	285	240	435	1,480	1,650	447	365	644
8	400	340	320	315	270	260	423	1,320	1,520	380	345	513
9	405	360	315	330	270	245	483	1,370	1,390	360	330	405
10	395	360	315	320	220	260	465	1,560	1,200	345	350	360
11	385	355	315	300	265	255	441	1,570	1,220	345	320	375
12	385	345	310	320	254	250	453	1,500	1,240	340	310	453
13	390	300	305	320	270	270	489	1,370	1,320	330	345	390
14	380	320	270	319	270	280	539	1,370	1,350	345	345	390
15	375	320	310	280	280	260	525	1,470	1,320	315	335	365
16	370	340	370	320	270	295	501	1,590	1,160	300	315	350
17	400	350	340	300	230	315	471	1,500	1,070	296	315	345
18	380	320	300	300	230	330	453	1,500	962	287	310	340
19	360	335	350	295	270	350	495	1,590	882	320	296	335
20	355	330	350	290	260	375	477	1,810	815	252	252	330
21	350	325	350	290	250	390	553	1,810	778	240	252	330
22	355	278	345	290	240	423	672	1,810	710	236	252	335
23	350	300	340	290	240	435	822	1,840	658	232	244	340
24	350	260	290	270	270	441	725	1,720	637	244	248	350
25	350	325	290	240	265	447	623	1,520	658	252	274	350
26	345	252	340	250	260	465	702	1,280	630	260	296	345
27	345	296	270	300	260	477	808	1,200	595	296	296	340
28	345	296	315	330	230	447	938	1,210	560	370	300	395
29	340	292	340	310	-	423	1,200	1,290	525	385	260	453
30	340	315	330	300	-	395	1,340	1,430	501	365	269	375
31	340	-	320	320	-	385	-	1,530	-	400	278	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,470	405	340	370	22,750
November	9,784	380	252	326	19,410
December	9,935	370	270	320	19,710
Calendar year 1938	254,669	3,120	220	698	505,200
January	9,504	350	240	307	18,850
February	7,139	290	200	255	14,160
March	10,163	477	230	328	20,160
April	17,616	1,340	390	587	34,940
May	47,240	1,840	1,200	1,524	93,700
June	33,711	1,960	501	1,124	66,860
July	10,744	489	232	347	21,310
August	9,497	395	244	306	18,840
September	10,971	644	248	366	21,760
Water year 1938-39	187,774	1,960	200	514	372,400

White River near Watson, Utah.

Location.- Water-stage recorder, lat. 39°58', long. 109°10', in sec. 2, T. 10 S., R. 24 E., Salt Lake meridian, just downstream from Evacuation Creek and 10 miles northeast of Watson. Prior to Oct. 4 recorder at site 250 feet upstream and Oct. 5 to Mar. 22 at site 1,400 feet upstream, different datum.

Drainage area.- 4,020 square miles.

Records available.- April to October 1906 (published as White River near Dragon, Utah) and October 1913 to September 1939 in reports of U. S. Geological Survey. April 1923 to September 1939 in reports of State engineer of Colorado.

Extremes.- Maximum discharge during year, 4,430 second-feet Mar. 19 (gage height, 5.87 feet, former site and datum), from rating curve extended above 3,500 second-feet; minimum daily discharge, 134 second-feet Nov. 26, July 23, 24, 27, 28.
1906, 1923-39: Maximum daily discharge, 8,160 second-feet July 15, 1929; minimum discharge, 52 second-feet July 19, 20, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 27, 28, Dec. 17-19, Dec. 25 to Mar. 8, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	456	355	340	330	430	420	660	1,230	1,520	564	588	270
2	450	546	382	340	350	440	696	1,360	1,580	540	462	260
3	438	418	412	330	270	460	750	1,450	1,650	522	370	260
4	448	370	412	330	250	500	708	1,590	1,440	504	343	247
5	525	400	412	330	310	440	684	1,590	1,440	492	310	260
6	672	430	370	335	340	410	702	1,680	1,600	468	316	275
7	460	376	360	340	360	442	708	1,800	1,740	444	305	774
8	1,510	350	355	355	320	442	684	1,630	1,620	414	332	871
9	672	345	355	360	300	576	648	1,460	1,500	392	343	720
10	539	370	365	360	280	736	612	1,440	1,400	354	332	570
11	525	388	394	350	324	560	588	1,500	1,370	338	305	510
12	484	370	350	340	330	616	564	1,540	1,300	326	316	564
13	424	376	238	355	340	680	552	1,520	1,270	310	290	612
14	412	340	188	350	370	962	540	1,460	1,290	295	300	564
15	412	355	174	330	410	1,180	600	1,420	1,310	275	310	472
16	412	345	172	340	450	1,280	612	1,490	1,300	275	300	456
17	632	370	190	350	360	1,120	540	1,550	1,230	256	285	432
18	406	382	190	360	340	1,500	558	1,540	1,180	231	280	409
19	365	355	185	380	370	2,230	552	1,490	1,120	215	280	404
20	345	355	208	370	360	2,810	558	1,490	1,010	198	270	398
21	330	406	282	370	360	3,450	570	1,630	941	191	265	392
22	335	355	290	360	380	3,630	570	1,690	885	176	252	398
23	355	310	240	240	400	3,140	762	1,680	815	164	247	387
24	376	219	260	200	420	1,750	780	1,700	750	164	243	398
25	406	166	280	190	410	1,220	829	1,650	714	167	239	426
26	376	164	270	195	430	1,100	794	1,550	708	176	239	426
27	370	190	260	210	420	1,100	762	1,410	696	164	239	404
28	382	220	260	250	400	1,040	794	1,300	660	164	265	462
29	382	242	290	320	-	850	906	1,260	624	198	265	528
30	370	280	320	420	-	801	1,090	1,300	594	285	290	528
31	360	-	340	450	-	708	-	1,500	-	376	338	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,629	1,510	330	472	29,020
November	10,148	546	164	338	20,130
December	9,124	412	172	294	18,100
Calendar year 1938	303,576	3,670	164	832	602,100
January	10,140	450	190	327	20,110
February	10,084	450	250	360	20,000
March	36,593	3,630	410	1,180	72,580
April	20,373	1,090	540	679	40,410
May	46,890	1,800	1,230	1,513	93,000
June	35,257	1,740	594	1,175	69,930
July	9,638	564	164	311	19,120
August	9,519	588	239	307	18,880
September	13,677	871	247	456	27,130
Water year 1938-39	226,072	3,630	164	619	448,400

Price River above Scofield Reservoir, near Scofield, Utah

(Formerly published as Fish Creek above reservoir, near Scofield, Utah)

Location.- Water-stage recorder, lat. 39°46', long. 111°11', in SE¼ sec. 18, T. 12 S., R. 7 E., at mouth of canyon, 800 feet upstream from bridge, half a mile upstream from Pontown Creek, and 4 miles north of Scofield. Prior to October 1932 water-stage recorder 300 feet downstream, different datum.

Drainage area.- 62 square miles.

Records available.- June 1931 to September 1932 (fragmentary), October 1938 to September 1939.

Extremes.- Maximum discharge during year, 281 second-feet Apr. 30 (gage height, 2.29 feet); minimum, 5 second-feet Sept. 19-25, 27.
1931-32, 1938-39: Maximum discharge, 673 second-feet May 19, 1932; minimum discharge recorded, 3 second-feet Sept. 10-30, 1932.

Remarks.- Records good except those for periods of ice effect, Nov. 6-7, Nov. 12 to Apr. 8, which were computed on basis of records for Spanish Fork at Castilla and Huntington Creek near Huntington and are fair. Small transmountain diversions at headwaters for irrigation in the Sevier River Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	14					45	242	72	20	12	6
2	13	13					50	242	60	18	11	6
3	12	12					55	229	53	17	11	6
4	12	12					60	231	49	17	11	6
5	12	12					65	225	46	16	11	7
6	11	10					65	205	44	16	13	10
7	11	10					65	189	42	16	14	14
8	11	12					75	179	42	16	11	10
9	10	13					78	171	40	16	10	8
10	10	12					71	166	39	16	9	8
11	10	12					66	158	35	16	9	10
12	10	-					69	162	34	16	8	12
13	10	-					79	151	33	15	8	10
14	10	-					82	132	31	15	8	8
15	15	-					73	123	30	14	8	7
16	14	-					66	117	27	14	7	6
17	14	-					69	112	28	13	7	6
18	13	-					74	102	32	11	6	6
19	13	-					88	95	31	11	6	5
20	12	-					104	89	29	9	6	5
21	12	-					133	84	27	8	6	5
22	11	-					164	80	26	7	6	5
23	11	-					175	75	25	7	6	5
24	11	-					149	80	26	7	6	5
25	11	-					128	77	25	7	6	5
26	10	-					126	72	24	8	6	6
27	10	-					151	66	23	8	6	5
28	10	-					183	60	21	9	6	9
29	10	-					210	58	21	12	7	10
30	11	-					231	56	20	12	7	7
31	14						-	59	-	12	7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	356	15	10	11.5	706
November	330	-	-	11	655
December	310	-	-	10	615
Calendar year	-	-	-	-	-
January	310	-	-	10	615
February	252	-	-	9	500
March	372	-	-	12	738
April	3,049	231	45	102	6,050
May	4,087	242	56	132	8,110
June	1,035	72	20	34.5	2,050
July	399	20	7	12.9	791
August	255	14	6	8.2	506
September	218	14	5	7.3	432
Water year 1938-39	10,973	242	5	30.1	21,770

Price River near Scofield, Utah

(Formerly published as Fish Creek near Scofield, Utah)

Location.- Water-stage recorder and concrete control, lat. 39°47', long. 111°07', in SE¼ sec. 10, T. 12 S., R. 7 E., 1,000 feet downstream from Scofield Reservoir, 9 miles upstream from White River, and 5 miles northeast of Scofield.

Drainage area.- 163 equare miles.

Records available.- November 1917 to September 1921 and 1925 (fragmentary), April 1926 to September 1931, October 1938 to September 1939.

Extremes.- Maximum discharge during year, 221 second-feet May 26 (gage height, 2.44 feet); minimum, less than 0.5 second-foot Sept. 28-30.
1917-20, 1926-31, 1938-39: Maximum discharge, about 1,000 second-feet on or about May 24, 1920 (gage height, 10.4 feet from high-water mark, former site and datum, recorder stopped); minimum, less than 0.5 second-foot at times when reservoir gates are closed.

Remarks.- Records good except those for period of missing gage heights, Oct. 1-24, which were computed on basis of records for Price River near Heiner and are fair. Flow completely regulated by Scofield Reservoir. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	16				1	20	2	10	207	1	104
2	56	16				1	20	15	137	199	1	106
3	56	16				1	20	126	164	159	22	94
4	56	16				1	20	109	177	158	51	72
5	45	16				1	20	108	177	157	72	64
6	16	16				1	20	128	174	157	51	34
7	16	16				1	20	129	147	156	23	2
8	16	16				1	13	135	148	154	56	2
9	16	16				1	2	170	173	140	62	2
10	16	16				1	2	193	169	82	68	2
11	16	16				1	2	198	164	72	79	2
12	16	16				1	2	206	163	63	117	2
13	17	16				1	2	206	162	116	116	2
14	16	16				1	2	203	163	127	114	1
15	16	16				1	2	206	161	140	112	1
16	16	16				1	2	208	177	140	114	1
17	16	16				1	2	212	154	138	101	1
18	16	16				1	2	213	160	148	95	1
19	16	16				1	2	213	211	126	118	1
20	16	16				1	2	212	219	130	140	1
21	16	16				1	2	212	210	138	132	1
22	16	16				1	2	212	198	153	77	1
23	16	16				1	2	211	196	130	120	1
24	16	16				1	2	211	195	129	108	1
25	16	16				1	2	210	194	128	1	1
26	16	16				1	2	211	194	122	1	1
27	16	16				10	2	220	193	93	20	1
28	16	7				20	2	220	190	88	62	0
29	16	2				20	2	220	193	90	77	0
30	16	2				20	2	219	211	33	117	0
31	16	-				20	-	177	-	6	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	686	56	16	22.1	1,360
November	443	16	2	14.8	879
December	31	-	-	1.0	61
Calendar year	-	-	-	-	-
January	31	-	-	1.0	61
February	28	-	-	1.0	56
March	116	20	1	3.7	230
April	197	20	2	6.6	391
May	5,515	220	2	178	10,940
June	5,204	219	10	173	10,320
July	3,879	207	6	125	7,690
August	2,339	140	1	75.5	4,640
September	502	106	0	16.7	996
Water year 1938-39	18,971	220	0	52.0	37,620

Price River near Heiner, Utah

Location.- Water-stage recorder, lat. 39°43'05", long. 110°51'55", in SW¼ sec. 1, T. 13 S., R. 9 E., three-quarters of a mile downstream from Willow Creek and two-thirds of of a mile north of Heiner.

Records available.- June 1934 to September 1939.

Extremes.- Maximum discharge during year, 1,040 second-feet Sept. 12 (gage height, 3.40 feet); minimum discharge recorded, 4 second-feet Aug. 28.
1934-39: Maximum discharge, 4,850 second-feet Aug. 26, 1935 (gage height, 6.16 feet), by slope-area method; minimum, less than 1 second-foot at times during period Sept. 1-10, 1934.

Remarks.- Records good except those for period of ice effect, Nov. 13 to Mar. 15, which were computed on basis of seven discharge measurements, temperature records, records for station on Price River below Scofield Reservoir near Scofield and Spanish Fork at Thistle and are fair. Station is above diversions from main stream for irrigation. Several small diversions from tributaries upstream for irrigation and municipal supply. Flow affected by storage in Scofield Reservoir (formerly published as Pleasant Valley Reservoir) capacity, 42,000 acre-feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	84	34	-	-		10	111	137	108	209	18	97
2	86	34	*12	-		10	117	130	109	206	10	94
3	107	31	-	-		14	128	192	189	179	6	94
4	94	32	-	-		14	132	226	203	163	21	77
5	122	34	-	-		12	144	206	203	161	58	70
6	52	21	-	-		12	135	226	203	161	88	88
7	35	39	-	-		20	124	220	186	158	30	48
8	50	34	-	-		35	124	214	179	156	20	20
9	37	38	-	-	*8	55	126	235	195	153	48	10
10	33	36	-	*10		75	113	263	195	99	64	9
11	32	29	-	-		85	105	263	184	80	64	51
12	30	24	-	-		105	103	279	184	60	95	189
13	29	24	-	-		145	103	269	176	77	107	92
14	30	26	-	-		195	109	257	176	111	107	23
15	34	28	-	-		150	109	260	186	128	103	12
16	71	32	-	-		140	101	266	189	137	103	8
17	40	28	-	-		253	95	263	181	128	94	7
18	34	30	-	-		302	97	263	179	139	87	6
19	32	30	-	-		325	99	260	203	137	90	6
20	31	26	*9	-		291	105	260	232	113	124	5
21	30	20	-	-		215	113	257	226	132	126	5
22	30	13	-	-		202	126	257	211	136	97	7
23	29	14	-	-		188	137	253	209	128	74	7
24	28	14	-	-		163	146	253	209	119	124	19
25	28	16	-	-		157	137	250	209	117	40	16
26	28	16	-	*12		139	126	250	206	117	8	10
27	29	18	-	-		115	115	253	200	97	5	7
28	29	18	-	-		97	115	257	197	85	29	30
29	29	14	-	-		92	126	257	189	115	60	12
30	30	12	-	-		92	137	257	203	77	97	9
31	33	-	-	-		97	-	263	-	37	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,386	122	28	44.7	2,750
November	765	39	12	25.5	1,520
December	310	-	-	10	615
Calendar year 1938	41,658	758	-	114	82,620
January	310	-	-	10	615
February	224	-	-	8	444
March	3,805	325	10	123	7,550
April	3,558	146	95	119	7,060
May	7,496	279	130	242	14,870
June	5,719	232	108	191	11,340
July	3,915	209	37	126	7,770
August	2,102	126	5	67.8	4,170
September	1,128	189	5	37.6	2,240
Water year 1938-39	30,718	325	-	84.2	60,940

Peak discharge.- Oct. 16 (5 p.m.) 228 sec.-ft.; Mar. 17 (7:30 p.m.) 555 sec.-ft.; Mar. 18 (7 p.m.) 630 sec.-ft.; Mar. 19 (6 p.m.) 674 sec.-ft.; Sept. 11 (5 p.m.) 520 sec.-ft.; Sept. 12 (8:30 p.m.) 1,040 sec.-ft.
*Discharge measurement.

Huntington Creek near Huntington, Utah

Location.- Water-stage recorder, lat. 39°22'15", long. 111°03'45", in SE¼ sec. 6, T. 17 S., R. 8 E., 1 mile upstream from Fish Creek and 7 miles northwest of Huntington.

Drainage area.- 188 square miles.

Records available.- May 1909 to September 1917, October 1918 to November 1920 (fragmentary), April 1921 to September 1939.

Average discharge.- 24 years (1910-17, 1921-29, 1930-39), 99.0 second-feet.

Extremes.- Maximum discharge during year, 338 second-feet May 3 (gage height, 2.94 feet); minimum discharge recorded, 12 second-feet Dec. 12.
1909-39: Maximum discharge, about 2,500 second-feet Aug. 2 or 3, 1930 (gage height, 7.5 feet), from rating curve extended above 600 second-feet; probably no flow Nov. 5, 1926.

Remarks.- Records good except those for periods of ice effect, Nov. 28 to Dec. 5, Dec. 13 to Mar. 17, and period of missing gage heights, Nov. 7-27 (computed on basis of six discharge measurements, temperature records, and records for Spanish Fork at Castilla), which are fair. Small diversions above station for irrigation. Flow slightly regulated by small reservoirs upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	32	-	-		28	56	274	279	117	79	26
2	44	31	-	-		28	64	279	242	109	74	25
3	44	31	*33	-		28	69	266	220	104	70	25
4	36	33	-	-		28	71	284	215	100	67	26
5	36	31	-	-		28	84	271	203	107	66	31
6	36	26	32	-		28	80	250	178	134	93	34
7	34	28	31	-		28	80	232	166	132	70	48
8	35	34	31	-		28	94	232	171	130	58	31
9	34	38	30	*29		28	111	242	166	126	49	28
10	33	34	30	-		30	94	250	160	126	38	31
11	33	30	28	-		30	83	242	153	120	33	40
12	32	30	21	-		32	95	240	155	106	31	48
13	32	32	-	-		36	107	213	151	102	29	52
14	31	32	-	-		34	107	189	138	102	30	35
15	39	36	-	-		34	90	198	113	104	29	31
16	34	38	-	-		38	83	191	98	117	28	29
17	35	32	-	-		40	83	198	88	109	27	28
18	32	32	-	-		41	88	203	84	106	27	28
19	32	36	-	-		42	109	225	88	104	26	28
20	31	34	-	-		44	135	213	84	100	26	27
21	30	33	*32	-		47	180	203	79	97	27	27
22	31	32	-	-		49	214	189	98	90	27	28
23	31	32	-	-		55	225	182	91	84	26	27
24	31	32	-	-	*20	51	180	175	117	83	27	27
25	31	32	-	-		49	157	155	111	83	25	28
26	31	30	-	-		55	152	134	100	83	26	31
27	29	30	-	*42		52	190	140	98	81	27	28
28	28	*30	-	-		51	234	155	124	83	28	44
29	28	30	-	-		48	266	178	122	84	30	39
30	28	30	-	-		45	271	191	122	86	28	28
31	31	-	-	-		47	-	198	-	83	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,033	44	28	33.3	2,050
November	961	38	26	32.0	1,910
December	931	-	-	30	1,850
Calendar year 1938	34,321	620	-	94.0	68,090
January	931	-	-	30	1,850
February	784	-	-	28	1,560
March	1,202	55	28	38.8	2,380
April	3,852	271	56	128	7,640
May	6,592	284	134	213	13,080
June	4,214	279	79	140	8,360
July	3,192	134	81	103	6,330
August	1,247	93	25	40.2	2,470
September	958	52	25	31.9	1,900
Water year 1938-39	25,897	284	-	71.0	51,380

*Discharge measurement.

Cottonwood Creek near Orangeville, Utah

Location.- Water-stage recorder, lat. 39°15'55", long. 11°07'40", in SW¼ sec. 10, T. 18 S., R. 7 E., 2 miles upstream from Grimes Wash and 5 miles northwest of Orangeville.

Drainage area.- 200 square miles.

Records available.- May 1909 to September 1927 (fragmentary), May 1932 to September 1939.

Average discharge.- 23 years (1910-20, 1921-27, 1932-39), 107 second-feet.

Extremes.- Maximum discharge during year, 1,990 second-feet July 27 (gage height, 4.25 feet), from rating curve extended above 700 second-feet; minimum discharge recorded, 5 second-feet Nov. 13.
1909-27, 1932-39: Maximum discharge, about 2,500 second-feet Aug. 22, 1922, Sept. 9, 1927, from rating curve extended above 900 second-feet; minimum discharge observed, 4 second-feet Jan. 24, 1933.

Remarks.- Records fair. Small diversions above station for irrigation. Ephraim and Spring City tunnels, constructed by Bureau of Reclamation in 1936 and 1938, respectively, and several small canals divert from headwaters of Cottonwood Creek to Great Basin for irrigation in San Pitch River Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	23	-	-		-	*45	*375	461	70	*37	23
2	31	23	-	-		-	*50	*380	338	68	*36	23
3	30	21	†12	-		-	*50	*390	319	65	*35	22
4	26	23	-	-		-	*50	*445	319	66	*34	23
5	25	21	-	-		-	*55	*440	314	63	†33	27
6	27	17	-	-		-	*55	*420	292	63	*60	36
7	25	19	-	-		-	50	407	260	62	*35	50
8	27	28	-	-		-	66	422	252	57	*30	27
9	27	30	-	†8		-	80	446	238	57	28	23
10	27	25	-	-		-	*75	446	220	57	*28	35
11	26	23	-	-		-	*75	497	212	57	†27	45
12	24	22	-	-		-	*80	453	201	53	*27	62
13	24	25	-	-		-	*85	378	186	49	†27	57
14	24	25	-	-		-	*85	384	172	48	*27	44
15	27	‡28	-	-		-	*80	407	163	49	*26	34
16	26	‡30	-	-		-	*75	384	153	49	*26	27
17	25	‡24	-	-		-	*75	399	150	48	*26	24
18	23	‡26	-	-		†115	*70	453	*140	46	*26	24
19	23	‡28	-	-		-	*85	479	*130	41	*26	24
20	23	‡26	-	-		-	86	461	*120	39	*25	23
21	23	‡26	†22	-		-	*125	422	*110	*38	*25	23
22	23	‡26	-	-		-	*180	384	*100	*37	*25	25
23	23	‡26	-	-		-	*185	345	*95	*36	*25	23
24	23	‡26	-	-		72	*155	287	*90	*36	*25	24
25	21	‡26	-	-	†14	66	142	252	*85	*35	*25	27
26	21	‡24	-	-		-	*135	234	*85	*35	*40	26
27	21	‡24	-	†12		-	*175	238	*80	*125	*30	25
28	20	‡24	-	-		-	*225	281	80	*70	*50	32
29	20	‡24	-	-		-	*275	319	77	*40	*30	34
30	21	†24	-	-		-	*350	314	72	*39	*25	27
31	22	-	-	-		-	-	358	-	*38	*24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	755	31	20	24.4	1,500
November	737	30	17	24.6	1,460
December	620	-	-	†20	1,230
Calendar year 1938	34,412	1,010	-	94.3	68,260
January	558	-	-	†18	1,110
February	448	-	-	†16	889
March	1,550	-	-	†50	3,070
April	3,319	350	45	111	6,580
May	11,900	497	234	384	23,600
June	5,514	461	72	184	10,940
July	1,636	125	35	52.8	3,240
August	943	60	24	30.4	1,870
September	919	62	22	30.6	1,820
Water year 1938-39	28,899	497	-	79.2	57,310

*Gage height missing; discharge computed on basis of range of stage of recorder, records for Huntington Creek near Huntington and Spanish Fork at Thistle and unpublished records for Cottonwood Creek at Little Joes Valley.
†Discharge measurement.
‡Stage-discharge relation affected by ice; discharge computed on basis of seven discharge measurements and weather records.

Fremont River near Bicknell, Utah

Location.- Staff gage, lat. 38°18', long. 111°31', in NE¼ sec. 7, T. 29 S., R. 4 E., 1,000 feet upstream from highway bridge, 1,000 feet downstream from Torrey canal and Mill ditch, 1 mile downstream from Government Creek, and 3 miles southeast of Bicknell.

Drainage area.- 776 square miles.

Records available.- May 1909 to December 1912 (published as Fremont River near Thurber), October 1937 to September 1939; records equivalent.

Extremes.- Maximum discharge observed during year, 234 second-feet Mar. 26; minimum observed, 57 second-feet June 17, 18.
1909-12, 1937-39: Maximum discharge observed, 420 second-feet Apr. 10, 1912; minimum, 18 second-feet June 2, 4, 13-15, 17, 18, 1912.

Remarks.- Records poor. Records include flow of Torrey canal and Mill ditch and represent flow of Fremont River above these diversions. Discharge computed by combining flow in canals with that in river below canals. Gages read once daily. Several diversions for irrigation above station. Flow affected by storage in Fish Lake and Johnson and Forsythe Reservoirs.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	73	100	93	*93	125	101	100	66	66	70	77
2	74	76	101	93	*92	91	149	115	62	68	66	78
3	74	72	106	95	*91	92	125	97	64	68	66	64
4	75	72	105	*97	*87	92	129	81	64	71	62	65
5	74	76	100	88	*85	126	127	67	66	70	64	65
6	74	78	104	94	*87	103	116	68	65	75	68	195
7	69	85	104	94	*87	100	103	130	64	77	69	72
8	69	99	107	80	*89	102	100	64	66	78	63	70
9	70	89	107	91	*90	106	100	68	60	82	62	76
10	71	86	106	*93	*90	108	103	67	62	84	63	84
11	76	88	100	95	*89	103	92	70	63	87	62	84
12	74	106	98	*94	90	106	95	76	61	88	67	79
13	71	111	98	*95	91	112	92	73	63	87	64	89
14	73	100	100	*96	87	100	†90	70	62	95	65	78
15	73	98	96	89	92	99	89	74	57	89	65	75
16	75	96	97	*98	*89	104	88	69	61	93	65	63
17	74	111	97	*100	*87	109	84	69	57	62	63	66
18	76	101	95	*90	*86	105	77	71	57	67	63	66
19	74	101	98	*91	90	109	74	70	60	80	66	74
20	73	101	99	87	90	106	75	70	62	78	67	73
21	73	101	104	95	*89	107	94	65	68	59	69	72
22	74	*102	103	103	88	109	103	66	71	60	72	72
23	73	*96	*99	102	90	123	117	65	74	71	68	76
24	74	*94	*97	*101	90	198	90	69	69	72	67	74
25	73	89	*96	*101	120	206	79	67	68	72	71	74
26	75	99	*91	*103	119	234	71	69	67	70	77	75
27	73	98	95	100	144	178	95	70	67	73	77	76
28	72	97	*93	104	100	130	119	69	67	71	83	72
29	73	92	*91	106	-	104	139	68	69	74	84	71
30	74	91	90	96	-	101	105	70	72	72	85	72
31	75	-	93	95	-	94	-	67	-	73	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,276	78	69	73.4	4,510
November	2,778	111	72	92.6	5,510
December	3,070	107	90	99.0	6,090
Calendar year 1938	31,955	308	52	87.5	63,380
January	2,959	106	80	95.5	5,870
February	2,622	144	85	93.6	5,200
March	3,682	234	91	119	7,300
April	3,021	149	71	101	5,990
May	2,314	130	64	74.6	4,590
June	1,934	72	57	64.5	3,840
July	2,332	95	59	75.2	4,630
August	2,133	85	62	68.8	4,230
September	2,327	195	63	77.6	4,620
Water year 1938-39	31,448	234	57	86.2	62,380

*Stage-discharge relation affected by ice; discharge computed on basis of temperature records.
†Interpolated.

San Juan River near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°22'05", long. 106°53'40", in SE¼ sec. 12, T. 36 N., R. 1 W., a quarter of a mile upstream from private highway bridge, half a mile upstream from West Fork of San Juan River, and 9.5 miles northeast of Pagosa Springs. Prior to Sept. 8, 1938, water-stage recorder at site a quarter of a mile downstream.

Drainage area.- 86.9 square miles.

Records available.- May 1935 to September 1939.

Extremes.- Maximum discharge during water year 1937-38, 1,670 second-feet May 28 (gage height, 4.00 feet, former site and datum), from rating curve extended above 1,000 second-feet; minimum daily discharge, 10 second-feet Dec. 19.

Maximum discharge during water year 1938-39, 580 second-feet May 19; maximum gage height, 3.76 feet Mar. 17 (ice affected); minimum daily discharge, 9 second-feet Jan. 12, Feb. 1.

1935-39: Maximum discharge, that of May 28, 1938; minimum daily discharge, that of Jan. 12, Feb. 1, 1939.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Dec. 19, 1937, to Feb. 19, 1938, Mar. 4, 1938, Nov. 15, 1938, to Mar. 21, 1939 (computed on basis of 10 discharge measurements and records for station at Pagosa Springs), which are fair. Diversions above station for irrigation.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	18	15	14	12	16	50	704	1,020	451	66	54
2	32	17	14	14	12	16	39	465	953	387	62	84
3	28	16	17	13	12	30	41	362	935	356	62	68
4	30	15	15	13	12	45	59	278	989	316	63	77
5	26	14	14	12	12	24	75	230	980	262	66	81
6	24	13	13	11	11	20	75	201	953	234	59	75
7	24	17	14	12	12	18	63	172	899	204	58	71
8	22	17	14	12	12	18	57	151	855	190	58	91
9	22	16	13	12	12	17	63	151	770	179	53	57
10	21	17	15	12	12	18	90	154	712	169	48	63
11	20	15	15	12	13	20	130	197	704	145	55	178
12	20	15	16	12	15	23	183	283	779	148	71	214
13	20	15	15	13	17	22	179	362	864	135	90	146
14	20	15	14	13	16	22	160	632	787	135	128	110
15	37	17	13	13	15	19	125	821	754	157	85	91
16	46	19	12	13	14	22	128	838	704	142	67	91
17	36	18	13	13	13	26	172	770	704	128	59	75
18	34	17	12	12	13	25	327	680	680	120	57	64
19	26	16	10	12	14	29	418	510	617	116	52	57
20	25	16	11	11	15	40	485	485	602	118	47	54
21	24	14	12	11	15	50	540	492	672	102	44	62
22	24	15	12	13	14	42	696	528	728	93	42	48
23	24	15	12	13	14	36	770	499	695	84	42	45
24	24	15	12	12	13	51	796	506	557	83	42	43
25	23	16	13	12	13	78	821	572	521	80	47	41
26	22	15	13	12	14	93	696	640	506	77	48	39
27	22	14	14	13	14	73	564	787	492	83	44	36
28	22	15	13	13	14	66	555	1,020	458	96	43	36
29	21	15	13	13	-	55	762	1,220	632	83	48	33
30	20	14	13	13	-	45	821	1,060	564	70	49	32
31	20	-	13	12	-	52	-	953	-	67	47	-

Discharge, in second-feet, of San Juan River near Pagosa Springs, Colo., 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	35	22	12	9	14	89	381	381	62	36	22
2	32	34	20	13	10	14	112	389	365	58	36	21
3	30	31	16	13	12	15	134	389	365	56	33	20
4	32	32	17	12	12	15	136	385	413	52	31	18
5	33	33	18	10	11	16	132	421	401	51	28	20
6	40	26	18	11	11	16	138	437	341	48	30	24
7	91	22	18	11	11	16	130	385	274	45	33	34
8	110	33	17	12	11	16	150	389	264	42	29	59
9	80	33	19	11	10	17	193	413	250	42	26	46
10	67	28	21	11	11	18	175	449	250	39	26	41
11	59	26	23	10	11	19	141	433	247	36	24	118
12	53	25	18	9	11	20	143	417	232	35	22	75
13	53	28	14	10	12	22	160	425	226	33	22	72
14	53	30	13	10	12	25	163	405	217	32	23	104
15	59	31	15	11	11	28	141	377	187	33	22	116
16	72	30	17	11	11	32	122	325	155	32	20	83
17	70	29	16	11	12	44	110	285	141	30	21	71
18	57	28	14	11	12	54	108	325	122	29	22	57
19	52	27	16	10	12	62	128	445	106	28	21	59
20	49	27	15	10	11	72	158	469	94	26	20	50
21	46	26	16	11	11	78	229	453	91	26	22	45
22	44	24	15	11	12	83	285	469	91	26	22	40
23	41	18	13	11	13	96	285	441	94	24	19	37
24	38	18	11	10	13	114	232	397	91	24	18	35
25	37	19	12	10	13	102	196	341	85	22	20	36
26	36	19	13	10	12	106	190	297	78	24	25	57
27	36	19	12	11	13	100	220	309	75	35	39	58
28	35	20	13	11	13	78	278	321	70	43	39	53
29	33	20	13	11	-	65	349	333	68	46	36	53
30	33	21	14	10	-	60	361	349	65	47	26	42
31	33	-	13	10	-	65	-	361	-	46	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937	803	46	20	25.9	1,590
November	474	19	13	15.8	940
December	413	17	10	13.3	819
Calendar year 1937	60,785	1,060	10	167	120,600
January 1938	386	14	11	12.5	766
February	376	17	11	13.4	746
March	1,110	93	16	35.8	2,200
April	10,141	821	39	338	20,110
May	16,823	1,220	151	543	33,370
June	22,088	1,020	458	736	43,810
July	5,010	461	67	162	9,940
August	1,800	128	42	58.1	3,570
September	2,206	214	32	73.5	4,380
Water year 1937-38	61,630	1,220	10	169	122,200
October 1938	1,535	110	30	49.5	3,040
November	792	35	18	26.4	1,570
December	492	23	11	15.9	976
Calendar year 1938	62,759	1,220	11	172	124,500
January 1939	335	13	9	10.8	664
February	323	13	9	11.5	641
March	1,482	114	14	47.8	2,940
April	5,388	361	89	180	10,690
May	12,015	469	285	388	23,830
June	5,839	413	65	195	11,580
July	1,172	62	22	37.8	2,320
August	815	39	18	26.3	1,620
September	1,566	118	18	52.2	3,110
Water year 1938-39	31,754	469	9	87.0	62,980

San Juan River at Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°15'55", long. 107°00'40", in S½ sec. 13, T. 35 N., R. 2 W., under lower highway bridge at town of Pagosa Springs.

Drainage area.- 298 square miles.

Records available.- January 1911 to November 1914 and May 1935 to September 1939.

Extremes.- Maximum discharge during year, 1,510 second-feet May 22 (gage height, 5.22 feet); minimum daily discharge, 33 second-feet Feb. 1.

1911-14, 1935-39: Maximum discharge recorded, 4,710 second-feet June 15, 1935, from rating curve extended above 3,300 second-feet; minimum daily discharge, 22 second-feet Dec. 19, 1938.

Greatest flood known occurred Oct. 5, 1911, discharge, about 25,000 second-feet (stage, about 17 feet).

Remarks.- Records excellent except those for period of missing gage heights, Mar. 19-24, and those for Mar. 25 to Apr. 25, which were computed on basis of records for station at Rosa, N. Mex., and are good. Diversions above station for irrigation.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Dec. 16 to Mar. 16, Mar. 25 to Apr. 9, and May 10 to June 11)

2.1	29	2.8	126	4.0	510
2.2	36	3.0	168	4.3	680
2.3	45	3.3	246	4.6	920
2.4	58	3.5	308	5.0	1,350
2.6	90	3.8	420		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	122	82	55	33	48	400	1,020	1,050	150	76	49
2	121	122	77	60	41	44	465	1,100	1,020	140	68	45
3	119	112	64	66	52	49	566	1,040	1,040	130	72	45
4	115	115	74	63	49	52	708	1,000	1,140	122	63	38
5	124	119	71	53	49	46	550	1,090	1,160	117	57	38
6	153	104	71	68	48	46	520	1,160	1,010	104	57	95
7	270	79	66	64	46	49	429	1,020	848	95	88	130
8	412	94	69	64	46	53	483	1,050	790	92	68	164
9	267	106	63	63	45	52	608	1,150	736	90	55	166
10	229	103	69	57	41	53	510	1,290	715	82	53	140
11	215	95	71	49	46	50	396	1,300	701	76	52	342
12	190	97	69	44	46	53	404	1,220	650	72	46	258
13	195	74	63	46	48	60	442	1,060	614	66	44	276
14	200	94	45	46	48	72	465	970	560	61	46	350
15	208	103	61	46	45	95	396	911	496	64	43	372
16	240	97	79	52	48	119	328	866	412	63	41	264
17	249	94	74	52	45	142	295	736	357	55	40	240
18	213	80	54	53	46	187	289	798	315	53	40	208
19	197	90	74	48	48	225	335	1,050	279	53	40	180
20	182	92	64	48	46	270	404	1,230	252	48	37	164
21	175	87	68	54	45	320	608	1,220	232	46	41	142
22	168	87	63	53	44	440	766	1,240	215	45	48	132
23	159	58	52	49	45	600	822	1,220	215	46	39	115
24	150	54	41	45	46	540	656	1,040	208	42	37	106
25	144	58	48	44	49	478	555	902	190	42	35	103
26	140	57	55	46	50	494	510	790	178	41	44	134
27	134	63	48	48	48	494	602	848	166	50	79	159
28	130	66	57	53	46	339	782	893	161	76	97	130
29	124	69	54	48	-	315	930	920	150	85	146	136
30	122	77	54	45	-	289	990	980	159	95	77	112
31	119	-	58	44	-	318	-	980	-	85	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,585	412	115	180	11,080
November	2,668	122	54	88.9	5,290
December	1,958	82	41	63.2	3,880
Calendar year 1938	179,029	3,350	41	490	355,100
January	1,626	68	44	52.5	3,230
February	1,289	52	33	46.0	2,560
March	6,392	600	44	206	12,680
April	16,214	990	289	540	32,160
May	32,094	1,300	736	1,035	63,660
June	16,019	1,160	150	534	31,770
July	2,386	150	41	77.0	4,730
August	1,789	146	35	57.7	3,550
September	4,833	372	38	161	9,590
Water year 1938-39	92,853	1,300	33	254	184,200

San Juan River at Rosa, N. Mex.

Location.- Water-stage recorder, lat. 37°00'20", long. 107°24'10", in sec. 21, T. 32 N., R. 5 W., about 75 feet upstream from highway bridge, a quarter of a mile downstream from Piedra River, and about a mile north of Rosa.

Drainage area.- 1,990 square miles.

Records available.- October 1930 to September 1939 in reports of U. S. Geological Survey. September 1920 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,670 second-feet Mar. 24 (gage height, 5.29 feet); minimum daily discharge, 73 second-feet July 26.
1930-39: Maximum discharge, 10,400 second-feet June 21, 1935 (gage height, 7.60 feet, former datum), from rating curve extended above 8,200 second-feet; minimum daily discharge, 70 second-feet (estimated) Dec. 1, 2, 1934.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Nov. 25 to Dec. 8, Dec. 26 to Mar. 20, those for periods of missing or incomplete gage height record, July 17, 18, and those for period of uncertain stage-discharge relation, July 1-10, all of which were computed on basis of weather records and records for other stations on San Juan River, particularly that at Pagosa Springs, and are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	352	398	240	170	120	140	1,720	3,020	2,390	430	324	212
2	336	410	250	170	140	140	2,130	3,320	2,320	390	234	186
3	369	392	240	180	110	160	2,390	3,090	2,390	360	186	163
4	369	369	200	200	130	170	3,020	2,940	2,520	330	196	145
5	358	364	230	190	120	150	2,390	3,090	2,730	300	186	142
6	440	369	220	160	130	140	2,390	3,390	2,390	280	168	281
7	1,000	300	210	210	160	160	1,830	2,940	1,890	260	201	315
8	2,420	248	200	190	170	180	1,830	2,870	1,770	230	266	457
9	1,270	319	164	190	140	200	2,200	3,020	1,660	210	212	688
10	987	344	173	180	120	200	2,130	3,320	1,600	200	176	677
11	851	336	192	170	130	190	1,660	3,390	1,600	181	163	1,460
12	771	315	186	150	140	220	1,600	3,240	1,500	172	150	963
13	723	267	179	140	150	270	1,660	2,940	1,410	154	138	938
14	731	224	143	140	140	310	1,770	2,730	1,320	145	128	1,460
15	731	275	167	140	160	370	1,660	2,590	1,170	163	128	1,980
16	779	303	176	130	170	440	1,430	2,460	1,020	218	117	1,130
17	819	299	213	120	170	520	1,240	2,130	892	180	114	938
18	763	267	185	140	160	810	1,150	2,070	787	150	110	806
19	685	238	167	160	150	1,070	1,240	2,590	678	128	110	666
20	626	271	199	180	140	1,500	1,400	3,160	605	114	107	600
21	591	291	188	190	130	1,990	1,830	3,160	538	92	101	526
22	557	267	179	180	140	2,660	2,320	3,240	524	89	110	466
23	524	238	137	170	160	3,780	2,660	3,160	570	104	114	410
24	492	137	125	160	180	3,470	2,200	2,870	570	104	107	374
25	472	150	122	140	170	2,800	1,890	2,460	544	98	95	349
26	460	150	130	130	150	2,660	1,720	2,010	512	73	98	383
27	434	160	130	140	150	2,730	1,830	2,070	466	80	110	644
28	434	180	140	150	150	1,830	2,260	2,130	446	150	308	486
29	416	200	140	140	-	1,600	2,870	2,200	416	340	673	438
30	404	220	150	120	-	1,410	2,940	2,320	404	506	410	400
31	404	-	160	140	-	1,330	-	2,320	-	366	266	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	20,568	2,420	336	663	40,800
November	8,300	410	137	277	16,460
December	5,554	250	122	179	10,980
Calendar year 1938	567,136	8,960	122	1,554	1,125,000
January	4,970	210	120	160	9,860
February	4,080	180	110	146	8,090
March	33,600	3,780	140	1,084	66,640
April	59,360	2,940	1,150	1,979	117,700
May	86,240	3,390	2,010	2,782	171,100
June	37,632	2,730	404	1,254	74,640
July	6,597	506	73	213	13,080
August	5,806	673	95	187	11,520
September	18,683	1,980	142	623	37,060
Water year 1938-39	291,370	3,780	73	798	577,900

Peak discharge.- Mar. 23 (1 a.m.) 5,500 sec.-ft.; Mar. 24 (1 a.m.) 5,670 sec.-ft.; May 6 (7 a.m.) 3,790 sec.-ft.; May 11 (7 a.m.) 3,790 sec.-ft.; May 20 (8 a.m.) 3,630 sec.-ft.; May 22 (8 a.m.) 3,710 sec.-ft.

San Juan River near Blanco, N. Mex.

Location.- Water-stage recorder, lat. 36°44', long. 107°49', in sec. 18, T. 29 N., R. 9 W., half a mile upstream from highway bridge, 1 mile upstream from Canyon Largo, and 1½ miles east of Blanco.

Drainage area.- 3,320 square miles.

Records available.- December 1908 to October 1910 (January to October 1910, gage heights only) and October 1930 to September 1939 in reports of U. S. Geological Survey. December 1908 to December 1909 and June 1927 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 6,570 second-feet Mar. 24 (gage height, 5.41 feet); minimum daily discharge, 17 second-feet Aug. 18, 24, 25.
1930-39: Maximum discharge, 18,000 second-feet Apr. 16, 1937, from rating curve extended above 11,000 second-feet logarithmically and on basis of velocity-area studies; maximum gage height, 7.65 feet Aug. 21, 1932; minimum daily discharge, that of Aug. 18, 24, 25, 1939.

Remarks.- Records good except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	462	624	334	260	210	250	1,920	3,620	3,010	518	187	183
2	451	648	378	260	200	260	2,480	3,890	2,940	282	179	129
3	407	656	345	280	160	270	2,690	3,890	2,810	258	116	95
4	476	592	339	290	180	287	3,620	3,750	2,990	244	96	71
5	469	585	329	290	190	287	3,330	4,030	3,330	226	96	53
6	504	600	345	270	230	287	2,970	4,330	3,090	195	85	49
7	1,120	562	323	310	250	277	2,580	4,030	2,480	156	61	260
8	3,360	476	297	300	280	277	2,410	3,620	2,070	125	67	592
9	2,290	455	297	290	270	315	2,610	3,750	1,910	106	119	957
10	1,540	525	318	280	220	361	2,810	4,180	1,800	96	76	1,320
11	1,350	518	313	280	210	640	2,460	4,330	1,750	76	53	1,760
12	1,200	497	323	260	220	672	2,130	4,330	1,720	71	41	1,870
13	1,060	469	280	240	240	716	2,110	3,890	1,600	51	38	1,490
14	1,060	413	250	220	230	851	2,190	3,480	1,490	113	27	1,720
15	1,120	407	282	220	250	1,030	2,150	3,210	1,420	69	19	2,230
16	1,040	462	313	230	260	1,080	1,870	2,990	1,230	71	18	1,660
17	880	476	356	220	270	1,240	1,580	2,720	1,020	83	20	1,120
18	1,200	431	350	230	260	1,430	1,420	2,390	880	59	17	1,030
19	1,120	395	334	260	250	1,750	1,380	2,720	797	56	18	860
20	1,040	395	325	280	250	2,190	1,550	3,480	698	51	18	664
21	982	413	361	280	240	2,520	1,890	3,890	600	29	31	600
22	890	401	329	290	250	3,110	2,460	3,890	525	25	23	497
23	842	354	268	290	270	4,480	2,970	3,890	462	25	18	449
24	788	240	213	260	290	4,640	2,900	3,620	443	26	17	413
25	754	249	190	240	320	5,620	2,410	3,040	457	26	17	373
26	716	260	200	220	300	5,280	2,160	2,520	395	26	18	367
27	672	260	210	240	270	3,110	2,110	2,370	378	41	18	497
28	648	280	220	240	260	2,780	2,500	2,610	373	23	63	616
29	616	300	230	240	-	2,070	3,210	2,740	329	39	418	443
30	608	318	240	220	-	2,020	3,620	2,940	297	409	511	457
31	592	-	250	220	-	1,670	-	3,040	-	263	308	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30,217	3,360	407	975	59,930
November	13,241	656	240	441	26,260
December	9,140	378	190	295	18,130
Calendar year 1938	750,488	10,800	154	2,056	1,489,000
January	8,010	510	220	258	15,890
February	6,830	380	160	244	13,550
March	47,768	4,640	250	1,541	94,750
April	72,480	3,620	1,380	2,416	143,800
May	107,180	4,330	2,370	3,457	212,600
June	45,274	3,330	297	1,442	85,830
July	3,597	409	25	116	7,130
August	2,791	511	17	90.0	5,640
September	22,805	2,230	49	760	45,230
Water year 1938-39	367,331	4,640	17	1,006	728,600

Peak discharge.- Mar. 23 (9 a.m.) 6,200 sec.-ft.; Mar. 24 (9 a.m.) 6,570 sec.-ft.; Mar. 25 (9 a.m.) 4,480 sec.-ft.; May 6 (4 p.m.) 4,800 sec.-ft.; May 10 (5 p.m.) 4,800 sec.-ft.; May 11 (4 p.m.) 4,960 sec.-ft.

Note.- Stage-discharge relation affected by ice Nov. 24, 26-29, Dec. 13, 14, Dec. 25 to Mar. 3; discharge computed on basis of six discharge measurements, gage heights, weather records and records for stations at Pagosa Springs, Colo., at Farmington, and at Ship Rock, N. Mex., and near Bluff, Utah.

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San Juan River at Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43', long. 108°13', in NE¼NE¼ sec. 20, T. 29 N., R. 13 W., 1,900 feet downstream from Animas River and 1 mile southwest of Farmington.

Drainage area.- 6,580 square miles.

Records available.- June 1904 to September 1906, September 1912 to December 1914, and October 1930 to September 1939 in reports of U. S. Geological Survey. September 1912 to July 1918 and November 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 8,550 second-feet May 11 (gage height, 3.62 feet); minimum daily discharge, 27 second-feet Aug. 22.

1930-39: Maximum discharge, 32,800 second-feet Sept. 28, 1935, from rating curve extended above 18,000 second-feet (gage height, 8.0 feet, estimated); minimum daily discharge, that of Aug. 22, 1939.

Remarks.- Records good except those for periods of ice effect or missing gage heights, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	918	1,210	*660	499	*450	*500	2,590	5,400	4,960	628	305	385
2	904	1,250	*700	472	*400	*500	3,140	5,800	4,840	618	274	274
3	890	1,180	684	508	*500	575	3,790	6,000	4,370	575	231	215
4	904	1,140	708	508	*400	640	4,800	5,600	4,920	537	196	160
5	946	1,200	673	527	*350	508	5,200	5,800	5,800	518	168	115
6	820	1,080	662	640	*500	378	4,220	7,100	5,800	537	152	116
7	1,210	990	537	589	*550	488	4,000	7,100	4,720	499	140	414
8	4,580	862	537	684	*520	651	3,860	5,400	3,690	414	106	1,610
9	4,450	745	596	629	*480	876	3,110	5,400	3,690	357	148	2,140
10	2,930	862	607	618	*400	890	3,590	6,420	3,620	336	160	3,080
11	2,540	904	629	*580	*450	1,670	3,360	7,550	3,690	293	119	4,040
12	2,260	862	662	556	499	†1,600	2,930	7,320	3,690	263	81	5,000
13	2,020	795	596	518	472	†1,800	2,960	6,420	3,420	220	78	5,400
14	2,000	640	508	*470	*500	†2,000	3,200	5,600	3,300	177	78	4,600
15	2,140	673	499	*480	518	2,260	3,260	4,800	3,360	206	64	3,970
16	2,110	758	640	499	566	2,160	2,960	4,640	3,140	144	55	3,590
17	2,180	708	651	*460	464	2,340	2,540	4,520	2,730	172	52	3,050
18	2,490	673	629	*430	*490	2,360	2,240	3,900	2,460	172	44	2,520
19	2,260	732	629	*490	500	2,260	2,210	3,930	2,140	136	44	2,310
20	1,820	758	695	*470	520	2,340	2,260	5,600	1,730	106	46	1,670
21	1,690	780	640	*540	420	3,390	2,520	6,420	1,340	76	42	1,380
22	1,710	808	673	*580	450	4,770	3,200	6,650	1,060	81	27	1,210
23	1,590	720	640	*600	499	†6,000	3,900	6,650	232	76	30	1,130
24	1,430	547	537	*580	566	†5,600	4,370	6,200	848	48	42	1,100
25	1,410	*520	508	547	629	5,400	3,590	5,400	848	50	42	1,040
26	1,340	*520	518	547	684	4,720	3,140	4,220	834	50	40	1,100
27	1,300	*520	*520	499	518	4,600	2,790	3,760	708	95	500	1,250
28	1,250	*540	*530	556	527	4,220	3,200	4,450	732	113	234	1,450
29	1,230	*560	*520	537	-	3,170	4,490	4,540	732	442	431	1,140
30	1,230	618	518	547	-	3,020	5,600	5,200	732	†450	651	1,000
31	1,210	-	*500	*500	-	2,490	-	5,200	-	†400	556	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	55,632	4,520	820	1,795	110,300
November	24,095	1,250	520	803	47,790
December	18,606	708	499	600	36,900
Calendar year 1938	1,270,069	19,600	252	3,480	2,519,000
January	16,700	684	430	539	33,120
February	13,622	684	300	486	27,020
March	74,177	6,000	378	2,393	147,100
April	102,370	5,600	2,210	3,412	203,000
May	173,290	7,550	3,760	5,590	343,700
June	84,836	5,800	708	2,828	168,300
July	8,790	629	48	284	17,430
August	5,135	651	27	166	10,190
September	56,460	5,400	116	1,882	112,000
Water year 1938-39	633,714	7,550	27	1,736	1,257,000

Peak discharge.- May 6 (11 p.m.) 8,300 sec.-ft.; May 10 (11 to 12 p.m.) 7,800 sec.-ft.; May 11 (7 to 10 p.m.) 8,550 sec.-ft.; May 12 (1 a.m.) 8,300 sec.-ft.; May 13 (1 a.m.) 7,550 sec.-ft.; May 22 (10 to 12 p.m.) 7,550 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of 13 discharge measurements, gage heights, weather records, and records for stations at Ship Rock and Blanco.

†Gage height missing or incomplete; discharge computed on basis of weather records, partial gage heights, and records for Ship Rock and near Blanco.

San Juan River at Ship Rock, N. Mex.

Location.- Water-stage recorder, lat. 36°47'35", long. 108°43'55", in SW¼ sec. 22, T. 30 N., R. 18 W., 3 miles northwest of Ship Rock and about 6 miles downstream from Chaco River. Prior to Oct. 26 water-stage recorder at site 400 feet upstream, datum 1.85 feet higher; Oct. 26 to July 24 water-stage recorder at present site, datum 1 foot higher.

Records available.- January to October 1911, October 1930 to September 1931, October 1932 to September 1939 in reports of Geological Survey. January to October 1911, November 1915 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 12,100 second-feet Sept. 11 (gage height, 6.85 feet); minimum daily discharge, 8 second-feet Aug. 25 and 26.

1930-31, 1932-39: Maximum discharge, about 44,200 second-feet Sept. 28, 1935 (gage height, 9.44 feet, former site and datum, from high-water marks), from rating curve extended logarithmically above 20,000 second-feet; minimum daily discharge, that of Aug. 25, 26, 1939.

A stage of about 6.5 feet, former site and datum, occurred Aug. 11, 1929 (discharge, about 80,000 second-feet). A greater discharge probably occurred Oct. 6, 1911, when stage of 22.0 feet on old gage (relation to present datum unknown) was recorded.

Remarks.- Records good except those for periods of ice effect or missing gage heights, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	710	1,280	*740	*550	*550	*550	2,250	5,060	4,820	660	400	410
2	700	1,320	*850	*550	*500	*550	2,530	4,940	4,880	580	263	302
3	690	1,330	770	*600	*550	*600	3,150	5,670	4,680	612	187	258
4	680	1,260	760	*640	*250	*600	3,790	5,300	4,820	604	155	190
5	770	1,230	770	*590	*300	*600	4,470	5,300	†5,100	589	132	162
6	770	1,180	750	573	*470	*650	4,010	5,920	†5,400	510	178	190
7	844	1,130	760	620	*590	*650	3,900	6,560	5,060	492	128	338
8	3,270	1,060	705	669	*600	*700	3,360	5,300	4,240	430	96	1,780
9	†4,100	*1,000	678	687	*560	1,020	3,360	5,180	3,680	360	84	2,070
10	2,640	*950	652	678	*510	1,180	3,680	5,900	3,360	360	114	2,860
11	2,280	*900	652	*640	*490	1,340	3,680	6,560	3,060	318	116	5,890
12	2,030	*1,000	669	*610	*490	1,300	3,260	6,820	2,950	274	93	5,180
13	1,950	1,010	660	*560	*490	1,460	3,080	6,300	2,760	229	67	3,680
14	1,950	905	644	*520	*500	1,850	2,950	5,540	2,530	196	55	3,260
15	1,950	883	628	*530	*570	2,020	3,050	4,940	2,470	162	47	3,260
16	2,120	*850	669	*540	*610	1,990	2,760	4,700	2,400	107	34	3,260
17	2,010	*850	770	566	*620	1,940	2,470	4,470	2,120	†130	36	2,330
18	2,030	*680	741	566	*600	1,960	2,180	3,900	1,840	†110	35	1,840
19	2,280	905	723	552	*590	2,180	2,130	3,570	1,610	†120	31	1,670
20	2,120	850	732	552	*610	2,490	2,180	4,580	1,390	107	20	1,600
21	1,930	872	780	620	*580	3,050	2,370	5,800	1,080	44	16	1,260
22	1,870	883	741	660	*520	3,900	2,760	6,300	927	39	13	1,160
23	1,740	*810	770	678	*520	4,940	3,360	6,560	850	33	11	1,040
24	1,640	*710	678	660	*590	5,420	4,120	6,040	820	42	14	996
25	1,550	*620	566	*620	*640	5,060	3,680	5,060	790	†35	8	1,060
26	1,430	*550	559	*600	*640	4,470	3,150	4,240	780	†33	8	†2,500
27	1,430	*550	580	*600	*590	4,010	2,950	3,680	732	21	56	†1,300
28	1,360	*580	*570	*600	*600	3,900	3,050	4,010	687	27	440	1,180
29	1,290	*570	*570	*650	-	3,150	3,790	4,240	732	257	184	1,230
30	1,290	*560	*560	*600	-	2,950	4,940	4,470	669	298	360	938
31	1,280	-	*560	*600	-	2,670	-	4,820	-	314	524	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	52,704	4,100	680	1,700	104,500
November	27,478	1,330	550	916	54,500
December	21,167	850	559	682	41,960
Calendar year 1938	1,292,281	18,100	239	3,540	2,563,000
January	18,681	687	520	603	37,050
February	14,930	640	250	533	29,610
March	69,150	5,420	550	2,231	137,200
April	96,380	4,940	2,130	3,213	191,200
May	161,630	6,820	3,570	5,214	320,600
June	77,067	5,400	669	2,569	152,900
July	8,143	660	21	263	16,150
August	3,905	524	8	126	7,750
September	53,174	5,890	162	1,772	105,500
Water year 1938-39	604,399	6,820	8	1,656	1,199,000

*Stage-discharge relation affected by ice; discharge computed on basis of 17 discharge measurements, weather records, gage heights, and records for San Juan River near Bluff, Utah.

†Gage height missing or for parts of day only; discharge computed on basis of weather records and records for San Juan River near Bluff, Utah.

San Juan River near Bluff, Utah

Location.- Water-stage recorder, lat. 37°09', long. 109°52', in SW¼ sec. 7 (revised), T. 42 S., R. 19 E., 1,600 feet downstream from Gypsum Wash, 1,800 feet upstream from bridge, and 20 miles southwest of Bluff. Altitude, about 4,050 feet.

Drainage area.- 23,900 square miles.

Records available.- October 1914 to September 1917, March 1927 to September 1939.

Average discharge.- 14 years (1915-17, 1927-39), 2,834 second-feet.

Extremes.- Maximum discharge during year, 14,900 second-feet Sept. 12 (gage height, 13.1 feet); no flow Aug. 24-27, 29.

1915-17, 1927-39: Maximum discharge, about 70,000 second-feet Sept. 10, 1927 (gage height, 32.0 feet), from rating curve extended above 15,000 second-feet; no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

Flood of Oct. 6, 1911, which is greatest known at Ship Rock, N. Mex., probably exceeded that of Sept. 10, 1927, at this station, but stage was not accurately determined.

Remarks.- Records excellent except those below 200 second-feet which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	888	1,250	790	619	643	637	2,700	5,010	5,010	583	266	281
2	868	1,330	918	619	571	649	2,540	5,010	4,860	565	204	342
3	828	1,420	880	637	524	668	2,860	5,010	4,710	585	292	249
4	790	1,370	835	720	235	674	3,490	5,840	4,130	553	223	189
5	727	1,340	850	748	259	688	4,000	5,010	4,410	535	159	259
6	755	1,250	835	727	435	707	5,170	5,010	5,010	518	*134	715
7	783	1,170	783	700	421	637	4,270	6,010	5,500	421	*109	435
8	925	1,180	776	727	583	625	3,940	6,370	4,560	412	†84	465
9	4,410	1,080	776	769	700	727	3,370	5,010	3,800	376	†99	S12
10	4,270	996	776	790	619	1,010	3,370	4,860	3,490	371	†97	1,090
11	2,860	940	741	769	407	1,600	3,740	5,500	3,430	288	†68	4,060
12	2,420	1,030	734	707	565	1,600	3,490	6,550	3,370	259	*68	11,000
13	2,150	1,040	727	714	518	1,890	3,080	6,730	3,200	281	*69	7,100
14	1,990	1,000	714	662	631	1,840	2,920	6,010	2,860	252	†69	3,800
15	1,890	980	720	607	655	1,990	2,980	5,330	2,700	207	†46	3,430
16	1,840	902	727	625	755	2,200	2,920	4,710	2,700	*168	†34	3,430
17	1,990	895	748	571	850	2,150	2,760	4,560	2,480	†137	*24	3,310
18	2,040	925	762	513	741	2,100	2,540	4,270	2,200	†115	†14	2,420
19	2,040	918	828	631	828	2,200	2,260	3,610	2,040	†127	†11	1,990
20	2,260	910	812	571	776	2,320	1,990	3,430	1,790	†124	*7	1,840
21	2,100	880	1,050	674	714	2,590	1,990	4,410	1,550	†86	†3	1,690
22	1,940	888	910	798	707	3,140	2,260	6,010	1,260	†95	†1	1,330
23	1,790	895	888	996	674	4,130	2,810	6,190	1,050	*76	†1	1,240
24	1,690	835	865	858	643	5,670	3,610	6,190	812	†56	0	1,040
25	1,600	649	783	805	637	5,670	4,270	6,010	707	†38	0	980
26	1,550	595	649	700	694	4,710	3,740	4,860	694	†25	0	1,510
27	1,460	577	565	674	714	4,130	3,250	4,000	637	†13	0	2,800
28	1,420	607	571	668	727	4,060	3,030	3,550	655	46	*1	1,140
29	1,320	595	595	734	-	4,270	3,080	3,870	625	631	0	1,080
30	1,260	589	607	700	-	3,490	3,800	4,410	589	246	140	1,160
31	1,270	-	649	662	-	2,930	-	4,710	-	144	270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	54,114	4,410	727	1,746	107,300
November	29,034	1,420	577	968	57,590
December	25,864	1,050	565	770	47,350
Calendar year 1938	1,268,430	17,000	198	3,475	2,516,000
January	21,695	996	513	700	43,030
February	17,226	850	235	615	34,170
March	71,702	5,670	625	2,313	142,200
April	96,230	5,170	1,990	3,208	190,900
May	158,050	6,730	3,430	5,098	313,500
June	80,629	5,500	589	2,694	160,300
July	8,333	631	13	269	16,530
August	2,493	292	0	80.4	4,940
September	61,207	11,000	189	2,040	121,400
Water year 1938-39	624,777	11,000	0	1,712	1,239,000

*Estimated.
†Discharge measurement.

West Fork of San Juan River above Borns Lake, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°29'00", long. 106°55'45", in sec. 36, T. 38 N., R. 1 W., half a mile downstream from Beaver Creek, 1½ miles upstream from Borns Lake, and 16 miles northeast of Pagosa Springs.

Drainage area.- 41.2 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 535 second-feet May 19 (gage height, 3.33 feet); minimum daily discharge, 7.2 second-feet Feb. 21.
1937-39: Maximum discharge, 1,100 second-feet June 3, 1938 (gage height, 4.43 feet), from rating curve extended above 600 second-feet; minimum not determined.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for periods of missing gage heights, Oct. 31 to Nov. 5, Nov. 7-12, 14-16, computed on basis of records for station near Pagosa Springs; that for period of ice effect, Nov. 20 to Mar. 22, computed on basis of three discharge measurements made 3 miles below station; weather records, and records for San Juan River at Pagosa Springs. No diversion or regulation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	40	22	13	7.6	8.0	37	210	390	41	22	16
2	35	35	20	14	8.0	7.8	45	174	380	39	23	15
3	34	36	19	14	9.0	8.0	52	144	395	38	21	15
4	33	37	20	13	8.8	8.2	54	187	410	37	20	15
5	40	37	21	12	8.6	8.2	47	296	415	35	19	23
6	63	31	21	14	8.4	8.2	43	296	310	32	27	54
7	104	28	21	14	8.4	8.2	44	228	241	30	29	52
8	100	30	21	13	8.2	9.0	47	272	228	30	20	61
9	83	35	20	13	8.0	9.8	63	310	221	30	18	53
10	75	34	18	12	7.8	11	57	390	210	28	18	51
11	73	33	17	11	8.0	12	50	390	206	26	18	97
12	65	32	19	9.6	8.2	12	50	345	192	25	16	80
13	73	31	18	10	8.4	13	53	306	176	24	16	91
14	75	32	17	10	8.2	14	51	221	164	24	16	123
15	76	32	17	10	8.0	16	46	214	160	24	15	105
16	64	29	17	11	8.2	18	36	210	150	23	16	76
17	78	27	16	11	8.0	20	35	192	139	22	15	69
18	66	28	15	11	8.0	24	35	232	123	22	15	61
19	61	29	16	10	7.6	28	41	360	110	20	15	54
20	60	29	15	10	7.4	34	53	420	97	20	15	48
21	61	27	15	10	7.2	39	79	450	78	20	18	44
22	59	25	14	10	7.4	42	114	445	74	20	18	41
23	55	18	13	10	7.4	45	100	405	66	20	16	38
24	52	18	12	9.4	7.6	39	70	310	60	18	15	35
25	50	18	13	8.8	8.0	39	57	228	56	18	18	35
26	50	18	14	9.2	8.2	40	52	221	52	19	19	39
27	48	19	13	9.4	8.0	33	61	221	49	23	37	38
28	47	20	14	9.6	7.6	29	73	250	47	25	40	35
29	43	21	13	9.2	-	26	87	291	45	25	40	33
30	38	21	13	8.4	-	25	108	282	43	26	24	31
31	37	-	14	7.8	-	30	-	355	-	24	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,854	104	33	59.8	3,680
November	850	40	18	28.3	1,690
December	518	22	12	16.7	1,030
Calendar year	-	-	-	-	-
January	337.4	14	7.8	10.9	669
February	224.6	9.0	7.2	8.02	445
March	664.4	45	7.8	21.4	1,320
April	1,740	114	35	58.0	3,450
May	8,855	450	144	286	17,560
June	5,287	415	43	176	10,490
July	808	41	18	26.1	1,600
August	637	40	15	20.5	1,260
September	1,528	123	15	50.9	3,030
Water year 1938-39	23,303.4	450	7.2	63.8	46,220

West Fork of San Juan River near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°22'30", long. 106°53'45", in NE¼ sec. 12, T. 36 N., R. 1 W., 30 feet downstream from highway bridge, 0.6 mile upstream from mouth, and 10 miles northeast of Pagosa Springs. Prior to Sept. 9, 1938, water-stage recorder at site 30 feet upstream, different datum.

Drainage area.- 87.9 square miles.

Records available.- April 1935 to September 1939.

Extremes.- Maximum discharge during water year 1937-38, 2,030 second-feet May 28 (gage height, 5.61 feet, former site and datum); minimum daily discharge, 10 second-feet Dec. 19.

Maximum discharge during water year 1938-39, 850 second-feet May 19 (gage height, 3.53 feet); minimum daily discharge, 18 second-feet Mar. 7.

1935-39: Maximum discharge, 2,250 second-feet June 15, 1935 (gage height, 6.83 feet, former site and datum), from rating curve extended above 1,300 second-feet; minimum daily discharge, that of Dec. 19, 1937.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Dec. 16, 1937, to Feb. 19, 1938, Feb. 26, 27, 1938, Nov. 25, 1938, to Mar. 23, 1939, which were computed on basis of six discharge measurements and records for San Juan River at Pagosa Springs and are fair. Diversions above station for irrigation.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	32	19	18	19	26	40	689	1,420	886	86	38
2	50	31	20	19	19	24	38	470	1,360	736	75	86
3	46	31	19	19	19	38	46	386	1,400	634	72	64
4	44	29	17	19	20	32	57	292	1,460	536	75	120
5	38	26	16	19	19	22	70	235	1,320	453	64	95
6	36	26	17	15	16	19	70	183	1,330	386	57	86
7	34	36	16	15	18	17	62	166	1,220	322	59	89
8	34	32	14	15	19	19	57	159	1,100	299	44	149
9	32	32	15	16	18	17	64	152	974	273	48	101
10	32	34	15	17	19	12	95	149	974	246	34	86
11	31	34	16	18	20	12	120	173	998	232	44	445
12	31	31	17	18	24	12	149	221	1,060	224	176	499
13	31	26	16	18	27	12	145	288	1,400	228	232	324
14	31	27	17	19	23	13	126	545	1,200	242	295	236
15	57	27	17	20	22	14	107	776	1,090	217	186	190
16	62	24	17	21	20	14	110	828	1,020	200	120	170
17	44	26	17	22	16	16	142	776	998	183	89	164
18	42	27	13	21	18	17	224	625	986	183	75	138
19	32	24	10	20	19	20	307	536	938	193	57	120
20	32	24	15	20	22	24	358	462	903	203	48	111
21	36	26	14	18	20	36	457	466	962	186	40	102
22	36	24	13	21	19	29	541	488	1,250	168	32	97
23	38	19	16	21	24	26	652	510	1,240	129	32	94
24	36	22	16	19	20	44	722	620	1,030	95	32	91
25	38	20	15	18	20	67	750	689	980	80	32	87
26	36	20	17	19	17	86	652	864	838	67	24	82
27	38	19	19	20	19	72	532	1,080	807	101	20	77
28	36	20	16	21	26	64	625	1,400	770	254	20	73
29	34	19	17	21	-	50	755	1,550	1,450	173	27	69
30	31	17	18	21	-	42	817	1,460	1,150	132	40	64
31	31	-	19	19	-	42	-	1,480	-	107	26	-

Discharge, in second-feet, of West Fork of San Juan River near Pagosa Springs, Colo., 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	65	38	26	19	20	122	340	522	91	44	35
2	61	57	34	28	21	19	142	409	535	83	43	34
3	62	58	30	30	25	20	170	360	526	78	47	28
4	58	60	35	28	24	20	187	368	575	75	38	26
5	66	61	34	26	24	20	173	432	560	70	35	27
6	90	51	35	31	24	19	164	463	468	64	46	74
7	133	40	35	31	23	18	151	404	422	60	61	90
8	164	51	35	30	23	19	167	463	392	58	42	94
9	119	53	31	29	23	20	197	517	368	57	36	91
10	109	48	29	27	22	22	167	590	356	51	35	80
11	102	47	27	25	23	23	144	610	332	48	33	133
12	95	46	35	21	23	24	154	560	310	44	29	122
13	102	44	47	22	24	30	167	486	302	41	27	138
14	104	46	32	22	24	36	167	422	285	40	28	167
15	109	47	33	22	22	45	144	400	260	41	27	173
16	122	46	35	23	23	54	122	380	230	40	26	131
17	124	43	32	24	22	64	108	336	203	36	25	119
18	108	40	26	24	23	78	112	396	176	35	25	112
19	101	40	30	23	21	90	129	585	151	34	23	98
20	95	40	28	23	20	105	151	625	140	32	22	90
21	91	38	30	25	19	115	216	605	124	32	23	83
22	88	36	27	25	19	120	257	605	115	33	29	75
23	86	25	24	24	19	125	260	526	114	34	23	70
24	80	26	20	22	20	124	213	450	108	29	21	66
25	78	28	22	21	20	124	184	380	104	27	21	62
26	75	27	25	22	20	135	176	356	98	28	27	70
27	73	30	24	23	20	119	213	400	97	35	47	71
28	70	31	26	24	19	97	264	432	94	41	56	66
29	65	33	25	23	-	86	302	468	95	46	79	61
30	64	35	26	22	-	79	306	494	94	46	47	53
31	61	-	27	21	-	93	-	508	-	49	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937	1,191	62	31	3[illegible].4	2,360
November	785	36	17	2[illegible].2	1,560
December	503	20	10	16.2	998
Calendar year 1937	70,500	1,390	10	19[illegible]	139,800
January 1938	587	22	15	1[illegible].9	1,160
February	562	27	16	2[illegible].1	1,110
March	936	86	12	3[illegible].3	1,860
April	8,890	817	38	29[illegible]	17,630
May	18,858	1,550	149	60[illegible]	37,010
June	33,628	1,460	770	1,12[illegible]	66,700
July	8,362	885	87	27[illegible]	16,590
August	2,261	295	20	7[illegible].9	4,480
September	4,144	499	38	13[illegible]	8,220
Water year 1937-38	80,509	1,550	10	221	159,700
October 1938	2,816	164	58	9[illegible].8	5,590
November	1,292	65	25	4[illegible].1	2,560
December	937	47	20	3[illegible].2	1,860
Calendar year 1938	83,075	1,550	12	22[illegible]	164,800
January 1939	767	31	21	2[illegible].7	1,520
February	609	25	19	21.8	1,210
March	1,963	138	18	6[illegible].3	3,890
April	5,429	306	108	18[illegible]	10,770
May	14,370	625	356	46[illegible]	28,500
June	8,154	575	93	27[illegible]	16,170
July	1,478	91	27	47.7	2,930
August	1,105	79	21	3[illegible].6	2,190
September	2,539	173	26	8[illegible].6	5,040
Water year 1938-39	41,489	625	18	114	82,250

Turkey Creek near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°22'15", long. 106°56'45", at west side of sec. 10, T. 36 N., R. 1 W., 2¼ miles upstream from mouth and 8 miles northeast of Pagosa Springs.

Drainage area.- 23.0 square miles.

Records available.- May 1937 to September 1939.

Extremes.- Maximum discharge during year, 209 second-feet May 10 (gage height, 2.27 feet); minimum daily discharge, 0.4 second-foot July 25, 26.
1937-39: Maximum discharge, 602 second-feet May 28, 1938 (gage height, 3.20 feet), from rating curve extended above 300 second-feet; minimum daily discharge, 0.4 second-foot Sept. 28, 1937, July 25, 26, 1939.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Nov. 7-9, Nov. 12 to Mar. 21 (computed on basis of five discharge measurements, weather records, and records for San Juan River at Pagosa Springs), and those below 10 second-feet, which are fair. A large part of flow diverted from drainage basin above station during irrigation season.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4	8.4	7.8	7.2	6.6	8.0	26	156	106	5.2	1.0	2.6
2	8.1	7.8	7.4	7.6	7.4	8.2	32	159	96	4.3	.9	2.8
3	8.4	8.8	7.6	8.0	8.8	8.2	40	122	98	3.6	.9	1.6
4	7.5	9.1	8.0	7.6	9.2	7.8	61	119	109	2.8	1.1	1.5
5	8.1	8.8	8.2	7.2	9.0	7.6	57	131	101	2.8	1.0	1.4
6	13	7.5	8.4	8.2	8.8	7.4	57	149	80	2.2	1.4	9.9
7	24	6.6	8.4	8.2	8.6	7.0	48	128	65	1.7	3.4	11
8	30	7.6	8.2	8.0	8.4	7.6	59	134	59	1.5	1.7	16
9	24	8.0	8.0	7.6	8.2	8.4	67	152	53	1.4	1.5	17
10	21	8.4	7.6	7.4	8.2	9.4	55	175	50	1.2	1.7	14
11	19	8.8	8.0	7.0	8.4	10	43	169	47	1.3	1.4	44
12	17	8.6	8.8	6.2	8.6	11	43	152	41	1.3	1.3	35
13	18	8.6	9.6	6.4	8.8	12	47	125	33	1.2	1.4	36
14	18	8.4	8.6	6.4	8.8	13	47	111	30	1.3	1.5	38
15	18	8.4	8.4	6.4	8.4	14	38	109	26	1.1	1.4	57
16	19	8.2	8.4	6.8	8.6	16	33	98	21	1.1	1.4	33
17	19	8.2	8.2	7.0	8.6	19	31	80	18	.8	1.3	26
18	17	8.2	7.6	7.2	8.4	24	33	82	15	1.0	1.3	20
19	15	8.4	7.8	6.8	8.2	29	37	111	12	1.0	1.2	15
20	14	8.6	7.6	6.6	8.0	38	55	137	11	.8	1.2	12
21	14	8.4	7.6	7.2	7.8	49	73	143	9.1	.6	3.6	10
22	13	8.0	7.4	7.2	7.8	51	96	143	8.4	.6	4.0	9.1
23	11	6.4	7.0	7.2	8.0	50	91	137	8.4	.6	1.4	8.4
24	11	6.0	6.8	6.6	8.2	33	73	111	8.4	.5	1.3	7.2
25	9.4	6.4	7.2	6.6	8.2	27	65	89	7.2	.4	1.3	6.8
26	9.1	6.8	7.4	6.8	8.2	28	67	80	6.5	.4	1.5	9.1
27	9.4	7.2	7.2	7.2	8.0	29	84	89	5.7	1.1	3.0	8.8
28	9.4	7.6	7.4	7.4	7.8	25	103	93	5.7	1.2	9.1	9.4
29	8.4	7.8	7.2	7.2	-	23	122	98	6.0	1.1	15	9.4
30	8.4	8.0	7.6	7.0	-	20	156	101	6.2	1.0	5.5	8.8
31	8.4	-	7.6	6.8	-	21	-	103	-	.9	3.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	438.0	30	7.5	14.1	869
November	238.0	9.1	6.0	7.93	472
December	243.0	9.6	6.8	7.84	482
Calendar year 1938	18,365.2	448	-	50.3	36,420
January	221.2	8.2	6.2	7.14	439
February	232.0	9.2	6.6	8.29	460
March	621.6	51	7.0	20.1	1,230
April	1,839	156	26	61.3	3,650
May	3,766	175	80	122	7,510
June	1,144.6	109	5.7	38.2	2,270
July	46.0	5.2	.4	1.48	91
August	77.3	15	.9	2.49	153
September	480.6	57	1.4	16.0	953
Water year 1938-39	9,367.3	175	.4	25.7	18,580

Rio Blanco near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°12'45", long. 106°47'40", in center of sec. 1, T. 34 N., R. 1 E., at highway bridge, 0.4 mile upstream from White Creek and 12.5 miles southeast of Pagosa Springs.

Drainage area.- 58 square miles.

Records available.- May 1935 to September 1939.

Extremes.- Maximum discharge during year, 466 second-feet Sept. 11 (gage height, 2.92 feet); minimum daily discharge, 7.0 second-feet Dec. 24.
1935-39: Maximum discharge, 1,340 second-feet May 17, 1937 (gage height, 4.06 feet), from rating curve extended above 600 second-feet; minimum daily discharge, 6.6 second-feet Feb. 24, 27, 28, 1938.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	24	12	*13	*9.2	*10	91	274	220	37	36	13
2	21	23	*13	*14	*11	*10	116	280	217	35	31	11
3	24	24	*12	*17	*12	*10	126	277	232	34	31	9.6
4	28	23	12	*14	*13	*10	116	298	247	32	34	7.2
5	25	25	*12	*15	*13	*10	121	314	247	31	27	9.0
6	32	20	*12	*17	*12	*9.2	110	298	194	31	28	14
7	91	23	*12	*17	*12	*10	102	262	160	29	32	24
8	123	19	*13	*16	*11	*10	121	277	155	25	30	74
9	82	25	*12	*16	*11	*10	150	304	147	25	24	59
10	70	22	*12	*15	*10	*10	114	320	150	24	21	47
11	55	20	12	*14	*10	*9.4	90	310	142	24	20	152
12	48	20	11	*14	*11	*11	96	280	134	24	17	98
13	51	*18	*9.8	*14	*11	*13	104	262	125	21	16	101
14	47	*21	*9.4	*15	*11	*17	112	256	116	18	16	165
15	52	20	*12	*15	*12	*21	93	241	98	18	12	127
16	62	19	13	*15	*11	*28	79	209	86	18	11	77
17	51	16	*11	*16	*11	*40	71	184	74	15	11	56
18	43	*17	*8.4	*16	*11	*58	66	229	59	12	11	44
19	38	*17	8.8	*15	*11	*80	79	286	50	13	9.0	45
20	34	16	12.	*15	*11	114	98	296	45	13	8.4	35
21	33	16	8.8	*14	*11	93	174	283	44	15	14	30
22	30	14	*8.0	*14	*11	85	209	293	47	14	12	26
23	29	*12	*7.4	*14	*11	116	198	273	57	11	9.6	22
24	26	*12	*7.0	*13	*11	135	148	241	52	11	8.4	19
25	25	*12	*8.4	*13	*11	110	123	197	47	12	13	23
26	25	*12	*10	*14	*11	104	143	170	42	11	14	44
27	24	*12	*9.4	*14	*11	91	209	183	41	21	24	45
28	23	*12	*11	*14	*11	83	262	186	39	41	34	41
29	22	*13	*11	*13	-	59	262	192	40	65	33	40
30	22	*13	*12	*11	-	54	259	208	39	79	17	32
31	22	-	*12	*10	-	63	-	208	-	46	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,279	123	21	41.3	2,540
November	540	25	12	18.0	1,070
December	334.4	13	7.0	10.8	663
Calendar year 1938	41,609.8	758	6.6	114	82,540
January	447	17	10	14.4	887
February	312.2	13	9.2	11.2	619
March	1,483.6	135	9.2	47.9	2,940
April	4,042	262	66	135	8,020
May	7,891	320	170	255	15,650
June	3,346	247	39	112	6,640
July	805	79	11	26.0	1,600
August	618.4	36	8.4	19.9	1,230
September	1,489.8	165	7.2	49.7	2,950
Water year 1938-39	22,588.4	320	7.0	61.9	44,810

Peak discharge.- Apr. 28 (7:30 p.m.) 415 sec.-ft.; Sept. 11 (5 a.m.) 466 sec.-ft.; Sept. 14 (4:30 a.m.) 462 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of three discharge measurements, weather records, and records for San Juan River at Pagosa Springs.

Rito Blanco near Pagosa Springs, Colo.

Location.-Water-stage recorder, lat. 37°11'40", long. 106°54'20", in SW¼ sec. 12, T. 34 N., R. 1 W., at road crossing, 0.1 mile upstream from Sheep Cabin Creek and 7¾ miles southeast of Pagosa Springs.

Drainage area.- 23.3 square miles.

Records available.- May 1935 to September 1939.

Extremes.- Maximum discharge during year, 96 second-feet Apr. 28 (gage height, 2.29 feet); no flow July 25, Aug. 13, 14, 16-18, 20, 24-26.
1935-39: Maximum discharge, 310 second-feet June 9, 1935 (gage height, 2.87 feet); no flow July 25, Aug. 13, 14, 16-18, 20, 24-26, 1939.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Nov. 8-10, Nov. 13 to Mar. 20 (computed on basis of six discharge measurements, weather records, and records for San Juan River at Pagosa Springs), and those for period of missing gage heights, Apr. 12-17 (computed on basis of records for Rio Blanco near Pagosa Springs), which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	1.0	1.9	1.7	0.8	1.6	25	63	27	2.1	0.9	0.3
2	2.2	1.4	1.9	1.7	1.0	1.7	31	64	27	1.9	.6	.2
3	2.4	2.1	1.8	1.8	1.0	1.7	35	58	26	1.2	.5	.2
4	2.2	2.4	1.7	1.6	1.1	1.8	36	58	27	1.1	.5	.1
5	2.5	2.2	1.7	1.7	1.1	1.8	36	58	28	1.0	.5	.2
6	4.0	1.4	1.7	1.7	1.1	1.8	37	60	25	.7	.5	.2
7	9.8	1.5	1.7	1.7	1.1	1.8	32	48	23	.7	.7	.5
8	14	2.2	1.7	1.7	1.0	1.9	38	46	21	.8	.7	2.8
9	11	3.2	1.7	1.6	1.0	1.9	45	46	20	.8	.4	1.9
10	10	3.0	1.7	1.6	.9	1.9	34	46	18	.8	.1	.9
11	9.0	2.5	1.6	1.6	1.0	1.8	33	44	18	.7	.1	8.2
12	6.6	2.2	1.6	1.5	1.0	2.2	35	39	16	.4	.1	4.8
13	7.8	2.7	1.5	1.5	1.0	2.4	37	34	15	.4	0	2.8
14	7.4	2.9	1.5	1.5	1.0	2.7	38	30	13	.4	0	6.6
15	6.2	3.0	1.6	1.6	1.1	3.0	31	26	12	.6	.1	12
16	7.0	2.7	1.7	1.5	1.1	4.0	25	25	8.6	.7	0	5.8
17	5.4	2.5	1.6	1.5	1.2	4.4	23	21	5.8	.4	0	5.4
18	4.5	2.5	1.5	1.4	1.2	5.8	22	22	4.5	.4	0	2.8
19	4.2	2.6	1.6	1.4	1.3	8.0	26	27	3.4	.4	.1	2.2
20	4.0	2.6	1.7	1.4	1.3	46	40	33	2.4	.3	0	2.2
21	3.4	2.6	1.5	1.4	1.3	25	56	35	1.7	.3	.1	1.7
22	1.5	2.4	1.3	1.4	1.4	25	66	40	1.0	.3	.3	1.5
23	1.5	2.0	1.2	1.4	1.4	25	54	39	1.4	.1	.1	1.1
24	1.5	1.8	1.2	1.4	1.4	26	44	37	1.7	.1	0	1.0
25	1.4	1.7	1.3	1.4	1.5	24	39	32	2.1	0	0	1.1
26	1.4	1.7	1.4	1.4	1.5	25	40	26	2.5	.1	0	2.1
27	1.4	1.7	1.4	1.3	1.5	25	48	25	4.0	.2	.3	6.6
28	1.2	1.7	1.5	1.3	1.6	21	61	25	4.0	1.1	1.8	2.2
29	1.1	1.8	1.5	1.2	-	18	68	25	2.5	2.8	1.2	2.2
30	1.0	1.8	1.5	1.1	-	18	61	25	2.5	1.7	.3	1.8
31	1.0	-	1.6	.9	-	21	-	26	-	.9	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	138.8	14	1.0	4.48	275
November	65.8	3.2	1.0	2.19	131
December	48.8	1.9	1.2	1.57	97
Calendar year 1938	9,137.6	200	.7	25.0	18,130
January	45.9	1.8	.9	1.48	91
February	32.9	1.6	.8	1.18	65
March	351.2	46	1.6	11.3	697
April	1,196	68	22	39.9	2,370
May	1,183	64	21	38.2	2,350
June	364.1	28	1.0	12.1	722
July	23.4	2.8	0	.75	46
August	10.1	1.8	0	.33	20
September	81.4	12	.1	2.71	161
Water year 1938-39	3,541.4	68	0	9.70	7,020

Navajo River at Banded Peak ranch, near Chromo, Colo.

Location.- Water-stage recorder, lat. 37°05'00", long. 106°41'30", in NW¼ sec. 24, T. 33 N., R. 2 E., on Banded Peak ranch, half a mile downstream from Aspen Creek and 9 miles northeast of Chromo.

Drainage area.- 69.8 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 486 second-feet May 19 (gage height, 3.07 feet); minimum daily discharge, 18 second-feet Dec. 24, Feb. 1.
1937-39: Maximum discharge, 876 second-feet May 28, 1938 (gage height, 3.42 feet); minimum daily discharge, that of Dec. 24, 1938, Feb. 1, 1939.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 22 to Mar. 18 (computed on basis of one discharge measurement, weather records, and records for San Juan River at Pagosa Springs), and those for periods of missing gage heights, Oct. 7, 9-13, 18-20, Nov. 5-10, Sept. 12-19 (computed on basis of records for station at Edith), which are fair. No diversion or regulation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	47	35	29	18	27	107	336	320	62	45	29
2	49	43	32	31	22	28	128	336	326	56	41	27
3	53	44	30	33	30	29	146	348	332	56	44	25
4	47	43	34	30	30	29	141	371	371	53	40	24
5	48	45	34	27	29	27	143	394	368	49	37	29
6	53	37	34	30	28	26	141	391	278	48	38	37
7	80	33	35	32	28	27	131	352	236	44	42	31
8	101	34	35	31	27	28	154	355	239	45	40	43
9	90	35	35	30	26	28	164	381	221	44	34	47
10	80	34	35	29	25	28	141	411	224	44	33	32
11	72	30	35	27	26	26	126	415	221	42	33	138
12	66	29	35	26	27	29	131	381	210	41	31	105
13	64	27	28	26	28	32	136	355	201	40	33	95
14	63	31	23	27	28	35	138	352	182	40	32	120
15	64	29	27	27	28	39	126	332	164	40	32	135
16	68	31	32	28	27	44	112	313	143	37	30	90
17	66	30	28	29	27	54	101	263	133	35	29	72
18	60	33	24	29	27	66	99	310	116	35	28	62
19	58	34	31	28	27	80	116	384	101	33	27	54
20	55	32	29	28	26	76	164	415	92	33	28	47
21	54	33	27	29	26	74	187	401	86	31	34	43
22	53	28	23	29	26	78	227	415	84	33	30	42
23	52	27	20	28	26	103	227	394	84	33	28	40
24	49	27	18	27	27	114	190	352	78	31	26	37
25	49	27	22	27	27	107	172	284	76	31	32	38
26	45	28	25	28	27	112	185	245	69	34	35	49
27	48	29	23	29	28	114	218	266	68	48	32	50
28	47	31	26	29	27	99	281	288	63	57	37	41
29	43	32	27	27	-	84	304	320	62	62	36	38
30	44	34	27	22	-	72	320	323	62	58	32	36
31	44	-	27	19	-	82	-	313	-	62	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,817	101	43	58.6	3,600
November	997	47	27	33.2	1,980
December	896	35	18	28.9	1,780
Calendar year 1938	50,884	744	18	139	100,900
January	871	33	19	28.1	1,730
February	748	30	18	26.7	1,480
March	1,797	114	26	58.0	3,560
April	4,958	320	99	165	9,830
May	10,796	415	245	348	21,410
June	5,210	371	62	174	10,330
July	1,357	62	31	43.8	2,690
August	1,053	45	26	34.0	2,090
September	1,656	138	24	55.2	3,280
Water year 1938-39	32,156	415	18	88.1	63,760

Navajo River at Edith, Colo.

Location.- Water-stage recorder, lat. 37°00'10", long. 106°04'20", in NW¼ sec. 24, T. 32 N., R. 1 W., at highway bridge, a quarter of a mile east of Edith and 1 mile upstream for Coyote Creek.

Drainage area.- 165 square miles.

Records available.- September 1912 to December 1914 and June 1935 to September 1939 in reports of U. S. Geological Survey. September 1912 to December 1928 and June 1935 to September 1939 in reports of Colorado State engineer. September 1912 to December 1928 in reports of New Mexico State engineer.

Average discharge.- 20 years, 187 second-feet (revised).

Extremes.- Maximum discharge during year, 786 second-feet Mar. 23 (gage height, 3.61 feet); minimum daily discharge, 22 second-feet Feb. 1.

1935-39: Maximum discharge, 2,370 second-feet Apr. 15, 1937 (gage height, 5.77 feet), from rating curve extended above 1,200 second-feet; minimum daily discharge observed, 21 second-feet Jan. 23, 1936 (discharge measurement).

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 25 to Mar. 22, which were computed on basis of five discharge measurements, weather records, and records for San Juan River at Pagosa Springs and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	50	50	35	22	36	270	472	350	64	57	29
2	50	55	45	39	26	34	300	493	341	61	46	28
3	49	49	42	45	35	36	353	454	356	56	45	26
4	51	47	46	40	40	38	359	500	386	55	49	26
5	54	55	45	36	38	33	320	493	406	54	42	30
6	61	45	45	45	38	33	330	500	341	48	42	41
7	86	38	43	44	37	35	282	423	258	43	43	34
8	176	39	45	42	36	36	308	423	260	42	44	41
9	116	43	42	39	34	37	368	451	246	41	40	57
10	107	44	45	38	32	37	338	486	241	37	37	69
11	102	44	46	35	34	36	272	490	246	37	35	180
12	91	45	46	32	35	39	280	458	227	36	33	116
13	89	36	36	33	37	44	288	412	223	35	32	107
14	86	38	30	33	38	50	298	420	207	35	34	134
15	86	40	37	34	37	58	260	383	186	38	31	180
16	91	40	48	35	36	68	229	356	166	38	32	118
17	91	41	40	36	37	88	203	308	148	33	30	91
18	82	38	35	36	37	110	192	312	136	30	28	78
19	75	39	47	36	36	125	218	412	121	32	27	68
20	69	40	44	35	35	145	255	465	110	32	27	62
21	68	40	38	38	34	172	325	437	99	30	29	55
22	65	39	35	37	34	290	389	458	94	29	30	51
23	62	34	29	35	35	462	402	437	96	29	27	48
24	58	34	26	34	36	392	325	386	89	29	27	46
25	56	35	32	34	37	350	292	332	86	29	29	44
26	54	37	35	35	37	318	300	278	80	29	35	50
27	51	38	30	36	36	298	335	298	75	42	32	89
28	51	40	37	37	35	216	426	302	71	54	36	57
29	50	43	36	36	-	210	482	330	66	86	39	51
30	50	45	35	34	-	186	451	353	65	64	31	48
31	50	-	36	30	-	207	-	328	-	76	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,278	176	49	73.5	4,520
November	1,251	55	34	41.7	2,480
December	1,226	50	26	39.5	2,430
Calendar year 1938	72,825	1,050	26	200	144,400
January	1,134	45	30	36.6	2,250
February	984	40	22	35.1	1,950
March	4,219	462	33	136	8,370
April	9,450	482	192	315	18,740
May	12,650	500	278	408	25,090
June	5,776	406	65	193	11,460
July	1,344	86	29	43.4	2,670
August	1,099	57	27	35.5	2,180
September	2,054	180	26	68.5	4,070
Water year 1938-39	43,465	500	22	119	86,210

Little Navajo River at Chromo, Colo.

Location.- Water-stage recorder, lat. 37°02'05", long. 106°50'35", in SE¼ sec. 4, T. 32 N., R. 1 E., at highway bridge at Chromo, a quarter of a mile upstream from mouth.

Drainage area.- 21.9 square miles.

Records available.- May 1935 to September 1939.

Extremes.- Maximum discharge during year, 130 second-feet Mar. 23 (gage height, 4.11 feet); no flow July 7.
1935-39: Maximum daily discharge, 240 second-feet (estimated) Apr. 15, 1937; no flow Aug. 31, 1938, July 7, 1939.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those below 5 second-feet, which are fair. Discharge for periods of ice effect, Nov. 6, 7, 9-11, Nov. 13 to Mar. 19, computed on basis of five discharge measurements, weather records, and records for San Juan River at Pagosa Springs. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	2.6	3.0	2.3	1.5	1.9	44	59	8.2	0.1	0.5	0.1
2	1.0	4.4	2.8	2.4	1.6	2.0	47	59	6.9	.1	.4	.1
3	1.3	2.6	2.6	2.5	1.7	2.0	49	54	6.5	.1	.3	.2
4	1.5	2.6	2.5	2.3	1.7	2.0	48	53	7.8	.1	.2	.2
5	1.6	2.1	2.5	2.2	1.8	2.0	48	49	11	.1	.2	.2
6	1.8	2.5	2.5	2.4	1.8	1.9	44	53	12	.1	.1	.2
7	4.1	3.3	2.5	2.6	1.8	2.0	47	51	10	0	.1	.2
8	9.3	3.9	2.6	2.7	1.7	2.0	49	49	6.5	.1	.1	.2
9	4.8	4.2	2.6	2.5	1.7	2.0	59	47	2.6	.1	.1	.3
10	4.1	3.8	2.5	2.4	1.6	2.0	54	44	1.7	.1	.1	.7
11	4.1	3.7	2.4	2.4	1.6	1.9	45	41	2.1	.1	.1	2.6
12	3.9	3.6	2.3	2.4	1.6	2.4	45	39	2.3	.1	.1	2.1
13	3.6	4.4	2.2	2.4	1.6	3.0	47	36	1.5	.1	.1	1.4
14	3.1	5.1	2.1	2.4	1.6	3.8	47	35	.8	.1	.1	1.8
15	2.6	5.0	2.5	2.4	1.7	6.2	41	27	.6	.1	.1	5.2
16	2.3	4.6	2.8	2.5	1.7	9.0	35	22	.6	.1	.1	5.2
17	2.3	4.1	2.5	2.4	1.7	12	30	15	.7	.1	.2	4.4
18	1.8	4.2	2.0	2.3	1.7	21	25	12	.4	.1	.2	3.4
19	2.3	4.3	2.3	2.2	1.7	29	27	9.3	.2	.1	.5	2.8
20	2.6	4.3	2.2	2.1	1.7	44	48	9.3	.2	.1	.5	2.1
21	3.1	4.2	2.0	2.1	1.7	35	56	9.3	.2	.1	.4	1.6
22	2.8	4.1	1.9	2.1	1.6	49	61	7.8	.1	.1	.2	1.6
23	3.1	3.6	1.7	2.1	1.8	78	64	7.3	.1	.1	.1	1.4
24	2.8	3.2	1.6	2.1	1.8	61	54	7.8	.1	.1	.1	1.4
25	3.1	2.8	1.8	2.1	1.8	59	51	7.8	.1	.1	.1	1.4
26	3.4	2.7	1.8	2.1	1.8	51	50	6.9	.1	.1	.1	3.9
27	3.1	2.7	1.9	2.0	1.8	50	51	6.9	.1	.1	.1	5.2
28	2.8	2.7	2.0	1.9	1.9	37	54	7.3	.1	.2	.1	1.8
29	2.3	2.8	2.1	1.8	-	33	60	7.8	.1	.8	.1	1.4
30	2.1	2.9	2.2	1.7	-	26	57	8.2	.1	.7	.1	1.4
31	2.3	-	2.3	1.6	-	27	-	8.6	-	.5	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	90.1	9.3	1.0	2.90	179
November	107.0	5.1	2.1	3.57	212
December	70.7	3.0	1.6	2.28	140
Calendar year 1938	6,530.9	146	0	17.9	12,950
January	69.4	2.7	1.6	2.24	138
February	47.7	1.9	1.5	1.54	95
March	658.1	78	1.9	21.2	1,310
April	1,437	64	25	47.9	2,850
May	849.3	59	6.9	27.4	1,680
June	83.7	12	.1	2.79	166
July	4.8	.8	0	.15	9.5
August	5.6	.5	.1	.18	11
September	54.5	5.2	.1	1.82	108
Water year 1938-39	3,477.9	78	0	9.53	6,900

Piedra River at Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°25'30", long. 107°11'30", in sec. 22, T. 37 N., R. 3 W., a quarter of a mile downstream from Bridge ranger station, 1 mile downstream from Middle Fork, and 15 miles northwest of Pagosa Springs.

Drainage area.- 82.3 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 710 second-feet Aug. 28 (gage height, 3.15 feet); minimum daily discharge recorded, 11 second-feet July 26.
1937-39: Maximum discharge, 1,060 second-feet May 28, 1938 (gage height, 3.90 feet); minimum daily discharge not determined.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of missing gage heights, Nov. 13-15 (computed on basis of records for Wemimuche Creek near Bridge ranger station), and those for period of ice effect, Nov. 25 to Apr. 16 (computed on basis of one discharge measurement at this station and four discharge measurements 14 miles below station), which are fair. A few small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	46					68	226	345	35	19	27
2	47	44					76	292	330	31	17	23
3	50	46					90	256	348	23	17	18
4	41	47					100	253	414	23	16	15
5	48	46					120	306	402	27	16	19
6	75	42					105	330	320	23	27	66
7	203	31		*20			94	247	260	23	31	66
8	260	36					120	296	244	22	21	86
9	152	42					145	352	229	21	18	70
10	124	29					134	406	220	20	18	68
11	106	34					120	394	232	18	16	158
12	97	32					102	356	198	16	16	162
13	106	27					100	296	188	14	16	196
14	111	33					100	232	170	13	16	210
15	120	41					98	226	149	13	16	206
16	111	40					80	229	127	13	15	170
17	97	34					56	194	113	13	15	184
18	82	27					58	229	98	13	13	151
19	80	26					70	238	89	13	15	127
20	88	29					82	398	81	13	15	109
21	80	27					113	406	70	13	12	88
22	75	25					136	446	65	13	12	75
23	70	20					145	406	62	13	12	66
24	66	24					113	341	59	12	12	58
25	65	25					102	266	55	12	12	55
26	62	24					97	263	53	11	12	65
27	61	26					115	282	48	15	31	69
28	58	27					154	296	43	16	111	65
29	54	28					180	316	36	20	102	74
30	53	28					190	367	41	24	46	62
31	51	-					-	363	-	27	33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,738	260	41	88.3	5,430
November	986	47	20	32.9	1,960
December	682	-	-	22	1,350
Calendar year 1938	50,301	844	-	138	99,790
January	636	-	-	20.5	1,260
February	560	-	-	20	1,110
March	1,581	-	-	51	3,140
April	3,263	190	56	109	6,470
May	9,508	446	194	307	18,860
June	5,089	414	36	170	10,090
July	576	35	11	18.6	1,140
August	750	111	12	24.2	1,490
September	2,808	210	15	93.6	5,570
Water year 1938-39	29,177	446	-	79.9	57,870

Peak discharge.- Oct. 8 (2:30 a.m.) 430 sec.-ft; Aug. 28 (6 p.m.) 710 sec.-ft.
*Discharge measurement.

Williams Creek near Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°27'45", long. 107°11'45", in sec. 10, T. 37 N., R. 3 W., 2⅛ miles north of Bridge ranger station, 3⅛ miles upstream from mouth, and 17 miles northwest of Pagosa Springs.

Drainage area.- 43.7 square miles.

Records available.- May 1937 to September 1939.

Extremes.- Maximum discharge during year, 227 second-feet May 22 (gage height, 2.46 feet); minimum daily discharge recorded, 3.8 second-feet Aug. 23.
1937-39: Maximum discharge, 687 second-feet June 29, 1938 (gage height, 3.24 feet), from rating curve extended above 350 second-feet; minimum not determined.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for periods of missing gage heights and ice effect, Nov. 14, Nov. 24 to Apr. 27, computed on basis of four discharge measurements on Piedra River near Dyke, and weather records. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	24					28	158	150	32	12	12
2	21	25					30	164	137	30	12	11
3	25	28					31	140	150	26	11	8.6
4	21	29					33	150	175	24	10	7.4
5	25	27					40	172	170	20	9.8	8.6
6	42	23					38	164	145	19	19	19
7	86	25					36	137	122	17	24	39
8	97	28					40	147	117	16	15	56
9	69	26					40	172	119	15	12	38
10	60	22					38	188	114	14	11	37
11	54	21					32	184	119	13	9.2	77
12	53	24					28	164	98	12	8.6	63
13	58	25					28	150	94	12	8.0	75
14	64	28					30	132	85	11	8.0	85
15	64	31					30	124	77	12	8.0	94
16	64	29					29	119	66	14	7.4	61
17	63	23					29	110	60	12	8.0	75
18	42	26					29	124	54	13	8.6	63
19	48	26					28	161	45	11	9.2	54
20	48	30					28	172	43	10	5.0	45
21	48	29					40	194	37	10	4.6	39
22	44	27					56	194	34	10	4.6	35
23	40	25					110	175	36	9.2	3.8	31
24	36	22					120	153	36	6.2	4.6	29
25	33	23					110	130	33	5.0	5.0	28
26	30	23					100	127	30	4.2	5.6	33
27	28	25					92	145	31	6.8	7.4	35
28	27	27					117	134	32	9.8	20	29
29	26	27					132	147	31	12	33	30
30	24	27					140	158	33	12	19	27
31	24	-					-	158	-	15	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,387	97	21	44.7	2,750
November	779	31	21	26.0	1,550
December	496	-	-	16	984
Calendar year 1938	27,802	453	-	76.2	55,140
January	263.5	-	-	8.5	523
February	232.4	-	-	8.3	461
March	728.5	-	-	23.5	1,440
April	1,662	140	28	55.4	3,300
May	4,747	194	110	153	9,420
June	2,473	175	30	82.4	4,910
July	433.2	32	4.2	14.0	859
August	337.4	33	3.8	10.9	669
September	1,244.6	94	7.4	41.5	2,470
Water year 1938-39	14,783.6	194	-	40.5	29,340

Wemimuche Creek near Bridge ranger station, near Pagosa Springs, Colo.

Location.- Water-stage recorder, lat. 37°28'15", long. 107°14'00", in sec. 5, T. 37 N., R. 3 W., 3½ miles northwest of Bridge ranger station, 5 miles upstream from mouth, and 19 miles northwest of Pagosa Springs.

Drainage area.- 53.4 square miles.

Records available.- April 1937 to September 1939.

Extremes.- Maximum discharge during year, 290 second-feet May 10 (gage height, 3.34 feet); minimum daily discharge recorded, 6.3 second-feet Aug. 20, probably less during period of ice effect.

1937-39: Maximum discharge, 651 second-feet June 29, 1938 (gage height, 4.73 feet), from rating curve extended above 400 second-feet; minimum not determined.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records fair. Discharge for periods of ice effect or missing gage heights, Nov. 23-26, Dec. 7-10, Dec. 14 to Mar. 31, computed on basis of four discharge measurements on Piedra River near Dyke and weather records. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	41	26				26	205	121	26	12	22
2	26	38	24				28	221	126	22	12	18
3	44	35	24				29	182	136	22	12	14
4	35	34	21				30	175	148	20	11	12
5	42	34	24				36	205	158	19	10	12
6	79	28	24				34	225	138	17	16	24
7	160	18	21				33	187	134	15	22	33
8	185	26	20				39	194	110	15	13	58
9	123	29	19				36	205	103	15	11	47
10	100	29	18				28	242	103	13	9.8	39
11	89	26	18				26	246	93	12	9.5	84
12	79	26	18				26	230	83	12	8.6	79
13	84	16	17				28	201	79	12	7.7	91
14	91	26	12				28	178	74	12	7.7	98
15	96	30	13				26	172	66	12	7.1	92
16	104	30	15				26	158	57	14	7.1	70
17	105	30	13				25	139	53	11	6.6	66
18	89	29	11				24	150	46	10	6.6	53
19	84	29	13				24	187	43	10	7.1	43
20	79	28	12				26	212	39	10	6.3	39
21	74	27	12				59	203	35	9.2	6.6	32
22	70	24	11				128	210	32	9.2	7.7	31
23	62	23	10				156	197	33	9.5	7.1	28
24	60	21	8				130	165	31	9.2	7.7	26
25	56	22	9				116	139	27	8.6	8.3	24
26	55	22	10				103	132	25	8.0	8.9	29
27	54	24	9				117	144	24	11	18	47
28	50	26	10				158	139	28	17	52	31
29	45	26	9				175	138	26	18	69	29
30	43	26	9				185	136	28	18	37	26
31	41	-	10				-	120	-	15	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,327	185	23	75.1	4,620
November	823	41	16	27.4	1,630
December	470	26	8	15.2	932
Calendar year 1938	31,534.4	529	-	86.4	62,550
January	254.2	-	-	8.2	504
February	226.8	-	-	8.1	450
March	713	-	-	23	1,410
April	1,904	185	24	63.5	3,780
May	5,640	246	120	182	11,190
June	2,198	158	24	73.3	4,360
July	431.7	26	8.0	13.9	856
August	451.4	69	6.3	14.6	895
September	1,297	98	12	43.2	2,570
Water year 1938-39	16,736.1	246	-	45.9	33,200

Los Pinos River below Snowslide Canyon, near Weminuche Pass, Colo.
(Locally known as Pine River)

Location.- Water-stage recorder, lat. 37°38'15", long. 107°20'00", in sec. 5, T. 39 N., R. 4 W., 100 feet downstream from Snowslide Canyon, 3¼ miles south of Weminuche Pass, and 7 miles southwest of Rio Grande Reservoir dam.

Drainage area.- 23.8 square miles.

Records available.- October 1937 to September 1939.

Extremes.- Maximum discharge during year, 300 second-feet May 10 (gage height, 2.32 feet); minimum not determined, occurred during period of no record.
1937-39: Maximum discharge, 650 second-feet May 29, 1938 (gage height, 3.26 feet), from rating curve extended above 300 second-feet; minimum not determined, occurred during period of no record.

Remarks.- Records good except those for period of ice effect or missing gage heights, Apr. 1-30, which were computed on basis of records for other stations in San Juan River Basin and are poor. No records for Nov. 3 to Mar. 31. Two small diversions above station from Los Pinos River Basin to Rio Grande Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	40						122	94	21	13	11
2	30	39						122	85	20	12	10
3	38	-						85	99	20	11	9.0
4	32	-						115	130	20	11	8.5
5	33	-						149	122	19	11	11
6	43	-						118	96	18	20	23
7	47	-						92	85	18	18	26
8	44	-						115	71	17	13	35
9	42	-						159	69	16	11	26
10	41	-						188	67	16	11	27
11	39	-						169	75	15	10	36
12	39	-						137	67	16	9.5	35
13	43	-						101	62	14	9.5	29
14	49	-						85	57	14	9.0	28
15	69	-						77	50	14	9.0	25
16	81	-						67	42	14	9.0	22
17	75	-						59	38	13	8.5	20
18	62	-						92	33	13	9.0	18
19	57	-						156	30	12	8.0	17
20	51	-						169	27	11	7.0	16
21	49	-						164	24	11	7.5	15
22	48	-						174	22	10	7.5	15
23	44	-						130	23	9.5	7.0	14
24	44	-						85	20	9.0	8.5	14
25	43	-						69	17	9.0	9.5	14
26	41	-						81	10	11	9.0	18
27	40	-						113	20	14	9.5	18
28	42	-						120	25	16	16	16
29	42	-						125	22	16	20	14
30	42	-						103	22	16	14	14
31	41	-						99	-	15	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,416	81	25	45.7	2,810
November	79	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,350	-	-	45	2,680
May	3,640	188	59	117	7,220
June	1,610	130	16	53.7	3,190
July	457.5	21	9.0	14.8	907
August	339.0	20	7.0	10.9	672
September	584.5	36	8.5	19.5	1,160
Water year	-	-	-	-	-

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Los Pinos River near Bayfield, Colo.

(Locally known as Pine River)

Location.- Water-stage recorder, lat. 37°21', long. 107°36', in sec. 26, T. 36 N., R. 7 W., a quarter of a mile downstream from Red Creek and 9 miles north of Bayfield. Zero of gage is 7,415.08 feet above mean sea level (datum of Bureau of Reclamation).

Drainage area.- 284 square miles.

Records available.- October 1933 to September 1939 in reports of Geological Survey. October 1927 to September 1939 (at present site) and May to September 1926 (at site 2 miles upstream) in reports of State engineer. Records equivalent.

Average discharge.- 12 years, 356 second-feet.

Extremes.- Maximum discharge during year, 1,410 second-feet May 11, 22 (gage height, 3.98 feet); minimum daily discharge, 54 second-feet Feb. 10, 15, 22.
1926-39: Maximum daily discharge, 5,070 second-feet May 26, 1926; minimum daily, 38 second-feet Dec. 21, 22, 1937.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Dec. 6-10, Feb. 3, 6, 10-26 (computed on basis of one discharge measurement, weather records, and records for Animas River at Durango), and those for periods of missing gage heights, Oct. 29 to Nov. 25, Mar. 17, 18 (computed on basis of one discharge measurement and records for Animas River at Durango), which are fair. Natural regulation by many lakes. Diversions below station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	217	241	115	74	58	60	231	735	894	263	162	169
2	211	239	111	74	59	66	228	951	838	247	143	150
3	260	225	102	74	62	60	291	838	866	247	134	136
4	263	228	107	75	63	62	317	824	1,000	240	127	125
5	250	240	107	75	66	62	321	1,070	1,070	234	123	123
6	349	210	105	74	64	59	332	1,160	908	225	121	302
7	499	160	100	74	63	60	324	915	782	214	152	406
8	612	195	97	75	62	60	324	915	726	203	150	582
9	520	215	90	75	60	60	370	1,040	700	197	129	642
10	468	212	84	74	54	64	379	1,200	694	193	119	537
11	444	193	88	70	56	64	345	1,300	700	185	113	714
12	420	197	87	66	57	66	336	1,160	662	173	104	768
13	434	149	84	68	57	70	340	1,020	655	167	98	707
14	478	169	75	69	57	78	349	873	630	157	95	582
15	263	200	82	69	54	86	328	859	564	159	92	537
16	222	178	90	68	62	100	298	817	520	157	90	454
17	454	168	86	69	57	110	270	720	468	143	90	397
18	458	152	75	70	55	120	260	700	402	134	90	357
19	430	155	87	75	59	129	274	973	353	127	86	313
20	402	164	88	68	62	174	298	1,220	321	121	81	291
21	383	152	90	68	56	198	349	1,230	294	115	76	267
22	366	143	81	69	54	211	434	1,300	280	117	78	250
23	349	120	74	66	55	257	520	1,240	277	119	76	234
24	328	110	68	62	57	284	463	1,040	284	111	75	217
25	321	110	70	66	59	270	420	831	280	107	75	206
26	309	109	74	68	59	277	402	789	274	104	84	203
27	294	107	72	66	62	280	463	880	267	105	97	225
28	284	107	75	64	72	260	600	958	270	125	104	211
29	270	104	76	62	-	244	761	1,040	267	164	225	195
30	250	109	74	62	-	228	707	1,050	263	177	238	182
31	234	-	74	62	-	222	-	887	-	179	195	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,042	612	211	356	21,900
November	5,066	241	104	169	10,050
December	2,688	115	68	86.7	5,330
Calendar year 1938	187,817	2,970	47	515	372,500
January	2,151	75	62	69.4	4,270
February	1,661	72	54	59.3	3,290
March	4,341	284	59	140	8,610
April	11,334	761	228	378	22,480
May	30,535	1,300	700	985	60,570
June	16,509	1,070	263	550	32,750
July	5,212	263	104	168	10,340
August	3,623	238	75	117	7,190
September	10,482	768	123	349	20,790
Water year 1938-39	104,644	1,300	54	287	207,600

Los Pinos River at Ignacio, Colo.

Location.- Water-stage recorder, lat. 37°07'45", long. 107°37'50", in sec. 5, T. 33 N., R. 7 W., three-quarters of a mile upstream from Ignacio and about 2 miles upstream from Rock Creek.

Drainage area.- 448 square miles.

Records available.- April 1899 to October 1903, September 1910 to December 1914, October 1930 to September 1939 in reports of Geological Survey. April 1899 to October 1903, September 1910 to November 1912, March 1913 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,060 second-feet May 11 (gage height, 3.53 feet); minimum daily discharge, 2.7 second-feet July 22, 23.

1910-14, 1930-39: Maximum discharge recorded, 5,570 second-feet Aug. 27, 1932 (gage height, 6.19 feet), from rating curve extended logarithmically above 2,600 second-feet; minimum discharge observed, 0.1 second-foot Aug. 11, 1913.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined), when gage was destroyed.

Remarks.- Records good except those for period of ice effect, Dec. 29-31, Jan. 1-6, 14-21, 25-31, Feb. 1 to Mar. 12, which were computed on basis of six discharge measurements, weather records, gage heights, and records for San Juan River at Pagosa Springs, Colo., and Animas River at Farmington and are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	231	69	85	70	70	291	648	543	5.2	5.2	12
2	44	234	72	85	65	75	330	786	456	4.9	4.0	9.5
3	77	220	69	90	60	80	397	698	445	4.6	3.5	7.6
4	92	214	72	90	65	80	484	641	495	4.6	4.3	6.8
5	77	214	96	85	60	75	423	810	555	4.6	4.0	8.0
6	132	210	94	90	60	70	418	958	439	4.6	4.9	21
7	339	188	96	94	70	80	397	746	317	4.0	6.0	134
8	525	174	94	90	75	85	397	655	256	4.0	5.7	230
9	403	180	88	86	65	90	434	698	238	3.8	4.6	418
10	363	180	85	86	55	100	456	859	198	3.5	3.8	381
11	349	168	86	83	65	100	423	949	198	3.5	3.5	513
12	308	166	90	81	70	100	403	826	174	4.0	3.5	525
13	321	157	98	77	75	105	413	683	129	4.0	3.2	501
14	358	147	94	75	80	109	413	519	113	4.0	3.5	408
15	358	134	98	75	85	122	397	467	90	4.6	3.5	382
16	56	142	107	80	85	134	363	434	52	4.3	3.2	276
17	297	137	107	80	90	157	335	373	32	3.8	4.9	210
18	429	137	96	80	90	180	317	326	28	3.2	5.4	217
19	392	129	92	75	85	207	326	450	22	3.0	6.4	127
20	363	127	103	75	75	245	349	722	18	2.9	6.8	105
21	330	127	107	90	65	287	387	786	13	2.9	7.2	70
22	308	122	103	98	65	358	456	794	8.7	2.7	7.6	50
23	279	125	94	94	70	423	543	754	8.0	2.7	7.6	38
24	256	122	88	92	75	423	507	588	6.8	2.9	7.6	30
25	234	107	79	80	75	377	413	445	5.7	3.8	7.2	26
26	227	105	88	80	75	368	363	363	5.4	4.3	8.3	26
27	220	107	83	80	70	397	392	392	5.4	4.3	7.6	28
28	210	100	88	85	70	353	501	473	4.9	15	12	32
29	210	77	85	75	-	349	662	543	5.2	20	21	25
30	220	69	80	80	-	308	662	588	5.2	8.7	14	21
31	224	-	80	85	-	287	-	543	-	8.0	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,049	525	44	260	15,960
November	4,550	234	69	152	9,020
December	2,781	107	69	89.7	5,520
Calendar year 1938	152,099.5	2,610	4.0	417	301,700
January	2,601	98	75	83.9	5,160
February	2,015	90	55	72.0	4,000
March	6,194	423	70	200	12,290
April	12,652	662	291	422	25,090
May	19,517	958	326	630	38,710
June	4,866.3	555	4.9	162	9,650
July	156.4	20	2.7	5.05	310
August	203.0	21	3.2	6.55	403
September	4,777.9	525	6.8	159	9,480
Water year 1938-39	68,362.6	958	2.7	187	135,600

Peak discharge.- May 2 (12 m.) 877 sec.-ft.; May 5 (11 a.m.) 913 sec.-ft.; May 10 (11 a.m.) 967 sec.-ft.; May 11 (9 a.m.) 1,060 sec.-ft.; May 21 (9 a.m.) 904 sec.-ft.; May 22 (10 a.m.) 931 sec.-ft.

Animas River at Howardsville, Colo.

Location.- Water-stage recorder, lat. 37°50', long. 107°36', in sec. 12, T. 41 N., R. 7 W., 0.4 mile southwest of Howardsville and half a mile downstream from Cunningham Creek. Datum lowered 1 foot Aug. 18, 1939. Zero of gage is 9,616.98 feet above mean sea level.

Drainage area.- 55.9 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 662 second-feet June 4 (gage height, 2.87 feet, present datum); minimum not determined, occurred during period of no record.
1936-39: Maximum discharge, 1,700 second-feet June 21, 1938 (gage height, 4.50 feet, present datum), from rating curve extended above 500 second-feet; minimum occurred during period of no record.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records excellent except those for periods of missing gage heights, Oct. 5-10, Apr. 17-20, 22, and those for periods of ice effect, Nov. 7, 13, 14, 17-30, Mar. 1 to Apr. 6, all of which were computed on basis of one discharge measurement and records for stations on nearby streams and are poor. No records for Dec. 1 to Feb. 28. No diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	57				15	26	223	410	158	60	32
2	48	57				15	27	258	396	155	55	32
3	49	54				15	28	234	470	160	51	30
4	46	56				15	30	282	548	160	48	30
5	56	54				15	32	332	530	160	46	35
6	72	48				15	36	298	460	158	66	76
7	82	46				15	39	223	425	142	78	70
8	88	45				15	39	220	430	138	59	99
9	82	46				15	39	282	460	135	53	86
10	78	44				15	39	364	465	132	55	83
11	76	44				15	40	364	455	125	51	113
12	74	42				15	40	310	465	120	47	150
13	77	40				15	40	250	495	109	42	140
14	84	38				15	40	238	485	103	42	118
15	120	37				15	40	274	430	103	39	99
16	130	37				15	41	270	382	97	37	90
17	116	36				15	44	246	350	86	35	78
18	108	34				15	46	274	270	78	34	70
19	96	34				15	50	382	212	72	32	66
20	87	34				16	54	415	183	69	31	60
21	79	33				17	56	460	168	64	32	56
22	76	30				19	66	465	189	59	31	54
23	69	28				22	75	415	206	56	31	49
24	66	27				24	68	342	206	51	33	49
25	65	27				24	68	286	206	48	31	48
26	62	27				24	78	286	202	54	31	47
27	62	26				24	120	360	192	62	32	45
28	56	26				23	177	450	186	80	34	42
29	54	27				23	202	512	189	76	35	42
30	53	27				24	195	506	171	72	36	39
31	54	-				25	-	465	-	68	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,310	130	45	74.5	4,580
November	1,161	57	26	38.7	2,300
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	550	25	15	17.7	1,090
April	1,875	202	26	62.5	3,720
May	10,286	512	220	332	20,400
June	10,236	548	168	341	20,300
July	3,150	160	48	102	6,250
August	1,321	78	31	42.6	2,620
September	2,028	150	30	67.6	4,020
Water year	-	-	-	-	-

Animas River at Durango, Colo.

Location.- Water-stage recorder, lat. 37°17', long. 107°52', in sec. 20, T. 35 N., R. 9 W., at Western Colorado Power Co.'s plant at Durango, half a mile upstream from Lightner Creek. Zero of gage is 6,503.28 feet above mean sea level (gereral adjustment of 1912).

Drainage area.- 692 square miles.

Records available.- June 1895 to December 1905, January 1910 to December 1914, and October 1933 to September 1939 in reports of Geological Survey. June 1895 to December 1905 and December 1910 to September 1939 in reports of State engineer.

Average discharge.- 38 years (1895-1900, 1901-5, 1910-39), 911 second-feet.

Extremes.- Maximum discharge during year, 2,750 second-feet May 22 (gage height, 4.08 feet); minimum daily discharge, 160 second-feet Feb. 1.
1895-1900, 1901-5, 1909-39: Maximum discharge, 25,000 second-feet Oct. 5, 1911 (gage height, 13.6 feet), from rating curve extended above 7,000 second-feet; minimum daily discharge, 50 second-feet Dec. 22, 1917.

Remarks.- Records excellent except those for periods of ice effect, Feb. 3, 5-8, 10-14, which were computed on basis of weather records and are good. Diversiors above station for irrigation. Natural regulation by many lakes and artificial regulation for power.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Jan. 19 to Mar. 29, July 16 to Sept. 30)

1.0	143	1.6	378	2.2	714	3.0	1,440
1.2	212	1.8	477	2.4	860	3.5	2,020
1.4	290	2.0	588	2.6	1,040	4.0	2,640

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	319	417	266	194	160	183	462	1,540	1,850	638	373	319
2	311	422	256	205	173	180	577	1,860	1,660	613	341	303
3	341	402	239	208	170	187	656	1,640	1,800	619	328	276
4	332	393	246	205	166	194	676	1,640	2,120	619	311	258
5	337	402	250	194	165	187	650	2,060	2,340	607	319	250
6	407	373	239	208	165	190	701	2,270	2,020	613	296	488
7	543	337	239	212	170	194	650	1,680	1,760	577	393	676
8	736	346	239	212	180	201	650	1,570	1,660	554	396	728
9	701	364	231	220	180	201	764	1,830	1,670	538	355	830
10	638	350	231	205	170	205	757	2,240	1,720	516	328	701
11	607	341	235	201	165	212	656	2,340	1,740	499	303	1,020
12	577	337	235	190	165	208	644	2,160	1,620	477	278	1,310
13	588	319	227	194	170	212	676	1,820	1,720	452	262	1,380
14	625	315	208	198	160	235	695	1,500	1,760	427	246	1,080
15	682	319	220	187	190	258	625	1,620	1,640	417	235	845
16	816	311	242	216	190	266	577	1,520	1,380	422	231	701
17	801	307	231	201	176	303	532	1,360	1,280	388	223	613
18	721	303	220	212	166	337	516	1,310	1,080	373	216	549
19	663	290	235	216	190	388	554	1,730	896	346	208	499
20	619	298	235	208	183	462	600	2,240	779	324	201	477
21	588	298	239	205	163	494	701	2,330	701	307	208	442
22	560	282	231	208	205	499	878	2,460	701	294	205	417
23	532	278	212	201	205	554	1,070	2,390	736	286	201	402
24	510	282	194	183	163	600	923	2,020	750	282	205	378
25	488	258	194	173	160	588	793	1,590	736	282	212	364
26	477	274	176	180	163	600	801	1,420	728	274	201	393
27	462	254	163	183	176	571	941	1,600	695	262	212	427
28	452	246	190	201	169	510	1,280	1,550	682	294	250	407
29	432	239	190	194	-	472	1,640	2,060	682	402	315	398
30	422	246	194	194	-	422	1,520	2,200	663	432	350	378
31	422	-	198	194	-	407	-.	1,970	-	407	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,709	816	311	539	33,140
November	9,603	422	239	320	19,050
December	6,907	266	163	223	13,700
Calendar year 1938	370,948	6,100	128	1,016	735,700
January	6,202	220	173	200	12,300
February	4,938	205	160	176	9,790
March	10,520	600	180	339	20,870
April	23,165	1,640	462	772	45,950
May	57,760	2,460	1,310	1,863	114,600
June	39,569	2,340	663	1,319	78,480
July	13,541	638	262	437	26,860
August	8,561	398	201	276	16,980
September	17,311	1,380	250	577	34,340
Water year 1938-39	214,786	2,460	160	588	426,100

Animas River near Cedar Hill, N. Mex.

Location.- Water-stage recorder, lat. 37°02'15", long. 107°52'25", in sec. 7, T. 32 N., R. 9 W., three-quarters of a mile downstream from Florida River, 2.5 miles upstream from Colorado-New Mexico State line, and 8.5 miles north of Cedar Hill.

Records available.- November 1933 to September 1939.

Extremes.- Maximum discharge during year, 3,210 second-feet May 22 (gage height, 5.13 feet); minimum daily discharge, 130 second-feet Feb. 5.

1933-39: Maximum discharge, 9,540 second-feet June 16, 1935; maximum gage height, 7.63 feet June 30, 1938; minimum daily discharge, 90 second-feet (estimated) Jan. 21, 1935.

Greatest flood known occurred Oct. 5 or 6, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	374	552	292	*220	*200	*220	575	1,780	2,100	705	412	304
2	362	552	298	*230	*170	*230	713	2,120	1,850	650	362	276
3	374	515	270	*240	*140	*230	884	1,940	1,960	650	326	252
4	386	501	270	*250	*150	*240	940	1,830	2,320	658	309	224
5	380	501	282	*240	*130	*220	866	2,290	2,600	642	282	212
6	459	480	265	*240	*150	*220	930	2,680	2,300	635	265	363
7	650	419	265	*250	*180	*220	866	2,020	1,920	605	309	779
8	1,080	400	282	*260	*210	*240	822	1,750	1,850	568	400	779
9	940	426	282	*250	*170	270	950	2,010	1,790	552	332	1,080
10	839	426	260	234	*150	256	1,020	2,510	1,850	515	292	970
11	762	386	265	220	*170	265	893	2,760	1,890	494	276	1,300
12	737	393	265	220	*200	265	839	2,600	1,790	473	260	1,760
13	713	368	256	*210	*210	304	875	2,130	1,850	458	247	1,760
14	737	356	247	*210	*220	344	911	1,760	1,900	432	242	1,420
15	788	344	247	*210	*230	356	848	1,670	1,820	419	238	1,130
16	940	356	270	*210	*250	374	737	1,600	1,540	426	224	875
17	970	344	265	220	*230	426	697	1,490	1,400	400	220	737
18	884	338	247	*200	*220	452	658	1,310	1,230	380	208	642
19	796	326	252	*210	*220	501	681	1,640	1,060	368	204	575
20	737	338	276	*220	*230	582	745	2,350	911	344	200	530
21	697	332	276	*240	*200	650	857	2,600	813	326	208	494
22	658	314	256	242	*190	813	1,100	2,760	770	332	208	459
23	628	304	*240	234	*200	857	1,330	2,680	813	320	208	445
24	612	287	*220	212	*220	813	1,240	2,250	839	292	208	386
25	582	*280	*210	216	*250	779	1,020	1,740	822	282	212	380
26	560	*290	*210	*210	*240	779	960	1,510	804	282	212	412
27	538	*290	*210	*210	*230	754	1,030	1,650	779	265	212	459
28	538	*280	*200	*220	*220	697	1,360	1,960	745	237	309	480
29	538	*280	*210	*230	-	681	1,860	2,210	737	400	304	452
30	545	292	*210	*220	-	590	1,810	2,510	729	473	287	432
31	560	-	*210	*230	-	538	-	2,250	-	459	338	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	20,364	1,080	362	657	40,390
November	11,270	552	280	376	22,350
December	7,808	298	200	252	15,490
Calendar year 1938	458,367	7,640	145	1,256	909,100
January	7,008	260	200	226	13,900
February	5,580	250	130	199	11,070
March	14,166	857	220	457	28,100
April	29,017	1,860	575	967	57,550
May	64,360	2,760	1,310	2,076	127,700
June	43,782	2,600	729	1,459	86,840
July	14,093	705	265	455	27,950
August	8,314	412	200	268	16,490
September	20,367	1,760	212	679	40,400
Water year 1938-39	246,129	2,760	130	674	488,200

*Stage-discharge relation affected by ice; discharge computed on basis of six discharge measurements, weather records, gage heights, and records for Animas River at Farmington and San Juan River at Pagosa Springs.

Animas River at Farmington, N. Mex.

Location.- Water-stage recorder, lat. 36°43'20", long. 108°12'00", in SE¼ sec. 16, T. 29 N., R. 13 W., 25 feet downstream from bridge, on State Highway 17, 0.6 mile southeast of Farmington and 1.1 miles upstream from mouth. Prior to Oct. 4, water-stage recorder 0.7 mile downstream, different datum.

Records available.- June 1904 to October 1905 (published as Animas River near Farmington), September 1912 to December 1914 and October 1930 to September 1939 in reports of Geological Survey. June 1904 to October 1905, (published as Animas River near Farmington) and September 1912 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 2,930 second-feet May 22 (gage height, 4.50 feet); minimum daily discharge, 17 second-feet Aug. 25, 26.

1930-39: Maximum discharge, 9,350 second-feet June 16, 1935, from rating curve extended above 6,400 second-feet on basis of logarithmic plotting; maximum gage height, 7.25 feet June 30, 1938, former site and datum; minimum daily discharge, 10 second-feet Aug. 28-31, 1931.

Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	298	458	301	247	232	250	545	1,400	1,860	366	117	122
2	284	468	322	254	198	254	618	1,600	1,660	352	80	109
3	271	463	306	270	*160	258	792	1,660	1,600	33[illegible]	75	109
4	288	436	301	270	*170	262	978	1,540	1,860	33[illegible]	107	107
5	266	420	297	258	*150	254	890	1,790	2,240	344	89	99
6	281	415	297	266	*170	240	868	2,320	2,160	331	52	131
7	385	390	293	270	*220	245	898	2,160	1,790	331	52	484
8	954	358	293	285	*240	277	822	1,600	1,660	297	49	677
9	994	366	293	270	*210	289	875	1,660	1,600	270	94	882
10	822	395	285	262	*170	310	986	2,080	1,660	247	77	868
11	755	356	274	254	*200	318	946	2,400	1,660	229	69	1,430
12	719	322	274	240	*220	327	822	2,400	1,600	198	50	1,720
13	664	318	274	236	*240	331	815	2,080	1,540	178	41	1,860
14	684	306	258	236	240	366	875	1,660	1,660	168	36	1,540
15	726	322	254	236	260	380	830	1,430	1,540	150	32	1,230
16	830	340	297	243	274	390	726	1,430	1,410	138	56	994
17	954	348	314	262	258	430	670	1,430	1,200	147	62	815
18	906	348	297	218	243	480	605	1,190	1,140	128	36	705
19	822	340	277	232	247	509	593	1,310	986	99	30	644
20	748	344	318	262	250	569	618	2,000	800	66	30	569
21	705	362	314	277	240	657	657	2,400	644	60	30	527
22	664	362	301	277	211	792	800	2,570	485	48	22	474
23	624	344	274	277	229	890	1,000	2,570	474	50	21	452
24	605	322	243	254	266	868	1,120	2,240	474	50	20	420
25	569	301	232	230	274	792	890	1,790	468	41	17	390
26	551	314	*230	225	270	770	785	1,390	468	43	17	390
27	521	306	232	236	254	785	778	1,370	441	128	20	415
28	509	301	222	247	247	740	922	1,660	390	102	32	446
29	480	301	232	258	-	691	1,330	1,930	362	62	45	415
30	463	293	232	236	-	657	1,480	2,080	385	94	69	400
31	458	-	229	250	-	557	-	2,080	-	148	99	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18,800	994	266	606	37,290
November	10,721	468	293	357	21,260
December	8,566	322	222	276	16,990
Calendar year 1938	435,733	6,920	76	1,194	864,300
January	7,838	285	218	253	15,550
February	6,343	274	150	227	12,580
March	14,936	890	240	482	29,630
April	25,534	1,480	545	851	50,650
May	57,220	2,570	1,190	1,846	113,500
June	36,217	2,240	362	1,207	71,840
July	5,521	366	41	178	10,950
August	1,626	117	17	52.5	3,230
September	19,424	1,860	99	647	38,530
Water year 1938-39	212,746	2,570	17	583	422,000

Peak discharge.- May 6 (8 p.m.) 2,750 sec.-ft.; May 7 (1 a.m.) 2,660 sec.-ft.; May 11 (6 p.m.) 2,750 sec.-ft.; May 21 (6 p.m.) 2,660 sec.-ft.; May 22 (6 p.m.) 2,930 sec.-ft.; May 23 (4 to 5 p.m.) 2,750 sec.-ft.

*Stage-discharge relation affected by ice; discharge computed on basis of two discharge measurements, gage heights, weather records, and records for Animas River near Cedar Hill and San Juan River at Pagosa Springs, Colo.

Mineral Creek near Silverton, Colo.

Location.- Water-stage recorder, lat. 37°48'50", long. 107°41'45", in sec. 13, T. 41 N., R. 8 W., 300 feet upstream from Bear Creek and 2 miles west of Silverton.

Drainage area.- 43.9 square miles.

Records available.- May 1936 to September 1939.

Extremes.- Maximum discharge during year, 510 second-feet June 4 (gage height, 2.92 feet); minimum not determined, occurred during period of no record.
1936-39: Maximum discharge, 1,700 second-feet June 29, 1938 (gage height, 4.69 feet), from rating curve extended above 500 second-feet; minimum not determined, occurred during period of no record.
Greatest flood known occurred Oct. 5, 1911 (discharge not determired).

Remarks.- Records for May 1 to Sept. 30 are excellent; others are good except those for periods of ice effect or missing gage heights, Oct. 7-10, Mar. 1-10, Mar. 14 to Apr. 22, which were computed on basis of records for stations in nearby drainage basins and are fair. No records Dec. 8 to Feb. 28. No diversions above statior.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-30, Mar. 11-13, Apr. 23-30)

1.3	13	1.7	45	2.1	139
1.4	17	1.8	61	2.2	175
1.5	23	1.9	83	2.4	255
1.6	31	2.0	109	2.8	450

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	42	22			16	33	187	296	118	65	55
2	37	39	21			16	32	207	286	118	56	47
3	39	39	21			16	35	183	355	124	53	41
4	37	38	21			16	40	219	415	124	51	38
5	41	39	21			16	45	273	410	127	50	58
6	59	29	21			16	45	251	345	127	79	161
7	64	28	21			16	43	191	305	118	91	133
8	72	30	-			16	49	195	310	115	68	218
9	68	30	-			16	56	260	325	112	58	146
10	67	30	-			16	56	315	350	109	53	183
11	68	29	-			16	52	310	350	104	47	268
12	72	29	-			16	52	264	350	101	44	291
13	76	27	-			16	56	215	375	93	42	243
14	81	28	-			16	56	187	360	88	39	175
15	96	29	-			16	54	199	315	91	37	130
16	106	28	-			16	50	195	278	86	34	104
17	96	26	-			16	50	168	239	79	32	88
18	83	26	-			16	52	191	183	70	31	79
19	68	26	-			17	60	282	150	65	30	72
20	74	26	-			18	70	340	130	61	30	65
21	70	25	-			20	80	375	121	58	31	59
22	63	23	-			23	86	395	153	55	31	56
23	61	22	-			29	104	345	168	53	30	51
24	58	22	-			29	86	268	175	50	34	50
25	58	22	-			30	83	223	171	48	32	55
26	55	22	-			29	104	227	161	47	31	61
27	55	22	-			28	146	286	150	59	32	61
28	50	21	-			26	203	345	146	79	39	59
29	47	21	-			27	203	385	146	104	56	58
30	45	22	-			29	168	385	130	96	74	55
31	42	-	-			28	-	330	-	79	61	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,942	106	34	62.6	3,850
November	840	42	21	28.0	1,670
December 1-7	148	22	21	21.1	294
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	621	30	16	20.0	1,230
April	2,249	203	32	75.0	4,460
May	8,196	385	168	264	16,260
June	7,648	415	121	255	15,170
July	2,758	127	47	89.0	5,470
August	1,441	91	30	46.5	2,860
September	3,157	291	38	105	6,260
Water year	-	-	-	-	-

Cascade Creek near Tacoma, Colo.

Location.- Staff gage, lat. 37°40', long. 107°49', in sec. 11, T. 39 N., R. 9 W., at crossing of U. S. Highway 550, 10 miles north of Tacoma.

Drainage area.- 26.8 square miles.

Records available.- October 1934 to September 1939 in reports of U. S. Geological Survey. October 1926 to September 1939 in reports of State engineer. January 1915 to September 1926 in files of office of State engineer.

Average discharge.- 25 years, 51.8 second-feet.

Remarks.- Complete records furnished by Western Colorado Power Co. No diversions above station. Flow in flume is combined with flow over diversion dam to get total flow in creek. Staff gage read twice daily.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	20	5.1	3.3	4.2	4.2	14	112	164	36	36	36
2	20	20	5.1	4.2	4.2	4.2	17	129	154	33	33	33
3	20	18	5.1	4.2	4.2	4.2	18	115	173	33	31	31
4	20	17	5.1	4.2	4.2	4.2	18	124	176	33	31	28
5	20	17	5.1	4.2	4.2	4.2	18	179	175	31	31	31
6	26	12	5.1	4.2	4.2	4.2	18	173	168	31	36	120
7	36	12	4.2	4.2	4.2	4.2	22	124	137	26	53	103
8	36	12	4.2	4.2	4.2	5.1	31	137	129	24	42	112
9	36	10	4.2	4.2	4.2	5.1	36	168	112	24	36	99
10	33	10	4.2	4.2	4.2	5.1	36	183	112	24	31	53
11	33	10	4.2	4.2	4.2	5.1	31	192	112	22	31	112
12	31	10	4.2	4.2	4.2	5.1	33	177	107	22	28	129
13	31	9.3	4.2	4.2	4.2	5.1	36	145	115	22	26	115
14	39	9.3	4.2	4.2	4.2	5.1	36	129	115	22	24	129
15	47	9.3	4.2	4.2	4.2	5.1	31	129	90	22	24	76
16	53	9.3	4.2	4.2	4.2	5.1	31	133	83	22	22	72
17	53	9.3	4.2	4.2	4.2	5.1	31	115	80	22	22	66
18	53	8.2	3.3	4.2	4.2	6.1	36	112	62	22	22	60
19	36	8.3	3.3	4.2	4.2	8.2	42	163	53	20	20	53
20	39	8.2	3.3	4.2	4.2	9.3	42	187	44	18	20	50
21	36	7.1	3.3	4.2	4.2	12	53	204	39	20	20	47
22	33	7.1	3.3	4.2	4.2	14	66	223	42	20	20	44
23	31	7.1	3.3	4.2	4.2	14	72	198	44	20	20	39
24	31	6.1	3.3	4.2	4.2	12	47	173	42	20	18	36
25	31	6.1	3.3	4.2	4.2	14	42	137	44	18	18	39
26	31	6.1	3.3	4.2	4.2	13	42	145	42	18	18	39
27	28	6.1	3.3	4.2	4.2	12	60	173	39	22	22	69
28	26	6.1	3.3	4.2	4.2	9.3	99	173	39	33	26	42
29	28	6.1	3.3	4.2	-	10	112	188	36	72	36	44
30	26	6.1	3.3	4.2	-	12	95	192	39	50	47	42
31	24	-	3.3	4.2	-	12	-	173	-	47	47	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1007	53	20	32.5	2,000
November	303.1	20	6.1	10.1	601
December	123.0	5.1	3.3	3.97	244
Calendar year 1938	21,469.6	516	3.3	58.8	42,590
January	129.3	4.2	3.3	4.17	256
February	117.6	4.2	4.2	4.20	233
March	238.3	14	4.2	7.69	473
April	1,265	112	14	42.2	2,510
May	4,905	223	112	158	9,730
June	2,767	176	36	92.2	5,490
July	849	72	18	27.4	1,680
August	891	53	18	28.7	1,770
September	1,949	129	28	65.0	3,870
Water year 1938-39	14,544.3	223	3.3	39.8	28,860

Lightner Creek near Durango, Colo.

Location.- Water-stage recorder, lat. 37°16', long. 107°55', in sec. 26, T. 35 N., R. 10 W., 3 miles west of Durango.

Drainage area.- 64 square miles.

Records available.- October 1933 to September 1939 in reports of U. S. Geological Survey. June 1927 to September 1939 in reports of State engineer.

Average discharge.- 12 years, 20.1 second-feet.

Extremes.- Maximum discharge during year, 590 second-feet Sept. 8 (gage height, 2.80 feet); minimum daily discharge, 1 second-foot or less at times during period of ice effect.

1927-39: Maximum discharge, 1,830 second-feet June 26, 1937 (gage height, 5.00 feet, from floodmarks), by slope-area method; minimum daily discharge, 1 second-foot or less at times during periods 1930-31, 1933-35, 1938-39.

Remarks.- Records fair except those for periods of missing gage heights, Oct. 23 to Nov. 3, Nov. 12-14, Aug. 21, and those for period of ice effect, Nov. 25 to Mar. 8, which were estimated and are poor. No regulation or diversion.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	3.4				1.0	36	40	9.0	2.0	1.3	1.7
2	4.9	3.4				1.0	43	41	8.0	1.7	1.3	1.7
3	4.5	3.4				1.0	70	37	8.0	1.6	1.3	1.5
4	4.1	3.4				1.0	55	36	8.5	1.6	1.6	1.4
5	4.1	3.4				1.0	46	40	8.5	1.8	1.4	1.3
6	4.1	3.0				1.5	50	41	8.5	1.6	1.4	1.9
7	5.7	4.9				1.5	40	37	8.5	1.6	1.3	1.5
8	10	3.0				1.5	45	35	6.8	1.3	1.3	44
9	3.7	3.0				1.6	55	35	4.9	1.3	1.3	1.5
10	3.5	3.2				1.8	52	36	3.5	1.2	1.3	31
11	3.2	3.5				2.0	40	34	3.2	1.2	1.2	30
12	3.2	3.4				2.0	40	28	3.7	1.2	1.2	11
13	3.2	3.0				2.0	43	21	3.9	1.2	1.2	3.7
14	3.2	2.8				2.1	40	19	3.7	1.2	1.2	4.1
15	3.2	2.6				2.6	35	19	3.2	1.2	1.3	3.2
16	3.2	2.6				3.9	31	19	2.2	1.2	1.3	2.6
17	3.2	2.6				5.7	28	19	2.1	1.2	1.3	2.6
18	3.2	3.9				8.5	28	16	2.2	1.2	1.3	1.9
19	3.2	3.5				14	35	17	2.2	1.2	1.2	1.9
20	3.2	3.2				20	39	19	2.6	1.2	1.2	1.9
21	3.2	2.8				23	47	19	2.6	1.2	2.0	1.9
22	3.5	2.8				64	54	18	2.2	1.1	1.9	1.9
23	3.5	2.8				72	41	17	3.2	1.1	1.9	1.9
24	3.5	2.2				46	41	16	2.8	1.1	1.9	1.9
25	3.5	2.0				39	37	15	2.1	1.1	1.9	1.9
26	3.5	2.0				37	37	14	2.1	1.4	1.8	2.2
27	3.5	2.0				37	37	12	2.1	1.3	1.9	2.6
28	3.5	2.0				32	40	12	2.2	1.3	3.5	2.6
29	3.5	2.0				41	43	10	2.2	1.5	2.2	2.6
30	3.5	2.0				36	40	10	2.2	1.5	1.9	2.6
31	3.5	-				33	-	10	-	1.3	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	120.1	10	3.2	3.87	238
November	87.8	4.9	2.0	2.93	174
December	46.5	-	-	1.5	92
Calendar year 1938	11,897.0	313	-	32.6	23,590
January	31.0	-	-	1.0	61
February	28.0	-	-	1.0	56
March	535.7	72	1.0	17.3	1,060
April	1,268	70	28	42.3	2,520
May	742	41	10	23.9	1,470
June	126.9	9.0	2.1	4.23	252
July	41.6	2.0	1.1	1.34	83
August	48.6	3.5	1.2	1.57	96
September	172.5	44	1.3	5.75	342
Water year 1938-39	3,248.7	72	-	8.90	6,440

Florida River near Durango, Colo.

Location.- Water-stage recorder, lat. 37°20', long. 107°45', in sec. 4, T. 35 N., R. 8 W., just downstream from Red Creek and 10½ miles northeast of Durango. Zero of gage is 7,303.58 feet above mean sea level (general adjustment of 1929).

Drainage area.- 96 square miles.

Records available.- May to July 1899, April 1901 to October 1903, September 1910 to September 1912, and October 1933 to September 1939 in reports of U. S. Geological Survey. May to July 1899, April 1901 to October 1903, September 1910 to September 1924, and April 1927 to September 1939 in reports of State engineer. Station has been located at several different sites in this vicinity; all records equivalent.

Average discharge.- 21 years (1910-12, 1917-24, 1927-39), 125 second-feet.

Extremes.- Maximum discharge during year, 531 second-feet May 10 (gage height, 2.68 feet); minimum daily discharge, 3.9 second-feet July 24, 25.
1899, 1901-3, 1910-24, 1927-39: Maximum discharge observed, 4,640 second-feet June 28, 1927 (gage height, 4.50 feet, former site and datum); minimum daily discharge, 0.4 second-foot Feb. 15, 1918.
Greatest flood known occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Nov. 14 to Mar. 27, which were computed on basis of six discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	47	26	12	4.2	5.6	64	189	214	25	22	35
2	32	46	23	12	5.8	5.8	73	235	189	22	16	30
3	46	41	20	13	6.4	5.6	86	223	199	26	13	25
4	48	41	21	11	6.9	5.6	88	211	223	25	15	21
5	47	43	20	11	6.9	5.2	86	303	211	22	15	22
6	64	31	20	13	6.2	5.6	88	343	171	20	18	96
7	84	38	20	13	6.0	5.6	79	253	154	18	29	90
8	108	43	19	13	5.8	5.6	86	300	142	16	24	168
9	96	37	19	12	5.4	5.8	98	374	130	15	19	156
10	86	32	20	11	5.4	5.8	94	426	126	15	16	146
11	84	29	22	10	5.8	5.7	84	418	121	15	12	223
12	77	29	21	9.0	6.0	5.8	86	355	106	14	9.7	289
13	79	27	18	9.4	6.0	6.1	88	307	98	11	9.7	214
14	90	27	13	9.6	6.0	7.6	84	247	90	9.7	9.2	161
15	110	32	14	10	5.6	10	77	220	79	10	7.0	137
16	113	30	17	11	5.5	12	68	211	68	12	5.8	110
17	110	30	10	11	6.0	16	65	174	64	11	5.5	100
18	98	25	6.4	11	5.7	20	66	189	56	5.8	5.8	86
19	90	28	11	10	5.7	22	75	314	49	6.6	6.6	73
20	77	30	11	10	5.7	25	79	366	47	6.2	6.2	66
21	72	28	10	11	5.6	40	102	366	45	11	6.6	58
22	68	25	8.6	11	5.4	53	128	362	40	11	6.6	53
23	62	20	7.0	10	5.5	77	144	328	37	5.1	7.0	52
24	59	17	8.0	9.6	5.6	73	116	282	35	3.9	7.0	46
25	59	18	8.2	9.2	5.7	70	100	214	34	3.9	5.8	42
26	58	18	9.1	9.4	5.7	70	96	214	29	4.3	7.5	45
27	53	19	10	10	5.6	68	104	244	28	6.2	17	60
28	49	20	12	11	5.5	68	135	229	27	19	25	52
29	48	21	11	10	-	56	181	250	25	36	65	46
30	48	24	11	9.4	-	51	181	232	23	26	51	42
31	45	-	12	6.6	-	53	-	217	-	23	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,194	113	32	70.8	4,350
November	896	47	17	29.9	1,780
December	456.3	26	6.4	14.8	909
Calendar year 1938	51,643.3	955	-	141	102,400
January	329.2	13	6.6	10.6	653
February	161.6	6.9	4.2	5.77	321
March	855.4	77	5.2	27.6	1,700
April	2,900	181	64	96.7	5,750
May	8,596	426	174	277	17,050
June	2,860	223	23	95.3	5,670
July	454.7	36	3.9	14.7	902
August	505.0	65	5.5	16.3	1,000
September	2,744	289	21	91.5	5,440
Water year 1938-39	22,954.2	426	3.9	62.9	45,520

La Plata River at Hesperus, Colo.

Location.- Water-stage recorder, lat. 37°17', long. 108°02', in sec. 14, T. 35 N., R. 11 W., an eighth of a mile west of Hesperus. Zero of gage is 8,107.75 feet above mean sea level (datum of Bureau of Reclamation).

Drainage area.- 37 square miles.

Records available.- June to August 1904, April to August 1906, August to December 1910, and October 1933 to September 1939 in reports of Geological Survey. June to August 1904, April to August 1906, August to December 1910, and May 1917 to September 1939 in reports of State engineer.

Average discharge.- 22 years (1917-39), 47.3 second-feet.

Extremes.- Maximum discharge during year, 206 second-feet May 9 (gage height, 1.66 feet); minimum daily discharge, 1.0 second-foot Feb. 22.
1904, 1906, 1910, 1917-39: Maximum discharge, 1,460 second-feet June 28, 1927 (gage height, 4.60 feet, former datum); no flow Apr. 4, 1906.
Greatest known flood occurred Oct. 5, 1911 (discharge not determined).

Remarks.- Records good except those for period of ice effect or missing gage heights, Nov. 23 to Mar. 23, which were computed on basis of 11 discharge measurements, weather records, and records for station at Colorado-New Mexico State line and are fair. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.7	8.8	5.0	3.0	4.0	39	105	37	17	5.9	4.5
2	11	11	7.2	5.8	3.0	5.0	42	117	36	16	6.2	3.8
3	11	10	6.9	6.4	2.9	7.0	51	107	60	14	7.6	4.0
4	11	10	6.7	4.8	6.0	7.0	51	105	82	13	9.1	4.5
5	11	9.7	6.6	3.0	5.0	4.2	51	134	75	12	9.1	6.7
6	11	9.1	6.4	5.8	3.8	2.0	56	139	66	11	13	8.2
7	12	8.5	6.0	7.0	10	3.4	55	129	70	11	11	8.2
8	14	8.2	4.8	6.0	.15	4.5	60	145	63	11	9.4	11
9	12	8.2	4.6	5.8	13	4.6	73	164	58	9.4	9.4	11
10	11	7.6	4.1	6.5	3	7.0	70	174	55	9.1	7.9	26
11	11	7.6	4.0	6.0	3.5	9.6	56	155	53	9.1	7.6	62
12	11	7.6	3.6	5.0	4.5	11	59	124	51	8.8	6.7	53
13	12	7.3	3.2	5.0	6.0	15	62	97	52	8.2	6.2	41
14	13	6.7	4.0	5.0	8.0	18	58	82	37	8.2	6.7	37
15	13	6.7	6.0	5.6	9.2	13	50	75	27	8.5	7.9	34
16	14	7.0	5.4	5.0	8.2	10	44	56	22	7.6	7.0	31
17	15	7.3	4.5	3.0	8.2	7.5	40	45	26	6.7	6.4	24
18	17	7.3	4.6	3.2	6.5	7.5	40	66	23	6.4	5.6	22
19	18	7.3	4.7	4.5	5.0	8.0	51	119	23	7.6	5.1	20
20	13	7.3	6.0	6.1	3.0	9.5	63	110	23	7.3	4.3	19
21	13	7.3	5.9	12	2.0	12	92	101	22	7.0	4.3	18
22	12	7.3	5.8	10	1.0	16	122	101	21	6.7	4.0	17
23	13	7.5	5.6	9.0	2.0	21	112	88	20	6.2	4.0	16
24	12	9.1	6.0	7.5	3.0	24	79	51	20	5.9	5.4	14
25	11	12	7.0	8.5	2.6	26	63	34	20	6.2	5.4	14
26	11	9.5	6.0	9.8	3.0	31	79	32	19	5.9	4.8	14
27	9.7	8.5	6.0	11	4.0	30	88	36	18	6.2	4.0	14
28	9.7	8.0	5.3	8.0	3.8	30	101	37	18	7.3	5.6	13
29	11	7.0	4.9	6.0	-	30	105	37	17	7.0	5.4	11
30	10	6.6	6.0	7.2	-	30	90	35	17	6.4	4.8	10
31	10	-	7.0	7.8	-	31	-	34	-	6.2	4.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	374.4	18	9.7	12.1	743
November	246.9	12	6.6	8.23	490
December	173.6	8.8	3.2	5.60	544
Calendar year 1938	20,476.1	554	1.9	56.1	40,610
January	201.3	12	3.0	6.49	399
February	148.2	15	1.0	5.29	294
March	438.8	31	2.0	14.2	870
April	2,002	122	39	66.7	3,970
May	2,834	174	32	91.4	5,620
June	1,131	82	17	37.7	2,240
July	272.9	17	5.9	8.80	541
August	204.1	13	4.0	6.58	405
September	571.9	62	3.8	19.1	1,130
Water year 1938-39	8,599.1	174	1.0	23.6	17,050

La Plata River at Colorado-New Mexico State line

Location.- Water-stage recorder, lat. 37°00', long. 108°11', in sec. 10, T. 32 N., R. 13 W., 300 feet south of Colorado-New Mexico State line and 3 miles north of Pendleton, N. Mex. Zero of gage is 5,975.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 331 square miles.

Records available.- October 1933 to September 1939 in reports of U. S. Geological Survey. February 1920 to September 1939 in reports of Colorado State engineer.

Average discharge.- 19 years, 35.8 second-feet.

Extremes.- Maximum discharge during year, 792 second-feet Sept. 10 (gage height, 4.05 feet); no flow at times.
1920-39: Maximum discharge, 4,750 second-feet Aug. 24, 1927 (gage height, 11.36 feet); no flow at times in 1922, 1924, 1928, 1930, and in each year of period 1933-39.

Remarks.- Records good except those for period of ice effect, Jan. 17 to Mar. 3 (computed on basis of four discharge measurements and weather records), and those for period of missing gage heights, Oct. 21-26 (estimated), which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	3.6	14	8.6	10	6	36	71	0	0	1.1	0
2	1.1	6.3	12	9	6	10	40	58	0	0	.7	0
3	1.7	5.9	11	12	7	20	74	28	0	0	1.2	0
4	1.4	5.5	8.6	8.2	13	9	104	38	36	0	.2	0
5	.8	5.2	8.6	6.6	9.5	7	61	59	58	.3	.1	0
6	1.1	4.8	8.6	11	7.5	11	50	76	67	1.4	0	2.6
7	20	4.4	9	9	16	11	41	34	59	2.3	0	2.3
8	68	3.6	9	6.3	20	11	38	17	55	2	0	1.2
9	9	3.6	8.2	7.4	18	12	51	42	50	1.8	0	.1
10	7	4.2	8.2	7.8	11	14	58	48	44	1.5	0	43
11	6.6	4.6	8.2	6.3	6	17	56	61	44	.8	0	50
12	5.2	6.1	8.6	6.3	9	21	35	61	41	.5	0	15
13	4.8	6.3	7.8	6.3	12	37	28	57	40	.4	0	8.6
14	4.2	8.2	9.4	6.3	14	50	27	59	5	.4	0	4.4
15	3	7.4	12	6.3	15	40	21	61	0	.8	0	7.8
16	2.6	8.2	10	6.3	16	34	18	61	0	.3	0	4
17	3.4	8.2	9.8	5.2	17	31	16	42	0	.4	0	2.3
18	2.8	8.2	9.4	4.9	16	32	12	38	0	1.1	0	1.2
19	2.3	9.4	8.6	10	12	38	9	97	0	1.1	0	1.1
20	2.6	8.6	9.4	20	7	58	11	95	0	.9	0	.9
21	2.5	8.6	9.6	21	4	79	31	77	0	.9	0	1
22	2.5	8.6	9	17	3	107	46	71	0	.9	0	1.7
23	2.5	8.6	8.6	12	5	85	43	63	0	.9	0	1.1
24	2.5	15	9.4	11	8	66	38	5.9	.7	.7	0	.6
25	2.5	19	11	10	9	43	22	0	.6	.5	0	.4
26	2.5	14	11	13	8	37	39	0	.7	.1	0	1.2
27	2.3	12	9.8	16	7	35	55	0	.8	.3	0	1.8
28	2.2	12	8.6	17	4	42	55	0	.8	23	1.5	.7
29	2.2	11	7	10	-	53	66	0	.3	3.8	0	.2
30	2.3	12	7.8	10	-	53	52	0	0	1.7	0	.2
31	2.8	-	9.8	14	-	47	-	0	-	1.8	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	174.9	68	0.6	5.64	347
November	243.1	19	3.6	8.10	482
December	292.2	14	7.0	9.43	580
Calendar year 1938	14,120.7	457	.2	38.7	28,010
January	314.8	21	4.9	10.2	624
February	290	20	3	10.4	575
March	1,116	107	6	36.0	2,210
April	1,233	104	9.0	41.1	2,450
May	1,319.9	97	0	42.6	2,620
June	502.9	67	0	16.8	997
July	50.6	23	0	1.63	100
August	4.8	1.5	0	.15	9.5
September	153.4	50	0	5.11	304
Water year 1938-39	5,695.6	107	0	15.6	11,300

Peak discharge.- July 28 (8:45 p.m.) 359 sec.-ft.; Sept. 10 (9 p.m.) 792 sec.-ft.

La Plata River near Farmington, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°44'30", long. 108°14'45", in SW¼ sec. 7, T. 29 N., R. 13 W., 1,800 feet upstream from confluence with San Juan River and 2½ miles northwest of Farmington.

Records available.- March 1938 to September 1939.

Extremes.- Maximum discharge during year not determined, occurred Sept. 11 (gage height, 6.03 feet); no flow during long periods.
1938-39: Maximum discharge, that of Sept. 11, 1939; no flow during long periods.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	10	*12	12	8	*10	27			0	0	0
2	0	12	*14	16	*5	*12	27			0	0	0
3	0	12	*12	22	*1	*18	40			0	0	0
4	0	11	*14	17	*2	17	60			0	2	0
5	0	12	*13	12	*1	13	46			0	0	0
6	0	10	12	23	*3	11	30			0	0	2
7	56	10	16	25	*10	12	22			0	0	96
8	103	12	16	23	10	20	15			0	0	†2
9	34	12	16	21	*4	24	15			0	0	†5
10	15	12	14	19	*3	27	14			0	0	†250
11	13	11	14	14	*4	34	12			0	0	†50
12	16	*11	14	9	*7	38	9			0	0	†20
13	16	*10	13	9	*10	38	4			0	0	†10
14	16	*12	9	*9	*10	49	2			0	0	†5
15	16	*14	17	*8	*15	38	0			0	0	†15
16	11	*12	21	*7	*13	36	0			0	0	†5
17	10	*11	15	*4	*10	40	0			0	0	†2
18	10	*9	14	6	8	40	0			0	0	†1
19	10	*10	15	10	*8	41	0			0	0	†1
20	9	*12	16	11	*6	55	0			0	0	†5
21	10	14	16	20	*5	74	0			0	0	†1
22	10	12	16	16	*7	90	0			0	0	†1
23	11	6	12	14	*10	103	0			0	0	†1
24	11	2	*7	12	*13	62	0			0	0	†1
25	10	*8	*7	10	*12	42	0			0	0	†1
26	10	*10	*8	12	*13	41	0			0	0	†10
27	10	*8	10	13	*11	34	0			0	32	†2
28	9	*10	10	15	*9	31	0			0	44	†1
29	9	*11	12	13	-	30	0			6	0	†1
30	10	*11	9	9	-	34	0			1	0	†1
31	10	-	10	12	-	29	-			0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	445	103	0	14.4	883
November	317	14	2	10.6	629
December	404	21	7	13.0	801
Calendar year	-	-	-	-	-
January	423	25	4	13.6	839
February	218	15	1	7.8	432
March	1,140	103	10	36.8	2,260
April	323	60	0	10.8	641
May	0	0	0	0	0
June	0	0	0	0	0
July	7	6	0	.2	14
August	78	44	0	2.5	155
September	489	250	0	16.3	970
Water year 1938-39	3,844	250	0	10.5	7,620

Peak discharge.- Oct. 7 (10 p.m.) 713 sec.-ft.; Oct. 8 (1 a.m.) 877 sec.-ft.; Aug. 27 (9 p.m.) 213 sec.-ft.; Aug. 27 (10 p.m.) 835 sec.-ft.; Sept. 7 (5 p.m.) 1,440 sec.-ft.; Sept. 11 (10 p.m.) discharge not determined.

*Stage-discharge relation affected by ice; discharge computed on basis of 12 discharge measurements, gage heights, and weather records.

†Uncertain stage-discharge relation; discharge computed on basis of 7 discharge measurements, gage heights, weather records, and records for station at Colorado-New Mexico State line.

Cherry Creek near Red Mesa, Colo.

Location.- Water-stage recorder, lat. 37°07', long. 108°12', in sec. 7, T. 33 N., R. 12 W., 2 miles northwest of Red Mesa.

Drainage area.- 66 square miles.

Records available.- October 1933 to September 1939 in reports of U. S. Geological Survey. March 1928 to September 1939 in reports of State engineer.

Average discharge.- 11 years, 8.88 second-feet.

Extremes.- Maximum discharge during year, 116 second-feet Mar. 21 (gage height, 1.82 feet); no flow June 4 to Sept. 10, Sept. 13-30.
1928-39: Maximum discharge, 803 second-feet Aug. 26, 1934 (gage height, 4.50 feet, from floodmarks), by slope-area method; no flow at times during 1931, 1933-36, 1938-39.

Remarks.- Records fair except those for period of ice effect, Nov. 24 to Mar. 16, (computed on basis of four discharge measurements and weather records), and those for periods of missing gage heights, Oct. 1-8, 26-28, Nov. 15, 16, Mar. 27-29 (computed on basis of records for La Plata River at Colorado-New Mexico State line, and weather records), all of which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	2.2				1.5	22	16	0.6			0
2	2.2	2.6				1.5	22	16	.4			0
3	2.0	2.7				1.5	22	15	.2			0
4	2.0	2.9				1.5	36	13	0			0
5	2.0	3.1				1.5	26	12	0			0
6	2.0	3.5				1.5	22	10	0			0
7	5.0	3.3				2	19	9.3	0			0
8	10	2.7				2	18	6.9	0			0
9	4.0	2.4				2	22	3.8	0			0
10	3.6	2.2				2	22	3.5	0			0
11	3.1	2.2		*1.0		2	19	3.6	0			2.0
12	2.0	2.0				3	19	2.6	0			1.0
13	2.0	1.8				3	18	2.7	0			0
14	2.0	1.8				4	16	2.2	0			0
15	2.0	1.8				4.6	16	3.6	0			0
16	2.0	1.7				11	13	4.8	0			0
17	2.0	1.6				16	12	3.5	0			0
18	2.0	2.2				10	12	3.1	0			0
19	2.0	2.0				22	13	2.6	0			0
20	2.2	2.2				38	13	2.2	0			0
21	2.2	2.7				58	15	2.2	0			0
22	2.6	3.1				54	15	2.2	0			0
23	3.1	3.1				52	18	2.2	0			0
24	3.1	3.0				32	12	1.4	0			0
25	3.1	3.0				22	8.3	1.0	0			0
26	3.0	2.5	*1.5			22	7.6	.8	0			0
27	3.0	2.5			*1.5	20	8.3	.8	0			0
28	3.0	2.0				20	13	.8	0			0
29	2.9	2.0				20	14	.7	0			0
30	2.6	2.0				19	16	.7	0			0
31	2.2	-				27	-	.7	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	87.1	10	2.0	2.81	173
November	72.8	3.5	1.6	2.43	144
December	46.5	-	-	1.5	92
Calendar year 1938	5,025.0	154	0	13.8	9,960
January	31.0	-	-	1.0	61
February	35.0	-	-	1.25	69
March	476.6	58	1.5	15.4	945
April	511.2	36	7.6	17.0	1,010
May	149.9	16	.7	4.84	297
June	1.2	.6	0	.04	2.4
July	0	0	0	0	0
August	0	0	0	0	0
September	3.0	2.0	0	.10	6.0
Water year 1938-39	1,414.3	58	0	3.87	2,800

*Discharge measurement.

West Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'30", long. 108°15'20", in sec. 14, T. 36 N., R. 13 W., 1½ miles upstream from confluence with Middle Mancos River and 3½ miles northeast of Mancos.

Drainage area.- 42.1 square miles.

Records available.- September 1910 to December 1911 and April 1938 to September 1939.

Extremes.- Maximum discharge during year, 133 second-feet May 1 (gage height, 1.99 feet); minimum daily discharge, 2.5 second-feet Aug. 20, probably less during period of ice effect.

1910-11, 1938-39: Maximum discharge, 380 second-feet June 29, 1938 (gage height, 2.93 feet), from rating curve extended above 225 second-feet); minimum daily discharge, that of Aug. 20, 1939.

Remarks.- Records excellent except those for period of ice effect, Nov. 8 to Mar. 22, which were computed on basis of one discharge measurement, weather records, and records for La Plata River at Hesperus and are poor. No diversions above station.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-6, Sept. 11-30)

0.6	2.5	1.0	12	1.4	38
.7	4.5	1.1	16	1.6	61
.8	6.7	1.2	22	1.8	93
.9	9.0	1.3	29	2.0	135

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	7.8					32	111	72	10	7.2	6.3
2	6.7	8.5					32	113	67	9.9	6.3	5.4
3	7.2	8.3					50	99	68	11	5.6	4.7
4	6.9	8.3					55	91	73	10	5.6	4.3
5	7.6	8.5					42	103	67	9.0	5.8	5.4
6	8.3	8.3					41	111	55	8.8	6.7	14
7	8.3	7.2				3.0	35	90	51	8.3	7.2	24
8	12						40	91	47	7.6	6.3	26
9	11						50	107	46	7.4	5.8	20
10	10						47	117	45	7.6	5.2	20
11	11	7.0					40	117	45	7.2	4.5	49
12	10						46	111	41	6.5	4.1	53
13	10			*3.0			48	99	40	6.3	3.9	38
14	10					4.0	44	93	37	6.5	4.1	26
15	11						36	90	32	7.2	4.1	21
16	11					5	32	78	26	6.7	3.3	17
17	12					7	33	67	24	5.8	3.1	15
18	11					9	36	67	20	5.6	2.7	13
19	10					12	47	88	17	5.2	2.7	12
20	10					16	56	99	16	4.5	2.5	12
21	9.9					20	76	97	14	4.3	2.9	11
22	9.6					30	93	101	14	4.5	3.3	10
23	9.3	6.5				39	88	95	14	4.3	3.5	9.9
24	8.8					35	68	83	13	4.1	3.1	9.3
25	8.3					32	68	66	12	4.1	3.1	10
26	8.1					29	79	61	11	4.3	3.1	11
27	8.1					24	86	68	11	4.3	4.1	14
28	8.1					22	103	66	11	5.1	6.5	13
29	7.8					21	120	72	11	15	7.6	12
30	7.8					20	113	70	11	11	6.7	11
31	7.8	-				29	-	70	-	8.5	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	284.1	12	6.5	9.16	564
November	210.4	8.5	-	7.01	417
December	155	-	-	5.0	307
Calendar year	-	-	-	-	-
January	93	-	-	3.0	184
February	84	-	-	3.0	167
March	398	39	-	12.8	789
April	1,736	120	32	57.9	3,440
May	2,791	117	61	90.0	5,540
June	1,011	73	11	33.7	2,010
July	220.6	12	4.1	7.12	438
August	147.8	7.6	2.5	4.77	293
September	497.3	53	4.3	16.6	986
Water year 1938-39	7,628.2	120	-	20.9	15,140

*Discharge measurement.

Mancos River near Towaoc, Colo.

Location.- Water-stage recorder, lat. 37°01', long. 108°48', in sec. 15, T. 32 N., R. 18 W., at Mancos River trading post, 12 miles south of Towaoc.

Drainage area.- 558 square miles.

Records available.- October 1933 to September 1939 in reports of U. S. Geological Survey. February 1921 to September 1939 in reports of State engineer.

Average discharge.- 18 years, 55.9 second-feet.

Extremes.- Maximum discharge during year, 1,170 second-feet Sept. 10 (gage height, 3.90 feet), from rating curve extended above 250 second-feet; no flow June 2, June 4 to Sept. 8, Sept. 21-25.
1921-39: Maximum discharge, 4,900 second-feet Aug. 26, 1934 (gage height, 6.55 feet); no flow at times.

Remarks.- Records good except those for period of ice effect or missing gage heights, Nov. 29 to Feb. 23, which were computed on basis of two discharge measurements and weather records and are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	6.4				17	83	72	0.2			0
2	8.5	6.7				16	80	70	0			0
3	11	7.5			8	17	83	72	1.2			0
4	13	8.5				18	147	62	0			0
5	10	6.7				17	141	54	0			0
6	12	5.8				13	99	49	0			0
7	10	5.2				16	84	51	0			0
8	228	4.3				19	77	43	0			0
9	51	4.9				24	81	37	0			9.0
10	22	5.8				29	89	30	0			94
11	14	5.8			10	32	81	35	0			242
12	11	5.2				32	74	35	0			74
13	11	4.9		*8.4		66	71	41	0			31
14	12	3.8				123	66	24	0			16
15	11	2.8				143	61	23	0			7.0
16	12	4.3				125	55	14	0			4.9
17	7.0	4.9				147	47	12	0			3.2
18	8.0	5.8				139	46	6.7	0			2.4
19	8.0	4.6				117	46	3.2	0			1.6
20	7.5	4.3			12	117	54	2.2	0			.6
21	8.5	5.8				119	59	1.4	0			0
22	7.5	6.4	*16			127	75	3.8	0			0
23	7.5	5.8			16	120	85	4.9	0			0
24	7.0	3.4			18	99	81	4.0	0			0
25	6.4	4.3			18	92	68	7.5	0			0
26	6.4	3.4			20	80	66	3.4	0			3.6
27	6.1	4.6			23	77	67	3.2	0			4.9
28	5.8	3.8			17	80	65	3.2	0			5.8
29	5.5	3.8			-	76	67	3.2	0			2.2
30	6.1	3.8			-	90	77	3.6	0			1.2
31	5.8	-			-	84	-	3.8	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	549.1	228	5.5	17.7	1,090
November	153.3	8.5	2.8	5.11	304
December	341	-	-	11	676
Calendar year 1938	27,258.0	704	0	74.7	54,070
January	248	-	-	8.0	492
February	336	23	-	12	666
March	2,271	147	13	73.3	4,500
April	2,275	147	46	75.8	4,510
May	778.1	72	1.4	25.1	1,540
June	1.4	1.2	0	.05	2.8
July	0	0	0	0	0
August	0	0	0	0	0
September	503.4	242	0	16.8	998
Water year 1938-39	7,456.3	242	0	20.4	14,780

Peak discharge.- Oct. 8 (1 a.m.) 542 sec.-ft.; Sept. 10 (10 p.m.) 1,170 sec.-ft.; Sept. 11 (2:30 p.m.) 1,020 sec.-ft.
*Discharge measurement.

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Middle Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'15", long. 108°13'35", in SW¼ sec. 13, T. 36 N., R. 13 W., 500 feet upstream from East Mancos River and 4 miles northeast of Mancos.

Drainage area.- 13.7 square miles.

Records available.- March 1938 to September 1939.

Extremes.- Maximum discharge during year, 33 second-feet Apr. 22 (gage height, 1.91 feet); no flow Aug. 24-27, Sept. 3-5, and at times during period of no record.
1938-39: Maximum discharge, 131 second-feet May 17, 1938 (gage height, 2.64 feet), from rating curve extended above 70 second-feet; no flow Aug. 24-27, Sept. 3-5, 1939, and at times during period of no record.

Remarks.- Records good except those for periods of missing gage heights, Apr. 24 to May 4, July 19-28, which were computed on basis of records for West Mancos River near Mancos and are fair. No record Nov. 10 to Mar. 19. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.4				-	5.8	20	5.2	0.3	0.1	0.1
2	.5	.3				-	5.8	21	4.2	.2	.1	.1
3	.5	.2				-	9.6	18	3.7	.1	.1	0
4	.2	.2				-	11	17	3.5	.3	.2	0
5	.2	.2				-	8.4	17	3.3	.2	.2	0
6	.2	.2				-	7.7	19	3.2	.2	.2	.2
7	.2	.2				-	6.5	15	3.5	.2	.3	.4
8	.3	.2				-	9	14	3.7	.3	.2	.3
9	.2	.1				-	12	14	2.8	.2	.2	.1
10	.1	-				-	11	14	2.3	.2	.2	.3
11	.1	-				-	11	11	2.0	.1	.2	2.6
12	.2	-				-	11	8.4	1.8	.1	.2	3.3
13	.2	-		*0		-	12	6.0	1.6	.1	.1	1.9
14	.2	-				-	13	5.6	1.6	.1	.1	1.0
15	.2	-				-	11	3.0	1.0	.3	.2	.8
16	.3	-				-	11	4.0	.5	.3	.2	.6
17	.3	-				-	9.6	4.4	.4	.2	.1	.5
18	.4	-				-	9.6	4.0	.4	.2	.1	.3
19	.4	-				-	13	4.0	.4	.2	.2	.2
20	.3	-				3.5	17	3.8	.4	.1	.1	.1
21	.1	-				3.5	19	3.5	.5	.1	.1	.1
22	.1	-				3.3	23	3.5	.6	.1	.1	.1
23	.2	-				4.4	22	3.7	.6	.1	.1	.1
24	.2	-				4.6	16	3.5	.7	.1	0	.2
25	.2	-				6.2	15	5.0	.6	.1	0	.3
26	.2	-				5.4	16	6.2	.5	.1	0	.3
27	.2	-				4.0	18	5.8	.4	.1	0	.3
28	.3	-				3.8	23	5.6	.4	.2	.2	.3
29	.3	-				3.7	21	5.2	.3	.3	.2	.2
30	.4	-				3.7	19	5.2	.3	.2	.2	.2
31	.4	-				4.6	-	5.4	-	.2	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8.0	0.5	0.1	0.26	16
November 1-9	2.0	.4	.1	.22	4.0
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 20-31	50.7	6.2	3.3	4.22	101
April	397.0	23	5.8	13.2	787
May	275.8	21	3.0	8.90	547
June	50.4	5.2	.3	1.68	100
July	5.5	.3	.1	.18	11
August	4.4	.3	0	.14	8.7
September	14.9	3.3	0	.50	30
Water year	-	-	-	-	-

*Discharge measurement.

East Mancos River near Mancos, Colo.

Location.- Water-stage recorder, lat. 37°22'10", long. 108°13'35", in NE¼ sec. 24, T. 36 N., R. 13 W., 800 feet upstream from mouth and 4 miles northeast of Mancos.

Drainage area.- 11.1 square miles.

Records available.- March 1938 to September 1939.

Extremes.- Maximum discharge during year, 50 second-feet May 9 (gage height, 1.00 foot); no flow Aug. 17-27.
1938-39: Maximum discharge, 145 second-feet Apr. 28, 1938 (gage height, 1.46 feet); no flow Aug. 17-27, 1939.

Remarks.- Records fair except those above 5 second-feet, which are good. None for Nov. 9 to Mar. 20. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	1.1				-	7.8	31	12	1.5	0.9	0.9
2	1.5	1.1				-	9.5	33	14	1.8	.6	.7
3	1.4	.8				-	12	31	16	2.0	.8	.4
4	1.3	1.1				-	13	29	16	1.9	.8	.2
5	1.3	1.3				-	12	35	15	1.7	.8	.5
6	1.6	.6				-	12	37	11	1.5	1.1	2.1
7	1.6	.5				-	11	30	11	1.3	1.2	6.3
8	2.8	.7				-	13	32	10	1.2	.8	6.3
9	1.9	-				-	17	37	9.5	1.1	.6	7.8
10	1.8	-				-	15	41	9.5	1.1	.5	12
11	1.9	-				-	14	36	10	.9	.4	22
12	1.8	-				-	14	32	8.4	.7	.3	17
13	2.0	-		*1.5		-	15	30	7.8	.4	.2	11
14	2.1	-				-	14	30	6.9	.8	.2	6.0
15	2.4	-				-	12	26	6.3	1.6	.3	4.0
16	2.6	-				-	9.5	17	5.4	1.4	.2	2.8
17	2.6	-				-	8.4	12	4.8	.9	0	2.0
18	2.2	-				-	11	15	4.2	.8	0	1.4
19	2.1	-				-	16	20	3.6	.6	0	1.1
20	2.0	-				-	21	22	3.2	.3	0	.9
21	1.9	-				10	29	21	2.8	.4	0	.7
22	1.8	-				11	30	22	3.0	.6	0	.4
23	1.7	-				14	27	20	3.0	.6	0	.4
24	1.5	-				14	18	15	3.0	.3	0	.5
25	1.2	-				8.4	17	14	2.8	.4	0	.8
26	1.2	-				8.9	23	15	2.4	.4	0	1.1
27	1.1	-				6.9	27	17	2.0	.8	0	2.0
28	1.0	-				5.1	32	15	1.7	2.2	1.1	2.0
29	1.0	-				5.1	32	16	1.6	2.2	1.1	1.9
30	1.0	-				5.1	29	11	1.8	2.4	1.1	1.5
31	1.0	-				6.0	-	12	-	1.6	1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	53.0	2.8	1.0	1.71	105
November 1-8	7.2	1.3	.5	.90	14
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 21-31	94.5	14	5.1	8.59	187
April	521.2	32	7.8	17.4	1,030
May	754	41	11	24.3	1,500
June	208.7	16	1.6	6.96	414
July	35.4	2.4	.3	1.14	70
August	14.0	1.2	0	.45	28
September	116.7	22	.2	3.89	231
Water year	-	-	-	-	-

*Discharge measurement.

Paria River at Lees Ferry, Ariz.

Location.- Water-stage recorder, lat. 36°52'15", long. 111°36'30", in NW¼NE¼ sec. 13, T. 40 N., R. 7 E., half a mile upstream from mouth and 1 mile northwest of Lees Ferry. Zero of gage is 3,123.4 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,520 square miles.

Records available.- November 1925 to September 1939.

Average discharge.- 16 years, 36.3 second-feet.

Extremes.- Maximum discharge during year, 9,800 second-feet Sept. 13 (gage height, 12.9 feet), by slope-area method; minimum, 0.7 second-foot July 24.
1923-39: Maximum discharge, 16,100 second-feet Oct. 5, 1925 (gage height, 17.5 feet), by float-area method; no flow during several periods in December and January of many years.

Remarks.- Records good except those for periods of ice effect and periods of missing gage heights and those above 1,000 second-feet, all of which are fair. During the year 55 discharge measurements were made. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	17	*7	*13	28	18	21	5	3	2	2	14
2	35	22	*25	16	*6	19	20	4	3	2	2	10
3	44	22	26	*17	*13	26	24	4	3	2	2	8
4	28	22	30	22	9	32	33	4	3	3	3	14
5	16	22	30	17	*7	34	21	4	3	2	3	188
6	12	20	27	24	5	26	15	3	3	2	75	132
7	10	14	20	32	6	23	15	3	3	2	84	2,800
8	12	16	18	29	20	28	14	3	3	2	14	129
9	31	24	18	26	*17	37	13	3	3	3	6	37
10	95	28	17	26	*6	37	10	3	3	3	4	26
11	28	27	17	20	*7	40	9	3	2	2	4	467
12	16	30	15	*14	*13	33	10	3	2	2	4	695
13	14	†26	15	18	*15	36	8	4	2	3	4	6,200
14	12	†24	10	19	20	38	8	4	2	3	4	484
15	12	†22	15	20	*22	38	8	4	2	3	3	71
16	12	†22	41	21	*27	29	9	4	2	2	3	38
17	10	†18	31	20	20	31	8	4	2	2	3	30
18	12	†16	26	*9	20	33	6	4	2	2	3	28
19	13	†20	23	*12	25	35	7	3	3	2	3	25
20	12	†20	26	21	*28	32	6	3	3	2	3	24
21	11	†24	37	25	*19	33	6	3	3	2	4	23
22	11	†25	32	36	24	45	5	3	3	2	4	21
23	11	*16	24	46	24	91	4	3	3	2	4	20
24	11	†13	16	24	24	74	8	3	3	2	4	20
25	10	†9	7	12	27	44	30	3	3	2	4	19
26	11	*6	*10	13	27	32	15	4	3	3	4	35
27	12	*5	17	12	*26	29	10	4	3	3	23	85
28	12	*6	13	27	18	31	8	4	3	3	135	45
29	12	*7	13	29	-	43	6	3	3	3	66	107
30	12	*9	*12	23	-	34	6	3	3	2	26	42
31	12	-	*11	26	-	26	-	3	-	2	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	556	95	7	17.9	1,100
November	552	30	5	18.4	1,090
December	629	41	7	20.3	1,250
Calendar year 1938	12,889	2,510	3	35.3	25,560
January	669	46	9	21.6	1,330
February	503	28	5	18.0	998
March	1,107	91	18	35.7	2,200
April	363	33	4	12.1	720
May	108	5	3	3.5	214
June	82	3	2	2.7	163
July	72	3	2	2.3	143
August	528	135	2	17.0	1,050
September	11,837	6,200	8	395	23,480
Water year 1938-39	17,006	6,200	2	46.6	33,740

Peak discharge.- Sept. 7 (4:55 a.m.) 7,040 sec.-ft.; Sept. 11 (6:50 a.m.) 1,190 sec.-ft.; Sept. 12 (3:20 a.m.) 1,180 sec.-ft.; Sept. 13 (4:05 a.m.) 8,400 sec.-ft.; (3:40 p.m.) 9,800 sec.-ft.

*Stage-discharge relation affected by ice part of each day; discharge computed on basis of weather records and parts of gage-height graph that were not affected by ice.

†Gage-height graph not complete; discharge computed on basis of partial graph and weather records except that for Nov. 24, 25, which was interpolated.

Little Colorado River at St. Johns, Ariz.

Location.- Water-stage recorder, lat. 34°30', long. 109°22', in sec. 27, T. 13 N., R. 28 E., at St. Johns.

Drainage area.- 938 square miles.

Records available.- April 1906 to December 1909, May 1929 to October 1933, September 1935 to September 1939.

Extremes.- Maximum discharge during year, 254 second-feet July 3 (gage height, 1.54 feet); no flow on many days.
1929-39: Maximum discharge, 2,100 second-feet Sept. 2, 1936 (gage height, 4.19 feet), from rating curve extended above 350 second-feet by velocity-area method; no flow part or all of many days in each year.

Remarks.- Records good except those for periods of ice effect and period of missing gage heights, which are fair. Diversions above station for irrigation. Regulation by many reservoirs above station, largest of which is Lyman Reservoir (combined capacity about 35,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	3	e	*8	*8	8	2	0.6	†0	0	0	0
2	1	3	8	8	*7	8	1	1	†0	0	3	0
3	.5	4	8	8	*6	7	.9	1	†0	74	2	0
4	.3	4	8	8	*10	5	2	2	†0	3	.2	0
5	1	5	8	*9	*9	4	1	†2	†0	0	0	0
6	.9	5	S	S	*10	6	1	†2	0	0	0	0
7	.6	6	6	9	11	4	.9	†1	0	.1	0	0
e	.6	6	6	10	8	3	.9	†1	0	0	0	0
9	.e	6	6	9	*2	3	.8	†1	.5	0	0	0
10	.6	6	6	9	*1	3	.8	†1	1	0	0	0
11	1	6	8	8	*1	4	.8	†1	.4	0	0	.1
12	2	6	8	*7	*2	4	.6	†1	0	0	0	0
13	3	6	8	*7	*8	4	.6	†1	0	.1	0	0
14	4	6	7	*7	8	4	.6	†1	0	0	0	0
15	4	7	S	*7	8	4	.6	†1	0	0	0	0
16	2	7	e	*7	e	3	.6	†1	0	0	0	0
17	2	7	8	*7	7	2	1	†1	0	0	0	0
18	1	8	8	*8	7	3	.4	†.5	0	0	0	0
19	2	e	8	*8	e	4	2	†.5	1	0	0	0
20	2	e	9	*9	e	4	4	†.5	5	0	0	0
21	2	8	8	9	*7	4	4	†.5	6	0	0	0
22	2	7	*7	9	7	5	3	†.5	5	0	0	0
23	1	7	*7	8	e	5	3	†.5	4	0	0	0
24	2	6	*7	*8	7	3	4	†.5	4	0	0	0
25	2	7	*8	*8	7	3	4	†0	5	0	.1	0
26	1	6	e	*8	6	2	4	†0	6	0	0	0
27	1	*6	e	*8	8	2	3	†0	3	0	0	0
28	2	6	8	9	9	2	2	†0	.1	0	0	0
29	1	7	8	*7	-	3	1	†0	0	0	0	0
30	1	9	8	8	-	4	.6	†0	0	0	0	0
31	2	-	*7	9	-	4	-	†0	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	48.3	4	0.3	1.56	96
November	186	9	3	6.2	369
December	236	9	6	7.6	468
Calendar year 1938	1,948.5	121	0	5.34	3,870
January	252	10	7	8.1	500
February	196	11	1	7.0	389
March	124	8	2	4.0	246
April	51.1	4	.4	1.70	101
May	23.1	2	0	.75	46
June	41.0	6	0	1.37	81
July	77.2	74	0	2.49	153
August	5.3	3	0	.17	11
September	.1	.1	0	0	.2
Water year 1938-39	1,240.1	74	0	3.40	2,460

Peak discharge.- July 3 (7 p.m.) 254 sec.-ft.
*Stage-discharge relation affected by ice part or all of day; discharge computed on basis of graph for periods of open water and weather records.
†Gage height missing; discharge computed on basis of recorded range in stage and weather records.

Little Colorado River near Woodruff, Ariz.

Location.- Water-stage recorder, lat. 34°48', long. 110°03', in sec. 7, T. 16 N., R. 22 E., 1½ miles northwest of Woodruff and 4 miles downstream from Silver Creek. Zero of gage is 5,123.5 feet above mean sea level (river profile survey, based on general adjustment of 1929).

Drainage area.- 9,060 square miles.

Records available.- March 1905 to December 1908, December 1915 to December 1919 (fragmentary), April 1929 to December 1933, September 1935 to September 1939.

Extremes.- Maximum discharge during year, 1,180 second-feet Aug. 6 (gage height, 3.95 feet); no flow in June and parts of four other months.

1929-39: Maximum discharge, 10,700 second-feet July 21, 1929 (gage height, 12.45 feet), from rating curve extended above 7,000 second-feet; no flow on some days in spring or summer of each year.

Maximum discharge recorded, 25,000 second-feet Dec. 5, 1919 (gage height, 12.0 feet, former datum), from rating curve extended above 2,000 second-feet; maximum gage height recorded, 12.7 feet, former datum, Jan. 19, 1916 (discharge not determined).

Remarks.- Records good except those for periods of ice effect, Dec. 25 to Jan. 2, Jan. 12, 13, 17-20, 24-28, Feb. 1-9, 11-17, Mar. 1, which were computed on basis of weather records and parts of gage-height graph not affected by ice and are fair. Diversions above station for irrigation. Some regulation by reservoirs upstream (combined capacity, about 73,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	6	6	8	10	11	12	0		0	0.1	11
2	2	6	8	9	7	11	11	0		49	110	2
3	3	6	9	9	7	10	11	.1		150	56	.7
4	2	6	8	10	10	10	33	1		129	5	20
5	2	6	8	8	7	10	338	.5		30	0	83
6	2	6	8	8	12	10	83	.1		5	268	32
7	3	6	6	11	15	10	33	.1		2	206	9
8	3	6	5	14	17	10	18	.1		1	21	108
9	3	6	5	15	14	9	13	3		.2	5	56
10	3	6	5	12	16	10	10	3		.1	2	57
11	3	6	5	10	10	9	9	.1		.1	2	142
12	3	6	5	8	10	9	8	.1		0	2	29
13	3	6	4	9	10	9	8	.1		0	3	8
14	3	6	4	8	13	27	6	.1		0	2	4
15	3	6	4	10	15	76	5	1		0	.2	4
16	4	6	6	10	55	117	7	8		0	0	4
17	4	6	8	10	52	117	4	2		0	0	4
18	4	5	6	9	31	92	4	.5		0	0	3
19	4	4	7	10	21	67	3	.2		0	0	3
20	6	5	8	9	17	58	3	.5		0	0	6
21	6	6	8	14	13	55	4	.3		0	0	4
22	6	6	12	16	8	53	6	0		0	0	3
23	5	6	8	17	8	58	4	0		12	0	2
24	6	5	8	16	9	37	5	0		1	0	1
25	6	4	7	15	10	29	2	0		0	0	1
25	6	3	7	15	11	17	2	0		0	43	1
27	6	3	8	12	9	18	1	0		0	48	1
28	6	3	7	17	8	20	1	.1		5	55	1
29	4	3	7	11	-	17	0	0		3	138	3
30	5	4	8	11	-	16	0	0		.6	274	2
31	5	-	7	15	-	14	-	0		.4	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	122	6	1	3.9	242
November	159	6	3	5.3	315
December	214	12	4	6.9	424
Calendar year 1938	7,423.4	1,160	0	20.3	14,720
January	356	17	8	11.5	706
February	425	55	7	15.2	843
March	1,015	117	9	32.7	2,010
April	644	338	0	21.5	1,280
May	20.9	8	0	.67	41
June	0	0	0	0	0
July	387.5	150	0	12.5	769
August	1,280.3	274	0	41.3	2,540
September	604.7	142	.7	20.2	1,200
Water year 1938-39	5,228.4	338	0	14.3	10,370

Peak discharge.- Apr. 5 (1:30 a.m.) 712 sec.-ft.; Aug. 6 (6:30 p.m.) 1,180 sec.-ft.

Little Colorado River at Grand Falls, Ariz.

Location.- Water-stage recorder, lat. 35°26', long. 111°12', in T. 24 N., R. 11 E., unsurveyed, on Navajo Indian Reservation, at Grand Falls, 38 miles northeast of Flagstaff and 96 miles upstream from mouth. Zero of gage is about 4,440 feet above mean sea level.

Drainage area.- 22,100 square miles.

Records available.- November 1925 to September 1939.

Average discharge.- 14 years, 312 second-feet.

Extremes.- Maximum discharge during year, 6,680 second-feet Apr. 5 (gage height, 13.21 feet); no flow on many days.
1925-39: Maximum discharge, 50,500 second-feet Apr. 5, 1929 (gage height, 30.0 feet); no flow during some periods in most years.
A discharge of about 120,000 second-feet occurred Sept. 19, 1923 (gage height, 47.0 feet, from floodmarks).

Remarks.- Records excellent except those for days of ice effect, Jan. 17, 18, 23, 27, Feb. 2, 11, 12 (computed on basis of parts of gage-height graph not affected by backwater from ice), and those for periods of missing gage heights, Mar. 30 to Apr. 2, Apr. 9-17 (computed on basis of recorded range in stage, weather records, and records for nearby stations), which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	5	15	650	4			0	131
2				0	4	11	675	1			0	40
3				0	3	13	725	0			0	18
4				0	2	11	1,640	0			0	10
5				0	2	7	3,240	0			503	5
6				0	2	4	4,520	0			173	3
7				0	1	4	2,100	0			137	2
8				0	2	5	1,520	0			146	0
9				0	2	5	1,000	0			121	20
10				3	3	3	700	0			52	119
11				11	5	3	550	0			24	168
12				13	9	1	550	0			10	167
13				13	11	73	475	0			3	917
14				10	7	241	400	0			1	246
15				10	13	180	325	0			0	98
16				14	24	160	300	0			0	45
17				5	22	189	225	0			0	25
18				5	28	325	150	0			0	30
19				2	110	541	113	0			0	12
20				2	157	805	88	0			0	7
21				4	116	1,060	70	0			0	3
22				6	82	1,340	54	0			0	1
23				8	60	1,640	42	0			0	1
24				6	50	2,100	31	0			0	0
25				5	40	1,870	24	0			0	0
26				4	22	1,490	18	0			0	0
27				3	15	1,160	15	0			0	0
28				4	15	1,160	11	0			0	0
29				16	-	1,200	9	0			0	0
30				24	-	950	7	0			35	0
31				22	-	700	-	0			199	-

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 1938	82,340	19,200	0	226	163,300
January	190	24	0	6.1	377
February	612	157	1	29.0	1,610
March	17,266	2,100	1	557	34,260
April	20,227	4,520	7	674	40,120
May	5	4	0	.2	10
June	0	0	0	0	0
July	0	0	0	0	0
August	1,404	503	0	45.3	2,780
September	2,068	917	0	68.9	4,100
Water year 1938-39	41,972	4,520	0	115	83,250

Silver Creek near Woodruff, Ariz.

Location.- Water-stage recorder, lat. 34°44', long. 110°02', in sec. 32, T. 16 N., R. 22 E., half a mile upstream from mouth and 3 miles south of Woodruff. Control for station is crest of diversion dam 1,700 feet downstream.

Drainage area.- 942 square miles.

Records available.- April 1929 to October 1933, October 1935 to September 1939.

Extremes.- Maximum discharge during year, 1,460 second-feet Aug. 29 (gage height, 4.64 feet); no flow on many days.
1929-39: Maximum discharge, 12,100 second-feet July 21, 1929 (gage height, 11.67 feet), from rating curve extended above 3,000 second-feet on basis of records for Little Colorado River near Woodruff; no flow during several days in spring and summer of each year.

Remarks.- Records good except those for periods of ice effect, Nov. 25, Dec. 27 to Jan. 2, Jan. 13-21, Feb. 1-3 (computed on basis of parts of gage-height graph not affected by backwater from ice, weather records, and records for Little Colorado River near Woodruff), which are fair. Diversions above station for irrigation. Regulation by several reservoirs (combined capacity, about 27,000 acre-feet). Records show discharge over dam and do not include flow in canal that diverts at dam. See table of miscellaneous discharge measurements for flow in canal.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1	2	1	6	5	10	0		0	0	2
2	1	1	2	1	4	5	10	0		0	5	1
3	1	1	1	2	4	4	8	1		21	24	2
4	1	2	2	3	6	5	18	0		23	21	2
5	1	2	2	1	7	5	133	0		5	4	1
6	1	2	1	2	8	4	68	0		1	336	1
7	1	1	1	4	8	4	31	0		0	134	29
8	1	2	1	7	7	4	23	0		0	12	68
9	1	2	1	6	7	4	16	0		0	3	6
10	1	1	1	4	8	4	12	0		0	2	9
11	1	1	1	4	7	4	10	0		0	2	46
12	1	1	1	5	8	4	8	0		0	2	12
13	1	1	1	6	8	4	6	0		0	2	6
14	1	1	1	5	9	27	6	0		0	1	5
15	0	2	1	6	11	75	6	0		0	0	4
16	0	1	2	6	11	107	6	0		0	0	3
17	0	2	1	5	7	105	3	0		0	0	2
18	0	1	1	5	7	e2	2	0		0	0	2
19	1	1	1	6	6	57	3	1		0	0	5
20	1	1	1	7	7	57	3	0		0	0	7
21	1	1	2	8	6	49	4	0		0	0	5
22	1	1	2	8	6	42	6	0		6	1	3
23	1	1	2	7	6	40	4	0		e	1	2
24	1	1	2	6	6	32	5	0		0	1	2
25	1	1	1	6	6	24	2	0		0	2	2
26	1	1	1	6	7	15	2	0		0	15	2
27	1	1	1	7	6	16	1	0		0	15	1
28	1	1	1	10	4	18	1	0		4	4	1
29	1	1	1	7	-	15	0	0		2	72	1
30	1	2	1	7	-	13	0	0		1	179	1
31	1	-	1	9	-	11	-	0		0	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26	1	0	0.8	52
November	38	2	1	1.3	75
December	40	2	1	1.3	79
Calendar year 1938	3,746.4	1,110	0	10.3	7,430
January	167	10	1	5.4	331
February	193	11	4	6.9	383
March	841	107	4	27.1	1,670
April	407	133	0	13.6	807
May	2	1	0	.1	4.0
June	0	0	0	0	0
July	71	23	0	2.3	141
August	847	336	0	27.3	1,680
September	233	68	1	7.8	462
Water year 1938-39	2,965	336	0	7.8	5,680

Peak discharge.- Aug. 6 (4:50 p.m.) 1,120 sec.-ft.; Aug. 6 (10:45 p.m.) 1,310 sec.-ft.; Aug. 29 (11:45 p.m.) 1,460 sec.-ft.

Chevelon Fork near Winslow, Ariz.

Location.- Water-stage recorder, lat. 34°56', long. 110°31', in sec. 27, T. 18 N., R. 17 E., 3 miles upstream from mouth and 12 miles southeast of Winslow.

Drainage area.- 1,010 square miles.

Records available.- December 1905 to December 1908, December 1915 to December 1919, March 1929 to February 1934, September 1935 to September 1939.

Extremes.- Maximum discharge during year, 2,410 second-feet Aug. 3 (gage height, 8.74 feet); minimum, 2 second-feet on several days.
1929-39: Maximum discharge, 16,100 second-feet Apr. 4, 1929 (gage height, 17.8 feet), from rating curve extended above 6,000 second-feet; minimum, about 1 second-foot at times in each of several years.

Remarks.- Records good. No diversions above station. Chevelon canal (see list of miscellaneous discharge measurements for flow) diverts below station and has maximum capacity of about 10 second-feet.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	2	3	4	5	5	233	4	4	3	4	2
2	4	2	3	4	5	5	291	4	4	3	3	2
3	4	3	3	4	4	5	337	4	5	4	214	3
4	4	3	3	4	4	5	722	4	5	3	116	5
5	3	3	3	4	4	5	987	4	5	3	7	5
6	3	3	3	4	4	5	577	4	4	3	6	4
7	3	3	4	4	4	5	322	4	4	3	3	4
8	3	3	4	4	4	5	164	4	4	3	3	4
9	3	2	4	4	6	5	110	4	4	3	2	4
10	3	2	3	4	4	5	94	4	4	3	2	4
11	3	3	3	4	4	5	83	4	4	3	2	59
12	3	3	4	4	3	5	69	4	4	3	3	52
13	3	3	4	4	3	5	54	4	4	3	3	9
14	3	3	4	4	4	19	42	4	3	3	3	6
15	3	3	4	4	4	33	38	4	4	3	3	6
16	3	3	4	4	4	63	32	4	3	3	3	5
17	3	3	4	4	4	147	26	4	3	3	3	5
18	3	3	4	4	3	273	21	4	4	3	3	5
19	3	3	4	4	3	428	20	4	4	3	3	6
20	3	3	4	4	4	473	18	4	4	3	3	5
21	3	3	4	4	4	473	15	4	4	3	2	4
22	3	3	4	4	4	697	12	4	4	3	2	4
23	3	3	4	4	4	888	10	4	4	3	2	4
24	3	3	4	4	5	767	8	4	4	3	2	4
25	3	3	4	4	4	576	7	4	4	4	2	4
26	3	3	4	4	5	497	6	4	4	4	3	4
27	3	3	4	4	5	509	5	4	4	3	4	4
28	3	3	4	4	5	441	5	4	4	3	3	4
29	3	3	4	4	-	287	5	4	4	3	2	4
30	3	3	4	4	-	211	5	4	4	3	2	4
31	2	-	4	4	-	234	-	4	-	4	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	96	4	2	3.1	190
November	86	3	2	2.9	171
December	116	4	3	3.7	230
Calendar year 1938	17,365	5,040	2	47.6	34,440
January	124	4	4	4.0	246
February	116	6	3	4.1	230
March	7,081	888	5	228	14,040
April	4,318	987	5	144	8,560
May	124	4	4	4.0	246
June	120	5	3	4.0	238
July	97	4	3	3.1	192
August	415	214	2	13.4	823
September	235	59	2	7.8	466
Water year 1938-39	12,928	987	2	35.4	25,630

Peak discharge.- Mar. 22 (8:30 p.m.) 950 sec.-ft.; Mar. 23 (6 p.m.) 1,120 sec.-ft.; Mar. 24 (7:45 p.m.) 895 sec.-ft.; Apr. 5 (5:30 p.m.) 1,360 sec.-ft.; Aug. 3 (9:40 p.m.) 2,410 sec.-ft.

Clear Creek near Winslow, Ariz.

Location.- Water-stage recorder, lat. 34°58', long. 110°38', in SE¼ sec. 9, T. 18 N., R. 16 E., 1½ miles upstream from mouth and 5 miles southeast of Winslow. Control for station is crest of diversion dam 1,000 feet downstream.

Drainage area.- 607 square miles.

Records available.- March 1929 to February 1934, October 1935 to September 1939. June 1906 to January 1909, at site 3 miles upstream.

Extremes.- Maximum discharge during year, 1,500 second-feet Apr. 4 (gage height, 6.62 feet); no flow on many days.
1929-39: Maximum discharge, 50,000 second-feet Apr. 4, 1929 (gage height, 18.1 feet), from rating curve extended above 13,500 second-feet on basis of velocity-area studies; no flow on many days of each year.

Remarks.- Records good. Water diverted above station for municipal and industrial supply. Records show discharge over dam and do not include flow in canal that diverts at dam or leakage through dam (see table of miscellaneous discharge measurements for flow at mouth of creek, which includes leakage).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0.1	0.2	0.3	348	5				
2			0	.1	.2	.3	423	3				
3			0	.1	.2	.3	568	2				
4			0	.1	.3	.3	1,120	2				
5			0	.1	.3	.2	1,200	1				
6			0	.1	.2	.2	931	.8				
7			0	.2	.3	.2	729	.7				
8			0	.3	.3	.2	467	.6				
9			0	.3	.2	.2	356	.4				
10			0	.3	.2	.2	364	.2				
11			0	.3	.2	.2	373	0				
12			0	.2	.2	.2	317	0				
13			0	.1	.2	.2	264	0				
14			0	.1	.2	.2	221	0				
15			0	.1	.2	.2	201	0				
16			0	.1	.2	.2	157	0				
17			0	.1	.2	.2	118	0				
18			0	.1	.2	.2	87	0				
19			0	.1	.3	.2	72	0				
20			.1	.1	.2	309	60	0				
21			.1	.1	.2	340	49	0				
22			.1	.1	.2	449	35	0				
23			.1	.2	.2	836	30	0				
24			.1	.2	.2	946	27	0				
25			.1	.2	.2	695	21	0				
26			.1	.2	.3	549	19	0				
27			.1	.2	.3	578	16	0				
28			.1	.2	.3	635	12	0				
29			.1	.2	-	476	9	0				
30			.1	.2	-	348	6	0				
31			.1	.2	-	325	-	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	1.2	.1	0	.04	2.4
Calendar year 1938	32,617.6	12,900	0	89.4	64,670
January	5.0	.3	.1	.16	9.9
February	6.4	.3	.2	.23	13
March	6,490.2	946	.2	209	12,870
April	8,600	1,200	6	287	17,060
May	15.7	5	0	.51	31
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 1938-39	15,118.5	1,200	0	41.4	29,990

Peak discharge.- Mar. 23 (11 p.m.) 1,260 sec.-ft.; Mar. 25 (4 a.m.) 791 sec.-ft.; Apr. 4 (10 p.m.) 1,500 sec.-ft.; Apr. 6 (12:15 a.m.) 1,210 sec.-ft.; Apr. 7 (4:45 a.m.) 870 sec.-ft.

Moenkopi Wash near Tuba, Ariz.

Location.- Water-stage recorder, lat. 36°06', long. 11°18', in T. 31 N., R. 10 E., unsurveyed, on Navajo Indian Reservation, at highway bridge, 5 miles southwest of Tuba and 17 miles upstream from mouth.

Drainage area.- 2,270 square miles.

Records available.- July 1926 to September 1939.

Average discharge.- 13 years, 21.4 second-feet.

Extremes.- Maximum discharge during year, 4,810 second-feet Sept. 11 (gage height, 8.30 feet), from rating curve extended above 600 second-feet by velocity-area method; no flow for many days.
1926-39: Maximum discharge, 15,100 second-feet Aug. 4, 1929 (gage height, 15.4 feet), by slope-area method; no flow on several days in each year.

Remarks.- Records good. Discharge for periods when parts of day were affected by ice, Dec. 26, 29, 31, Feb. 9-11, 17, 20, 27, computed on basis of parts of gage-height graph that were not affected by ice. Diversions above station for irrigation; none below.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	4.4	3.3	3.3	4.3	3.8	0				0	0.8
2	3.8	5.6	4.4	3.3	2.7	3.8	.7				0	.1
3	3.8	5.6	4.3	3.8	3.8	4.4	2.8				0	0
4	3.3	5.0	5.0	3.3	5.6	5.0	3.3				0	0
5	2.9	4.4	5.6	3.3	6.9	4.4	2.2				0	13
6	.5	4.4	5.6	5.0	6.2	4.4	2.9				0	43
7	2.5	3.6	5.6	6.2	5.0	4.4	2.2				0	36
8	6.4	3.3	5.0	5.6	5.6	5.0	2.9				0	10
9	3.8	3.8	4.4	5.0	3.6	5.0	3.3				0	83
10	3.8	2.5	4.4	5.0	2.7	4.4	2.2				0	23
11	3.8	2.5	5.6	3.8	3.5	4.4	2.9				0	1,190
12	2.5	2.2	5.0	3.8	5.1	5.0	2.9				0	580
13	.8	3.8	4.4	3.8	5.6	4.4	2.9				0	50
14	.2	2.8	3.3	5.8	5.6	4.4	2.9				0	18
15	.1	2.5	3.3	5.1	5.6	4.4	3.3				0	7.8
16	.3	4.7	6.2	5.0	5.0	4.4	3.3				0	5.6
17	2.9	4.6	6.9	5.6	3.7	3.8	1.1				0	3.8
18	2.9	4.4	6.2	2.9	4.4	2.5	.4				0	2.5
19	2.2	3.8	5.6	2.9	5.0	.2	.1				0	2.8
20	1.6	3.8	6.2	5.0	4.5	.1	.1				0	2.5
21	1.6	4.8	12	6.2	5.0	0	0				0	5.6
22	2.9	5.0	13	6.9	4.6	.1	.1				0	4.4
23	4.4	3.8	6.9	6.9	5.0	.1	0				0	3.8
24	4.4	2.2	5.0	5.6	5.6	.1	0				0	3.8
25	4.4	.9	3.8	3.3	5.0	0	0				0	3.8
26	4.4	.3	3.6	3.3	4.4	1.0	0				0	3.8
27	4.4	.5	3.7	3.8	4.1	.6	0				0	3.8
28	4.4	3.7	5.0	5.6	3.3	.2	0				0	3.8
29	4.4	2.9	3.8	5.0	-	.1	0				108	2.9
30	4.4	3.3	.8	3.3	-	0	0				37	.6
31	4.4	-	2.3	5.0	-	0	-				6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	94.2	6.4	0.1	3.04	187
November	105.1	5.6	.3	3.50	208
December	160.2	13	.8	5.17	318
Calendar year 1938	3,386.6	654	0	9.28	6,720
January	142.4	6.9	2.9	4.59	282
February	131.4	6.9	2.7	4.69	261
March	80.4	5.0	0	2.59	159
April	42.5	3.3	0	1.42	84
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	151.0	108	0	4.87	300
September	2,107.9	1,190	0	70.3	4,180
Water year 1938-39	3,015.1	1,190	0	8.26	5,980

Peak discharge.- Sept. 11 (7 a.m.) 3,580 sec.-ft.; Sept. 11 (10:40 p.m.) 4,810 sec.-ft.

Bright Angel Creek near Grand Canyon, Ariz.

Location.- Staff gage, lat. 36°05'55", long. 112°05'38", an eighth of a mile upstream from mouth and 11 miles by trail from Grand Canyon Village, Coconino County. Zero of gage is 2,444.7 (figure published in Water-Supply Paper 859 in error) feet above mean sea level (preliminary adjustment of 1929).

Drainage area.- 100 square miles.

Records available.- October 1923 to September 1939.

Average discharge.- 16 years, 38.0 second-feet.

Extremes.- Maximum discharge observed during year, 270 second-feet Sept. 6; minimum observed, 17 second-feet Aug. 31.
1923-39: Maximum discharge, 4,400 second-feet Aug. 19, 1936, determined by slope-area method; minimum, 9 second-feet (regulated) June 29, 1934.

Remarks.- Records good. Gage read twice daily or oftener. Small diversions for irrigation above station. Some fluctuation in flow caused by operation of power plant 9 miles upstream; no regulation by storage. During the year 69 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	26	27	26	27	25	36	114	31	24	23	22
2	28	31	27	27	27	25	36	108	31	23	24	23
3	26	28	26	26	26	25	47	107	30	25	24	23
4	25	26	26	26	27	26	56	100	29	26	25	27
5	25	26	25	26	26	25	56	93	29	24	24	65
6	24	26	25	27	25	25	74	90	29	23	25	77
7	26	27	25	29	25	25	71	83	28	21	27	52
8	29	27	25	29	25	25	73	71	29	23	24	31
9	28	28	25	28	25	25	85	69	28	24	24	31
10	26	27	25	28	25	25	107	64	28	25	26	31
11	26	28	25	28	25	25	114	59	28	24	25	31
12	26	28	26	27	25	25	114	58	27	23	25	51
13	26	28	26	27	25	25	127	56	28	23	26	110
14	27	28	26	26	26	25	123	56	26	23	25	100
15	27	28	26	26	25	25	108	50	26	23	24	79
16	27	28	29	26	26	25	87	49	27	23	24	58
17	27	28	26	25	26	26	80	46	27	23	23	50
18	27	28	27	25	26	26	85	45	28	23	23	46
19	28	28	29	25	25	26	96	43	28	23	23	42
20	28	27	28	25	25	26	108	43	26	23	24	38
21	28	27	29	26	25	26	118	42	26	23	24	36
22	28	27	28	27	25	31	127	41	24	22	22	36
23	27	27	28	26	25	32	127	39	23	23	20	34
24	26	27	27	25	24	34	120	39	24	22	19	32
25	26	27	27	25	24	33	108	36	24	20	21	33
26	25	27	27	25	25	35	103	34	26	21	23	36
27	25	27	27	25	24	40	98	34	24	22	21	36
28	25	27	27	26	25	42	102	32	24	23	24	36
29	25	27	27	26	-	40	108	32	22	23	23	34
30	25	27	26	27	-	36	118	31	23	22	21	34
31	25	-	26	28	-	36	-	31	-	23	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	819	29	24	26.4	1,620
November	821	31	26	27.4	1,630
December	823	29	25	26.5	1,630
Calendar year 1938	22,482	520	23	61.6	44,590
January	818	29	25	26.4	1,620
February	709	27	24	25.3	1,410
March	890	42	25	28.7	1,770
April	2,812	127	36	93.7	5,580
May	1,795	114	31	57.9	3,560
June	803	31	22	26.8	1,590
July	713	26	20	23.0	1,410
August	726	27	19	23.4	1,440
September	1,334	110	22	44.5	2,650
Water year 1938-39	13,063	127	19	35.8	25,910

Virgin River at Virgin, Utah

Location.- Chain gage, lat. 37°13', long. 113°11', in SE¼SE¼ sec. 22, T. 41 S., R. 12 W., at east edge of Virgin, half a mile downstream from North Creek.

Drainage area.- 990 square miles.

Records available.- April 1909 to September 1926 (fragmentary) and October 1926 to September 1939.

Average discharge.- 20 years (1910-14, 1915-16, 1917-18, 1923-24, 1926-39), 220 second-feet.

Extremes.- Maximum discharge observed during year, 10,000 second-feet Sept. 6 (gage height, 10.1 feet), from rating curve extended above 400 second-feet or basis of slope-area determinations at gage heights 8.05 and 10.7 feet; minimum observed, 53 second-feet July 19.

1909-39: Maximum discharge, 13,500 second-feet Mar. 3, 1938 (gage height, 10.7 feet, from floodmarks), by slope-area method; minimum discharge observed, 23 second-feet Sept. 30, 1931.

Remarks.- Records poor. Gage read once daily. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	125	113	136	152	141	125	298	320	106	70	75	67
2	*130	95	141	146	141	136	345	267	102	67	70	70
3	136	117	194	178	136	141	414	214	93	67	66	67
4	146	128	167	172	132	146	371	214	90	*63	67	141
5	132	136	152	178	136	146	327	188	93	64	67	305
6	125	117	172	214	132	141	305	162	85	61	*84	3,000
7	136	102	132	162	136	*146	313	152	82	61	102	600
8	214	106	132	178	141	152	345	172	75	53	80	121
9	207	121	121	178	146	*160	461	163	77	61	75	121
10	152	117	121	162	*152	167	345	172	72	70	109	136
11	121	128	117	167	157	146	328	157	75	64	85	600
12	106	132	121	157	157	162	345	167	77	61	75	3,500
13	95	*115	113	132	157	172	452	172	77	63	70	1,000
14	90	98	117	152	157	172	337	162	85	61	70	220
15	82	106	121	*152	157	183	290	157	80	53	61	102
16	98	95	128	152	146	194	275	162	75	*55	58	128
17	109	102	132	152	146	194	313	178	75	55	59	117
18	117	113	146	132	157	188	267	188	70	59	58	125
19	106	125	157	125	*142	178	298	194	70	53	61	128
20	98	125	172	132	128	178	313	132	70	53	*64	109
21	102	128	188	132	121	201	371	125	77	61	67	98
22	109	125	178	*124	152	226	380	113	70	55	55	90
23	98	128	194	117	141	267	380	106	80	53	64	88
24	113	117	214	132	136	239	405	95	80	53	62	75
25	95	157	*195	132	132	239	328	102	80	56	64	82
26	90	167	172	146	*134	298	320	98	80	56	64	600
27	82	*140	128	136	136	313	328	93	75	72	64	239
28	88	113	146	152	125	313	320	*93	75	72	85	172
29	90	132	152	162	-	252	298	93	75	250	90	146
30	*92	128	157	*162	-	252	310	95	75	90	95	132
31	93	-	167	162	-	252	-	113	-	83	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,577	214	82	115	7,090
November	3,626	167	95	121	7,190
December	4,683	214	113	151	9,290
Calendar year 1938	101,613	5,000	48	278	201,600
January	4,730	214	117	153	9,380
February	3,974	157	121	142	7,880
March	6,079	313	125	196	12,060
April	10,252	461	267	342	20,330
May	4,839	320	93	156	9,600
June	2,396	106	70	79.9	4,750
July	2,141	250	53	69.1	4,250
August	2,243	109	55	72.4	4,450
September	12,579	3,500	67	419	24,950
Water year 1938-39	61,119	3,500	53	167	121,200

*Interpolated.

Virgin River at Littlefield, Ariz.

Location.- Staff gage, lat. 36°53', long. 113°56', in SW¼ sec. 4, T. 40 N., R. 15 W., half a mile downstream from Beaverdam Wash and half a mile east of Littlefield.

Drainage area.- 4,400 square miles.

Records available.- October 1929 to September 1939.

Average discharge.- 10 years, 263 second-feet.

Extremes.- Maximum discharge observed during year, 13,000 second-feet Sept. 12 (gage height, 7.5 feet), from rating curve extended above 1,100 second-feet on basis of slope-area determination at 22,000 second-feet; minimum observed, 52 second-feet Aug. 14.

1929-39: Maximum discharge, 25,000 second-feet (estimated) Aug. 27, 1932; minimum discharge observed, 25 second-feet Aug. 31, 1935.

Remarks.- Records poor. Gage read once daily. A few second-feet of water diverted from Beaverdam Springs; no other diversion in Arizona above station, but several canals divert in Utah. A few miles below station Mesquite Canal diverts water for irrigation in Nevada.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*85	127	207	198	214	194	198	234	64	59	56	58
2	84	136	211	191	204	188	201	204	64	59	54	55
3	87	146	226	214	242	184	392	167	66	58	54	60
4	87	161	222	211	264	194	452	164	66	60	55	66
5	87	151	226	218	254	191	399	161	63	58	54	200
6	95	159	226	254	246	201	413	161	67	56	53	500
7	95	184	222	274	259	188	259	167	64	61	188	4,000
8	95	191	178	278	274	184	309	164	63	59	68	900
9	108	151	188	283	315	173	345	161	66	56	58	345
10	125	136	181	278	303	156	370	159	61	56	53	600
11	136	114	175	250	274	204	288	159	60	58	54	321
12	136	106	181	246	259	204	242	161	64	61	53	5,000
13	148	161	191	230	234	201	226	161	61	54	53	4,000
14	136	178	178	250	242	204	230	170	59	54	52	1,000
15	161	226	173	238	238	211	226	170	59	55	53	363
16	143	222	264	230	234	184	191	167	61	58	54	303
17	136	207	242	238	238	191	167	164	64	56	54	293
18	136	211	234	250	226	214	164	161	66	55	53	264
19	136	207	230	250	242	214	161	153	61	56	55	246
20	136	226	278	250	*226	246	164	148	58	55	53	254
21	129	246	309	226	*210	238	175	143	56	58	54	264
22	134	234	298	421	194	230	191	136	56	56	54	238
23	123	246	309	333	198	309	222	127	60	58	54	222
24	118	226	303	293	204	327	413	118	58	55	55	201
25	114	226	309	269	198	345	264	108	59	55	56	246
26	114	226	293	269	201	283	242	101	58	56	54	882
27	114	222	264	246	194	351	178	63	56	56	55	620
28	118	226	218	246	191	500	173	66	58	54	55	222
29	125	207	211	242	-	370	173	66	59	55	54	201
30	136	226	207	234	-	351	211	63	59	79	60	188
31	136	-	204	226	-	283	-	63	-	67	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,713	161	84	120	7,360
November	5,685	246	106	190	11,280
December	7,158	309	175	231	14,200
Calendar year 1938	142,046	17,000	55	389	281,700
January	7,836	421	191	253	15,540
February	6,578	315	191	235	13,050
March	7,513	500	156	242	14,900
April	7,639	452	161	255	15,150
May	4,410	234	63	142	8,750
June	1,836	67	56	61.2	3,640
July	1,793	79	54	57.8	3,560
August	1,836	188	52	59.2	3,640
September	22,112	5,000	55	737	43,860
Water year 1938-39	78,109	5,000	52	214	154,900

*Interpolated.

North Fork of Virgin River near Springdale, Utah

Location.- Staff gage, lat. 37°12'35", long. 112°58'40", in SW¼NW¼ sec. 22, T. 41 S., R. 10 W., in Zion National Park, 0.2 mile downstream from point of diversion of Springdale canal, 0.5 mile downstream from Pine Creek, and 1.9 miles northeast of Springdale.

Drainage area.- 360 square miles.

Records available.- October 1932 to September 1939. June to November 1923 and April 1925 to September 1932, at site a quarter of a mile upstream from Pine Creek.

Average discharge.- 13 years (1925-31, 1932-39), 102 second-feet.

Extremes.- Maximum discharge observed during year, 2,900 second-feet Sept. 7 (gage height, 7.8 feet), from rating curve extended above 600 second-feet on basis of slope-area determination at 7,000 second-feet; minimum observed, 32 second-feet Aug. 23.
1925-39: Maximum discharge, 7,000 second-feet Mar. 3, 1938 (gage height, 11.0 feet, from floodmarks), by slope-area method; minimum discharge observed, 24 second-feet Dec. 17, 31, 1928.

Remarks.- Records poor. Gage read once daily. Records give combined flow of North Fork of Virgin River and Springdale canal, which diverts in NW¼NW¼ sec. 22, T. 41 S., R. 10 W., for irrigation in vicinity of Springdale.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	63	60	52	52	60	123	169	72	42	46	37
2	58	70	60	52	41	74	129	169	70	42	39	39
3	59	68	60	52	51	70	194	156	68	42	39	40
4	58	66	56	52	51	61	209	156	65	42	39	44
5	57	64	56	52	54	61	191	156	63	42	45	81
6	58	57	56	60	53	56	145	134	63	42	37	510
7	61	51	57	62	52	59	178	129	63	42	45	150
8	131	57	55	61	58	60	176	117	61	42	37	64
9	80	62	55	60	56	62	176	117	63	42	45	64
10	74	62	57	59	57	66	183	110	61	39	45	80
11	74	57	55	57	58	64	174	104	58	39	37	150
12	73	49	53	57	58	64	172	104	59	39	37	1,400
13	73	52	50	58	59	64	201	104	56	38	42	125
14	67	56	51	59	59	71	183	156	54	39	42	94
15	67	61	63	60	62	62	156	130	49	38	42	73
16	66	64	59	62	62	63	164	122	49	39	42	73
17	65	64	59	57	59	76	129	105	49	39	39	64
18	65	64	59	59	57	92	129	88	52	38	40	46
19	65	64	59	56	57	92	155	88	53	38	43	46
20	65	63	65	60	57	113	155	81	53	38	43	46
21	65	63	71	59	54	102	155	81	53	37	39	46
22	65	56	71	59	58	114	142	81	52	39	36	46
23	64	55	47	59	63	126	242	81	52	38	32	46
24	64	57	48	50	66	126	183	81	49	38	36	46
25	64	57	49	51	59	139	169	79	49	54	36	50
26	64	57	51	49	58	139	169	76	49	53	39	250
27	64	56	51	49	51	208	169	72	49	45	39	95
28	64	56	51	55	55	132	169	72	49	153	40	52
29	64	56	52	55	-	124	198	72	46	53	41	56
30	64	57	50	55	-	120	169	72	46	44	44	48
31	64	-	52	56	-	121	-	72	-	46	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,080	131	57	67.1	4,130
November	1,783	70	49	59.4	3,540
December	1,738	71	47	56.1	3,450
Calendar year 1938	57,210	3,000	47	157	113,500
January	1,744	62	49	56.3	3,460
February	1,577	66	41	56.3	3,130
March	2,841	208	56	91.6	5,640
April	5,089	242	123	170	10,090
May	3,334	169	72	108	6,610
June	1,675	72	46	55.8	3,320
July	1,408	153	37	45.4	2,790
August	1,244	46	32	40.1	2,470
September	3,961	1,400	37	132	7,860
Water year 1938-39	28,474	1,400	32	78.0	56,490

Williams River at Planet, Ariz.

Location.- Water-stage recorder, lat. 34°16', long. 113°59', in NE¼ sec. 36, T. 11 N., R. 17 W., 1 mile west of Planet and 6 miles upstream from Lake Havasu at times when lake is at elevation of 450 feet above mean sea level. Zero of gage is 556.33 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,140 square miles.

Records available.- September 1910 to December 1915 (fragmentary), October 1928 to September 1939.

Average discharge.- 11 years (1928-39), 156 second-feet.

Extremes.- Maximum discharge during year, 73,000 second-feet Sept. 7 (gage height, 11.7 feet), from rating curve extended above 51,000 second-feet, verified by slope-area measurement of 77,000 second-feet at Alamo, 33 miles upstream; minimum, 10 second-feet July 18.

1928-39: Maximum discharge, 92,500 second-feet Feb. 7, 1937 (gage height, 13.1 feet), from rating curve extended above 51,000 second-feet on basis of velocity-area study; minimum, 7 second-feet Sept. 30 and Oct. 1, 1934.

Floods estimated as greater than 150,000 second-feet occurred about Feb. 21, 1891, and Jan. 20, 1916.

Remarks.- Records good except those above 1,000 second-feet, which are fair. Discharge for Jan. 7-17 interpolated. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	16	17	15	31	18	15	13	12	13	13
2	15	15	16	17	15	17	16	15	13	12	13	13
3	14	15	16	17	15	14	16	15	13	12	13	155
4	14	16	16	17	15	14	16	14	13	12	13	1,340
5	15	15	16	17	14	16	15	14	13	12	12	5,470
6	14	16	16	17	14	17	15	14	13	13	12	20,000
7	15	16	16	17	14	17	15	14	13	12	12	31,500
8	15	17	16	17	15	17	15	14	13	12	94	5,380
9	15	17	17	17	14	18	16	14	13	12	18	1,020
10	15	17	17	17	13	19	16	14	13	12	19	286
11	15	17	17	17	13	19	17	14	13	12	33	788
12	15	16	17	17	13	21	17	14	13	12	14	6,860
13	15	16	17	17	13	22	17	13	13	12	13	15,500
14	15	16	17	17	14	22	17	13	13	12	13	4,060
15	15	16	25	17	15	19	17	13	13	12	12	1,480
16	15	16	17	17	18	18	17	13	13	12	11	718
17	15	16	17	17	17	18	16	13	13	12	11	376
18	15	16	17	17	74	17	16	13	13	12	11	251
19	15	16	17	17	76	17	15	13	13	12	22	238
20	15	16	18	16	29	16	15	13	13	13	14	196
21	15	16	17	16	25	16	14	13	13	13	20	177
22	15	16	254	15	24	16	14	13	13	14	18	148
23	15	16	95	15	22	16	15	13	13	14	13	139
24	15	16	170	14	21	16	15	13	13	14	12	365
25	15	16	75	14	21	16	16	14	13	13	13	5,170
26	15	16	33	14	55	16	16	14	12	15	13	4,960
27	15	16	25	14	98	16	17	13	12	14	13	2,470
28	15	16	19	12	47	16	17	13	12	14	13	860
29	15	16	17	13	-	16	17	13	12	13	13	470
30	15	16	17	14	-	15	16	13	12	12	13	320
31	15	-	17	14	-	15	-	13	-	13	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	462	15	14	14.9	916
November	480	17	15	16.0	952
December	1,080	254	16	34.8	2,140
Calendar year 1938	56,950	24,100	13	156	113,000
January	494	17	12	15.9	980
February	739	98	13	26.4	1,470
March	543	31	14	17.5	1,080
April	479	18	14	16.0	950
May	420	15	13	13.5	833
June	385	13	12	12.8	764
July	391	15	12	12.6	776
August	527	94	11	17.0	1,050
September	110,723	31,500	13	3,691	219,600
Water year 1938-39	116,723	31,500	11	320	231,500

Peak discharge.- Sept. 5 (10:30 p.m.) 28,400 sec.-ft.; Sept. 7 (2 a.m.) 73,000 sec.-ft.; Sept. 12 (9 a.m.) 8,990 sec.-ft.; Sept. 12 (5:30 p.m.) 16,000 sec.-ft.; Sept. 13 (12 p.m.) 23,200 sec.-ft.; Sept. 25 (5:15 p.m.) 8,310 sec.-ft.

Colorado River Aqueduct near Parker Dam, Ariz.-Calif.

Location.- Venturi meters at intake pumping plant of Metropolitan Water District of Southern California, lat. 34°19', long. 114°09', in SW¼ sec. 28, T. 3 N., R. 27 E., San Bernardino meridian, on Lake Havasu, 1.8 miles upstream from Parker Dam, which is 156 miles downstream from Boulder Dam.

Records available.- January to September 1939.

Extremes.- Maximum daily diversion during period, 692 second-feet Mar. 26, 1939; no diversion during parts of period.

Remarks.- Records given herein are those of flow diverted to Colorado River aqueduct, by pumping, from Lake Havasu on Colorado River less flow returned to Lake Havasu from Gene Reservoir and flow returned to Colorado River from Copper Basin Reservoir. Losses by evaporation and percolation, have not been deducted. Some water spilled from Gene Reservoir on a few days in February; no spill from Copper Basin Reservoir. Pumped water measured by venturi meters, individually rated by salt-velocity method. None of the water diverted reached the California coastal plain, as San Jacinto tunnel had not been completed. Records which are on basis of Pacific standard time, furnished by Metropolitan Water District of Southern California.

Diversions, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	635	0	0	0	0	0	443	544
2				-	486	0	0	113	0	0	429	0
3				-	457	0	0	241	0	0	428	0
4				-	128	0	0	421	0	0	393	0
5				-	0	0	0	355	338	332	0	0
6				-	301	0	0	370	638	613	0	0
7				222	522	0	0	187	643	0	289	0
8				390	660	0	0	59	624	0	436	0
9				0	639	0	0	166	286	0	438	152
10				0	660	0	0	127	0	0	438	463
11				278	664	3	0	319	0	426	439	566
12				612	664	0	0	118	0	637	438	435
13				666	665	0	48	0	0	142	438	439
14				563	666	0	0	0	131	0	440	440
15				0	667	0	0	184	299	205	437	226
16				0	670	0	0	317	206	624	440	0
17				0	557	0	296	303	292	629	102	0
18				5	184	0	446	358	425	626	0	279
19				0	0	0	446	273	416	623	0	438
20				0	419	0	445	168	273	546	0	443
21				0	673	0	565	304	68	588	446	441
22				0	670	0	645	299	0	0	655	441
23				0	671	0	631	186	0	0	666	442
24				0	611	0	6	0	0	0	665	420
25				0	0	442	0	44	0	0	626	442
26				0	0	692	0	0	127	0	620	443
27				0	0	664	0	0	205	0	665	445
28				0	0	654	0	0	341	0	646	445
29				0	-	649	0	318	421	0	646	414
30				0	-	389	0	307	238	0	660	0
31				257	-	0	-	66	-	139	651	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January 7-31	2,993	666	0	96.5	5,940
February	12,269	673	0	438	24,340
March	3,493	692	0	113	6,930
April	3,528	645	0	118	7,000
May	5,603	421	0	181	11,110
June	5,971	643	0	199	11,840
July	6,132	637	0	198	12,160
August	12,974	666	0	419	25,730
September	8,358	566	0	279	16,580
The period	-	-	-	-	121,600

Diversion for Colorado River Indian Reservation near Parker, Ariz.

Location.- Pump house on left bank of Colorado River, lat. 34°09', long. 114°18', in sec. 2, T. 9 N., R. 20 W., Gila and Salt River meridian, on Colorado River Indian Reservation, 1¼ miles north of Parker and 17 miles downstream from Parker Dam.

Records available.- January 1915 to December 1938 (calendar-year discharge), January 1937 to September 1939 (monthly discharge).

Remarks.- Records given herein are those of total diversion, computed from records of pump operation checked by current-meter and Parshall flume measurements. Water is pumped to canals for irrigation of lands in Colorado River Indian Reservation, which lies on east side of Colorado River and extends from Parker on the north to a point near Ehrenberg on the south. Records furnished by Office of Indian Affairs.

Yearly diversion, in acre-feet, calendar years 1915-38

Year	Acre-feet	Year	Acre-feet
1915	7,290	1927	27,680
1916	9,380	1928	30,330
1917	9,440	1929	29,040
1918	16,010	1930	27,640
1919	18,500	1931	25,000
1920	20,350	1932	21,440
1921	15,340	1933	18,010
1922	18,620	1934	21,190
1923	23,480	1935	23,230
1924	25,440	1936	30,360
1925	26,000	1937	33,600
1926	32,960	1938	29,200

Monthly diversion, in acre-feet, water years 1936-37, 1937-38, 1938-39

Month	1936-37	1937-38	1938-39
October	-	287	4,390
November	-	550	564
December	-	395	0
January	0	481	0
February	518	838	285
March	1,940	1,510	2,450
April	4,220	3,150	2,880
May	3,050	3,090	2,620
June	4,800	3,100	4,380
July	6,210	4,390	5,540
August	7,200	5,120	6,470
September	4,430	2,570	0
Water year	*32,370	25,480	29,580

*Jan. 1 to Sept. 30.

Palo Verde canal near Blythe, Calif.

Location.- Water-stage recorder, lat. 33°43', long. 114°31', SW¼ sec. 19, T. 5 S., R. 24 E., San Bernardino meridian, below settling basin, three-quarters of a mile downstream from intake on Colorado River and 9¼ miles northeast of Blythe.

Records available.- January 1922 to December 1923, January 1925 to September 1939.

Remarks.- Records given herein are those of flow diverted from Colorado River less waste water returned to river at lower end of project. Flow diverted from river computed on basis of gage heights and daily current-meter measurements; waste water returned to river at lower end of project (between 0 and 60 second-feet) estimated on basis of some current-meter measurements.

Canal diverts water from right bank of Colorado River in NE¼ sec. 19, T. 5 S., R. 24 E., San Bernardino meridian, 10 miles northeast of Blythe, for irrigation of lands in Palo Verde irrigation district in vicinity of Blythe and Ripley, Riverside County, Calif. Records furnished by Palo Verde Irrigation District.

Monthly diversion, in acre-feet, 1922-23, 1925-39

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1922	-	-	-	770	1,670	7,190	13,470	13,080	16,780	23,370	13,240	8,220
1922-23	7,000	2,780	2,440	3,300	5,140	13,200	18,060	16,060	16,400	29,820	29,600	16,020
1923-24	7,120	1,280	2,050	-	-	-	-	-	-	-	-	-
1924-25	-	-	-	2,460	4,440	15,090	24,890	27,750	32,880	40,300	36,360	15,860
1925-26	3,250	3,250	1,600	3,920	7,220	22,500	16,040	20,770	23,800	34,440	31,040	15,640
1926-27	8,430	7,170	1,390	3,510	7,410	16,550	22,250	17,060	21,380	32,270	31,670	24,450
1927-28	4,070	7,000	3,170	2,870	4,460	10,980	20,060	19,240	18,120	20,780	18,460	12,970
1928-29	13,870	4,070	3,500	4,350	6,840	17,350	18,030	16,370	18,330	33,640	25,310	19,800
1929-30	10,250	3,800	4,280	4,480	9,310	14,870	18,170	12,980	14,600	26,370	23,230	18,310
1930-31	9,120	4,560	3,700	2,470	3,280	15,370	20,240	17,610	20,010	31,560	19,520	16,890
1931-32	11,190	5,240	2,830	4,170	4,570	15,710	21,430	12,120	13,000	19,890	20,540	15,860
1932-33	6,670	4,230	2,160	1,260	4,390	16,150	15,740	15,600	14,120	23,880	22,300	18,750
1933-34	8,820	3,600	2,750	4,710	7,610	18,380	19,960	17,250	19,530	29,290	24,800	16,030
1934-35	11,890	5,460	4,620	2,890	6,370	15,600	17,000	15,120	23,110	28,120	23,710	20,300
1935-36	10,900	4,080	4,480	5,940	9,330	24,360	26,450	20,570	24,040	33,330	27,250	20,690
1936-37	9,320	2,960	3,550	2,560	8,330	16,210	20,230	20,250	22,780	31,400	33,780	23,740
1937-38	11,800	8,130	7,200	7,320	9,600	15,880	21,860	21,840	25,110	27,970	25,900	22,210
1938-39	15,910	11,130	7,340	4,300	13,920	25,650	27,490	31,000	31,700	31,830	27,490	4,850

Yearly diversion, in acre-feet, 1922-23, 1925-39

Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year
1922	*97,790	110,000	1929	181,500	178,400	1935	174,200	171,700
1923	159,800	158,000	1930	160,600	159,700	1936	211,400	207,800
1925	*200,000	208,100	1931	164,300	166,200	1937	195,100	206,400
1926	183,500	192,400	1932	146,600	140,400	1938	204,800	212,100
1927	193,500	190,800	1933	145,200	147,400	1939	232,300	-
1928	142,200	149,400	1934	172,800	179,600			

*Jan. 1 to Sept. 30.

Gila River near Gila, N. Mex.

Location.- Water-stage recorder, lat. 33°03', long. 108°32', in sec. 30, T. 14 S., R. 16 W., at Hooker dam site, 1 mile upstream from Mogollon Creek and 7 miles northeast of Gila. Zero of gage is 4,655.8 feet above mean sea level.

Drainage area.- 1,780 square miles.

Records available.- April to December 1914 (at site 3 miles upstream and about a quarter of a mile downstream from Turkey Creek) and October 1930 to September 1939 in reports of Geological Survey. April to December 1914 and November 1927 to December 1928 (at site 3 miles upstream) and January 1929 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,190 second-feet Sept. 15 (gage height, 6.40 feet); minimum daily discharge, 21 second-feet July 14.

1930-39: Maximum discharge, 6,110 second-feet Feb. 16, 1937 (gage height, 10.12 feet), from rating curve extended above 1,160 second-feet; minimum daily discharge, 21 second-feet June 22, 27, 1934, July 14, 1939.

Remarks.- Records fair except those for periods of uncertain or missing gage heights, Feb. 21, 22, June 15-22, which were computed on basis of weather records and records for station near Red Rock, and are poor. One small diversion above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	66	64	69	84	87	199	112	47	28	67	64
2	71	69	64	69	85	87	189	109	46	28	76	60
3	71	72	64	72	82	85	189	107	44	30	90	56
4	70	71	63	72	79	88	193	108	47	33	99	53
5	68	71	63	70	83	87	222	105	47	34	119	52
6	69	71	66	69	87	83	217	99	44	33	159	50
7	69	70	64	72	87	83	207	94	42	30	122	49
8	68	70	64	78	87	84	191	93	41	31	82	50
9	69	69	63	76	91	85	176	91	35	30	75	56
10	68	69	64	75	90	91	165	85	34	28	69	53
11	68	69	64	75	87	111	159	81	33	26	69	56
12	69	69	64	72	85	124	159	77	32	24	94	53
13	68	69	66	69	87	139	154	75	32	23	76	51
14	68	68	66	68	87	189	147	73	31	21	62	61
15	67	69	69	68	84	258	147	72	30	29	76	669
16	66	68	88	69	85	292	144	69	29	38	62	266
17	66	67	84	70	85	275	136	67	28	38	53	201
18	63	66	76	70	84	270	125	64	27	35	49	131
19	64	67	76	69	83	272	119	59	26	34	50	114
20	66	66	130	69	81	341	114	58	28	33	63	102
21	68	66	112	71	80	487	111	59	27	34	56	89
22	68	66	95	77	80	587	109	56	26	36	61	82
23	69	64	87	85	79	596	111	51	25	38	71	75
24	69	63	79	79	82	520	112	50	26	41	154	69
25	69	63	77	76	84	432	114	48	28	40	160	64
26	68	63	76	73	90	379	112	46	28	45	108	61
27	68	63	75	73	90	317	111	47	28	42	132	59
28	69	63	71	77	87	288	109	46	28	43	96	58
29	69	63	70	81	-	255	115	48	28	43	91	56
30	67	62	69	79	-	228	115	49	28	45	78	53
31	64	-	68	81	-	213	-	49	-	52	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,108	72	63	68.0	4,180
November	2,012	72	62	67.1	3,990
December	2,301	130	63	74.2	4,560
Calendar year 1938	36,433	1,120	24	99.8	72,260
January	2,273	85	68	73.3	4,510
February	2,375	91	79	84.8	4,710
March	7,433	596	83	240	14,740
April	4,471	222	109	149	8,870
May	2,247	112	46	72.5	4,460
June	995	47	25	33.2	1,970
July	1,065	52	21	34.4	2,110
August	2,689	160	49	86.7	5,330
September	2,913	669	49	97.1	5,780
Water year 1938-39	32,882	669	21	90.1	65,210

Peak discharge.- Mar. 15 (6 p.m.) 359 sec.-ft.; Mar. 16 (6 p.m.) 362 sec.-ft.; Aug. 4 (11 p.m.) 362 sec.-ft.; Aug. 6 (4 a.m.) 260 sec.-ft.; Aug. 24 (11 p.m.) 582 sec.-ft.; Sept. 15 (3 a.m.) 1,190 sec.-ft.; Sept. 16 (12 m.) 368 sec.-ft.

Gila River near Red Rock, N. Mex.

Location.- Water-stage recorder, lat. 32°45', long. 108°40', in sec. 23, T. 18 S., R. 18 W., 4 miles northeast of Red Rock and 11 miles downstream from Mangas Creek.

Drainage area.- 2,840 square miles.

Records available.- May 1908 to December 1914 and October 1930 to September 1939 in reports of Geological Survey. May 1908 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 4,350 second-feet Sept. 16 (gage height, 9.30 feet); minimum daily discharge, 6.0 second-feet July 12.
1930-39: Maximum discharge, 11,800 second-feet Feb. 16, 1937 (gage height, 13.67 feet), from rating curve extended above 5,000 second-feet logarithmically and on basis of peak flow for station at Fuller ranch; minimum daily discharge, that of July 12, 1939.

Remarks.- Records fair except those for periods of uncertain or missing gage heights, Oct. 1-17, Sept. 4-6, 16, 29, 30, which were computed on basis of weather records and records for station below Blue Creek, near Virden, (formerly published as Gila River at Fuller ranch, near Duncan) and are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	86	82	95	94	112	344	142	43	14	74	34
2	60	86	83	95	96	112	334	117	44	13	197	30
3	60	90	82	98	95	112	330	105	45	13	296	30
4	55	92	82	100	94	108	326	98	41	16	125	20
5	50	94	83	98	95	110	337	106	41	17	161	15
6	45	94	83	96	96	108	351	100	42	14	419	15
7	45	90	80	98	95	106	351	88	38	13	314	14
8	50	89	79	105	95	103	316	89	37	13	155	37
9	45	90	80	106	96	101	298	66	36	14	121	43
10	50	88	83	101	95	103	277	68	33	11	89	29
11	55	82	83	103	95	110	253	63	30	8.7	79	33
12	60	83	84	101	94	131	227	60	22	6.0	95	36
13	65	84	80	100	94	142	224	52	19	6.7	247	37
14	70	83	80	98	95	167	179	45	16	11	151	271
15	70	80	83	96	95	199	169	52	16	15	88	970
16	70	83	94	96	95	277	171	62	13	65	74	930
17	70	82	95	95	98	306	169	57	13	230	69	323
18	68	80	95	95	98	334	133	48	10	176	102	174
19	75	82	98	94	101	351	133	39	12	66	220	167
20	79	82	127	94	101	389	135	44	11	63	54	169
21	79	83	157	94	98	558	108	55	9.6	58	52	123
22	78	83	137	95	100	716	105	70	9.2	78	53	113
23	75	82	125	98	98	802	106	65	11	54	55	105
24	79	84	115	98	101	802	125	54	12	141	70	100
25	83	88	113	100	105	654	115	48	10	64	164	90
26	84	83	110	100	108	525	123	43	13	53	100	80
27	84	83	106	98	113	463	119	42	13	52	108	75
28	82	83	103	95	113	433	117	32	9.6	68	92	65
29	82	82	100	94	-	405	125	30	12	55	65	60
30	84	83	98	95	-	381	155	37	16	84	54	55
31	84	-	96	95	-	354	-	44	-	63	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,101	84	45	67.8	4,170
November	2,554	94	80	85.1	5,070
December	2,996	157	79	96.6	5,940
Calendar year 1938	47,271	1,730	14	130	93,760
January	3,026	106	94	97.6	6,000
February	2,753	113	94	98.3	5,460
March	9,574	802	101	309	18,990
April	6,255	351	105	208	12,410
May	2,021	142	30	65.2	4,010
June	677.4	45	9.2	22.6	1,340
July	1,555.4	230	6.0	50.2	3,090
August	3,983	419	40	128	7,900
September	4,243	970	14	141	8,420
Water year 1938-39	41,738.8	970	6.0	114	82,800

Peak discharge.- Aug. 6 (10 p.m.) 2,140 sec.-ft.; Sept. 14 (6 p.m.) 1,680 sec.-ft.; Sept. 14 (10 p.m.) 1,560 sec.-ft.; Sept. 15 (3 a.m.) 1,940 sec.-ft.; Sept. 15 (10 a.m.) 1,560 sec.-ft.; Sept. 16 (4 a.m.) 4,350 sec.-ft.

Gila River below Blue Creek, near Virden, New Mex.

(Formerly published as Gila River at Fuller ranch, near Duncan, Ariz.)

Location.- Water-stage recorder, lat. 32°39', long. 108°51', in SE¼SW¼ sec. 18, T. 19 S., R. 19 W., at head of canyon, 1¼ miles downstream from Blue Creek, 10 miles east of Virden, and 16 miles east of Duncan, Ariz. Zero of gage is about 3,875 feet above mean sea level (river profile survey).

Drainage area.- 3,140 square miles.

Records available.- June 1931 to September 1939. May 1914 to September 1915, at site 6 miles downstream, above intake of Sunset canal. January 1923 to September 1928, at site 8 miles downstream, below intake of Sunset canal. October 1926 to September 1931, at Virden Bridge, 8½ miles downstream.

Extremes.- Maximum discharge during year, 1,630 second-feet Sept. 16 (gage height, 7.71 feet); minimum, 2 second-feet July 13 (gage height, 3.64 feet).
1931-39: Maximum discharge, 9,100 second-feet Aug. 3, 1931; minimum, 1 second-foot July 14, 1934.

Remarks.- Records good. Diversions above station for irrigation. Station is above all diversions for Duncan-Virden Valley. During the year 40 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	85	87	103	99	119	255	146	19	3	49	30
2	50	87	85	103	100	117	245	127	25	3	108	23
3	46	90	88	104	100	117	247	115	27	4	242	20
4	45	90	88	106	97	117	247	112	24	3	158	17
5	40	90	88	104	100	117	247	108	23	3	279	19
6	33	90	88	103	99	115	260	110	16	3	250	12
7	31	88	87	101	100	114	262	97	15	3	355	14
8	31	88	80	110	99	110	250	95	21	3	170	16
9	40	90	80	115	102	108	230	76	19	3	131	27
10	38	90	85	113	102	104	223	64	19	3	95	24
11	41	85	91	113	102	108	203	55	18	2	66	19
12	50	82	93	113	99	129	183	52	18	3	56	20
13	55	79	93	115	99	146	162	50	16	2	108	22
14	60	78	91	110	99	156	150	43	12	3	164	50
15	61	74	93	110	100	194	146	37	10	4	89	613
16	60	76	106	108	102	255	142	41	9	4	58	719
17	61	79	108	108	106	287	146	49	8	202	45	310
18	61	78	110	110	106	290	129	43	8	139	41	210
19	62	79	113	108	108	293	119	41	8	54	184	166
20	66	82	131	108	112	337	117	39	6	30	69	168
21	70	85	157	106	108	469	106	42	5	25	51	132
22	73	87	151	106	108	648	91	50	5	30	46	116
23	74	87	140	108	108	720	86	50	6	41	58	103
24	78	84	129	110	106	714	95	46	6	69	60	88
25	80	88	123	112	112	612	91	41	8	49	119	79
26	80	87	118	108	115	469	104	36	6	72	108	72
27	80	87	115	108	119	395	106	33	5	41	87	66
28	78	85	110	104	121	352	110	28	4	42	90	60
29	78	85	106	100	-	322	117	25	4	35	64	52
30	80	85	106	100	-	293	138	24	4	60	51	44
31	84	-	104	99	-	268	-	19	-	55	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,842	84	31	59.4	3,650
November	2,540	90	74	84.7	5,040
December	3,244	157	80	105	6,430
Calendar year 1938	43,720	1,350	6	120	86,710
January	3,326	115	99	107	6,600
February	2,928	121	97	105	5,810
March	8,595	720	104	277	17,050
April	5,007	262	86	167	9,930
May	1,894	146	19	61.1	3,760
June	375	27	4	12.5	744
July	993	202	2	32.0	1,970
August	3,521	385	40	114	6,980
September	3,311	719	12	110	6,570
Water year 1938-39	37,576	720	2	103	74,530

Peak discharge.- Sept. 15 (8:10 a.m.) 759 sec.-ft.; (4:10 p.m.) 804 sec.-ft.; Sept. 16 (10 a.m.) 1,630 sec.-ft.

Gila River at New Mexico-Arizona State line, near Duncan, Ariz.

Location.- Water-stage recorder, lat. 32°41', long. 109°03', in NE¼NE¼ sec. 3, T. 9 S., R. 32 E., Gila and Salt River meridian (NW¼NE¼ sec. 6, T. 19 S., R. 21 W., New Mexico meridian projected west of State line), about 790 feet downstream from State line and 4 miles southeast of Duncan.

Records available.- May to September 1939.

Extremes.- Maximum discharge during period, 2,090 second-feet Aug. 5 (gage height, 3.94 feet), from rating curve extended logarithmically above 1,450 second-feet; no flow at times.

Remarks.- Records good. Discharge for Sept. 7 computed on basis of recorded range of stage and records for stations below Blue Creek, near Virden, N. Mex. (formerly Fullers Ranch), and near Clifton. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	3.0	0.9	2.4	2.4
2								-	2.7	.8	3.3	2.2
3								-	3.0	.8	168	2.2
4								-	2.7	.5	96	2.2
5								-	2.7	.1	246	2.2
6								-	2.7	.1	385	27
7								-	2.7	.1	364	74
8								-	2.7	0	133	2.2
9								-	2.4	.1	84	1.8
10								-	2.2	0	40	1.2
11								-	2.2	0	9.0	1.7
12								-	2.0	0	6.1	1.5
13								-	2.4	0	8.5	1.5
14								-	2.2	0	63	87
15								-	2.0	.1	16	514
16								-	2.0	0	11	781
17								-	2.0	68	3.9	293
18								-	1.8	32	4.8	178
19								-	1.7	4.2	64	106
20								-	2.0	1.5	10	101
21								-	1.8	1.4	4.2	78
22								-	1.5	.9	3.3	52
23								-	1.5	1.1	3.9	32
24								-	1.4	1.7	4.5	24
25								-	1.2	3.3	10	16
26								-	1.5	6.7	33	9.5
27								-	1.4	8.5	13	7.6
28								-	1.2	2.7	19	5.1
29								-	1.4	1.8	8.0	6.1
30								7.6	1.1	1.8	4.2	3.9
31								6.6	-	4.2	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June	61.1	3.0	1.1	2.04	121
July	143.3	68	0	4.62	284
August	1,823.8	385	2.4	58.8	3,620
September	2,416.3	781	1.2	80.5	4,790
The period	-	-	-	-	8,820

Peak discharge.- Aug. 5 (7:40 p.m.) 2,090 sec.-ft.; Sept. 14 (11 p.m.) 1,920 sec.-ft.; Sept. 16 (2 p.m.) 1,500 sec.-ft.

Diversions from Gila River in Duncan Valley, N. Mex.-Ariz.

Duncan Valley lies along Gila River in Greenlee County, Ariz., and Hidalgo County, N. Mex. The part in New Mexico is also known as Virden Valley. The valley extends from a point in New Mexico about 8 miles east of the State line westward to the vicinity of Guthrie, Ariz. Ten canals, listed in the following tables according to their position from east to west, and six pumps divert water from Gila River for irrigation in the valley. The first four canals listed divert in New Mexico, the others in Arizona. The intake of Sunset canal, at the eastern end of the valley, is 4 miles downstream from the station on Gila River below Blue Creek, near Virden, N. Mex.; the intake of the York canal, at the western end, is about 5 miles upstream from the station on Gila River near Clifton, Ariz.

Records of daily and monthly diversions are available for Sunset and Moddle canals for 1914-15 and 1922-31; for Valley and Colmonero canals for 1914-15 and 1923-31; and for Duncan canal for 1923-28. Discharge measurements are available for York canal for 1914-15 and 1923-31.

Records of daily diversions since January 1936, except for Sunset and Moddle canals for 1939, have been collected by Gila Water Commissioner, appointed by United States District Court for Arizona. Water-stage recorders and rectangular sharp-crested weirs were used by the water commissioner to obtain records of diversion by the canals, and rated pumps were used to obtain records of pumped water. See pp. 221, 224 for records of Sunset and Moddle canals for 1939.

The following tabulations of the annual diversions by each canal and the combined monthly diversions by the canals as a group have been compiled from reports of the Gila Water Commissioner.

Annual diversions, in acre-feet, from Gila River by canals and pumps in Duncan Valley, N. Mex.-Ariz.

Canal	Water year			
	*1936	1936-37	1937-38	1938-39
Sunset	12,110	13,190	10,910	14,980
Moddle	8,490	11,000	7,330	8,340
Shriver	627	560	455	†4
Valley	5,540	7,150	6,030	2,760
Duncan	737	558	523	542
Black-McClesky	1,470	865	915	593
Colmonero	2,030	1,860	1,900	1,000
Sexton	686	534	378	307
R. Sexton	253	366	406	235
York	997	1,090	776	465
Miscellaneous direct pumping	82	97	147	108
Total	33,020	37,270	29,770	‡29,330

Canal	Calendar year			
	1936	1937	1938	
Sunset	14,160	14,250	8,300	
Moddle	10,370	11,100	5,980	
Shriver	681	527	439	
Valley	6,810	8,020	4,120	
Duncan	744	551	671	
Black-McClesky	1,470	1,020	780	
Colmonero	2,250	2,270	1,350	
Sexton	686	534	424	
R. Sexton	274	443	349	
York	1,090	997	859	
Miscellaneous direct pumping	82	97	150	
Total	38,620	39,810	23,420	

*Jan. 1 to Sept. 30 only.
†Oct. 1 to Dec. 31 only.
‡Not including diversions by Shriver canal Jan. 1 to Sept. 30 for irrigation of 157 acres.

Combined monthly diversion, in acre-feet, from Gila River by canals and pumps in Duncan Valley, N. Mex.-Ariz., 1936-39

Month	1936	1936-37	1937-38	1938-39
October	-	3,200	2,780	936
November	-	1,090	2,800	175
December	-	1,310	2,550	669
Calendar year	-	38,620	39,800	23,420
January	710	52	425	1,310
February	762	296	1,970	2,310
March	4,900	1,330	2,890	4,810
April	7,590	6,970	5,260	5,350
May	6,280	7,170	3,780	3,810
June	2,590	3,850	1,270	911
July	3,690	4,220	2,560	1,570
August	2,790	3,460	1,440	4,560
September	4,010	4,320	2,050	2,920
Water year	†33,020	37,270	29,770	29,330

*Not including diversions by Shriver canal Jan. 1 to Sept. 30 for irrigation of 157 acres.
†Jan. 1 to Sept. 30 only.

Gila River near Clifton, Ariz.

Location.- Water-stage recorder, lat. 32°58', long. 109°18', in SE¼ sec. 25, T. 5 S., R. 29 E., at highway bridge 7 miles south of Clifton and 5 miles upstream from San Francisco River. Zero of gage is 3,335.3 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 4,040 square miles.

Records available.- March 1928 to October 1933 and May 1935 to September 1939. November 1910 to July 1918, at site 4 miles upstream, published as Gila River at Guthrie, Ariz.

Extremes.- Maximum discharge during year, 8,670 second-feet Aug. 5 (gage height, 13.45 feet); minimum, 9 second-feet July 8.
1928-39: Maximum discharge, about 11,500 second-feet Aug. 26, 1934 (gage height, 16.0 feet, from floodmarks), from rating curve extended above 6,000 second-feet; minimum not determined, probably occurred in 1934; minimum recorded, that of July 8, 1939.

Remarks.- Records good. Diversions for irrigation above station, which is below all diversions from Gila River above San Francisco River. During the year 48 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	62	88	61	86	102	239	112	20	15	32	20
2	40	67	89	92	77	104	228	123	20	15	30	20
3	34	76	89	104	77	99	222	120	19	18	29	19
4	30	80	88	108	77	86	213	96	18	17	456	20
5	29	80	88	108	80	84	215	75	19	13	1,840	20
6	25	79	88	109	86	80	200	64	19	13	992	22
7	23	81	86	108	85	77	182	51	18	11	556	689
8	22	86	84	108	88	70	177	49	18	11	168	63
9	22	88	80	114	89	68	175	44	18	14	101	108
10	22	89	76	116	99	60	175	40	18	12	72	27
11	22	90	80	118	99	54	163	34	18	12	48	24
12	30	88	84	118	97	57	151	27	16	12	38	23
13	37	84	88	118	97	66	123	24	15	12	30	22
14	43	80	89	114	90	85	99	24	15	12	27	121
15	45	81	90	104	86	99	85	24	14	12	62	656
16	46	77	97	103	80	126	92	24	14	12	42	748
17	47	77	97	96	73	179	97	24	15	45	37	517
18	46	79	99	88	66	217	97	24	15	40	27	245
19	46	76	102	85	67	226	92	22	16	34	23	144
20	46	77	109	77	73	241	77	20	14	22	51	103
21	48	77	114	76	90	281	70	20	14	18	34	96
22	52	77	136	76	85	406	67	19	16	258	26	72
23	53	81	141	75	80	504	62	19	15	74	180	57
24	55	80	137	75	91	539	56	18	15	33	182	44
25	57	81	132	80	103	504	54	18	15	29	36	37
26	57	85	121	90	99	411	56	18	15	36	34	32
27	60	86	110	99	100	347	54	18	15	60	37	27
28	63	85	106	103	99	313	66	20	15	40	30	26
29	60	84	88	108	-	281	173	18	15	32	32	25
30	60	84	75	104	-	263	106	18	15	84	26	25
31	61	-	64	96	-	247	-	20	-	40	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,321	63	22	42.6	2,620
November	2,417	90	62	80.6	4,790
December	3,015	141	64	97.3	5,980
Calendar year 1938	39,112	1,370	18	107	77,590
January	3,031	118	61	97.8	6,010
February	2,419	103	66	86.4	4,800
March	6,276	539	54	202	12,450
April	3,866	239	54	129	7,670
May	1,227	123	18	39.6	2,430
June	489	20	14	16.3	970
July	1,031	233	11	33.3	2,040
August	5,299	1,840	21	171	10,510
September	4,052	748	19	135	8,040
Water year 1938-39	34,443	1,840	11	94.4	68,310

Peak discharge.- Aug. 4 (11:30 p.m.) 3,110 sec.-ft.; Aug. 5 (8:45 p.m.) 8,670 sec.-ft.

Gila River below Bonita Creek, near Solomonsville, Ariz.

Location.- Water-stage recorder, lat. 32°53', long. 109°30', in SE¼ sec. 21, T. 6 S., R. 28 E. unsurveyed, three-eighths of a mile downstream from Bonita Creek and 10 miles northeast of Solomonsville.

Drainage area.- 7,900 square miles.

Records available.- February 1932 to October 1933 and May 1935 to September 1939. April 1914 to September 1932, at site 3 miles downstream and below intake of Brown canal, published as Gila River near Solomonsville, Ariz.

Average discharge.- 16 years (1921-33, 1935-39), 383 second-feet.

Extremes.- Maximum discharge during year, 7,370 second-feet Aug. 6 (gage height, 14.20 feet); minimum, 27 second-feet July 14.
1914-39: Maximum discharge, about 100,000 second-feet Jan. 19, 1916, by slope-area method; minimum not determined, probably occurred in 1934; minimum recorded, that of July 14, 1939.

Remarks.- Records good. Diversions for irrigation above station, which is above all diversions for irrigation in Safford Valley. During the year 46 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	111	147	144	176	191	655	226	64	31	91	79
2	100	114	147	151	168	187	587	233	60	33	84	72
3	95	125	147	176	165	187	565	228	56	35	173	68
4	90	128	151	180	161	180	536	213	54	50	279	75
5	85	131	151	180	161	176	645	181	50	58	1,080	72
6	80	135	151	180	165	165	1,020	162	50	48	2,340	72
7	73	138	151	184	165	165	1,060	149	50	45	1,400	869
8	71	141	151	180	168	161	811	137	48	43	521	359
9	73	144	144	191	180	157	680	128	48	45	284	307
10	73	147	141	191	180	151	609	123	46	43	222	153
11	75	147	141	191	184	147	557	114	46	39	187	142
12	75	144	144	187	184	154	491	106	42	37	151	148
13	83	141	154	187	180	165	438	98	40	32	134	137
14	85	144	154	184	176	184	376	93	37	28	164	126
15	90	141	157	180	176	204	344	90	35	30	182	703
16	90	144	165	172	172	238	330	85	35	30	197	690
17	92	141	168	166	172	325	313	85	35	49	162	1,080
18	92	138	161	161	165	408	283	83	35	57	145	399
19	92	141	165	161	165	441	266	78	33	75	119	290
20	92	141	226	161	172	497	243	74	33	68	126	231
21	95	141	229	157	180	735	226	71	37	59	129	198
22	100	144	212	161	184	1,070	213	67	40	78	108	170
23	103	147	212	161	180	1,460	197	67	40	302	118	142
24	105	147	208	161	180	1,660	187	67	37	136	319	119
25	111	147	199	161	191	1,460	181	67	35	124	187	98
26	111	151	191	168	191	1,100	174	64	35	93	176	89
27	108	147	180	180	184	840	171	64	33	108	148	84
28	108	147	172	184	187	756	177	62	31	98	121	79
29	108	147	165	187	-	730	269	62	31	72	108	79
30	105	147	154	191	-	730	243	64	31	101	101	77
31	108	-	147	184	-	704	-	64	-	107	86	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,871	111	71	92.6	5,690
November	4,201	151	111	140	8,330
December	5,185	229	141	167	10,280
Calendar year 1938	82,869	2,650	40	227	164,300
January	5,404	191	144	174	10,720
February	4,912	191	161	175	9,740
March	15,728	1,660	147	507	31,200
April	12,847	1,060	171	428	25,480
May	3,403	233	62	110	6,750
June	1,247	64	31	41.6	2,470
July	2,154	302	28	69.5	4,270
August	9,642	2,340	84	311	19,120
September	7,207	1,080	68	240	14,290
Water year 1938-39	74,801	2,340	28	205	148,300

Peak discharge.- Mar. 24 (5 p.m.) 1,830 sec.-ft.; Aug. 6 (2:45 a.m.) 7,370 sec.-ft.; Aug. 7 (2:45 a.m.) 4,360 sec.-ft.

Diversions from Gila River in Safford Valley, Ariz.

Safford Valley lies along Gila River in Graham County, Ariz., extending from the vicinity of Bonita Creek on the east to the San Carlos Indian Reservation on the west. Twelve canals, listed in the following tables according to their position from east to west, and two pumps divert water from Gila River for irrigation in the valley. The intake of the Brown canal, at the eastern end of the valley, is about 2 miles downstream from the station on Gila River below Bonita Creek, near Solomonsville; the intake of the Colvin-Jones canal, at the western end, is about 20 miles upstream from the station on Gila River near Calva.

Records of monthly diversions for all the canals except Fourness, Fort Thomas, and Colvin-Jones are available for 1914-15; records of daily and monthly diversions for all the canals except Colvin-Jones are available for 1920-31; and records for Brown canal are available also for water year 1931-32. (Tidwell canal published as Michelana canal in records for 1914-15 and 1920-31.)

Records of daily diversions since January 1936 have been collected by the Gila Water Commissioner, appointed by United States District Court for Arizona. Water-stage recorders with Parshall flumes or weirs were used by the water commissioner to obtain records of diversion by the canals, and rated pumps were used to obtain records of pumped water.

The following tabulations of the annual diversions by each canal and the combined monthly diversions by the canals as a group have been compiled from reports of the Gila Water Commissioner.

Annual diversions, in acre-feet, from Gila River by canals and pumps in Safford Valley, Ariz.

Canal	Water year			
	*1936	1936-37	1937-38	1938-39
Brown	2,650	4,400	2,560	1,940
Tidwell	1,630	2,450	1,420	1,010
Fourness	490	666	295	402
San Jose	11,430	15,420	11,850	9,330
Montezuma	16,240	25,370	16,840	10,220
Union	26,340	38,800	27,490	14,480
Graham	11,010	21,250	13,830	9,440
Smithville	6,680	13,730	11,160	6,050
Dodge-Nevada	6,470	10,540	9,470	5,810
Curtis	6,060	8,680	6,590	4,120
Fort Thomas	10,330	14,570	12,190	6,330
Colvin-Jones	695	884	717	379
Miscellaneous direct pumping	88	86	10	24
Total	100,100	159,800	114,700	69,540

Canal	Calendar year			
	1936	1937	1938	
Brown	3,230	4,240	2,670	
Tidwell	1,790	2,610	1,260	
Fourness	490	680	343	
San Jose	13,860	17,900	12,170	
Montezuma	20,460	24,650	14,740	
Union	32,620	40,320	22,230	
Graham	16,380	19,840	12,750	
Smithville	10,400	14,680	7,650	
Dodge-Nevada	9,500	11,840	7,560	
Curtis	7,870	8,630	5,880	
Fort Thomas	14,210	14,480	9,690	
Colvin-Jones	933	933	566	
Miscellaneous direct pumping	93	81	10	
Total	131,800	160,900	97,520	

*Jan. 1 to Sept. 30 only.

Combined monthly diversion, in acre-feet, from Gila River by canals and pumps in Safford Valley, Ariz., 1936-39

Month	1936	1936-37	1937-38	1938-39
October	-	9,840	10,650	5,300
November	-	8,190	9,330	3,870
December	-	13,690	12,760	6,390
Calendar year	-	131,800	160,900	97,520
January	3,260	739	6,220	165
February	1,350	2,750	5,480	399
March	19,020	16,210	10,540	12,610
April	25,680	38,200	15,240	12,910
May	12,410	23,000	9,170	4,800
June	5,190	10,470	4,080	1,490
July	8,860	10,490	9,940	2,600
August	14,840	12,030	10,290	11,860
September	9,500	14,230	11,000	7,130
Water year	*100,100	159,800	114,700	69,540

*Jan. 1 to Sept. 30 only.

Gila River at Calva, Ariz.

Location.- Water-stage recorder, lat. 33°11', long. 110°13', in sec. 5, T. 3 S., R. 21 E., unsurveyed, on San Carlos Indian Reservation, at railroad bridge at head of San Carlos Reservoir, 1½ miles northwest of Calva. Zero of gage is 2,514.77 feet above mean sea level (general adjustment of 1929).

Drainage area.- 11,490 square miles.

Records available.- March 1929 to September 1939.

Average discharge.- 10 years, 285 second-feet.

Extremes.- Maximum discharge during year, 4,260 second-feet Aug. 7 (gage height, 6.49 feet); maximum gage height, 6.59 feet Sept. 17; no flow during parts of several months.
1929-39: Maximum discharge, 21,500 second-feet Feb. 12, 1932 (gage height, 9.7 feet); no flow on several days each year.
Maximum discharge known, probably in excess of 100,000 second-feet Jan. 20, 1916, computed on basis of peak discharge at stations near Solomonsville and at Kelvin.

Remarks.- Records good except those for period of uncertain gage-heights, May 8-10 (computed on basis of partial record), and those for period of missing gage heights, Sept. 22-27 (computed on basis of record for preceding and following days), which are fair. Large diversions for irrigation above station. During the year 51 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	4	93	38	202	171	354	181	3	0	0	1
2	4	5	91	46	192	171	343	143	3	0	3	0
3	4	7	98	109	180	178	331	127	2	5	281	0
4	3	14	101	142	184	184	310	136	1	7	50	0
5	2	27	106	168	184	184	348	127	1	0	184	0
6	1	31	101	176	172	181	454	112	1	0	1,640	0
7	1	34	93	180	156	171	743	100	1	0	2,130	53
8	1	42	87	184	168	154	643	90	0	0	634	443
9	1	50	79	188	188	138	457	80	0	0	425	114
10	1	58	73	206	184	133	396	75	0	0	124	38
11	1	66	68	202	192	122	337	69	0	0	245	29
12	1	67	77	211	202	114	280	66	0	0	58	6
13	0	75	83	221	216	112	236	58	0	0	48	0
14	0	79	77	211	206	110	201	54	0	0	276	0
15	0	75	79	197	188	102	190	50	0	0	443	0
16	0	72	77	188	184	100	201	44	0	0	84	203
17	0	68	75	176	192	97	212	38	0	0	44	2,900
18	0	73	85	168	211	78	184	33	0	0	41	578
19	0	75	87	168	197	112	178	28	0	0	27	266
20	0	75	103	168	180	149	168	24	0	0	59	208
21	0	75	89	180	187	190	159	19	0	0	19	167
22	0	77	142	184	190	379	151	15	0	0	7	110
23	1	75	136	180	184	758	133	12	0	0	7	70
24	1	73	149	184	181	948	122	11	0	0	9	50
25	2	75	164	172	165	996	110	9	0	0	8	35
26	4	85	168	172	171	710	110	9	0	0	17	25
27	5	96	156	172	190	486	107	7	0	0	11	20
28	4	101	116	184	184	416	112	6	0	0	5	17
29	4	103	91	180	-	366	156	6	0	0	3	14
30	4	101	66	188	-	348	131	5	0	0	16	12
31	4	-	47	216	-	348	-	4	-	0	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	54	5	0	1.7	107
November	1,858	103	4	61.9	3,690
December	3,057	168	47	98.6	6,060
Calendar year 1938	47,342	3,270	0	130	93,900
January	5,359	221	38	173	10,630
February	5,230	216	156	187	10,370
March	8,706	996	78	281	17,270
April	7,857	743	107	262	15,580
May	1,738	181	4	56.1	3,450
June	12	3	0	.4	24
July	12	7	0	.4	24
August	6,900	2,130	0	223	13,690
September	5,359	2,900	0	179	10,630
Water year 1938-39	46,142	2,900	0	126	91,520

San Carlos Reservoir at Coolidge Dam, Ariz.

Location.- Water-stage recorder, lat. 33°10'30", long. 110°31'45", in NW¼ sec. 17, T. 3 S., R. 18 E., unsurveyed, at Coolidge Dam on Gila River. Zero of gage is at mean sea level (Indian Irrigation Service bench mark).

Drainage area.- 12,880 square miles.

Records available.- November 1928 to September 1939.

Extremes.- Maximum contents during year, 30,000 acre-feet Apr. 12 (elevation, 2,400.63 feet); minimum, 396 acre-feet July 23 (elevation, 2,383.33 feet).
1928-39: Maximum usable contents, 444,200 acre-feet Apr. 5, 1932 (elevation 2,471.56 feet); minimum (since appreciable storage was attained in 1929), that of July 23, 1939.

Remarks.- Reservoir is formed by concrete multiple-dome dam; storage began Nov. 15, 1928. Capacity, about 1,200,000 acre-feet (revised) between elevations 2,383.0 feet (sill of outlet gates) and 2,523.0 feet (top of automatic spillway gates) above mean sea level. Dead storage, 10,350 acre-feet, according to survey made in 1937. Figures given herein are of usable contents at 11:59 p.m. of day shown. Water is used for irrigation of lands on San Carlos project and for power development.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Prepared on basis of 1937 survey by Soil Conservation Service)

2,383	0	2,410	55,600
2,385	2,450	2,420	88,400
2,390	9,260	2,430	132,800
2,395	18,270	2,440	189,000
2,400	28,500	2,450	257,000
2,405	41,050	2,460	338,000
		2,470	434,000

Note.- The Soil Conservation Service's Survey did not extend above elevation 2,460 feet; no accurate capacity table above that elevation.

Elevation, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	388.26	384.10	384.57	386.26	390.48	395.88	398.46	396.26	388.88	383.69	383.49	389.11
2	387.84	384.02	384.56	386.16	390.59	395.88	398.49	396.04	388.65	383.66	383.78	388.70
3	387.42	383.96	384.55	386.20	390.69	395.87	398.49	395.83	388.42	383.64	385.26	388.25
4	387.00	383.92	384.55	386.31	390.91	395.86	398.49	395.62	388.14	383.81	385.81	388.03
5	386.62	383.85	384.56	386.49	391.07	395.84	399.19	395.41	387.86	383.77	386.00	388.02
6	386.18	383.80	384.58	386.73	391.22	395.82	399.42	395.16	387.60	383.71	388.48	388.00
7	385.74	383.76	384.59	386.93	391.35	395.80	399.81	394.88	387.35	383.68	392.77	388.03
8	385.51	383.77	384.59	387.17	391.50	395.77	400.19	394.65	387.10	383.66	393.76	388.56
9	385.42	383.80	384.58	387.40	391.68	395.74	400.36	394.45	386.83	383.64	394.29	388.66
10	385.34	383.86	384.57	387.62	391.86	395.65	400.50	394.29	386.58	383.62	394.47	388.50
11	385.25	383.92	384.55	387.84	392.14	395.61	400.59	394.03	386.32	383.57	394.69	388.32
12	385.17	383.98	384.53	388.02	392.39	395.57	400.56	393.75	386.06	383.55	394.74	388.10
13	385.10	384.08	384.52	388.22	392.59	395.54	400.40	393.45	385.86	383.53	394.75	387.86
14	385.02	384.19	384.51	388.37	392.86	395.48	400.21	393.16	385.72	383.51	394.90	387.57
15	384.97	384.31	384.56	388.51	393.16	395.41	400.05	392.86	385.58	383.49	395.08	387.24
16	384.92	384.40	384.60	388.64	393.45	395.35	399.83	392.68	385.46	383.46	394.92	387.14
17	384.84	384.49	384.59	388.77	393.71	395.29	399.64	392.57	385.30	383.44	394.65	390.69
18	384.74	384.44	384.59	388.90	394.00	395.20	399.42	392.42	385.15	383.41	394.35	391.52
19	384.67	384.35	384.75	389.03	394.30	395.13	399.15	392.24	384.98	383.39	393.97	391.76
20	384.55	384.36	384.89	389.16	394.57	395.10	398.91	392.06	384.80	383.37	393.63	391.82
21	384.43	384.38	385.10	389.26	394.82	395.08	398.72	391.76	384.65	383.36	393.26	391.82
22	384.31	384.40	385.33	389.38	395.01	395.41	398.47	391.56	384.50	383.35	392.87	391.66
23	384.21	384.41	385.57	389.50	395.18	395.89	398.23	391.35	384.36	383.34	392.50	391.46
24	384.17	384.41	385.80	389.64	395.34	396.52	397.95	391.15	384.22	383.49	392.10	391.24
25	384.16	384.42	385.98	389.73	395.53	397.19	397.66	390.91	384.13	383.47	391.68	391.00
26	384.15	384.45	386.13	389.84	395.69	397.68	397.36	390.64	384.03	383.45	391.32	390.72
27	384.14	384.48	386.28	389.97	395.84	397.98	397.08	390.31	383.94	383.44	390.97	390.42
28	384.14	384.52	386.38	390.06	395.88	398.19	396.83	390.01	383.86	383.43	390.63	390.10
29	384.13	384.54	386.44	390.16	-	398.28	396.65	389.68	383.81	383.45	390.26	389.82
30	384.12	384.56	386.44	390.28	-	398.34	396.45	389.41	383.75	383.44	389.90	389.55
31	384.11	-	386.39	390.36	-	398.41	-	389.16	-	383.42	389.52	-

Note.- Add 2,000 feet to obtain elevations above mean sea level.

Contents, in acre-feet, of San Carlos Reservoir at Coolidge Dam, Ariz., for water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,970	1,330	1,910	4,130	10,400	20,000	25,200	20,700	7,890	868	588	8,240
2	6,350	1,230	1,900	3,990	10,600	20,000	25,200	20,300	7,540	752	936	7,820
3	5,750	1,150	1,890	4,050	10,700	20,000	25,200	19,900	7,210	768	2,900	6,950
4	5,150	1,100	1,890	4,190	11,100	19,900	25,200	19,500	6,790	972	3,520	6,820
5	4,630	1,020	1,900	4,450	11,400	19,900	26,700	19,100	6,380	924	3,770	6,610
6	4,020	960	1,930	4,770	11,600	19,900	27,200	18,600	6,010	852	7,300	6,580
7	3,430	912	1,940	5,050	11,800	19,800	28,100	18,000	5,650	816	14,200	6,620
8	3,120	924	1,940	5,390	12,100	19,800	29,000	17,600	5,290	752	16,000	7,410
9	3,010	960	1,930	5,720	12,400	19,700	29,400	17,200	4,910	768	17,000	7,560
10	2,900	1,030	1,910	6,040	12,700	19,500	29,700	17,000	4,570	744	17,300	7,330
11	2,780	1,100	1,890	6,350	13,100	19,400	29,900	16,500	4,210	684	17,700	7,060
12	2,680	1,180	1,870	6,610	13,600	19,400	29,800	16,000	3,850	660	17,800	6,730
13	2,580	1,300	1,850	6,910	13,900	19,300	29,400	15,400	3,590	636	17,800	6,380
14	2,480	1,440	1,840	7,140	14,400	19,200	29,000	14,900	3,410	612	18,100	5,960
15	2,410	1,590	1,900	7,340	14,900	19,100	28,600	14,400	3,210	588	18,400	5,490
16	2,350	1,700	1,950	7,530	15,400	18,900	28,200	14,100	3,060	552	18,100	5,350
17	2,250	1,820	1,940	7,720	15,900	18,800	27,700	13,900	2,850	528	17,600	10,700
18	2,130	1,750	1,940	7,920	16,400	18,700	27,200	13,600	2,650	492	17,100	12,100
19	2,040	1,640	2,140	8,120	17,000	18,500	26,600	13,300	2,430	468	16,400	12,500
20	1,890	1,650	2,320	8,320	17,500	18,500	26,100	13,000	2,200	444	15,800	12,600
21	1,740	1,680	2,580	8,480	17,900	18,400	25,700	12,500	2,020	432	15,100	12,600
22	1,590	1,700	2,890	8,660	18,300	19,100	25,200	12,200	1,830	420	14,400	12,300
23	1,460	1,710	3,200	8,850	18,600	20,000	24,700	11,800	1,650	408	13,800	12,000
24	1,410	1,710	3,510	9,060	18,900	21,200	24,100	11,500	1,480	588	13,100	11,600
25	1,400	1,730	3,740	9,200	19,300	22,600	23,500	11,100	1,370	564	12,400	11,200
26	1,390	1,760	3,950	9,370	19,600	23,600	22,900	10,600	1,240	540	11,800	10,800
27	1,380	1,800	4,150	9,580	19,900	24,200	22,400	10,100	1,130	528	11,200	10,300
28	1,380	1,850	4,290	9,720	20,000	24,600	21,900	9,640	1,030	516	10,600	9,780
29	1,370	1,880	4,380	9,880	-	24,800	21,500	9,130	972	540	10,000	9,340
30	1,350	1,900	4,380	10,100	-	24,900	21,100	8,710	900	528	9,470	8,940
31	1,340	-	4,310	10,200	-	25,100	-	8,320	-	504	8,880	-

Monthly elevation and contents, water year 1938-39

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	2,388.70	7,260	-
Oct. 31.....	2,384.11	1,340	-6,280
Nov. 30.....	2,384.56	1,900	+560
Dec. 31.....	2,386.39	4,310	+2,410
Calendar year 1938	-	-	-40,900
Jan. 31.....	2,390.36	10,200	+5,890
Feb. 28.....	2,395.88	20,000	+9,800
Mar. 31.....	2,398.41	25,100	+5,100
Apr. 30.....	2,396.45	21,100	-4,000
May 31.....	2,389.16	8,320	-12,780
June 30.....	2,383.75	900	-7,420
July 31.....	2,383.42	504	-396
Aug. 31.....	2,389.52	8,880	+8,376
Sept. 30.....	2,389.55	8,940	+60
Water year 1938-39	-	-	+1,320

Gila River below Coolidge Dam, Ariz.

(Formerly published as Gila River at Coolidge Dam, Ariz.)

Location.- Water-stage recorder and Parshall flume, lat. 33°10'15", long. 110°31'45", in SW¼ sec. 17, T. 3 S., R. 18 E., unsurveyed, 2,200 feet downstream from Coolidge Dam. Zero of gage is 2,309.94 feet above mean sea level (from Indian Irrigation Service bench mark).

Drainage area.- 12,880 square miles.

Records available.- April 1914 to September 1939. July 1899 to November 1905, at site 8 miles upstream, below mouth of San Carlos River. August 1910 to February 1911, at site 9 miles upstream, above mouth of San Carlos River.

Extremes.- Maximum discharge during year, 620 second-feet Apr. 16 (head on flume, 2.94 feet); minimum daily discharge, 1 second-foot many days.

1914-28 (unregulated): Maximum discharge, 130,000 second-feet Jan. 20, 1916, computed on basis of peak discharge at Solomonsville and at Kelvin; no flow for several periods.

1929-39 (regulated): Maximum discharge, 1,240 second-feet July 31, 1937 (head on flume, 4.35 feet); no flow on several days in most years.

Remarks.- Records excellent. Crest width of Parshall flume, 30 feet. Large diversions above San Carlos Reservoir. Discharge regulated at Coolidge Dam since Nov. 15, 1928. Flow of about one second-foot from spring between dam and gage (see list of miscellaneous discharge measurements) included in records since March 1937, when gage was moved to present site.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	315	10	93	133	133	186	318	354	182	15	1	282
2	305	46	98	131	137	200	321	365	173	11	1	288
3	298	41	98	86	131	219	324	337	175	8	1	290
4	290	36	96	68	122	221	329	324	182	19	1	171
5	262	31	96	64	96	214	329	321	186	22	1	14
6	288	26	98	58	96	210	324	321	162	16	1	14
7	288	17	96	59	110	210	329	360	171	12	1	13
8	162	1	94	58	120	210	326	288	171	9	1	13
9	65	1	94	54	109	210	324	260	166	7	1	115
10	59	1	93	51	90	205	321	216	166	4	1	171
11	59	1	91	50	3	210	321	295	166	1	1	173
12	64	1	90	72	18	210	334	313	168	1	1	157
13	59	1	90	80	63	210	390	321	118	1	2	165
14	58	1	93	100	9	212	411	313	83	1	74	193
15	44	1	93	114	9	210	396	311	82	1	258	219
16	34	1	112	108	30	210	462	191	75	1	260	164
17	53	12	109	103	55	210	423	127	70	1	265	73
18	76	77	94	103	41	207	444	148	95	1	305	14
19	57	124	96	103	4	207	487	157	109	1	340	66
20	74	64	61	107	4	205	444	164	98	1	343	105
21	90	61	1	124	25	214	399	269	94	1	340	148
22	76	61	1	101	62	203	405	172	93	1	337	210
23	65	61	1	98	73	203	399	151	78	1	337	226
24	34	61	1	94	76	221	423	168	68	1	337	226
25	17	62	50	88	66	248	435	182	58	1	337	238
26	15	62	85	100	62	248	438	221	58	1	305	255
27	13	66	80	100	74	258	411	252	51	1	280	255
28	12	76	80	127	180	300	370	238	39	1	278	238
29	11	88	82	125	-	292	356	272	30	1	280	210
30	10	91	99	127	-	298	356	200	22	1	292	205
31	6	-	117	145	-	300	-	165	-	1	285	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,257	313	6	105	6,460
November	1,182	124	1	39.4	2,340
December	2,482	117	1	80.1	4,920
Calendar year 1938	76,491	546	1	210	151,700
January	2,931	145	50	94.5	5,810
February	1,998	180	3	71.4	3,960
March	6,961	300	186	225	13,810
April	11,349	487	318	378	22,510
May	7,776	365	127	251	15,420
June	3,389	186	22	113	6,720
July	144	22	1	4.6	286
August	5,267	343	1	170	10,450
September	4,911	290	13	164	9,740
Water year 1938-39	51,647	487	1	141	102,400

Gila River at Kelvin, Ariz.

Location.- Water-stage recorder, lat. 33°06'15", long. 110°58'45", in NW¼ sec. 12, T. 4 S., R. 13 E., at Kelvin, 15 miles downstream from San Pedro River and 19 miles upstream from Ashurst-Hayden Dam.

Drainage area.- 18,200 square miles.

Records available.- January 1911 to September 1939.

Extremes.- Maximum discharge during year, 9,320 second-feet Aug. 7 (gage height, 7.63 feet); minimum, 1 second-foot July 18 (gage height, 2.24 feet); minimum daily discharge, 2 second-feet July 14-18.
1911-39: Maximum discharge, about 132,000 second-feet Jan. 20, 1916 (gage height, 19.5 feet), from rating curve extended above slope-area measurement at 82,000 second-feet; minimum, less than one second-foot in summers of several years prior to 1929.

Remarks.- Records good. Discharge for period of missing gage heights, Jan. 5-10, computed on basis of partial gage-height record and records for other stations in the basin. Large diversions above station for irrigation. Flow largely regulated at Coolidge Dam; no regulation in the basin between Coolidge Dam and this station. During the year 45 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	334	13	82	116	160	158	294	354	156	15	28	281
2	321	14	84	135	160	183	307	347	167	12	723	281
3	307	20	92	138	156	210	314	340	160	9	2,710	271
4	301	29	97	122	167	247	321	314	148	24	1,790	470
5	288	31	94	95	206	252	314	294	163	27	670	436
6	258	28	92	90	171	235	301	281	156	10	3,590	342
7	281	26	97	100	167	224	288	281	148	8	5,560	159
8	275	23	100	90	177	230	301	327	145	6	1,860	83
9	191	18	97	80	258	219	288	252	148	5	693	249
10	97	12	92	80	235	219	288	224	138	4	549	302
11	82	11	94	80	230	206	288	183	138	3	207	580
12	71	11	94	75	174	215	281	252	138	3	302	887
13	60	11	94	80	160	215	301	281	138	3	239	249
14	60	11	87	94	171	215	354	294	113	2	134	207
15	53	11	92	94	135	210	384	281	75	2	579	173
16	43	11	130	122	102	201	362	281	57	2	612	172
17	38	11	129	116	89	196	414	194	62	2	484	333
18	33	11	113	119	100	201	399	126	43	2	274	663
19	48	19	119	113	107	196	429	126	57	671	267	337
20	46	77	362	113	84	192	470	132	71	366	308	169
21	41	69	528	113	58	192	391	135	73	16	308	115
22	60	55	345	126	53	201	362	220	64	191	308	128
23	62	57	134	107	71	187	362	163	62	362	376	181
24	57	55	92	100	94	183	354	132	57	135	394	196
25	49	51	80	97	105	192	377	138	48	53	429	201
26	30	53	77	97	97	224	399	151	37	36	359	213
27	22	58	87	105	87	235	399	183	30	26	315	213
28	19	62	89	126	82	270	425	210	31	32	267	213
29	19	66	94	132	-	307	467	210	26	31	319	196
30	17	77	97	141	-	294	362	235	20	31	281	164
31	15	-	97	138	-	288	-	191	-	38	274	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,578	334	15	115	7,100
November	1,001	77	11	33.4	1,990
December	3,961	528	77	128	7,860
Calendar year 1938	97,416	2,470	11	267	193,200
January	3,334	141	75	108	6,610
February	3,856	258	53	138	7,650
March	6,797	307	158	219	13,480
April	10,596	470	281	353	21,020
May	7,132	354	126	230	14,150
June	2,369	167	20	95.6	5,690
July	2,127	671	2	68.6	4,220
August	25,209	5,560	28	813	50,000
September	8,464	887	83	282	16,790
Water year 1938-39	78,974	5,560	2	216	155,600

Gila River at Ashurst-Hayden Dam, near Florence, Ariz.

Location.- Water-stage recorder, lat. 33°06', long. 111°14', in sec. 8, T. 4 S., R. 11 E., at Ashurst-Hayden Dam, 10 miles northeast of Florence. Crest of dam, on which head is measured, is 1,563.0 feet above mean sea level (general adjustment of 1912).

Drainage area.- 18,500 square miles.

Records available.- July 1923 to September 1939 (head on crest of dam only).

Extremes.- Maximum head during year, 1.95 feet Aug. 3; no flow over dam greater part of year.
1923-39: Maximum head, 8.0 feet Sept. 28, 1926; no flow over dam greater part of each year.

Remarks.- Mean head for July 19 computed on basis of staff-gage readings and records for station at Kelvin. Florence-Casa Grande canal diverts water at this dam for irrigation (see page 238). Many other diversions above station for irrigation. Flow largely regulated at Coolidge Dam, but no regulation above this station and below Coolidge Dam. A considerable quantity of water is passed through the sluice gates in the dam. Water-stage recorder graph furnished by Office of Indian Affairs.

Mean head, in feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	0.02	0.01			0			0	0	0
2	0	0	0	0			0			0	.16	0
3	0	0	0	0			0			0	1.02	0
4	(*)	0	.01	0			0			0	.55	(*)
5	0	0	0	0			0			0	0	.01
6	0	0	0	0			0			0	1.02	(*)
7	0	0	0	0			0			0	1.28	0
8	(*)	0	0	0			0			0	.65	0
9	(*)	0	0	0			0			0	(*)	(*)
10	(*)	0	0	0			0			0	(*)	(*)
11	0	0	0	0			0			0	0	.06
12	0	0	0	0			0			0	0	.20
13	0	0	0	0			0			0	0	0
14	0	0	0	0			.04			0	0	0
15	0	0	(*)	0			.05			0	0	0
16	0	0	.01	0			.04			0	0	0
17	0	0	0	0			.09			0	0	.02
18	0	0	0	0			0			0	0	.02
19	0	0	.01	0			0			.19	0	0
20	0	(*)	.09	0			0			.18	0	0
21	0	0	.03	0			(*)			0	0	0
22	0	0	.03	0			0			.02	0	0
23	0	0	0	0			0			.09	0	0
24	0	0	0	0			0			0	0	0
25	0	0	0	0			0			0	0	0
26	0	0	0	0			0			0	0	0
27	0	0	0	0			0			0	0	(*)
28	0	0	(*)	0			.02			0	0	(*)
29	0	0	0	0			.07			0	0	0
30	0	0	.01	0			0			0	0	0
31	0	-	.02	0			-			0	0	-

*Flow over crest of dam for short time, but mean head for day was less than 0.01 foot.
Note.- Water below crest of dam during months left blank and on days shown by zero.

Gillespie canal at Gillespie Dam, Ariz.

Location.- Water-stage recorder, lat. 33°14', long. 112°45', in SE¼NE¼ sec. 28, T. 2 S., R. 5 W., 200 feet downstream from head gates at Gillespie Dam. Zero of gage is 743.91 feet above mean sea level (general adjustment of 1929).

Records available.- May 1935 to September 1939.

Remarks.- Records good. Canal diverts water from left bank of Gila River at Gillespie Dam for irrigation near Gila Bend. For records of another diversion at this dam, see Enterprise canal at Gillespie Dam, on following page.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	40	74	141	146	151	113	75	38	16	13	36
2	28	41	74	141	141	146	116	76	36	16	13	37
3	29	41	74	136	141	146	116	70	34	18	14	40
4	32	40	74	136	141	151	113	66	33	18	13	37
5	31	41	74	136	151	151	110	64	33	18	100	41
6	32	41	74	132	155	141	108	59	32	18	172	115
7	32	42	74	154	155	141	106	55	31	18	172	190
8	32	45	76	155	151	141	106	55	30	19	178	222
9	33	46	76	151	155	136	104	51	28	20	178	222
10	33	47	76	151	160	136	104	52	26	19	184	216
11	33	46	76	155	165	136	99	51	26	18	184	203
12	33	48	76	155	165	136	99	51	26	19	197	216
13	32	48	76	155	165	141	97	52	24	18	178	222
14	32	50	76	155	165	141	94	53	22	17	156	216
15	32	53	79	151	160	136	94	53	21	17	118	216
16	32	53	81	151	155	132	92	53	21	16	88	222
17	33	55	85	146	155	132	94	53	21	16	70	222
18	33	57	92	141	151	127	104	50	21	16	59	222
19	33	57	92	136	155	127	102	47	22	15	47	216
20	36	57	106	136	155	127	102	45	22	14	48	209
21	36	59	147	141	155	127	97	44	26	14	51	184
22	36	61	136	146	155	127	92	46	23	14	50	166
23	36	61	146	146	155	124	88	46	22	14	91	153
24	36	59	151	146	160	124	83	45	18	14	190	144
25	36	61	155	141	155	124	79	42	18	13	184	141
26	37	64	155	136	151	122	74	42	18	12	126	170
27	37	66	155	132	155	122	72	44	18	13	82	172
28	37	68	155	132	155	120	68	43	18	14	58	154
29	36	70	151	132	-	120	66	42	17	13	51	129
30	37	72	146	146	-	116	64	41	16	13	38	111
31	38	-	146	151	-	113	-	39	-	13	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,040	38	27	33.5	2,060
November	1,589	72	40	53.0	3,150
December	3,228	155	74	104	6,400
Calendar year 1938	36,044	225	27	98.8	71,500
January	4,463	155	132	144	8,850
February	4,328	165	141	155	8,580
March	4,114	151	113	133	8,160
April	2,856	116	64	95.2	5,660
May	1,605	76	39	51.8	3,180
June	741	38	16	24.7	1,470
July	493	20	12	15.9	978
August	3,139	197	13	101	6,230
September	4,844	222	36	161	9,610
Water year 1938-39	32,440	222	12	88.9	64,330

Enterprise canal at Gillespie Dam, Ariz.

Location.- Lat. 33°13', long. 112°46', in SW¼NE¼ sec. 28, T. 2 S., R. 5 W., 600 feet downstream from intake at Gillespie Dam.

Records available.- June 1935 to September 1939 (discharge measurements only).

Remarks.- Canal diverts water for irrigation from right bank of Gila River at Gillespie Dam. The quantity of water diverted is so regulated as to be nearly constant. For other diversion at Gillespie Dam, see records for Gillespie canal, on preceding page.

Discharge measurements, in second-feet, water year October 1938 to September 1939

Oct.	7	7.37	Feb.	3	10.2	June	2	11.2
Nov.	2	6.91		16	7.38	July	2	11.6
	17	8.48	Mar.	3	10.0		19	8.45
Dec.	2	7.63		17	8.51	Aug.	7	16.4
	21	1.58	Apr.	4	11.8		30	3.80
Jan.	6	13.4		24	13.1	Sept.	8	11.1
	17	10.6	May	9	11.8		22	5.85

Gila River below Gillespie Dam, Ariz.

(Formerly published as Gila River at Gillespie Dam, Ariz.)

Location.- Water-stage recorder above left end of Gillespie Dam, lat. 33°14', long. 112°45', in SE¼NE¼ sec. 28, T. 2 S., R. 5 W., 8 miles downstream from Hassayampa River. Average elevation of crest of dam is 753.46 feet above mean sea level (general adjustment of 1929). Zero of gage is 5.00 feet below average elevation of crest of dam. Records do not include flow in Gillespie and Enterprise canals, which divert from dam just upstream (see p. 218), but do include discharge through sluice gates.

Drainage area.- 49,700 square miles.

Records available.- August 1921 to September 1939.

Extremes.- Maximum discharge during year, 3,240 second-feet Sept. 13 (height over crest of dam, 0.97 feet); no flow during greater part of year.
1921-39: Maximum discharge, 70,000 second-feet Dec. 28, 1923 (height over crest of dam, 6.0 feet), by computation of flow over dam; no flow for several periods in each year.

Remarks.- Records good except those below 100 second-feet, which are fair. Other diversions above station for irrigation. Flow of Gila River and tributaries above this station is regulated by San Carlos Reservoir on Gila River (capacity, about 1,200,000 acre-feet, revised), by a series of reservoirs on Salt River (capacity, 1,770,000 acre-feet, revised), since February 1939 by Bartlett Reservoir on Verde River, (capacity, about 200,000 acre-feet), and by Lake Pleasant on Agua Fria River (capacity, 183,500 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0							0	0
2			0	0							0	0
3			0	0							0	0
4			0	0							0	360
5			0	0							10	1,760
6			0	0							337	1,500
7			0	52							22	1,170
8			0	0							1,880	610
9			0	0							1,990	216
10			0	0							1,880	32
11			0	0							200	0
12			0	0							9	1,560
13			0	0							0	2,720
14			0	0							0	1,000
15			0	0							0	305
16			0	0							0	180
17			0	0							0	80
18			0	0							0	50
19			0	0							0	0
20			0	0							0	0
21			375	0							0	0
22			180	0							0	0
23			120	0							0	0
24			120	0							0	0
25			120	0							0	0
26			100	0							0	0
27			100	0							0	0
28			38	0							0	0
29			1	0							0	0
30			0	0							0	0
31			0	0							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	1,154	375	0	37.2	2,290
Calendar year 1938	96,094	35,800	0	263	190,600
January	52	52	0	1.7	103
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	6,328	1,990	0	204	12,550
September	11,543	2,720	0	385	22,900
Water year 1938-39	19,077	2,720	0	52.3	37,840

Note.- The above records do not include the discharge of the Gillespie and Enterprise Canals (see p. 213).

Gila River near Dome, Ariz.

Location.- Water-stage recorder, lat. 32°45'30", long. 114°25'15", in SW¼ sec. 4, T. 8 S., R. 21 W., 3 miles west of Dome and 12 miles upstream from mouth. Zero of gage is 148.18 feet above mean sea level (general adjustment of 1929).

Drainage area.- 58,100 square miles.

Records available.- May 1929 to September 1939. October 1903 to December 1906, at site 4 miles upstream.

Extremes.- Maximum discharge during year, 905 second-feet Sept. 13, (gage height, 7.47 feet); no flow during most of year.
1929-39: Maximum discharge, 20,700 second-feet Feb. 15, 1932 (gage height, 13.75 feet); no flow during part of each year.
Maximum daily discharge, 200,000 second-feet (estimated) Jan. 22, 1916.

Remarks.- Records excellent. Diversions above station for irrigation. Flow regulated above station by reservoirs (see p. 219). No regulation below Gillespie Dam.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												0
2												0
3												0
4												0
5												72
6												186
7												17
8												0
9												0
10												0
11												0
12												531
13												632
14												264
15												75
16												6
17												0
18												0
19												0
20												0
21												0
22												0
23												0
24												0
25												0
26												0
27												0
28												0
29												0
30												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 1938	23,140	7,920	0	63.4	45,900
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	1,783	632	0	59.4	3,540
Water year 1938-39	1,783	632	0	4.9	3,540

Sunset canal near Virden, N. Mex.

(Formerly published as Sunset canal near Duncan, Ariz.)

Location.- Water-stage recorder and concrete control, lat. 32°39', long. 108°56', in SW¼NW¼ sec. 17, T. 19 S., R. 20 W., about 1¼ miles downstream from intake, 4 miles southeast of Virden, and about 12 miles east of Duncan, Ariz.

Records available.- October 1914 to September 1915, July 1922 to September 1931, January to September 1939 in reports of Geological Survey. January 1936 to December 1938 in files in office of Gila Water Commissioner, appointed by United States District Court for Arizona.

Extremes.- Maximum discharge during period, 66 second-feet July 17 (gage height, 2.77 feet); no flow at times.

Remarks.- Records fair prior to June 21, others good except those for periods of missing or partial gage-height record, Mar. 18-21, Aug. 26, 27, which were computed on basis of recorded range in stage and engineer's and watermaster's notes and are poor. Canal diverts from right bank of Gila River in SW¼NW¼ sec. 21, T. 19 S., R. 20 W. for irrigation in Virden Valley. No diversions between intake and station. Gage-height record for Jan. 1 to May 11, 1939, obtained by State engineer of New Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0	41	0	37	38	19	0	35	29
2				0	39	18	36	18	21	0	32	23
3				0	40	37	36	37	23	0	44	18
4				.2	43	36	32	43	21	.3	43	16
5				.4	44	37	34	43	20	0	42	18
6				.4	39	37	35	43	17	0	21	15
7				.4	34	37	37	41	14	0	34	18
8				.1	24	37	39	40	19	0	49	17
9				.1	24	37	41	35	17	0	48	24
10				.2	18	36	41	36	18	0	43	28
11				.2	13	36	40	39	16	0	41	20
12				.1	12	37	40	38	17	0	38	19
13				14	13	41	40	38	15	0	44	20
14				23	12	42	39	38	11	0	45	20
15				23	19	41	39	37	8.0	0	44	34
16				35	36	39	41	33	6.8	0	49	31
17				43	43	39	41	34	5.4	35	41	14
18				43	43	38	42	32	5.4	56	35	13
19				44	33	31	42	31	5.4	54	37	22
20				44	5.4	31	42	30	4.8	30	37	27
21				44	15	34	42	31	3.0	20	39	26
22				43	30	37	39	40	2.5	22	37	33
23				43	11	34	39	41	2.7	37	38	41
24				35	0	33	41	39	1.8	41	42	43
25				20	0	33	41	31	2.5	41	40	46
26				3.3	0	40	41	28	2.7	34	30	48
27				.1	0	39	41	27	2.5	31	30	43
28				.1	0	36	41	24	1.3	28	31	41
29				.2	-	33	41	23	.6	24	42	43
30				14	-	33	41	22	.4	27	45	40
31				30	-	35	-	20	-	36	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	503.8	44	0	16.3	999
February	631.4	44	0	22.6	1,250
March	1,079	42	0	34.8	2,140
April	1,181	42	32	39.4	2,340
May	1,050	43	18	33.9	2,080
June	303.8	23	.4	10.1	603
July	516.3	56	0	16.7	1,020
August	1,213	49	21	39.1	2,410
September	830	48	13	27.7	1,650
The period	-	-	-	-	14,490

Sunset canal above New Mexico-Arizona State line, near Virden, N. Mex.

Location.- Water-stage recorder and 3-foot concrete Parshall flume, lat. 32°41', long. 109°02', in NE¼SE¼ sec. 31, T. 1S S., R. 21 W., about a quarter of a mile east of New Mexico-Arizona State line and about 2½ miles west of Virden.

Records available.- February to September 1939.

Extremes.- Maximum discharge during period, 30 second-feet Apr. 28 (gage height, 1.70 feet), from rating curve extended logarithmically above 12 second-feet; no flow at times.

Remarks.- Records good. Canal diverts from right bank of Gila River in SW¼NW¼ sec. 21, T. 19 S., R. 20 W. for irrigation in Virden Valley. Many diversions for irrigation above and below station. Gage-height record for Feb. 4 to May 11 obtained by State engineer of New Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	0	7.3	2.3	0.4	0	2.6	0
2					-	0	3.9	4.2	7.2	0	8.0	0
3					-	0	.8	6.6	8.4	0	6.2	0
4					1.5	0	.4	1.8	.4	0	5.7	0
5					4.2	0	1.9	.4	0	0	13	0
6					1.7	0	2.5	.4	0	0	3.1	.2
7					4.3	0	6.9	3.2	0	0	2.4	1.0
8					4.8	0	7.0	8.9	0	0	7.2	5.1
9					7.0	3.5	12	9.5	4.5	0	7.7	6.3
10					9.3	5.1	11	9.3	1.1	0	9.8	.8
11					4.5	7.1	8.0	9.1	5.3	0	7.2	1.0
12					7.3	6.7	2.4	5.7	2.8	0	4.9	8.2
13					6.4	9.4	4.7	2.0	0	0	0	5.4
14					3.6	6.7	7.0	0	0	0	2.3	.1
15					.9	4.7	1.7	0	0	0	6.7	5.8
16					.2	5.2	1.8	0	0	0	6.8	17
17					3.9	5.8	4.0	0	2.0	.8	7.2	11
18					6.1	5.7	2.8	4.3	1.8	8.2	7.2	5.8
19					5.7	0	.3	8.2	0	6.7	7.2	5.1
20					1.4	0	.4	7.0	0	3.3	3.0	3.8
21					0	0	1.2	3.2	0	5.9	4.0	1.4
22					0	7.1	3.6	.3	0	1.0	4.1	.6
23					0	11	1.5	0	0	.4	8.4	1.5
24					0	7.8	7.7	4.8	0	6.1	e.8	1.0
25					0	11	7.5	8.9	0	6.0	8.3	11
26					0	7.2	2.8	6.0	.5	5.3	4.7	8.2
27					0	9.3	4.8	4.3	0	2.6	10	8.5
28					0	11	8.5	3.0	0	6.0	7.5	4.1
29					-	7.5	8.4	.7	0	6.7	5.6	4.0
30					-	11	1.1	0	0	5.3	3.0	.6
31					-	8.2	-	0	-	3.9	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 4-28	72.8	9.3	0	2.91	144
March	150.8	11	0	4.86	299
April	133.9	12	.3	4.46	266
May	114.1	9.5	0	3.68	226
June	34.4	8.4	0	1.15	68
July	68.2	8.2	0	2.20	135
August	183.8	13	0	5.93	365
September	117.5	17	0	3.92	233
The period	-	-	-	-	1,740

Sunset canal wasteway near Virden, N. Mex.

Location.- Water-stage recorder and 3-foot concrete Parshall flume, lat. 32°41', long. 109°02', in NW¼SE¼ sec. 31, T. 18 S., R. 21 W., just below intake, at New Mexico-Arizona State line, about 2¾ miles west of Virden.

Records available.- February to September 1939.

Extremes.- Maximum discharge during period, 22 second-feet July 27 (gage height, 1.42 feet); no flow at times.

Remarks.- Records good. Discharge represents waste from Sunset canal to Gila River by way of Carlyle Canyon. Intake of wasteway is between State line and station on Sunset canal above State line. Gage-height record for Feb. 1 to May 11 obtained by State engineer of New Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0	0.1	2.1	0	0	0	0
2					0	0	.5	4.6	0	0	.2	0
3					0	0	.6	6.2	0	0	.3	0
4					0	0	.3	2.0	0	0	0	0
5					3.0	0	1.8	.2	0	0	.2	0
6					1.0	0	.3	.4	0	0	3.1	0
7					.4	0	.9	.9	0	0	0	.1
8					1.6	0	.6	.6	0	0	1.0	0
9					7.0	.1	.4	0	0	0	0	0
10					4.7	0	.3	0	.7	0	0	0
11					.4	.3	.3	0	.7	0	.6	0
12					4.8	.1	.3	0	.3	0	1.9	0
13					6.6	1.9	0	0	0	0	0	.1
14					3.6	0	.6	0	0	0	0	.1
15					1.2	1.3	.1	0	0	0	0	.2
16					.3	4.2	.3	0	0	0	0	4.0
17					1.3	2.1	.1	0	0	0	0	4.3
18					2.9	1.3	.3	.2	0	.1	0	3.8
19					.2	0	.2	0	0	.2	0	1.2
20					0	0	.5	0	0	.1	.1	2.2
21					0	0	1.2	.1	0	0	0	.7
22					0	2.4	3.8	.2	0	0	0	.1
23					0	2.8	1.4	0	0	.2	.2	.1
24					0	1.1	2.4	.3	0	.1	0	0
25					0	.3	.5	0	0	0	.3	1.3
26					0	.2	0	0	0	0	0	0
27					0	1.8	0	0	0	.2	1.2	0
28					0	3.2	.9	0	0	.3	0	.3
29					-	.4	2.7	0	0	0	0	1.7
30					-	1.3	1.0	0	0	0	.6	.2
31					-	.1	-	0	-	0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February	39.2	7.0	0	1.40	78
March	24.9	4.2	0	.80	49
April	22.4	3.8	0	.75	44
May	17.8	6.2	0	.57	35
June	1.7	.7	0	.06	3.4
July	1.2	.3	0	.04	2.4
August	9.6	3.1	0	.32	19
September	20.4	4.3	0	.68	40
The period	-	-	-	-	271

Moddle canal near Virden, N. Mex.

(Formerly published as Moddle canal near Duncan, Ariz.)

Location.- Water-stage recorder and concrete control lat. 32°40', long. 108°59', in SW¼ NW¼ sec. 11, T. 19 S., R. 21 W., half a mile downstream from intake, 1¼ miles southeast of Virden, and about 8 miles southeast of Duncan, Ariz.

Records available.- October 1914 to September 1915, July 1922 to September 1931, January to September 1939 in reports of Geological Survey. January 1936 to December 1938 in files in office of Gila Water Commissioner, appointed by United States District Court for Arizona.

Extremes.- Maximum discharge during period, 70 second-feet Sept. 15 (gage height, 1.50 feet); no flow at times.

Remarks.- Records for Jan. 1 to Sept. 14 are good; others fair. Discharge for Jan. 1, May 11, 12, Sept. 26, 27 estimated on basis of part-day gage heights. Canal diverts from left bank of Gila River in NW¼SE¼ sec. 11, T. 19 S., R. 21 W. for irrigation in Virden Valley. No diversions between intake and station. Gage-height record for Jan. 1 to May 11, 1939, obtained by State engineer of New Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1	6.3	25	33	40	2.4	0	11	0.1
2				0	13	17	30	40	2.2	0	21	0
3				0	15	18	18	34	3.3	0	40	0
4				0	15	17	12	30	1.8	0	32	0
5				1.3	17	14	12	28	1.6	0	44	0
6				4.8	19	14	17	28	1.3	0	16	.1
7				5.4	21	13	27	28	1.1	0	0	0
8				8.4	26	14	27	28	1.1	0	0	0
9				10	31	14	18	26	.7	0	16	0
10				9.8	20	13	.1	23	.6	0	25	0
11				10	11	14	16	19	.6	0	20	0
12				10	9.8	17	56	19	.6	0	18	0
13				5.7	6.8	20	46	15	.4	0	30	0
14				1.8	4.6	21	44	12	.1	0	36	7.2
15				1.8	3.8	22	44	9.1	.1	0	31	47
16				.7	6.0	22	42	9.8	.3	0	13	30
17				0	11	22	42	18	0	25	6.8	5.8
18				0	11	20	38	17	0	39	6.8	6.1
19				5.1	17	21	32	13	0	13	29	25
20				9.4	23	21	30	12	0	1.2	31	32
21				9.8	7.2	21	29	11	0	1.8	13	33
22				10	7.5	26	25	9.8	0	1.0	1.8	29
23				12	17	34	24	13	0	1.0	4.0	22
24				13	20	43	26	13	0	15	9.0	22
25				10	21	46	25	12	0	11	22	22
26				0	25	37	28	11	0	13	34	15
27				0	26	30	30	8.4	0	12	26	15
28				0	26	38	32	6.8	0	3.5	30	17
29				0	-	44	33	5.4	0	5.1	17	12
30				2.7	-	41	36	4.3	0	9.2	8.8	8.1
31				3.1	-	36	-	3.5	-	17	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	145.8	13	0	4.70	289
February	437	31	3.8	15.6	867
March	755	46	13	24.4	1,500
April	872.1	56	.1	29.1	1,730
May	547.1	40	3.5	17.6	1,090
June	18.2	3.3	0	.61	36
July	167.8	39	0	5.41	333
August	595.2	44	0	19.2	1,180
September	348.4	47	0	11.6	691
The period	-	-	-	-	7,720

Moddle canal at New Mexico-Arizona State line, near Virden, N. Mex.

Location.- Water-stage recorder and 4-foot concrete Parshall flume, lat. 32°41', long. 109°02', in NE¼SE¼ sec. 6, T. 19 S., R. 21 W., about 500 feet upstream from New Mexico-Arizona State line and about 2¾ miles weet of Virden.

Records available.- February to September 1939.

Extremes.- Maximum discharge during period, 37 second-feet Aug. 4 (gage height, 1.65 feet); no flow at times.

Remarks.- Records good. Canal diverts from left bank of Gila River in NW¼SE¼ sec. 11, T. 19 S., R. 21 W., for irrigation in Virden Valley. Many diversions above and below station. Gage-height record for February 8 to May 11, 1939, obtained by State engineer of New Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	6.0	6.2	0		0	11	0
2					-	3.3	4.2	0		0	11	0
3					-	1.7	.5	1.3		0	26	0
4					-	1.3	2.4	8.9		0	28	0
5					-	.9	0	10		0	28	0
6					-	3.6	8.1	13		0	0	2.2
7					-	3.6	24	12		0	0	0
8					4.9	3.5	14	14		0	0	0
9					3.9	7.2	5.4	15		0	8.2	0
10					0	6.2	0	13		0	16	0
11					0	3.7	0	8.3		0	12	0
12					0	5.0	5.6	8.9		0	6.8	0
13					0	2.9	23	9.4		0	21	0
14					2.6	1.6	24	5.8		0	32	0
15					4.2	3.0	13	.3		0	25	14
16					1.1	7.7	4.7	3.9		0	13	16
17					5.3	8.0	4.5	13		1.8	4.5	1.2
18					2.7	6.4	4.3	14		14	5.6	5.4
19					2.6	5.0	12	10		4.8	16	20
20					3.1	7.2	9.8	11		.1	24	15
21					0	6.0	13	7.8		1.1	10	14
22					0	9.0	9.6	6.0		1.0	1.6	14
23					0	24	13	8.9		.8	.5	12
24					0	28	9.1	7.2		7.8	3.5	12
25					4.9	29	1.4	9.4		8.9	11	12
26					7.6	29	4.5	8.7		4.5	27	4.8
27					6.8	28	7.0	4.1		12	18	4.2
28					8.1	28	4.1	4.3		.6	13	14
29					-	30	0	4.7		2.7	8.5	8.7
30					-	25	0	3.8		4.8	4.7	5.4
31					-	13	-	1.6		12	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February 8-28	57.8	8.1	0	2.75	115
March	336.8	30	.9	10.9	668
April	227.4	24	0	7.58	451
May	238.3	15	0	7.69	473
June	0	0	0	0	0
July	76.9	14	0	2.48	153
August	385.9	32	0	12.4	765
September	174.9	20	0	5.83	347
The period	-	-	-	-	2,970

Valley canal near Virden, N. Mex.

(Formerly published as Valley canal near Duncan, Ariz.)

Location.- Water-stage recorder and 4-foot concrete Parshall flume, lat. 32°41', long. 109°01', in SW¼SW¼ sec. 32, T. 18 S., R. 21 W., 1¼ miles downstream from intake, about 2¼ miles west of Virden, and about 4½ miles southeast of Duncan, Ariz.

Records available.- October 1914 to September 1915, July 1923 to September 1931, May to September 1939 in reports of Geological Survey. January 1936 to September 1939 (at site about half a mile downstream and below wasteways) in files in office of Gila Water Commissioner, appointed by United States District Court for Arizona.

Extremes.- Maximum discharge during period, 95 second-feet Aug. 5 (gage height, 2.87 feet); maximum daily discharge, 34 second-feet Aug. 26; no flow at times.

Remarks.- Records good except those below 1 second-foot and those above 20 second-feet, which are fair. Canal diverts from right bank of Gila River in NE¼NW¼ sec. 4, T. 19 S., R. 21 W. (New Mexico) for irrigation in Duncan Valley in Arizona.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	4.6	0	4.5	2.3
2								-	4.6	0	6.0	1.9
3								-	3.8	0	28	1.1
4								-	2.8	0	25	.4
5								-	2.4	0	20	.3
6								-	2.6	0	21	2.5
7								-	1.8	0	30	20
8								-	1.5	0	17	3.0
9								-	1.9	0	6.7	2.6
10								-	3.0	.7	10	2.8
11								-	2.8	1.3	13	1.9
12								8.4	2.8	1.4	2.1	1.9
13								7.3	1.9	.6	10	2.3
14								7.1	2.6	.9	33	9.0
15								8.4	2.2	.1	20	2.0
16								8.4	1.7	0	11	.2
17								7.3	1.0	9.7	4.0	2.8
18								7.5	1.8	14	3.0	8.8
19								7.7	1.9	4.4	22	14
20								6.9	1.6	1.1	16	17
21								6.2	.9	0	8.4	16
22								5.4	0	0	6.0	15
23								4.8	0	0	3.1	16
24								3.8	0	.9	11	16
25								7.9	0	4.2	15	15
26								8.2	0	.3	34	13
27								6.2	0	7.4	25	12
28								4.8	0	.8	24	6.2
29								3.8	0	.2	13	4.5
30								3.4	0	.2	3.6	3.8
31								4.6	-	4.0	2.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 12-31	127.9	8.4	3.4	6.40	254
June	50.2	4.6	0	1.67	100
July	52.2	14	0	1.68	104
August	447.7	34	2.1	14.4	888
September	214.3	20	.2	7.14	425
The period	-	-	-	-	1,770

San Francisco River near Glenwood, N. Mex.

Location.- Water-stage recorder, lat. 33°18', long. 108°53', in W½ sec. 23, T. 12 S., R. 20 W., a quarter of a mile upstream from the hot springs and 6 miles south of Glenwood. Zero of gage is 4,552.06 feet above mean sea level (general adjustment of 1929).

Records available.- October 1930 to February 1934 (at site 4½ miles upstream) and February 1934 to September 1939 in reports of Geological Survey. October 1927 to December 1931 (at site 4½ miles upstream) in reports of State engineer.

Extremes.- Maximum discharge during water year 1933-34, about 2,780 second-feet Aug. 27 (gage height, 6.64 feet, from flood marks); minimum daily, 7.7 second-feet June 21.
Maximum discharge during water year 1938-39, 1,020 second-feet Aug. 3 (gage height, 3.89 feet), from rating curve extended above 800 second-feet; minimum daily discharge, 9.2 second-feet June 13 and 14.
1930-39: Maximum discharge, 5,730 second-feet Feb. 7, 1937, from rating curve extended above 300 second-feet; maximum gage height, 8.16 feet, former site and datum, Sept. 16, 1931; minimum daily discharge, 7.7 second-feet June 21, 1934.

Remarks.- Records fair except those for periods of missing or partial-day gage heights, Oct. 1-19, Apr. 19-22, Aug. 4-6, 8, 14, 15, 17-22, which were computed on basis of available gage heights, weather records, and records for Gila River near Gila and near Red Rock and are poor. Diversions above station for irrigation.

Revisions.- Revised figures of discharge for the water year 1933-34, superseding those published in Water-Supply Paper 764, are given herein.

Discharge, in second-feet, water years 1933-34 and 1938-39

1933-34

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	35	172	38	33	28	17	20	12	14	41	157
2	34	37	90	36	32	27	15	21	13	15	40	79
3	48	36	64	36	33	24	14	21	14	17	42	55
4	39	35	54	36	32	24	16	21	13	19	69	44
5	50	36	50	34	33	22	18	21	14	21	45	37
6	82	38	48	33	33	23	14	21	13	17	41	37
7	84	37	45	29	35	22	14	21	14	17	68	44
8	135	37	43	26	36	20	18	22	13	15	66	44
9	98	37	42	25	37	20	17	18	11	12	51	37
10	85	37	40	26	34	20	18	16	10	10	48	40
11	63	37	41	27	32	20	18	17	10	11	48	37
12	53	37	41	27	31	19	17	17	10	11	56	33
13	49	37	42	28	29	18	20	18	10	9.8	75	29
14	72	38	42	29	28	17	21	17	13	8.8	140	29
15	46	38	44	29	28	18	21	17	13	11	81	28
16	40	39	44	32	30	19	22	19	12	10	69	31
17	38	40	40	32	29	18	22	18	11	9.8	67	37
18	38	40	42	31	29	19	23	17	12	11	94	40
19	36	42	40	30	29	17	25	17	9.6	11	48	40
20	35	42	43	30	29	17	26	18	9.5	12	43	40
21	34	43	43	31	29	16	23	17	7.7	39	78	39
22	33	44	42	32	27	15	19	16	9.5	30	74	40
23	32	44	43	33	26	16	19	16	10	125	88	148
24	32	45	42	33	27	16	19	15	12	80	80	97
25	31	45	42	33	27	20	18	16	11	54	98	44
26	31	44	42	34	27	20	17	16	11	50	560	31
27	30	44	41	32	26	19	16	16	12	52	1,240	29
28	31	45	40	32	27	18	18	14	12	48	353	25
29	32	239	40	32	-	18	21	14	14	46	140	24
30	32	357	38	33	-	18	20	14	13	44	275	23
31	32	-	38	33	-	18	-	14	-	43	349	-

Discharge, in second-feet, of San Francisco River near Glenwood, N. Mex., for water years 1933-34 and 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		20	22	24	31	29	130	39	20	14	35	18
2		20	24	23	32	29	106	35	20	19	26	18
3		20	24	24	27	28	95	31	18	19	220	25
4		20	24	25	25	29	109	29	18	20	40	21
5		20	24	25	27	29	201	30	16	18	36	18
6	20	20	24	24	31	28	630	29	16	19	45	16
7		20	24	25	29	28	396	29	17	18	47	47
8		21	23	25	30	28	263	26	17	20	30	92
9		21	22	27	31	31	185	27	15	16	29	52
10		21	23	29	25	35	162	26	14	13	34	56
11		22	23	27	24	41	134	25	13	12	40	47
12		22	23	26	25	43	115	25	10	15	40	41
13	19	22	22	24	28	42	100	25	9.2	14	40	33
14		22	21	23	29	43	93	26	9.2	11	135	54
15		22	22	24	30	79	83	24	10	13	55	117
16		22	24	24	29	90	74	24	9.8	14	26	52
17		22	24	23	31	83	64	23	12	19	70	58
18	18	22	24	23	31	73	58	24	16	19	30	41
19		22	24	24	31	75	45	22	16	20	55	38
20	18	22	30	24	28	170	40	23	19	14	45	35
21	19	22	30	26	28	420	40	25	14	16	40	31
22	20	22	28	29	27	678	40	26	15	20	30	27
23	20	22	25	30	27	662	37	24	13	18	33	26
24	20	20	24	32	28	524	39	21	12	25	83	23
25	20	18	24	31	29	295	39	21	11	16	83	24
26	19	17	24	30	29	193	35	20	12	14	44	22
27	19	19	23	29	30	144	32	20	11	16	32	22
28	19	19	22	31	29	154	34	23	12	26	25	22
29	20	19	22	32	-	173	39	21	12	31	24	22
30	20	19	22	31	-	185	42	24	14	24	22	21
31	20	-	22	31	-	162	-	22	-	22	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1933	1,507	135	30	48.6	2,990
November	1,705	357	35	56.8	3,380
December	1,518	172	38	49.0	3,010
Calendar year	-	-	-	-	-
January 1934	972	38	25	31.4	1,930
February	848	37	26	30.3	1,680
March	606	28	15	19.5	1,200
April	566	26	14	18.9	1,120
May	545	22	14	17.6	1,080
June	349.5	14	7.7	11.6	693
July	873.4	125	8.8	28.2	1,730
August	4,567	1,240	40	147	9,060
September	1,418	157	23	47.3	2,810
Water year 1933-34	15,474.9	1,240	7.7	42.4	30,683
October 1938	601	-	-	19.4	1,190
November	620	22	17	20.7	1,230
December	737	30	21	23.8	1,460
Calendar year 1938	13,959	791	12	38.2	27,680
January 1939	825	32	23	26.6	1,640
February	801	32	24	28.6	1,590
March	4,623	678	28	149	9,170
April	3,460	630	32	115	6,860
May	789	39	20	25.6	1,560
June	421.2	20	9.2	14.0	835
July	555	31	11	17.9	1,100
August	1,515	220	22	48.9	3,000
September	1,119	117	16	37.3	2,220
Water year 1938-39	16,066.2	678	9.2	44.0	31,860

Peak discharge, 1938-39.- Mar. 21 (9 p.m.) 782 sec.-ft.; Mar. 22 (1 p.m.) 782 sec.-ft.; Mar. 23 (4 p.m.) 798 sec.-ft.; Apr. 6 (11 a.m.) 984 sec.-ft.

San Francisco River at Clifton, Ariz.

Location.- Water-stage recorder, lat. 33°03'00", long. 109°17'45", in SW¼SE¼ sec. 30, T. 4 S., R. 30 E., at Railroad Boulevard bridge at Clifton. Zero of gage is 3,430.5 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 2,790 square miles.

Records available.- July 1927 to October 1933 and May 1935 to September 1939. October 1910 to July 1918 (fragmentary) at several sites, each not more than 2 miles upstream.

Average discharge.- 10 years (1927-33, 1935-39, 163 second-feet.

Extremes.- Maximum discharge during year, 1,230 second-feet Apr. 6 (gage height, 5.81 feet); minimum, 8 second-feet June 18, 19 (gage height, 2.01 feet).
1927-39: Maximum discharge, 12,400 second-feet Feb. 8, 1937 (gage height, 12.7 feet); probably no flow at times in 1934; minimum discharge recorded, that of June 18, 19, 1939.

Remarks.- Records good. Discharge for periods of missing gage heights, Aug. 10-12, Aug. 31 to Sept. 5, interpolated or estimated on basis of recorded range in stage and records for Gila River near Clifton and below Bonita Creek, near Solomonsville. Diversions above station for irrigation, mining, and municipal supply. During the year 50 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	32	44	56	67	68	309	105	40	18	45	44
2	40	34	43	55	71	68	250	96	32	20	73	42
3	39	39	46	55	69	66	271	90	32	22	200	40
4	38	39	45	56	66	69	271	86	32	57	138	38
5	34	38	45	55	64	69	469	84	31	39	87	36
6	33	40	44	55	65	68	936	80	30	36	251	35
7	33	42	45	55	65	67	844	76	29	33	308	212
8	34	43	45	59	66	67	589	73	28	31	128	145
9	37	43	46	64	68	67	473	69	25	30	134	90
10	38	44	46	60	68	68	401	66	26	28	95	69
11	40	46	47	59	63	75	350	63	23	23	85	78
12	40	47	48	58	60	87	306	59	21	20	75	64
13	39	47	48	57	59	89	277	55	20	20	82	57
14	39	48	47	58	63	88	250	58	18	20	86	51
15	36	48	48	57	62	88	230	55	18	20	159	99
16	34	49	55	57	59	116	212	53	18	24	81	235
17	34	49	57	56	64	137	182	53	17	22	91	210
18	33	48	54	56	69	154	159	51	12	30	79	98
19	35	48	57	56	79	170	144	49	13	29	50	102
20	36	49	152	57	77	264	133	46	18	41	53	77
21	38	49	97	58	73	453	124	44	23	27	40	68
22	39	49	78	62	71	782	116	43	23	119	54	59
23	42	49	69	64	71	827	110	44	19	58	46	54
24	39	49	64	64	71	880	105	44	18	102	102	48
25	38	49	59	64	73	589	100	41	18	70	124	42
26	36	48	58	64	73	440	98	40	16	51	117	43
27	37	46	58	63	72	364	94	39	17	43	81	43
28	34	45	58	65	69	364	94	36	16	35	67	40
29	33	46	57	69	-	378	111	42	16	32	55	40
30	33	46	57	68	-	357	111	43	16	60	49	39
31	32	-	56	67	-	339	-	42	-	45	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,135	42	32	36.6	2,250
November	1,349	49	32	45.0	2,680
December	1,773	152	43	57.2	3,520
Calendar year 1938	35,812	2,830	25	98.1	71,030
January	1,849	69	55	59.6	3,670
February	1,897	79	59	67.8	3,760
March	7,720	880	67	249	15,310
April	8,149	936	94	272	16,160
May	1,825	105	36	58.9	3,620
June	668	40	12	22.3	1,320
July	1,205	119	18	38.9	2,390
August	3,081	308	40	99.4	6,110
September	2,298	235	35	76.6	4,560
Water year 1938-39	32,949	936	12	90.3	65,350

Peak discharge.- April 6 (8:15 p.m.) 1,230 sec.-ft.

San Simon Creek near San Simon, Ariz.

Location.- Water-stage recorder, lat. 32°13', long. 109°10', in SW¼ sec. 10, T. 14 S., R. 31 E., 4½ miles southeast of San Simon.

Drainage area.- 803 square miles.

Records available.- June 1931 to October 1933 and May 1935 to September 1939. August 1919 to September 1925, at site 3½ miles downstream.

Average discharge.- 12 years (1919-25, 1931-33, 1935-39), 5.1 second-feet.

Extremes.- Maximum discharge during year, 2,330 second-feet Aug. 13 (gage height, 9.25 feet), from rating curve extended above 400 second-feet on basis of slope-area measurement at 3,900 second-feet; no flow during most of year.
1919-25, 1931-39: Maximum discharge, 5,350 second-feet July 21, 1923; no flow during most of each year.

Remarks.- Records poor. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0			0	0			0	30	0
2			0			0	0			0	1	0
3			0			0	0			0	40	0
4			0			0	0			0	5	0
5			0			0	0			0	110	0
6			0			0	0			0	2	0
7			0			0	0			0	0	0
8			0			0	0			0	0	0
9			0			0	0			0	0	0
10			0			0	0			0	0	0
11			0			0	0			0	60	0
12			0			0	0			0	15	0
13			0			0	0			0	310	6
14			0			0	0			0	60	20
15			0			0	0			0	0	10
16			0			0	0			0	0	0
17			0			0	0			0	0	0
18			0			0	0			0	0	0
19			7			0	0			0	0	0
20			15			2	0			0	0	0
21			7			1	0			0	0	0
22			1			0	0			2	0	0
23			0			0	0			2	3	0
24			0			0	0			45	0	0
25			0			0	0			50	0	0
26			0			0	0			0	0	0
27			0			0	0			60	0	0
28			0			0	6			0	0	0
29			0			0	1			10	0	0
30			0			0	0			60	0	0
31			0			0	-			170	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	30	15	0	1.0	60
Calendar year 1938	759	190	0	2.1	1,510
January	0	0	0	0	0
February	0	0	0	0	0
March	3	2	0	.1	6
April	7	6	0	.2	14
May	0	0	0	0	0
June	0	0	0	0	0
July	399	170	0	12.9	791
August	636	310	0	20.5	1,260
September	36	20	0	1.2	71
Water year 1938-39	1,111	310	0	3.0	2,200

Peak discharge.- July 24 (11:25 p.m.) 770 sec.-ft.; July 27 (3:35 p.m.) 645 sec.-ft.; July 30 (9:15 p.m.) 645 sec.-ft.; July 31 (7:15 p.m.) 1,890 sec.-ft.; Aug. 5 (7:15 p.m.) 1,420 sec.-ft.; Aug. 11 (9:15 p.m.) 750 sec.-ft.; Aug. 13 (8:05 p.m.) 2,330 sec.-ft.

San Simon Creek near Solomonsville, Ariz.

Location.- Water-stage recorder, lat. 32°48', long. 109°38', in NW¼NE¼ sec. 25, T. 7 S., R. 26 E., 1 mile southwest of Solomonsville and 2½ miles upstream from mouth. Zero of gage is 2,960.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,280 square miles.

Records available.- June 1931 to September 1932, May 1935 to September 1939.

Extremes.- Maximum discharge during year, 2,140 second-feet Aug. 14 (gage height, 6.90 feet); no flow on many days.
1931-1939: Maximum discharge, 27,500 second-feet Aug. 9, 1931 (gage height, 19.0 feet), by slope-area method; no flow on many days in each year.

Remarks.- Records fair. Small diversions above station for irrigation. Waste water from San Jose canal, which diverts from Gila River, not included in these records.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0						0	156	0
2				0						0	51	0
3				0						0	76	0
4				0						0	12	0
5				0						0	1	0
6				0						0	164	0
7				2						0	208	15
8				0						0	10	116
9				0						0	5	0
10				0						0	0	0
11				0						0	0	0
12				0						0	0	0
13				0						0	13	0
14				0						0	539	0
15				0						0	54	18
16				0						0	1	10
17				0						0	48	28
18				0						0	3	0
19				0						0	0	0
20				0						0	0	0
21				0						0	0	0
22				0						0	0	0
23				0						1	32	0
24				0						0	8	0
25				0						0	0	0
26				0						3	0	0
27				0						1	0	0
28				0						17	0	0
29				0						10	0	0
30				0						0	0	0
31				0						22	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 1938	2,574	395	0	7.1	5,110
January	2	2	0	.1	4.0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	54	22	0	1.7	107
August	1,381	539	0	44.5	2,740
September	187	116	0	6.2	371
Water year 1938-39	1,624	539	0	4.4	3,220

Peak discharge.- Aug. 14 (11:15 a.m.) 2,140 sec.-ft.

San Carlos River near Peridot, Ariz.

Location.- Water-stage recorder, lat. 33°16', long. 110°26', in sec. 7, T. 2 S., R. 19 E., unsurveyed, on San Carlos Indian Reservation, at railroad bridge at head of San Carlos Reservoir, 2 miles south of Peridot. Zero of gage is 2,506.6 feet above mean sea level (from Southern Pacific Railroad bench mark).

Drainage area.- 1,070 square miles.

Records available.- March 1929 to September 1939. August 1910 to January 1911 and April 1914 to September 1915 (fragmentary), at site 5½ miles downstream.

Average discharge.- 10 years, 51.0 second-feet.

Extremes.- Maximum discharge during year, 10,200 second-feet Aug. 3 (gage height, 7.96 feet); no flow June 29.
1929-39: Maximum discharge, 29,400 second-feet Feb. 7, 1937 (gage height, 10.7 feet), from rating curve extended above 15,000 second-feet on basis of records of inflow of San Carlos Reservoir; no flow on several days of most years.

Remarks.- Records good except those for periods of missing gage heights, July 5-10, 25-31, Aug. 16-20, Sept. 14-20 (computed on basis of partial record, records for preceding and following days, and weather records) and those above 40 second-feet, all of which are fair, and those for periods of unstable stage-discharge relation, Feb. 14-19, Apr. 6-10, which are poor. Small diversions above station for irrigation. During the year 44 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	3	9	12	13	30	30	6	1	0.5	11	3
2	.5	3	10	13	15	23	26	5	1	.5	264	2
3	.5	4	10	12	15	21	23	5	1	166	966	2
4	.5	4	9	12	15	21	22	5	1	83	37	2
5	.5	4	8	12	19	20	1,150	4	1	4	367	2
6	.5	4	8	10	16	20	320	3	1	1	296	2
7	.5	4	7	10	14	20	110	4	1	1	773	4
8	.5	5	8	11	16	21	90	4	1	1	59	3
9	.5	5	8	12	28	22	50	4	1	.5	31	3
10	.5	4	8	12	29	22	30	3	1	.5	30	2
11	.5	4	8	12	28	25	24	3	1	.5	15	4
12	.5	5	7	12	26	38	21	3	1	1	12	8
13	.5	7	7	9	28	37	17	2	1	.5	14	3
14	.5	6	6	10	70	36	15	4	.5	.5	156	3
15	.5	6	7	13	90	35	14	6	.5	.5	98	2
16	.5	6	8	15	130	36	12	4	.5	.5	10	2
17	.5	6	9	16	130	36	11	3	.5	.5	8	1
18	.5	7	9	15	120	34	10	3	.5	.5	7	1
19	1	8	14	14	120	34	9	2	.5	.5	6	2
20	1	8	27	14	85	33	8	2	.5	.5	6	2
21	1	8	37	15	79	29	8	2	.5	.5	6	2
22	1	9	14	16	66	30	8	2	1	.5	6	2
23	2	9	12	18	57	29	8	2	1	152	9	2
24	2	10	12	18	66	25	8	2	1	38	6	2
25	2	10	12	16	62	22	6	2	.5	2	11	4
26	3	10	12	15	51	20	6	2	.5	1	13	4
27	3	9	12	15	44	17	6	1	.5	1	6	3
28	3	8	10	15	35	18	7	1	.5	.5	12	3
29	3	8	11	15	-	21	7	1	.5	.5	5	3
30	3	8	10	15	-	37	6	1	.5	.5	4	3
31	3	-	10	15	-	33	-	1	-	.5	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	37.5	3	0.5	1.21	74
November	192	10	3	6.4	381
December	339	37	6	10.9	672
Calendar year 1938	7,791.5	2,610	0	21.3	15,450
January	419	18	9	13.5	831
February	1,467	130	13	52.4	2,910
March	845	38	17	27.3	1,680
April	2,062	1,150	6	68.7	4,090
May	92	6	1	3.0	182
June	23.0	1	.5	.77	46
July	460.5	166	.5	14.9	913
August	3,250	966	4	105	6,450
September	81	8	1	2.7	161
Water year 1938-39	9,268.0	1,150	.5	25.4	18,390

Peak discharge.- Apr. 5 (4:20 a.m.) 3,160 sec.-ft.; Aug. 3 (6:20 p.m.) 10,200 sec.-ft.

San Pedro River at Palominas, Ariz.

Location.- Water-stage recorder, lat. 31°23', long. 110°07', in SE¼ sec. 33, T. 23 S., R. 22 E., at bridge half a mile east of Palominas, 4 miles downstream from international boundary, and 12 miles southwest of Bisbee.

Drainage area.- 949 square miles.

Records available.- May 1930 to October 1933, May 1935 to September 1939.

Extremes.- Maximum discharge during year, 7,500 second-feet Aug. 6 (gage height, 8.05 feet), by slope-area method; minimum, 0.2 second-foot June 15.

1930-39: Maximum discharge, 13,500 second-feet Sept. 10, 1936 (gage height, 9.95 feet, present datum), from rating curve extended above 8,000 second-feet by velocity-area method; no flow June 29, July 1, 1930.

Greatest flood known occurred Sept. 28, 1926 (gage height, about 20.0 feet, present datum; discharge not determined).

Remarks.- Records good except those for period of missing gage heights, Dec. 21-27 (computed on basis of partial gage-height record, weather records, and records for station at Charleston), and those for period of unstable control, July 3 to Sept. 26, which are fair. No diversions above station in Arizona and probably none in Mexico.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	5	6	8	5	4	5	3	0.9	0.4	463	9
2	6	5	6	8	5	3	5	3	.9	.4	591	6
3	6	5	6	8	5	3	5	3	.9	4	1,360	197
4	5	5	6	8	4	4	5	3	.8	84	192	628
5	5	5	7	8	8	4	5	2	.7	15	1,050	69
6	5	5	7	9	6	4	4	2	.6	6	2,610	36
7	4	5	7	12	5	3	4	2	.6	3	697	25
8	4	5	7	11	5	4	4	2	.6	3	213	35
9	5	5	6	9	5	4	4	2	.5	3	98	23
10	5	5	7	9	5	4	3	2	.5	2	88	15
11	5	5	7	9	4	3	3	2	.4	2	227	13
12	5	5	8	9	4	4	3	2	.4	1	68	12
13	5	6	7	8	4	4	3	2	.4	1	60	11
14	5	6	7	8	4	4	3	2	.4	1	74	10
15	5	6	9	8	5	4	3	2	.3	14	260	10
16	5	6	18	8	4	4	3	2	.3	249	94	46
17	5	6	14	8	4	4	3	2	.3	551	40	151
18	5	6	10	8	5	4	3	2	.3	134	30	17
19	5	6	152	8	8	4	3	2	.4	29	25	8
20	5	6	319	8	6	4	3	2	.3	141	30	7
21	5	6	45	8	5	4	3	1	.3	147	25	7
22	5	6	20	8	5	5	3	1	.3	1,030	25	7
23	5	6	13	8	4	4	3	1	.3	51	20	7
24	5	5	11	7	4	4	3	1	1	13	20	7
25	5	6	10	7	4	4	3	1	.9	9	20	7
26	5	6	9	7	4	4	3	1	.7	22	52	7
27	6	6	8	7	3	4	3	1	.5	170	25	6
28	6	6	8	7	4	4	3	1	.4	54	95	6
29	6	6	8	6	-	5	3	1	.4	44	25	6
30	5	6	8	7	-	5	3	1	.4	14	129	6
31	5	-	8	6	-	5	-	1	-	15	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	159	6	4	5.1	315
November	167	6	5	5.6	331
December	764	319	6	24.6	1,520
Calendar year 1938	9,071.7	1,490	.4	24.9	18,000
January	250	12	6	8.1	496
February	134	8	3	4.8	266
March	124	5	3	4.0	246
April	104	5	3	3.5	206
May	55	3	1	1.8	109
June	15.7	1	.3	.52	31
July	2,812.8	1,030	.4	90.7	5,580
August	8,724	2,610	18	281	17,300
September	1,394	628	6	46.5	2,760
Water year 1938-39	14,703.5	2,610	.3	40.3	29,160

Peak discharge.- July 22 (3:30 a.m.) 4,230 sec.-ft.; Aug. 3 (3:30 a.m.) 4,960 sec.-ft.; Aug. 5 (11:30 p.m.) 5,440 sec.-ft.; Aug. 6 (8:15 p.m.) 7,500 sec.-ft.

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San Pedro River at Charleston, Ariz.

Location.- Water-stage recorder, lat. 31°39', long. 110°11', in SW¼ sec. 35, T. 20 S., R. 21 E., unsurveyed, in Spanish land grant of San Juan de las Boquillas y Nogales, at Charleston dam site, three-quarters of a mile north of Charleston and 6 miles upstream from Babocomari River. Zero of gage is 3,923.0 feet above mean sea level (from Southern Pacific Railroad bench mark).

Drainage area.- 1,440 square miles.

Records available.- May 1928 to December 1933 and May 1935 to September 1939. 1904 to 1906 and 1910 to 1928, at several sites upstream or downstream.

Average discharge.- 22 years (1915-33, 1935-39), 72.1 second-feet.

Extremes.- Maximum discharge during year, 9,370 second-feet Aug. 7 (gage height, 8.45 feet); minimum, 1 second-foot June 27.

1928-39: Maximum discharge, 24,500 second-feet Aug. 9, 1931 (gage height, 12.0 feet), from rating curve extended above 8,000 second-feet on basis of slope-area measurement at 98,000 second-feet; minimum, that of June 27, 1939.

Maximum discharge known, about 98,000 second-feet Sept. 28, 1926 (gage height, 21.9 feet, from floodmarks), by slope-area measurement.

Remarks.- Records good except those for period of unstable control, July 3 to Sept. 24, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	14	16	22	17	16	10	12	4	3	611	24
2	14	13	15	22	15	12	10	11	4	3	1,070	20
3	15	13	16	20	17	11	9	10	4	60	1,760	132
4	14	11	16	22	18	16	10	9	4	38	454	623
5	11	12	16	19	20	17	13	10	4	38	977	158
6	11	15	16	20	22	16	12	10	5	17	3,080	48
7	10	16	15	22	15	19	10	10	5	13	2,210	216
8	11	16	14	22	12	17	10	11	4	11	572	363
9	12	16	16	19	13	18	10	8	4	11	362	101
10	12	17	16	20	18	15	10	7	3	8	210	32
11	13	16	16	19	17	17	10	6	3	8	660	36
12	14	17	16	20	22	17	10	6	3	8	213	24
13	13	20	16	22	14	17	9	6	3	8	254	20
14	13	17	16	19	16	17	10	6	3	8	118	20
15	12	17	16	17	17	16	11	6	2	7	244	22
16	11	16	17	16	13	16	11	6	3	230	178	281
17	11	16	18	16	15	16	10	6	3	421	98	864
18	12	16	16	15	16	17	10	6	3	331	52	56
19	13	15	32	16	15	17	10	5	3	161	38	28
20	12	15	625	16	16	18	10	5	3	172	98	24
21	11	17	57	14	16	16	10	5	3	242	34	22
22	12	16	32	18	16	16	10	6	3	1,110	28	20
23	12	16	22	16	13	12	10	6	2	156	44	19
24	12	16	20	15	11	11	11	5	2	40	58	18
25	11	16	19	15	10	11	10	5	3	26	28	18
26	11	16	18	15	13	10	10	5	2	32	50	18
27	12	16	18	14	13	10	10	4	2	207	40	18
28	14	17	22	17	13	10	10	4	2	244	106	18
29	15	17	24	16	-	8	11	4	2	76	56	18
30	13	16	26	17	-	10	13	5	2	60	93	17
31	13	-	26	16	-	11	-	4	-	96	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	383	15	10	12.4	760
November	471	20	11	15.7	934
December	1,228	625	14	39.6	2,440
Calendar year 1938	17,271	2,290	3	47.3	34,250
January	555	22	14	17.9	1,100
February	433	22	10	15.5	859
March	450	19	8	14.5	893
April	310	13	9	10.3	615
May	209	12	4	6.7	415
June	93	5	2	3.1	184
July	3,885	1,110	3	125	7,710
August	13,811	3,080	28	446	27,390
September	3,278	864	17	109	6,500
Water year 1938-39	25,106	3,080	2	68.8	49,800

Peak discharge.- July 22 (6:35 a.m.) 4,360 sec.-ft.; Aug. 1 (8:20 p.m.) 3,870 sec.-ft.; Aug. 3 (7:00 a.m.) 6,480 sec.-ft.; Aug. 5 (7:00 p.m.) 3,650 sec.-ft.; Aug. 6 (3:35 a.m.) 6,160 sec.-ft.; Aug. 7 (12:30 a.m.) 9,370 sec.-ft.

San Pedro River near Mammoth, Ariz.

Location.- Water-stage recorder, lat. 32°44', long. 110°39', in NE¼ sec. 18, T. 8 S., R. 17 E., at highway bridge 1½ miles north of Mammoth. Zero of gage is 2,307.06 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,800 square miles.

Records available.- May 1931 to September 1939.

Extremes.- Maximum discharge during year, 9,920 second-feet Aug. 2 (gage height, 9.65 feet); maximum gage height, 9.85 feet Aug. 6; no flow during part of year.

1931-39: Maximum discharge, 19,400 second-feet Oct. 2, 1931 (gage height, 11.1 feet), from rating curve extended above 7,000 second-feet on basis of peak discharge at Charleston and on Gila River at Kelvin.

Greatest flood known occurred Sept. 28, 1926 (discharge, 90,000 second-feet, estimated on basis of peak discharge of San Pedro River at Charleston and of Gila River at Kelvin.)

Remarks.- Records fair except those for periods of missing gage heights, Apr. 29 (computed on basis of high-water mark, zero-flow point, and information from local residents) and Sept. 4-6 (computed on basis of partial gage-height record and records for Gila River at Kelvin), and those for periods of unstable control, July 29-31, Aug. 1, 14-17, Sept. 11-19, all of which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0	0		0			0	90	26
2			0	0	0		0			9	1,990	16
3			0	0	0		0			5	3,640	32
4			0	0	0		0			0	1,310	230
5			0	0	6		0			1	813	350
6			0	2	5		0			0	2,980	300
7			0	5	4		0			0	4,950	131
8			0	0	4		0			0	1,130	143
9			0	0	6		0			0	718	186
10			0	0	3		0			0	241	45
11			0	0	2		0			0	102	806
12			0	0	2		0			0	324	279
13			0	0	1		0			0	117	143
14			0	0	1		0			0	300	47
15			0	0	0		0			0	400	9
16			0	0	1		0			0	300	26
17			0	0	1		0			0	80	520
18			0	0	3		0			161	15	316
19			0	0	2		0			1,710	10	82
20			0	0	1		0			173	7	19
21			152	0	0		0			317	8	15
22			66	0	0		0			64	1	9
23			44	0	0		0			774	8	1
24			12	0	0		0			135	37	0
25			4	0	0		0			82	40	0
26			4	0	0		0			57	6	0
27			2	0	0		0			21	3	0
28			0	0	0		0			40	2	0
29			0	0	-		500			70	1	0
30			0	0	-		0			100	7	0
31			0	0	-		-			40	22	-

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	284	152	0	9.2	563
Calendar year 1938	15,531	2,070	0	42.6	30,800
January	7	5	0	.2	14
February	42	6	0	1.5	83
March	0	0	0	0	0
April	500	500	0	16.7	992
May	0	0	0	0	0
June	0	0	0	0	0
July	3,759	1,710	0	121	7,460
August	19,852	4,950	1	634	38,980
September	3,731	806	0	124	7,400
Water year 1938-39	27,975	4,950	0	76.6	55,490

Peak discharge.- July 19 (7:50 a.m.) 8,660 sec.-ft.; Aug. 2 (9 a.m.) 9,920 sec.-ft.; Aug. 3 (8:30 a.m.) 9,500 sec.-ft.; Aug. 6 (5 a.m.) 9,710 sec.-ft.; Aug. 7 (12:55 a.m.) 9,290 sec.-ft.; Aug. 7 (12:50 p.m.) 9,080 sec.-ft.

San Pedro River at Winkelman, Ariz.

Location.- Lat. 32°59', long. 110°47', in SW¼ sec. 23, T. 5 S., R. 15 E., at mouth, 1 mile west of Winkelman.

Drainage area.- 4,680 square miles.

Records available.- April to August 1890 (monthly discharge only, published as San Pedro River at Dudleyville, Ariz.), December 1928 to September 1939 (discharge measurements only, of which those for October 1933 to September 1934 were published as miscellaneous measurements).

Remarks.- Diversions above station for irrigation.

Discharge measurements, in second-feet, water year October 1938 to September 1939

Oct. 3	0.75	Dec. 20	93.0	Mar. 1	5.51	June 2	0
17	.75	Jan. 3	16.1	15	2.33	16	0
Nov. 1	.6	11	13.1	Apr. 3	7.20	July 1	0
15	4.00	20	14.3	18	1.78	Aug. 29	90.5
30	1.55	31	9.12	May 2	1.79	Sept. 1	7
Dec. 19	15.7	Feb. 14	26.2	16	.5	20	26.6

Aravaipa Creek near Feldman, Ariz.

Location.- Water-stage recorder, lat. 32°50', long. 110°38', in NW¼ sec. 9, T. 7 S., R. 17 E., 6 miles upstream from mouth and 6 miles southeast of Feldman.

Drainage area.- 535 square miles.

Records available.- May 1931 to September 1939. April 1919 to September 1921, at site 6 miles downstream.

Extremes.- Maximum discharge during year, 6,450 second-feet Aug. 5 (gage height, 9.10 feet); minimum, 1 second-foot June 18-24, 29.
1931-39: Maximum discharge, 10,000 second-feet Aug. 15, 1935 (gage height, 10.9 feet), from rating curve extended above 3,000 second-feet; minimum, 1 second-foot several days in each of several years.
Greatest flood known, 20,000 second-feet Aug. 2, 1919 at former site.

Remarks.- Records good except those for periods of unstable control, Aug. 9-31, Sept. 7-18, which are poor. Diversions above and below station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	7	9	11	12	12	13	8	3	2	15	3
2	5	7	9	10	12	11	13	8	3	2	24	4
3	6	6	9	10	10	11	12	7	3	6	131	4
4	6	6	9	10	12	12	13	6	3	78	21	3
5	4	7	9	10	24	12	11	5	2	8	597	2
6	4	8	9	11	16	11	9	5	2	5	49	3
7	5	10	9	10	15	11	10	5	2	4	152	8
8	6	10	9	10	15	10	10	5	2	4	17	142
9	6	10	10	10	20	11	9	5	2	5	56	9
10	6	10	10	10	20	11	9	6	2	4	45	6
11	7	10	11	11	21	11	9	5	2	3	21	144
12	7	10	11	11	27	9	9	4	2	2	7	16
13	7	11	11	11	26	9	9	5	2	2	6	3
14	7	11	12	10	24	11	9	4	2	2	6	3
15	7	11	13	10	22	10	9	4	2	2	32	3
16	5	11	15	10	22	9	9	4	2	2	9	3
17	4	11	13	9	21	9	8	4	2	2	7	35
18	6	11	12	8	20	10	7	4	1	3	6	8
19	7	12	20	11	19	11	7	4	1	3	4	4
20	7	11	92	11	19	12	7	4	1	2	4	2
21	7	11	23	12	17	12	7	4	1	7	4	3
22	7	11	20	13	17	12	7	4	1	18	6	3
23	7	10	19	11	16	11	8	3	1	12	28	4
24	6	10	19	12	14	11	8	3	1	9	81	4
25	7	10	15	12	14	11	7	3	2	9	7	4
26	7	9	14	12	13	10	8	3	2	8	4	4
27	7	9	14	12	14	13	8	3	3	8	4	4
28	7	9	14	11	13	14	9	3	2	16	11	4
29	7	9	14	12	-	13	10	3	1	16	113	4
30	7	9	13	12	-	13	9	3	2	10	11	5
31	7	-	12	12	-	13	-	3	-	7	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	192	7	4	6.2	381
November	287	12	6	9.6	569
December	479	92	9	15.5	950
Calendar year 1938	6,184	1,280	2	16.9	12,270
January	336	13	8	10.8	664
February	495	27	10	17.7	982
March	346	14	9	11.2	686
April	273	13	7	9.1	541
May	137	8	3	4.4	272
June	57	3	1	1.9	113
July	261	78	2	8.4	518
August	1,482	597	4	47.8	2,940
September	443	144	2	14.8	879
Water year 1938-39	4,787	597	1	13.1	9,500

Peak discharge.- Aug. 5 (9:10 p.m.) 6,450 sec.-ft.

Florence-Casa Grande canal near Florence, Ariz.

Location.- Water-stage recorder and Parshall flume, lat. 33°05', long. 111°18', in sec. 11, T. 4 S., R. 10 E., at China Wash, 3 miles downstream from Ashurst-Hayden Dam and head and 6⅛ miles northeast of Florence. Prior to Jan. 12, 1937, recording gage at site 2¾ miles upstream.

Records available.- January 1928 to September 1939.

Remarks.- Records given herein are those of discharge at the gaging station less flow pumped from wells into canal in reach between head and gaging station. Records represent flow diverted from Gila River at Ashurst-Hayden Dam except for water wasted by sluicing or lost from canal between head and gaging station. All sluicing is done above station. Discharge at gaging station computed on basis of gage heights and rating for Parshall flume, that of pumps on basis of records of pumpage.

Records prior to Jan. 12, 1937, collected at former site 2¾ miles upstream (affected by variable stage-discharge relation) or computed from a summation of records of water diverted to laterals from main canal, adjusted for estimated losses in transit between head and laterals and for gains by pumping. Some minor sluicing was done below this site.

Canal diverts water from left bank of Gila River at Ashurst-Hayden Dam in sec. 8, T. 4 S., R. 11 E., for irrigation of lands under San Carlos Project. Most of the diverted water passed through San Carlos Reservoir and was released from Coolidge Dam; the remainder originated below Coolidge Dam, mostly from San Pedro River Basin. Records furnished by Office of Indian Affairs; records of daily diversion are available in files of that organization at Coolidge, Ariz.

Monthly diversion, in acre-feet, water years 1936-37, 1937-38, 1938-39

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1936-37	17,500	9,650	6,950	8,230	9,860	17,120	26,400	33,750	32,340	37,510	53,520	30,200
1937-38	22,810	15,760	10,790	10,550	8,630	14,160	19,410	18,610	17,880	12,350	20,540	16,830
1938-39	5,380	553	6,810	6,210	6,820	12,540	19,540	13,040	4,510	2,640	21,540	14,530

Yearly diversion, in acre-feet, 1928-39

Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year
1928	-	76,270	1932	268,400	282,100	1936	245,600	243,700
1929	57,040	75,190	1933	326,700	333,400	1937	285,000	302,500
1930	221,500	221,400	1934	205,700	188,300	1938	188,300	156,200
1931	240,400	232,900	1935	231,300	243,200	1939	114,100	-

Queen Creek near Florence Junction, Ariz.

Location.- Water-stage recorder, lat. 33°17'15", long. 111°19'30", in SW¼NE¼ sec. 4, T. 2 S., R. 10 E., at highway bridge three-quarters of a mile downstream from mouth of Whitlow canyon, 1¾ miles north of Florence Junction, and 5¼ miles downstream from Whitlow dam site. Zero of gage is 1,918.77 feet above mean sea level (unadjusted).

Drainage area.- 191 square miles.

Records available.- August to September 1938. January 1896 to August 1899 and February 1915 to September 1920, at several sites at or near Whitlow dam site (drainage area, 140 square miles).

Extremes.- Maximum discharge during year, 13,200 second-feet Aug. 7 (gage height, 10.6 feet, from floodmarks), by slope-area method; no flow most of year.
Maximum discharge observed at Whitlow dam site, 10,000 second-feet Aug. 1, 1919.

Remarks.- Records good except those for period of estimated gage height graph Aug. 6, 7, Sept. 10, 17, which are poor. Small diversions upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1											-	0
2											-	0
3											-	0
4											-	0
5											-	0
6											50	0
7											1,950	50
8											-	0
9											-	23
10											-	0
11											-	95
12											-	24
13											-	5
14											-	0
15											-	0
16											-	45
17											-	20
18											-	0
19											-	0
20											-	0
21											-	0
22											-	0
23											0	0
24											0	0
25											0	0
26											0	0
27											0	0
28											5	0
29											0	0
30											0	0
31											0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
August 23-31	5	5	0	0.6	9.9
September	262	95	0	8.7	520
The period	-	-	-	-	-

Peak discharge.- Aug. 7 (3 a.m.) 13,200 sec.-ft.; Sept. 7 (1 a.m.) 1,120 sec.-ft.; Sept. 11 (9:15 p.m.) 1,520 sec.-ft.

Santa Cruz River near Nogales, Ariz.

Location.- Water-stage recorder, lat. 31°21', long. 110°51', in NW¼ sec. 18, T. 24 S., R. 15 E., unsurveyed, in Spanish land grant of Buena Vista, three-quarters of a mile downstream from international boundary and 5½ miles east of Nogales.

Drainage area.- 515 square miles.

Records available.- May 1930 to December 1933, July 1935 to September 1939. March to November 1907 and April 1909 to June 1920 (fragmentary), at site 5¾ miles downstream. April 1921 to June 1922, at site 6 miles downstream.

Extremes.- Maximum discharge during year, 7,010 second-feet Aug. 13 (gage height, 10.3 feet), from rating curve extended above 3,000 second-feet; no flow in June or parts of three other months.

1930-39: Maximum discharge, 14,000 second-feet Aug. 31, 1935 (gage height, 12.3 feet), from rating curve extended above 3,000 second-feet; no flow for several days or parts of days each year.

Remarks.- Records good except those for periods of unstable control, July 1-4, 25-31, Aug. 16-27, Sept. 10-20, and those above 200 second-feet, which are fair. Several diversions for irrigation above station. See table of miscellaneous measurements for record of flow of Buena Vista canal, which diverts above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	0.5	0.9	7	4	6	3	0.3		5	14	26
2	1	.5	.7	7	5	8	4	.3		0	284	50
3	1	.5	.6	7	6	7	5	.3		.3	443	336
4	.9	.5	.6	7	7	6	3	.2		3	61	136
5	.9	.5	.6	7	9	6	3	.2		0	413	97
6	.9	.4	.6	9	9	5	2	.2		1	1,130	132
7	.7	.4	.6	11	8	3	1	.2		5	362	39
8	.9	.5	.5	10	8	2	1	.2		2	230	59
9	1	.5	.5	10	8	2	1	.2		2	260	44
10	1	.5	.5	10	8	2	1	.1		0	161	85
11	1	.5	.6	10	8	2	1	.1		0	184	75
12	1	.5	1	10	8	2	.5	.1		0	346	49
13	1	.5	2	9	8	2	.4	.1		0	553	30
14	1	.6	2	9	8	2	.3	.1		10	170	28
15	.9	.7	2	7	8	2	.3	.1		0	151	43
16	.9	.7	.9	7	8	2	.3	.1		0	72	48
17	.9	.7	.7	6	9	2	.2	.1		0	39	31
18	.7	.7	.9	4	12	2	.2	.1		311	25	20
19	1	.7	3	4	12	2	.1	.1		30	26	15
20	1	.7	8	5	12	2	.1	.1		56	38	12
21	1	.9	8	5	12	2	0	.1		306	18	10
22	.9	.9	5	5	10	2	0	.1		274	48	6
23	.9	.9	5	5	10	2	0	0		36	115	5
24	.7	.9	5	5	10	2	.1	0		9	43	6
25	.6	.9	5	4	10	2	.2	0		121	49	7
26	.7	.9	6	4	10	2	.2	0		58	49	7
27	.7	.9	8	4	9	2	.3	0		14	26	7
28	.6	.9	8	4	9	3	.3	0		13	261	7
29	.6	.9	8	4	-	3	.3	0		9	179	6
30	.6	.9	8	4	-	4	.3	0		30	51	6
31	.5	-	8	3	-	4	-	0		13	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	26.5	1	0.5	0.85	53
November	20.1	.9	.4	.67	40
December	101.2	8	.5	3.26	201
Calendar year 1938	3,545.9	305	0	9.71	7,040
January	203	11	3	6.5	403
February	245	12	4	8.8	486
March	97	8	2	3.1	192
April	29.1	5	0	.97	58
May	3.4	.3	0	.11	6.7
June	0	0	0	0	0
July	1,305.3	311	0	42.1	2,590
August	5,830	1,130	14	188	11,560
September	1,422	336	5	47.4	2,820
Water year 1938-39	9,282.6	1,130	0	25.4	18,410

Peak discharge.- July 21 (11:20 p.m.) 3,020 sec.-ft.; Aug. 2 (3:15 a.m.) 2,490 sec.-ft.; Aug. 5 (11:45 p.m.) 2,270 sec.-ft.; Aug. 6 (10:15 p.m.) 4,030 sec.-ft.; Aug. 13 (5:00 p.m.) 7,010 sec.-ft.; Aug. 28 (6:45 p.m.) 2,490 sec.-ft.

Santa Cruz River at Tucson, Ariz.

Location.- Water-stage recorder, lat. 32°13', long. 110°59', in NE¼ sec. 14, T. 14 S., R. 13 E., at Congress Street Bridge in Tucson. Zero of gage is 2,327.16 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,140 square miles.

Records available.- October 1905 to September 1939.

Average discharge.- 27 years (1912-39), 23.3 second-feet.

Extremes.- Maximum discharge during year, 7,050 second-feet Aug. 3 (gage height, 12.32 feet); no flow during greater part of year.
1905-39: Maximum discharge, about 15,000 second-feet Dec. 23, 1914, from rating curve extended above 9,000 second-feet; no flow during greater part of each year.

Remarks.- Records good above 300 second-feet, fair between 100 and 300 second-feet, and poor below 100 second-feet. Diversions above station for irrigation. During the year 36 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0					0	118	0
2					0					5	831	0
3					0					22	2,110	8
4					0					159	87	123
5					1					0	756	6
6					0					1	1,170	2
7					0					0	2,420	69
8					0					0	97	55
9					0					0	209	17
10					0					0	32	11
11					0					0	83	192
12					0					0	2	22
13					0					0	71	0
14					0					0	1,020	0
15					0					0	4	0
16					0					215	0	0
17					0					0	4	0
18					0					36	0	0
19					0					32	0	0
20					0					8	3	0
21					0					26	16	0
22					0					333	0	0
23					0					176	0	0
24					0					0	0	0
25					0					4	0	0
26					0					3	5	0
27					0					3	23	0
28					0					10	336	0
29					-					0	1,100	0
30					-					280	3	0
31					-					0	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 1938	3,784	1,910	0	10.4	7,510
January	0	0	0	0	0
February	1	1	0	.04	2.0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	1,313	333	0	42.4	2,600
August	10,500	2,420	0	339	20,830
September	505	192	0	16.8	1,000
Water year 1938-39	12,319	2,420	0	33.8	24,430

Peak discharge.- Aug. 2 (4:30 a.m.) 3,450 sec.-ft.; Aug. 3 (2:10 a.m.) 7,050 sec.-ft.; Aug. 5 (11:20 p.m.) 5,300 sec.-ft.; Aug. 7 (11:15 a.m.) 6,650 sec.-ft.; Aug. 14 (7 a.m.) 3.560 sec.-ft.; Aug. 29 (1:50 a.m.) 3,730 sec.-ft.

Sonoita Creek near Patagonia, Ariz.

Location.- Water-stage recorder, lat. 31°30', long. 110°50', in sec. 20, T. 22 S., R. 15 E., unsurveyed, in Spanish land grant of San Jose de Sonoita, 5½ miles downstream from Patagonia.

Drainage area.- 210 square miles.

Records available.- June 1930 to December 1933, July 1935 to September 1939.

Extremes.- Maximum discharge during year, 2,340 second-feet Aug. 8 (gage height, 8.4 feet); minimum, 0.2 second-foot July 1-3.
1930-39: Maximum discharge, about 20,000 second-feet sometime in August, 1934 (gage height, 15.2 feet, from floodmarks), by slope-area measurement; minimum, 0.2 second-foot in 1933, 1938, and 1939.

Remarks.- Records good except those for period of unstable control, July 30 to Sept. 12, which are fair below 100 second-feet and poor above. Small diversions above station for irrigation and mining.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	2	2	3	4	3	3	2	0.6	0.2	5	2
2	.7	2	2	3	4	3	3	2	.6	.2	180	23
3	.7	2	2	3	4	3	3	2	.6	1	20	90
4	.8	2	2	3	4	3	3	2	.6	1	100	9
5	.8	2	2	3	4	3	3	1	.6	.4	65	7
6	.9	2	2	3	4	3	3	1	.5	.3	110	48
7	.9	2	2	3	3	3	3	1	.5	.3	130	31
8	.9	2	2	3	3	3	3	1	.5	.3	200	20
9	1	2	2	3	3	3	2	1	.5	.3	78	35
10	1	2	2	3	3	3	2	1	.5	.3	30	11
11	1	2	2	3	3	3	2	1	.4	.3	111	34
12	1	2	2	3	3	3	2	1	.4	.3	32	11
13	1	2	2	2	3	3	2	1	.4	.3	20	9
14	1	2	2	2	3	3	2	1	.4	.3	21	9
15	1	2	2	3	3	3	2	1	.4	.3	10	8
16	1	2	3	3	4	3	2	1	.4	.3	14	8
17	1	2	3	3	4	3	2	.9	.4	1	5	7
18	1	2	3	3	4	3	2	.8	.4	1	4	6
19	1	2	3	3	3	3	2	.8	.4	.5	58	5
20	1	3	3	3	3	3	2	.8	.4	6	8	4
21	1	3	3	3	3	3	2	.8	.4	2	7	4
22	1	3	3	3	3	3	2	.8	.3	3	7	3
23	1	3	3	3	3	3	2	.7	.3	1	6	3
24	1	3	3	3	3	3	2	.7	.3	3	49	3
25	1	3	3	3	3	3	2	.7	.3	1	5	3
26	2	3	3	3	3	3	2	.7	.3	1	5	2
27	2	3	3	3	3	3	2	.7	.3	2	9	2
28	1	3	3	3	3	3	2	.7	.2	3	21	2
29	1	3	3	3	-	3	2	.7	.2	2	6	2
30	2	2	3	3	-	3	2	.6	.2	94	4	1
31	2	-	3	4	-	3	-	.6	-	2	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33.5	2	0.7	1.08	66
November	70	3	2	2.3	139
December	78	3	2	2.5	155
Calendar year 1938	1,486.1	187	.2	4.07	2,950
January	92	4	2	3.0	182
February	93	4	3	3.3	184
March	93	3	3	3.0	184
April	68	3	2	2.3	135
May	31.0	2	.6	1.00	61
June	12.3	.6	.2	.41	24
July	128.6	94	.2	4.15	255
August	1,322	200	2	42.6	2,620
September	402	90	1	13.4	797
Water year 1938-39	2,423.4	200	.2	6.64	4,800

Peak discharge.- Aug. 2 (10:20 p.m.) 1,990 sec.-ft.; Aug. 7 (7:00 a.m.) 742 sec.-ft.; Aug. 8 (7:40 p.m.) 2,340 sec.-ft.

Rillito Creek near Tucson, Ariz.

Location.- Water-stage recorder, lat. 32°18', long. 110°59', in sec. 23, T. 13 S., R. 13 E., at Oracle Road Bridge, 4 miles upstream from confluence with Santa Cruz River and 4 miles north of Tucson. Zero of gage is 2,290.78 feet above mean sea level (general adjustment of 1929).

Drainage area.- 903 square miles.

Records available.- January 1911 to September 1939.

Average discharge.- 26 years (1913-39), 25.9 second-feet.

Extremes.- Maximum discharge during year, 9,710 second-feet Aug. 3 (gage height, 9.45 feet); no flow during most of year.
1911-39: Maximum discharge, 24,000 second-feet Sept. 23, 1929, from rating curve extended above 5,000 second-feet by slope-area measurement; no flow during most of each year.

Remarks.- Records poor. Discharge for Sept. 16, 17 computed on basis of weather records and engineers' field estimates. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										0	0	0
2										670	430	0
3										60	1,890	2
4										0	2	20
5										0	15	0
6										0	60	0
7										0	25	0
8										0	0	0
9										0	10	0
10										0	0	0
11										0	0	0
12										0	0	0
13										0	0	0
14										0	80	0
15										0	0	0
16										35	0	1
17										0	20	1
18										0	0	0
19										0	0	0
20										0	0	0
21										0	0	0
22										10	0	0
23										100	0	0
24										0	0	0
25										0	0	0
26										0	0	0
27										0	0	0
28										0	30	0
29										0	5	0
30										0	0	0
31										0	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 1938	1,256	783	0	3.4	2,500
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	875	670	0	28.2	1,740
August	2,567	1,890	0	82.8	5,090
September	24	20	0	.8	48
Water year 1938-39	3,466	1,890	0	9.5	6,880

Peak discharge.- July 2 (7:30 p.m.) 6,100 sec.-ft.; Aug. 2 (2:00 a.m.) 4,730 sec.-ft.; Aug. 3 (6:00 a.m.) 9,710 sec.-ft.

Sabino Creek near Tucson, Ariz.

Location.- Water-stage recorder and concrete control, lat. 32°19' (revised), long. 110° 49' (revised), in E½ sec. 9, T. 13 S., R. 15 E., half a mile north of Coronado National Forest boundary and 12 miles northeast of Tucson.

Drainage area.- 35.0 square miles.

Records available.- June 1932 to September 1939.

Extremes.- Maximum discharge during year, 385 second-feet Aug. 6 (gage height, 3.96 feet); no flow in part of June and part of July.
1932-39: Maximum discharge, 4,100 second-feet Mar. 3, 1938 (gage height, 7.13 feet), from rating curve for spillway of dam, 1,000 feet downstream from gage, extended logarithmically above 2,500 second-feet; no flow at times during several years.

Remarks.- Records excellent. No diversions above station. Slight regulation by several small detention dams constructed to provide recreational lakes.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.04	0.02	0.07	0.6	0.4	5.7	8.8	0.4	0.01	0	0.1	1.4
2	.04	.01	.07	.6	.5	5.0	7.3	.4	.01	0	44	1.1
3	.04	.01	.05	.6	.5	4.5	7.0	.3	.01	.04	8.2	1.0
4	.04	.01	.05	.6	.6	4.7	7.3	.3	.01	.7	3.4	2.6
5	.04	.01	.05	.5	2.2	4.7	13	.2	.01	.2	7.5	1.6
6	.05	.01	.05	.6	2.0	4.7	8.8	.2	.01	.09	108	1.2
7	.05	.01	.05	.7	1.4	5.3	6.6	.1	.01	.05	77	1.0
8	.05	.01	.05	.8	1.4	6.0	5.7	.1	.01	.04	22	.8
9	.07	.01	.04	.6	4.7	6.3	4.5	.1	0	.03	26	.7
10	.05	.01	.04	.6	4.2	7.3	4.2	.09	0	.03	21	.5
11	.05	.03	.04	.5	3.4	13	3.7	.09	0	.02	14	.7
12	.05	.02	.04	.5	3.2	11	3.2	.07	0	.01	8.4	.9
13	.04	.02	.04	.5	5.3	10	2.7	.07	0	.01	5.7	.7
14	.04	.02	.04	.5	7.7	10	2.5	.05	0	.01	3.9	.5
15	.03	.02	.03	.4	8.4	10	2.3	.05	0	.01	3.2	.4
16	.04	.02	.04	.4	17	11	2.2	.05	0	.01	2.5	.3
17	.04	.02	.03	.4	12	11	2.0	.05	0	.01	2.3	.1
18	.03	.02	.01	.4	9.6	11	1.7	.04	0	.01	1.6	.1
19	.04	.02	.04	.4	7.3	11	1.6	.04	0	.01	1.3	.1
20	.04	.02	44	.4	9.2	10	1.4	.03	0	.02	1.1	.07
21	.03	.03	20	.4	9.6	10	1.3	.02	0	2.5	1.0	.05
22	.03	.03	8.0	.5	9.6	9.2	1.1	.02	0	.2	1.2	.05
23	.01	.04	4.2	.5	13	8.0	1.0	.02	0	.2	6.8	.04
24	.01	.03	2.5	.4	16	7.0	.9	.02	0	1.6	6.3	.04
25	.01	.04	1.8	.3	14	6.0	.8	.01	0	1.3	10	.04
26	.02	.05	1.4	.3	11	5.0	.7	.01	0	.7	4.7	.03
27	.02	.05	1.3	.3	9.2	4.7	.7	.01	0	.4	2.7	.03
28	.01	.05	1.1	.3	7.0	6.0	.7	.01	0	.4	1.7	.03
29	.01	.05	.9	.2	-	11	.6	.01	0	.3	2.2	.03
30	.01	.05	.8	.3	-	14	.5	.01	0	.2	2.3	.03
31	.01	-	.7	.3	-	11	-	.01	-	.1	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1.04	0.07	0.01	0.034	2.1
November	.74	.05	.01	.025	1.5
December	87.53	44	.01	2.82	174
Calendar year 1938	2,584.88	836	0	7.08	5,120
January	14.4	.8	.2	.46	29
February	190.4	17	.4	6.80	378
March	254.1	14	4.5	8.20	504
April	104.8	13	.5	3.49	208
May	2.88	.4	.01	.093	5.7
June	.08	.01	0	.003	.16
July	9.40	2.5	0	.303	19
August	401.9	108	.1	13.0	797
September	16.14	2.6	.03	.538	32
Water year 1938-39	1,083.41	108	0	2.97	2,150

Peak discharge.- Aug. 6 (2:15 p.m.) 385 sec.-ft.

Salt River near Chrysotile, Ariz.

Location.- Water-stage recorder, lat. 33°48', long. 110°30', in sec. 5, T. 5 N., R. 18 E., unsurveyed, on San Carlos Indian Reservation, 1,200 feet upstream from bridge on U. S. Highway 60, 5½ miles northeast of Chrysotile, and 8 miles upstream from Cibecue Creek. Zero of gage is 3,353.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,830 square miles.

Records available.- September 1924 to September 1939.

Average discharge.- 15 years, 623 second-feet.

Extremes.- Maximum discharge during year, 8,530 second-feet Apr. 5 (gage height, 7.10 feet); minimum, 89 second-feet July 14 (gage height, 1.39 feet).
1924-39: Maximum discharge, 61,500 second-feet Feb. 7, 1937 (gage height, 15.18 feet), from rating curve extended above 20,000 second-feet; minimum, that of July 14, 1939.

Remarks.- Records excellent except those for period of missing gage heights, Oct. 28 to Nov. 9, which were computed on basis of partial record and records for station near Roosevelt and are good. Several small diversions above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	130	130	146	179	289	1,840	943	233	99	134	130
2	130	130	134	149	194	269	2,150	839	224	99	384	121
3	127	130	140	156	175	251	2,280	773	211	107	322	115
4	127	135	143	160	143	246	2,680	733	199	137	190	149
5	127	135	140	164	168	256	5,870	702	190	137	289	118
6	124	135	140	168	171	242	3,760	671	182	127	437	121
7	124	135	143	171	186	228	3,160	634	175	118	773	118
8	124	140	143	179	190	260	2,410	583	168	115	294	141
9	121	140	140	182	199	309	2,220	542	164	113	242	203
10	124	140	137	179	186	340	2,280	515	153	107	226	233
11	124	137	137	171	153	496	2,280	495	149	104	203	211
12	124	137	143	164	156	612	2,020	482	146	99	182	186
13	127	137	143	153	182	569	1,900	463	140	94	160	190
14	124	137	143	153	199	591	1,780	444	134	91	162	186
15	121	137	143	146	207	627	1,620	438	127	106	473	171
16	121	140	164	146	220	733	1,350	426	121	96	160	149
17	118	143	182	153	246	925	1,200	403	118	91	167	143
18	121	140	179	156	304	1,130	1,060	379	118	91	171	140
19	121	137	179	156	319	1,350	969	362	115	107	356	146
20	124	137	237	153	304	1,510	916	352	115	107	143	149
21	124	137	246	164	304	1,780	907	346	115	104	174	143
22	124	137	242	186	299	2,110	907	340	113	99	180	134
23	124	134	211	199	319	2,540	916	324	110	122	342	127
24	124	130	182	199	528	2,890	925	314	107	217	164	121
25	124	124	164	182	605	2,540	873	299	102	188	177	143
26	127	118	149	175	542	2,220	805	289	102	134	218	143
27	130	121	143	168	438	2,280	757	274	102	124	164	124
28	135	118	143	179	324	2,340	709	260	99	118	350	118
29	135	127	146	182	-	2,150	717	256	99	124	164	118
30	130	130	153	171	-	1,900	864	251	102	137	212	115
31	130	-	149	171	-	1,840	-	242	-	140	156	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,890	135	118	125	7,720
November	4,008	143	118	134	7,950
December	4,968	246	130	160	9,850
Calendar year 1938	142,200	12,600	106	389	282,000
January	5,181	199	146	167	10,280
February	7,440	605	143	266	14,760
March	35,823	2,890	228	1,156	71,050
April	52,125	5,870	709	1,738	103,400
May	14,374	943	242	464	28,510
June	4,233	233	99	141	8,400
July	3,652	217	91	118	7,240
August	7,769	773	134	251	15,410
September	4,406	233	115	147	8,740
Water year 1938-39	147,869	5,870	91	405	293,300

Peak discharge.- April 3 (2:00 a.m.) 2,570 sec.-ft.; April 5 (5:00 a.m.) 8,530 sec.-ft.; April 6 (8:30 p.m.) 4,320 sec.-ft.

Salt River near Roosevelt, Ariz.

Location.- Water-stage recorder, lat. 33°37', long. 110°55', in NE¼ sec. 9, T. 3 N., R. 14 E. unsurveyed, 100 feet downstream from bridge on Globe-Young highway, a quarter of a mile downstream from Pinal Creek, 1 mile upstream from diversion dam for power canal, 17 miles upstream from Roosevelt Dam, and 14 miles east of village of Roosevelt. Zero of gage is 2,177.14 feet above mean sea level (general adjustment of 1929).

Drainage area.- 4,310 square miles.

Records available.- October 1913 to September 1939.

Average discharge.- 26 years, 974 second-feet.

Extremes.- Maximum discharge during year, 9,050 second-feet Apr. 5 (gage height, 12.35 feet); minimum, 92 second-feet July 19 (gage height, 5.91 feet); minimum gage height, 5.82 feet Nov. 27.
1913-39: Maximum discharge, about 100,000 second-feet Jan. 19, 1916, by computation of flow over Roosevelt Dam; minimum, 91 second-feet June 30, 1934.
Minimum discharge known, about 42 second-feet Aug. 5, 1911.

Remarks.- Records excellent. Several small diversions above station for irrigation. During the year 209 discharge measurements were made. See page 249 for records of Tonto Creek, which also contributes to Roosevelt Reservoir.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	163	157	160	190	217	401	2,020	983	254	107	183	188
2	163	154	160	190	238	367	2,180	930	251	107	158	162
3	163	157	166	190	238	339	2,420	852	240	109	570	148
4	157	160	170	194	222	334	2,500	810	230	134	426	144
5	157	163	173	201	217	334	5,750	777	214	127	367	170
6	154	163	166	230	226	329	4,330	744	205	137	490	148
7	151	160	163	238	226	308	3,850	720	197	127	1,160	150
8	151	163	173	234	242	308	2,960	672	188	123	514	153
9	151	166	173	242	286	339	2,520	634	183	123	315	328
10	151	160	170	234	274	407	2,500	596	178	116	280	469
11	151	170	170	226	251	511	2,450	560	170	111	280	466
12	151	170	170	213	226	794	2,240	539	160	107	247	795
13	154	166	176	213	238	838	2,120	525	155	103	221	352
14	154	166	180	205	256	829	1,980	506	153	103	240	254
15	154	173	180	201	279	856	1,800	487	144	98	808	227
16	151	170	198	196	296	912	1,590	467	137	98	558	205
17	148	173	217	190	234	1,100	1,360	444	132	114	552	194
18	148	170	242	190	361	1,450	1,230	434	132	98	273	208
19	151	170	226	194	426	1,670	1,090	412	130	96	309	178
20	151	166	265	198	432	1,770	1,040	387	127	105	310	180
21	151	166	461	201	395	2,000	1,020	372	125	132	205	183
22	157	166	414	222	378	2,400	1,000	363	120	168	241	175
23	157	163	324	247	387	2,960	1,000	354	118	144	341	160
24	154	160	274	256	464	3,220	1,000	341	116	130	290	153
25	157	160	234	238	718	3,160	968	332	111	219	227	165
26	160	151	209	226	742	2,520	919	319	109	208	254	180
27	160	151	198	217	653	2,410	853	307	107	162	305	188
28	160	151	190	217	498	2,590	801	292	107	148	295	165
29	166	151	187	234	-	2,360	775	272	107	144	315	153
30	160	157	187	242	-	2,210	808	265	105	141	224	148
31	154	-	190	226	-	2,060	-	258	-	153	237	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,810	166	148	155	9,540
November	4,873	173	151	162	9,670
December	6,566	461	160	212	13,020
Calendar year 1938	175,624	17,800	123	481	348,400
January	6,697	256	190	216	13,280
February	9,694	742	217	346	19,230
March	42,086	3,220	308	1,358	83,480
April	57,074	5,750	775	1,902	113,200
May	15,954	983	258	515	31,640
June	4,705	254	105	157	9,330
July	3,990	219	96	129	7,910
August	11,195	1,160	158	361	22,200
September	6,789	795	144	226	13,470
Water year 1938-39	174,433	5,750	96	478	346,000

Peak discharge.- April 3 (12:10 p.m.) 2,710 sec.-ft.; April 4 (11:45 p.m.) 2,965 sec.-ft.; April 5 (1:20 p.m.) 9,050 sec.-ft.; April 7 (4:15 a.m.) 4,360 sec.-ft.

Reservoir system on Salt River at and below Roosevelt Dam, Ariz.

Location.- This system comprises four storage reservoirs created by four separate dams on Salt River: Roosevelt Lake, formed by Roosevelt Dam, in sec. 20, T. 4 N., R. 12 E. unsurveyed; Apache Lake, formed by Horse Mesa Dam, 17 miles downstream from Roosevelt Dam; Canyon Lake, formed by Mormon Flat Dam, 26 miles downstream from Roosevelt Dam; Sahuaro Lake, formed by Stewart Mountain Dam, 36 miles downstream from Roosevelt Dam.

Drainage area.- 6,200 square miles at Stewart Mountain Dam.

Records available.- October 1934 to September 1939.

Extremes.- Maximum daily contents of system during year, 399,900 acre-feet Apr. 18; minimum daily contents, 148,600 acre-feet Sept. 4, 5.
1934-39: Maximum daily contents, 1,312,200 acre-feet May 3, 1937; minimum daily contents, that of Sept. 4, 5, 1939.

Remarks.- Daily contents here given are as of 11:59 p.m.; those published in previous years were as of 12:01 a.m. Total storage capacity of the four reservoirs is 1,770,000 acre-feet (revised), divided as follows: Roosevelt Lake, 1,400,000 acre-feet (revised); Apache Lake, 245,000 acre-feet; Canyon Lake, 57,000 acre-feet (revised); Sahuaro Lake, 70,000 acre-feet. Decrease in capacity of Roosevelt Lake is the result of lowering of spillway creet 6 feet in 1937 and of increase ir silt deposits as determined by 1938-39 survey. Decrease in capacity of Canyon Lake is the result of lowering of spillway elevation. Water from this system is used for irrigation of Salt River Valley near Phoenix and for the generation of power. The four dams forming these reservoirs completely develop the fall in Salt River from Roosevelt Lake to Stewart Mountain Dam. Records of daily contents furnished by Salt River Valley Water Users' Association.

Daily contents, in thousands of acre-feet, of Reservoir System on Salt River at and below Roosevelt Dam, Ariz., water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308.3	262.3	239.6	251.6	266.1	278.1	348.1	392.7	337.1	267.2	187.0	152.5
2	306.0	260.4	239.5	252.4	266.8	277.8	352.3	393.6	335.2	264.9	184.3	150.6
3	303.9	258.1	239.6	252.6	267.4	278.3	358.2	393.4	333.9	262.8	182.2	149.0
4	301.9	256.3	239.7	253.0	268.2	278.5	361.3	392.1	332.8	261.2	180.3	148.6
5	299.2	254.8	239.6	253.5	269.0	278.8	370.2	390.2	331.3	259.5	178.9	148.6
6	296.1	253.9	239.6	254.0	269.4	278.4	379.6	388.8	329.4	257.2	179.9	149.6
7	293.5	253.1	239.4	254.6	270.1	277.4	386.5	386.3	326.9	254.9	182.0	150.5
8	291.5	251.2	239.2	255.0	270.8	275.8	389.5	384.9	325.1	252.5	184.4	151.0
9	290.4	249.6	239.1	255.5	271.8	274.5	391.9	383.2	322.7	250.3	186.1	152.1
10	289.4	248.6	238.8	256.1	272.8	273.6	393.7	381.0	320.3	247.7	186.2	152.5
11	288.1	247.6	239.6	256.6	273.6	273.8	394.5	379.0	318.4	244.5	186.7	153.4
12	286.9	246.7	239.8	257.1	274.1	274.5	396.0	376.3	316.2	240.9	186.4	156.5
13	285.2	246.9	239.7	257.7	274.9	275.0	396.8	374.4	313.5	237.0	185.0	157.5
14	283.8	247.1	239.1	256.2	275.6	275.4	397.5	372.9	310.6	233.8	183.2	158.9
15	282.8	246.2	239.3	256.7	276.1	275.2	398.5	371.3	307.8	230.3	181.4	159.6
16	282.2	245.3	240.0	259.2	276.4	275.7	399.6	369.4	304.9	227.2	179.4	160.1
17	281.3	244.2	240.4	259.5	276.3	276.5	399.8	367.5	302.7	224.3	177.2	160.5
18	280.3	243.6	240.3	260.0	276.7	278.1	399.9	365.5	300.6	221.3	174.6	161.3
19	279.4	243.1	241.1	260.3	277.5	281.2	399.5	364.0	298.5	219.0	172.4	161.7
20	278.3	243.0	242.6	260.6	278.0	284.8	399.0	362.1	296.1	216.3	170.8	162.0
21	277.0	242.7	244.6	261.2	278.2	290.0	398.1	360.0	292.3	213.7	169.5	162.3
22	276.4	242.1	246.5	261.6	278.7	294.8	397.5	358.2	291.0	211.5	166.8	162.5
23	275.1	241.6	247.5	262.2	278.7	301.9	396.0	355.9	288.7	209.7	164.7	162.6
24	274.4	241.2	248.1	263.0	278.6	308.2	395.2	353.4	286.3	207.2	162.9	162.8
25	273.0	240.6	248.9	263.9	279.1	314.2	394.1	351.1	284.5	206.1	161.7	163.0
26	271.5	240.3	249.4	264.5	279.6	320.0	393.2	349.0	282.0	200.5	159.7	163.5
27	270.1	240.3	249.8	265.1	279.3	325.0	391.8	346.9	279.1	199.0	159.0	163.7
28	267.9	239.8	250.3	266.6	278.6	330.8	390.8	344.6	276.3	196.8	157.9	164.0
29	266.6	239.8	250.6	266.1	-	335.6	391.5	342.9	273.4	194.5	157.0	164.1
30	265.1	239.6	251.0	266.1	-	339.9	392.0	341.1	270.4	192.1	155.7	164.3
31	264.0	-	251.3	265.9	-	343.9	-	339.1	-	189.5	154.1	-

Monthly contents, in acre-feet

Date	Contents in acre-feet	Change in contents in acre-feet
Sept. 30	311,200	-
Oct. 31	264,000	-47,200
Nov. 30	239,600	-24,400
Dec. 31	251,300	+11,700
Calendar year 1938	-	-401,500
Jan. 31	265,900	+14,600
Feb. 28	278,600	+12,700
Mar. 31	343,900	+65,300
Apr. 30	392,000	+48,100
May 31	339,100	-52,900
June 30	270,400	-68,700
July 31	189,500	-80,900
Aug. 31	154,100	-35,400
Sept. 30	164,300	+10,200
Water year 1938-39	-	-146,900

Salt River at Stewart Mountain Dam, Ariz.

Location.- Water-stage recorder, lat. 33°33', long. 111°32', in SE¼ sec. 33, T. 3 N., R. 8 E. unsurveyed, in Tonto National Forest, three-quarters of a mile downstream from Stewart Mountain Dam and 9 miles upstream from Verde River. Zero of gage is 1,396.33 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,200 square miles.

Records available.- October 1934 to September 1939.

Extremes.- Maximum discharge during year, 3,170 second-feet April 19 (gage height, 10.58 feet); minimum, 6 second-feet Jan. 21-29 (gage height, 5.66 feet).
1934-39: Maximum discharge, 3,450 second-feet Sept. 16, 1937; minimum, 3 second-feet Jan. 8-20, 1935.

Remarks.- Records excellent. During the year 51 discharge measurements were made. Discharge completely regulated at Stewart Mountain Dam and at three other dams, as described under heading "Reservoir system on Salt River at and below Roosevelt Dam, Ariz." (see page 247). Entire flow is diverted for irrigation at Granite Reef Dam, 13 miles downstream, by Salt River Valley Water Users' Association.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,740	942	429	11	217	955	13	566	1,320	1.670	1,620	1,200
2	1,330	1,210	310	11	9	742	13	835	1,290	1.530	1,700	1,270
3	1,270	1.150	190	11	8	473	156	1,070	1,160	1.120	1,570	1,360
4	1,480	1,080	220	11	7	368	942	1,230	1,050	979	1,380	840
5	1,580	894	186	11	7	268	1,160	1,530	1,250	971	1,270	31
6	1,600	766	260	11	7	540	998	1,490	1,410	1.330	895	27
7	1,420	797	328	11	7	797	874	1,240	1,470	1.500	154	24
8	1,230	1,130	359	10	7	1,110	914	1,280	1,560	1.470	17	24
9	861	1.110	209	10	7	1,200	928	1,320	1,540	1.390	17	23
10	900	935	187	10	7	1,110	1,280	1,510	1,420	1.540	17	96
11	1,080	784	59	10	7	784	1,600	1,510	1,390	1.760	17	388
12	1,180	604	89	10	7	621	1,640	1,390	1,490	1.980	412	36
13	1,320	319	268	10	7	695	1,690	1,240	1,720	2.180	972	33
14	1,090	372	332	10	35	921	1,600	1,090	1,810	2.140	1,450	32
15	867	514	199	10	178	1,110	1.210	1,130	1,900	1.980	1,750	32
16	689	621	22	10	258	1,060	1,140	1,330	1,700	1.900	1,830	32
17	760	677	11	10	462	691	1,210	1,350	1,440	1.720	1,830	32
18	841	534	11	10	52	677	1,420	1,330	1,250	1.680	1,740	32
19	887	434	13	8	30	374	1,640	1,320	1,270	1.560	1,420	32
20	816	368	13	7	179	23	1.510	1,260	1,440	1.580	1,200	32
21	835	359	11	6	276	20	1,420	1,190	1,540	1.510	1,240	31
22	701	478	11	6	254	14	1.260	1,220	1,550	1.490	1,630	31
23	593	473	10	6	604	13	1,140	1,270	1,430	1.380	1,590	31
24	736	372	10	6	712	13	1,090	1,240	1,300	1.300	1,220	31
25	1,000	338	10	6	701	13	1,140	1,250	1,180	1.240	1,250	30
26	1,090	539	10	6	415	13	1,210	1,330	1,400	1.490	1,140	30
27	1,070	272	10	6	907	13	1.290	1,260	1,650	1.650	979	30
28	1,080	302	11	6	1,060	13	1,280	1,180	1,750	1.540	1,100	30
29	854	400	12	37	-	13	776	1,240	1,760	1.350	1,040	30
30	701	448	11	302	-	13	555	1,320	1,710	1.320	993	21
31	766	-	12	434	-	13	-	1,390	-	1.460	1,140	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	32,367	1,740	593	1,044	64,200
November	19,222	1,210	272	641	38,130
December	3,813	429	10	123	7,560
Calendar year 1938	415,666	2,980	7	1,139	824,500
January	1,023	434	6	33.0	2,030
February	6,427	1,060	7	230	12,750
March	14,670	1,200	13	473	29,100
April	33,099	1,690	13	1,103	65,650
May	38,911	1,530	566	1,255	77,180
June	44,150	1,900	1,050	1,472	87,570
July	47,710	2,180	971	1,539	94,630
August	34,563	1,830	17	1,115	68,550
September	5,871	1,360	21	196	11,640
Water year 1938-39	281,826	2,180	6	772	559,000

Tonto Creek near Roosevelt, Ariz.

Location.- Staff gage, lat. 33°52', long. 111°18', in sec. 14, T. 6 N., R. 10 E., 16 miles upstream from Roosevelt Dam and 16 miles northwest of village of Roosevelt. Site remained unchanged during the year.

Drainage area.- 813 square miles.

Records available.- October 1913 to September 1939.

Extremes.- Maximum discharge during year, 2,400 second-feet Aug. 6 (gage height, 5.2 feet, from floodmarks); no flow July 13, 14, 21, 22, Sept. 4.
1913-39: Maximum discharge not determined; no flow at times during the drier years.

Remarks.- Records for low and uniform flow fair; those for high and fluctuating flow poor. Staff gage read once daily. Several small diversions for irrigation above station. See page 246 for records of Salt River, which also contributes to Roosevelt Reservoir. During the year 52 discharge measurements were made. Gage readings furnished by Salt River Valley Water Users' Association.

Revisions.- Figures of daily discharge for high-water periods in 1937 and 1938 are given in the following table. These figures have been computed on the basis of records of storage in and release from Roosevelt Reservoir, known inflow from Salt River, and records for related drainage areas and are poor. Revised figures shown supersede those in Water-Supply Papers 829 and 859.

Daily discharge, in second-feet, for high-water periods in 1937 and 1938

Date	Discharge	Date	Discharge	Date	Discharge
1937		1937		1938	
Feb. 7	18,000	Feb.19	600	Mar. 3	*6,000
8	3,500	20	500	4	2,500
9	2,000	Mar.13	*4,000	5	1,500
10	1,000	14	2,500	6	700
11	600	15	1,500	7	500
12	400	16	5,500	8	400
13	400	17	4,000	9	300
14	1,800	18	3,000	10	200
15	2,000	19	1,500	11	200
16	1,400	20	1,000	12	200
17	800	21	*700	13	500
18	700	22	*500		

*Supersede figure previously published.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.7	0.8	11	47	100	112	22	3	0.2	0.2	0.1
2	.6	.7	.8	9	60	85	112	21	3	.2	27	.1
3	.6	.7	.9	8	53	75	128	22	2	.2	65	.1
4	.6	.7	.9	9	49	75	296	19	1	.2	16	0
5	.6	.6	.9	9	79	83	326	19	1	.2	28	63
6	.6	.6	.9	9	81	73	241	16	1	.2	451	71
7	.6	.6	.9	13	124	69	179	16	1	.2	209	198
8	.6	.7	.9	27	150	73	145	13	1	.2	31	520
9	.6	.7	.9	24	207	83	112	10	1	.2	25	124
10	.6	1.0	.9	40	203	94	87	8	1	.1	25	61
11	.6	1.0	.9	47	165	124	85	8	1	.1	38	40
12	.5	.9	.9	47	165	157	87	12	1	.1	63	37
13	.5	.9	.9	41	165	195	77	10	1	0	23	625
14	.4	.9	.9	37	168	219	67	10	1	0	19	169
15	.4	.9	.9	37	161	215	53	10	.9	.1	10	68
16	.4	.9	.9	29	161	215	53	7	.9	.1	8	43
17	.4	.9	1.3	28	199	215	53	7	.6	.1	4	43
18	.5	.9	.9	29	165	237	45	7	.5	.1	4	47
19	.4	.9	1.3	23	165	237	45	7	.4	.1	4	30
20	.4	.9	175	23	183	215	35	6	.4	.1	10	27
21	.4	.9	660	23	172	228	35	6	.4	0	8	27
22	.4	.9	325	27	165	215	35	6	.4	0	6	20
23	.4	.9	137	41	147	259	28	4	.4	21	4	17
24	.6	.9	73	156	147	199	28	4	.4	10	2	7
25	.6	.9	41	124	241	161	29	4	.4	10	1	9
26	.6	.8	30	97	199	143	28	4	.3	3	.9	9
27	.6	.8	24	75	161	128	28	4	.3	2	.9	18
28	.6	.8	18	75	121	150	25	4	.3	2	.9	12
29	.7	.8	16	59	-	128	22	3	.2	.9	1	12
30	.7	.8	13	59	-	128	28	3	.2	.5	1	10
31	.7	-	11	51	-	118	-	3	-	.2	.3	-

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Discharge, in second-feet, of Tonto Creek near Roosevelt, Ariz., for water years 1936-37 to 1938-39

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1936	182	70	1	5.9	361
November	700	93	11	23.3	1,390
December	1,655	529	10	53.4	3,280
Calendar year 1936	28,750	1,850	1	78.6	57,030
January 1937	6,573	491	84	212	13,040
February	38,709	18,000	99	1,382	76,780
March	31,365	5,500	240	1,012	62,210
April	5,905	315	75	197	11,710
May	1,186	70	20	38.3	2,350
June	345	23	4	11.5	684
July	1,013	182	3	32.7	2,010
August	426	50	2	13.7	845
September	215	22	3	7.2	426
Water year 1936-37	88,274	18,000	1	242	175,100
October 1937	205	12	5	6.6	407
November	105	5	3	3.5	208
December	156	7	3	5.0	309
Calendar year 1937	86,203	18,000	2	236	171,000
January 1938	237	10	7	7.6	470
February	741	381	8	26.5	1,470
March	16,685	6,000	66	538	33,090
April	891	61	16	29.7	1,770
May	266	16	4	8.6	528
June	243	71	3	8.1	482
July	109	20	1	3.5	216
August	1,425	401	1	46.0	2,830
September	1,478	405	1	49.3	2,930
Water year 1937-38	22,541	6,000	1	61.8	44,710
October 1938	16.9	0.7	0.4	0.55	34
November	24.6	1.0	.6	.82	49
December	1,540.7	660	.8	49.7	3,060
Calendar year 1938	23,657.2	6,000	.4	64.8	46,930
January 1939	1,287	156	8	41.5	2,550
February	4,103	241	47	147	8,140
March	4,690	259	73	151	9,300
April	2,620	326	22	87.3	5,200
May	295	22	3	9.5	585
June	26.0	3	.2	.87	52
July	52.3	21	0	1.69	104
August	1,086.2	451	.2	35.0	2,150
September	2,307.3	625	0	76.9	4,580
Water year 1938-39	18,049.0	660	0	49.4	35,800

Verde River near Camp Verde, Ariz.

Location.- Water-stage recorder, lat. 34°27', long. 111°47', in sec. 1, T. 12 N., R. 5 E. unsurveyed, a short distance downstream from Camp Verde dam site, about 750 feet upstream from Chasm Creek, and 9 miles southeast of Camp Verde. Zero of gage is 2,874.1 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,010 square miles.

Records available.- April 1934 to September 1939. December 1912 to March 1920, at site 15 miles upstream (published as Verde River at Camp Verde, Ariz.); drainage area 4,220 square miles.

Extremes.- Maximum discharge during year, 16,100 second-feet Sept. 13 (gage height, 13.04 feet); minimum, 44 second-feet July 14.
1934-39: Maximum discharge, 97,000 second-feet Mar. 3, 1938 (gage height, 26.1 feet), by slope-area method, verified by comparison with records for other stations on Verde River; minimum, that of July 14, 1939.

Remarks.- Records excellent. Small diversions for irrigation above station. During the year 121 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	158	172	234	215	224	550	122	89	64	79	130
2	116	150	186	230	218	212	438	120	87	70	78	122
3	121	150	189	230	218	209	405	104	81	77	111	120
4	118	155	189	227	221	206	867	85	75	81	338	130
5	118	153	183	224	227	212	654	75	75	83	135	176
6	111	155	178	234	230	206	443	68	72	77	145	1,420
7	111	158	169	234	230	200	324	68	79	70	816	5,500
8	128	161	172	234	227	195	265	81	70	73	411	2,220
9	139	166	175	234	224	215	226	87	70	61	258	1,040
10	147	164	180	230	224	249	216	79	66	59	265	590
11	144	166	186	230	221	263	197	83	64	58	202	1,220
12	147	161	189	230	221	266	182	77	63	59	170	3,250
13	144	166	186	227	218	325	173	79	58	54	173	6,600
14	142	169	183	224	218	647	165	81	56	53	209	4,920
15	144	172	186	218	218	983	165	87	50	53	128	1,940
16	147	172	237	215	218	1,460	165	87	56	58	256	907
17	150	172	240	215	218	1,920	159	87	54	54	179	550
18	153	172	237	215	218	1,900	148	89	64	56	132	400
19	150	172	227	215	221	1,580	148	87	63	58	243	352
20	153	172	268	221	221	1,300	142	89	63	68	153	464
21	158	175	772	224	218	1,510	135	87	61	72	130	319
22	158	175	512	224	215	1,600	115	87	63	64	137	333
23	158	172	335	218	215	1,730	106	79	64	61	170	292
24	158	180	288	215	215	1,380	115	75	59	73	140	247
25	161	189	263	215	212	860	111	77	59	106	156	233
26	158	186	249	215	224	654	106	79	72	125	153	233
27	158	186	246	212	230	572	106	79	72	91	153	226
28	155	183	240	209	230	643	113	79	72	93	167	213
29	158	180	234	209	-	1,280	120	85	77	99	185	206
30	155	178	234	212	-	1,180	128	87	68	99	210	194
31	158	-	234	212	-	833	-	91	-	91	153	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,434	161	111	143	8,790
November	5,068	189	150	169	10,050
December	7,539	772	169	243	14,950
Calendar year 1938	188,220	39,800	65	516	373,300
January	6,886	234	209	222	13,660
February	6,185	230	212	221	12,270
March	25,014	1,920	195	807	49,610
April	7,187	867	106	240	14,250
May	2,640	122	68	85.2	5,240
June	2,022	89	50	67.4	4,010
July	2,260	125	53	72.9	4,480
August	6,235	816	78	201	12,370
September	34,547	6,600	120	1,152	68,520
Water year 1938-39	110,017	6,600	50	301	218,200

Peak discharge.- Sept. 7 (9:25 a.m.) 10,700 sec.-ft.; Sept. 13 (7:00 p.m.) 16,100 sec.-ft.

Verde River below East Verde River, near Pine, Ariz.

Location.- Water-stage recorder, lat. 34°16', long. 111°41', in sec. 30, T. 11 N., R. 7 E. unsurveyed, 2¾ miles downstream from East Verde River and 15 miles southwest of Pine. Zero of gage is 2,401.6 feet above mean sea level (general adjustment of 1929).

Drainage area.- 5,650 square miles.

Records available.- June 1934 to September 1939.

Extremes.- Maximum discharge during year, 19,300 second-feet Sept. 13 (gage height, 13.90 feet); minimum, 48 second-feet July 17 (gage height, 6.22 feet), affected by regulation of flow of Fossil Creek by power plant.

1934-39: Maximum discharge, 110,000 second-feet Mar. 3, 1938 (gage height, 24.7 feet), by slope-area method, verified by comparison with records for other stations on Verde River; minimum, that of July 17, 1939.

Remarks.- Records good. Several small diversions above station for irrigation. Some regulation by power plant, 9 miles upstream, using water from Fossil Creek.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	137	178	219	262	276	262	695	165	119	95	105	178
2	129	175	223	271	284	258	514	162	117	89	101	165
3	142	172	227	280	284	246	446	150	119	93	103	148
4	150	188	208	276	280	250	782	140	101	93	415	140
5	150	184	223	276	258	238	788	124	101	103	421	197
6	145	162	219	293	276	250	574	114	101	97	184	1,070
7	145	172	219	293	276	258	411	99	105	93	916	5,190
8	150	191	216	267	280	254	336	108	112	91	612	3,040
9	145	198	223	280	293	262	276	124	103	89	383	1,390
10	165	198	227	284	284	293	258	126	103	89	276	731
11	175	198	205	280	276	322	254	121	91	85	329	1,020
12	175	198	227	276	258	317	235	114	93	85	242	3,860
13	172	191	231	276	262	362	219	119	95	81	191	7,160
14	165	205	231	271	276	632	208	103	93	78	294	6,730
15	168	205	227	250	284	941	212	114	83	74	196	2,400
16	153	212	279	258	383	1,410	191	121	85	68	235	1,170
17	165	216	287	267	326	1,930	219	117	93	71	270	700
18	184	212	262	262	298	2,030	191	121	74	78	191	514
19	181	216	271	262	271	1,700	181	121	85	78	248	405
20	184	194	435	258	276	1,470	175	119	91	78	218	504
21	184	212	1,430	258	271	1,530	172	110	97	83	178	400
22	188	216	866	262	267	1,760	159	124	89	85	168	367
23	168	202	521	276	316	1,840	142	119	93	81	213	362
24	181	202	400	307	398	1,600	150	110	83	83	178	312
25	184	219	336	298	351	1,030	159	119	76	99	181	289
26	188	223	326	280	312	732	148	114	83	129	198	298
27	175	205	317	289	293	688	148	114	93	110	168	289
28	175	212	307	293	280	658	148	99	95	110	175	267
29	176	216	298	267	-	1,200	159	110	95	112	202	262
30	159	216	298	284	-	1,410	168	119	99	105	235	246
31	175	-	289	280	-	1,040	-	119	-	112	216	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,135	188	129	166	10,190
November	5,988	223	162	200	11,880
December	10,247	1,430	205	331	20,320
Calendar year 1938	216,416	41,000	95	593	429,200
January	8,536	307	250	275	16,930
February	8,189	398	258	292	16,240
March	27,173	2,030	238	877	53,900
April	8,718	788	142	291	17,290
May	3,739	165	99	121	7,420
June	2,867	119	74	95.6	5,690
July	2,817	129	68	90.9	5,590
August	8,042	916	101	259	15,950
September	39,804	7,160	140	1,327	78,950
Water year 1938-39	131,255	7,160	68	360	260,400

Peak discharge.- Sept. 13 (9:30 p.m.) 19,300 sec.-ft.

Verde River above Bartlett Reservoir, near Cave Creek, Ariz.

Location.- Water-stage recorder, lat. 33°37', long. 111°41', in SE¼ sec. 13, T. 7 N., R. 7 E. unsurveyed, 10 miles upstream from Bartlett Dam and 17 miles northeast of Cave Creek postoffice. Zero of gage is 1,829.5 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,090 square miles.

Records available.- September 1936 to September 1939. August to September 1889, January 1895 (formerly published in error as April 1897) to November 1899, and January 1901 to February 1925, at site 38 miles downstream and three-quarters of a mile upstream from mouth (drainage area, 6,080 square miles). February 1925 to February 1939, at site 21 miles downstream, published as Verde River above Camp Creek, near McDowell, Ariz. (drainage area, 6,230 square miles).

Average discharge.- 14 years (1925-39), 618 second-feet.

Extremes.- Maximum discharge during year, 17,700 second-feet Sept. 14 (gage height, 13.92 feet); minimum, 55 second-feet July 18 (gage height, 2.55 feet).
1925-39: Maximum discharge, 100,000 second-feet Mar. 3, 1938 (gage height, 25.0 feet, from floodmarks), based on comparison of peak discharge at other stations on Verde River.

Remarks.- Records excellent. Small diversions above station. Low flow slightly regulated by power plant, 45 miles upstream, using water from Fossil Creek. During the year 84 discharge measurements were made.

Discharge, in second-feet, Sept. 8-30, 1938

Sept. 8	227	Sept. 13	150	Sept. 18	134	Sept. 23	132	Sept. 28	132
9	204	14	150	19	143	24	130	29	130
10	190	15	150	20	141	25	134	30	134
11	178	16	199	21	141	26	126		
12	155	17	178	22	137	27	130		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	184	214	293	289	311	872	172	112	90	110	212
2	141	190	214	266	307	296	652	167	112	90	232	181
3	132	187	220	285	299	292	523	164	114	87	316	166
4	141	190	224	289	315	281	559	152	112	84	128	160
5	150	195	207	285	323	284	845	142	99	87	578	168
6	145	187	217	298	307	263	670	131	90	90	292	626
7	145	173	214	314	343	270	507	123	96	90	635	3,660
8	148	181	214	310	364	266	400	120	97	90	1,260	4,240
9	150	198	210	285	373	263	343	114	105	89	532	1,840
10	148	207	217	302	364	273	284	125	97	86	411	1,020
11	165	207	220	293	339	307	281	125	96	84	359	791
12	173	207	204	289	323	335	263	123	89	82	311	3,720
13	173	207	224	289	296	331	249	118	81	81	261	4,290
14	173	201	224	285	311	427	232	118	86	78	225	9,030
15	170	214	233	281	315	695	229	112	84	75	285	3,220
16	173	217	289	289	343	1,050	232	114	79	72	212	1,790
17	162	220	281	270	391	1,620	210	121	78	70	270	1,060
18	170	217	281	273	386	1,960	226	121	82	61	264	739
19	181	217	392	266	352	1,830	210	121	79	69	212	569
20	181	217	559	270	319	1,630	196	120	73	72	275	491
21	184	201	1,490	266	315	1,390	193	118	84	70	221	557
22	187	217	1,400	285	307	1,630	185	116	87	77	301	431
23	187	214	764	318	311	1,750	169	118	82	149	189	422
24	173	207	535	340	377	1,750	157	116	82	92	215	409
25	181	210	424	331	391	1,310	160	110	79	84	189	376
26	187	217	357	314	369	942	164	114	79	92	195	355
27	187	224	344	293	343	752	157	112	72	120	203	326
28	184	207	327	306	327	695	160	112	82	118	223	311
29	184	217	314	298	-	831	172	106	86	110	209	288
30	181	214	306	266	-	1,470	169	105	87	112	212	281
31	173	-	302	285	-	1,200	-	112	-	108	241	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,168	187	132	167	10,250
November	6,144	224	173	205	12,190
December	11,621	1,490	204	375	23,050
Calendar year	-	-	-	-	-
January	9,034	340	266	291	17,920
February	9,399	391	289	336	18,640
March	26,704	1,960	263	861	52,970
April	9,669	872	157	322	19,180
May	3,842	172	105	124	7,620
June	2,681	114	72	89.4	5,320
July	2,759	149	61	89.0	5,470
August	9,566	1,260	110	309	18,970
September	41,731	9,030	160	1,391	82,770
Water year 1938-39	138,318	9,030	61	379	274,400

Peak discharge.- Sept. 7 (6:55 p.m.) 9,500 sec.-ft.; Sept. 12 (11:55 a.m.) 8,880 sec.-ft.; Sept. 14 (2:35 a.m.) 17,700 sec.-ft.

Verde River above Camp Creek, near McDowell, Ariz.

Location.- Water-stage recorder, lat. 33°47', long. 111°39', in sec. 16, T. 5 N., R. 7 E., unsurveyed, half a mile upstream from Camp Creek, 5.3 miles (revised) downstream from Bartlett Dam, and 10 miles north of McDowell. Zero of gage is 1,529.8 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,230 square miles.

Records available.- February 1925 to September 1939. August to September 1889, January 1895 (formerly published erroneously as April 1897) to November 1899, and January 1901 to February 1925 at site 17 miles downstream from present site and three-quarters of a mile upstream from mouth; records equivalent.

Average discharge.- 36 years (1903-39), 798 second-feet (records of storage in Bartlett Reservoir for 1939 not available; average discharge computed on basis of equivalent records for water year 1938-39 for station above Bartlett Reservoir, near Cave Creek).

Extremes.- Maximum discharge during year, 2,120 second-feet Sept. 11 (gage height, 7.64 feet); minimum, 56 second-feet July 18 (gage height, 4.26 feet).
1897-1939: Maximum discharge at present site prior to completion of Bartlett Reservoir, 95,000 second-feet Mar. 4, 1938 (gage height, 21.9 feet), from rating curve extended above 44,000 second-feet on basis of slope-area computation, velocity-area studies, logarithmic extension, and relation of mean depth to discharge per unit width, verified by comparison of peak discharge and total run-off of flood with peak discharge and total run-off of flood at other stations on Verde River and at stations on Salt and Gila Rivers. Maximum discharge at former site, 96,000 second-feet (estimated) Nov. 27, 1905; minimum, 32 second-feet July 19, 20, 1904.

Remarks.- Records excellent. Small diversions above station. Flow regulated at Bartlett Dam since Feb. 5, 1939. During the year 124 discharge measurements were made.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	169	217	313	298	362	1,120	178	108	78	106	210
2	137	184	224	292	318	340	1,090	178	110	82	101	213
3	135	184	224	284	302	323	1,100	178	112	84	190	203
4	123	181	230	288	314	298	666	178	110	80	223	256
5	140	184	230	284	289	278	739	175	104	80	203	203
6	145	186	220	296	237	267	942	172	89	80	241	259
7	145	184	224	308	252	256	718	164	91	84	460	194
8	147	172	220	304	310	248	501	155	91	86	579	214
9	147	189	220	288	313	241	380	139	97	86	551	686
10	153	195	220	292	512	241	261	117	99	84	553	840
11	145	195	224	300	424	274	282	126	95	76	849	740
12	164	198	220	300	318	286	286	126	93	78	723	482
13	169	198	217	300	310	331	278	129	84	76	362	902
14	169	204	227	300	302	353	259	115	80	76	252	1,120
15	169	204	234	288	336	380	230	112	78	75	220	1,200
16	166	214	273	265	348	593	227	106	78	70	234	1,280
17	166	214	288	254	239	990	212	115	75	67	227	1,320
18	153	217	288	277	374	1,120	237	119	75	62	227	1,580
19	166	217	292	273	464	1,260	230	117	78	58	234	1,620
20	175	217	547	269	376	1,440	230	117	73	64	227	1,900
21	178	214	1,230	269	290	1,440	230	115	73	64	234	1,900
22	186	204	1,650	288	310	1,580	220	112	80	65	230	1,860
23	181	214	941	317	306	1,760	200	104	84	107	234	1,760
24	181	214	635	352	323	1,660	200	112	80	108	234	1,580
25	169	211	484	347	340	1,440	188	110	78	86	234	1,320
26	181	220	404	334	448	1,320	175	104	76	78	217	873
27	189	227	361	313	428	1,360	175	110	72	89	262	1,050
28	186	220	347	317	394	1,320	172	106	68	115	197	1,050
29	184	211	334	317	-	1,050	149	108	75	106	203	1,120
30	181	220	321	288	-	1,050	178	95	78	106	189	1,090
31	178	-	317	284	-	1,120	-	101	-	106	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,043	189	123	163	10,000
November	6,061	227	169	202	12,020
December	12,063	1,650	217	389	23,930
Calendar year 1938	222,086	59,700	84	608	440,500
January	9,201	352	254	297	18,250
February	9,475	512	237	338	18,790
March	24,981	1,760	241	806	49,550
April	11,877	1,120	149	396	23,560
May	5,993	178	95	129	7,920
June	2,584	112	68	86.1	5,130
July	2,558	115	58	82.5	5,070
August	9,216	849	101	297	18,280
September	29,025	1,900	194	968	57,570
Water year 1938-39	126,077	1,900	58	345	250,100

Granite Creek near Prescott, Ariz.

Location.- Water-stage recorder, lat. 34°34' (revised), long. 112°27' (revised), in SW¼ sec. 26, T. 14 N., R. 2 W. unsurveyed, at highway bridge, 2 miles north of Prescott and 4½ miles upstream from Willow Creek. Zero of gage is 5,207.3 feet above mean sea level (from Arizona Highway Department bench mark).

Drainage area.- 39 square miles.

Records available.- July 1932 to September 1939.

Extremes.- Maximum discharge during year, 638 second-feet Aug. 4 (gage height, 6.45 feet); no flow on many days.
1932-39: Maximum discharge, 2,900 second-feet Feb. 7, 1937, from rating curve extended above 1,500 second-feet; no flow during part of each year.

Remarks.- Records good except those for period of ice effect, Feb. 10-13, and those for period of unstable control, Aug. 4 to Sept. 13, which are poor. Discharge for periods of ice effect, Jan. 24, Feb. 2-6, 9-13, 27, computed on basis of one discharge measurement, parts of gage-height graph which were unaffected by backwater from ice, and weather records. City of Prescott takes water for municipal supply from storage reservoirs on tributaries of creek. Water stored for irrigation in reservoir 3 miles downstream from station (capacity about 4,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	0	0.8	1	5	6	0.2	0.1		0	0
2	.1	.1	0	.8	.4	4	4	.1	.1		0	0
3	.1	.1	0	.9	.6	5	4	.1	.1		0	0
4	.1	.1	0	.9	.5	6	4	.1	.1		20	0
5	.1	.1	0	.9	2	6	3	.1	.1		.1	0
6	.1	.1	0	2	4	5	2	.1	.1		.1	25
7	.1	.1	0	3	4	7	2	.1	.1		3	25
8	.1	.1	0	2	3	8	2	.1	.1		0	5
9	.1	.1	0	3	3	11	2	.1	0		1	30
10	.1	0	0	2	1	12	2	.1	0		0	30
11	.1	0	0	.3	2	12	1	.1	0		0	20
12	.1	0	0	.2	4	13	1	.1	0		0	20
13	.2	0	0	.2	7	15	.8	.1	0		0	85
14	.2	0	0	.1	7	16	1	.1	0		13	42
15	.2	0	.2	.1	8	16	2	.1	0		.1	20
16	.1	0	0	.1	8	16	1	.1	0		0	11
17	.1	0	0	0	7	16	1	.1	0		4	6
18	.1	0	0	0	6	16	.8	.1	0		0	4
19	.1	0	.6	0	7	15	.8	.1	0		0	3
20	.1	0	7	0	5	14	.7	.1	0		0	2
21	.1	0	11	0	5	12	.6	.1	0		0	2
22	.1	0	4	.5	5	12	.5	.1	0		0	1
23	.1	0	2	.3	7	9	.4	.1	0		0	.6
24	.1	0	.8	.8	7	7	.4	.1	0		0	.4
25	.1	0	.5	.3	8	5	.3	.1	0		0	7
26	.1	0	.4	.8	7	6	.3	.1	0		0	10
27	.1	0	.6	.5	6	10	.2	.1	0		0	4
28	.1	0	.6	1	5	11	.2	.1	0		0	3
29	.1	0	.5	.6	-	8	.2	.1	0		0	2
30	.1	0	.5	.7	-	8	.2	.1	0		0	2
31	.1	-	.6	.8	-	6	-	.1	-		0	-

Month	Second-feet-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3.4	0.2	0.1	0.11	6.7
November	.9	.1	0	.03	1.8
December	29.3	11	0	.95	58
Calendar year 1938	2,767.6	1,050	0	7.58	5,490
January	23.6	3	0	.76	47
February	130.5	8	.4	4.66	259
March	312	16	4	10.1	619
April	44.4	6	.2	1.48	88
May	3.2	.2	.1	.10	6.3
June	.8	.1	0	.03	1.6
July	0	0	0	0	0
August	41.3	20	0	1.33	82
September	360.0	85	0	12.0	714
Water year 1938-39	949.4	85	0	2.60	1,880

Peak discharge.- Aug. 4 (2:10 p.m.) 638 sec.-ft., Sept. 13 (4:30 a.m.) 132 sec.-ft.

Diversion for city of Phoenix from Verde River at McDowell, Ariz.

Location.- Water-stage recorder and weir, lat. 33°34', long. 111°40', in NE¼ sec 3 N., R. 7 E., on canal, 2 miles upstream from mouth of Verde River, 3.9 miles stream from intake, and 4½ miles downstream from McDowell.

Records available.- February 1922 to September 1939 (monthly diversion).

Remarks.- Discharge for periods February 1922 to December 1928, April and May 192 computed on basis of records of water consumption and pumpage and studies of d Water is diverted from infiltration galleries and shallow wells on right bank Verde River in SE¼ sec. 6, T. 3 N., R. 7 E., three-quarters of a mile downstrea from McDowell and 5½ miles upstream from mouth of Verde River, for municipal su of Phoenix and is carried 29 miles to that city by pipe line. Negligible amoun waste occurs below point of measurement. Records furnished by city of Phoenix.

Monthly diversion, in acre-feet, 1922-39

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.
1922	-	-	-	-	450	540	590	650	730	820	740
1922-23	590	490	490	490	480	580	630	700	780	880	790
1923-24	640	525	535	535	520	620	680	755	845	950	850
1924-25	570	485	565	565	550	660	720	390	330	800	900
1925-26	430	580	600	600	580	700	760	670	850	1,070	940
1926-27	780	640	650	650	630	690	780	920	1,030	1,160	1,020
1927-28	870	720	730	730	700	850	880	1,030	1,120	1,300	1,160
1928-29	960	910	890	855	886	1,080	1,120	1,170	1,230	1,320	1,380
1929-30	1,200	997	1,080	874	996	1,090	1,060	1,160	1,270	1,540	1,290
1930-31	1,070	1,020	1,050	1,080	1,030	921	1,110	1,200	1,310	1,550	1,310
1931-32	1,290	866	891	1,060	950	1,110	1,200	1,060	1,230	1,550	1,490
1932-33	810	761	726	663	601	931	1,050	1,230	1,440	1,550	1,580
1933-34	1,050	793	663	819	828	1,190	1,370	1,630	1,560	1,720	1,510
1934-35	1,260	888	770	736	668	901	1,270	1,410	1,650	1,870	1,740
1935-36	1,070	794	779	824	637	879	994	1,210	1,720	1,740	1,420
1936-37	986	835	725	660	711	941	1,180	1,410	1,410	1,420	1,290
1937-38	1,170	893	800	812	833	1,050	1,360	1,410	1,590	1,760	1,760
1938-39	1,310	1,020	845	804	791	1,200	1,410	1,530	1,800	1,940	1,830
								1,750	2,020	2,160	1,900

Yearly diversion, in acre-feet, 1923-39

Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year
1923	7,590	7,720	1929	12,980	13,500	1935	13,900	13,630
1924	8,200	8,120	1930	13,460	13,320	1936	12,470	12,370
1925	7,320	7,320	1931	13,620	13,530	1937	13,830	14,140
1926	8,530	8,990	1932	14,400	13,690	1938	15,690	16,000
1927	9,850	10,100	1933	12,830	13,070	1939	16,470	-
1928	11,110	11,550	1934	14,850	15,240			

Diversions from Salt River at Granite Reef Dam, Ariz.

Location.- Water-stage recorders at heads of Arizona and South canals, which divert on right and left banks, respectively, at Granite Reef Dam on Salt River, in lat. 33°31', long. 111°42', 3⅛ miles downstream from Verde River.

Records available.- January 1913 to September 1939 (monthly diversions).

Remarks.- Records given herein are those of discharge at the two gaging stations less flow returned from the canals to the river by wasteways between stations and irrigated lands. They represent the flow diverted from Salt River for irrigation. Discharge at gaging stations computed on basis of gage heights and frequent current-meter measurements except for period 1930-36, for which it was computed on basis of measurements over submerged weirs by means of the Clausen-Pierce hydraulic-weir rule. Flow returned to river at canal wasteways computed from records for rated gates or weirs. Water is used for irrigation of lands in Salt River Valley in vicinity of Phoenix. Records furnished by Salt River Valley Water Users' Association; those prior to 1918 collected by Bureau of Reclamation.

Flow at Granite Reef Dam is regulated by Roosevelt Dam, completed in 1913, and three other dams on Salt River between Roosevelt Dam and mouth of Verde River (see p. 247), namely, Mormon Flat Dam, completed in 1925, Horse Mesa Dam, completed in 1927, and Stewart Mountain Dam, completed in 1930, and by Bartlett Dam on Verde River, completed in 1939.

Monthly diversion, in acre-feet, 1913-39

Year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1912-13	-	-	-	22,680	47,110	60,790	100,500	108,500	107,400	111,400	100,800	95,080
1913-14	60,880	35,430	29,100	41,740	51,370	73,990	87,020	98,060	71,500	74,190	95,090	93,230
1914-15	47,050	38,690	27,570	15,250	31,250	90,920	101,200	122,300	120,200	129,100	117,300	113,800
1915-16	94,930	67,930	42,400	39,630	59,130	98,940	118,200	140,700	140,500	145,400	119,400	89,160
1916-17	86,430	70,630	43,450	15,910	39,820	107,900	96,870	124,400	150,400	144,300	116,900	136,300
1917-18	114,000	76,540	57,540	40,290	48,460	82,860	143,700	151,100	148,600	134,100	128,400	142,300
1918-19	87,670	48,050	23,910	23,370	34,600	94,650	119,400	129,000	135,700	106,400	125,400	101,700
1919-20	48,950	31,160	14,430	24,580	33,050	75,180	118,800	112,100	133,100	151,800	147,900	130,900
1920-21	43,260	28,850	28,620	42,780	67,270	113,500	97,490	105,200	111,000	126,400	88,780	114,400
1921-22	69,760	40,320	31,760	27,960	51,500	82,370	114,100	125,600	122,600	136,100	132,600	129,200
1922-23	68,590	44,890	27,320	51,440	53,740	102,400	118,700	124,200	118,300	115,400	122,500	124,400
1923-24	58,200	14,290	24,500	39,470	59,700	77,620	132,100	132,000	154,600	173,600	188,300	156,800
1924-25	62,630	39,640	36,600	31,270	47,790	86,120	96,380	87,530	87,090	105,100	81,650	107,300
1925-26	44,620	34,750	30,440	22,890	32,410	72,320	54,930	81,640	104,600	111,900	94,870	123,400
1926-27	54,430	49,550	22,570	37,370	66,260	121,100	84,250	93,600	95,890	116,300	100,500	116,400
1927-28	73,730	52,230	37,870	37,040	66,220	105,400	94,210	104,900	130,600	146,700	115,600	138,400
1928-29	50,410	36,990	23,350	25,510	37,130	100,800	91,810	89,100	93,860	90,030	80,460	129,600
1929-30	54,300	37,720	18,930	20,580	31,870	85,340	57,590	59,190	89,000	82,510	77,810	128,000
1930-31	49,330	49,690	24,860	18,430	47,460	64,300	62,640	77,700	87,480	99,490	74,240	104,600
1931-32	73,050	53,000	43,840	33,090	61,360	136,100	91,300	109,500	111,700	109,600	104,700	145,700
1932-33	61,160	62,120	31,420	30,800	33,750	81,310	72,130	84,260	99,610	114,200	95,660	120,500
1933-34	87,330	58,260	29,380	49,020	42,370	76,200	84,240	74,900	78,310	95,230	68,510	116,800
1934-35	68,560	40,630	22,270	51,510	69,830	84,630	91,580	86,060	109,000	120,900	88,290	115,600
1935-36	80,050	52,670	39,820	40,070	39,560	94,910	109,600	107,500	123,400	119,700	102,800	131,900
1936-37	73,730	57,820	34,810	27,330	79,350	102,700	127,200	130,300	122,900	159,900	170,300	149,800
1937-38	78,150	48,020	29,260	27,000	36,300	96,510	105,500	106,100	121,500	128,900	121,200	134,600
1938-39	72,590	49,340	30,420	19,150	30,260	75,810	84,570	81,000	84,830	91,810	80,040	57,130

Yearly diversion, in acre-feet, 1913-39

Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year	Year	Year ending Sept. 30	Calendar year
1913	-	879,700	1922	1,054,000	1,063,000	1931	760,100	806,200
1914	811,600	799,500	1923	1,072,000	1,028,000	1932	1,073,000	1,058,000
1915	954,600	1,047,000	1924	1,211,000	1,253,000	1933	886,900	907,200
1916	1,156,000	1,152,000	1925	869,600	840,500	1934	860,600	817,000
1917	1,133,000	1,181,000	1926	808,800	825,500	1935	948,900	989,700
1918	1,268,000	1,179,000	1927	958,200	995,500	1936	1,042,000	1,036,000
1919	1,030,000	964,800	1928	1,103,000	1,050,000	1937	1,236,000	1,225,000
1920	1,022,000	1,028,000	1929	849,000	849,200	1938	1,033,000	1,030,000
1921	967,600	998,700	1930	742,800	755,700	1939	757,000	-

Agua Fria River at Lake Pleasant Dam, Ariz.

Location.- Staff gage, lat. 33°51', long. 112°16', in NW¼ sec. 21, T. 6 N., R. 1 E., at left upstream end of Lake Pleasant Dam, 24½ miles upstream from mouth of New River. Zero of gage is 1,431.2 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,460 square miles.

Records available.- November 1910 to September 1924 (published as Agua Fria River near Glendale, Ariz.), October 1933 to September 1939.

Extremes.- Maximum discharge known, about 105,000 second-feet Nov. 27, 1919; no flow during spring and summer of several years.

Remarks.- Records fair. Discharge represents flow into Lake Pleasant. Discharge since October 1933 computed on basis of three factors, records concerning which were furnished by Maricopa County Municipal Water Conservation District No. 1. These factors are as follows: 1. Change in contents of Lake Pleasant and in contents of small reservoir behind diversion dam 1½ miles downstream from Lake Pleasant. 2. (a) Release from Lake Pleasant as measured by water-stage recorder and sharp-crested rectangular weir in canal 800 feet downstream from diversion dam, rated and occasionally checked by a Clausen-Pierce weir rule; and (b) flow in time of flood as measured over diversion dam, computed from staff-gage readings of head and theoretical weir rating for the dam. 3. Loss from lake by evaporation, assumed as 0.7 of the evaporation measured once daily in 3-feet-square buried land pan near left end of Lake Pleasant Dam. Bank storage and bank release in Lake Pleasant are not taken into account. Diversions for irrigation above Lake Pleasant.

Monthly run-off, in acre-feet, water years 1933-34 to 1938-39

Month	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
October	1,300	214	244	606	569	266
November	494	847	354	298	453	109
December	297	2,060	355	1,060	407	5,360
Calendar year	-	14,560	76,560	24,890	114,100	33,250
January	265	8,340	372	4,340	271	405
February	228	28,110	1,640	58,200	188	1,250
March	374	14,910	1,250	41,830	25,670	1,880
April	224	2,070	505	2,130	357	642
May	175	242	327	56	100	0
June	192	840	253	1,430	0	0
July	383	3,450	5,010	1,300	0	0
August	8,690	9,250	9,660	2,170	489	2,640
September	910	8,400	3,910	1,230	441	17,370
Water year	13,530	78,730	23,880	114,600	28,940	29,920

Lake Pleasant at Lake Pleasant Dam, Ariz.

Location.- Staff gage, lat. 33°51', long. 112°16', in NW¼ sec. 21, T. 6 N., R. 1 E., at left upstream end of Lake Pleasant Dam on Agua Fria River. Zero of gage is 1,431.2 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,460 square miles.

Records available.- February 1928 to September 1939.

Extremes.- Maximum contents during year, 19,680 acre-feet September 30 (gage height, 93.18 feet); minimum, 1,250 acre-feet December 3-11 (gage height, 54.12 feet).
1928-39: Maximum contents, 109,000 acre-feet Apr. 4-6, 1937 (gage height, 144.98 feet); no storage Sept. 5, 1933.

Remarks.- Lake is formed by multiple-arch dam which was first closed Feb. 1, 1928, at which time 45,260 acre-feet of storage had accumulated. Total usable capacity, 184,500 acre-feet between gage heights 35.0 feet (center line of outlet works) and 170.0 feet (top of spillway gates). Prior to reconstruction work in January 1936, total usable capacity was 103,000 acre-feet. There is practically no dead storage. Water released from reservoir flows down river channel 1½ miles to diversion dam where it is diverted for irrigation near Beardsley. Records show total contents at about 5 p.m. without allowance for capacity lost due to silting, which by July 1939 was 1,260 acre-feet at gage height 54.17 feet. Record of daily gage heights furnished by Maricopa County Municipal Water Conservation District No. 1.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Prepared by Maricopa County Municipal Water Conservation District No. 1 from contour surveys made about 1927)

35	0	90	17,100	140	96,100
55	1,410	100	25,700	150	121,900
60	2,490	110	37,400	160	150,100
70	5,830	120	52,500	170	184,500
80	10,100	130	72,000		

Contents, in acre-feet, of Lake Pleasant at Lake Pleasant Dam, Ariz., for water year October 1938 to September 1939

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

Yearly summary of gage heights and contents of Lake Pleasant at Lake Pleasant Dam, Ariz., 1928-39

Water year	Maximum			Minimum			On Dec. 31		On Sept. 30	
	Date	Gage height in feet	Contents in acre-feet	Date	Gage height in feet	Contents in acre-feet	Gage height in feet	Contents in acre-feet	Gage height in feet	Contents in acre-feet
1928-29	Sept. 28-29	89.62	22,460	Oct. 8-10	34.15	1,360	48.71	3,450	89.60	22,440
1929-30	Apr. 4	98.93	30,780	Aug. 6	82.38	17,320	88.83	21,840	87.49	20,850
1930-31	Feb. 17	131.96	76,200	Nov. 12	87.27	19,510	94.00	25,540	116.28	51,130
1931-32	Feb. 19	144.78	101,400	Sept. 30	94.47	25,960	120.24	56,890	94.47	25,960
1932-33	Mar. 18	108.06	41,830	Sept. 5	38.00	0	95.46	27,910	47.86	315
1933-34	Aug. 31	70.45	6,010	Oct. 1	48.11	335	54.49	1,320	53.04	1,100
1934-35	Apr. 17-21	121.67	55,450	Oct. 1	53.05	1,110	64.31	3,860	88.22	15,720
1935-36	Apr. 15	88.22	15,720	July 23-25	59.74	2,430	84.49	13,000	72.36	6,790
1936-37	Apr. 4-6	144.98	109,000	Sept. 30	55.94	1,600	69.81	5,750	55.94	1,600
1937-38	Mar. 27-30	101.26	26,990	Oct. 4	52.10	974	58.82	2,210	57.07	1,830
1938-39	Sept. 30	93.18	19,680	Dec. 3-11	54.12	1,250	72.27	6,750	93.18	19,680

Monthly elevation and contents, water year 1938-39

Date	Gage height in feet	Contents in acre-feet	Change in contents in acre-feet
Sept. 30	57.07	1,830	-
Oct. 31	57.70	1,960	+130
Nov. 30	56.97	1,810	-150
Dec. 31	72.27	6,750	+4,940
Calendar year 1938	-	-	+4,540
Jan. 31	72.97	7,050	+300
Feb. 28	75.70	8,190	+1,140
Mar. 31	79.44	9,860	+1,670
Apr. 30	76.63	8,570	-1,290
May 31	70.64	6,080	-2,490
June 30	60.79	2,730	-3,350
July 31	54.55	1,330	-1,400
Aug. 31	64.97	4,090	+2,760
Sept. 30	93.18	19,680	+15,590
Water year 1938-39	-	-	+17,850

WHITEWATER DRAW BASIN

Whitewater Draw near Douglas, Ariz.

Location.- Water-stage recorder, lat. 31°21'15", long. 109°35'00", in SW¼SE¼ sec. 10, T. 24 S., R. 27 E., at bridge on U. S. Highway 80, 1½ miles upstream from international boundary and 2 miles west of Douglas. Zero of gage is 3,887.6 feet above mean sea level (from Arizona Highway Department bench mark).

Drainage area.- 1,023 square miles.

Records available.- August 1911 to April 1922, June 1930 to December 1933, May 1935 to September 1939.

Extremes.- Maximum discharge during year, 2,690 second-feet Aug. 5 (gage height, 10.25 feet); minimum, 0.1 second-foot July 11.
1930-39: Maximum discharge, 3,450 second-feet Aug. 10, 1931 (gage height, 12.15 feet); minimum, 0.1 second-foot May 26, June 9, 1937, July 11, 1939.
Maximum discharge known, 4,050 second-feet (estimated) July 27, 1919.

Remarks.- Records good except those for July 19-22 and those above 200 second-feet, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.5	0.6	0.5	0.7	0.7	0.9	0.3	0.7	0.6	69	0.6
2	.8	.5	.6	.6	.8	.7	.9	.4	.6	.8	2	.6
3	.8	.5	.6	.6	.7	.6	.8	.4	.6	.6	1	66
4	.8	.7	.6	.5	.8	.6	.7	.4	.6	.4	14	4
5	.8	.7	.6	.5	1	.6	.7	.4	.8	.4	249	5
6	.7	.6	.6	.6	.7	.6	.7	.4	.5	.4	373	4
7	.7	.5	.6	10	.7	.7	.6	.4	.4	.3	204	7
8	.7	.5	.6	19	.7	.7	.6	.5	.5	.3	14	164
9	.7	.5	.6	11	.6	.8	.6	.6	.5	.3	5	31
10	.7	.5	.6	2	.5	.7	.6	.5	.5	.3	2	3
11	.7	.5	.6	.9	.6	.6	.6	.4	.5	.1	10	.9
12	.7	.5	.6	.7	.6	.7	.6	.4	.5	.2	3	.5
13	.7	.5	.6	.6	.6	.7	.6	.5	.4	.2	2	15
14	.7	.5	.6	.6	.5	.8	.6	.5	.4	.2	23	4
15	.7	.6	.8	.5	.5	.9	.6	.5	.4	24	10	.9
16	.6	.6	8	.6	.5	.9	.6	.5	.4	144	2	.4
17	.6	.6	2	.7	.4	.9	.6	.5	.4	201	1	644
18	.7	.6	.8	.7	.6	.9	.6	.5	.7	188	.9	108
19	.7	.6	85	.7	.6	.8	.6	.5	.6	65	.9	16
20	.7	.7	62	.7	.5	.8	.6	.5	.5	3	4	4
21	.7	.8	2	.8	.4	.8	.6	.5	.9	2	2	2
22	.7	.8	.9	.8	.4	.7	.5	.6	.9	1	.7	1
23	.6	.8	.8	.9	.4	.6	.5	.7	.9	1	.6	.9
24	.7	.8	.8	.8	.5	.6	.4	.7	.9	.8	.7	.8
25	.8	.8	.7	.7	.5	.7	.5	.7	1	.6	.7	.8
26	.7	.8	.6	.8	.7	.7	.5	.7	1	.8	.7	.8
27	.7	.7	.6	.9	.5	.7	.5	.8	1	4	.8	.8
28	.6	.7	.6	1	.6	.8	.4	.8	1	.9	3	.8
29	.6	.7	.7	.8	-	.8	.4	.9	1	2	1	.7
30	.6	.6	.6	.8	-	.9	.4	.7	.9	44	.7	.7
31	.6	-	.5	.9	-	.9	-	.8	-	48	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	21.6	0.8	0.6	0.70	43
November	18.7	.8	.5	.62	37
December	175.8	85	.5	5.67	349
Calendar year 1938	3,393.2	1,150	.3	9.30	6,730
January	61.2	19	.5	1.97	121
February	16.6	1	.4	.59	33
March	22.9	.9	.6	.74	45
April	17.8	.9	.4	.59	35
May	17.0	.9	.3	.55	34
June	20.0	1	.4	.67	40
July	735.2	201	.1	23.7	1,460
August	1,001.3	373	.6	32.3	1,990
September	1,088.2	644	.4	36.3	2,160
Water year 1938-39	3,196.3	644	.1	8.76	6,350

Peak discharge.- Aug. 5 (11 p.m.) 2,690 sec.-ft.; Sept. 17 (7 a.m.) 1,900 sec.-ft.

In addition to the records of stream flow obtained at gaging stations ir the Colorado River Basin and reported in the preceding pages, measurements of flow were made at other points, as indicated in the following table:

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1938 to September 1939

Date	Stream	Tributary to or diverting from-	Locality	Discharge
Green River Basin				
Oct. 10	Lake Fork.....	Duchesne River...	NE¼ sec. 19, T. 2 N., R. 5 W., Uinta meridian, below Moon Lake Dam 14 miles northwest of Mountain Home, Utah.	25.9
San Juan River Basin				
Jan. 9	West Fork of San Juan River.	San Juan River...	Sec. 17, T. 37 N., R. 1 E., above routh of Wolf Creek, near Pagosa Springs, Colo.	14.9
Feb. 8	....do.....	....do.....	....do.....	9.6
Mar. 7	....do.....	....do.....	....do.....	9.7
Jan. 11	Piedra River....	....do.....	Sec. e, T. 35 N., R. 4 W., at crossing of U. S. Highway 450, near Dyke, Colo.	53
Feb. 10	....do.....	....do.....	....do.....	67
Mar. 9	....do.....	....do.....	....do.....	56
25	....do.....	....do.....	....do.....	418
Apr. 26	....do.....	....do.....	....do.....	524
Little Colorado River Basin				
Oct. 2	Chevelon Irrigation Co.'s canal	Chevelon Fork....	Diversion dam 2 miles below station on Chevelon Fork near Winslow, Ariz.	3.82
Apr. 19	....do.....	....do.....	....do.....	2.41
July 23	....do.....	....do.....	....do.....	3.44
Sept. 6	....do.....	....do.....	....do.....	1.72
Oct. 2	Clear Creek.....	Little Colorado River.	1 mile below diversion dam that is control for station on Clear Creek near Winslow, Ariz.	2.66
17	....do.....	....do.....	....do.....	2.03
Nov. 2	....do.....	....do.....	....do.....	1.57
17	....do.....	....do.....	....do.....	1.78
Dec. 3	....do.....	....do.....	....do.....	2.35
Jan. 4	....do.....	....do.....	....do.....	2.50
18	....do.....	....do.....	....do.....	3.21
Feb. 3	....do.....	....do.....	....do.....	4.38
Mar. 4	....do.....	....do.....	....do.....	4.61
July 6	....do.....	....do.....	....do.....	3.51
22	....do.....	....do.....	....do.....	2.77
Aug. 6	....do.....	....do.....	....do.....	4.16
18	....do.....	....do.....	....do.....	2.02
Sept. 5	....do.....	....do.....	....do.....	2.23
19	....do.....	....do.....	....do.....	2.50
Gila River Basin				
June 26	Gila River.....	Colorado River...	W½ sec. 21, T. 19 S., R. 20 W., just above heading of Sunset canal, 13 miles east of Duncan, Ariz.	1.59
July 3	....do.....	....do.....	....do.....	.59
10	....do.....	....do.....	....do.....	.30
Sept. 6	....do.....	....do.....	....do.....	13.5
June 6	....do.....	....do.....	SW¼ sec. 29, T. 6 S., R. 31 E., 0.7 mile downstream from Apache Grove and 13 miles northwest of Duncan, Ariz.	12.7
16	....do.....	....do.....	....do.....	12.3
26	....do.....	....do.....	....do.....	11.0
July 6	....do.....	....do.....	....do.....	10.4
Nov. 11	Warm Springs.....	Gila River.....	SW¼ sec. 17, T. 3 S., R. 18 E., 1,700 feet downstream from Coolidge Dam, Ariz.	.98
Dec. 11	....do.....	....do.....	....do.....	.85
21	....do.....	....do.....	....do.....	.74
27	....do.....	....do.....	....do.....	.97
Feb. 11	....do.....	....do.....	....do.....	.63
May 1	....do.....	....do.....	....do.....	.50
June 11	....do.....	....do.....	....do.....	.73
July 1	....do.....	....do.....	....do.....	.68
21	....do.....	....do.....	....do.....	.52
Aug. 1	....do.....	....do.....	....do.....	.69
Oct. 3	San Pedro canal..	San Pedro River..	SW¼ sec. 23, T. 5 S., R. 15 E., 1 mile west of Winkelman, Ariz.	.28
Nov. 1	....do.....	....do.....	....do.....	1.03
15	....do.....	....do.....	....do.....	.56
30	....do.....	....do.....	....do.....	2.25
Dec. 19	....do.....	....do.....	....do.....	1.91
Jan. 3	....do.....	....do.....	....do.....	.20
31	....do.....	....do.....	....do.....	.59
Feb. 14	....do.....	....do.....	....do.....	.04
Apr. 18	....do.....	....do.....	....do.....	.3
May 2	....do.....	....do.....	....do.....	1.28
16	....do.....	....do.....	....do.....	.89
June 2	....do.....	....do.....	....do.....	.36
16	....do.....	....do.....	....do.....	.44
Nov. 29	Buena Vista canal	Santa Cruz River.	Half a mile below point of diversion, which is half a mile above station on Santa Cruz River near Nogales, Ariz.	1.60
Dec. 8	....do.....	....do.....	....do.....	1.60
Jan. 24	....do.....	....do.....	....do.....	1.52
Feb. 13	....do.....	....do.....	....do.....	.88

Miscellaneous discharge measurements in the Colorado River Basin during the water year October 1938 to September 1939--Continued

Gila River Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge
Mar. 7	Buena Vista canal	Santa Cruz River	Half a mile below point of diversion, which is half a mile above station on Santa Cruz River near Nogales, Ariz.	0.22
30	....do.....	....do.....	....do.....	.17
Apr. 27	....do.....	....do.....	....do.....	.41
May 25	....do.....	....do.....	....do.....	.11
Oct. 26	Willow Creek.....	Granite Creek...	SE¼NW¼ sec. 12, T. 14 N., R. 2 W., three-eighths of a mile above mouth, at site of former gaging station near Prescott, Ariz.	.39
Nov. 25	....do.....	....do.....	....do.....	.1
Dec. 28	....do.....	....do.....	....do.....	.1
Jan. 11	....do.....	....do.....	....do.....	.1
Feb. 4	....do.....	....do.....	....do.....	.1
20	....do.....	....do.....	....do.....	.1
Mar. 4	....do.....	....do.....	....do.....	.15
24	....do.....	....do.....	....do.....	.15
26	....do.....	....do.....	....do.....	.1
June 13	....do.....	....do.....	....do.....	8.11
July 15	....do.....	....do.....	....do.....	.67
Aug. 1	....do.....	....do.....	....do.....	.62

YEARLY-DISCHARGE SUMMARY

PART 9. COLORADO RIVER BASIN

The following tables summarize in convenient form for general reference and for use in preliminary investigations the figures of yearly discharge and run-off for certain gaging stations in the Colorado River Basin, previously published in the annual series of water-supply papers. All gaging stations, both active and discontinued, at which 10 or more complete years of record have been collected and published are represented, also some special stations, as noted below. The summaries present figures of maximum and minimum daily discharge and yearly mean discharge and run-off, for both the water years ending September 30 and the calendar years. The figures for the water years prior to 1914 and figures for the calendar years 1914 to 1933 have not been previously published in the annual water-supply papers but are included in these summaries.

The number of the water-supply paper in which the figures of daily and monthly discharge as well as yearly discharge are published is shown in the column headed W.S.P. (no. and page). The descriptions contained in the water-supply papers indicated give detailed information relative to the gaging stations, including location, diversions, regulation by storage, effect of irrigation, and other pertinent information. Records for stations which were operated prior to 1901 are generally contained in the annual reports of the Geological Survey. Reference is made to these reports if records have not also been published in water-supply papers.

Figures of drainage area are given for each station when known. These figures have been revised from time to time as more accurate maps have become available; figures given herein represent the latest determination.

Summaries for incomplete years are given for those stations in irrigated regions for which seasonal records were collected in order to show the flow available for irrigation. They have been compiled from the records of daily and monthly discharge contained in the water-supply paper indicated. For summaries after 1914 if the period extends beyond Sept. 30, records of daily and monthly discharge after that day are contained in the water-supply paper indicated for the following year. An incomplete year is included for other stations if the maximum daily discharge or minimum daily discharge for all the years of record occurred in that year.

Former names under which records for some of the stations have been published in the annual water-supply papers are indicated in these yearly summaries as follows:

1. If the name of the stream or town or other feature to which the station is referred has been changed, the former name is given in parentheses, indicating that records for some of the earlier years are published under the obsolete name.

2. If the entire name of a station has been changed, the superseded name and years when it was used are given in parentheses beneath the present name.

Summary of yearly discharge, in second-feet, at stations in COLORADO RIVER MAIN STEM

Colorado (North Fork of Grand) River near Grand Lake, Colo. (Drainage area, 101 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1905	617-207	1,220	-	138	100,000	1,220	-	137	99,000
1906	617-207	1,030	-	141	102,000	1,030	-	146	105,000
1907	249-89	1,110	16	176	127,000	1,110	10	171	124,000
1908	617-208	425	10	83.0	60,000	425	12	80.2	58,200
1909	269-92	1,620	12	166	120,000	-	-	-	-
1911	617-208	-	-	168	122,000	-	-	173	125,000
1912	617-208	1,060	-	155	112,000	1,060	-	154	112,000
1913	617-209	740	-	107	77,300	740	-	110	79,400
1914	617-209	1,700	-	185	134,000	1,700	-	182	132,000
1915	617-209	565	-	98.9	71,600	565	-	99.4	72,000
1916	439-72	652	33	120	87,000	552	33	121	88,200
1917	459-64	1,620	27	171	124,000	1,620	26	167	121,000
1918	479-74	1,840	11	156	113,000	-	-	-	-
1935	789-14	882	-	80.0	57,900	882	-	80.0	57,950
1936	809-14	626	10	121	88,040	525	14	123	89,480
1937	829-9	358	18	68.7	49,770	358	18	71.7	51,890
1938	859-11	696	17	116	83,000	696	17	112	80,740
1939	879-11	610	4.8	72.4	52,390	-	-	-	-

Colorado (Grand) River at Hot Sulphur Springs, Colo. (Drainage area, 782 square miles)

1905	617-212	5,600	-	768	556,000	5,600	-	757	548,000
1906	617-212	5,350	-	783	566,000	5,350	-	802	581,000
1907	617-212	5,430	-	996	720,000	5,430	-	979	709,000
1908	617-212	2,630	-	473	343,000	2,630	-	464	337,000
1909	617-213	8,420	-	957	692,000	-	-	-	-
1911	617-213	-	-	687	497,000	-	-	695	504,000
1912	617-213	-	-	920	672,000	-	-	921	669,000
1913	617-213	-	-	552	407,000	-	-	572	414,000
1914	617-214	8,000	-	994	719,700	8,000	-	981	710,000
1915	409-62	3,980	-	586	423,000	3,980	-	583	422,000
1916	617-214	3,460	-	648	469,000	3,460	-	657	477,000
1917	617-214	6,870	-	932	675,000	6,870	-	920	666,000
1918	479-75	8,580	-	883	639,000	8,580	-	899	651,000
1919	509-12	3,400	-	498	360,000	3,400	-	475	344,000
1920	617-215	6,660	-	962	692,000	6,560	-	966	701,000
1921	529-11	9,280	-	964	698,000	9,280	-	959	694,000
1922	549-11	3,560	-	519	376,000	3,560	-	504	365,000

Summary of yearly discharge, in second-feet, at stations on Colorado River main stem--Continued

Colorado (Grand) River at Hot Sulphur Springs, Colo.--Continued
(Drainage area, 782 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	617-215	6,220	-	744	539,000	-	-	-	-
1926	617-216	5,910	-	905	656,000	5,910	-	888	643,000
1927	649-11	4,450	-	720	521,000	4,450	-	742	537,000
1928	669-10	6,660	-	822	597,000	6,660	-	799	580,000
1929	(*)	-	-	773	560,000	-	-	789	571,000
1930	(*)	3,570	-	637	461,000	3,570	-	624	452,000
1931	(*)	3,020	-	461	334,000	3,020	-	453	328,000
1932	(*)	3,690	36	638	463,000	3,690	44	638	463,000
1933	(*)	5,350	38	645	467,000	5,350	59	648	469,000
1934	764-13	2,170	-	352	254,500	2,170	-	341	247,200
1935	789-16	5,370	76	549	397,300	5,370	76	557	403,000
1936	809-16	4,180	91	757	549,500	4,180	87	765	555,100
1937	829-11	2,420	77	443	320,700	2,420	77	452	327,500
1938	859-13	4,890	92	778	562,900	4,890	92	763	552,400
1939	879-13	3,470	98	488	353,000	-	-	-	-

*From reports of State engineer of Colorado.

Colorado (Grand) River near Kremmling, Colo.
(Drainage area, 2,360 square miles)

1905	175-81	11,800	-	1,530	1,100,000	11,800	228	1,510	1,090,000
1906	617-217	11,600	-	1,820	1,320,000	11,600	-	1,880	1,360,000
1907	617-217	11,700	-	2,240	1,620,000	11,700	-	2,200	1,590,000
1908	617-217	6,510	166	1,230	891,000	6,510	-	1,210	879,000
1909	617-218	15,300	-	2,290	1,660,000	15,300	-	2,330	1,690,000
1910	617-218	7,600	-	1,280	930,000	7,600	-	1,240	896,000
1911	309-99	8,350	-	1,630	1,180,000	8,550	350	1,680	1,210,000
1912	617-218	21,000	-	2,420	1,760,000	21,000	-	2,440	1,770,000
1913	617-218	7,730	-	1,480	1,070,000	7,730	-	1,450	1,050,000
1914	589-44	16,300	-	2,380	1,720,000	16,300	-	2,350	1,700,000
1915	409-63	8,110	180	1,380	1,000,000	8,110	192	1,370	994,000
1916	459-76	8,100	200	1,650	1,200,000	8,100	285	1,680	1,220,000
1917	459-67	15,000	300	2,260	1,630,000	15,000	-	2,240	1,620,000
1918	479-77	16,500	-	2,200	1,590,000	-	-	-	-

Colorado (Grand) River at Glenwood Springs, Colo.
(Drainage area, 4,560 square miles)

*1900	617-221	19,700	-	3,010	2,180,000	19,700	-	2,960	2,140,000
1901	617-221	19,700	-	3,050	2,200,000	19,700	518	3,080	2,230,000
1902	617-221	12,000	-	2,090	1,510,000	12,000	-	2,070	1,500,000
1903	617-222	16,500	-	2,720	1,970,000	16,500	450	2,750	1,990,000
1904	617-222	16,100	455	2,950	2,140,000	16,100	355	2,930	2,130,000
1905	617-222	22,100	355	2,930	2,120,000	22,100	430	2,930	2,120,000
1906	617-222	22,100	430	3,620	2,620,000	22,100	455	3,700	2,680,000
1907	617-222	20,400	455	4,160	3,010,000	20,400	505	4,120	2,980,000
1908	617-223	11,500	505	2,220	1,610,000	11,500	405	2,150	1,560,000
1909	617-223	27,300	405	3,960	2,860,000	27,300	520	4,030	2,920,000
1910	289-122	-	520	2,440	1,770,000	-	-	2,380	1,730,000
1911	309-101	15,200	-	2,890	2,090,000	15,200	450	2,920	2,120,000
1912	617-223	29,700	450	4,000	2,890,000	29,700	575	4,010	2,910,000
1913	617-224	12,100	426	2,390	1,730,000	12,100	426	2,380	1,720,000
1914	389-45	29,700	529	4,150	3,000,000	29,700	470	4,160	5,010,000
1915	409-65	13,000	470	2,400	1,730,000	13,000	490	2,350	1,700,000
1916	439-78	14,600	490	5,040	2,210,000	14,600	560	3,100	2,250,000
1917	459-69	28,600	520	4,070	2,940,000	28,600	520	4,060	2,940,000
1918	479-79	29,400	606	3,840	2,780,000	29,400	554	3,850	2,790,000
1919	509-14	12,300	554	2,200	1,600,000	12,300	510	2,150	1,560,000
1920	509-14	23,800	510	3,730	2,710,000	23,800	515	3,760	2,730,000
1921	529-13	27,700	539	3,990	2,880,000	27,700	539	3,980	2,880,000
1922	549-13	15,700	528	2,720	1,970,000	15,700	528	2,670	1,930,000
1923	569-10	20,000	415	3,450	2,490,000	20,000	415	3,560	2,580,000
1924	589-12	23,400	602	3,000	2,180,000	23,400	433	2,950	2,140,000
1925	609-11	11,000	433	2,450	1,770,000	11,000	527	2,460	1,780,000
1926	629-14	22,700	527	3,550	2,570,000	22,700	419	3,490	2,530,000
1927	649-12	17,800	419	5,300	2,390,000	17,800	537	5,400	2,460,000
1928	669-11	27,000	559	3,880	2,820,000	27,000	527	3,820	2,770,000
1929	689-12	20,800	527	3,780	2,730,000	20,800	587	3,850	2,790,000
1930	704-11	15,200	587	2,910	2,110,000	15,200	544	2,820	2,040,000
1931	719-11	9,240	476	1,720	1,240,000	9,240	338	1,640	1,190,000
1932	734-11	15,800	306	2,770	2,010,000	15,800	306	2,810	2,040,000
1933	749-11	20,200	362	2,650	1,920,000	20,200	508	2,650	1,920,000
1934	764-14	8,010	440	1,423	1,030,000	8,010	355	1,364	987,200
1935	789-17	20,500	286	2,239	1,621,000	20,500	286	2,293	1,660,000
1936	809-17	16,600	369	3,145	2,283,000	16,600	422	3,166	2,299,000
1937	829-12	10,300	418	2,020	1,463,000	10,300	412	2,033	1,472,000
1938	859-14	20,400	412	3,361	2,433,000	20,400	490	3,370	2,440,000
1939	879-14	12,800	520	2,387	1,728,000	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated to complete the year.

Summary of yearly discharge, in second-feet, at stations on Colorado River main stem--Continued

Colorado (Grand) River near Palisade, Colo.
(Drainage area, 8,790 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1902	617-227	18,000	-	2,970	2,150,000	18,000	-	2,870	2,080,000
1903	617-227	25,100	-	4,240	3,070,000	25,100	-	4,350	3,150,000
1904	617-227	24,800	-	4,600	3,330,000	24,800	-	4,590	3,330,000
1905	617-228	35,900	-	4,940	3,570,000	35,900	-	4,900	3,550,000
1906	617-228	37,000	-	6,190	4,380,000	37,000	-	6,190	4,480,000
1907	617-228	30,200	-	6,360	4,610,000	30,200	-	6,340	4,590,000
1908	617-228	20,300	-	3,880	2,810,000	20,300	-	3,770	2,740,000
1909	617-228	45,000	-	6,880	4,980,000	45,000	-	6,990	5,060,000
1910	617-229	27,100	-	4,500	3,260,000	27,100	-	4,390	3,180,000
1911	617-229	24,800	-	4,870	3,520,000	24,800	-	5,030	3,640,000
1912	617-229	43,400	-	7,110	5,160,000	43,400	-	7,040	5,110,000
1913	617-229	20,800	-	4,280	3,090,000	20,800	-	4,200	3,040,000
1914	617-229	42,800	-	6,860	4,970,000	42,800	-	6,960	5,040,000
1915	617-230	20,500	-	3,980	2,880,000	20,500	-	3,840	2,780,000
1916	617-230	25,800	-	5,640	4,090,000	25,800	-	5,900	4,280,000
1917	617-230	50,000	-	7,670	5,550,000	50,000	-	7,440	5,390,000
1918	617-230	48,000	-	6,240	4,520,000	48,000	-	6,230	4,510,000
1919	617-230	21,400	-	3,830	2,770,000	21,400	-	3,720	2,690,000
1920	617-231	41,600	-	6,530	4,720,000	41,600	-	6,600	4,790,000
1921	617-231	50,800	-	6,870	4,970,000	50,800	-	6,890	4,990,000
1922	617-231	31,000	-	5,020	3,640,000	31,000	-	4,940	3,580,000
1923	569-11	30,400	1,190	6,030	4,360,000	30,400	-	6,190	4,480,000
1924	589-14	34,600	-	4,880	3,540,000	34,600	-	4,740	3,440,000
1925	609-13	18,600	-	4,230	3,060,000	18,600	-	4,310	3,120,000
1926	629-15	33,400	950	5,560	4,020,000	33,400	-	5,400	3,910,000
1927	649-13	30,400	-	5,750	4,170,000	30,400	-	5,930	4,290,000
1928	669-12	44,400	1,280	6,190	4,500,000	44,400	1,200	6,120	4,440,000
1929	689-13	38,200	1,200	6,820	4,930,000	38,200	-	6,980	5,060,000
1930	704-12	26,800	-	4,790	3,460,000	26,800	-	4,560	3,300,000
1931	719-12	15,200	178	2,300	1,670,000	15,200	178	2,170	1,570,000
1932	734-12	30,800	380	5,260	3,820,000	30,800	380	5,320	3,860,000
1933	749-12	37,100	-	4,130	2,990,000	-	-	-	-

Colorado (Grand) River near Fruita, Colo.
(Drainage area, 16,800 square miles)

1908	617-234	-	-	-	4,300,000	-	-	-	4,260,000
1909	617-234	63,600	-	10,200	7,410,000	63,600	-	10,300	7,470,000
1910	617-234	34,000	-	7,100	5,140,000	34,000	-	7,070	5,120,000
1911	617-234	38,800	-	8,230	5,970,000	38,800	-	8,590	6,220,000
1912	617-235	58,100	-	11,000	7,990,000	58,100	-	10,800	7,830,000
1913	617-235	27,300	-	6,600	4,780,000	27,300	-	6,520	4,720,000
1914	617-235	58,100	-	10,600	7,720,000	58,100	-	10,800	7,840,000
1915	617-235	26,900	-	6,150	4,450,000	26,900	-	5,860	4,240,000
1916	439-81	39,600	-	9,000	6,530,000	39,600	-	9,460	6,870,000
1917	459-72	62,500	-	10,800	7,800,000	62,500	-	10,300	7,490,000
1918	479-82	56,200	1,690	8,370	6,060,000	56,200	1,690	8,480	6,140,000
1919	509-19	32,200	1,270	6,030	4,370,000	32,200	-	5,860	4,240,000
1920	509-20	77,100	1,850	11,000	7,980,000	77,100	-	11,200	8,120,000
1921	529-16	81,100	-	11,100	8,000,000	81,100	-	11,000	7,990,000
1922	549-16	53,100	1,860	8,430	6,100,000	53,100	1,860	8,250	5,970,000
1923	569-13	49,600	1,930	8,990	6,520,000	-	-	-	-

Colorado (Grand) River near Cisco, Utah
(Drainage area, 24,100 square miles)

1914	389-48	65,600	1,560	11,800	8,530,000	-	-	-	-
1915	409-68	-	-	-	-	33,600	1,520	7,060	5,120,000
1916	439-82	46,900	-	10,300	7,500,000	46,900	-	10,800	7,810,000
1917	459-72	73,200	-	12,100	8,760,000	-	-	-	-
1923	569-13	47,100	-	10,000	7,280,000	47,100	2,200	10,300	7,490,000
1924	589-14	49,900	866	8,170	5,930,000	49,900	866	7,910	5,740,000
1925	609-13	27,700	-	6,940	5,020,000	27,700	-	7,190	5,200,000
1926	629-16	47,500	1,460	9,120	6,600,000	47,500	1,460	8,910	6,450,000
1927	649-14	48,400	-	10,400	7,550,000	48,400	-	10,800	7,860,000
1928	669-14	62,200	2,330	10,300	7,500,000	62,200	-	9,990	7,250,000
1929	689-14	58,600	-	11,800	8,510,000	58,600	-	12,100	8,770,000
1930	704-13	40,200	-	8,420	6,090,000	40,200	-	7,960	5,760,000
1931	719-13	17,400	885	3,960	2,860,000	17,400	885	3,900	2,820,000
1932	734-13	49,600	1,300	9,210	6,680,000	49,600	1,550	9,180	6,650,000
1933	749-13	49,200	1,190	6,400	4,640,000	49,200	1,190	6,380	4,630,000
1934	764-16	16,800	640	3,066	2,220,000	16,800	640	2,856	2,067,000
1935	789-19	53,200	1,170	6,466	4,681,000	53,200	1,540	6,741	4,881,000
1936	809-19	38,300	1,700	7,942	5,765,000	38,300	1,700	7,893	5,730,000
1937	829-14	39,200	-	6,383	4,621,000	39,200	-	6,452	4,678,000
1938	859-16	52,800	1,800	10,260	7,422,000	52,800	1,840	10,330	7,481,000
1939	879-16	25,000	904	5,873	4,252,000	-	-	-	-

Colorado River at Lees Ferry, Ariz.
(Drainage area, 107,900 square miles)

*1921	859-17	214,000	-	-	-	214,000	-	-	-
1922	859-17	116,000	3,700	22,480	16,280,000	116,000	3,700	22,200	16,070,000
1923	859-17	96,200	4,420	22,430	16,240,000	96,200	4,680	23,410	16,940,000
1924	589-17	72,800	2,290	17,200	12,500,000	72,800	1,000	16,100	11,700,000
1925	609-17	52,300	1,000	15,600	11,300,000	52,300	1,500	17,100	12,400,000
1926	629-19	84,000	3,150	19,300	14,000,000	84,000	2,500	18,000	13,100,000

*Year incomplete.

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Summary of yearly discharge, in second-feet, at stations on Colorado River main stem--Continued

Colorado River at Lees Ferry, Ariz.--Continued
(Drainage area, 107,900 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1927	649-15	119,000	2,500	22,800	16,500,000	119,000	2,700	24,200	17,500,000
1928	869-15	113,000	4,100	21,100	15,300,000	113,000	2,700	20,300	14,700,000
1929	689-15	111,000	2,700	26,500	19,200,000	111,000	4,100	27,100	19,600,000
1930	704-14	71,400	2,900	18,000	13,100,000	71,400	2,900	17,100	12,400,000
1931	719-14	33,500	2,050	8,810	6,380,000	33,500	1,800	8,590	6,220,000
1932	734-14	99,800	1,800	21,000	15,300,000	99,800	2,360	20,800	15,100,000
1933	749-14	79,900	2,360	13,400	9,730,000	79,900	2,400	13,400	9,730,000
1934	764-17	24,700	1,110	6,046	4,377,000	24,700	1,110	5,454	3,948,000
1935	789-20	103,800	2,090	13,670	9,894,000	103,800	2,490	14,180	10,266,000
1936	809-20	74,600	2,920	16,440	11,938,000	74,600	3,410	16,680	12,108,000
1937	829-15	82,000	1,560	16,400	11,870,000	82,000	1,560	16,550	11,980,000
1938	859-17	100,300	4,190	21,290	15,410,000	100,300	4,190	21,600	15,640,000
1939	879-17	48,300	2,370	12,930	9,360,000	-	-	-	-

Colorado River at Bright Angel Creek, near Grand Canyon, Ariz.
(Drainage area, 138,700 square miles)

1923	569-18	98,600	-	23,500	17,000,000	98,500	5,200	24,800	18,000,000
1924	589-18	73,200	2,790	17,900	13,000,000	73,200	990	16,500	12,000,000
1925	609-18	51,900	990	16,200	11,800,000	51,900	1,400	17,700	12,800,000
1926	629-20	84,000	3,870	19,900	14,400,000	84,000	2,970	18,700	13,600,000
1927	649-16	117,000	2,870	23,800	17,300,000	117,000	2,870	25,200	18,200,000
1928	669-16	114,000	4,610	21,800	15,800,000	114,000	2,960	20,600	15,000,000
1929	689-16	108,000	2,960	26,800	19,400,000	108,000	4,370	27,400	19,900,000
1930	704-15	69,000	3,200	18,500	13,400,000	69,000	3,200	17,600	12,800,000
1931	719-15	33,800	2,560	9,280	6,720,000	33,800	2,160	9,110	6,600,000
1932	734-15	101,000	2,160	22,000	16,000,000	101,000	2,790	21,800	15,800,000
1933	749-15	80,000	2,720	13,800	10,000,000	80,000	2,720	13,800	10,000,000
1934	764-18	24,900	1,490	6,431	4,656,000	24,900	1,490	5,751	4,186,000
1935	789-21	103,100	2,430	14,110	10,216,000	103,100	2,940	14,660	10,616,000
1936	809-21	76,100	3,140	16,970	12,322,000	76,100	3,750	17,180	12,470,000
1937	829-16	83,600	2,020	17,140	12,410,000	83,600	2,020	17,320	12,540,000
1938	859-21	99,400	4,580	21,590	15,630,000	99,400	4,680	21,910	15,860,000
1939	879-18	48,100	2,790	13,290	9,618,000	-	-	-	-

Summary of yearly contents, in acre-feet, for
Lake Mead at Boulder Dam, Ariz.-Nev.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day		Contents on Sept. 30	Maximum day	Minimum day		Contents on Dec. 31
1935	789-22	4,608,000	0	-	4,270,000	4,608,000	0	-	3,809,000
1936	809-22	9,641,000	3,690,000	-	9,569,000	9,641,000	3,690,000	-	9,488,000
1937	829-17	15,701,000	9,384,000	-	16,225,000	15,701,000	9,384,000	-	16,050,000
1938	869-22	23,190,000	14,960,000	-	23,170,000	23,190,000	14,960,000	-	22,660,000
1939	879-19	24,350,000	21,120,000	-	23,800,000	-	-	-	-

Note.- Total contents of which 3,325,000 acre-feet is not available for release. Storage began Feb. 1, 1935.

Summary of yearly discharge, in second-feet, for
Colorado River near Topock (at Hardyville), Ariz.
(Drainage area, 174,300 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1906	211-99	116,000	2,850	26,000	18,800,000	116,000	2,850	26,400	19,200,000
1907	249-41	112,000	5,500	29,700	21,500,000	-	-	-	-
1918	479-15	92,000	-	21,000	15,210,000	92,000	-	21,000	15,200,000
1919	509-22	77,300	4,100	17,800	12,900,000	77,300	4,100	17,900	13,000,000
1920	509-22	155,000	5,500	28,100	20,400,000	155,000	5,500	27,700	20,100,000
1921	529-18	174,000	5,900	29,800	21,500,000	174,000	6,000	30,200	21,800,000
1922	549-20	121,000	6,360	26,200	19,000,000	121,000	5,600	25,700	18,600,000
1923	569-20	102,000	5,600	25,100	18,200,000	102,000	6,150	26,500	19,200,000
1924	589-20	70,400	3,250	19,100	13,800,000	70,400	3,250	17,500	12,700,000
1925	609-20	50,400	1,980	16,200	11,700,000	50,400	1,980	17,400	12,600,000
1926	629-22	83,800	3,510	19,700	14,300,000	83,800	3,510	18,400	13,300,000
1927	649-17	105,000	3,410	23,500	17,000,000	105,000	3,410	25,000	18,100,000
1928	669-17	110,000	4,710	21,200	15,400,000	110,000	3,260	20,100	14,600,000
1929	689-17	100,000	3,260	26,100	18,900,000	100,000	3,680	26,800	19,400,000
1930	704-16	64,000	3,410	18,300	13,200,000	64,000	3,410	17,500	12,800,000
1931	719-16	30,700	2,420	9,350	6,770,000	30,700	2,420	9,120	6,610,000
1932	734-16	96,300	2,840	22,200	16,100,000	96,300	3,300	22,000	16,000,000
1933	749-16	77,300	2,820	14,000	10,200,000	77,300	2,820	14,100	10,200,000
1934	764-20	25,100	1,570	6,727	4,870,000	25,100	1,570	5,962	4,316,000
1935	789-24	16,300	422	7,217	5,225,000	18,300	422	8,343	5,040,000
1936	809-24	11,100	4,490	8,300	6,025,000	11,100	4,490	7,817	5,675,000
1937	829-19	11,000	5,630	7,703	5,577,000	11,000	3,630	7,967	5,768,000
1938	859-24	16,900	5,140	8,243	5,967,000	17,900	3,730	9,089	6,580,000
1939	879-27	31,100	3,730	11,310	8,188,000	-	-	-	-

Note.- Flow regulated by storage in Lake Mead since Feb. 1, 1935.

Summary of yearly discharge, in second-feet, at stations on Colorado River main stem--Continued

Colorado River at Yuma, Ariz.
(Drainage area, 244,800 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1902	85-20	-	-	-	-	59,200	3,050	11,000	7,960,000
1903	100-25	72,200	2,690	15,200	11,100,000	72,200	2,690	15,600	11,300,000
1904	133-32	51,170	3,170	13,600	9,870,000	51,200	3,340	13,900	10,100,000
1905	177-16	110,800	3,480	26,200	18,900,000	110,800	3,750	27,300	19,710,000
1906	213-29	102,700	4,280	26,500	19,200,000	99,200	4,260	26,900	19,490,000
1907	240-46	115,000	6,800	35,800	26,000,000	115,000	5,800	35,100	25,500,000
1908	249-46	61,700	5,600	18,700	13,600,000	72,500	5,600	18,900	13,700,000
1909	269-47	149,500	5,800	36,000	26,100,000	149,500	4,100	36,800	26,900,000
1910	289-33	70,300	4,100	20,600	15,000,000	70,300	4,300	19,700	14,300,000
1911	309-25	78,300	3,700	22,400	16,200,000	78,300	3,700	24,600	17,800,000
1912	329-24	144,000	3,400	27,000	19,600,000	144,000	3,400	25,300	18,400,000
1913	359-25	62,500	2,600	16,600	12,000,000	62,500	2,600	16,200	11,700,000
1914	389-21	137,000	3,300	27,500	19,900,000	137,000	3,300	28,500	20,700,000
1915	409-24	90,000	2,700	21,800	15,800,000	90,000	2,700	20,200	14,600,000
1916	439-23	240,000	3,500	29,600	21,500,000	240,000	3,800	31,900	23,100,000
1917	459-21	143,000	5,100	30,500	22,100,000	143,000	5,300	28,500	20,600,000
1918	479-17	94,300	4,100	18,000	13,100,000	94,300	4,100	18,200	13,200,000
1919	509-26	57,600	1,800	14,200	10,300,000	82,600	1,800	14,800	10,700,000
1920	509-26	190,000	3,700	30,100	21,900,000	190,000	5,100	29,500	21,400,000
1921	529-19	186,000	5,100	26,600	19,300,000	186,000	5,200	26,800	19,400,000
1922	549-22	115,000	4,200	24,400	17,600,000	115,000	3,300	23,500	17,000,000
1923	569-21	100,000	3,300	23,000	16,600,000	100,000	4,600	24,600	17,800,000
1924	589-21	65,300	1,200	17,400	12,600,000	65,300	1,200	16,600	11,300,000
1925	609-21	52,900	1,210	15,300	11,100,000	52,900	1,210	17,100	12,400,000
1926	629-23	73,100	2,440	18,400	13,300,000	73,100	2,440	16,900	12,200,000
1927	649-18	81,200	2,620	22,100	16,000,000	81,200	2,620	23,600	17,100,000
1928	669-18	98,800	2,390	19,100	13,900,000	98,800	2,020	17,600	12,800,000
1929	689-18	88,900	1,360	23,300	16,900,000	88,900	1,360	24,200	17,500,000
1930	704-17	53,600	1,770	15,800	11,400,000	53,600	1,770	14,700	10,600,000
1931	719-18	26,900	66	5,800	4,920,000	26,900	66	6,670	4,830,000
1932	734-17	89,100	1,220	19,700	14,300,000	89,100	1,590	19,600	14,200,000
1933	749-17	68,600	550	11,200	8,070,000	68,600	550	11,100	8,010,000
1934	764-23	22,300	18	4,028	2,916,000	22,300	18	3,893	2,384,000
1935	789-27	14,400	33	4,502	3,259,000	14,400	331	5,577	4,038,000
1936	809-27	8,500	2,100	5,239	3,803,000	8,500	2,100	4,773	3,465,000
1937	829-22	22,400	2,000	5,280	3,823,000	22,400	2,000	5,519	3,995,000
1938	859-28	20,700	3,160	5,630	4,076,000	20,700	3,160	5,760	4,170,000
1939	879-33	24,800	2,030	8,050	5,828,000	-	-	-	-

Note.- Records for 1913-39 do not include flow of Yuma main canal wasteway which wastes water to the river below station.((See the following table.) Flow regulated by storage in Lake Mead since Feb. 1, 1935.

Yuma main canal wasteway at Yuma, Ariz.

1913	(*)	-	-	-	126,000	-	-	-	211,200
1914	(*)	-	-	471	341,000	-	-	433	313,000
1915	(*)	-	-	271	196,000	-	-	257	186,000
1916	(*)	-	-	198	144,000	-	-	202	147,000
1917	(*)	-	-	185	134,000	-	-	159	115,000
1918	(*)	-	-	209	151,000	-	-	211	153,000
1919	(*)	-	-	200	145,000	-	-	209	151,000
1920	(*)	-	-	215	156,000	-	-	206	150,000
1921	(*)	-	-	243	176,000	-	-	244	177,000
1922	(*)	-	-	257	186,000	-	-	303	220,000
1923	(*)	-	-	367	266,000	-	-	400	290,000
1924	(*)	-	-	441	320,000	-	-	423	307,000
1925	(*)	-	-	373	270,000	-	-	379	274,000
1926	(*)	-	-	406	294,000	-	-	497	362,000
1927	(*)	-	-	829	600,000	-	-	685	496,000
1928	(*)	-	-	736	534,000	-	-	1,000	728,000
1929	(*)	-	-	1,120	812,000	-	-	1,160	841,000
1930	(*)	-	-	1,180	857,000	-	-	1,130	816,000
1931	719-19	1,840	670	1,180	854,000	1,840	670	1,220	880,000
1932	734-19	1,900	772	1,280	930,000	1,900	772	1,260	914,000
1933	749-19	1,850	626	1,210	878,000	1,850	626	1,230	890,600
1934	764-25	1,840	108	1,140	825,500	1,810	108	1,146	829,800
1935	789-28	1,810	362	1,342	971,600	1,800	463	1,322	957,200
1936	809-28	1,750	463	1,257	898,100	1,600	639	1,247	905,100
1937	829-25	1,600	0	1,195	865,200	1,710	0	1,190	861,500
1938	859-29	1,710	0	1,014	734,200	1,700	0	1,010	731,400
1939	879-37	1,620	0	1,126	815,000	-	-	-	-

*Previously unpublished; records computed from base data furnished by Bureau of Reclamation. Records poor.
Note.- Flow began about April 1913.

TRIBUTARIES ABOVE GREEN RIVER

Fraser River near West Portal (Arrow), Colo.
(Drainage area, 28 square miles)

1911	617-244	234	-	43.2	31,200	234	-	44.8	32,400
1912	617-244	-	-	55.5	40,200	-	-	54.5	39,600
1913	617-244	298	-	34.7	25,100	298	-	36.5	26,400
1914	617-245	507	-	61.0	44,200	507	-	59.4	43,000
1915	617-245	609	-	55.5	40,200	609	-	56.1	40,600
1916	439-85	260	7	42.5	30,800	260	6	42.5	30,800

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Fraser River near West Portal (Arrow), Colo.--Continued
(Drainage area, 28 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1917	617-245	320	-	43.5	31,500	320	-	42.5	30,800
1918	617-245	622	-	60.1	43,400	622	6	61.9	44,800
1919	509-29	156	6	32.8	23,800	156	6	31.4	22,700
1920	509-29	288	6	41.8	30,300	288	-	42.3	30,700
1921	529-21	473	-	54.4	39,400	473	-	54.1	39,200
1922	549-24	267	3	34.8	25,200	267	3	34.5	25,000
1923	569-23	423	-	45.1	32,700	423	-	46.1	33,400
1924	589-23	398	6.2	41.8	30,400	398	6.2	41.2	29,900
1925	609-23	196	-	39.3	28,400	196	-	40.6	29,400
1926	629-25	349	6	54.3	39,200	349	5	52.9	38,300
1927	649-19	184	7	43.5	31,500	184	7	45.6	33,000
1928	669-19	322	8	56.2	40,800	322	8	53.9	39,100
1929	689-19	286	4.7	48.5	35,100	286	4.7	49.3	35,700
1930	704-18	274	6	44.7	32,300	274	6	43.8	31,700
1931	(*)	184	6	29.1	21,100	184	6	28.9	20,900
1932	(*)	178	5	34.8	25,100	178	5	34.7	25,200
1933	(*)	358	3	45.7	33,100	358	3	46.3	33,500
1934	764-26	147	4.4	28.5	20,640	147	6.5	27.7	20,020
1935	789-33	291	5.3	36.5	26,430	291	5.3	37.1	26,830
†1936	809-33	-	-	45.2	32,840	-	-	46.3	33,590
†1937	829-27	-	-	33.4	24,160	-	-	32.9	23,810
†1938	859-32	-	-	46.9	33,960	-	-	46.8	33,870
†1939	879-40	-	-	34.0	24,620	-	-	-	-

*From reports of State engineer of Colorado.
†Records adjusted for diversion through Moffat Tunnel.
Note.- Figures of run-off, in acre-feet, diverted through Moffat Tunnel above station are given in the following table.

Year	Water year ending Sept. 30	Calendar year	Year	Water year ending Sept. 30	Calendar year
1936	12,150	12,150	1938	22,300	22,650
1937	11,280	11,280	1939	14,960	-

Williams River near Parshall, Colo.
(Published as Williams Fork near Hot Sulphur Springs, 1905-14; Williams Fork near Parshall, 1914-24)
(Drainage area, 1905-24, 198 square miles; 1933-39, 184 square miles)

1905	617-252	891	-	137	99,300	891	-	132	95,800
1906	617-252	1,150	-	169	122,000	1,150	-	173	125,000
1907	249-121	1,190	-	195	141,000	1,190	30	192	139,000
1908	249-121	749	30	122	88,300	749	30	122	88,500
1909	269-155	1,410	-	199	144,000	1,410	32	204	148,000
1910	289-132	845	47	133	96,300	845	44	128	93,000
1911	309-115	665	41	140	101,000	665	-	141	102,000
1912	617-253	1,270	-	226	163,000	1,270	-	225	163,000
1913	617-253	850	-	151	109,000	850	-	151	109,000
1914	389-54	1,610	-	230	167,000	1,610	-	229	168,000
1915	409-74	1,220	37	169	122,000	1,220	30	167	121,000
1916	439-89	940	30	161	117,000	940	30	163	118,000
1917	459-79	1,690	32	216	156,000	1,690	32	215	156,000
1918	479-86	2,600	25	234	169,000	2,600	25	235	170,000
1919	509-32	750	28	133	96,100	750	25	127	92,100
1920	509-32	1,220	18	204	148,000	1,220	-	208	151,000
1921	529-23	1,360	-	220	159,000	1,360	-	221	160,000
1922	549-26	740	-	137	99,000	740	-	130	94,300
1923	569-25	955	-	168	122,000	955	-	174	126,000
1924	589-25	910	-	160	116,000	-	-	-	-
1934	764-29	543	10	84.7	61,310	543	10	82.9	60,020
1935	789-43	1,280	-	134	97,020	1,280	-	138	100,200
1936	809-42	1,020	23	171	124,400	1,020	23	173	125,500
1937	829-40	618	31	106	77,110	618	31	105	76,010
1938	859-46	1,140	29	185	134,000	1,140	29	185	133,800
1939	879-54	715	18	125	90,450	-	-	-	-

Blue River at Dillon, Colo.
(Drainage area, 129 square miles)

1911	617-258	840	-	114	82,700	840	-	117	84,400
1912	617-259	1,020	-	160	116,000	1,020	-	161	117,000
1913	617-259	548	-	120	87,000	548	-	121	87,900
1914	617-259	1,180	-	186	135,000	1,180	-	184	133,000
1915	617-259	665	-	115	83,200	665	-	117	84,700
1916	439-91	502	18	118	85,900	502	18	118	85,400
1917	459-81	900	23	148	107,000	900	23	145	105,000
1918	479-88	900	20	155	112,000	900	20	157	114,000
1919	509-34	510	17	96.1	69,600	510	-	94.8	68,600
1920	617-260	700	-	121	88,000	700	-	121	88,100
1921	529-25	1,070	-	169	122,000	1,070	-	173	125,000
1922	617-261	460	-	100	72,800	460	-	98.9	71,600
1923	617-261	695	-	139	101,000	695	-	146	106,000
1924	617-261	976	-	123	89,100	976	-	119	86,700
1925	617-261	374	-	97.9	70,900	374	-	99.9	72,300
1926	629-26	1,050	-	166	120,000	1,050	-	163	118,000

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Blue River at Dillon, Colo.--Continued
(Drainage area, 129 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1927	649-20	615	-	127	91,900	615	-	128	92,400
1928	669-20	922	-	144	105,000	922	-	143	104,000
*1929	689-20	584	-	116	83,800	584	-	118	85,700
1930	704-19	534	-	114	82,500	534	-	113	81,500
1931	719-20	493	-	89.8	65,000	493	-	86.3	62,500
1932	734-20	466	-	104	75,800	466	-	105	76,100
1933	749-20	696	-	96.7	70,000	696	-	96.4	69,800
1934	764-30	387	-	75.0	54,290	387	-	73.9	53,490
1935	789-44	761	-	89.4	64,730	761	-	91.0	65,890
1936	809-43	761	-	149	108,200	761	-	149	108,400
1937	829-41	552	7.6	77.2	55,880	552	7.6	76.3	55,230
1938	859-47	708	14	121	87,560	708	14	124	89,720
1939	879-55	564	16	106	77,050	-	-	-	-

*Yearly records not previously published; discharge for period of missing record estimated.

Snake River at Dillon, Colo.
(Drainage area, 92 square miles)

1911	617-264	425	-	74.7	54,100	425	-	78.0	56,700
1912	617-264	540	-	102	74,200	540	-	99.4	72,200
1913	617-264	364	-	66.9	48,400	364	-	69.3	50,200
1914	617-264	975	-	128	92,500	975	-	126	90,900
1915	617-264	660	-	59.6	43,100	660	-	59.0	42,700
1916	439-93	430	10	67.5	49,000	430	10	67.8	49,200
1917	459-84	750	9	79.9	57,800	750	8	80.2	58,100
1918	479-89	1,170	8	106	76,800	1,170	8	107	77,300
1919	509-36	375	11	45.8	33,100	-	-	-	-
*1930	704-20	546	-	69.2	50,100	546	-	68.8	49,800
1931	719-21	323	-	41.3	29,900	323	-	40.5	29,300
1932	734-21	489	-	64.1	46,600	489	-	64.5	46,800
1933	749-21	730	-	77.7	56,200	730	-	77.8	56,300
1934	764-31	359	-	35.3	25,590	359	-	34.5	25,010
1935	789-45	839	-	56.6	40,990	839	-	57.8	41,840
1936	809-44	650	7.5	103	74,610	650	7.5	102	74,390
1937	829-42	292	8.8	38.9	28,150	292	6.7	38.3	27,740
1938	859-49	682	6.6	85.6	61,940	682	6.6	85.9	62,170
1939	879-57	432	5.9	58.5	42,320	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.
Note.- Water diverted by Snake River ditch and returned to Blue River not included.

Tenmile Creek at Dillon, Colo.
(Drainage area, 113 square miles)

1911	617-266	1,160	-	164	119,000	1,160	-	167	121,000
1912	617-266	1,310	-	179	130,000	1,310	-	179	130,000
1913	617-267	1,160	-	119	85,800	1,160	-	120	87,100
1914	617-267	1,440	-	192	139,000	1,440	-	195	141,000
1915	617-267	935	-	120	86,500	935	-	118	85,400
1916	439-95	858	23	138	100,000	858	23	139	101,000
1917	459-85	1,400	17	154	112,000	1,400	17	152	110,000
1918	479-91	1,530	2	178	129,000	1,530	2	180	130,000
1919	509-38	738	-	106	76,400	-	-	-	-
*1930	704-21	1,040	-	130	93,900	1,040	-	131	94,800
1931	719-22	750	-	86.6	62,600	750	-	83.6	60,500
1932	734-22	758	-	111	80,700	758	-	113	81,700
1933	749-22	1,300	-	122	88,000	1,300	-	121	87,300
1934	764-32	528	-	76.3	55,250	528	-	75.2	54,440
1935	789-46	1,010	-	97.5	70,620	1,010	-	100	72,540
1936	809-45	916	-	155	112,800	916	5.6	154	111,500
1937	829-43	480	5.6	82.5	59,720	480	21	84.1	60,890
1938	859-50	1,040	18	134	97,360	682	6.6	85.9	62,170
1939	879-58	432	5.9	58.5	42,320	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Eagle River at Redcliff, Colo.
(Drainage area, 74 square miles)

1911	309-124	850	8.8	83.1	60,300	850	8.8	83.4	60,600
1912	617-269	900	9	90.3	65,400	900	-	90.9	66,000
1913	617-269	390	-	57.0	41,300	390	-	55.2	40,000
1914	389-61	750	3	80.1	58,000	750	-	80.0	57,900
1915	409-84	375	2	46.6	33,700	375	2	46.7	33,800
1916	439-97	550	5	70.7	51,300	550	6	71.8	52,100
1917	459-87	635	6	72.2	52,300	635	1	70.7	51,200
1918	479-93	677	1	87.1	63,200	677	5	88.7	64,200
1919	509-40	380	-	57.2	41,400	380	-	56.2	40,700
1920	509-41	617	3.2	72.8	52,800	617	-	72.0	52,300
1921	529-27	700	-	77.8	56,200	700	-	79.3	57,400
1922	549-30	400	6	50.4	36,500	400	5	49.0	35,500
1923	569-30	528	5	70.1	50,700	528	6	70.9	51,300
1924	589-29	420	6	56.0	40,700	420	7	56.5	41,000
1925	609-26	308	7	49.1	35,500	-	-	-	-

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Eagle River at Eagle, Colo.
(Drainage area, 650 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1911	617-273	2,790	-	565	409,000	2,790	-	584	423,000
1912	617-273	4,300	-	774	561,000	4,300	-	760	552,000
1913	617-273	3,550	-	572	413,000	3,550	-	584	423,000
1914	617-273	6,610	-	877	634,000	6,610	-	869	629,000
1915	617-273	3,760	-	554	401,000	3,760	-	543	393,000
1916	617-274	3,760	-	710	514,000	3,760	-	782	568,000
1917	617-274	6,300	-	792	573,000	6,300	-	783	567,000
1918	617-274	6,300	-	651	471,000	6,300	-	649	470,000
1919	617-274	3,240	-	483	349,000	3,240	-	481	348,000
1920	509-43	5,000	85	692	502,000	5,000	-	694	504,000
1921	529-29	5,750	-	741	537,000	5,750	-	743	538,000
1922	549-32	3,570	-	530	384,000	3,570	-	523	379,000
1923	617-275	4,280	-	717	520,000	4,280	-	731	529,000
1924	617-275	5,020	-	568	411,000	-	-	-	-

Roaring Fork at Aspen, Colo.
(Drainage area, 109 square miles)

1911	617-283	885	-	160	116,000	885	-	164	119,000
1912	617-283	1,490	-	211	153,000	1,490	-	191	139,000
1913	617-283	885	-	153	111,000	885	-	155	112,000
1914	389-71	1,700	-	216	156,000	1,700	-	216	156,000
1915	617-284	1,250	19	148	107,000	1,250	19	144	104,000
1916	439-103	1,320	26	185	134,000	1,320	26	191	139,000
1917	459-93	2,050	19	228	165,000	2,050	19	221	160,000
1918	479-100	2,170	31	224	162,000	2,170	28	225	163,000
1919	509-48	980	21	128	92,700	980	21	123	89,300
1920	509-48	1,430	21	183	133,000	1,430	21	187	136,000
1921	617-285	2,310	26	199	145,000	-	-	-	-
1934	764-33	-	-	-	-	707	15	84.2	60,940
*1935	789-47	-	-	128	98,420	-	-	136	98,700
*1936	809-46	-	-	164	119,400	-	-	165	119,900
*1937	829-44	-	-	115	83,290	-	-	113	82,060
*1938	859-51	-	-	175	126,800	-	-	180	130,100
*1939	879-59	-	-	134	97,280	-	-	-	-

*Records adjusted for diversion through Twin Lakes tunnel.
Note.- Figures of run-off, in acre-feet, diverted through Twin Lakes tunnel, 20 miles above station, are given in the following table.

Year	Water year ending Sept. 30	Calendar year	Year	Water year ending Sept. 30	Calendar year
1935	18,210	19,030	1938	45,470	46,310
1936	24,250	23,440	1939	37,060	-
1937	32,920	32,610	-	-	-

Roaring Fork at Glenwood Springs, Colo.
(Drainage area, 1,460 square miles)

1906	617-288	11,400	-	1,860	1,350,000	11,400	-	1,890	1,370,000
1907	249-133	8,040	225	1,830	1,330,000	8,040	266	1,810	1,320,000
1908	249-133	6,320	350	1,200	872,000	6,320	350	1,180	852,000
1909	269-161	11,300	300	1,810	1,310,000	11,300	-	1,810	1,310,000
1910	617-288	-	-	1,690	1,220,000	-	-	1,800	1,300,000
1912	329-124	12,800	330	2,250	1,630,000	12,800	330	2,200	1,590,000
1913	617-289	7,270	-	1,400	1,010,000	7,270	-	1,380	998,000
1914	617-289	14,200	-	2,550	1,850,000	14,200	-	2,540	1,840,000
1915	617-289	6,530	-	1,030	748,000	6,530	-	1,010	731,000
1916	439-106	8,520	300	1,700	1,230,000	8,520	300	1,760	1,280,000
1917	459-97	11,100	390	2,020	1,460,000	11,100	390	1,990	1,440,000
1918	479-103	15,200	380	1,880	1,360,000	15,200	380	1,890	1,370,000
1919	509-51	6,940	390	1,260	914,000	6,940	390	1,240	896,000
1920	509-51	10,800	380	1,870	1,360,000	10,800	380	1,870	1,360,000
1921	529-34	17,300	330	1,770	1,290,000	17,300	330	1,750	1,270,000
1922	549-34	9,000	340	1,480	1,070,000	9,000	340	1,490	1,080,000
1923	569-33	8,600	-	1,710	1,240,000	8,600	-	1,710	1,240,000
1924	589-32	11,100	342	1,360	991,000	11,100	342	1,340	971,000
1925	609-28	8,040	-	1,350	978,000	8,040	-	1,400	1,010,000
1926	629-28	8,440	330	1,360	988,000	8,440	330	1,330	964,000
1927	649-21	8,280	355	1,620	1,170,000	8,280	355	1,660	1,200,000
1928	669-21	9,670	385	1,520	1,100,000	9,670	385	1,470	1,070,000
1929	689-21	8,990	342	1,670	1,210,000	8,990	342	1,750	1,270,000
1930	704-22	7,290	322	1,300	943,000	7,290	322	1,210	877,000
1931	719-23	4,150	243	757	548,000	4,150	229	749	542,000
1932	(*)	7,910	212	1,570	1,140,000	7,910	212	1,600	1,160,000
1933	(*)	10,300	344	1,310	947,000	10,300	344	1,270	921,000
1934	764-34	3,730	254	689	499,100	3,730	267	673	486,900
1935	789-48	10,800	179	1,242	899,200	10,800	179	1,277	924,500
1936	809-47	7,740	310	1,444	1,048,000	7,740	310	1,436	1,042,000
1937	829-45	6,110	286	1,090	789,100	6,110	286	1,096	793,600
1938	859-52	11,000	277	1.649	1,194,000	11,000	277	1,665	1,205,000
1939	879-60	5,270	268	1,059	767,100	-	-	-	-

*From reports of State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Fryingpan Creek at Thomasville, Colo.
(Drainage area, 175 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1911	309-149	1,870	16	262	190,000	1,870	16	271	197,000
1912	617-301	2,120	45	328	238,000	2,170	45	320	232,000
1913	617-301	1,960	-	197	143,000	1,960	-	196	142,000
1914	617-301	2,200	-	295	214,000	2,200	-	296	214,000
1915	409-101	1,400	20	185	134,000	1,400	20	182	132,000
1916	439-113	1,520	33	238	173,000	1,520	36	246	178,000
1917	459-103	2,500	34	329	239,000	2,500	30	323	234,000
1918	617-302	-	30	322	238,000	-	30	334	242,000
1919	617-302	1,440	-	204	148,000	1,440	-	198	143,000
1920	617-302	1,860	-	305	221,000	-	-	-	-

Plateau Creek near Collbran, Colo.
(Drainage area, 88 square miles)

1922	617-315	2,000	6	163	118,000	2,000	5	159	115,000
1923	617-315	988	-	115	83,500	988	-	121	87,500
1924	617-315	918	7	90.0	65,000	918	7	87.1	63,200
1925	617-315	586	-	77.7	56,300	586	-	86.7	62,800
1926	617-315	995	-	121	87,800	995	-	113	81,400
1927	617-316	1,140	-	125	89,200	1,140	-	126	91,500
*1928	(†)	894	-	125	90,500	894	-	130	94,300
*1929	(†)	986	-	166	120,000	986	-	162	117,000
*1930	(†)	888	-	107	77,600	888	-	104	75,000
*1931	(†)	712	-	61.0	44,200	712	-	59.7	43,200
*1932	(†)	1,230	-	142	103,000	1,230	-	140	102,000
*1933	(†)	1,240	-	83.7	60,600	1,240	-	83.0	60,100
*1934	764-35	274	-	29.8	21,590	274	-	30.0	21,700
1935	789-53	788	-	76.0	55,030	788	-	76.9	55,680
1936	809-51	866	6.5	68.2	49,470	866	5.9	67.3	48,840
1937	829-53	1,260	5.9	86.4	62,530	1,260	6.2	88.0	63,730
1938	859-55	1,520	11	144	104,300	1,520	12	145	105,100
1939	879-63	608	5.5	59.6	43,130	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

Buzzard Creek near Collbran, Colo.
(Drainage area, 139 square miles)

1922	617-316	833	0.5	88.5	64,200	833	0.5	89.0	63,700
1923	617-317	584	2	69.3	50,200	584	-	70.6	51,100
1924	617-317	545	.6	48.3	35,000	545	.6	47.7	34,600
1925	617-317	269	1	40.7	29,490	269	2	43.6	31,600
1926	617-317	469	1	69.7	50,300	469	1	67.3	48,700
1927	617-317	530	-	65.8	47,500	530	-	66.2	47,900
*1928	(†)	662	1	65.4	47,500	662	1	64.3	46,700
*1929	(†)	766	-	92.0	66,600	766	-	93.2	67,500
*1930	(†)	343	-	57.0	41,300	343	-	56.1	40,600
*1931	(†)	363	1	33.6	24,300	363	1	32.9	23,800
*1932	(†)	1,090	1	81.5	59,200	1,090	1	82.5	59,900
*1933	(†)	765	1	50.6	36,600	765	1	47.8	34,600
*1934	764-36	105	.2	11.5	8,350	105	.2	11.0	7,950
1935	789-54	379	-	37.5	27,140	379	-	38.2	27,640
1936	809-54	372	.6	33.0	23,990	372	.6	32.9	23,890
1937	829-56	450	.3	32.1	23,220	450	.3	33.0	23,880
1938	859-58	672	.5	76.0	55,060	672	.5	76.0	55,050
1939	879-66	267	.5	29.4	21,260	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

Taylor River at Almont, Colo.
(Drainage area, 440 square miles)

1911	617-319	2,120	100	427	310,000	2,120	100	460	333,000
1912	617-319	2,340	-	477	345,000	2,340	-	453	329,000
1913	617-319	1,640	50	296	215,000	1,640	50	301	218,000
1914	617-319	3,140	-	540	391,000	3,140	-	547	396,000
1915	617-320	1,560	-	325	235,000	1,560	-	311	225,000
1916	617-320	2,740	-	468	339,000	2,740	-	479	348,000
1917	459-108	3,300	77	475	343,000	3,300	77	461	334,000
1918	479-107	3,220	100	448	325,000	3,220	100	454	329,000
1919	509-58	1,600	90	311	225,000	1,600	90	305	221,000
1920	509-58	3,600	-	493	359,000	3,600	-	499	362,000
1921	529-38	3,200	-	440	318,000	3,200	-	430	311,000
1922	549-38	2,170	-	398	288,000	2,170	-	402	291,000
1923	617-321	2,030	-	433	314,000	2,030	-	450	326,000
1924	589-36	2,230	102	379	275,000	2,230	102	364	264,000
1925	609-32	1,230	-	314	227,000	1,230	-	313	227,000
1926	629-31	1,910	-	326	236,000	1,910	-	318	230,000
1927	649-23	1,910	-	407	295,000	1,910	-	430	311,000
1928	669-22	2,570	-	420	305,000	2,570	-	413	300,000
1929	689-22	2,100	-	421	305,000	2,100	-	432	313,000
1930	704-23	1,800	-	378	274,000	1,800	-	351	254,000
1931	719-24	617	-	162	117,000	617	-	162	117,000
1932	(*)	1,420	-	320	232,000	1,420	-	320	232,000
1933	(*)	1,630	-	265	192,000	1,630	-	268	194,000
1934	764-38	735	-	191	138,100	735	-	187	135,300
1935	789-55	2,080	-	308	222,900	2,080	-	310	224,400

*From reports of State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Taylor River at Almont, Colo.--Continued
(Drainage area, 440 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1936	809-55	1,940	76	397	288,400	1,940	78	398	289,200
1937	829-57	1,430	52	272	197,200	1,430	37	251	181,700
1938	859-59	1,820	24	313	226,200	1,820	24	324	234,500
1939	879-68	1,160	44	294	212,800	-	-	-	-

Gunnison River near Gunnison, Colo.
(Drainage area, 1,010 square miles)

1911	617-323	-	-	959	694,000	-	-	1,010	734,000
1912	617-323	5,880	-	1,050	759,000	5,880	-	996	723,000
1913	617-323	3,180	-	689	498,000	3,180	-	702	508,000
1914	617-323	5,680	-	1,170	846,000	-	-	-	-
1916	617-324	4,620	-	990	717,000	4,620	-	1,020	740,000
1917	617-324	5,870	-	1,010	731,000	5,870	-	981	710,000
1918	479-109	11,400	180	1,140	822,000	11,400	142	1,130	821,000
1919	509-60	3,100	126	578	418,000	3,100	126	577	418,000
1920	509-60	7,480	-	1,170	848,000	7,480	-	1,170	850,000
1921	529-41	6,380	-	918	664,000	6,380	-	914	662,000
1922	549-41	4,780	-	805	583,000	4,780	-	782	566,000
1923	569-39	4,930	-	1,020	735,000	4,930	-	1,060	766,000
1924	589-37	4,270	-	745	542,000	4,270	-	750	530,000
1925	609-34	2,460	-	633	459,000	2,460	-	634	459,000
1926	629-33	3,530	-	643	466,000	3,530	-	641	464,000
1927	649-24	4,800	-	963	697,000	4,800	-	986	714,000
1928	669-23	5,510	-	816	592,000	5,510	-	793	576,000

Gunnison River near Grand Junction, Colo.
(Drainage area, 8,020 square miles)

1897	617-332	20,700	325	3,770	2,730,000	20,700	325	3,780	2,740,000
1898	617-332	11,400	395	2,190	1,590,000	11,400	314	2,060	1,490,000
1899	617-332	15,700	314	2,870	2,080,000	-	-	-	-
1902	617-332	8,350	341	1,550	1,120,000	8,350	341	1,420	1,030,000
1903	617-333	17,800	383	2,820	2,040,000	17,800	-	2,900	2,100,000
1904	617-333	8,630	510	1,780	1,290,000	8,630	-	1,780	1,290,000
1905	617-333	28,100	-	3,540	2,560,000	28,100	-	3,580	2,590,000
1906	617-333	21,900	-	4,050	2,930,000	-	-	-	-
1917	617-333	24,800	-	3,920	2,840,000	24,800	-	3,920	2,840,000
1918	479-112	16,900	275	2,800	2,020,000	16,900	275	2,830	2,050,000
1919	509-63	11,200	326	2,320	1,680,000	11,200	326	2,290	1,660,000
1920	509-63	35,200	480	4,170	3,020,000	35,200	480	4,210	3,060,000
1921	529-43	29,800	-	3,810	2,760,000	29,800	-	3,800	2,750,000
1922	549-43	22,200	448	3,190	2,300,000	22,200	448	3,120	2,260,000
1923	569-41	18,100	452	3,330	2,410,000	18,100	-	3,470	2,510,000
1924	589-41	15,000	160	2,750	2,000,000	15,000	160	2,670	1,940,000
1925	609-36	8,660	-	2,380	1,720,000	8,660	-	2,460	1,780,000
1926	617-335	13,900	-	2,750	1,990,000	13,900	-	2,680	1,940,000
1927	649-25	17,700	-	3,360	2,440,000	17,700	-	3,490	2,530,000
1928	669-25	21,400	422	3,410	2,470,000	21,400	422	3,280	2,380,000
1929	(*)	23,100	640	4,240	3,070,000	23,100	640	4,410	3,190,000
1930	(*)	12,400	545	2,900	2,100,000	-	-	-	-
†1934	764-39	4,190	-	821	594,100	4,190	106	730	528,800
1935	789-56	15,800	196	1,916	1,387,000	15,800	288	2,024	1,465,000
1936	809-56	14,700	420	2,415	1,753,000	14,700	420	2,402	1,744,000
1937	829-58	15,100	211	2,066	1,496,000	15,100	211	2,090	1,513,000
1938	859-61	17,300	524	3,389	2,454,000	17,300	524	3,441	2,491,000
1939	879-70	7,830	307	1,938	1,403,000	-	-	-	-

*From reports of State engineer of Colorado.
†Yearly figures not previously published; discharge for periods of missing record estimated.
Note.- Water in Redlands power canal included.

East River at Almont, Colo.
(Drainage area, 295 square miles)

1911	617-336	2,540	-	409	296,000	2,540	-	432	313,000
1912	617-336	3,160	-	431	312,000	3,160	-	408	296,000
1913	617-337	1,520	-	287	208,000	-	-	-	-
1915	617-337	1,530	-	314	227,000	1,630	-	293	212,000
1916	617-337	3,060	-	500	362,000	3,060	-	515	374,000
1917	459-113	3,540	-	456	329,000	3,540	-	439	318,000
1918	479-113	5,000	47	467	339,000	5,000	47	472	342,000
1919	509-66	1,710	39	291	210,000	1,710	39	286	207,000
1920	617-338	3,870	-	546	396,000	3,870	-	543	394,000
1921	617-338	-	-	415	300,000	-	-	413	299,000
*1935	789-57	2,570	-	341	246,800	2,570	-	347	251,100
1936	809-57	2,440	36	410	297,500	2,440	36	406	294,500
1937	829-59	2,060	48	288	208,200	2,060	49	295	213,500
1938	859-62	2,450	54	381	275,800	2,450	54	378	273,700
1939	879-72	1,450	46	253	182,800	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Lake Fork at Lake City, Colo.
(Drainage area, 123 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1918	617-344	756	-	98.0	71,100	756	-	98.2	71,100
1919	617-344	780	-	123	89,400	780	-	123	88,900
1920	509-71	900	-	132	95,900	900	-	134	97,000
1921	529-68	1,560	-	176	128,000	1,560	-	175	127,000
1922	549-48	1,000	-	139	100,000	1,000	-	135	98,000
1923	617-345	755	-	128	92,900	755	-	134	97,200
1924	617-345	1,150	-	114	82,800	-	-	-	-
*1929	689-23	820	-	152	110,000	820	-	163	118,000
1932	734-23	680	-	125	90,900	680	-	123	89,500
1933	749-23	704	-	92.8	67,200	704	-	96.3	69,700
1934	764-42	440	-	63.8	46,210	440	-	61.2	44,330
1935	789-58	1,040	-	104	75,300	1,040	-	104	75,570
1936	809-58	573	8	97.6	70,880	573	8	97.2	70,540
1937	829-60	573	10	74.2	53,720	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Surface Creek at Cedaredge, Colo.
(Drainage area, 43 square miles)

*1917	459-118	-	-	60.1	43,500	-	-	59.8	43,300
1918	617-354	190	-	24.2	17,500	190	-	24.0	17,400
1919	617-354	130	-	17.1	12,300	130	-	17.0	12,300
1920	617-354	640	-	48.7	35,200	640	-	48.9	35,500
1921	617-355	390	-	45.7	33,000	390	-	45.2	32,700
1922	617-355	540	-	45.1	32,600	540	-	45.9	33,200
1923	569-45	225	-	29.7	21,500	225	-	30.2	21,900
1924	589-45	123	-	21.2	15,400	123	-	20.1	14,600
1925	609-39	172	-	21.6	15,600	172	-	25.7	18,600
1926	617-356	207	-	38.8	28,100	207	-	34.5	25,000
1927	617-356	409	-	32.8	23,900	409	-	32.7	23,700
1928	(†)	392	-	28.5	20,700	392	-	29.5	21,400
*1929	(†)	418	-	40.3	29,200	418	-	41.3	29,900
*1930	(†)	154	-	26.7	19,300	154	-	25.7	18,600
*1931	(†)	110	-	17.7	12,900	110	-	17.1	12,400
*1932	(†)	430	-	33.5	24,300	430	-	33.5	24,300
*1933	(†)	170	-	18.6	13,500	170	-	18.0	13,000
*1934	764-45	74	-	10.5	7,570	74	-	11.0	7,960
1935	789-63	124	-	22.2	16,050	124	-	22.5	16,320
1936	809-63	143	-	21.3	15,440	143	-	20.9	15,210
1937	829-65	456	-	30.0	21,740	456	-	30.5	22,100
1938	859-71	316	-	38.1	27,570	316	-	38.4	27,770
1939	879-82	91	0	17.6	12,750	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

Uncompahgre River at Ouray, Colo.
(Drainage area, 44 square miles)

1911	617-357	-	-	93.0	67,300	-	-	104	75,100
1912	617-357	-	-	96.7	70,200	-	-	85.1	61,800
1913	617-357	-	-	65.4	47,400	-	-	65.7	47,600
1914	617-357	-	-	106	76,400	-	-	107	77,600
1915	617-357	-	-	82.9	60,000	-	-	80.1	58,000
1916	617-357	-	-	82.4	59,800	-	-	90.4	65,600
1917	459-120	945	8	112	80,900	945	8	104	75,100
1918	479-124	996	89	84.3	61,100	996	10	84.8	61,400
1919	509-83	526	10	73.0	53,000	526	10	73.2	53,000
1920	509-83	636	11	89.1	64,600	636	6	89.8	65,200
1921	529-53	1,370	6	111	80,400	1,370	6	111	80,100
1922	549-53	615	10	90.6	65,600	615	13	90.9	65,800
1923	569-47	498	11	84.0	60,800	498	11	86.0	62,300
1924	589-47	633	15	80.3	58,300	-	-	-	-

Note.- Combined flow of Uncompahgre River and powerhouse flume at Ouray.

Uncompahgre River below Ouray, Colo.
(Drainage area, 76 square miles)

1914	389-96	1,650	17	194	140,000	1,650	20	195	141,000
1915	409-110	1,180	10	133	95,900	1,180	10	128	93,000
1916	439-124	1,070	18	166	113,000	1,070	18	165	120,000
1917	459-122	1,680	24	209	151,000	1,680	24	200	145,000
1918	479-126	1,270	23	144	104,000	1,270	23	146	106,000
1919	509-86	685	24	131	94,600	685	23	128	92,900
1920	509-86	990	20	165	120,000	990	20	168	122,000
1921	529-55	1,550	23	182	131,000	1,550	23	180	130,000
1922	549-54	1,090	16	170	123,000	1,090	16	169	122,000
1923	569-49	872	22	160	116,000	872	22	163	118,000
1924	589-48	1,030	25	139	101,000	1,030	25	137	99,800
1925	609-40	920	23	166	120,000	920	23	174	126,000
1926	629-39	902	-	152	110,000	902	-	148	107,000
1927	649-27	1,620	18	183	132,000	1,620	18	192	139,000
*1928	669-26	759	22	163	118,000	759	22	158	115,000

*Records October to December from reports of State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Uncompahgre River at (near) Colona, Colo.
(Drainage area, 437 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1904	617-363	1,240	-	227	165,000	1,240	-	231	168,000
1905	617-363	1,800	-	308	223,000	-	-	-	-
1911	(†)	1,100	-	200	145,000	1,100	-	214	155,000
1912	(†)	1,400	-	276	200,000	1,400	-	253	184,000
1913	(†)	870	-	220	159,000	870	-	221	160,000
1914	(†)	2,720	-	390	282,000	2,720	-	378	274,000
1915	(†)	1,550	-	257	186,000	1,550	-	256	185,000
1916	(†)	1,360	-	284	206,000	1,360	-	304	221,000
1917	(†)	2,320	-	356	258,000	2,320	-	337	244,000
1918	617-364	2,270	-	238	172,000	2,270	-	244	177,000
1919	617-364	1,300	-	256	185,000	1,300	-	251	182,000
1920	617-364	1,600	-	302	219,000	1,600	-	307	223,000
1921	617-364	4,080	-	458	331,000	4,080	-	454	329,000
1922	617-365	1,500	-	317	228,000	1,500	-	311	225,000
1923	617-365	1,380	-	289	209,000	1,380	-	301	218,000
1924	617-365	1,620	-	287	207,000	1,620	-	281	204,000
1925	617-365	1,400	-	333	241,000	1,400	-	338	245,000
1926	617-365	1,730	-	324	235,000	1,730	-	323	234,000
1927	617-366	2,680	-	352	255,000	2,680	-	366	265,000
*1928	669-27	1,880	-	376	273,000	1,880	-	365	265,000
*1929	689-25	1,620	-	412	298,000	1,620	-	410	297,000
*1930	704-26	1,530	-	298	216,000	1,530	-	289	209,000
*1931	719-25	693	-	152	110,000	693	-	156	113,000
*1932	734-25	1,510	-	298	216,000	1,510	-	287	208,000
*1933	749-25	1,410	-	207	150,000	1,410	-	217	157,000
*1934	764-46	700	-	141	102,300	-	-	-	-
1936	809-64	873	-	195	141,600	873	-	193	139,900
1937	829-66	1,160	50	217	157,100	1,160	50	221	160,200
1938	859-72	2,900	54	387	280,200	2,900	54	396	286,400
1939	879-83	938	50	219	158,300	-	-	-	-

*Yearly figures not published; discharge for period of missing record from reports of State engineer of Colorado.
†Unpublished record furnished by the Uncompahgre Valley Water Users Association.

Uncompahgre River at Delta, Colo.
(Drainage area, 1,110 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Mean	Run-off in acre-feet
1903, May 1 to Dec. 31	617-366	2,410	4	-	103,000
1904, Mar. 1 to Dec. 31	133-180	557	1	-	27,000
1905, Mar. 1 to Dec. 24	617-367	1,780	6	-	118,000
1906, Mar. 1 to Oct. 31	211-95	1,510	25	-	129,000
1907, Apr. 21 to Nov. 30	249-151	1,150	6	-	88,400
1908, Jan. 1 to Nov. 30	249-151	515	0	-	52,000
1909, Apr. 1 to Aug. 31	289-159	1,100	27	-	95,400
1910, May 1 to Oct. 31	289-159	770	7	-	51,600
1911, Apr. 1 to Oct. 31	309-183	1,740	18	-	114,000
1912, Apr. 16 to Sept. 30	329-159	1,830	30	-	149,000
1913, Apr. 15 to Dec. 18	359-172	620	18	-	74,500
1915, Mar. 8 to Dec. 15	409-113	810	50	-	94,900
1916, Apr. 16 to Oct. 28	439-127	1,210	40	-	89,400
1917, Apr. 1 to Oct. 31	459-126	916	47	-	121,000
1918, Apr. 22 to Oct. 31	479-130	1,100	10	-	86,100
1919, Apr. 7 to Oct. 31	509-92	771	25	-	104,000
1920, Apr. 1 to Dec. 31	617-368	2,000	23	-	158,000
1921, Jan. 1 to Oct. 31	617-368	2,300	21	-	163,000
1922, Apr. 1 to Oct. 31	549-58	1,180	23	-	118,000
1923, May 1 to Oct. 31	569-52	1,510	60	-	200,000
1924, Apr. 26 to Nov. 30	589-51	1,430	77	-	120,000
1925, Apr. 1 to Nov. 16	617-369	1,360	59	-	193,000
1926, Apr. 1 to Oct. 31	629-42	1,160	51	-	146,000
1927, Apr. 1 to Nov. 30	649-29	2,530	66	-	218,000
1928, Mar. 17 to Dec. 6	669-28	1,300	-	-	206,000
1929, Mar. 19 to Nov. 16	689-26	1,830	41	-	231,000
1930, Apr. 1 to Nov. 20	704-27	1,460	70	-	179,000
1931, Mar. 25 to Sept. 30	719-26	512	42	-	47,400
1938, Sept. 1 to Dec. 31	879-84	1,250	113	-	79,380

Kahnah Creek near Whitewater, Colo.
(Drainage area, 55.0 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1918	479-132	343	5.3	37.6	27,200	343	6.7	38.5	27,900
1919	509-96	557	7.9	47.2	34,200	557	6.0	47.7	34,500
1920	509-96	1,120	6.0	77.3	56,100	1,120	-	76.3	55,400
1921	529-62	1,400	-	81.4	59,000	-	-	-	-
1923	617-374	713	-	38.1	27,600	713	-	38.8	28,100
1924	617-375	554	-	36.8	26,700	554	-	36.8	26,700
1925	617-375	-	-	32.7	23,700	-	-	33.4	24,200

Summary of yearly discharge, in second-feet, at stations on tributaries above Green River--Continued

Kahnah Creek near Whitewater, Colo.--Continued
(Drainage area, 55.0 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1926	617-375	567	-	46.2	33,500	567	-	45.6	33,000
1927	617-375	478	8	42.7	30,900	478	-	44.1	31,900
1928	(*)	702	-	47.9	34,800	702	-	47.8	34,700
1929	(*)	758	9	67.4	48,800	758	9	71.4	51,700
1930	(*)	470	7	52.2	37,800	470	-	48.5	35,100
†1931	(*)	474	-	35.5	25,700	474	-	34.1	24,700
†1932	(*)	638	-	26.7	19,400	-	-	-	-
1934	764-47	167	-	18.0	13,000	167	-	16.9	12,250
1935	789-65	573	-	38.1	27,610	573	-	38.7	28,010
1936	809-65	304	-	30.6	22,260	304	-	30.3	22,010
1937	829-67	433	-	31.5	22,800	433	-	31.8	23,000
1938	859-73	504	5.7	46.2	33,460	504	5.7	46.8	33,860
1939	879-87	309	6.6	30.4	22,020	-	-	-	-

*From reports of State engineer of Colorado.
†Diversion to Grand Junction pipe line estimated.
Note. Records adjusted for diversion to Grand Junction pipe line.

Dolores River at Dolores, Colo.
(Drainage area, 508 square miles)

1896	617-377	1,570	-	240	174,000	1,570	-	241	175,000
1897	617-377	2,940	-	564	408,000	2,940	-	597	432,000
1898	617-377	2,030	-	452	328,000	2,030	-	412	298,000
1899	617-378	1,460	-	201	146,000	1,460	-	206	149,000
1900	617-378	1,740	-	249	180,000	1,740	-	249	180,000
1901	617-378	2,790	-	419	303,000	2,790	-	409	296,000
1902	617-378	1,320	-	171	124,000	1,320	-	176	127,000
1903	617-378	2,820	-	488	354,000	-	-	-	-
1911	617-379	2,860	-	593	431,000	2,860	-	627	454,000
1912	617-379	3,790	-	567	411,000	-	-	-	-
*1922	617-379	6,950	-	670	485,000	6,950	-	630	478,000
1923	617-379	4,550	-	682	494,000	4,550	-	696	504,000
1924	617-379	3,540	-	474	344,000	3,540	-	457	332,000
1925	617-380	4,310	-	432	313,000	4,310	-	463	336,000
1926	617-380	4,780	-	737	533,000	-	-	-	-
1928	(†)	3,210	-	463	336,000	3,210	-	424	308,000
1929	(†)	3,080	-	543	393,000	3,080	-	555	402,000
1930	(†)	2,760	-	421	305,000	2,760	-	406	294,000
1931	(†)	1,250	-	180	130,000	1,250	-	186	135,000
1932	(†)	4,330	-	624	453,000	4,330	-	617	448,000
1933	(†)	2,770	-	294	213,000	2,770	-	300	217,000
1934	764-48	931	25	141	101,900	931	-	130	94,350
1935	789-66	3,190	-	422	305,900	3,190	-	431	311,800
1936	809-66	2,470	-	401	290,800	2,470	-	402	292,200
1937	829-68	3,550	35	547	395,700	3,550	-	532	377,900
1938	859-74	3,810	34	589	426,200	3,810	34	597	432,400
1939	879-88	1,610	32	265	191,900	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.
Note.- Records prior to December 1912 obtained at site just downstream from Lost Canyon Creek (drainage area, 524 square miles).

San Miguel River at Naturita, Colo.
(Drainage area, 1,080 square miles)

1918	617-386	1,980	-	234	170,000	1,980	-	227	164,000
1919	617-386	1,650	-	319	231,000	1,650	-	325	235,000
1920	509-103	4,180	52	520	379,000	4,180	40	525	381,000
1921	529-68	4,160	40	575	417,000	4,160	84	579	419,000
1922	549-61	2,590	44	429	311,000	2,590	44	421	305,000
1923	569-53	1,630	51	348	252,000	1,630	-	351	254,000
1924	589-53	2,540	41	339	247,000	2,540	41	335	243,000
1925	609-45	1,580	-	295	213,000	1,580	-	315	228,000
1926	629-43	1,670	-	400	290,000	1,670	-	391	283,000
1927	649-30	2,610	-	447	323,000	2,610	-	468	339,000
*1928	(†)	1,720	-	368	267,000	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

GREEN RIVER BASIN

Green River near Daniel, Wyo.
(Drainage area, 932 square miles)

*1913	469-253	5,000	-	1,010	729,000	5,000	-	1,010	728,000
*1914	469-253	4,400	-	843	610,000	4,400	-	822	595,000
*1915	409-16	2,180	-	503	364,000	2,180	-	528	382,000
*1916	439-17	4,620	-	869	631,000	4,620	-	857	622,000
*1917	459-13	4,810	-	981	710,000	4,810	-	986	714,000
*1918	479-9	8,210	-	901	652,000	8,210	-	902	653,000
*1919	509-107	2,620	-	392	284,000	2,620	-	387	280,000
*1920	509-107	2,980	-	759	551,000	2,980	-	769	558,000
*1921	529-69	5,710	-	769	557,000	5,710	-	757	548,000
*1922	549-63	4,010	-	761	551,000	4,010	-	768	556,000
*1923	569-55	3,430	-	757	548,000	3,430	-	760	550,000

*Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Green River near Daniel, Wyo.--Continued
(Drainage area, 932 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1924	589-54	1,760	-	478	347,000	1,760	-	468	340,000
*1925	609-46	3,410	-	673	487,000	3,410	-	693	502,000
*1926	629-45	1,800	-	551	399,000	1,800	-	535	387,000
*1927	649-31	5,060	-	797	577,000	5,060	-	819	593,000
*1928	669-29	4,560	-	818	594,000	4,560	-	798	579,000
*1929	689-27	2,110	-	530	384,000	2,110	-	522	378,000
*1930	704-28	2,380	-	610	442,000	2,380	-	638	462,000
*1931	719-27	1,380	-	352	255,000	1,380	-	305	221,000
*1932	734-27	3,710	-	543	394,000	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Green River at Green River, Wyo.
(Drainage area, 7,670 square miles)

1896	469-255	15,500	-	2,000	1,450,000	15,500	-	2,070	1,500,000
1897	469-255	17,900	-	2,270	1,650,000	17,900	-	2,320	1,680,000
1898	469-256	15,100	-	2,180	1,580,000	15,100	-	2,070	1,500,000
1899	469-256	21,400	-	3,440	2,500,000	-	-	-	-
1901	469-256	12,400	-	1,780	1,300,000	12,400	-	1,770	1,280,000
1902	469-256	10,800	-	1,430	1,040,000	10,800	-	1,400	1,010,000
1903	469-256	13,000	-	1,810	1,310,000	13,000	-	1,930	1,400,000
1904	469-257	13,100	-	2,580	1,870,000	13,100	-	2,520	1,830,000
1905	469-257	8,540	-	1,390	1,010,000	8,540	-	1,350	976,000
1906	469-257	12,200	-	2,050	1,490,000	-	-	-	-
1915	469-257	3,960	-	1,150	834,000	3,960	-	1,250	905,000
1916	439-19	13,800	295	2,410	1,750,000	13,800	250	2,340	1,700,000
1917	459-15	18,400	250	2,870	2,080,000	18,400	-	2,910	2,110,000
1918	469-258	21,800	-	2,410	1,750,000	21,800	-	2,400	1,740,000
1919	509-109	8,050	-	946	685,000	8,050	-	912	660,000
1920	469-258	12,300	-	2,040	1,480,000	12,300	-	2,080	1,510,000
1921	469-258	21,200	-	2,440	1,760,000	21,200	-	2,430	1,760,000
*1922	549-64	13,000	-	2,470	1,790,000	13,000	-	2,460	1,783,000
*1923	569-57	12,100	-	2,320	1,680,000	12,100	-	2,390	1,730,000
*1924	589-56	8,120	-	1,470	1,070,000	8,120	-	1,400	1,020,000
*1925	609-48	10,300	-	1,950	1,410,000	10,300	-	2,030	1,470,000
*1926	629-46	4,980	-	1,530	1,110,000	4,980	-	1,440	1,040,000
*1927	649-32	16,200	-	2,180	1,580,000	16,200	-	2,320	1,680,000
*1928	669-30	13,100	-	2,090	1,520,000	13,100	-	1,970	1,430,000
*1929	689-28	7,800	-	1,560	1,130,000	7,800	-	1,570	1,140,000
*1930	704-29	8,660	-	1,860	1,350,000	8,660	-	1,890	1,370,000
1931	719-28	2,950	-	805	583,000	2,950	-	678	491,000
1932	734-28	11,900	-	1,580	1,150,000	11,900	-	1,610	1,170,000
1933	749-27	11,600	-	1,200	872,000	11,600	-	1,190	861,000
1934	764-51	1,850	225	528	381,900	1,850	217	491	355,600
1935	789-68	11,900	217	1,132	819,600	11,900	-	1,144	828,200
1936	809-68	15,300	-	2,081	1,511,000	15,300	-	2,139	1,553,000
1937	829-71	9,950	325	1,619	1,172,000	9,950	325	1,591	1,152,000
1938	859-79	10,000	-	1,747	1,265,000	10,000	-	1,868	1,352,000
1939	879-92	4,740	400	1,326	959,600	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Green River near Linwood, Utah
(Drainage area, 14,300 square miles)

1929	689-29	8,090	-	2,100	1,520,000	8,090	-	2,170	1,570,000
1930	704-30	12,700	-	2,340	1,690,000	12,700	-	2,350	1,700,000
1931	719-29	3,230	-	914	662,000	3,230	-	762	552,000
1932	734-29	10,700	-	1,890	1,370,000	10,700	-	1,930	1,400,000
1933	749-28	11,700	-	1,460	1,050,000	11,700	-	1,420	1,030,000
1934	764-52	1,800	200	547	395,800	1,800	200	510	368,900
1935	789-69	12,400	232	1,266	916,600	12,400	238	1,274	922,600
1936	809-69	14,700	227	2,342	1,700,000	14,700	227	2,416	1,754,000
1937	829-72	9,800	330	1,889	1,368,000	9,800	330	1,848	1,338,000
1938	859-80	9,980	300	2,188	1,533,000	9,980	300	2,262	1,638,000
1939	879-93	5,180	450	1,563	1,132,000	-	-	-	-

Green River at Green River (Formerly Blake) Utah
(Published as Green River at Elgin, 1911 and Green River at Little Valley, near Green River, January 1912 to June 1924)
(Drainage area, 40,600 square miles)

1895	395-45	-	-	-	-	26,300	900	6,010	4,350,000
1896	395-45	43,500	900	5,730	4,160,000	43,500	900	5,750	4,170,000
1897	395-45	67,300	-	8,260	5,980,000	-	-	-	-
1898	(a)	-	-	-	-	35,600	1,080	7,620	5,510,000
1899	(b)	58,400	1,140	10,800	7,830,000	-	-	-	-
1906	269-39	42,100	-	8,780	6,360,000	42,100	-	9,050	6,540,000
1907	269-39	48,100	1,700	12,300	8,950,000	48,100	1,240	12,300	8,890,000
1908	269-39	25,000	-	5,910	4,290,000	25,000	750	5,810	4,220,000
1909	269-39	62,200	750	11,800	8,580,000	62,400	800	12,000	8,680,000
1910	289-28	28,800	800	6,490	4,710,000	28,800	770	6,420	4,640,000
1911	309-19	27,600	770	5,760	4,160,000	27,600	-	5,810	4,200,000
1912	329-20	54,600	-	8,490	6,160,000	54,600	-	8,570	6,220,000
1913	359-20	26,700	-	7,410	5,370,000	26,700	-	7,420	5,360,000
1914	389-18	50,800	-	9,780	7,070,000	50,800	-	9,740	7,060,000
1915	409-20	19,200	1,100	4,990	3,620,000	19,200	875	5,030	3,640,000

(a) 20th Ann. Rept., pt. 4, p. 387.
(b) 21st Ann. Rept., pt. 4, p. 304.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Green River at Green River (Formerly Blake) Utah--Continued
(Drainage area, 40,600 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1916	439-19	30,300	-	7,910	5,740,000	30,300	1,140	8,000	5,800,000
1917	459-15	66,700	-	11,700	8,430,000	66,700	-	11,600	8,400,000
1918	479-11	43,300	1,200	7,050	5,110,000	43,300	1,200	7,050	5,090,000
1919	509-110	19,900	834	4,460	3,230,000	19,900	510	4,180	3,030,000
1920	509-110	49,100	510	8,190	5,950,000	49,100	1,100	8,380	6,060,000
1921	529-71	64,100	1,100	9,950	7,220,000	64,100	1,260	9,880	7,160,000
1922	549-64	45,800	955	8,630	6,250,000	45,800	955	8,610	6,240,000
1923	569-57	42,000	1,540	8,760	6,340,000	42,000	-	8,980	6,500,000
1924	589-56	24,300	-	5,270	3,830,000	24,300	-	4,900	3,560,000
1925	609-48	20,100	-	5,600	4,050,000	20,100	-	6,060	4,390,000
1926	629-47	24,000	1,240	6,050	4,380,000	24,000	875	5,620	4,070,000
1927	649-33	32,700	875	7,220	5,220,000	32,700	-	7,740	5,600,000
1928	669-31	44,400	1,350	7,930	5,760,000	44,400	930	7,630	5,540,000
1929	689-30	41,900	930	8,930	6,460,000	41,900	754	9,020	6,530,000
1930	704-31	22,500	754	6,290	4,560,000	22,500	1,200	6,220	4,510,000
1931	719-30	12,800	640	3,300	2,390,000	12,800	400	2,930	2,120,000
1932	734-30	36,600	400	6,640	4,810,000	36,600	-	6,780	4,910,000
1933	749-29	27,400	-	4,870	3,530,000	27,400	478	4,760	2,210,000
1934	764-53	6,260	387	1,805	1,306,000	6,260	380	1,676	1,214,000
1935	789-70	30,700	380	3,936	2,850,000	30,700	800	4,000	2,896,000
1936	809-70	28,800	800	5,715	4,147,000	28,800	900	5,888	4,274,000
1937	829-73	26,800	-	5,709	4,134,000	26,800	742	5,760	4,171,000
1938	859-81	30,600	742	6,557	4,747,000	30,600	1,000	6,823	4,939,000
1939	879-94	17,400	989	4,724	3,420,000	-	-	-	-

East Fork at Newfork, Wyo.
(Drainage area, 348 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Mean	Run-off in acre-feet
1905, Apr. 1 to Dec. 31	469-263	2,550	-	-	114,000
1906, Jan. 1 to Oct. 31	469-263	2,380	-	-	140,000
1915, May 11 to Dec. 31	409-26	1,020	-	-	76,600
*1916	469-263	2,120	-	222	161,000
*1917	469-263	2,940	-	257	186,000
1918, Jan. 1 to Nov. 30	469-264	2,540	-	-	146,000
*1920	469-264	2,320	-	195	134,000
1921, Jan. 1 to Nov. 30	469-264	2,800	-	-	147,000
1922, Apr. 1 to Nov. 30	549-69	2,380	45	-	138,000
1923, Apr. 1 to Nov. 15	569-61	2,310	47	-	129,000
1924, Apr. 1 to Oct. 31	589-59	1,420	38	-	76,200
1931, Apr. 17 to Dec. 31	719-31	876	-	-	37,000
1932, Jan. 1 to Oct. 31	734-34	2,120	-	-	109,000

*Year complete.

New Fork near Boulder, Wyo.
(Drainage area, 578 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1915	409-27	1,070	-	279	202,000	1,070	-	294	213,000
1916	439-31	3,200	42	512	372,000	3,200	-	503	365,000
1917	469-266	3,180	-	521	377,000	3,180	-	532	385,000
1918	469-266	11,800	-	611	442,000	11,800	-	608	440,000
*1919	618-288	2,320	-	207	150,000	2,320	-	195	141,000
*1920	618-288	2,950	-	466	338,000	2,950	-	468	340,000
1921	469-266	4,620	-	463	336,000	4,620	-	453	328,000
*1922	549-71	3,420	-	477	345,000	3,420	-	483	350,000
*1923	569-62	2,890	-	489	354,000	2,890	-	490	355,000
*1924	589-61	1,480	-	291	211,000	1,480	-	284	206,000
*1925	609-51	3,200	-	457	331,000	3,200	-	492	356,000
*1926	629-50	1,450	-	348	252,000	1,450	-	319	231,000
*1927	649-34	5,030	-	511	370,000	5,030	-	572	414,000
*1928	669-32	3,220	-	532	386,000	3,220	-	470	341,000
*1929	689-31	2,300	-	325	235,000	2,300	-	336	243,000
*1930	704-32	2,630	-	448	324,000	2,630	-	452	327,000
*1931	719-32	1,020	-	173	125,000	1,020	-	146	106,000
*1932	734-35	4,480	-	385	280,000	4,480	-	390	283,000
*1933	749-31	3,930	-	318	230,000	3,930	-	315	228,000
*1934	764-55	930	-	153	110,600	930	-	153	111,100
1935	789-72	3,640	-	314	227,000	3,640	-	315	228,300
1936	809-72	4,110	-	450	327,000	4,110	-	455	330,300
1937	829-75	2,030	-	328	237,600	2,030	-	327	236,900
1938	859-83	3,040	-	443	320,500	3,040	-	471	340,700
1939	879-103	1,440	105	325	235,300	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Pine Creek at (near) Pinedale, Wyo.
(Drainage area, 128 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1904	469-267	1,340	-	205	149,000	1,340	-	198	144,000
1905	469-267	1,310	-	205	148,000	1,310	-	206	149,000
1906	469-267	1,320	-	210	152,000	-	-	-	-
1911	469-268	1,620	-	193	140,000	1,620	-	195	141,000
*1912	469-268	-	-	179	130,000	-	-	-	-
*1915	409-29	500	-	103	74,700	500	-	106	76,600
1916	439-34	1,750	6	204	148,000	1,750	-	200	145,000
1917	469-268	1,800	-	217	157,000	1,800	-	221	160,000
1918	469-269	2,170	-	208	151,000	2,170	-	211	153,000
*1919	618-291	1,110	-	80.0	57,900	1,110	-	78.9	57,100
1920	618-292	1,040	-	171	124,000	1,040	-	168	122,000
1921	618-292	1,640	-	171	124,000	1,640	-	163	118,000
*1922	549-72	1,500	4	185	134,000	1,500	-	189	137,000
*1923	569-64	1,070	-	163	118,000	1,070	-	163	118,000
*1924	589-62	475	-	80.4	58,400	475	-	78.2	56,800
*1925	609-62	1,900	-	181	131,000	1,900	-	193	140,000
*1926	629-51	625	-	113	81,500	625	-	100	72,700
*1927	649-35	1,970	-	181	131,000	1,970	-	189	137,000
*1928	669-33	1,140	-	146	106,000	1,140	-	137	99,500
*1929	689-32	837	-	102	74,100	837	-	106	77,000
*1930	704-33	1,060	-	146	106,000	1,060	-	149	108,000
1931	719-33	537	-	43.8	31,700	537	-	36.2	26,200
*1932	734-36	1,660	-	136	98,900	1,660	-	138	100,000
*1933	749-32	1,270	-	95.2	68,900	1,270	-	94.9	68,700
*1934	764-56	410	-	35.2	25,500	410	-	38.0	27,530
1935	788-75	1,200	6.9	107	77,330	1,200	6.9	107	77,560
1936	809-73	1,100	8.0	142	103,000	1,100	7.6	141	102,600
1937	829-76	768	7.6	97.3	70,470	768	7.5	96.7	70,030
1938	859-84	1,190	7.5	147	106,300	1,190	-	159	114,800
1939	879-107	435	20	108	77,910	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Boulder Creek near Boulder (Newfork), Wyo.
(Drainage area, 112 square miles)

*1904	469-272	2,060	-	262	190,000	2,060	-	260	189,000
1905	469-272	1,940	-	193	140,000	1,940	-	192	139,000
*1906	211-34	2,620	-	214	155,000	-	-	-	-
*1915	409-30	765	-	102	74,200	765	-	111	80,400
1916	469-272	2,340	-	202	146,000	2,340	-	191	139,000
1917	469-272	2,710	-	225	163,000	2,710	-	225	163,000
1918	469-273	3,160	-	186	135,000	3,160	-	188	136,000
*1919	469-273	1,900	-	77.6	56,200	1,900	-	82.0	59,400
*1920	469-273	1,880	-	174	126,000	1,880	-	171	124,000
1921	469-273	2,760	-	187	135,000	2,760	-	180	130,000
*1922	549-74	2,340	-	202	146,000	2,340	-	202	146,000
*1923	569-65	2,260	-	182	132,000	2,260	-	191	138,000
*1924	589-64	1,440	-	130	94,700	-	-	-	-
*1931	719-34	662	-	34.1	24,700	662	-	34.7	25,100
*1932	734-37	2,140	1	159	116,000	2,140	-	161	117,000

*Yearly figures not previously published; discharge for periods of missing record estimated.

North Piney Creek near Mason (Marbleton), Wyo.
(Drainage area, 58 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Mean	Run-off in acre-feet
1915, June 1 to Dec. 31	409-31	130	-	-	17,800
1916, Jan. 1 to Sept. 30	469-274	591	-	-	45,400
1932, May 1 to Oct. 31	734-38	450	16	-	39,200
1933, May 1 to Oct. 31	749-33	350	11	-	24,100
1934, Apr. 14 to Nov. 30	764-57	136	8.6	-	14,800
1935, Apr. 1 to Oct. 31	789-74	383	17	-	30,920
1936, May 1 to Oct. 31	809-74	488	19	-	46,100
1937, May 13 to Nov. 15	829-77	266	14	-	25,110
1938, Apr. 25 to Oct. 31	859-85	368	23	-	37,480

Fontenelle Creek near Fontenelle, Wyo.
(Drainage area, 224 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1917	469-277	900	-	144	104,000	900	-	141	102,000
1918	469-277	496	-	95.0	68,800	496	-	97.2	70,400
1919	469-277	138	-	37.0	26,800	-	-	-	-
*1932	734-41	445	-	72.3	52,500	445	-	75.6	54,900
*1933	749-35	233	-	48.1	34,800	233	-	44.9	32,500
*1934	764-59	35	0	12.4	8,970	35	0	9.78	7,080

*Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Fontenelle Creek near Fontenelle, Wyo.--Continued
(Drainage area, 224 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1935	789-76	422	5.6	36.9	26,680	422	5.6	33.6	27,940
1936	809-76	503	8.5	85.9	62,350	503	11	91.8	65,910
1937	829-79	341	24	61.3	44,380	341	24	60.3	43,680
1938	859-87	720	20	69.3	50,160	720	20	72.1	50,710
1939	879-116	255	9.4	54.1	39,170	-	-	-	-

Big Sandy Creek near Farson, Wyo.
(Drainage area, 322 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Mean	Run-off in acre-feet
1915, May 1 to Aug. 31	469-279	600	20	-	47,300
1916, May 1 to Sept. 30	439-43	740	22	-	72,500
1917, May 1 to Sept. 30	529-83	1,160	7	-	94,200
1921, May 1 to Nov. 6	529-83	1,020	8	-	73,800
1922, May 6 to Oct. 31	549-76	738	4	-	60,200
1923, May 13 to Nov. 12	569-67	715	15	-	72,400
1924, May 1 to Oct. 31	589-65	473	5	-	45,000
1927, May 1 to Oct. 31	649-36	845	25	-	74,300
1928, May 1 to Nov. 18	669-34	785	14	-	64,500
1929, Apr. 15 to Oct. 31	689-33	504	15	-	47,000
1930, Apr. 24 to Oct. 23	704-34	816	15	-	52,700
1931, Apr. 19 to Nov. 8	719-36	301	1	-	17,800
1932, May 1 to Nov. 7	734-42	723	12	-	55,200
1933, May 1 to Nov. 30	749-36	874	7	-	48,200
1934, Apr. 16 to Aug. 16	764-60	228	7	-	15,420

Blacks Fork near Urie, Wyo.
(Drainage area, 261 square miles)

1914, Mar. 15 to Nov. 30	389-23	1,670	15	-	113,000
1915, Apr. 1 to Nov. 20	409-38	642	2.3	-	58,500
1916, Mar. 12 to Nov. 4	439-45	710	1	-	56,600
1917, Apr. 8 to Nov. 30	459-39	2,440	3	-	104,000
1918, Mar. 17 to Nov. 23	479-34	1,360	2	-	60,000
1919, Mar. 23 to Nov. 15	509-129	680	1.8	-	24,700
1920, Mar. 20 to Nov. 13	509-129	1,220	5	-	68,300
1921, Mar. 20 to Nov. 15	529-85	2,180	5	-	107,000
1922, Apr. 17 to Nov. 13	549-77	1,480	6	-	77,400
1923, Apr. 1 to Nov. 15	569-68	2,260	8	-	117,000
1924, Mar. 23 to Sept. 30	589-67	1,150	.3	-	49,900
1938, Oct. 21 to Dec. 31	859-90	34	16	-	3,050

Hams Fork at Diamondville, Wyo.
(Drainage area, 386 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1918	479-35	1,500	-	192	139,000	1,500	-	193	140,000
†1919	509-130	560	0	84.7	61,300	560	0	84.7	61,300
1920	469-284	2,640	-	220	159,000	2,640	-	220	160,000
1921	469-284	2,170	-	279	202,000	2,170	-	278	201,000
*1922	549-79	1,930	-	200	145,000	1,930	-	199	144,000
*1923	569-70	3,130	-	250	181,000	3,130	-	238	197,000
*1924	589-68	1,790	-	185	134,000	1,790	-	176	128,000
*1925	609-53	-	-	130	94,000	-	-	129	93,700
*1926	629-53	495	2	82.5	59,700	495	2	81.6	59,100
*1927	649-37	1,370	-	167	121,000	1,370	-	167	121,000
*1928	669-35	1,380	8	149	108,000	1,380	8	147	107,000
*1929	689-34	1,560	-	160	116,000	1,560	-	162	117,000
*1930	704-35	1,040	-	133	96,100	1,040	-	131	94,900
1931	719-37	275	0	34.6	25,000	275	0	31.2	22,600
1932	734-43	1,830	6	164	119,000	1,830	-	168	122,000

*Yearly figures not previously published; discharge for periods of missing record estimated.
†Monthly means for periods of missing record estimated and published in Water-Supply Paper 469.

Henrys Fork at Linwood, Utah
(Drainage area, 531 square miles)

*1929	689-35	958	-	145	105,000	958	-	156	113,000
1930	704-36	1,320	-	101	72,900	1,320	-	92.4	66,900
1931	719-38	226	0.1	38.1	27,500	226	0.1	28.6	20,700
1932	734-44	770	.3	75.8	55,000	770	-	80.7	58,600
1933	749-38	882	0	63.2	45,700	882	0	57.3	41,500
1934	764-61	133	0	16.5	11,960	133	0	17.1	12,180
1935	789-77	1,020	0	41.0	29,710	1,020	.2	42.3	30,650
1936	809-77	3,550	.8	64.6	46,920	3,550	2.6	75.3	54,680
1937	829-80	463	5.8	94.2	68,200	463	5.8	93.8	67,890
1938	859-92	796	6.5	109	78,790	796	6.5	114	82,840
1939	879-123	316	0	68.2	49,360	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Burnt Fork at Burntfork, Wyo.
(Drainage area, 73 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1930	704-37	214	2	16.4	11,900	214	2	13.5	9,790
1931	719-39	11	.6	4.52	3,270	11	.2	2.98	2,160
*1932	734-45	132	.2	8.15	5,920	132	-	9.49	6,890
1933	749-39	120	-	8.0	5,820	120	-	6.85	4,960
1934	764-62	-	0	1.53	1,110	-	0	1.83	1,320
1935	789-78	85	.2	5.28	3,820	85	.2	5.10	3,690
1936	809-78	420	.1	8.60	6,240	420	.1	11.3	8,220
1937	829-81	78	.8	13.3	9,630	78	.8	12.8	9,240
1938	859-93	164	-	18.9	13,660	164	-	20.0	14,480
1939	879-124	69	.8	8.98	6,510	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing records estimated.

Yampa River at Steamboat Springs, Colo.
(Drainage area, 604 square miles)

1905	618-312	4,240	-	453	328,000	4,240	-	439	318,000
1906	618-313	4,560	-	570	413,000	-	-	-	-
1910	618-313	2,680	-	412	298,000	2,680	-	407	295,000
1911	618-313	2,640	51	403	292,000	2,640	-	413	299,000
1912	618-313	4,390	-	649	474,000	4,390	-	664	482,000
1913	618-313	2,430	-	399	289,000	2,430	-	372	269,000
1914	618-314	5,120	-	566	410,000	5,120	-	586	424,000
1915	618-314	2,260	-	375	280,000	2,260	-	369	267,000
1916	618-314	2,980	-	486	349,000	2,980	-	497	361,000
1917	618-314	5,280	-	698	506,000	5,280	-	691	500,000
1918	618-314	4,730	81	543	393,000	4,730	-	562	407,000
1919	618-315	3,040	35	401	290,000	3,040	35	373	270,000
1920	618-315	4,630	40	637	462,000	4,630	-	654	475,000
1921	618-315	5,870	-	732	530,000	5,870	-	722	523,000
1922	618-315	2,960	-	382	277,000	2,960	-	377	273,000
1923	618-315	3,460	-	578	419,000	3,460	-	590	427,000
1924	618-316	3,280	40	444	322,000	3,280	-	450	327,000
1925	618-316	2,400	-	445	322,000	2,400	-	446	323,000
1926	618-316	3,840	-	532	385,000	3,840	-	523	379,000
1927	(*)	3,460	-	617	447,000	3,460	-	627	454,000
1928	(*)	4,920	-	642	466,000	4,920	-	631	458,000
†1929	(*)	4,030	-	648	469,000	4,030	-	652	472,000
1930	(*)	3,290	-	471	341,000	3,290	-	471	341,000
†1931	(*)	2,440	36	336	243,000	2,440	36	323	234,000
†1932	(*)	3,240	-	521	378,000	3,240	-	526	382,000
†1933	(*)	4,160	-	472	342,000	4,160	-	463	335,000
1934	764-63	1,290	4	175	126,800	1,290	4	169	122,000
†1935	789-79	3,490	-	348	251,700	3,490	-	355	257,200
†1936	809-79	3,660	-	529	383,700	3,660	-	528	383,200
1937	829-82	2,580	45	319	231,200	2,580	45	330	239,000
1938	859-94	3,760	58	517	374,200	3,760	86	542	371,500
1939	879-125	2,610	34	414	299,600	-	-	-	-

*From reports of State engineer of Colorado.
†Yearly figures not previously published; discharge for periods of missing records estimated.

Yampa River at Craig, Colo.
(Drainage area, 1,730 square miles)

1902	618-317	8,730	-	1,190	866,000	-	-	-	-
1904	618-317	7,550	-	1,210	875,000	7,550	-	1,180	857,000
1905	618-317	9,000	-	1,190	862,000	9,000	-	1,180	856,000
1906	618-317	9,680	-	1,450	1,050,000	-	-	-	-
1910	618-318	5,870	-	1,030	746,000	5,870	-	1,020	739,000
1911	618-318	8,320	-	1,160	838,000	8,320	-	1,180	852,000
1912	618-318	10,300	-	1,820	1,320,000	10,300	-	1,870	1,360,000
1913	618-318	6,640	-	1,100	801,000	6,640	-	1,040	752,000
1914	618-318	10,300	-	1,660	1,200,000	10,300	-	1,700	1,230,000
1915	618-319	5,150	-	1,030	747,000	5,150	-	975	706,000
1916	618-319	9,410	-	1,380	1,000,000	-	-	-	-

Yampa River near Maybell, Colo.
(Drainage area, 3,410 square miles)

*1917	459-40	17,500	-	2,940	2,130,000	17,500	-	2.890	2,090,000
1918	618-321	10,100	240	1,780	1,290,000	10,100	-	1.820	1,320,000
*1919	618-321	7,550	-	1,320	958,000	7,550	-	1.270	920,000
1920	618-321	15,800	-	2,160	1,570,000	15,800	-	2.200	1,600,000
*1921	618-321	16,600	-	2,490	1,800,000	16,600	-	2.460	1,780,000
1922	618-321	10,600	-	1,560	1,130,000	10,600	-	1.550	1,120,000
1923	618-322	10,700	-	1,940	1,410,000	10,700	-	1.960	1,420,000
1924	618-322	7,140	-	1,310	951,000	7,140	-	1.330	962,000
1925	618-322	6,460	-	1,380	996,000	6,460	-	1.400	1,010,000
1926	618-322	8,350	-	1,590	1,150,000	8,350	-	1.560	1,130,000
1927	(†)	11,300	-	1,850	1,340,000	11,300	-	1.920	1,390,000
1928	(†)	13,100	-	2,080	1,510,000	13,100	-	2.040	1,480,000
*1929	(†)	14,400	-	2,800	2,030,000	14,400	-	2.850	2,060,000
1930	(†)	7,800	-	1,460	1,060,000	7,800	-	1.480	1,070,000
*1931	(†)	6,180	-	1,140	827,000	6,180	-	1,060	765,000
*1932	(†)	11,900	-	1,910	1,390,000	11,900	-	1.910	1,390,000
*1933	(†)	10,900	-	1,460	1,060,000	10,900	-	1,440	1,040,000
*1934	764-64	3,700	2	518	375,100	3,700	2	512	370,600
*1935	789-80	9,430	-	1,213	878,200	9,430	-	1,223	885,600

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Yampa River near Maybell, Colo.--Continued
(Drainage area, 3,410 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1936	809-80	10,500	-	1,576	1,144,000	10,500	-	1,574	1,143,000
1937	829-83	10,000	-	1,298	939,600	10,000	106	1,336	967,200
1938	859-95	11,500	173	1,696	1,228,000	11,500	184	1,686	1,220,000
1939	879-126	7,610	55	1,285	930,500	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.

Elk River at (near) Clark, Colo.
(Drainage area, 206 square miles)

1911	618-328	-	-	337	253,000	-	-	367	266,000
1912	618-328	4,470	-	538	390,000	4,470	-	529	384,000
1913	618-328	1,950	-	264	191,000	1,950	-	262	190,000
1914	618-328	3,410	-	367	266,000	3,410	-	366	265,000
1915	618-329	1,720	-	279	202,000	1,720	-	278	201,000
1916	618-329	2,360	-	368	267,000	2,360	-	372	270,000
1917	618-329	2,920	-	533	386,000	2,920	-	523	379,000
1918	618-329	2,800	-	422	305,000	2,800	-	438	317,000
1919	618-329	1,960	-	311	235,000	1,960	-	307	222,000
1920	618-330	3,620	-	554	402,000	3,620	-	561	407,000
1921	618-330	-	-	557	403,000	-	-	552	400,000
1922	618-330	3,530	-	386	280,000	-	-	-	-
*1931	(†)	-	-	221	160,000	-	-	217	157,000
*1932	(†)	2,300	-	485	352,000	2,300	-	483	351,000
*1933	(†)	2,530	-	331	240,000	2,530	-	323	234,000
*1934	764-65	1,280	-	179	129,400	1,280	-	177	128,100
*1935	789-81	2,730	-	309	223,700	2,730	-	314	227,200
*1936	809-81	2,600	-	410	297,600	2,600	-	410	297,400
1937	829-84	2,650	-	361	261,300	2,650	-	367	265,400
1938	859-96	3,110	-	398	288,000	3,110	-	401	290,100
1939	879-127	1,540	34	281	203,100	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

Elk River near Trull, Colo.
(Drainage area, 415 square miles)

1905	618-331	3,410	-	540	391,000	3,410	-	533	386,000
1906	618-331	4,280	-	657	476,000	-	-	-	-
1910	618-331	2,590	-	435	315,000	2,590	-	428	310,000
1911	618-331	3,530	-	558	408,000	3,530	-	591	428,000
1912	618-332	3,880	-	723	525,000	3,880	-	711	516,000
1913	618-332	2,800	-	441	319,000	2,800	-	430	311,000
1914	618-332	3,450	-	622	450,000	3,450	-	631	457,000
1915	618-332	1,840	-	422	306,000	1,840	-	413	299,000
1916	618-332	3,620	-	657	477,000	3,620	-	676	491,000
1917	618-333	4,280	-	884	640,000	4,280	-	860	623,000
1918	618-333	5,000	76	600	434,000	5,000	-	640	465,000
1919	618-333	2,540	-	505	366,000	2,540	-	459	332,000
1920	618-333	5,220	-	823	597,000	5,220	-	837	608,000
1921	618-333	5,350	-	780	565,000	5,350	-	769	557,000
1922	618-334	3,800	-	526	382,000	3,800	-	526	381,000
1923	618-334	3,880	-	611	443,000	3,880	-	620	449,000
1924	618-334	3,170	-	427	310,000	3,170	-	428	311,000
1925	618-334	2,470	-	482	349,000	-	-	-	-
1927	(*)	3,940	-	651	471,000	-	-	-	-

*From reports of State engineer of Colorado.

Williams Fork at Hamilton, Colo.
(Drainage area, 341 square miles)

1905	618-345	1,680	-	181	131,000	1,680	-	177	128,000
1906	618-345	2,580	-	280	203,000	-	-	-	-
1910	618-346	1,580	-	203	147,000	1,580	-	203	147,000
1911	618-346	1,230	-	174	126,000	1,230	-	173	125,000
1912	618-346	2,060	-	258	187,000	2,060	-	265	191,000
1913	618-346	1,150	-	193	140,000	1,150	-	188	136,000
1914	618-346	1,800	-	220	159,000	1,800	-	222	161,000
1915	618-347	878	-	141	102,000	878	-	136	98,400
1916	618-347	1,940	-	240	174,000	1,940	-	248	180,000
1917	618-347	3,190	-	395	286,000	3,190	-	391	283,000
1918	618-347	1,580	-	237	172,000	-	-	-	-
1920	618-348	1,990	-	280	203,000	1,990	-	277	201,000
1921	618-348	1,750	-	227	164,000	1,750	-	217	157,000
1927	(*)	1,650	-	209	151,000	-	-	-	-

*From reports of State engineer of Colorado.

Middle Fork of Little Snake River near Battle Creek, Colo.
(Drainage area, 120 square miles, approximate)

1913	618-350	758	-	96.1	69,600	758	-	96.3	69,700
1914	618-350	1,460	-	139	101,000	1,460	-	141	102,000
1915	618-350	526	-	91.8	66,600	526	-	89.1	64,500
1916	618-351	1,380	-	134	97,400	1,380	-	138	100,000
1917	618-351	-	-	218	158,000	-	-	213	154,000
1918	618-351	1,050	-	134	96,900	1,050	-	135	97,600

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Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Middle Fork of Little Snake River near Battle Creek, Colo.--Continued
(Drainage area, 120 square miles, approximate)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1919	618-351	695	5	101	73,100	695	-	97.2	70,400
1920	618-351	2,760	-	172	125,000	2,760	-	174	126,000
1921	618-352	2,380	-	168	122,000	2,380	-	167	121,000
1922	618-352	1,430	-	104	75,700	-	-	-	-

Little Snake River near Dixon, Wyo.
(Drainage area, 1,060 square miles)

Calendar year	W.S.P. (no. and page)	Maximum day	Minimum day	Mean	Run-off in acre-feet
1910, June 1 to Dec. 31	289-68	1,900	9	-	59,100
1911, Mar. 1 to Nov. 30	309-64	3,000	5	-	314,000
1912, Apr. 1 to Nov. 30	329-53	6,140	20	-	457,000
1913, Apr. 1 to Nov. 30	469-295	2,600	8	-	250,000
1914, Mar. 22 to Nov. 30	469-295	6,740	20	-	532,000
1915, May 1 to Nov. 30	469-296	2,970	8	-	218,000
1916, Mar. 13 to Oct. 31	469-296	4,370	30	-	399,000
1917, Apr. 1 to Nov. 30	459-41	5,260	30	-	592,000
1918, Mar. 17 to Nov. 24	479-36	3,950	5.7	-	375,000
1919, Mar. 23 to Nov. 15	509-133	3,960	5	-	381,000
1920, Apr. 1 to Oct. 31	509-133	8,960	56	-	639,000
1921, Apr. 1 to Nov. 30	529-87	6,680	22	-	557,000
1922, Mar. 22 to Nov. 30	549-80	5,110	22	-	355,000
1923, Apr. 1 to Sept. 30	569-71	4,140	31	-	309,000
1938, Mar. 15 to Dec. 31	859-97	5,500	8.8	-	391,400

Little Snake River near Lily (Maybell), Colo.
(Drainage area, 3,730 square miles)

1922, May 1 to Nov. 30	549-81	5,650	14	-	373,000
1923, May 1 to Dec. 31	569-72	4,900	6	-	379,000
1924, Jan. 1 to Oct. 31	589-69	3,580	0	-	371,000
1925, Apr. 1 to Oct. 31	609-54	2,880	23	-	385,000
1926, Mar. 23 to Oct. 31	629-54	8,950	12	-	489,000
1927, Apr. 1 to Nov. 30	649-38	5,850	23	-	539,000
1928, Apr. 1 to Nov. 30	(*)	5,890	7	-	508,000
1929, May 1 to Dec. 31	(*)	7,280	-	-	677,000
1930, Jan. 1 to Nov. 30	(*)	2,280	0	-	273,000
1931, Apr. 1 to Nov. 30	(*)	2,990	0	-	405,000
1932, Apr. 1 to Nov. 30	(*)	7,100	5	-	648,000
1933, Apr. 1 to Oct. 31	(*)	5,670	-	-	498,000
1934, Mar. 1 to Nov. 30	764-66	865	0	-	71,500
1935, Mar. 26 to Nov. 30	789-82	3,050	.9	-	228,400
1936, Mar. 12 to Nov. 30	809-82	4,030	0	-	339,800
1937, Mar. 26 to Nov. 30	829-85	5,080	14	-	479,500
†1938	859-98	7,950	0	677	489,800

*From reports of State engineer of Colorado.
†Year complete.

Willow Creek near Baggs, Wyo.
(Drainage area, 5 square miles, approximate)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1912	618-363	128	-	11.3	8,180	128	-	11.2	8,120
1913	618-363	54	-	7.45	5,400	54	-	7.61	5,510
1914	618-363	134	-	10.2	7,730	134	-	10.8	7,820
1915	618-363	51	-	8.08	5,860	51	-	8.23	5,960
1916	618-364	98	-	10.3	7,490	98	-	9.82	7,130
1917	618-364	88	-	13.9	10,100	88	-	13.8	10,000
1918	618-364	40	-	6.18	4,480	40	-	7.28	5,270
1919	618-364	55	-	12.5	9,100	55	-	12.5	9,040
1920	618-364	74	-	10.4	7,520	74	-	11.0	7,990
1921	618-365	59	-	14.2	10,300	59	-	14.5	10,500
1922	618-365	70	-	9.12	6,620	-	-	-	-

Fourmile Creek near Baggs, Wyo.
(Drainage area, 4 square miles, approximate)

1912	618-366	99	-	7.37	5,540	99	-	7.71	5,600
1913	618-367	60	-	6.44	4,670	60	-	6.51	4,710
1914	618-367	85	-	7.80	5,650	85	-	7.73	5,600
1915	618-367	49	-	5.02	3,640	49	-	5.03	3,640
1916	618-367	62	-	5.46	3,960	62	-	5.76	4,180
1917	618-367	132	-	14.2	10,300	132	-	14.1	10,200
1918	618-368	22	-	4.19	3,040	22	-	3.92	2,840
1919	618-368	37	-	3.76	2,730	37	-	3.63	2,630
1920	618-368	50	-	5.94	4,310	50	-	6.12	4,440
1921	618-368	28	-	5.53	4,010	28	-	5.64	4,080
1922	618-368	53	-	6.15	4,460	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Ashley Creek near Vernal, Utah
(Drainage area, 101 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1915	409-40	855	-	126	91,400	855	-	126	91,200
1916	439-52	585	33	111	80,700	585	33	112	81,000
1919	509-135	-	-	70	51,000	-	-	67.7	49,000
1920	509-135	1,140	26	126	91,200	1,140	26	127	92,400
1921	529-89	1,750	-	178	129,000	1,750	-	180	131,000
1922	549-83	1,480	35	175	127,000	1,480	35	175	127,000
1923	569-72	1,010	33	140	101,000	1,010	33	136	98,800
1924	589-70	538	33	78.5	57,000	538	-	74.7	54,200
1925	609-55	354	-	80.7	58,500	354	-	91.9	66,500
1926	629-54	564	29	100	72,700	564	28	89.7	65,000
1927	649-39	-	25	119	86,300	-	25	132	95,300
1928	669-36	-	-	121	87,600	-	-	-	-
1930	704-38	744	-	116	84,200	744	-	115	83,100
1931	719-40	359	31	58.8	42,600	359	-	50.6	36,600
1932	734-46	990	-	102	74,000	990	-	105	76,100
1933	749-40	913	20	66.8	48,500	913	20	62.3	45,300
1934	764-68	-	-	43.2	31,280	-	-	45.0	32,560
1935	789-84	900	25	88.4	63,960	900	22	87.2	63,140
1936	809-84	334	17	57.4	41,700	334	17	60.8	44,150
1937	829-87	920	17	109	78,600	920	17	108	77,870
1938	859-100	900	20	106	77,060	900	20	118	85,140
1939	879-131	531	30	91.8	66,400	-	-	-	-

Duchesne River near Tabiona, Utah
(Drainage area, 352 square miles)

1920	509-141	1,900	-	273	198,000	1,900	-	276	201,000
1921	529-93	2,490	83	345	250,000	2,490	83	350	253,000
1922	549-88	-	-	354	256,000	-	-	353	255,000
1923	569-77	1,920	-	319	231,000	1,920	-	321	232,000
1924	589-72	900	49	163	118,000	900	49	152	110,000
1925	609-58	930	-	172	124,000	930	-	176	128,000
1926	629-57	950	40	164	119,000	950	40	152	116,000
1927	649-41	1,530	-	242	175,000	1,530	-	262	190,000
1928	669-38	1,510	-	238	173,000	1,510	-	223	162,000
1929	689-41	1,870	-	222	160,000	1,870	-	226	164,000
1930	704-42	1,000	-	190	137,000	1,000	-	188	136,000
1931	719-43	521	37	111	80,600	521	37	100	72,500
1932	734-48	1,100	51	200	145,000	1,100	51	204	148,000
1933	749-42	975	50	148	107,000	975	42	142	103,000
1934	764-69	209	37	78.7	57,010	209	28	72.5	52,530
1935	789-85	1,130	28	130	93,770	1,130	43	135	97,420
1936	809-86	1,510	52	230	167,300	1,510	52	237	171,900
1937	829-89	1,600	51	218	157,700	1,600	51	220	159,000
1938	859-102	1,480	70	223	161,800	1,480	70	229	165,500
1939	879-133	769	55	162	117,100	-	-	-	-

Duchesne River at Duchesne, Utah
(Drainage area, 660 square miles)

1918	479-40	-	-	-	-	2,740	-	380	275,000
1919	509-142	2,140	53	349	252,000	2,140	53	336	243,000
1920	509-142	2,820	154	462	336,000	2,820	-	465	338,000
1921	529-95	4,060	-	591	427,000	4,060	-	597	431,000
1922	549-90	4,420	-	747	541,000	4,420	-	744	539,000
1923	569-79	3,530	-	560	406,000	3,530	-	573	414,000
1924	589-74	2,180	50	295	214,000	2,180	50	260	188,000
1925	609-60	1,840	92	311	225,000	1,840	92	328	237,000
1926	629-58	2,430	70	338	245,000	2,430	70	318	230,000
1927	649-42	2,870	106	447	324,000	2,870	106	500	361,000
1928	669-39	3,450	64	463	336,000	3,450	64	419	304,000
1929	689-42	2,600	84	418	303,000	2,600	84	429	311,000
1930	704-43	2,420	92	341	247,000	2,420	92	348	252,000
1931	719-44	978	15	200	145,000	978	15	174	126,000
1932	734-49	3,460	74	415	301,000	3,460	74	421	306,000
1933	749-43	2,210	42	254	184,000	2,210	42	243	176,000
1934	764-70	573	45	117	84,510	573	40	106	77,090
1935	789-86	3,070	40	257	186,290	3,070	58	266	192,500
1936	809-87	2,950	80	398	289,100	2,950	91	411	298,200
1937	829-90	2,730	83	355	257,000	2,730	83	359	259,900
1938	859-103	2,900	89	362	262,300	2,900	130	375	271,300
1939	879-134	1,200	53	268	194,100	-	-	-	-

Duchesne River at Myton, Utah
(Drainage area, 2,750 square miles)

1900	395-55	5,880	-	644	467,000	5,880	-	628	435,000
1901	395-56	6,680	-	693	504,000	6,680	-	691	503,000
1902	395-56	5,820	-	645	467,000	5,820	-	644	466,000
1912	329-58	6,320	-	815	591,000	6,320	-	828	601,000
1913	359-60	4,160	-	690	500,000	4,160	184	691	500,000
1914	389-24	6,240	244	1,030	746,000	6,240	244	1,020	738,000
1915	409-42	3,770	104	610	441,000	3,770	104	614	444,000
1916	439-54	4,560	200	857	622,000	4,560	200	868	630,000
1917	459-44	9,690	-	1,220	886,000	9,690	-	1,230	892,000
1918	479-42	4,590	56	628	454,000	4,590	56	625	462,000
1919	509-145	3,380	11	*557	*404,000	3,380	11	528	383,000
1920	509-145	5,570	240	827	588,000	5,570	240	827	601,000
1921	529-98	9,350	285	1,180	853,000	9,350	282	1,170	850,000

*Erroneous figure published in Water-Supply Paper 509. Corrected figures for January, 1919: Mean discharge, 260 second-feet; run-off, 16,000 acre-feet.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Duchesne River at Myton, Utah--Continued
(Drainage area, 2,750 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1922	549-92	8,770	282	1,320	954,000	8,770	290	1,340	967,000
1923	569-80	7,120	258	1,040	752,000	7,120	258	1,040	756,000
1924	589-76	3,030	6	440	320,000	3,030	6	373	271,000
1925	609-62	2,250	-	414	300,000	2,250	-	448	324,000
1926	629-60	3,570	12	448	324,000	3,570	12	398	288,000
1927	649-43	5,700	90	674	488,000	5,700	140	770	558,000
1928	669-40	4,780	84	622	452,000	4,780	84	562	408,000
1929	689-43	3,750	110	605	438,000	3,750	154	599	434,000
1930	704-44	4,270	46	492	356,000	4,270	46	501	362,000
1931	719-45	1,180	1	236	171,000	1,180	1	197	142,000
1932	734-50	3,750	4	541	392,000	3,750	10	550	398,000
1933	749-44	2,480	1	321	232,000	2,480	1	308	223,000
1934	764-71	451	1	127	92,200	451	1	111	80,200
1935	789-87	4,300	2	303	219,500	4,300	12	315	227,900
1936	809-88	3,750	21	522	379,100	3,750	73	548	397,800
1937	829-91	4,040	28	589	426,100	4,040	28	595	430,400
1938	859-104	3,380	30	507	367,100	3,380	30	535	387,500
1939	879-135	1,200	7	343	248,300	-	-	-	-

Strawberry River at Duchesne, Utah
(Drainage area, 1,040 square miles)

1915	409-44	367	-	133	96,100	367	45	129	93,200
1916	439-56	1,650	-	279	202,000	1,650	-	286	208,000
1917	459-46	1,580	-	313	227,000	1,580	-	319	230,000
1918	479-43	384	42	134	97,000	384	-	118	85,700
1919	509-147	705	-	138	100,000	705	-	139	101,000
1920	509-147	1,550	-	228	165,000	1,550	-	234	170,000
1921	529-101	1,430	-	311	225,000	1,430	78	317	230,000
1922	549-96	3,230	50	402	292,000	3,230	50	405	294,000
1923	569-85	1,620	-	301	218,000	1,620	-	298	216,000
1924	589-78	274	37	109	79,500	274	37	93.7	68,000
1925	609-64	710	37	88.3	63,900	710	37	91.0	65,900
1926	629-62	855	35	105	76,200	855	-	99.3	72,000
1927	646-44	1,690	-	168	122,000	1,690	-	184	133,000
1928	669-41	1,600	36	227	165,000	1,600	36	222	161,000
1929	689-44	892	-	177	128,000	892	-	175	127,000
1930	704-45	466	32	108	78,400	466	32	102	74,000
1931	719-46	610	1	56.2	41,100	610	1	53.3	39,000
1932	734-51	790	22	129	92,300	790	22	130	94,000
1933	749-45	640	-	101	73,100	640	-	98.9	71,600
1934	764-72	129	2	31.4	22,740	129	2	28.0	20,250
1935	789-88	360	11	67.9	49,140	360	15	70.5	51,050
1936	809-89	768	27	147	106,400	768	-	156	113,000
1937	829-92	1,500	55	213	154,500	1,500	-	218	157,700
1938	859-106	1,000	54	164	118,600	1,000	54	160	116,200
1939	879-137	800	20	97.3	70,450	-	-	-	-

Lake Fork near Myton, Utah
(Drainage area, 468 square miles)

1909	269-67	-	-	430	311,000	-	-	426	307,000
1910	289-84	-	-	216	156,000	-	-	-	-
1912	329-60	3,050	-	200	145,000	3,050	-	210	152,000
1913	359-63	2,710	12	201	145,000	2,710	12	218	158,000
1914	389-27	2,880	5	317	230,000	2,880	5	296	214,000
1915	409-46	1,840	2.5	174	126,000	1,840	2.5	182	131,000
1916	439-58	1,300	0	162	118,000	1,300	0	154	168,000
1917	459-50	4,350	9	287	207,000	4,350	9	279	202,000
1918	479-53	1,740	2	98.6	71,400	1,740	2	105	76,100
1919	509-160	905	9	102	73,500	905	9	92.4	66,900
1920	509-160	1,780	13	139	101,000	1,780	13	145	106,000
1921	529-106	3,680	10	268	194,000	3,680	9	262	189,000
1922	549-101	2,880	9	259	188,000	2,880	13	267	194,000
1923	569-89	2,500	14	200	145,000	2,500	14	209	151,000
1924	589-81	720	4	79.8	57,900	720	4	60.5	43,900
1925	609-67	562	4	68.3	49,500	562	4	94.9	68,700
1926	629-65	920	3	96.3	69,700	920	3	67.2	48,600
1927	649-46	2,700	6	165	120,000	2,700	9	207	150,000
1928	669-43	1,480	2	132	96,100	1,480	2	103	74,700
1929	689-46	1,180	7	116	84,000	1,180	7	114	82,400
1930	704-47	2,480	16	122	88,100	2,480	16	116	84,300
1931	719-48	191	0	31.5	22,800	191	0	27.9	30,400
1932	734-53	1,070	-	93.9	68,200	1,070	-	92.4	67,100
1933	749-48	1,070	2	48.4	35,000	1,070	2	45.4	32,800
1934	764-75	-	0	10.4	7,560	-	0	10.3	7,460
1935	789-89	1,950	0	56.7	41,070	1,950	1	55.9	40,460
1936	809-90	815	1	53.4	38,940	-	-	-	-

Uinta River near Neola, Utah
(Drainage area, 181 square miles)

1930	704-48	927	-	189	137,000	927	-	194	141,000
1931	719-49	461	-	117	83,900	461	-	104	75,100
1932	734-54	1,200	-	182	132,000	1,200	-	185	134,000
1933	749-50	1,060	36	124	90,000	1,060	36	121	87,600

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Uinta River near Neola, Utah--Continued
(Drainage area, 181 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1934	764-77	195	-	72.8	52,700	195	-	70.5	51,040
1935	789-90	1,160	-	137	99,230	1,160	-	137	99,140
1936	809-91	650	-	145	105,400	650	-	154	111,900
1937	829-96	822	-	193	139,900	822	-	195	141,400
1938	859-108	1,940	50	221	160,000	1,940	50	235	169,800
1939	879-139	822	-	162	117,100	-	-	-	-

Whiterocks River near Whiterocks, Utah
(Drainage area, 114 square miles)

1901	75-165	-	-	-	-	-	-	119	87,000
1902	85-71	-	-	120	87,500	1,100	38	116	84,200
1903	100-121	1,150	29	135	97,500	1,150	29	140	101,000
1909	269-74	-	-	-	-	2,020	50	215	155,000
1931	719-50	273	-	62.1	45,000	273	-	56.3	40,800
1932	734-55	1,500	27	132	95,500	1,500	-	130	94,600
1933	749-51	1,290	-	80.8	58,500	1,290	-	79.6	57,600
1934	764-78	167	-	42.0	30,420	167	-	42.9	31,080
1935	789-91	1,300	-	93.5	67,670	1,300	30	93.5	67,690
1936	809-92	553	26	88.4	64,200	553	26	92.9	67,410
1937	829-97	1,210	-	134	96,690	1,210	-	132	95,390
1938	859-109	1,310	26	140	101,200	1,310	26	153	110,900
1939	879-140	500	-	103	74,680	-	-	-	-

White River near (at) Meeker, Colo.
(Drainage area, 762 square miles)

1902	618-418	2,320	-	508	369,000	2,320	-	494	358,000
1903	618-418	2,400	-	588	426,000	2,400	-	613	444,000
1904	618-418	2,510	-	643	466,000	2,510	-	631	458,000
1905	618-418	3,370	-	655	475,000	3,370	-	646	468,000
1906	618-418	3,390	-	723	524,000	-	-	-	-
1910	618-419	2,850	-	560	407,000	2,850	-	551	399,000
1911	618-419	3,030	-	592	428,000	3,030	-	610	442,000
1912	618-419	4,650	-	800	579,000	4,650	-	775	563,000
1913	618-419	2,080	-	506	367,000	2,080	-	504	365,000
1914	618-419	2,830	-	663	481,000	2,830	-	673	487,000
1915	618-420	1,660	-	473	343,000	1,660	-	475	344,000
1916	618-420	2,680	-	668	484,000	2,680	-	675	490,000
1917	618-420	4,660	-	812	588,000	4,660	-	815	590,000
1918	618-420	3,650	-	660	478,000	3,650	-	649	470,000
1919	618-420	1,930	-	506	367,000	1,930	-	501	363,000
1920	618-421	3,990	-	788	572,000	3,990	-	814	591,000
1921	618-421	6,070	-	978	707,000	6,070	-	974	705,000
1922	618-421	2,720	-	671	485,000	2,720	-	659	477,000
1923	618-421	2,650	-	661	479,000	2,650	-	666	482,000
1924	618-421	3,320	-	579	420,000	3,320	-	573	416,000
*1925	618-422	2,280	-	637	461,000	2,280	-	640	463,000
*1926	618-422	2,860	-	692	501,000	2,860	-	692	501,000
1927	(†)	2,600	-	678	492,000	2,600	-	703	509,000
*1928	(†)	3,380	-	831	603,000	3,380	-	848	616,000
*1929	(†)	4,190	-	965	713,000	4,190	-	971	703,000
*1930	(†)	2,880	-	671	486,000	2,880	-	657	476,000
*1931	(†)	1,840	-	500	362,000	1,840	-	483	350,000
*1932	(†)	2,970	-	747	542,000	2,970	-	755	548,000
*1933	(†)	3,320	-	670	485,000	3,320	-	659	477,000
1934	764-79	1,080	112	339	245,400	1,080	112	318	230,300
1935	789-92	3,080	-	505	365,600	3,080	-	506	366,200
1936	809-93	2,640	193	577	418,800	2,640	240	580	421,300
1937	829-98	2,150	208	455	329,600	2,150	208	454	329,000
1938	859-110	3,120	220	684	495,500	3,120	220	698	505,200
1939	879-141	1,960	200	514	372,400	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated.
†From reports of State engineer of Colorado.

White River near Watson (Dragon), Utah
(Drainage area, 4,020 square miles)

1924	(*)	4,100	-	653	474,000	4,100	-	618	449,000
†1925	(*)	2,180	-	744	539,000	2,180	-	816	591,000
1926	(*)	3,360	-	925	670,000	3,360	-	874	633,000
1927	(*)	2,560	-	762	552,000	2,560	-	775	561,000
†1928	(*)	4,780	-	957	695,000	4,780	-	992	720,000
†1929	(*)	8,160	-	1,740	1,260,000	8,160	-	1,770	1,280,000
†1930	(*)	2,800	-	836	605,000	2,800	-	740	536,000
†1931	(*)	1,700	-	504	365,000	1,700	-	515	373,000
†1932	(*)	3,030	-	821	596,000	3,030	-	826	600,000
†1933	(*)	3,800	-	742	537,000	3,800	-	736	533,000
1934	764-80	992	53	388	280,800	992	53	359	259,800
1935	789-93	3,190	150	556	402,400	3,190	150	567	410,700
1936	809-94	2,750	250	650	471,600	2,750	181	646	469,300
1937	829-99	3,180	-	541	392,000	3,180	-	547	396,300
1938	859-111	3,670	166	828	599,400	3,670	164	832	602,100
1939	879-142	3,630	164	619	448,400	-	-	-	-

*From reports of State engineer of Colorado.
†Yearly figures not previously published; discharge for periods of missing record estimated.

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Price River near Helper, Utah
(Drainage area, 530 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1905	175-67	1,740	9	84.2	61,200	1,740	4	83.6	60,600
1906	211-60	1,530	4	179	131,000	1,530	4	181	132,000
1908	249-79	910	7	108	78,200	910	7	104	75,500
1909	269-77	1,660	-	247	179,000	1,660	-	254	183,000
1910	289-101	1,470	24	213	155,000	1,470	14	212	154,000
1911	309-75	1,350	20	143	104,000	1,350	20	150	109,000
1912	329-58	990	-	131	94,800	990	-	123	89,000
1913	359-70	2,100	9	150	109,000	2,100	9	150	109,000
1914	389-29	1,680	16	234	170,000	1,680	21	236	171,000
1915	409-48	444	21	106	76,600	444	21	102	73,700
1916	439-60	1,370	21	206	149,000	1,370	-	211	153,000
1917	459-52	3,350	30	246	178,000	3,350	28	244	176,000
1918	479-61	966	14	83.2	60,200	966	14	85.6	62,000
1919	509-173	1,500	16	126	91,500	1,500	16	121	87,800
1920	509-173	2,000	-	177	128,000	2,000	-	180	130,000
1921	529-111	-	-	252	184,000	-	-	255	186,000
1922	549-107	3,100	-	272	198,000	3,100	-	271	197,000
1923	569-94	1,660	-	230	167,000	1,660	-	231	167,000
1924	589-85	564	7	66.8	48,400	564	7	61.5	44,600
1925	609-73	1,300	4	72.5	52,500	1,300	4	75.2	54,400
1926	629-70	641	9	88.0	63,800	641	-	82.8	60,000
1928	669-46	1,250	9	173	125,000	1,250	9	175	127,000
1930	704-51	500	12	73.3	53,100	500	2	70.4	51,000
1931	719-53	403	2	42.1	30,500	137	2	39.1	28,300
1932	734-57	790	3	79.6	57,700	790	-	85.1	61,700
1933	749-52	324	-	89.5	64,700	324	-	91.5	66,100
1934	764-82	146	2	36.5	26,390	-	-	-	-

Huntington Creek near Huntington, Utah
(Drainage area, 188 square miles)

1911	309-80	386	-	92.0	66,400	-	-	88.9	64,200
1912	329-78	966	-	99.2	71,900	966	-	98	71,200
1913	359-72	-	-	98.1	71,000	588	-	105	75,800
1914	389-30	1,100	-	164	11,900	1,100	-	163	118,000
1915	409-50	404	-	87.9	63,600	404	-	87.2	63,100
1916	439-62	894	-	144	104,000	894	-	144	105,000
1917	459-53	-	-	-	116,000	-	-	-	-
1922	549-108	1,040	30	150	109,000	1,040	14	145	105,000
1923	569-95	759	14	124	89,500	759	-	127	91,700
1924	589-87	250	-	60.9	44,200	250	-	57.7	41,900
1925	609-75	270	-	68.3	49,500	270	-	69.1	50,100
1926	629-72	515	20	83.2	60,100	515	-	82.5	59,700
1927	649-51	-	-	98.8	71,600	-	-	99.2	71,900
1928	669-47	820	-	106	77,300	820	-	106	77,300
1929	689-49	698	-	108	78,000	698	-	110	79,400
1931	719-55	191	22	52.9	38,300	191	-	49.8	36,000
1932	734-58	794	-	87.4	63,500	794	-	88.4	64,200
1933	749-53	749	-	90.6	65,600	749	-	89.8	65,000
1934	764-83	132	17	36.4	26,320	132	17	35.0	25,310
1935	789-95	653	16	85.1	61,570	653	16	85.4	61,820
1936	809-96	795	19	115	83,650	795	19	117	84,620
1937	829-101	809	-	99.5	72,030	809	-	101	73,010
1938	859-113	620	21	94.6	68,480	620	-	94.0	68,090
1939	879-146	284	-	71.0	51,380	-	-	-	-

Cottonwood Creek near Orangeville, Utah
(Drainage area, 200 square miles)

1911	309-84	700	-	120	87,500	700	-	117	87,000
1912	329-73	1,880	-	135	97,600	1,880	-	135	97,900
1913	359-79	1,980	-	140	101,000	1,980	-	140	101,000
1914	389-35	1,440	14	168	122,000	1,440	14	168	122,000
1915	409-56	954	-	97.2	70,400	954	-	97.4	70,400
1916	439-68	950	18	104	95,200	950	15	134	96,900
1917	459-59	1,880	8	135	97,700	1,880	8	132	95,400
1918	479-69	770	-	92.6	67,100	770	-	93.4	67,600
1919	509-185	900	-	104	75,300	900	8	102	74,000
1920	509-185	1,250	-	132	96,000	1,250	6	132	96,300
1922	549-110	1,100	-	172	125,000	-	-	-	-
1925	609-77	497	-	70.3	50,900	497	-	71.7	51,900
1926	629-73	627	-	69.0	49,900	627	-	68.5	49,500
1927	649-52	800	-	95.2	68,900	-	-	-	-
1933	749-54	780	-	85.9	62,100	780	-	85.1	61,600
1934	764-84	-	-	32.7	23,570	-	-	31.7	22,950
1935	789-96	1,600	-	103	74,560	1,600	13	104	75,390
1936	809-97	925	13	117	85,280	925	-	119	86,420
1937	829-102	898	-	96.2	69,670	898	-	95.9	69,430
1938	859-114	1,010	11	94.1	68,110	1,010	-	94.3	68,260
1939	879-147	497	-	79.2	57,310	-	-	-	-

Ferron Creek (upper station) near Ferron, Utah
(Drainage area, 150 square miles)

1912	329-74	800	-	81.1	58,700	800	-	81.6	59,200
1913	359-81	650	-	62.0	44,900	650	-	60.6	43,800
1914	389-36	882	5	100	72,400	-	-	-	-
1917	459-61	829	-	114	82,600	829	-	108	78,200
1918	479-70	510	-	57.5	41,600	510	-	56.7	41,000

Summary of yearly discharge, in second-feet, at stations in Green River Basin--Continued

Ferron Creek (upper station) near Ferron, Utah--Continued
(Drainage area, 150 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1919	509-188	589	-	56.5	40,900	589	-	56.8	41,100
1920	509-188	900	-	74.2	53,700	900	-	74.4	53,900
1921	529-120	1,070	8	104	75,000	1,070	8	106	76,800
1922	549-112	692	-	85.1	61,600	692	-	84.4	61,100
1923	569-99	572	-	78.6	56,900	-	-	-	-

SAN JUAN RIVER BASIN

San Juan River at Arboles, Colo.
(Drainage area, 1,390 square miles)

*1896	(a)	2,600	-	394	286,000	2,600	-	394	286,000
†1897	(b)	4,420	-	855	619,000	4,420	-	942	682,000
*1898	(c)	3,260	-	777	564,000	3,260	-	666	482,000
*1899	(d)	1,980	-	318	230,000	-	-	-	-
1911	309-201	25,000	50	1,290	932,000	25,000	100	1,580	1,150,000
1912	329-177	4,460	145	1,200	870,000	4,460	105	920	666,000
1913	359-181	3,260	-	575	416,000	3,260	-	582	422,000
1914	389-110	6,030	120	908	657,000	6,030	101	963	697,000
1915	(‡)	5,850	101	1,070	772,000	5,860	104	996	721,000
1916	(‡)	5,460	102	1,170	846,000	5,460	102	1,290	935,000
1917	(‡)	5,220	158	1,190	865,000	5,220	22	1,060	765,000
1918	(‡)	3,200	22	599	434,000	3,200	30	602	436,000
1919	(‡)	3,450	32	711	515,000	3,450	32	731	529,000
†1920	(‡)	9,990	104	1,370	995,000	9,990	-	1,370	998,000

a 18th Ann. Rept., pt. 4, p. 281.
b 19th Ann. Rept., pt. 4, p. 410.
c 20th Ann. Rept., pt. 4, p. 401.
d 21st Ann. Rept., pt. 4, p. 297.

*Yearly figures not previously published; discharge for periods of missing record estimated.
†Revised figures not previously published.
‡From reports of State engineer of Colorado.

San Juan River at Rosa, N. Mex.
(Drainage area, 1,990 square miles)

1921	(*)	9,120	145	1,493	1,081,000	9,120	145	1,480	1,060,000
1922	(*)	6,890	125	1,396	1,010,000	6,890	122	1,378	999,300
1923	(*)	5,760	117	1,251	905,400	5,760	117	1,365	988,200
1924	(*)	6,050	128	1,410	1,024,000	6,050	110	1,910	956,200
1925	(*)	3,090	110	891	645,400	3,090	126	980	708,300
1926	(*)	-	-	1,064	770,400	-	-	996	722,800
1927	(*)	13,500	-	1,721	1,246,000	13,500	-	1,768	1,280,000
1928	(*)	5,100	-	910	660,600	5,100	-	836	607,100
1929	(*)	10,700	-	1,494	1,081,000	10,700	-	1,523	1,102,000
1930	(*)	4,010	-	881	637,700	4,010	-	837	605,400
1931	734-62	3,240	-	623	451,400	3,240	-	684	495,000
1932	734-62	8,200	-	1,930	1,401,000	8,200	-	1,870	1,361,000
1933	749-55	5,330	-	730	528,100	5,330	-	745	539,600
1934	764-85	3,320	-	443	320,800	3,320	70	409	296,100
1935	789-99	8,710	70	1,578	1,143,000	8,710	80	1,603	1,161,000
1936	809-100	6,000	100	1,021	741,000	6,000	100	1,047	760,000
1937	829-105	-	143	1,587	1,149,000	-	112	1,544	1,128,000
1938	859-117	8,690	112	1,514	1,096,000	8,960	122	1,554	1,125,000
1939	879-152	3,780	73	798	577,930	-	-	-	-

*From reports of State engineer of New Mexico.

San Juan River near (at) Blanco, N. Mex.
(Drainage area, 3,320 square miles)

1909	269-193	-	-	-	-	13,000	90	2,830	2,052,000
1928	(*)	-	-	-	-	6,950	60	1,082	785,000
1929	(*)	13,400	-	1,996	1,445,000	13,400	-	2,174	1,574,000
1930	(*)	5,800	-	1,224	886,000	5,800	-	1,123	811,900
1931	734-64	4,090	-	760	549,800	4,090	-	845	610,700
1932	734-64	11,000	-	2,557	1,856,000	11,000	-	2,475	1,797,000
1933	749-56	8,420	-	962	696,200	8,420	-	991	717,100
1934	764-86	-	23	504	364,700	2,430	23	447	323,600
1935	789-100	14,700	80	2,077	1,504,000	14,700	98	2,126	1,539,000
1936	809-101	7,560	137	1,287	934,100	7,560	137	1,314	951,400
1937	829-106	13,300	87	1,944	1,408,000	13,300	87	1,904	1,378,000
1938	859-118	10,800	128	1,983	1,435,000	10,800	154	2,056	1,489,000
1939	879-153	4,640	17	1,006	728,600	-	-	-	-

*From reports of State engineer of New Mexico.

San Juan River at (near) Farmington, N. Mex.
(Drainage area, 6,580 square miles)

1905	175-134	24,800	40	4,138	2,996,000	24,800	40	3,856	2,793,000
1913	359-183	11,100	200	2,215	1,604,000	11,100	200	2,264	1,639,000
1914	389-112	20,400	501	3,271	2,368,000	20,400	501	3,450	2,498,000
1915	(*)	17,600	440	3,331	2,411,000	17,600	400	3,058	2,214,000
1916	(*)	14,200	320	3,782	2,746,000	19,800	220	4,484	3,255,000
1922	(*)	-	-	-	-	20,000	136	3,456	2,501,000
1923	(*)	12,500	141	2,847	2,061,000	12,500	418	3,094	2,235,000
1924	(*)	13,600	397	2,624	1,905,000	13,600	397	2,375	1,724,000
1925	(*)	10,500	410	2,183	1,581,000	10,500	-	2,486	1,801,000

*From reports of State engineer of New Mexico.

Summary of yearly discharge, in second-feet, at stations in San Juan River Basin--Continued

San Juan River at (near) Farmington, N. Mex.---Continued
(Drainage area, 6,580 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1927	(*)	60,000	-	3,886	2,813,000	60,000	480	4,055	2,935,000
1928	(*)	11,000	280	2,046	1,485,000	11,000	164	1,853	1,345,000
1929	(*)	28,600	-	3,615	2,617,000	28,600	-	3,734	2,703,000
1930	(*)	10,000	-	2,081	1,507,000	10,000	-	1,907	1,381,000
1931	734-66	6,000	30	1,254	908,200	6,000	30	1,387	1,004,000
1932	734-66	17,500	-	4,145	3,010,000	17,500	-	4,028	2,924,000
1933	749-57	13,800	-	1,657	1,200,000	13,800	-	1,695	1,227,000
1934	764-87	4,930	30	870	629,900	4,930	30	787	569,700
1935	789-101	20,200	112	3,172	2,296,000	20,200	112	3,266	2,364,000
1936	809-102	12,000	302	2,084	1,513,000	12,000	302	2,101	1,525,000
1937	829-107	16,300	106	2,915	2,110,000	16,300	106	2,840	2,056,000
1938	859-119	19,600	196	3,339	2,418,000	19,600	252	3,480	2,519,000
1939	879-154	7,550	27	1,736	1,257,000	-	-	-	-

*From reports of State engineer of New Mexico.

San Juan River at Ship Rock, N. Mex.

1916	(*)	-	-	-	-	33,100	390	6,106	4,433,000
1917	(*)	31,800	390	4,879	3,532,000	27,800	380	4,078	2,952,000
1918	(*)	16,100	225	2,322	1,681,000	16,100	225	2,347	1,699,000
1919	(*)	17,100	260	3,392	2,456,000	17,100	260	3,495	2,530,000
1920	(*)	21,900	400	5,028	3,650,000	21,900	250	4,988	3,614,000
1922	(*)	20,400	321	3,690	2,671,000	20,400	320	3,601	2,605,000
1923	(*)	14,200	320	2,674	1,936,000	14,200	456	3,072	2,247,000
1924	(*)	17,100	370	3,427	2,488,000	17,100	370	3,095	2,245,000
1925	(*)	15,600	325	2,279	1,650,000	15,600	325	2,441	1,771,000
1928	(*)	-	-	2,484	1,803,000	-	-	2,085	1,513,000
1929	(*)	35,900	-	3,803	2,754,000	35,900	-	3,955	2,863,000
1930	(*)	-	-	2,043	1,479,000	9,050	211	1,877	1,357,000
1931	734-67	6,230	90	1,427	1,033,000	6,840	90	1,597	1,156,000
1933	749-58	16,000	128	1,955	1,415,000	16,000	128	1,993	1,443,000
1934	764-88	-	-	1,025	742,300	-	-	926	670,300
1935	789-102	32,700	174	3,340	2,418,000	32,700	250	3,462	2,506,000
1936	809-103	12,800	256	2,420	1,757,000	12,800	256	2,428	1,763,000
1937	829-108	15,600	84	3,109	2,251,000	15,600	84	3,052	2,209,000
1938	859-120	18,100	239	3,435	2,487,000	18,100	239	3,540	2,563,000
1939	879-155	6,820	8	1,656	1,199,000	-	-	-	-

*From reports of State engineer of New Mexico.

San Juan River near Bluff, Utah
(Drainage area, 24,000 square miles)

1915	409-117	-	-	-	-	21,900	380	3,700	2,680,000
1916	439-129	16,200	388	4,460	3,240,000	28,300	199	5,110	3,710,000
1917	459-128	28,300	199	4,630	*3,360,000	-	-	-	-
1928	669-48	11,800	320	2,380	1,730,000	11,800	188	2,120	1,540,000
1929	689-50	38,300	188	4,300	3,110,000	38,300	188	4,370	3,160,000
1930	704-53	15,800	229	2,380	1,720,000	15,800	-	2,180	1,580,000
1931	719-56	5,640	62	1,230	887,000	6,800	62	1,470	1,060,000
1932	734-68	16,500	145	4,060	2,950,000	16,500	26	3,850	2,790,000
1933	749-59	11,900	26	1,710	1,240,000	11,900	26	1,800	1,310,000
1934	764-89	5,800	0	914	661,900	4,920	0	765	554,100
1935	789-103	18,500	100	3,016	2,183,000	18,500	100	3,116	2,256,000
1936	809-104	11,500	312	2,246	1,631,000	11,500	326	2,308	1,676,000
1937	829-109	16,500	130	3,227	2,336,000	16,500	130	3,194	2,313,000
1938	859-121	17,000	198	3,407	2,466,000	17,000	198	3,475	2,516,000
1939	879-156	11,000	0	1,712	1,239,000	-	-	-	-

*Erroneous figure published in Water-Supply Paper 459. Corrected figures for November 1917; mean discharge, 1,380 second-feet; run-off, 82,100 acre-feet.

Navajo River at Edith, Colo.
(Drainage area, 165 square miles)

1913	(*)	427	-	108	78,100	427	-	108	78,500
†1914	(*)	1,120	-	192	139,000	1,120	-	200	145,000
1915	(*)	1,050	-	214	155,000	1,050	23	203	147,000
1916	(*)	798	22	241	175,000	798	22	256	186,000
†1917	(*)	1,490	-	242	175,000	1,490	-	225	163,000
1918	(*)	651	29	114	82,500	651	28	112	81,400
1919	(*)	1,520	18	193	140,000	1,520	18	206	149,000
1920	(*)	2,160	34	331	240,000	2,160	34	322	234,000
1921	(*)	2,830	32	193	140,000	2,830	32	193	140,000
1922	(*)	1,590	34	214	155,000	1,590	26	210	152,000
1923	(*)	752	26	169	122,000	752	27	177	128,000
1924	(*)	653	31	169	123,000	653	23	160	116,000
1925	(*)	448	14	133	96,000	448	14	142	103,000
†1926	(*)	775	-	184	133,000	775	-	175	127,000
†1927	(*)	1,150	-	206	149,000	1,150	-	218	158,000
1928	(*)	487	16	126	91,200	487	16	111	80,500
1936	809-109	805	21	159	115,300	805	21	164	119,000
1937	829-117	1,580	30	235	169,800	1,580	23	227	164,400
1938	859-143	1,050	23	197	142,500	1,050	26	200	144,400
1939	879-164	500	22	119	86,210	-	-	-	-

*From reports of State engineer of Colorado.
†Yearly figures not previously published; discharge for periods of missing records estimated by State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations in San Juan River Basin--Continued

Piedra River at Arboles, Colo.
(Drainage area, 650 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1896	(a)	3,000	-	275	200,000	3,000	-	282	205,000
†1897	(b)	2,400	-	525	380,000	2,400	-	595	431,000
*1898	(c)	1,600	-	481	348,000	1,600	-	387	280,000
*1899	(d)	869	-	133	96,400	-	-	-	-
†1911	309-208	9,370	100	758	549,000	9,370	100	881	638,000
†1912	329-185	2,670	58	687	499,000	2,670	58	567	412,000
1913	359-187	1,790	-	334	242,000	1,790	-	338	245,000
1914	389-116	3,660	-	541	392,000	3,660	-	599	434,000
1915	(‡)	4,140	65	711	516,000	4,140	66	651	471,000
1916	(‡)	-	-	748	543,000	-	-	840	610,000
1917	(‡)	3,970	15	801	580,000	3,970	15	695	503,000
1918	(‡)	1,320	13	285	206,000	1,320	13	291	211,000
†1919	(‡)	2,960	51	529	383,000	2,960	51	544	394,000
*1920	(‡)	5,900	64	909	660,000	5,900	90	909	660,000
†1921	(‡)	3,260	90	628	455,000	3,260	73	615	445,000
1922	(‡)	2,980	48	558	404,000	2,980	40	552	400,000
1923	(‡)	2,400	40	472	342,000	2,400	23	500	362,000
1924	(‡)	3,000	23	562	401,000	3,000	42	521	378,000
1925	(‡)	1,900	30	327	237,000	1,900	30	384	278,000

a 18th Ann. Rept., pt. 4, p. 283.
b 19th Ann. Rept., pt. 4, p. 413.
c 20th Ann. Rept., pt. 4, p. 402.
d 21st Ann. Rept., pt. 4, p. 296.

*Yearly figures not previously published; discharge for periods of missing record estimated by State engineer of Colorado.
†Revised yearly figures not previously published.
‡From reports of State engineer of Colorado.

Los Pinos River near Bayfield, Colo.
(locally known as Pine River)
(Drainage area, 284 square miles)

1926	(*)	4,500	102	-	-	4,500	102	-	-
1928	(*)	2,050	-	306	222,000	2,050	-	285	207,000
1929	(*)	2,220	-	511	370,000	2,220	-	523	379,000
1930	(*)	1,660	40	316	229,000	1,660	-	296	214,000
1931	(*)	1,200	-	233	169,000	1,200	-	253	183,000
1932	(*)	2,440	-	514	373,000	2,440	-	493	358,000
1933	(*)	2,000	-	268	194,000	2,000	-	275	199,000
1934	764-90	877	-	172	124,700	877	-	161	116,700
1935	789-110	3,240	-	438	317,200	3,240	-	449	325,300
1936	809-111	2,120	-	351	255,000	2,120	-	354	257,000
1937	829-123	2,450	59	392	284,100	2,450	38	383	277,400
1938	859-152	2,970	38	485	351,400	2,970	47	515	372,500
1939	879-170	1,300	54	287	207,600	-	-	-	-

*From reports of State engineer of Colorado.

Los Pinos River at (near) Ignacio, Colo.

1911	309-210	3,500	43	658	476,100	-	-	-	-
1913	359-189	-	.1	-	-	-	-	-	-
1914	389-118	4,120	9.1	574	415,600	4,120	9.1	601	435,200
1915	(*)	2,640	9.7	522	378,300	2,640	15	479	346,900
1916	(*)	2,700	32	595	432,000	3,500	61	713	517,600
1917	(*)	3,500	5.0	600	434,000	2,860	5.0	474	343,400
1918	(*)	1,580	6.0	212	153,600	1,580	6.0	211	152,500
1919	(*)	2,500	5.0	431	311,800	2,500	5.0	451	326,600
1920	(*)	2,910	8.0	622	451,500	2,910	8.0	620	450,300
1921	(*)	2,960	10	525	380,300	2,960	32	514	372,000
1922	(*)	2,550	8.0	402	291,000	2,550	7.2	396	286,500
1923	(*)	2,480	5.0	357	258,200	2,480	5.0	388	281,100
1924	(*)	2,000	2.0	367	266,100	2,000	2.0	335	243,100
1925	(*)	1,740	20	252	182,300	1,740	21	310	224,700
1926	(*)	-	-	332	240,100	-	-	283	205,000
1927	(*)	4,360	9	498	360,600	4,360	9	529	382,900
1928	(*)	-	-	236	171,400	-	-	207	150,400
1929	(*)	2,570	-	473	342,500	2,570	-	496	359,200
1930	(*)	1,320	-	246	178,100	1,320	-	219	158,300
1931	734-70	1,160	8.0	161	116,900	1,160	8.0	179	129,300
1932	734-70	2,690	15	499	362,000	2,690	15	475	344,900
1933	749-60	2,040	1.3	163	118,300	2,040	1.3	174	126,800
1934	764-91	662	1.5	81.2	58,800	662	1.5	63.7	46,140
1935	789-111	3,220	6.1	375	271,700	3,220	6.1	388	281,100
1936	809-112	2,240	3.2	238	173,000	2,240	3.2	237	171,800
1937	829-124	2,620	6.8	325	235,200	2,620	8.0	321	232,100
1938	859-153	2,610	4.0	388	280,600	2,610	4.0	417	301,700
1939	879-171	958	2.7	187	135,600	-	-	-	-

*From reports of State engineer of New Mexico.

Animas River at Durango, Colo.
(Drainage area, 692 square miles)

*1896	(a)	7,800	-	612	444,000	7,800	-	627	455,000
†1897	(b)	5,700	-	1,210	879,000	5,700	138	1,320	957,000
†1898	(c)	4,680	-	967	700,000	4,680	-	816	591,000
*1899	(d)	3,240	-	551	399,000	3,240	-	579	419,000
†1900	(e)	3,830	115	550	398,000	3,830	115	540	391,000
*1902	85-37	2,750	-	445	322,000	2,750	-	441	319,000

Summary of yearly discharge, in second-feet, at stations in San Juan River Basin--Continued

Animas River at Durango, Colo.--Continued
(Drainage area, 692 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1903	100-54	4,750	-	1,140	827,000	4,750	-	1,160	838,000
*1904	133-186	-	-	891	647,000	-	-	1,030	746,000
*1905	175-137	8,470	-	1,510	1,090,000	8,470	-	1,380	1,000,000
1910	(‡)	4,100	-	769	557,000	4,100	110	761	551,000
†1911	(**)	11,000	110	1,250	902,000	11,000	160	1,570	1,140,000
*1912	329-187	6,990	-	1,330	963,000	6,990	-	1,020	742,000
1913	359-191	3,700	-	675	489,000	3,700	94	692	503,000
1914	389-120	8,330	144	1,150	833,000	8,330	130	1,170	845,000
1915	(**)	4,430	130	948	686,000	4,430	135	916	663,000
1916	(‡)	6,140	135	1,200	874,000	6,140	150	1,350	981,000
1917	(**)	8,460	255	1,360	988,000	8,460	50	1,210	878,000
1918	(**)	4,400	50	739	535,000	4,400	55	753	545,000
1919	(**)	5,600	189	977	707,000	5,600	189	977	707,000
*1920	(**)	9,260	224	1,400	1,020,000	9,260	220	1,420	1,030,000
1921	(**)	9,300	205	1,270	916,000	9,300	205	1,240	901,000
1922	(**)	7,000	170	1,120	808,000	7,000	143	1,100	800,000
1923	(**)	4,680	131	925	670,000	4,680	131	967	700,000
1924	(**)	4,130	175	748	543,000	4,130	120	693	503,000
1925	(**)	4,650	110	739	535,000	4,650	110	814	589,000
*1926	(**)	5,050	-	912	660,000	5,050	-	869	629,000
1927	(**)	22,000	191	1,200	867,000	22,000	191	1,250	904,000
1928	(**)	4,220	-	771	560,000	4,220	-	720	525,000
1929	(**)	4,600	-	1,060	771,000	4,600	-	1,090	790,000
1930	(**)	3,740	175	749	542,000	3,740	-	706	511,000
1931	(**)	1,890	-	402	291,000	1,890	-	414	300,000
1932	(**)	5,040	-	1,020	743,000	5,040	-	1,010	734,000
1933	(**)	4,840	-	595	431,000	4,840	-	595	431,000
1934	764-92	2,070	-	345	249,700	2,070	-	329	238,500
1935	789-112	5,770	130	784	567,300	5,770	130	805	582,600
1936	809-114	3,680	152	720	522,400	3,680	152	721	525,200
1937	829-126	4,670	140	747	540,600	4,670	116	739	535,100
1938	859-157	6,100	116	980	709,600	6,100	128	1,016	735,700
1939	879-173	2,460	160	588	426,100	-	-	-	-

a 18th Ann. Rept., pt. 4, p. 285.
b 19th Ann. Rept., pt. 4, p. 414.
c 20th Ann. Rept., pt. 4, p. 403.
d 21st Ann. Rept., pt. 4, p. 301.
e 22d Ann. Rept., pt. 4, p. 394.

*Yearly figures not previously published; discharge for periods of missing record estimated by State engineer of Colorado.
†Revised yearly figures not previously published.
‡From records of State engineer of Colorado.
**From reports of State engineer of Colorado.

Animas River at (near) Farmington, N. Mex.

*1904	133-195	-	4	-	-	-	-	-	-
1905	175-140	11,200	83	1,548	1,121,000	-	-	-	-
1913	359-196	3,940	64	752	544,200	3,940	64	781	565,200
1914	389-124	9,040	204	1,368	990,600	9,040	212	1,405	1,017,000
1915	(†)	5,670	170	1,185	857,800	5,670	170	1,113	806,100
1916	(†)	4,430	200	1,304	946,300	4,820	200	1,518	1,102,000
1917	(†)	9,430	137	1,748	1,265,000	9,430	137	1,517	1,098,000
1918	(†)	4,900	95	697	504,400	4,900	95	699	506,000
1919	(†)	7,420	100	1,162	841,300	7,420	100	1,195	865,300
1920	(†)	10,300	230	1,733	1,258,000	10,300	248	1,748	1,269,000
1921	(†)	9,720	288	1,518	1,099,000	9,720	250	1,494	1,082,000
1922	(†)	8,630	186	1,370	991,800	8,630	186	1,352	979,000
1923	(†)	4,770	194	1,072	775,800	4,770	261	1,137	823,400
1924	(†)	4,600	170	909	659,600	4,600	170	832	604,200
1925	(†)	7,350	181	982	710,800	7,350	181	1,114	807,400
1927	(†)	-	-	1,815	1,314,000	-	-	1,406	1,018,000
1928	(†)	4,570	123	798	579,400	4,570	90	724	525,700
1929	(†)	6,460	90	1,316	952,600	6,460	-	1,369	991,000
1930	(†)	4,120	-	776	562,100	4,120	-	720	521,200
1931	734-72	1,960	10	410	297,000	1,960	10	432	312,600
1932	734-72	6,750	154	1,220	885,700	6,750	-	1,189	863,200
1933	749-61	5,720	40	614	444,700	5,720	40	636	460,100
1934	764-94	1,500	-	302	218,500	1,500	-	268	193,700
1935	789-114	8,010	100	944	683,500	8,010	100	977	707,000
1936	809-116	5,310	133	786	570,600	5,310	133	782	567,700
1937	829-128	6,000	23	834	603,500	6,000	23	827	598,800
1938	859-159	6,920	76	1,156	836,700	6,920	76	1,194	864,300
1939	879-175	2,570	17	583	422,000	-	-	-	-

*Year incomplete.
†From reports of State engineer of New Mexico.

Hermosa Creek near Hermosa, Colo.
(Drainage area, 168 square miles)

1912	(*)	-	-	266	193,000	-	-	229	166,000
1913	(*)	-	-	103	74,700	-	-	101	73,400
1914	(*)	-	-	221	160,000	-	-	-	-
†1920	(‡)	6,420	-	287	208,000	6,420	-	287	208,000
†1921	(‡)	1,450	-	225	163,000	1,450	-	227	164,000
†1922	(‡)	1,210	-	184	133,000	1,210	-	181	131,000
†1923	(‡)	875	-	148	107,000	875	-	152	110,000
†1924	(‡)	951	-	150	109,000	951	-	145	105,000
†1925	(‡)	515	-	106	77,000	515	-	115	83,600

*From records of State engineer of Colorado.
†From reports of State engineer of Colorado.
‡Yearly figures not previously published; discharge for periods of missing records estimated by State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations in San Juan River Basin--Continued

Hermosa Creek near Hermosa, Colo.--Continued
(Drainage area, 168 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
†1926	(‡)	1,120	-	184	133,000	-	-	-	-
1928	(‡)	594	-	122	88,400	-	-	-	-

†From reports of State engineer of Colorado.
‡Yearly figures not previously published; discharge for periods of missing records estimated by State engineer of Colorado.

Lightner Creek near Durango, Colo.
(Drainage area, 64 square miles)

1928	(*)	110	2	20.1	14,600	110	-	18.3	13,300
1929	(*)	358	-	23.3	16,900	358	-	23.8	17,200
1930	(*)	117	1	15.7	11,400	117	1	14.8	10,700
1931	(*)	61	1	8.0	5,820	61	1	8.7	6,280
1932	(*)	219	-	32.8	23,800	219	-	32.9	23,900
1933	(*)	58	1	10.1	7,280	58	1	10.1	7,320
1934	764-95	27	1	4.6	3,330	27	-	3.9	2,820
1935	789-116	256	-	31.4	22,700	256	-	32	23,160
1936	809-120	350	1.1	20.6	14,930	350	1.1	20.9	15,170
1937	829-132	441	1.2	32.2	23,340	441	1.2	31.8	23,020
1938	859-197	313	-	32.7	23,700	313	-	32.6	23,590
1939	879-178	72	-	8.90	6,440	-	-	-	-

*From reports of State engineer of Colorado.

Florida River near Durango, Colo.
(Drainage area, 96 square miles)

1911	309-220	-	-	174	126,000	-	-	203	147,000
*1912	(‡)	-	-	136	99,000	-	-	-	-
1918	(†)	499	0.4	76.0	55,000	499	0.4	78.2	56,600
1919	(†)	985	1.0	142	103,000	985	1.0	149	108,000
‡1920	(†)	1,870	20	207	150,000	1,870	-	201	146,000
1921	(†)	1,770	7.9	189	137,000	1,770	7.9	191	138,000
1922	(†)	1,960	9.2	225	163,000	1,960	6.6	222	161,000
‡1923	(†)	1,180	-	169	122,000	1,180	-	184	133,000
1924	(†)	574	14	110	79,800	574	5.9	94.3	68,400
1928	(†)	676	-	88.6	64,300	676	-	79.6	57,800
1929	(†)	865	-	145	105,000	865	-	151	109,000
1930	(†)	554	-	96.6	69,200	554	-	88.8	64,300
1931	(†)	415	-	56.8	41,100	415	-	62.2	45,000
1932	(†)	1,340	-	153	111,000	1,340	-	149	108,000
1933	(†)	680	-	71.4	51,700	680	-	72.7	52,600
1934	764-96	332	-	38.7	27,970	332	4	36.5	26,380
1935	789-117	1,120	5	138	99,600	1,120	5	140	101,600
1936	809-121	681	-	99.4	72,150	681	-	99.8	72,470
1937	829-133	706	-	111	80,440	706	-	108	78,560
1938	859-198	955	-	136	98,430	955	-	141	102,400
1939	879-179	426	3.9	62.9	45,520	-	-	-	-

*Revised yearly figures not previously published.
†From reports of State engineer of Colorado.
‡Yearly figures not previously published; discharge for periods of missing record estimated by State engineer of Colorado.

La Plata River at Hesperus, Colo.
(Drainage area, 37 square miles)

*1918	(†)	194	1.9	26.4	19,100	194	2.4	27.5	19,900
*1919	(†)	523	5.0	54.4	39,400	523	5.0	55.1	39,900
*1920	(†)	571	5.6	78.7	57,100	571	6.5	77.8	56,500
1921	(†)	417	4.4	62.2	45,000	417	5.4	61.9	44,800
1922	(†)	390	3.1	50.8	36,900	390	3.1	50.6	36,600
1923	(†)	644	4.9	59.7	43,200	644	4.9	62.3	45,100
‡1924	(†)	547	5.4	52.3	38,000	547	4.2	49.7	36,100
1925	(†)	262	-	36.3	26,300	262	-	39.6	28,700
1926	(†)	414	-	55.1	39,900	414	-	55.4	40,100
1927	(†)	934	-	72.9	52,800	934	-	72.9	52,800
1928	(†)	307	4	38.6	28,000	307	4	36.0	26,100
1929	(†)	312	4.5	53.0	38,400	312	4.5	53.2	38,500
1930	(†)	175	-	33.0	23,900	175	-	32.5	23,500
1931	(†)	137	-	21.1	15,300	137	-	22.7	16,400
1932	(†)	466	-	57.6	41,800	466	-	56.6	41,100
1933	(†)	297	-	30.4	22,000	297	-	30.7	22,200
1934	764-97	113	-	18.7	13,600	113	-	17.5	12,670
1935	789-118	423	-	54.7	39,600	423	-	55.1	39,910
1936	809-122	315	-	44.6	32,410	315	-	45.5	33,040
1937	829-134	441	2.7	51.8	37,540	441	2.0	50.4	36,480
1938	859-199	554	1.9	55.1	39,900	554	1.9	56.1	40,610
1939	879-180	174	1.0	23.6	17,050	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated by State engineer of Colorado.
†From reports of State engineer of Colorado.
‡Revised yearly figures not previously published.

Summary of yearly discharge, in second-feet, at stations in San Juan River Basin--Continued

La Plata River at Colorado-New Mexico State line
(Drainage area, 331 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1921	(*)	408	1.7	44.6	32,300	408	1.7	42.7	30,900
1922	(*)	440	0	46.7	33,800	440	0	45.9	33,200
1923	(*)	233	.3	25.6	18,500	233	.3	29.3	21,200
1924	(*)	554	0	53.9	39,100	554	0	51.7	37,500
1925	(*)	155	.2	16.0	11,600	155	.2	20.4	14,800
1926	(*)	420	.6	62.0	44,900	420	.6	59.7	43,200
1927	(*)	965	1	63.5	46,000	965	1	65.7	47,600
1928	(*)	186	0	32.0	23,200	186	0	28.2	20,500
1929	(*)	475	.5	45.7	33,100	475	1	47.8	34,600
1930	(*)	448	0	23.2	16,800	448	0	21.1	15,300
1931	(*)	115	1	15.3	11,100	115	1	14.2	10,300
1932	(*)	263	2	40.9	29,700	263	-	41.7	30,300
1933	(*)	194	0	19.6	14,200	194	0	20.3	14,700
1934	764-98	336	0	11.5	8,360	336	0	8.4	6,080
1935	789-119	246	0	30.1	21,760	246	0	32.0	23,140
1936	809-123	462	0	34.0	24,690	462	0	35.2	25,540
1937	829-135	700	0	61.9	44,790	700	0	59.9	43,340
1938	859-200	457	.2	38.5	27,850	457	.2	38.7	28,010
1939	879-181	107	0	15.6	11,300	-	-	-	-

*From reports of State engineer of Colorado.

La Plata River at La Plata, N. Mex.

1909	269-199	-	-	-	-	5,000	0	106	76,640
1910	289-188	7,000	0	61.6	44,620	7,000	.1	62.9	45,510
1913	(*)	-	-	-	-	404	0	13.0	9,390
1915	(*)	994	1.0	51.1	36,990	994	1.0	47.1	34,100
1916	(*)	685	2.0	48.8	35,420	685	2.0	62.6	45,430
1917	(*)	700	.6	47.5	34,360	700	.5	32.8	23,760
1918	(*)	647	0	8.55	6,190	647	0	9.39	6,800
1919	(*)	387	0	38.9	28,180	387	.1	41.0	29,690
1920	(*)	667	.1	69.8	50,650	667	.1	74.4	54,050
1921	(*)	430	.1	28.5	20,660	360	.1	23.3	16,880
1922	(*)	585	.1	42.6	30,850	585	.1	41.3	29,920
1923	(*)	302	.2	53.3	38,610	302	.8	52.7	38,180
1924	(*)	278	0	34.7	25,160	278	0	35.0	25,390
1925	(*)	134	.2	12.9	9,360	134	.2	13.8	9,990
1928	(*)	-	-	-	-	175	0	19.2	13,910
1929	(*)	-	.7	30.2	21,840	-	.8	31.9	23,080
1930	(*)	402	0	12.8	9,270	402	0	10.3	7,480
1931	734-74	42	0	4.89	3,540	42	0	3.66	2,650
1932	734-74	212	.1	23.5	17,040	212	.1	24.2	17,560
1933	749-62	46	.1	8.10	5,870	46	.1	7.81	5,650
1934	764-99	300	0	4.70	3,400	-	-	-	-
1937	829-136	755	.8	54.5	39,430	-	-	-	-

*From reports of State engineer of New Mexico.

Cherry Creek near Red Mesa, Colo.
(Drainage area, 66 square miles)

1929	(*)	229	1	-	9,180	229	1	-	9,410
1930	(*)	69	1	-	4,710	69	1	-	4,200
1931	(*)	22	0	-	1,120	22	0	-	1,230
1932	(*)	108	-	-	10,300	108	-	-	10,300
1933	(*)	57	0	-	2,700	57	0	-	2,960
†1934	764-101	48	0	-	863	48	0	-	326
1935	789-120	63	0	10.2	7,370	63	0	-	7,640
†1936	809-125	113	0	-	6,810	113	0	-	7,560
1937	829-137	410	.3	20.7	14,980	410	.3	19.7	14,260
1938	859-213	154	0	13.6	9,870	154	0	13.8	9,960
1939	879-183	58	0	3.87	2,800	-	-	-	-

*From reports of State engineer of Colorado.
†Yearly figures not previously published; discharge for periods of missing records estimated.

Mancos River near Towaoc, Colo.
(Drainage area, 558 square miles)

*1921	(†)	1,990	-	148	107,000	1,990	-	148	107,000
*1922	(†)	1,080	0	94.2	68,200	1,080	0	92.4	66,900
1923	(†)	501	0	54.7	39,600	501	1	60.8	44,000
1924	(†)	720	0	50.3	36,500	720	0	43.0	31,200
1925	(†)	540	0	27.6	20,000	540	0	36.3	26,300
*1926	(†)	1,700	0	107	77,800	1,700	0	99.2	71,800
*1927	(†)	1,000	-	89.1	64,500	1,000	-	98.5	71,200
1928	(†)	524	0	58.4	42,400	524	0	50.1	36,400
1929	(†)	739	1	61.9	44,800	739	1	64.6	46,800
1930	(†)	420	0	44.6	32,300	420	0	41.3	29,900
1931	(†)	581	0	11.9	8,640	581	0	12.7	9,230
1932	(†)	460	1	79.9	58,000	460	1	80.7	58,600
1933	(†)	320	0	29.6	21,400	320	0	29.3	21,200
1934	764-103	526	0	12.5	9,080	526	0	10.2	7,350
*1935	789-122	328	0	55.0	39,830	328	0	56.7	41,020
1936	809-127	480	0	51.5	37,360	480	0	54.7	39,690
1937	829-139	560	2.6	79.0	57,200	560	2.6	75.5	54,640
1938	859-216	704	0	73.8	53,420	704	0	74.7	54,070
1939	879-185	242	0	20.4	14,780	-	-	-	-

*Yearly figures not previously published; discharge for periods of missing record estimated by State engineer of Colorado.
†From reports of State engineer of Colorado.

Summary of yearly discharge, in second-feet, at stations in PARIA RIVER BASIN

Paria River at Lees Ferry, Ariz.
(Drainage area, 1,520 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1924	589-92	1,540	3	25.9	18,800	1,540	-	24.5	17,800
1925	609-80	2,650	-	40.8	29,500	5,500	-	63.8	46,200
1926	629-77	5,500	1	44.3	32,100	600	1	22.6	16,300
1927	649-54	6,750	1	63.4	45,900	6,750	1	62.4	45,200
1928	669-49	934	1	22.1	16,000	934	1	21.5	15,600
1929	689-51	2,220	2	48.1	34,800	2,220	2	47.0	34,000
1930	704-54	1,220	1	26.3	19,000	1,220	1	28.7	20,800
1931	719-57	412	2	15.7	11,400	183	2	14.2	10,300
1932	734-75	4,890	2	52.2	37,900	4,890	2	52.5	38,100
1933	749-63	685	2	23.0	16,700	685	2	24.5	17,800
1934	764-104	1,920	3	26.8	19,440	1,920	3	24.7	17,880
1935	789-123	541	2	23.7	17,130	541	2	23.9	17,280
1936	809-128	2,970	2	48.6	35,280	2,970	2	50.8	36,880
1937	829-140	668	3	37.3	26,980	668	3	36.2	26,200
1938	859-219	2,510	3	35.5	25,720	2,510	3	35.3	25,560
1939	879-188	6,200	2	46.6	33,740	-	-	-	-

*Discharge for Oct. 1 to Nov. 21, 1923, estimated to complete the water year.

LITTLE COLORADO RIVER BASIN

Little Colorado River near (at) Woodruff, Ariz.
(Drainage area, 9,060 square miles)

1906	211-107	10,000	1	149	107,600	2,280	1	118	85,200
1919	509-192	-	-	-	-	6,490	0	229	165,800
*1929	689-54	-	-	-	-	6,660	-	-	-
1930	704-57	2,500	0	58.9	42,700	2,500	0	54.8	39,700
1931	719-60	2,950	0	88.5	64,200	2,950	0	99.6	72,100
1932	734-78	5,570	0	161	117,000	5,570	0	151	110,000
†1933	749-66	2,980	0	71.3	51,600	2,980	0	83.0	60,100
1936	809-130	1,780	0	58.8	42,710	1,780	0	58.7	42,620
1937	829-142	1,940	0	63.7	46,100	1,940	0	60.8	44,010
1938	859-221	1,160	0	20.9	15,110	1,160	0	20.3	14,720
1939	879-190	338	0	14.3	10,370	-	-	-	-

*Year incomplete.
†Discharge for Dec. 6-31, 1933, estimated to complete calendar year.

Little Colorado River at Grand Falls, Ariz.
(Drainage area, 22,100 square miles)

*1926	629-78	13,900	0	251	181,000	13,900	0	240	174,000
1927	649-55	12,700	0	544	394,000	12,700	0	539	390,000
1928	669-50	1,860	0	121	87,600	1,950	0	131	95,100
1929	689-55	27,100	0	706	511,000	27,100	0	711	515,000
1930	704-58	5,570	0	261	189,000	5,570	0	251	182,000
1931	719-61	3,680	0	228	165,000	3,680	0	273	198,000
1932	734-79	19,800	0	642	466,000	19,800	0	592	430,000
1933	749-67	4,630	0	179	129,000	4,630	0	222	160,000
1934	764-107	3,520	0	98.0	70,980	3,060	0	52.1	37,740
1935	789-124	4,530	0	298	215,400	4,530	0	301	217,900
1936	809-131	3,150	0	227	165,100	3,150	0	231	167,600
1937	829-143	12,700	0	469	339,500	12,700	0	471	340,900
1938	859-222	19,200	0	235	170,200	19,200	0	226	163,300
1939	879-191	4,520	0	115	83,250	-	-	-	-

*Discharge for Oct. 1 to Nov. 14, 1925, estimated to complete water year.

Zuni River at Blackrock, N. Mex.
(Drainage area, 692 square miles, revised)

*1904	359-199	-	-	-	14,000	-	-	-	-
*1905	359-199	-	-	-	91,600	-	-	-	-
*1909	359-199	-	-	-	12,700	-	-	-	-
*1910	359-199	-	-	-	11,200	-	-	-	-
1911	359-199	-	-	26.2	19,000	-	-	28.1	20,400
1912	359-199	-	-	6.94	5,040	-	-	5.55	4,030
1913	359-199	-	-	11.7	8,480	-	-	14.5	10,500
1914	389-137	-	-	31.7	22,900	-	-	29.2	21,200
1915	409-133	-	-	77.0	55,700	-	-	76.2	55,200
1916	439-139	-	-	5.88	42,700	-	-	89.3	64,800
1917	459-132	-	-	35.7	25,800	-	-	5.21	3,780
1918	479-137	-	-	6.72	4,860	-	-	7.48	5,420
1919	509-193	-	-	63.2	45,700	-	-	64.2	46,500
1920	509-193	-	-	15.2	11,000	-	-	13.3	9,660
1921	529-122	-	-	9.38	6,790	-	-	9.35	6,770
1922	549-114	-	-	3.21	2,320	-	-	3.76	2,720
1923	569-101	-	-	24.4	17,700	-	-	28.1	20,400
1924	589-92	-	-	16.4	11,900	-	-	12.2	8,870
1925	609-81	-	-	7.10	5,140	-	-	7.14	5,170
1926	629-79	-	-	6.90	5,000	-	-	6.87	4,970
1927	649-56	-	-	22.2	16,100	-	-	22.1	16,000
1928	669-51	-	-	76.7	55,600	-	-	76.7	55,600
1929	689-56	-	-	9.62	6,970	-	-	20.8	15,100
1930	704-59	-	-	21.3	15,400	-	-	-	-

*For year ending June 30.

Summary of yearly discharge, in second-feet, at stations in Little Colorado River Basin--Continued

Chevelon Fork near Winslow, Ariz.
(Drainage area, 1,010 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1906	211-117	-	-	-	-	3,870	0.25	110	80,300
1917	459-134	1,060	1.0	79.8	57,800	1,060	1.0	78.7	57,000
1918	479-139	948	.7	27.4	19,800	948	.7	27.0	19,500
1919	509-195	1,020	2.0	43.7	31,600	3,000	2.0	79.8	57,800
1930	704-61	417	2	30.6	22,200	417	2	31.4	22,800
1931	719-63	456	2	37.7	27,300	456	2	43.7	31,700
1932	734-81	2,280	2	99.8	72,400	2,280	2	93.0	67,500
1933	749-69	432	2	33.8	24,500	432	2	33.8	24,400
1936	809-133	950	2	46.1	33,490	950	1	46.1	33,480
1937	829-145	1,170	1	96.2	69,630	1,170	1	96.2	69,640
1938	859-224	5,040	3	47.7	34,550	5,040	2	47.6	34,440
1939	879-193	987	2	35.4	25,630	-	-	-	-

Clear Creek near Winslow, Ariz.
(Drainage area, 607 square miles)

*1929	859-225	15,600	-	-	-	15,600	0	-	-
1930	704-62	861	0	40.0	28,900	861	0	42.0	30,400
1931	719-64	726	0	61.6	44,600	726	0	65.9	47,700
1932	734-82	4,690	0	205	149,000	4,690	0	199	144,000
1933	749-70	675	0	51.9	37,600	675	0	51.9	37,600
1936	809-134	1,360	0	64.5	46,830	1,360	0	64.5	46,840
1937	829-146	2,120	0	162	117,300	2,120	0	162	117,300
1938	859-225	12,900	0	89.4	64,670	12,900	0	89.4	64,670
1939	879-194	1,200	0	41.4	29,990	-	-	-	-

*Year incomplete.

Moenkopi Wash near Tuba (Tuba City), Ariz.
(Drainage area, 2,270 square miles)

1927	649-57	1,770	0	13.5	9,750	1,770	0	13.5	9,780
1928	669-52	315	0	6.2	4,510	315	0	7.5	5,420
1929	689-59	4,000	0	56.8	41,200	4,000	0	55.5	40,200
1930	704-63	5,180	0	63.6	46,000	5,180	0	63.4	45,900
1931	719-65	480	0	7.6	5,500	480	0	8.7	6,260
1932	734-83	546	0	10.9	7,890	546	0	10.0	7,300
1933	749-71	821	0	14.1	10,200	821	0	20.9	15,100
1934	764-110	2,600	0	22.9	16,590	2,600	0	15.8	11,420
1935	789-125	497	0	10.2	7,360	497	0	10.7	7,780
1936	809-135	1,800	0	28.5	20,710	1,800	0	28.8	20,900
1937	829-147	2,920	0	25.2	18,230	2,920	0	25.7	18,600
1938	859-226	654	0	10.8	7,810	654	0	9.28	6,720
1939	879-195	1,190	0	8.26	5,980	-	-	-	-

BRIGHT ANGEL CREEK BASIN

Bright Angel Creek near Grand Canyon, Ariz.
(Drainage area, 100 square miles)

1924	589-94	108	22	33.1	24,100	108	21	31.1	22,600
1925	609-83	71	20	27.3	19,800	71	16	26.7	19,300
1926	629-81	258	16	43.4	31,400	258	19	43.9	31,800
1927	649-58	417	20	46.6	33,800	417	20	47.6	34,500
1928	669-53	185	22	40.6	29,500	185	20	39.8	28,900
1929	689-60	131	20	30.9	22,400	131	20	30.4	22,000
1930	704-64	95	18	28.3	20,500	95	18	28.4	20,500
1931	719-66	42	18	23.3	16,900	42	18	22.9	16,600
1932	734-84	384	19	58.4	42,400	384	20	59.2	43,000
1933	749-72	47	16	23.7	17,100	47	16	22.3	16,200
1934	764-111	36	15	18.7	13,510	36	15	19.0	13,770
1935	789-126	231	17	43.7	31,610	231	18	43.6	31,590
1936	809-136	251	18	34.9	25,310	251	18	35.0	25,430
1937	829-148	395	18	57.9	41,920	395	19	59.3	42,890
1938	859-227	520	22	61.2	44,340	520	23	61.6	44,590
1939	879-196	127	19	35.8	25,910	-	-	-	-

VIRGIN RIVER BASIN

Virgin River at Virgin, Utah
(Drainage area, 990 square miles)

1910	289-190	-	-	-	-	2,770	60	290	211,000
1911	309-223	10,600	60	441	320,000	10,600	72	446	323,000
1912	329-194	5,100	104	186	136,000	8,100	104	216	157,000
1913	359-200	8,100	84	218	158,000	2,940	84	192	139,000
1914	389-138	2,500	82	298	216,000	-	-	-	-
1916	439-141	3,300	117	389	282,000	3,300	107	385	280,000
1918	479-139	3,690	42	231	167,000	3,690	42	240	174,000
1924	589-94	2,000	51	138	100,000	2,000	51	134	97,600
1926	629-81	-	-	-	123,000	-	-	-	134,000
1927	649-59	3,500	55	220	160,000	3,500	55	230	166,000
1928	669-54	2,600	24	157	114,000	1,630	24	133	96,200
1929	689-61	-	37	186	134,000	-	47	190	138,000
1930	704-65	1,520	31	155	112,000	2,000	31	166	120,000
1931	719-67	2,000	23	118	85,200	1,200	23	102	73,500

Summary of yearly discharge, in second-feet, at stations in Virgin River Basin--Continued

Virgin River at Virgin, Utah--Continued
(Drainage area, 990 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1932	734-85	7,000	32	310	225,000	7,000	-	332	233,000
1933	749-73	1,200	47	157	114,000	1,200	41	149	108,000
1934	764-112	681	28	108	78,470	681	28	115	83,160
1935	789-127	1,010	51	195	141,500	1,010	51	195	141,400
1936	809-137	1,000	50	164	118,700	1,000	50	162	118,000
1937	829-149	1,920	56	293	212,200	1,920	56	298	215,500
1938	859-228	5,000	48	280	202,900	5,000	48	278	201,600
1939	879-197	3,500	53	167	121,200	-	-	-	-

Virgin River at Littlefield, Ariz.
(Drainage area, 4,440 square miles)

1930	704-66	6,000	27	263	190,000	6,000	27	298	216,000
1931	719-68	1,860	35	165	119,000	1,160	35	147	106,000
1932	734-86	20,000	-	552	401,000	20,000	-	555	403,000
1933	749-74	1,200	26	181	131,000	1,200	26	178	129,000
1934	764-113	954	32	118	85,670	913	32	105	76,080
1935	789-128	1,800	23	227	164,200	1,800	23	233	161,800
1936	809-138	2,710	47	180	131,000	2,710	54	199	144,500
1937	829-150	1,440	39	348	251,900	1,440	39	339	245,700
1938	859-229	17,000	55	385	278,600	17,000	55	389	281,700
1939	879-198	5,000	52	214	154,900	-	-	-	-

North Fork of Virgin (Mukuntuweap) River near Springdale, Utah
(Drainage area, 360 square miles)

1926	629-82	710	42	113	81,900	710	42	118	85,100
1927	649-60	-	-	125	88,600	-	-	122	88,400
1928	669-55	750	26	82.6	59,900	750	24	71.5	51,800
1929	689-62	500	24	82.9	60,000	500	24	86.2	62,400
1930	704-67	428	34	75.5	54,600	428	34	76.4	55,300
1931	719-69	1,140	33	58.5	42,300	-	-	-	-
1933	749-75	759	46	90.7	65,700	759	38	86.4	62,600
1934	764-114	192	34	50.3	36,400	256	34	51.9	37,600
1935	789-129	1,030	35	123	88,890	1,030	36	122	88,580
1936	809-139	620	33	89.3	64,800	620	33	91.7	66,580
1937	829-151	2,070	37	193	139,700	2,070	51	195	141,300
1938	859-230	3,000	50	158	114,700	3,000	47	157	113,500
1939	879-199	1,400	32	78.0	56,490	-	-	-	-

Santa Clara Creek near Central, Utah
(Drainage area, 84 square miles)

1911	309-225	440	7	34.3	24,800	440	7	35.5	25,700
1912	329-196	210	7	29.2	21,200	532	7	33.3	24,200
1913	359-204	532	5	19.1	13,800	133	5	13.5	9,760
1914	389-141	240	5	24.4	17,700	240	5	24.2	17,500
1915	409-138	254	5.5	28.5	20,600	254	5.5	31.0	22,400
1916	439-144	407	12	34.2	24,800	1,100	13	41.0	29,800
1917	459-137	1,100	10	34.7	25,100	151	8	26.0	18,800
1918	479-142	663	6	18.6	13,400	663	6	19.5	14,000
1919	509-199	111	6	11.3	8,150	58	6	9.9	7,150
1920	509-199	307	4	26.3	19,100	307	4	28.7	20,800
1921	529-124	52	9	18.9	13,700	400	9	19.5	14,100
1922	549-115	400	6	42.8	31,000	285	6	41.4	30,000
1923	569-104	138	12	24.6	17,800	138	11	24.9	18,000
1924	589-96	22	5	11.5	8,310	22	-	9.5	6,910
1925	609-85	50	5	9.6	6,940	50	5	10.4	7,500
1926	629-84	105	4	13.7	9,900	105	4	13.4	9,680
1927	649-61	65	6	12.9	9,310	65	5	12.2	8,820
1928	669-66	54	5	10.6	7,720	54	6	10.6	7,730
1929	689-63	30	3	8.7	6,340	30	3	7.9	5,700
1930	704-68	62	3	9.4	6,830	-	-	-	-

WILLIAMS RIVER BASIN

Williams River at Planet (near Swansea), Ariz.
(Drainage area, 5,140 square miles)

1913	359-212	-	-	-	-	-	-	40.6	29,400
1914	389-148	-	-	108	78,000	-	-	111	80,500
1915	409-151	8,100	14	160	116,000	-	-	-	-
1929	689-64	3,570	12	43.0	31,200	3,570	12	42.8	31,000
1930	704-69	5,530	10	45.5	33,000	5,530	10	45.4	32,900
1931	719-70	12,400	10	150	109,000	12,400	10	168	122,000
1932	734-88	30,800	10	440	319,000	30,800	10	423	307,000
1933	749-77	68	11	18.3	13,300	68	11	16.4	11,800
1934	764-116	365	8	16.1	11,650	405	8	17.1	12,400
1935	789-131	7,120	8	152	110,200	7,120	11	152	110,400
1936	809-141	1,120	10	30.0	21,810	1,120	10	30.7	22,250
1937	829-152	44,700	10	349	252,900	44,700	10	350	253,200
1938	859-231	24,100	13	156	113,000	24,100	13	156	113,000
1939	879-200	31,500	11	320	231,500	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in GILA RIVER BASIN

Gila River near Gila, N. Mex.
(Drainage area, 1,780 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	(*)	-	-	-	-	380	40	108	78,640
1929	(*)	2,000	-	119	85,820	2,000	-	121	87,870
1930	(*)	1,100	24	128	92,460	1,100	24	126	91,540
1931	734-90	851	50	154	111,400	851	50	160	115,700
1932	734-90	1,850	48	196	142,300	1,850	48	189	137,400
1933	749-78	542	53	114	82,710	542	53	119	86,080
1934	764-117	518	22	68.8	49,790	518	22	62.9	45,570
1935	789-132	458	26	98.5	71,280	458	26	101	73,180
1936	809-142	291	31	95.4	69,230	291	31	94.0	68,200
1937	829-153	3,400	32	219	158,200	3,400	32	219	158,900
1938	859-232	1,120	24	100	72,410	1,120	24	99.8	72,260
1939	879-204	669	21	90.1	65,210	-	-	-	-

*From reports of State engineer of New Mexico.

Gila River near Red Rock, N. Mex.

1909	269-221	-	-	-	-	1,230	16	211	153,500
1910	289-202	240	27	84.0	60,800	240	27	74.6	53,960
1913	359-216	665	18	137	98,930	665	18	165	119,400
1914	389-153	-	55	268	193,800	5,120	55	401	290,000
1919	(*)	1,640	55	330	238,800	1,640	72	336	243,200
1920	(*)	3,350	27	265	192,600	3,350	27	255	184,900
1921	(*)	839	35	150	108,600	839	25	136	99,140
1922	(*)	298	22	69.9	50,610	298	22	74.4	53,780
1923	(*)	1,310	22	198	143,100	1,490	22	224	163,100
1924	(*)	1,490	15	245	178,000	1,040	15	217	157,500
1928	(*)	-	-	117	85,110	-	-	120	86,900
1929	(*)	2,210	19	124	89,560	2,210	19	127	91,350
1930	(*)	-	-	184	133,100	1,700	25	178	128,900
1931	734-92	1,190	15	217	157,200	1,190	15	227	164,400
1932	734-92	2,540	33	250	181,800	2,540	33	241	175,300
1933	749-79	1,030	27	149	107,700	1,030	27	158	114,200
1934	764-118	2,610	7.0	87.4	63,250	2,610	7.0	74.0	53,560
1935	789-133	827	12	126	91,140	827	12	131	94,760
1936	809-143	671	25	130	94,720	671	25	130	94,310
1937	829-154	8,210	25	306	221,400	8,210	25	305	221,100
1938	859-233	1,730	14	131	95,120	1,730	14	130	93,760
1939	879-205	970	6.0	114	82,800	-	-	-	-

*From reports of State engineer of New Mexico.

Gila River below Blue Creek, near Virden, N. Mex.
(Published as Gila River at Virden bridge, near Duncan, Ariz., 1928-31, drainage area, 3,290 square miles and Gila River at Fuller Ranch, near Duncan, Ariz., 1932-38, drainage area, 3,140 square miles)
(Drainage area, 3,140 square miles)

*1928	669-57, 66	694	2.8	119	86,500	694	2.8	118	85,700
*1929	689-65, 75	2,890	2.9	136	98,200	2,890	2.9	146	106,000
*1930	704-70, 83	2,410	5.6	181	131,000	2,410	5.6	168	122,000
*1931	719-72, 85	1,670	20	211	153,000	1,670	20	225	163,000
1932	734-93	2,470	14	259	188,000	2,470	14	251	182,000
1933	749-80	2,030	12	163	118,000	2,030	12	171	124,000
1934	764-119	4,980	2	107	77,450	4,980	2	92.7	67,130
1935	789-134	2,100	4	131	95,040	2,100	4	137	99,210
1936	809-144	559	7	126	91,310	559	7	124	90,100
1937	829-155	6,850	6	287	207,800	6,850	6	284	206,000
1938	859-234	1,350	6	121	87,680	1,350	6	120	86,710
1939	879-206	720	2	103	74,530	-	-	-	-

*Flow of Sunset Canal included in summaries to make records equivalent to those after 1931.

Gila River near Clifton (at Guthrie), Ariz.
(Drainage area, 4,040 square miles)

1911	329-208	-	-	-	-	3,260	6	229	166,000
1913	359-218	1,000	20	141	102,000	1,750	20	180	130,000
1914	389-156	2,060	22	313	227,000	15,000	22	585	423,000
1915	409-154	15,000	30	1,010	733,000	13,500	30	698	505,000
1916	439-155	6,310	-	464	336,000	-	-	577	419,000
1917	459-147	-	26	358	259,000	-	26	233	169,000
1929	689-67	3,530	14	155	112,000	3,530	14	162	117,000
1930	704-72	2,880	18	180	130,000	2,880	18	169	122,000
1931	719-74	2,850	22	207	150,000	2,850	22	222	161,000
1932	734-94	2,190	20	233	169,000	2,190	20	223	162,000
1933	749-81	1,800	21	146	106,000	-	-	-	-
1936	809-145	810	18	105	76,590	810	18	104	75,590
1937	829-156	4,890	19	248	179,900	4,890	19	249	180,400
1938	859-235	1,370	18	110	79,900	1,370	18	107	77,590
1939	879-209	1,840	11	94.4	68,310	-	-	-	-

Gila River below Bonita Creek, near Solomonsville, Ariz.
(Published as Gila River near Solomonsville, Ariz., 1915-32, drainage area, 7,950 square miles)
(Drainage area, 7,900 square miles)

1915	409-156	31,000	80	2,160	1,560,000	22,300	80	1,520	1,100,000
1916	439-157	73,600	110	1,810	1,320,000	73,600	110	2,130	1,550,000
1917	459-149	46,000	89	825	598,000	15,200	89	489	354,000
1918	479-147	1,110	75	171	124,000	1,110	69	190	137,000

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

Gila River below Bonita Creek, near Solomonsville, Ariz.--Continued
(Drainage area, 7,900 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1919	509-204	7,380	69	691	500,000	7,380	93	754	546,000
1920	509-204	6,370	78	671	488,000	6,370	78	605	439,000
1921	529-127	9,540	60	407	294,000	9,540	60	403	292,000
1922	549-119	1,720	42	176	128,000	1,720	42	169	122,000
1923	569-108	6,260	29	448	325,000	9,940	29	586	425,000
1924	589-100	9,940	56	534	388,000	3,280	56	388	282,000
1925	609-89	15,400	48	313	226,000	15,400	48	349	252,000
1926	629-88	4,380	58	448	325,000	4,380	58	448	324,000
1927	649-64	5,320	44	395	286,000	5,320	44	370	268,000
1928	669-60	1,390	40	227	165,000	1,390	40	233	169,000
1929	689-68	4,820	32	320	232,000	4,820	32	330	239,000
1930	704-73	5,500	41	339	245,000	5,500	41	321	232,000
1931	719-75	7,990	55	452	328,000	7,990	55	513	372,000
*1932	734-96	11,600	72	695	505,000	11,600	74	653	474,000
1933	749-82	4,290	90	344	249,000	-	-	-	-
1936	809-146	4,930	45	301	218,300	4,930	45	304	220,800
1937	829-157	13,200	60	583	422,400	13,200	60	578	418,500
1938	859-236	2,650	40	236	171,100	2,650	40	227	164,300
1939	879-210	2,340	28	205	148,300	-	-	-	-

*Calendar year record includes flow of Brown canal.

Note.- Records for 1915-32 obtained below intake of Brown canal. (See records for Brown canal, p. 299).

Gila River at Calva, Ariz.
(Drainage area, 11,490 square miles)

1930	704-75	5,590	0	290	210,000	5,590	0	262	189,700
1931	719-77	8,170	2	400	290,000	8,170	2	486	351,900
1932	734-98	13,800	10	609	442,000	13,800	10	529	384,100
1933	749-84	4,610	0	206	149,000	4,610	0	229	165,800
1934	764-121	12,500	0	221	160,100	12,500	0	182	131,900
1935	789-137	2,530	0	206	149,500	2,530	0	219	158,300
1936	809-147	4,030	0	207	150,200	4,030	0	205	149,000
1937	829-158	8,670	0	439	317,900	8,670	0	443	320,900
1938	859-237	3,270	0	147	106,200	3,270	0	130	93,900
1939	879-212	2,900	0	126	91,520	-	-	-	-

Summary of yearly contents, in acre-feet, for San Carlos Reservoir at Coolidge Dam, Ariz.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day		Contents on Sept. 30	Maximum day	Minimum day		Contents on Dec. 31
1929	704-76	121,300	0		121,300	136,000	0		136,000
1930	704-76	162,900	84,500		121,700	162,900	84,300		116,700
1931	719-78	180,300	69,800		137,600	213,700	69,800		213,700
1932	734-99	444,200	147,100		291,100	444,200	214,400		277,500
1933	749-85	332,000	100,800		101,500	332,000	90,200		103,600
1934	764-122	108,300	1,800		69,700	108,300	1,800		61,300
1935	789-138	189,600	55,500		105,900	189,600	61,600		98,700
1936	809-148	193,300	38,900		41,900	193,300	16,300		23,300
1937	829-159	268,700	16,300		82,500	268,700	23,800		54,200
1938	859-238	90,200	7,620		7,620	90,200	912		4,310
1939	879-213	29,900	408		8,940	-	-		-

Note.- Table shows usable contents, all available for release.

Summary of yearly discharge, in second-feet, for Gila River below Coolidge Dam, Ariz.
(Published as Gila River at and near San Carlos, Ariz., 1901-27 and Gila River at Coolidge Dam, Ariz., 1927-38)
(Drainage area, 12,880 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1901	75-179	3,600	0	257	186,400	3,600	0	262	190,000
*1903	100-61	-	-	-	-	3,750	.2	154	112,900
1904	133-204	3,200	0	136	98,500	5,870	0	224	162,700
1915	629-91	35,000	-	2,440	1,760,000	32,000	-	1,592	1,150,000
1916	629-91	100,000	12	1,860	1,350,000	100,000	12	2,177	1,580,000
1917	469-151	33,500	14	732	530,000	14,400	14	406	294,000
1918	479-149	1,540	-	115	83,300	1,540	-	140	102,000
1919	509-207	11,300	0	715	518,000	11,300	0	880	637,000
1920	509-208	9,460	-	728	528,000	9,460	-	557	404,000
1921	529-129	7,470	.2	393	285,000	7,470	.2	378	274,000
1922	549-121	1,150	.6	91.0	65,900	1,150	.6	88.3	63,900
1923	569-110	8,000	.5	328	237,000	11,800	.5	519	376,000
1924	589-102	11,800	.3	471	342,000	3,400	.3	269	195,000
1925	609-92	11,500	1	204	148,000	11,500	1	256	185,000
1926	629-91	6,250	0	370	268,000	6,250	0	368	266,000
1927	649-65	5,520	1	320	231,000	5,520	1	291	211,000

*Revised yearly figures not previously published.

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Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

Gila River below Coolidge Dam, Ariz.--Continued
(Drainage area, 12,880 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	669-62	2,600	0	138	100,000	2,600	0	121	87,600
1929	689-70	405	0	23.1	16,700	231	0	38.1	27,600
1930	704-77	870	0	303	220,000	870	0	304	220,000
1931	719-79	948	0	309	224,000	948	0	295	214,000
1932	734-100	930	0	353	257,000	930	0	384	279,000
1933	749-86	1,030	.3	463	336,000	1,030	.3	469	340,000
1934	764-123	525	.1	255	184,700	525	.1	233	168,900
1935	789-139	677	.3	255	184,600	677	.3	263	190,500
1936	809-149	738	.5	314	228,100	738	.5	325	235,700
1937	829-160	1,190	0	386	279,600	1,190	0	412	298,200
1938	859-239	546	5	262	189,700	546	1	210	151,700
1939	879-215	487	1	141	102,400	-	-	-	-

Note.- Flow regulated by Coolidge Dam beginning Nov. 15, 1928.

Gila River at Kelvin (at The Buttes), Ariz.
(Drainage area, 18,200 square miles)

1896	33-28	12,000	1	647	470,000	11,800	1	842	616,000
1897	33-28	11,800	0	1,118	810,000	-	-	-	-
1898	33-28, 29	10,200	.2	322	233,000	-	-	-	364,000
1912	329-211	32,900	3	720	523,000	32,900	3	611	451,000
1913	359-220	3,450	0	250	181,000	3,450	0	315	228,000
1914	629-93	7,550	1	609	441,000	55,000	1	1,740	1,261,000
1915	629-93	55,000	45	3,120	2,260,000	40,400	45	1,940	1,407,000
1916	629-93	105,000	29	1,950	1,410,000	105,000	29	2,250	1,636,000
1917	629-94	36,800	24	815	590,000	10,500	24	472	342,000
1918	479-152	5,340	4	210	152,000	5,340	4	239	173,000
1919	509-210	12,600	9	1,020	736,000	12,600	14	1,200	871,000
1920	509-210	8,680	6	955	694,000	8,680	6	757	550,000
1921	529-131	15,500	1	638	461,000	15,500	1	634	459,000
1922	549-123	1,390	4.5	166	120,000	1,390	4.5	155	112,000
1923	569-112	8,480	.5	485	350,000	10,700	.5	688	498,000
1924	589-104	10,700	1	520	378,000	5,470	1	305	222,000
1925	609-93	9,640	1	246	177,000	9,640	1	311	225,000
1926	629-94	36,600	2	560	405,000	36,600	2	574	415,000
1927	649-66	4,770	6	448	324,000	4,770	6	398	288,300
1928	669-63	4,500	1	208	151,000	4,500	1	187	136,000
1929	689-71	5,410	1	135	97,700	5,410	1	156	113,000
1930	704-79	18,400	31	474	343,000	18,400	31	476	345,000
1931	719-81	7,670	27	502	363,000	7,670	27	531	384,000
1932	734-102	3,580	55	503	366,000	3,400	58	492	357,000
1933	749-87	2,570	54	516	373,000	2,570	54	517	374,000
1934	764-124	1,620	50	304	220,000	1,620	50	280	202,700
1935	789-140	9,470	39	462	334,300	9,470	38	478	346,400
1936	809-150	3,350	40	416	301,700	3,350	40	423	307,400
1937	829-161	4,570	47	504	365,200	4,570	56	526	381,000
1938	859-240	2,470	37	323	234,000	2,470	11	267	193,200
1939	879-216	5,560	2	216	155,600	-	-	-	-

Gila River below (at) Gillespie Dam, Ariz.
(Drainage area, 49,700 square miles)

1922	589-109	32,700	0	1,200	866,000	32,700	0	1,100	797,000
1923	589-109	13,100	0	699	506,000	70,000	0	1,230	892,000
1924	589-109	70,000	0	1,080	782,000	23,600	0	460	334,000
1925	609-97	12,500	0	325	235,000	12,500	0	346	251,000
1926	629-96	25,200	0	766	554,000	25,200	0	884	640,000
1927	649-68	60,000	0	1,210	880,000	60,000	0	1,030	746,000
1928	669-65	7,270	0	109	79,100	7,270	0	105	76,200
1929	689-73	15,900	0	154	111,000	15,900	0	152	110,000
1930	704-81	11,100	0	111	80,600	11,100	0	112	81,100
1931	719-83	16,500	0	306	222,000	16,500	0	359	260,000
1932	734-104	32,400	0	623	452,000	32,400	0	579	420,000
1933	749-89	820	0	26.9	19,500	820	0	18.0	13,000
1934	764-126	1,810	0	11.1	8,050	1,810	0	13.9	10,050
1935	789-142	6,280	0	178	128,600	6,280	0	176	127,600
1936	809-152	2,390	0	38.3	27,800	2,390	0	40.0	28,950
1937	829-163	24,500	0	549	397,800	24,500	0	546	395,500
1938	859-242	35,800	0	260	188,400	35,800	0	263	190,600
1939	879-219	2,720	0	52.3	37,840	-	-	-	-

Gila River near (at) Dome, Ariz.
(Published as Gila River at Yuma, Ariz., 1903 and Gila River near Gila City, Ariz., 1904)
(Drainage area, 58,100 square miles)

1903	100-27	-	-	-	-	2,000	0	84.5	61,200
1904	133-206	4,560	0	277	200,700	4,560	0	312	226,400
1905	175-166	95,000	0	4,210	3,047,100	95,000	0	5,115	3,665,000
1906	211-125	95,000	0	2,920	2,115,100	54,600	0	2,470	1,790,000
1930	704-82	2,340	0	21.4	15,600	2,340	0	18.9	13,700
1931	719-84	10,200	0	142	103,000	10,200	0	153	111,000
1932	734-105	16,800	0	367	266,000	16,800	0	357	259,000
1933	749-90	338	0	1.6	1,150	0	0	0	0
1934	764-127	82	0	.2	167	82	0	.2	169
1935	789-143	651	0	8.2	5,910	651	0	8.1	5,900
1936	809-153	0	0	0	0	0	0	0	0
1937	829-164	8,110	0	212	153,700	8,110	0	212	153,700
1938	859-243	7,920	0	63.4	45,900	7,920	0	63.4	45,900
1939	879-220	632	0	4.9	3,540	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

San Francisco River near Glenwood, N. Mex.

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	(*)	-	-	-	-	-	-	43.8	31,780
1929	(*)	-	-	38.3	27,740	225	14	39.0	28,250
1930	(*)	487	-	62.0	44,860	487	18	59.5	43,050
1931	734-107	552	18	65.8	47,640	552	19	72.7	52,660
1933	749-91	413	25	61.0	44,140	413	25	65.5	47,410
1934	879-227	1,240	7.7	42.4	30,680	1,240	7.7	30.1	26,130
1935	789-144	297	10	49.3	35,680	297	10	51.3	37,160
1936	809-153	361	11	49.6	35,990	361	11	52.2	37,880
1937	829-165	1,740	13	107	77,300	1,740	13	103	74,720
1938	859-244	791	12	40.6	29,420	791	12	38.2	27,680
1939	879-227	678	9.2	44.0	31,860	-	-	-	-

*From reports of State engineer of New Mexico.

San Francisco River at Clifton, Ariz.
(Drainage area, 2,790 square miles)

1914	389-165	1,280	24	146	106,000	14,600	24	356	258,000
1915	409-172	14,600	30	939	681,000	-	-	-	-
1917	459-157	-	2	390	283,000	3,150	2	202	147,000
1928	669-73	1,040	23	111	80,700	1,040	23	113	81,700
1929	689-81	1,910	17	126	91,300	1,910	17	127	92,100
1930	704-89	1,730	22	125	90,600	1,730	22	119	86,200
1931	719-91	2,630	34	171	124,000	2,630	34	204	148,000
1932	734-108	5,630	41	363	264,000	5,630	41	335	243,000
1933	749-92	2,170	45	147	107,000	-	-	-	-
1936	809-154	2,010	21	136	98,390	2,010	21	136	98,930
1937	829-166	6,980	35	253	183,200	6,980	35	250	181,000
1938	859-245	2,830	25	103	74,910	2,830	25	98.1	71,030
1939	879-229	936	12	90.3	65,350	-	-	-	-

Brown canal (above wasteway) near Solomonsville, Ariz.

1915	409-174	33	0	8.3	6,000	-	-	-	-
1921	529-133	-	-	-	-	23	0	12.0	8,680
1922	549-128	18	0	11.6	8,420	18	0	10.7	7,760
1923	569-122	24	0	8.46	6,130	24	0	7.6	5,470
1924	589-121	30	0	10.7	6,180	30	0	7.9	5,750
1925	609-109	32	0	4.27	3,090	32	0	65	4,710
1926	629-109	39	0	15.8	11,400	39	0	15.6	11,300
1927	649-77	38	0	14.6	10,600	38	0	13.5	9,740
1928	669-74	42	0	11.4	8,240	42	0	11.6	8,420
1929	689-82	30	0	6.80	4,920	30	0	5.6	4,090
1930	704-90	35	0	7.12	5,160	35	0	7.1	5,140
1931	719-92	42	0	8.12	5,880	42	0	8.4	6,110
1932	734-109	27	0	8.60	6,240	-	-	-	-

San Simon Creek near San Simon, Ariz.
(Drainage area, 803 square miles)

1920	509-212	570	0	7.3	5,280	528	0	3.8	2,790
1921	529-144	1,070	0	20.5	14,800	1,070	0	21.1	15,200
1922	549-138	680	0	6.3	4,570	680	0	5.6	4,080
1923	569-133	800	0	13.3	9,590	800	0	13.5	9,760
1924	589-132	60	0	1.3	950	60	0	1.1	781
1925	609-119	75	0	.8	589	-	-	-	-
1932	734-110	55	0	.77	557	55	0	.76	552
1933	749-93	130	0	1.37	993	-	-	-	-
1936	809-155	480	0	3.5	2,530	480	0	3.5	2,530
1937	829-167	30	0	.5	328	45	0	.6	437
1938	859-246	190	0	2.2	1,560	190	0	2.1	1,510
1939	879-230	310	0	3.0	2,200	-	-	-	-

San Carlos River near Peridot, Ariz.
(Drainage area, 1,070 square miles)

1930	704-101	3,580	0	51.2	37,000	3,580	0	51.2	37,100
1931	719-104	4,010	0	50.7	36,700	4,010	0	65.2	47,200
1932	734-112	6,740	1	71.6	52,000	6,740	1	57.2	41,500
1933	749-94	1,440	1	23.2	16,800	1,440	1	23.8	17,200
1934	764-129	884	.1	19.0	13,730	884	.1	17.9	12,970
1935	789-148	9,380	.4	121	87,680	9,380	.4	121	87,910
1936	809-157	4,290	0	61.4	44,570	4,290	0	61.4	44,540
1937	829-169	11,400	1	64.4	46,640	11,400	1	63.7	46,100
1938	859-248	2,610	0	21.7	15,710	2,610	0	21.3	15,400
1939	879-232	1,150	.5	25.4	18,400	-	-	-	-

San Pedro River at Charleston (at or near Fairbank), Ariz.
(Drainage area, 1,440 square miles)

1913	359-230	846	1.7	32.8	23,800	1,120	1.7	35.2	25,500
1914	389-169	12,300	2	205	148,000	-	-	-	-
*1915	409-199	-	-	-	-	-	2	128	93,000
1916	439-166	1,760	2	47.2	34,200	1,760	2	49.7	36,100
1917	459-158	5,180	2	125	90,200	5,180	2	120	87,000
1918	479-155	920	1	28.0	20,300	920	1	29.5	21,400
1919	509-220	6,050	1	129	93,500	6,050	1	147	106,000
1920	509-220	860	2	57.5	41,800	860	2	38.3	27,800

*Discharge for Jan. 1-21, 31, 1915, estimated to complete calendar year.

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

San Pedro River at Charleston (at or near Fairbank), Ariz.--Continued
(Drainage area, 1,440 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1921	529-157	6,700	1.5	140	102,000	6,700	1.5	141	102,000
1922	549-152	1,900	1	50.4	36,500	1,900	1	48.6	35,200
1923	569-147	3,080	.5	58.3	41,200	3,080	.5	67.4	48,800
1924	589-145	562	1	34.8	25,300	524	1	24.3	17,700
1925	609-131	2,400	1	50.8	36,800	2,400	1	53.3	38,600
1926	629-127	28,800	2	170	122,000	28,800	2	189	137,000
1927	649-89	2,100	10	71.4	51,700	2,050	10	53.7	38,900
1928	669-87	350	4	27.7	20,100	1,480	4	35.6	25,900
1929	689-95	3,650	6	74.7	54,100	3,650	6	66.1	47,900
1930	704-103	3,590	6	73.9	53,500	3,590	6	73.8	53,500
1931	719-106	4,090	3	89.7	64,900	4,090	3	100	72,600
1932	734-114	1,720	6	63.3	45,900	1,720	6	52.0	37,800
1933	749-96	1,430	4	38.9	28,200	1,430	4	39.9	28,900
1936	809-159	3,400	3	61.6	44,690	3,400	3	58.3	42,320
1937	829-171	3,880	5	77.3	55,960	3,880	5	78.1	56,500
1938	859-250	2,290	3	47.2	34,600	2,290	3	47.3	34,250
1939	879-234	3,080	2	68.8	49,800	-	-	-	-

Aravaipa Creek near Feldman, Ariz.
(Drainage area, 535 square miles)

1920	509-222	2,570	0	21.5	15,400	1,400	0	20.0	14,540
1921	529-159	1,610	0	34.4	24,900	-	-	-	-
1932	734-117	1,940	3	40.1	29,100	1,940	3	31.5	22,850
1933	749-99	668	3	18.9	13,700	668	3	17.9	12,980
1934	764-132	323	1	14.8	10,750	323	1	14.6	10,600
1935	789-153	1,700	1	51.5	37,280	1,700	1	51.7	37,410
1936	809-162	730	3	26.7	19,390	730	3	26.7	19,380
1937	829-174	1,060	2	26.4	19,150	1,060	2	25.5	18,440
1938	859-253	1,280	2	17.1	12,370	1,280	2	16.9	12,270
1939	879-237	597	1	13.1	9,500	-	-	-	-

Santa Cruz River near Nogales, Ariz.
(Drainage area, 515 square miles)

1913	359-232	-	-	-	-	174	0	4.8	3,450
1914	389-171	960	0	18.1	13,100	-	-	-	-
1915	409-207	-	-	-	-	1,460	0	66.5	48,200
1917	459-162	297	-	19.1	13,800	297	-	19.9	14,400
1918	479-158	60	0	6.1	4,390	60	0	3.8	2,770
1919	509-226	298	0	18.0	13,000	298	0	24.2	17,500
1931	719-109	1,240	0	54.4	39,300	1,240	0	61.1	44,200
1932	734-118	2,140	0	43.6	31,600	2,140	0	38.6	28,000
*1933	749-100	100	0	9.5	6,880	155	0	8.3	6,010
1936	809-163	656	0	20.2	14,650	656	0	17.2	12,470
1937	829-175	517	0	22.2	16,050	517	0	23.3	16,880
1938	859-254	305	0	11.4	8,250	305	0	9.71	7,040
1939	879-240	1,130	0	25.4	18,410	-	-	-	-

*Discharge for Dec. 14-31, 1933, estimated to complete calendar year.

Santa Cruz River at Tucson, Ariz.
(Drainage area, 2,140 square miles)

1906	211-141	-	-	-	-	1,580	0	20.3	14,700
1908	269-226	-	-	-	-	6,780	0	20.8	15,100
1909	269-226	1,740	0	22.2	16,000	1,740	0	21.8	15,800
1910	289-214	1,010	0	8.2	5,940	1,010	0	7.9	5,717
1913	359-234	60	0	3.9	2,810	60	0	2.5	1,810
1914	389-172	200	0	2.5	1,820	8,510	0	79.0	57,200
1915	409-208	7,510	0	112	80,200	4,400	0	34.2	24,700
1916	439-170	4,000	0	51.4	37,300	4,000	0	51.6	37,400
1917	459-163	2,710	0	39.2	28,400	2,710	0	39.1	28,300
1918	479-160	1,490	0	6.8	4,940	1,490	0	7.0	5,040
1919	509-228	2,750	0	37.9	27,500	2,750	0	39.1	28,300
1920	509-229	550	0	10.9	7,920	550	0	9.6	6,980
1921	529-162	2,080	0	44.3	32,100	2,080	0	44.3	32,100
1922	549-155	630	0	15.0	10,900	630	0	15.0	10,900
1923	569-148	900	0	21.7	15,700	900	0	25.4	18,400
1924	589-147	830	0	5.1	3,700	135	0	1.3	974
1925	609-132	460	0	9.6	6,940	460	0	10.2	7,420
1926	629-129	6,150	0	27.9	20,200	6,150	0	28.0	20,300
1927	649-90	378	0	4.3	3,140	378	0	3.6	2,610
1928	669-88	700	0	4.0	2,920	700	0	4.0	2,920
1929	689-96	4,710	0	33.6	24,300	4,710	0	33.6	24,300
1930	704-105	539	0	11.2	8,080	539	0	11.2	8,080
1931	719-110	3,460	0	51.5	37,300	3,460	0	53.3	38,600
1932	734-119	1,330	0	20.3	14,700	1,330	0	18.9	13,700
1933	749-101	880	0	10.1	7,300	880	0	10.0	7,210
1934	764-134	1,060	0	10.5	7,570	1,060	0	10.3	7,440
1935	789-155	4,620	0	28.2	20,440	4,620	0	29.2	21,100
1936	809-164	1,500	0	12.1	8,760	1,500	0	11.1	8,020
1937	829-176	905	0	11.4	8,260	905	0	11.6	8,370
1938	859-255	1,910	0	10.5	7,620	1,910	0	10.4	7,510
1939	879-241	2,420	0	33.8	24,400	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

Rillito Creek near Tucson, Ariz.
(Drainage area, 903 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1914	389-173	1,250	0	12.2	8,820	16,000	0	162	117,000
1915	409-209	16,000	0	230	167,000	4,000	0	80.7	58,400
1916	439-171	4,900	0	72.0	52,300	4,900	0	72.1	52,300
1917	459-164	1,410	0	14.6	10,600	1,410	0	14.5	10,500
1918	479-161	2,130	0	17.5	12,600	2,130	0	17.5	12,700
1919	509-231	2,790	0	51.4	37,200	2,790	0	58.3	42,200
1920	509-231	2,450	0	35.8	26,000	2,450	0	28.8	20,900
1921	529-163	4,920	0	58.6	42,600	4,920	0	56.8	42,600
1922	549-156	300	0	4.2	3,030	310	0	4.2	3,010
1923	569-149	500	0	9.2	6,660	830	0	16.8	12,100
1924	589-148	830	0	8.0	5,750	25	0	.4	264
1925	609-133	437	0	6.5	4,720	437	0	6.5	4,720
1926	629-130	451	0	2.7	1,940	451	0	2.8	2,040
1927	649-91	487	0	6.3	4,580	467	0	6.2	4,480
1928	669-89	200	0	1.8	1,280	200	0	1.8	1,290
1929	689-97	4,640	0	37.1	26,900	4,640	0	37.1	26,900
1930	704-107	1,040	0	14.6	10,600	1,040	0	14.6	10,600
1931	719-112	1,180	0	16.6	12,100	1,180	0	21.8	15,800
1932	734-122	1,420	0	20.4	14,800	1,420	0	15.9	11,500
1933	749-104	333	0	2.3	1,650	333	0	2.0	1,480
1934	764-136	320	0	2.9	2,100	320	0	2.5	1,830
1935	789-157	2,360	0	25.2	18,270	2,360	0	25.2	18,280
1936	809-166	490	0	5.0	3,600	490	0	4.9	3,600
1937	829-178	748	0	6.1	4,450	748	0	6.1	4,440
1938	859-257	783	0	3.4	2,500	783	0	3.4	2,500
1939	879-243	1,890	0	9.5	6,880	-	-	-	-

Salt River near Chrysotile, Ariz.
(Drainage area, 2,830 square miles)

1925	609-135	3,660	127	373	270,000	3,660	143	403	292,000
1926	859-260	9,520	153	837	605,000	9,520	153	806	583,000
1927	859-260	18,700	157	797	577,000	18,700	160	797	577,000
1928	669-90	1,250	108	324	235,000	1,250	108	316	231,000
1929	859-260	6,220	106	419	304,000	6,220	106	437	317,000
1930	859-260	6,080	120	547	396,000	6,080	120	529	383,000
1931	719-113	5,700	130	608	440,000	5,700	153	739	535,000
1932	859-260	35,900	163	1,260	916,000	35,900	143	1,140	827,000
1933	749-106	2,010	143	500	362,000	2,010	164	512	370,400
1934	859-261	1,420	98	272	197,200	1,420	98	247	179,000
1935	789-159	9,330	133	893	646,500	9,330	150	902	653,500
1936	859-261	8,890	145	770	559,100	8,390	145	775	562,800
1937	829-180	28,900	140	948	686,500	28,900	140	938	679,100
1938	859-259	12,600	106	399	288,700	12,600	106	389	282,000
1939	879-245	5,870	91	405	293,300	-	-	-	-

Salt River near Roosevelt, Ariz.
(Drainage area, 4,310 square miles)

1914	389-176	5,710	164	645	467,000	19,400	164	885	640,000
1915	409-212	37,500	234	2,200	1,590,000	37,500	244	1,980	1,430,000
1916	439-173	79,200	286	3,030	2,200,000	79,200	225	3,120	2,270,000
1917	459-166	23,600	170	977	702,000	23,600	170	854	618,000
1918	479-165	6,120	152	491	356,000	6,120	152	492	356,000
1919	509-234	12,000	154	1,220	881,000	50,600	199	1,760	1,280,000
1920	509-234	56,000	202	2,230	1,620,000	56,000	202	1,720	1,250,000
1921	529-165	12,000	152	706	511,000	12,000	152	687	497,000
1922	549-158	9,380	205	731	529,000	9,380	177	731	530,000
1923	569-151	11,800	145	680	494,000	32,200	145	1,000	726,000
1924	589-149	32,200	155	1,060	770,000	6,820	152	718	521,000
1925	609-136	5,140	140	402	291,000	5,140	140	432	312,000
1926	629-133	16,200	135	872	632,000	16,200	135	868	628,000
1927	649-93	31,600	165	1,100	794,000	31,600	165	1,080	782,000
1928	669-91	1,590	197	388	282,000	1,590	197	395	287,000
1929	689-99	9,700	97	563	408,000	9,700	97	575	416,000
1930	704-109	6,480	127	651	471,000	6,480	127	630	456,000
1931	719-114	18,800	146	756	547,000	18,800	172	940	680,000
1932	734-125	35,200	258	1,610	1,170,000	35,200	200	1,400	1,040,000
1933	749-107	2,950	180	589	426,000	2,950	180	611	442,000
1934	764-139	1,920	91	326	236,300	1,920	91	291	210,600
1935	789-160	10,400	164	1,033	747,900	10,400	168	1,041	753,900
1936	809-170	11,300	152	878	637,000	11,300	152	891	646,700
1937	829-181	35,000	153	1,212	877,700	35,000	153	1,193	863,800
1938	859-262	17,800	123	489	354,000	17,800	123	481	348,400
1939	879-246	5,750	96	478	346,000	-	-	-	-

Salt River at Roosevelt, Ariz.
(Drainage area, 5,760 square miles)

1901	75-178	-	-	-	-	-	-	672	478,000
1902	85-29	4,680	45	272	197,000	4,680	45	293	211,000
1903	100-45	2,800	88	358	259,000	2,050	88	351	254,000
1904	133-214	14,700	50	336	244,000	14,700	50	330	240,900
1905	175-177	45,500	146	3,811	2,759,000	97,700	217	4,495	3,226,000
1906	211-133	97,700	217	2,364	1,711,000	36,600	255	2,120	1,540,000
*1907	249-186	36,600	255	1,763	1,280,000	14,200	262	1,519	1,099,000
1910	289-215	-	-	-	-	-	-	537	388,000
1911	309-242	-	-	1,100	800,000	-	-	1,170	840,000
1912	329-224	-	-	755	548,000	14,300	199	712	516,000
1913	359-235	3,760	139	560	405,000	3,760	139	565	409,000

*Discharge for Jan. 1, 2, 4-6, Dec. 10-31, 1907, estimated to complete year.

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

Tonto Creek near (at) Roosevelt (near Livingstone), Ariz.
(Drainage area, 815 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1902	85-32*	1,710	2	29.4	21,300	1,710	2.3	52.5	38,200
1903	100-47	1,410	1	61.1	44,200	830	1	39	27,800
1914	389-180	5,000	2	98.5	71,400	5,000	2	124	89,400
1915	409-217	11,000	5	262	189,000	11,000	5	229	166,000
1916	439-178	15,800	5	294	213,000	15,800	10	299	217,000
1917	459-172	8,000	10	166	120,000	8,000	10	161	117,000
1918	479-172	1,010	1	63.6	46,100	1,010	1	71.3	51,600
1919	509-243	2,400	1	155	112,000	8,920	4	244	177,000
1920	509-243	9,880	5	370	269,000	9,880	5	279	202,000
1921	529-169	1,020	1	48.9	35,400	2,200	1	54.2	39,200
1922	549-162	6,000	5	224	162,000	6,000	5	227	165,000
1923	569-152	6,380	2	166	120,000	20,000	2	262	190,000
1924	589-150	(*)	0	185	134,000	2,500	0	77.8	56,500
1925	609-137	925	1	50.9	36,900	925	1	57.9	41,900
1926	629-134	13,500	1	222	161,000	13,500	1	226	164,000
1927	649-94	12,600	2	228	166,000	12,600	3	214	155,000
1928	669-92	1,500	2	48.9	35,500	1,500	2	51.6	37,400
1929	689-100	5,500	1	88.5	64,100	5,500	1	82.2	59,500
1930	704-110	3,500	1	51.9	37,600	3,500	2	67.5	48,900
1931	719-115	7,850	2	127	92,100	7,850	2	178	129,000
1932	734-126	8,000	4	310	225,000	8,000	4	253	184,000
1933	749-108	435	4	65.1	47,200	438	4	62.3	45,100
1934	764-140	800	2	26.9	19,500	800	2	24.1	17,470
1935	789-163	1,550	1	128	92,650	1,550	1	127	91,620
1936	809-173	1,850	1	74.7	54,220	1,850	1	78.6	57,030
1937	879-249	18,000	1	242	175,100	18,000	2	236	171,000
1938	879-249	6,000	1	61.8	44,700	6,000	.4	64.8	46,900
1939	879-249	660	0	49.4	35,800	-	-	-	-

*Figure of 20,000 second-feet previously published probably subject to considerable error.

Verde River at Camp Verde, Ariz.
(Drainage area, 4,220 square miles)

1913	359-242	-	-	-	-	3,620	38	204	148,000
1914	389-182	7,180	31	265	191,000	7,180	31	284	206,000
1915	409-219	3,400	42	535	*388,000	3,400	40	524	379,000
1916	439-181	-	40	724	524,000	-	100	748	543,000
1917	459-176	-	95	456	330,000	-	85	412	298,000
1918	479-175	-	38	241	174,000	-	38	253	183,000
1919	509-248	3,410	42	276	200,000	15,200	42	391	283,000

*Erroneous figures published in Water-Supply Paper 409. Corrected run-off for February and March 1915, 57,200 and 103,000 acre-feet, respectively.

Verde River near Camp Verde, Ariz.
(Drainage area, 5,010 square miles)

1935	789-164	6,870	62	462	334,700	6,870	62	465	336,900
1936	809-174	3,310	56	285	207,200	3,310	56	288	209,400
1937	829-185	24,700	65	808	584,900	24,700	65	801	580,200
1938	859-266	39,800	65	516	373,600	39,800	65	516	373,320
1939	879-251	6,600	50	301	218,200	-	-	-	-

Verde River above Camp Creek, near McDowell, Ariz.
(Published as Verde River at (near) McDowell, Ariz., prior to February 1925, drainage area, 6680 square miles, revised)
(Drainage area, 6,230 square miles)

1895	(a)	-	-	-	-	33,000	116	1,051	763,000
1898	(b)	1,890	115	327	237,000	1,890	115	313	226,000
1899	(c)	2,500	100	274	198,000	-	-	-	-
1901	75-177	-	-	-	-	6,610	29	426	303,000
1904	133-227	6,030	32	381	276,600	6,030	32	369	269,700
1905	175-185	32,970	119	2,170	1,569,000	61,460	125	2,560	1,822,000
1906	211-139	61,460	105	1,250	902,000	31,300	105	1,100	802,000
1907	249-195	32,200	144	1,190	860,000	32,200	144	1,040	748,000
1908	249-195	14,400	98	627	455,000	51,600	98	828	600,000
1909	269-232	51,600	116	1,050	763,000	6,800	116	805	583,000
1910	289-215	-	-	655	474,000	-	-	662	479,000
1911	309-242	-	-	918	664,000	-	-	1,000	724,000
1912	329-227	10,600	79	623	452,000	10,600	79	566	415,000
1913	359-245	5,710	77	515	373,000	5,710	77	486	352,000
1914	389-184	17,100	78	*546	*395,000	17,100	78	580	420,000
1915	409-222	15,700	95	*974	*705,000	16,900	95	938	679,000
1916	439-183	53,400	115	1,290	933,000	53,350	115	1,330	969,000
1917	459-178	26,600	128	*1,230	*894,000	26,600	128	1,180	855,000
1918	479-177	54,300	112	773	559,000	54,300	112	792	574,000
1919	509-250	7,440	80	749	542,000	46,800	80	1,150	834,000
1920	509-250	48,200	117	1,740	1,270,000	48,200	117	1,350	978,000
1921	529-171	7,170	80	428	309,000	15,400	80	523	379,000
1922	549-163	21,800	120	1,080	784,000	21,800	120	1,040	755,000
1923	569-153	25,300	88	742	538,000	40,800	88	999	723,000
1924	589-152	40,800	72	754	548,000	6,000	72	429	312,000
1925	609-139	11,000	71	350	253,000	11,000	71	397	288,000
1926	629-136	27,500	96	704	509,000	27,500	96	663	480,000
1927	649-95	48,200	108	1,140	827,000	48,200	108	1,150	829,000
1928	669-93	8,020	85	432	314,000	8,020	85	419	304,000
1929	689-101	16,800	48	535	387,000	16,800	48	516	374,000
1930	704-111	4,700	60	396	287,000	4,700	60	435	315,000
1931	719-116	22,600	77	557	404,000	22,600	77	614	445,000

*Corrected. Figures previously published are erroneous.

Summary of yearly discharge, in second-feet, at stations in Gila River Basin--Continued

Verde River above Camp Creek, near McDowell, Ariz.--Continued
(Drainage area, 6,230 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1932	734-127	41,500	100	1,150	835,000	41,500	100	1,070	776,000
1933	749-109	1,490	74	303	220,000	1,490	74	295	213,000
1934	764-143	1,320	69	227	164,200	1,340	69	232	167,600
1935	789-166	8,880	79	698	505,500	8,880	79	699	506,400
1936	809-176	4,900	64	396	287,400	4,900	64	400	290,400
1937	829-187	39,200	92	1,130	819,200	39,200	92	1,121	811,300
1938	859-268	59,700	84	602	436,000	59,700	84	608	440,500
1939	879-254	1,900	58	345	250,100	-	-	-	-

a 18th Ann. Rept., pt. 4, p. 297.
b 20th Ann. Rept., pt. 4, p. 407.
c 21st Ann. Rept., pt. 4, p. 387.

SULPHUR SPRING VALLEY

WHITEWATER DRAW BASIN

Whitewater Draw near Douglas, Ariz.
(Drainage area, 1,023 square miles)

1913	359-253	-	-	-	-	810	0	8.44	6,200
1914	389-189	900	0	17.0	12,300	2,640	0	34.2	24,700
1915	409-228	2,640	0	27.5	19,900	680	0	6.74	4,880
1916	439-191	-	0	15.9	11,500	-	0	16.1	11,700
1917	459-185	-	0	8.14	5,900	-	0	7.98	5,780
1918	479-184	550	-	6.10	4,410	550	-	6.59	4,770
1919	509-262	-	-	35.9	26,000	-	-	-	-
1931	719-117	1,390	0	18.5	13,400	1,390	0	13.5	14,100
1932	734-129	624	.7	10.8	7,880	624	.7	10.0	7,270
*1933	749-112	436	.6	4.66	3,360	436	.6	5.00	3,620
1936	809-181	1,000	.5	5.34	3,880	1,000	.5	4.18	3,030
1937	829-192	1,130	.1	14.7	10,640	1,130	.1	16.4	11,880
1938	859-273	1,150	.3	10.7	7,760	1,150	.3	9.30	6,730
1939	879-260	644	.1	8.76	6,350	-	-	-	-

*Discharge for Dec. 19-31, 1933, estimated to complete calendar year.

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