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SURFACE WATER SUPPLY *of the* UNITED STATES 1933

PART 10

THE GREAT BASIN

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ILLUSTRATION

FIGURE 1. Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.	Page
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SURFACE WATER SUPPLY OF THE GREAT BASIN

1933

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made in streams in the United States during the year ending September 30, 1933.

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

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

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

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

Annual appropriations for the fiscal year ending June 30, 1895 to 1934

1895-----	\$12, 500. 00	1911-17---	\$150, 000. 00	1928-----	\$147, 000. 00
1896-----	24, 500. 00	1918-----	175, 000. 00	1929-----	270, 000. 00
1897-99---	50, 000. 00	1919-----	148, 244. 10	1930-----	275, 000. 00
1900-----	70, 000. 00	1920-----	175, 000. 00	1931-----	565, 000. 00
1901-2---	100, 000. 00	1921-23---	180, 000. 00	1932-----	711, 000. 00
1903-6---	200, 000. 00	1924-25---	170, 000. 00	1933-----	600, 000. 00
1907-----	150, 000. 00	1926-----	165, 000. 00	1934-----	¹ 540, 000. 00
1908-10---	100, 000. 00	1927-----	151, 000. 00		

In the execution of the work many private and State organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

Measurements of stream flow have been made at about 6,680 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July 1933, 2,800 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at other points. In connection with this work data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

¹ Only \$340,000 available for expenditure.

DEFINITION OF TERMS

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

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

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

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

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

The following terms not in common use are here defined:

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

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

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1932, and ending September 30, 1933. At the beginning of January in most parts of the United States much of the precipitation in the preceding 3 months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a staff or chain gage, or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in figure 1.

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

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

The description of the station gives information in regard to the location and type of gage, diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Information under "Discharge" gives the maximum and minimum recorded discharges and the average discharge. The maximum does not necessarily represent the crest discharge unless a water-stage recorder was in operation or a nonrecording gage was read at the time of the crest. Likewise, the minimum may not represent the lowest discharge. The average discharge is the average of the mean annual discharges for the years indicated. It is given only for stations for which there are 10 or more complete years of record.

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

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

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge and not the discharge

when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

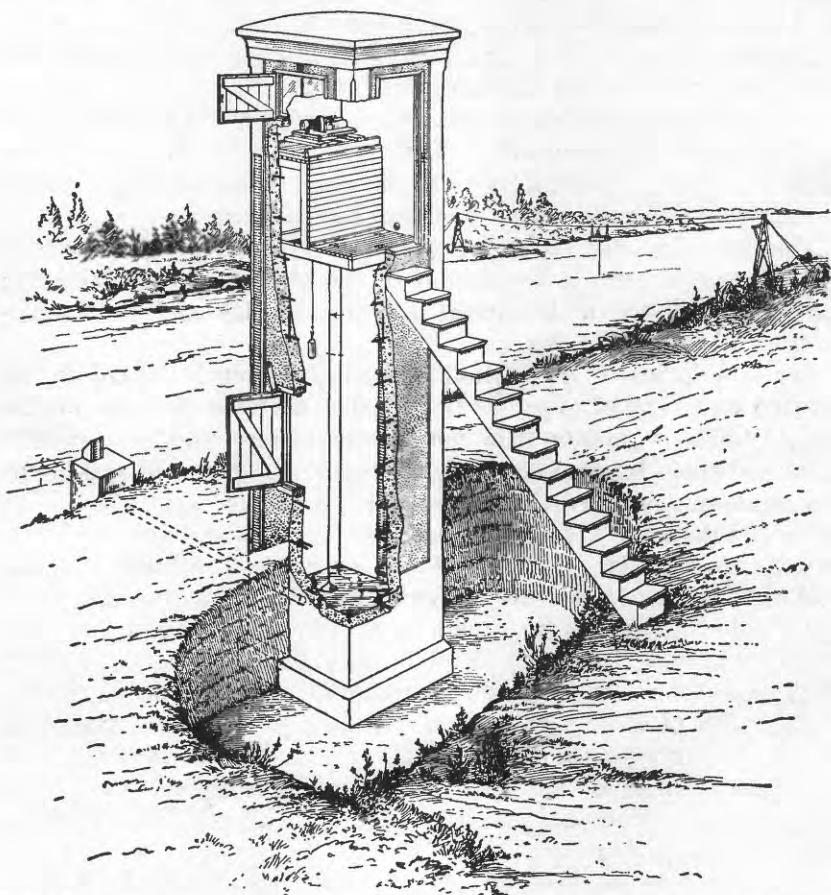


FIGURE 1.—Typical river-measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the

daily records are accurate within 5 percent; "good", within 10 percent; "fair", within 15 percent; and "poor", within 20 percent or more.

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

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

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

PUBLICATIONS

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

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with the 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. North Pacific slope basins, in three parts:
 - A, Pacific slope basins in Washington and upper Columbia River Basin.
 - B, Snake River Basin.
 - C, Pacific slope basins in Oregon and lower Columbia River Basin.

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

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

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

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

Augusta, Maine, Statehouse.
 Boston, Mass., 945 Post Office Building.
 Hartford, Conn., 203 Federal Building.
 Albany, N.Y., 353 Broadway.
 Trenton, N.J., 228 Federal Building.
 Harrisburg, Pa., 492 Education Building.
 Charlottesville, Va., University of Virginia.
 South Charleston, W.Va., Naval Ordnance Plant.
 Asheville, N.C., 220 Post Office Building.
 Columbia, S.C., 801 National Loan & Exchange Bank Building.
 Ocala, Fla., Post Office Building.
 Montgomery, Ala., Post Office Building.
 Chattanooga, Tenn., 217 Post Office Building.
 Columbus, Ohio, Engineering Experiment Station, Ohio State University.
 Indianapolis, Ind., 319 Federal Building.
 Urbana, Ill., 302 University New Agricultural Building.
 Madison, Wis., 337N State Capitol.
 St. Paul, Minn., 808 New Post Office Building.
 Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
 St. Louis, Mo., 3 Customhouse.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 Topeka, Kans., 305 Federal Building.
 Fort Smith, Ark., Post Office Building.
 Austin, Tex., State Highway Building.
 Santa Fe, N.Mex., State Capitol.
 Tucson, Ariz., 210 Post Office Building.
 Denver, Colo., 403 Post Office Building.
 Salt Lake City, Utah, 303 Federal Building.
 Idaho Falls, Idaho, 228 Federal Building.
 Boise, Idaho, 429 Federal Building.
 Helena, Mont., 421 Federal Building.
 Tacoma, Wash., 406 Federal Building.

Portland, Oreg., 606 Post Office Building.
 San Francisco, Calif., 303 Customhouse.
 Los Angeles, Calif., 510 Eighth and Figueroa Building.
 Honolulu, Hawaii, 225 Federal Building.

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

Stream-flow records have been obtained at about 6,689 points in the United States, and the data obtained have been published in the reports tabulated as follows:

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

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

Report	Character of data	Year
10th A, pt. 2.....	Descriptive information only.....	
11th A, pt. 2.....	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2.....	do.....	1884 to June 30, 1891.
13th A, pt. 3.....	Mean discharge in second-feet.....	1884 to Dec. 31, 1892.
14th A, pt. 2.....	Monthly discharge (long-time records, 1871-93).....	1884 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). Gage heights (also gage heights for earlier years).....	1895.
W 11.....	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).....	1896.
18th A, pt. 4.....	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).....	1895-96.
W 15.....	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.....	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.....	1897.
19th A, pt. 4.....	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).....	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.....	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.....	1898.
20th A, pt. 4.....	Monthly discharge (also for many earlier years).....	1898.
W 35 to 39.....	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4.....	Monthly discharge.....	1899.
W 47 to 52.....	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4.....	Monthly discharge.....	1900.
W 55, 56.....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.
W 82 to 85.....	Complete data.....	1902.
W 97 to 100.....	do.....	1903.
W 124 to 135.....	do.....	1904.
W 165 to 178.....	do.....	1905.
W 201 to 214.....	do.....	1906.
W 241 to 252.....	do.....	1907-8.
W 261 to 272.....	do.....	1906.
W 281 to 292.....	do.....	1910.
W 301 to 312.....	do.....	1911.
W 321 to 332.....	do.....	1912.
W 351 to 362.....	do.....	1913.
W 381 to 394.....	do.....	1914.
W 401 to 414.....	do.....	1915.
W 431 to 444.....	do.....	1916.
W 451 to 464.....	do.....	1917.
W 471 to 484.....	do.....	1918.
W 501 to 514.....	do.....	1919-20.
W 521 to 534.....	do.....	1921.
W 541 to 554.....	do.....	1922.
W 561 to 574.....	do.....	1923.
W 581 to 594.....	do.....	1924.
W 601 to 614.....	do.....	1925.
W 621 to 634.....	do.....	1926.
W 641 to 654.....	do.....	1927.
W 661 to 674.....	do.....	1928.
W 681 to 694.....	do.....	1929.
W 696 to 709.....	do.....	1930.
W 711 to 724.....	do.....	1931.
W 726 to 739.....	do.....	1932.
W 741 to 754.....	do.....	1933.

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

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1933. The data for any particular station will, as a rule, be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

Numbers of water-supply papers containing results of stream measurements, 1899-1933

[For basins included see p. 5]

Year	1	2	3	4	5	6	7	8	9	10	11	12-A	12-B	12-C
1899 ^a	35	b 35, 36	36	36	36	c 36, 37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 ^a	47, 48	48	49	49	49	49, 50	50	50	50	51	51	51	51	51
1901 ^a	65, 75	65, 75	65, 75	65, 75	65, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902 ^a	82	b 82, 83	83	83	83	83	83	83	83	85	85	85	85	85
1903 ^a	97	b 97, 98	98	98	98	98	98	98	98	100	100	100	100	100
1904 ^a	128	128	128	128	128	128	128	128	128	133	133	133	133	133
1905 ^a	126, 127	126, 127	126, 127	126, 127	126, 127	126, 127	126, 127	126, 127	126, 127	133, 134	133, 134	133, 134	133, 134	133, 134
1906 ^a	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	165, 166, 167	176, 177	176, 177	176, 177	176, 177	176, 177
1907 ^a	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	201, 202, 203	212, 213	212, 213	212, 213	212, 213	212, 213
1908 ^a	241	241	241	241	241	241	241	241	241	250, 251	250, 251	250, 251	250, 251	250, 251
1909 ^a	261	261	261	261	261	261	261	261	261	270	270	270	270	270
1910 ^a	281	281	281	281	281	281	281	281	281	289	289	289	289	289
1911 ^a	301	301	301	301	301	301	301	301	301	310	310	310	310	310
1912 ^a	321	321	321	321	321	321	321	321	321	330	330	330	330	330
1913 ^a	351	351	351	351	351	351	351	351	351	360	360	360	360	360
1914 ^a	381	381	381	381	381	381	381	381	381	390	390	390	390	390
1915 ^a	401	401	401	401	401	401	401	401	401	410	410	410	410	410
1916 ^a	431	431	431	431	431	431	431	431	431	440	440	440	440	440
1917 ^a	451	451	451	451	451	451	451	451	451	460	460	460	460	460
1918 ^a	471	471	471	471	471	471	471	471	471	480	480	480	480	480
1919-20 ^a	501	501	501	501	501	501	501	501	501	510	510	510	510	510
1921 ^a	521	521	521	521	521	521	521	521	521	530	530	530	530	530
1922 ^a	541	541	541	541	541	541	541	541	541	550	550	550	550	550
1923 ^a	561	561	561	561	561	561	561	561	561	570	570	570	570	570
1924 ^a	581	581	581	581	581	581	581	581	581	590	590	590	590	590
1925 ^a	601	601	601	601	601	601	601	601	601	610	610	610	610	610
1926 ^a	621	621	621	621	621	621	621	621	621	630	630	630	630	630
1927 ^a	641	641	641	641	641	641	641	641	641	650	650	650	650	650
1928 ^a	661	661	661	661	661	661	661	661	661	670	670	670	670	670
1929 ^a	681	681	681	681	681	681	681	681	681	690	690	690	690	690
1930 ^a	696	696	696	696	696	696	696	696	696	706	706	706	706	706
1931 ^a	711	711	711	711	711	711	711	711	711	720	720	720	720	720
1932 ^a	726	726	726	726	726	726	726	726	726	735	735	735	735	735
1933 ^a	741	741	741	741	741	741	741	741	741	750	750	750	750	750

^a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, part 4. James River only.

^b California River.

^c Greene and Gunnison Rivers and Colorado River above Gunnison River.

^d Mojave River only.

^e Kings and Kerns Rivers and south Pacific slope basins.

^f Rating tables and index to Water-Supply Papers 47-52.

^g Wells, and irrigation in California and Utah contained in Water-Supply Paper 52.

^h Tables of monthly discharge for 1900 in Twenty-second Annual Report, part 4.

ⁱ Wissahickon and Schuylkill Rivers to James River.

^j Scioto River.

^k Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte River.

^l 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 York 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.

COOPERATION

The work was done under cooperative agreements with the several States as follows: In California with the Department of Public Works, Earl Lee Kelly, director, and Edward Hyatt, State engineer; in Idaho with the commissioner of reclamation, R. W. Faris; in Nevada with the office of the State engineer, George W. Malone; in Oregon with the office of the State engineer, Charles E. Stricklin; in Utah with the office of the State engineer, George M. Bacon succeeded by T. H. Humphreys, and the city of Ogden; and in Wyoming with the State, through John A. Whiting, J. B. True, and E. W. Burritt, State engineers, successively.

Assistance in collecting records was rendered by Walker River Irrigation District.

DIVISION OF WORK

The data for the stations in the several States (except Oregon) were collected and prepared for publication as follows: In California (except the four stations listed below) by H. D. McGlashan, district engineer, assisted by F. C. Ebert, R. C. Briggs, Charles Leidl, Jesse Arnold, H. C. Troxell, Jarrett Oliver, M. T. Wilson, A. C. Swanson, H. M. Orem, K. F. Schumacher, F. A. Johnson, H. C. McCreery, K. R. Melin, L. E. Bossen, B. C. Colby, R. S. Lord, H. J. Tompkins, J. E. Jones, Miss Helen C. Smith, Miss Marguerite A. Tynam, and Miss Nettie Braverman; in Idaho (except those on the Bear River) by Thomas R. Newell, district engineer, assisted by F. C. Craig, J. A. Allis, J. R. Throckmorton, E. G. Bailey, Miss E. H. Haugse and Mrs. J. R. Bailey; in Utah and Nevada, stations on the Bear River in Idaho, and Bridgeport Reservoir near Bridgeport, Calif., East Walker River near Bridgeport, Calif., West Walker River near Coleville, Calif., and Topaz Reservoir near Topaz, Calif., by A. B. Purton, district engineer, assisted by M. T. Wilson, F. M. Bell, F. N. Hansen, B. M. Tanner, V. R. Bennion, C. A. Wheeler, L. R. Margetts, Miss Lysle Christensen, and Mrs. Gladys Hilton; in Wyoming by Robert Follansbee, district engineer, assisted by J. H. Baily, M. C. Boyer, S. C. Moore, and L. F. Hanks.

Data for stations in Oregon were collected and computed by the State of Oregon under supervision of C. E. Stricklin, State engineer, and were reviewed, checked, and prepared for publication by G. H. Canfield, district engineer, assisted by K. N. Phillips and A. H. Williams.

The records were reviewed and the manuscript assembled by David S. Jenkins.

GAGING-STATION RECORDS

GREAT SALT LAKE BASIN

GAGES ON GREAT SALT LAKE

LOCATION.—Staff gages at Saltair, on southeast shore of lake, 15 miles west of Salt Lake City, and at Midlake, on Lucin cut-off of Southern Pacific Railroad, 30 miles west of Ogden, Weber County, Utah. Zero of Saltair gage is 4,196.8 feet above mean sea level; zero of Midlake gage is 4,198.0 feet above mean sea level.

RECORDS AVAILABLE.—September 1875 to December 1899; March to July 1904; October 1912 to September 1933.

EXTREMES.—Maximum elevation during year, 4,198.9 feet May 15 to June 15 at Midlake gage; minimum, 4,197.15 feet Sept. 15 at Saltair gage.

1850-1933: Maximum elevation, 4,211.3 feet July 12, 1877; estimated maximum, 4,212.5 feet in 1868 (data furnished by Marcus E. Jones, Salt Lake City). Minimum, 4,195.7 feet in 1902, 1905.

REMARKS.—Apparent inconsistencies in readings are probably due largely to the effect of wind, as the two gages are about 40 miles apart. Readings on Midlake gage are furnished by the Southern Pacific Railroad Co., and those on Saltair gage are furnished by Saltair Beach Co.

Gage height, in feet, of Great Salt Lake, Utah, 1932-33

Day	Saltair	Midlake	Day	Saltair	Midlake	Day	Saltair	Midlake
Oct. 1.....	1.1	-0.1	Feb. 1.....	1.05	-0.15	June 1.....	1.95	0.9
Oct. 15.....	1.05	-.15	Feb. 15.....	1.15	-.1	June 15.....	1.9	.9
Nov. 1.....	.9	-.3	Mar. 1.....	1.2	0	July 1.....	1.7	.6
Nov. 15.....	.8	-.35	Mar. 15.....	1.3	.15	July 15.....	1.45	.4
Dec. 1.....	.85	-.4	Apr. 1.....	1.5	.4	Aug. 1.....	1.2	.1
Dec. 15.....	.85	-.4	Apr. 15.....	1.6	.5	Aug. 15.....	.95	-.15
Jan. 1.....	.8	-.35	May 1.....	1.65	.65	Sept. 1.....	.55	-.5
Jan. 15.....	1.0	-.25	May 15.....	2.0	.9	Sept. 15.....	.35	-.75

BEAR RIVER BASIN

BEAR RIVER NEAR EVANSTON, WYO.

LOCATION.—Water-stage recorder in sec. 1, T. 15 N., R. 121 W., 300 feet above highway bridge and $3\frac{1}{2}$ miles northwest of Evanston.

DRAINAGE AREA.—645 square miles.

RECORDS AVAILABLE.—October 1913 to September 1933.

DISCHARGE.—Maximum during year, 1,810 second-feet June 11 (gage height, 5.19 feet); no flow Aug. 26–30, Sept. 4–30.

1913–33: Maximum, 3,690 second-feet June 14, 1921 (gage height, 6.35 feet); no flow during periods in 1924, 1931, 1933. Average, 20 years (1913–33), 258 second-feet.

REMARKS.—Records good except those for Dec. 8 to Mar. 14, which were estimated on the basis of two discharge measurements and temperature records. Discharge estimated Apr. 8–11, May 23–26. Some diversions for irrigation above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	42	56				137	282	1,310	83	4.6	0.8
2	14	37	40				149	245	1,440	56	5.2	1.0
3	14	43	49			70	195	257	1,500	55	6.0	0.8
4	14	38	40				298	233	1,810	43	6.0	0
5	14	31	42				248	214	1,180	30	5.6	0
6	14	38	43				203	219	1,140	19	6.0	0
7	14	41	28				225	214	1,100	18	6.6	0
8	14	50				110	180	200	1,040	29	6.9	0
9	16	61	25	° 25			140	208	1,010	53	6.6	0
10	20	53					106	211	1,260	48	6.0	0
11	23	52					110	242	1,460	31	5.4	0
12	22	55				150	106	208	1,490	24	4.6	0
13	22	52	20				106	225	1,290	18	2.8	0
14	22	52			° 42		106	248	1,260	14	1.8	0
15	22	42				151	112	301	1,200	14	1.6	0
16	22	45				139	222	279	1,100	11	2.2	0
17	20	59				146	357	251	1,080	11	2.2	0
18	22	59	18			149	372	266	1,020	12	2.4	0
19	29	62				159	257	298	922	11	3.0	0
20	36	55				164	185	361	717	10	3.4	0
21	40	50				166	134	473	589	8.4	2.8	0
22	37	52				151	156	521	505	7.5	2.6	0
23	40	42	30			130	222	570	441	7.2	2.6	0
24	46	37				130	332	620	350	7.2	1.8	0
25	48	36				130	332	680	298	8.1	4	0
26	43	41				132	298	740	260	6.9	0	0
27	41	43				132	308	801	185	6.6	0	0
28	52	45	25			132	339	877	179	5.8	0	0
29	50	48				142	322	954	169	5.4	0	0
30	48	45				142	318	1,060	142	5.0	0	0
31	45					139		1,220		4.8	6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	52	11	28.2	1,730
November	62	31	46.9	2,790
December	56		27.8	1,710
January			25	1,540
February			35	1,940
March	166		127	7,810
April	372	106	219	13,000
May	1,220	200	435	26,700
June	1,500	142	898	53,400
July	83	4.8	20.1	1,240
August	6.9	0	3.22	198
September	1.0	0	.09	5
The year	1,500	0	155	112,000

° Discharge measurement.

BEAR RIVER AT HARER, IDAHO

LOCATION.—Water-stage recorder in NE¼ sec. 22, T. 14 S., R. 45 E., half a mile below mouth of Sheep Creek, three-quarters of a mile north of Harer siding on Oregon Short Line Railroad, and 6 miles east of Dingle.

DRAINAGE AREA.—2,780 square miles.

RECORDS AVAILABLE.—June 1913 to September 1916; January 1919 to September 1933.

DISCHARGE.—Maximum during year, 1,330 second-feet June 18, 19 (gage height, 6.01 feet); minimum occurred during winter.

1913-16, 1919-33: Maximum, 3,860 second-feet June 2, 1927 (gage height, 10.51 feet); minimum occurred during winter, not recorded. Average, 17 years (1913-16, 1919-33), 587 second-feet.

REMARKS.—Records good. Numerous diversions for irrigation above station. Records collected by Utah Power & Light Co., under general supervision of Geological Survey in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	216	225	160	150	175	160	330	487	846	434	201	131
2	216	222	160	150	175	160	385	464	858	404	213	132
3	216	228	160	155	175	160	410	468	870	396	207	132
4	207	225	165	155	175	160	490	472	938	388	201	132
5	204	219	100	155	170	160	475	457	1,050	366	192	132
6	204	213	95	155	165	160	435	468	1,010	351	185	138
7	204	213	90	155	160	160	445	472	1,100	347	180	145
8	210	201	135	155	155	160	450	468	1,310	351	175	144
9	228	201	110	155	150	165	385	461	1,300	351	164	142
10	232	210	110	155	150	175	302	445	1,260	329	162	142
11	238	200	105	155	145	195	298	434	1,230	326	160	142
12	232	200	100	160	145	195	298	445	1,210	396	160	142
13	232	200	100	160	140	200	291	453	1,170	396	160	142
14	228	200	100	165	135	215	248	453	1,100	351	158	144
15	228	207	100	165	135	255	244	449	1,110	322	152	148
16	235	195	100	165	135	275	251	461	1,120	308	144	148
17	232	204	100	165	140	265	285	487	1,220	302	142	15
18	235	201	110	165	140	260	373	518	1,330	288	141	15
19	241	201	115	165	145	280	400	542	1,330	278	141	148
20	238	201	125	165	145	285	392	570	1,250	271	142	148
21	232	201	130	165	150	285	392	606	1,230	271	142	145
22	225	201	135	165	150	290	385	654	1,100	254	141	145
23	228	198	135	165	155	305	381	706	930	248	138	145
24	241	135	135	165	155	310	385	714	790	244	138	147
25	241	80	135	165	155	300	411	694	698	238	137	150
26	228	120	140	165	155	285	434	682	654	232	135	152
27	232	165	145	170	160	280	434	714	642	222	134	156
28	235	180	145	170	160	300	434	742	582	222	134	162
29	232	160	145	175	-----	310	445	754	534	219	134	164
30	232	160	145	175	-----	325	487	766	472	210	132	168
31	228	-----	145	175	-----	325	-----	802	-----	204	131	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	241	204	227	14,000
November	228	80	192	11,440
December	-----	-----	125	7,690
January	-----	-----	162	9,960
February	-----	-----	153	8,500
March	-----	-----	237	14,600
April	-----	-----	378	22,500
May	802	434	558	34,300
June	1,330	472	1,010	60,100
July	434	204	307	18,900
August	213	131	157	9,650
September	168	131	146	8,690
The year	1,330	80	304	220,000

BEAR RIVER AT ALEXANDER, IDAHO

LOCATION.—Water-stage recorder in NW¼ sec. 17, T. 9 S., R. 41 E., 600 feet downstream from Soda plant of Utah Power & Light Co., half a mile southeast of Alexander, and 5 miles below mouth of Soda Creek.

DRAINAGE AREA.—3,840 square miles.

RECORDS AVAILABLE.—March 1911 to September 1916; April 1919 to September 1933.

DISCHARGE.—Maximum mean daily during year, 1,140 second-feet July 16 and 17; minimum, 77 second-feet Dec. 25.

1911-16, 1919-33: Maximum, 4,590 second-feet May 9, 1922; maximum gage height, 15.95 feet Dec. 11, 1919; minimum, about 28 second-feet when reservoir gates are closed. Average, 18 years (1911-16, 1919-20, 1921-33), 913 second-feet.

REMARKS.—Records good. Numerous diversions from irrigation above station. Regulation caused by storage in Bear Lake Reservoir and operations at Soda power plant. Records collected by Utah Power & Light Co., under general supervision of the Geological Survey in connection with a Federal Power Commission project.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	382	141	262	79	184	150	306	476	442	548	1,130	979
2.....	242	268	242	83	179	140	319	375	493	488	1,140	970
3.....	298	221	219	191	168	165	330	263	505	447	1,100	970
4.....	342	216	172	177	130	133	395	267	499	749	1,040	970
5.....	372	175	248	116	119	135	447	259	493	1,090	1,030	962
6.....	286	114	193	199	205	151	484	263	482	875	1,030	970
7.....	255	139	204	123	210	154	442	413	511	665	1,040	962
8.....	255	137	219	119	362	142	511	505	517	665	1,000	945
9.....	203	131	278	168	346	155	542	488	505	713	1,070	937
10.....	274	147	115	149	240	162	536	447	511	945	1,060	937
11.....	327	111	182	167	365	187	464	420	529	1,100	1,030	937
12.....	340	126	261	185	155	165	415	420	499	1,110	996	928
13.....	225	144	285	147	220	143	390	390	499	1,100	996	928
14.....	221	127	190	105	220	177	351	366	523	1,100	996	928
15.....	194	128	275	110	305	152	324	319	542	1,120	988	928
16.....	143	179	163	186	180	178	342	271	529	1,140	996	854
17.....	164	143	111	170	220	159	390	276	517	1,140	988	816
18.....	256	162	146	184	155	108	482	310	511	1,130	988	832
19.....	156	127	190	195	155	99	624	409	511	1,120	988	801
20.....	281	97	149	197	155	170	678	409	505	1,130	988	742
21.....	165	200	114	165	165	263	692	375	499	1,130	988	720
22.....	247	215	270	87	150	259	658	356	505	1,130	988	720
23.....	136	285	115	163	155	259	624	375	529	1,120	996	720
24.....	261	153	115	178	170	226	605	409	560	1,120	996	670
25.....	347	218	77	173	150	204	567	447	612	1,100	996	590
26.....	234	216	115	170	135	208	536	436	586	1,110	988	535
27.....	266	242	196	163	195	242	517	426	592	1,110	988	510
28.....	227	231	206	181	195	263	493	436	638	1,110	979	585
29.....	155	238	169	139	-----	276	482	458	542	1,110	979	570
30.....	142	216	109	190	-----	293	482	458	554	1,110	979	415
31.....	209	-----	116	200	-----	288	-----	436	-----	1,120	979	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	382	136	245	15,100
November.....	285	97	175	10,400
December.....	285	77	184	11,300
January.....	200	79	157	9,650
February.....	365	119	200	11,100
March.....	293	99	187	11,500
April.....	692	306	481	28,600
May.....	505	259	386	23,700
June.....	638	442	525	31,200
July.....	1,140	447	989	60,800
August.....	1,140	979	1,010	62,100
September.....	979	415	811	48,300
The year.....	1,140	77	448	324,000

BEAR RIVER NEAR WESTON, IDAHO

LOCATION.—Water-stage recorder in SW¼ sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge, 3 miles east of Weston.

RECORDS AVAILABLE.—October 1919 to December 1932. Comparable records obtained near Preston, Idaho, October 1889 to January 1917.

DISCHARGE.—1919-32. Maximum, 6,100 second-feet May 8 or 9, 1922 (gage height, 12.1 feet); minimum, 80 second-feet Apr. 20, 1930. Average, 13 years (1919-32), 1,100 second-feet.

REMARKS.—Records fair. No records Dec. 8 to Sept. 30. West Cache Canal and numerous irrigation ditches divert above station. Regulation caused by storage in Bear Lake Reservoir and operation of power plants above gage. Records furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932

Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.	Day	Oct.	Nov.	Dec.
1.....	303	342	429	11.....	387	372	-----	21.....	378	246	-----
2.....	399	402	522	12.....	381	369	-----	22.....	366	390	-----
3.....	240	429	339	13.....	426	351	-----	23.....	518	432	-----
4.....	300	435	510	14.....	444	220	-----	24.....	285	606	-----
5.....	432	474	345	15.....	396	399	-----	25.....	470	381	-----
6.....	405	390	594	16.....	321	402	-----	26.....	510	486	-----
7.....	354	228	420	17.....	175	378	-----	27.....	441	330	-----
8.....	426	360	-----	18.....	351	429	-----	28.....	498	360	-----
9.....	423	372	-----	19.....	357	354	-----	29.....	420	348	-----
10.....	318	360	-----	20.....	375	522	-----	30.....	432	490	-----
								31.....	272	-----	-----
Month				Maximum		Minimum		Mean		Run-off in acre-feet	
October.....				518		175		382		23,500	
November.....				606		220		389		23,100	
December 1-7.....				594		339		451		6,260	

BEAR RIVER NEAR COLLINSTON, UTAH

LOCATION.—Water-stage recorder in W½ sec. 34, T. 13 N., R. 2 W., 1 mile below Cutler plant of Utah Power & Light Co. at Wheelon railroad siding and 4 miles north of Collinston.

DRAINAGE AREA.—6,000 square miles.

RECORDS AVAILABLE.—July 1889 to September 1933.

DISCHARGE.—Maximum mean daily during year, 3,410 second-feet May 28; minimum, 28 second-feet Oct. 1-11 and Aug. 1.

1889-1933: Maximum, 11,600 second-feet June 7-10, 1909 (gage height, 7.7 feet); practically no flow at midnight Aug. 5, 1920 (gage height, 0.42 foot). Average, 43 years (1899-1905, 1906-33), 1,900 second-feet.

REMARKS.—Records good. Numerous canals divert above station. Flow regulated by storage in reservoirs and operation of power plants above gage. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	28	791	952	600	741	848	2,180	2,840	2,180	38	28	32
2.....	28	522	1,130	982	850	1,050	1,750	2,830	2,160	38	30	32
3.....	28	766	514	702	948	1,130	1,970	2,830	2,180	38	32	32
4.....	28	968	258	1,060	881	861	1,680	2,100	2,210	36	32	32
5.....	28	732	851	1,200	762	422	2,100	1,680	2,020	36	32	32
6.....	28	382	1,140	740	868	1,090	1,970	1,950	1,920	51	32	32
7.....	28	620	1,320	1,200	1,330	858	1,950	2,030	1,350	36	30	33
8.....	28	752	1,200	580	823	1,050	1,630	2,080	1,000	36	32	33
9.....	28	510	821	975	759	842	1,470	1,150	605	36	32	33
10.....	28	490	443	942	1,500	743	1,460	490	278	35	32	33
11.....	28	544	239	981	650	963	1,510	2,110	850	33	32	33
12.....	292	444	610	845	150	582	1,310	3,410	627	40	32	33
13.....	502	218	652	814	750	1,440	1,430	3,150	1,200	35	32	33
14.....	617	741	817	1,040	1,100	1,240	1,850	2,180	834	33	32	33
15.....	666	827	854	736	550	1,310	1,820	1,490	518	33	32	30
16.....	211	1,160	880	718	981	1,350	1,160	1,430	495	32	32	30
17.....	985	972	809	926	1,010	1,450	1,290	1,250	556	32	33	30
18.....	808	1,200	763	898	1,180	1,110	1,620	1,620	254	30	33	32
19.....	810	773	788	885	679	964	1,720	1,890	760	32	32	32
20.....	773	399	1,100	642	1,050	1,770	2,210	2,260	787	32	32	32
21.....	581	941	1,410	735	1,270	1,400	2,430	2,410	200	32	32	30
22.....	917	772	591	611	1,150	1,410	2,210	2,360	128	30	32	29
23.....	606	227	1,240	981	1,070	1,510	1,710	2,860	160	30	32	30
24.....	1,060	632	968	962	1,060	1,550	2,430	3,220	35	29	33	30
25.....	943	649	259	919	1,110	2,250	2,140	3,060	35	29	32	32
26.....	1,000	761	305	813	1,070	1,890	2,520	2,330	36	30	32	29
27.....	1,020	1,000	931	732	823	2,750	2,550	2,980	40	29	32	32
28.....	1,020	1,310	862	1,100	883	2,790	2,590	2,410	40	29	32	40
29.....	1,080	1,120	943	272	-----	2,790	2,590	2,210	38	29	32	40
30.....	365	1,180	1,430	679	-----	2,780	2,590	2,300	40	29	32	40
31.....	814	-----	1,550	1,020	-----	2,680	-----	2,210	-----	30	32	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,080	28	498	30,600
November.....	1,310	218	747	44,400
December.....	1,550	239	860	52,900
January.....	1,200	272	848	52,100
February.....	1,500	150	928	51,500
March.....	2,790	422	1,450	89,200
April.....	2,590	1,160	1,930	115,000
May.....	3,410	490	2,230	137,000
June.....	2,210	35	785	46,700
July.....	51	29	33.5	2,060
August.....	33	28	31.8	1,960
September.....	40	29	32.5	1,930
The year.....	3,410	28	863	625,000

LOGAN RIVER ABOVE STATE DAM, NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in sec. 36, T. 12 N., R. 1 E., at Logan plant of Utah Power & Light Co., 125 feet above confluence of tailrace with river and 2½ miles east of Logan.

DRAINAGE AREA.—218 square miles.

RECORDS AVAILABLE.—May 1913 to September 1933. June 1896 to December 1912 at old station a quarter of a mile downstream; flow at present station plus that of tailrace comparable to flow at old station.

DISCHARGE.—Maximum during year, 850 second-feet on June 3 (gage height, 4.71 feet); minimum, 11 second-feet several days in October, November, and December.

1913-33: Maximum (estimated), 2,000 second-feet Mar. 21, 1916 (gage height, 5.6 feet); minimum, 8 second-feet Dec. 11, 1915 and for several days in November and December 1931. Average, 20 years (1913-33), 131 second-feet.

REMARKS.—Records good. Water diverted from river and springs upstream for power, irrigation, and municipal supply. Flow regulated by operation of power plants above station. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1	12	13	11	12	13	13	20	113	710	115	13	15
2	13	14	11	12	13	13	19	89	785	98	14	18
3	12	12	11	12	13	13	20	85	790	91	14	16
4	12	11	11	12	13	13	32	77	705	77	14	16
5	12	11	12	12	13	13	18	87	668	66	14	16
6	12	11	11	11	13	13	18	75	686	64	14	15
7	13	19	11	11	13	13	16	47	690	66	14	15
8	12	11	11	11	13	13	14	61	663	61	14	16
9	13	11	11	11	13	13	15	45	622	52	14	17
10	11	11	11	13	13	13	13	35	663	52	15	18
11	11	11	11	13	27	13	13	30	668	51	14	17
12	11	11	11	12	15	14	13	28	672	43	16	16
13	11	11	11	13	14	13	13	21	690	36	15	16
14	11	11	11	13	12	13	12	19	650	41	15	18
15	11	11	12	14	12	13	13	33	686	38	15	21
16	12	11	19	14	13	13	14	66	668	34	14	25
17	12	11	29	14	13	14	13	92	627	33	15	24
18	12	11	17	13	13	13	12	147	528	33	14	27
19	11	11	11	13	13	13	13	207	498	33	15	29
20	12	11	17	15	13	13	12	243	430	32	15	24
21	11	12	12	14	13	13	12	352	382	27	15	18
22	11	13	13	14	13	12	12	430	348	22	15	19
23	12	11	13	14	13	12	12	345	316	18	15	17
24	12	11	13	14	13	12	14	267	300	17	15	16
25	11	11	13	14	13	13	48	320	261	16	26	26
26	11	11	13	14	13	12	31	398	271	16	15	21
27	11	11	13	14	13	12	61	454	178	16	15	13
28	12	11	14	14	12	16	25	450	169	15	15	14
29	11	11	14	14	-----	20	201	438	145	15	15	14
30	11	11	14	14	-----	23	171	478	132	15	15	14
31	11	-----	13	14	-----	20	-----	591	-----	14	15	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	13	11	11.6	713
November	19	11	11.6	690
December	29	11	13.1	806
January	15	11	13.1	806
February	27	12	13.5	750
March	23	12	13.8	848
April	201	12	31.0	1,780
May	591	19	19.7	12,200
June	790	132	52.7	30,900
July	115	14	42.2	2,590
August	26	13	15.0	922
September	29	13	17.4	1,090
The year	790	11	74.7	54,100

UTAH POWER & LIGHT CO.'S TAILRACE NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 36, T. 12 N., R. 1 E., 100 feet below power house of Utah Power & Light Co. and 2½ miles east of Logan.

RECORDS AVAILABLE.—May 1913 to September 1933.

DISCHARGE.—Average, 20 years (1913-33), 99.6 second-feet.

REMARKS.—Records good. Flow is regulated by operation of power plant above gage. This canal diverts from right bank of Logan River in SE¼SW¼ sec. 29, T. 12 N., R. 2 E., for power development. Water is returned to river 125 feet below gaging station on Logan River above State dam. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	140	134	118	106	94	87	98	180	175	186	172	126
2.....	144	134	118	110	93	88	98	181	174	186	174	122
3.....	150	139	118	111	92	87	98	180	176	184	171	122
4.....	147	139	118	112	88	87	105	178	175	182	167	122
5.....	144	139	116	110	82	85	111	181	172	182	161	122
6.....	144	139	116	105	83	85	112	180	175	182	165	120
7.....	144	127	114	101	82	86	115	176	175	182	162	116
8.....	148	136	110	101	81	86	115	167	174	182	160	116
9.....	153	137	105	100	76	85	112	171	174	181	158	115
10.....	157	136	103	100	67	86	110	174	174	182	155	114
11.....	160	134	97	98	65	86	100	174	172	182	158	114
12.....	158	132	92	97	92	86	96	172	172	181	154	111
13.....	158	130	91	97	100	91	97	174	174	182	150	106
14.....	154	127	91	97	94	91	94	174	172	182	147	102
15.....	153	123	96	97	92	86	94	176	120	182	144	98
16.....	148	125	96	97	91	86	103	178	101	182	141	97
17.....	148	126	97	96	80	87	136	180	111	182	140	97
18.....	147	126	107	96	88	87	150	182	172	184	143	96
19.....	150	129	116	96	87	87	153	180	169	184	146	96
20.....	148	129	107	100	88	86	141	178	169	186	141	101
21.....	154	127	106	98	87	85	133	182	171	186	139	107
22.....	147	126	106	98	86	86	141	184	171	186	139	105
23.....	144	126	106	97	87	86	165	175	171	184	136	105
24.....	147	123	106	97	85	83	184	171	171	184	134	106
25.....	151	123	106	96	83	83	186	171	171	184	133	105
26.....	146	122	106	96	83	81	184	175	118	184	133	109
27.....	139	122	106	97	87	86	167	174	182	184	130	110
28.....	134	118	106	97	88	88	186	172	186	181	134	109
29.....	139	116	105	94	-----	94	186	175	187	178	132	110
30.....	137	118	105	91	-----	98	187	178	186	174	132	110
31.....	136	-----	105	92	-----	98	-----	175	-----	169	126	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	160	134	147	9,040
November.....	139	116	129	7,680
December.....	118	91	106	6,520
January.....	112	91	99.4	6,110
February.....	100	65	86.1	4,780
March.....	98	81	87.2	5,360
April.....	187	94	132	7,850
May.....	184	167	176	10,800
June.....	187	101	166	9,800
July.....	186	169	182	11,200
August.....	174	126	148	9,100
September.....	126	96	110	6,550
The year.....	187	65	131	94,900

LOGAN, HYDE PARK & SMITHFIELD CANAL NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in SE¼ sec. 25, T. 12 N., R. 1 E., at concrete rating flume 1¼ miles below head of canal and 2½ miles east of Logan.

RECORDS AVAILABLE.—June 1904 to December 1907; January 1909 to September 1933.

DISCHARGE.—Average, 10 years (1923–33), 31.1 second-feet.

REMARKS.—Records good except those estimated, Oct. 25 to Apr. 26, which are fair. No diversions above gage. Flow regulated by head gates at diversion works. This canal diverts water from Logan River in NE¼NE¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic use in territory north of Logan. Gage-height record furnished by Logan, Hyde Park & Smithfield Canal Co. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1.....	30	5	16	126	12 ³	46	36
2.....	27	5	16	129	12 ³	41	37
3.....	24	5	15	129	12 ³	41	37
4.....	23	2	15	126	12 ³	42	36
5.....	23	0	15	130	12 ⁴	43	37
6.....	23	0	15	134	117	42	36
7.....	23	0	14	134	112	40	36
8.....	23	0	12	132	10 ³	40	36
9.....	16	0	10	132	10 ³	40	36
10.....	11	0	12	133	8 ³	40	36
11.....	11	0	12	133	8 ³	40	36
12.....	11	0	12	133	8 ³	38	36
13.....	11	0	12	134	8 ³	38	38
14.....	11	0	11	132	7 ³	40	40
15.....	11	0	13	132	72	41	40
16.....	11	0	14	131	70	40	40
17.....	11	8	14	129	6 ³	40	40
18.....	16	15	10	128	6 ⁴	40	36
19.....	16		1	126	5 ³	40	34
20.....	15		1	124	5 ⁷	40	33
21.....	15		1	122	5 ³	40	32
22.....	16	1	122	5 ⁴	39	32	
23.....	16	1	117	5 ³	38	32	
24.....	15	6	117	50	38	32	
25.....	15	11	126	4 ³	38	34	
26.....		29	126	44	38	32	
27.....		38	134	4 ³	38	32	
28.....		58	131	5 ³	38	32	
29.....	14	97	131	4 ³	38	32	
30.....	16	116	131	4 ³	38	32	
31.....		123		4 ⁷	38		

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	30	11	16.6	1,020
November.....			10	595
December.....			6	369
January.....			6	369
February.....			6	333
March.....			5	307
April.....		0	7.3	434
May.....	123	1	23.3	1,430
June.....	134	117	129	7,680
July.....	129	41	78.3	4,810
August.....	46	38	39.8	2,450
September.....	40	32	35.3	2,100
The year.....	134	0	30.2	21,900

BLACKSMITH FORK AT MUNICIPAL POWER PLANT NEAR HYRUM, UTAH

LOCATION.—Water-stage recorder in SE¼ sec. 2, T. 10 N., R. 2 E., 200 feet below Hyrum municipal power plant, 1 mile above left Fork, and 8½ miles east of Hyrum.

DRAINAGE AREA.—153 square miles.

RECORDS AVAILABLE.—October 1929 to September 1933.

DISCHARGE.—Maximum recorded during year, 235 second-feet May 22 (gage height, 1.93 feet); minimum not determined.

1929-33: Maximum, 469 second-feet May 15, 1932 (gage height, 3.12 feet); minimum caused by regulation and estimated as 8 second-feet several times in 1931.

REMARKS.—Records good. Flow may be affected by operations at power plant.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	72	70	62	60	60	60	74	135	220	87	80	75
2.....	72	70	62	60	60	60	76	141	223	87	76	74
3.....	74	71	62	60	59	62	79	120	222	87	76	* 73
4.....	72	71	63	59	58	62	94	114	208	87	76	72
5.....	72	70	62	59	58	59	94	141	193	87	76	75
6.....	68	68	60	59	59	60	88	135	181	87	76	75
7.....	71	68	60	59	55	60	91	117	189	90	77	74
8.....	71	67	59	58	54	62	86	101	168	87	77	72
9.....	72	67	58	58	57	62	80	110	164	* 90	77	72
10.....	72	67	57	59	* 58	62	77	122	160	93	77	75
11.....	72	67	57	59	* 58	62	75	114	146	87	77	74
12.....	72	67	55	59	* 58	66	72	118	140	87	77	74
13.....	71	66	53	58	59	66	67	114	136	84	76	* 74
14.....	71	66	58	58	59	66	67	114	126	86	77	75
15.....	70	66	58	58	59	66	70	123	116	86	77	75
16.....	71	66	59	59	62	66	84	130	108	86	77	75
17.....	72	67	58	60	68	97	* 144	104	87	77	75	75
18.....	76	88	59	59	67	97	159	107	86	81	74	74
19.....	74	67	59	59	59	67	95	172	107	84	80	71
20.....	72	66	* 58	59	60	67	88	189	93	84	* 78	71
21.....	71	66	58	59	70	88	217	101	83	77	71	71
22.....	71	66	59	60	67	88	235	98	81	77	72	72
23.....	71	66	59	60	64	97	205	97	* 81	77	74	74
24.....	72	66	59	60	67	114	165	93	81	77	74	74
25.....	71	63	59	60	64	123	181	90	81	76	84	84
26.....	71	62	60	59	60	62	141	196	90	80	76	80
27.....	71	62	60	59	60	66	159	208	88	80	76	77
28.....	70	62	60	59	60	74	178	208	90	79	77	76
29.....	70	63	60	60	77	176	210	88	79	77	77	79
30.....	70	62	60	60	72	154	215	87	77	76	77	77
31.....	70	60	60	60	74	215	215	77	74	74	74	74

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	76	68	71.4	4,390
November.....	71	62	66.4	3,950
December.....			58.9	3,620
January.....	60	55	58.9	3,620
February.....	62	54	58.9	3,270
March.....	77	59	65.4	4,020
April.....	178	67	99.0	5,890
May.....	235	101	157	9,650
June.....	223	87	134	7,970
July.....	93	77	84.5	5,200
August.....	81	74	76.9	4,730
September.....	84	71	74.6	4,440
The year.....	235		84	60,800

* Estimated.

BLACKSMITH FORK ABOVE UTAH POWER & LIGHT CO.'S DAM NEAR HYRUM, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 8, T. 10 N., R. 2 E., 1 mile above diversion dam, 3½ miles above power plant of Utah Power & Light Co., and 6 miles east of Hyrum.

DRAINAGE AREA.—260 square miles.

RECORDS AVAILABLE.—July 1900 to December 1902; November 1913 to September 1933.

DISCHARGE.—Maximum during year, 346 second-feet May 22 (gage height, 2.70 feet); minimum probably not recorded.

1913–33: Maximum, about 1,620 second-feet May 15, 1917 (gage height, 6.5 feet); minimum (estimated), 10 second-feet, caused by municipal power plant shut-down on July 23, 1931. Average, 19 years (1914–33), 135 second-feet.

REMARKS.—Records fair. No large diversions above station. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	91	88	80		64	67	82	191	278	118	93	84
2.....	91	85	78		64	68	87	201	276	116	94	84
3.....	94	81	77		63	68	118	188	266	116	94	82
4.....	94	81	77		61	68	123	178	254	114	93	82
5.....	93	82	77	68	60	67	101	201	239	112	91	82
6.....	91	82	77		61	67	99	188	228	112	90	82
7.....	91	84	77			67	109	170	223	114	90	82
8.....	91	84	74			68	101	174	212	116	90	81
9.....	90	85	74	68		68	94	168	206	114	90	80
10.....	91	85	73	68		69	93	168	193	116	88	81
11.....	91	84	70	67		69	90	170	184	112	87	80
12.....	91	84		67		73	87	170	178	112	87	78
13.....	90	84		66	62	72	84	166	174	111	85	78
14.....	87	84		66		67	81	164	162	109	85	78
15.....	88	85		66		66	84	174	152	107	85	78
16.....	90	85		66		67	107	191	152	107	85	78
17.....	91	87		66		67	125	219	145	106	85	77
18.....	94	87		66		67	123	244	141	102	87	77
19.....	93	87		66		66	119	261	143	101	88	74
20.....	91	85		64		68	106	278	137	99	88	73
21.....	91	84	68	63	67	69	106	311	134	98	87	73
22.....	90	84		64	67	69	111	330	134	98	87	74
23.....	93	82		64	67	67	128	290	130	96	85	77
24.....	93	81		63	68	67	143	256	126	96	85	77
25.....	91	81		64	67	67	152	263	125	94	85	84
26.....	90	81		63	67	66	162	273	121	94	85	82
27.....	90	81		63	67	69	182	280	121	93	85	82
28.....	90	80		64	67	77	203	278	123	93	85	81
29.....	90	80		64		84	235	268	121	93	85	81
30.....	90	80		64		80	228	268	118	93	85	81
31.....	88			64		81		276		93	85	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	94	87	90.9	5,590
November.....	88	80	83.4	4,960
December.....	80		70.8	4,350
January.....		63	65.8	4,050
February.....	68		63.5	3,530
March.....	84	64	69.5	4,270
April.....	235	81	122	7,260
May.....	330	164	224	13,800
June.....	278	118	173	10,300
July.....	118	93	105	6,460
August.....	94	85	87.5	5,380
September.....	84	73	79.4	4,720
The year.....	330		103	74,700

WEST SIDE CANAL NEAR COLLINSTON, UTAH

LOCATION.—Water-stage recorder in SW $\frac{1}{4}$ sec. 27, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 4,200 feet below Cutler Dam and 4 miles north of Collinston.

RECORDS AVAILABLE.—June 1912 to September 1933.

DISCHARGE.—Average, 21 years (1912-33), 223 second-feet.

REMARKS.—Records good except those for Dec. 9 to Mar. 20, which were estimated because of ice. Canal diverts from west side of Bear River in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at same diversion dam as Hammond (East Side) Canal and Cutler power plant. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	468	206	73			7	0	542	634	634	628
2	466	206	73			7	0	605	634	601	619
3	448	163	72			6	0	648	635	605	621
4	429	115	72			6	0	648	635	605	612
5	426	115	72		12	5	0	635	635	605	603
6	428	117	72			5	0	643	40	605	608
7	429	107	50			5	0	641	0	605	605
8	400	99	33			4	0	628	0	607	603
9	378	99			* 12	4	0	626	124	607	603
10	364	99				4	0	626	643	608	603
11	336	99		* 20		23	0	628	666	628	603
12	338	95				10	0	630	677	653	601
13	320	91				0	0	630	677	659	580
14	298	91				0	0	630	676	657	560
15	297	91			10	0	18	632	677	659	539
16	299	83				0	35	630	676	661	529
17	298	81				0	35	630	677	659	516
18	275	80				0	33	632	676	657	512
19	266	80				0	42	632	677	657	509
20	264	80	25			0	115	634	676	657	502
21	263	80			8	0	191	634	674	659	500
22	263	80			8	0	156	635	674	662	485
23	264	80			8	0	156	635	670	662	474
24	263	81			8	0	156	635	664	661	463
25	258	81			8	0	145	635	655	661	418
26	234	81			8	0	165	637	657	662	383
27	222	82			8	0	206	637	655	662	384
28	206	76			9	0	253	635	655	659	384
29	209	74			8	0	315	635	653	652	398
30	210	73			8	0	364	634	655	643	408
31	207				7		424		652	639	
Month	Maximum		Minimum		Mean		Run-off in acre-feet				
October	468	206	73		317		19,500				
November	206	73			99.5		5,920				
December	73				35.2		2,160				
January					20		1,230				
February					15		833				
March					9.9		609				
April	323	0			2.9		171				
May	424	0			90.6		5,570				
June	648	542			630		37,500				
July	677	0			581		35,700				
August	662	601			640		39,400				
September	628	383			528		31,400				
The year	677	0			249		180,000				

* Discharge measurement.

HAMMOND (EAST SIDE) CANAL NEAR COLLINSTON, UTAH

LOCATION.—Water-stage recorder in SE $\frac{1}{4}$ sec. 27, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 3,600 feet below Cutler Dam and 4 miles north of Collinston.

RECORDS AVAILABLE.—June 1912 to September 1933.

DISCHARGE.—Average, 14 years (1917–21, 1922–23, 1924–33), 51.7 second-feet.

REMARKS.—Records excellent. Canal diverts from east side of Bear River in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at same diversion dam as West Side Canal and Cutler power plant. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	May	June	July	Aug.	Sept.
1	131	42	23	0	123	181	175	169
2	131	42	23	0	147	179	174	170
3	130	29	23	0	164	175	173	168
4	121	26	23	0	166	176	174	165
5	116	26	23	0	166	178	173	160
6	118	26	23	0	166	180	173	160
7	121	25	11	0	166	178	173	160
8	115	23	0	0	166	175	173	160
9	78	23	0	0	166	175	173	160
10	85	24	0	0	61	174	173	160
11	81	24	0	0	50	174	172	159
12	82	24	0	0	55	66	173	159
13	80	24	0	0	84	13	174	153
14	79	25	0	0	155	147	174	151
15	80	24	0	0	176	173	173	150
16	80	24	0	0	178	173	177	150
17	62	24	0	0	178	173	179	151
18	12	24	0	0	178	173	178	152
19	39	24	0	0	177	177	173	152
20	45	23	0	4	178	179	173	146
21	46	23	0	7	178	175	173	138
22	46	23	0	7	179	173	173	134
23	46	24	0	7	180	173	178	134
24	46	24	0	42	180	174	174	136
25	45	24	0	50	180	173	173	137
26	44	24	0	52	181	175	170	138
27	43	24	0	58	182	174	168	137
28	43	24	0	68	182	174	168	138
29	42	24	0	80	181	174	168	124
30	42	23	0	99	181	175	168	114
31	42		0	113		175	168	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	131	12	73.3	4,510
November	42	23	25.4	1,510
December	23	0	4.8	296
May	113	0	18.9	1,160
June	182	50	157	9,340
July	181	13	166	10,200
August	179	168	173	10,600
September	170	114	150	8,920
The year	182	0	64.3	46,500

NOTE.—No flow during months omitted.

DEVIL CREEK NEAR MALAD, IDAHO

LOCATION.—Staff gage in sec. 8, T. 14 S., R. 36 E., 400 feet below dam site for proposed reservoir, half a mile northeast of St. John, 2½ miles northwest of Malad, and 9 miles by stream above confluence with Malad River.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 20 second-feet Apr. 18, May 6; maximum gage height, 1.34 feet May 6; minimum, 1.8 second-feet Dec. 13–17, Feb. 21 to Mar. 29, Sept. 3–6; minimum gage height, 0.25 foot at various times during these periods.

1931–33: Maximum, that of Apr. 18, May 6, 1933; maximum gage height, 1.34 feet May 6, 1933; minimum, 0.9 second-foot Dec. 16–20, 1931, and numerous days in 1932 (gage height, 0.15 foot).

REMARKS.—Records good. Flow regulated by Evans Dividers (an irrigation diversion works) 3 miles upstream. Several small diversions above this station. Stream receives a part of Birch Creek water above the station. Malad power plant with a small reservoir on Birch Creek may cause slight diurnal fluctuation.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	3.3	2.0	2.0	1.9	•1.9	1.8	1.9	13	14	3.0	2.2	2.0
2.....	3.7	2.1	2.0	•1.9	1.9	•1.8	•2.0	15	14	3.3	2.2	2.0
3.....	3.7	3.1	2.0	1.9	•1.9	•1.8	2.0	15	14	2.7	2.1	1.9
4.....	3.6	2.2	2.0	•1.9	1.9	1.8	2.0	15	13	2.8	2.1	1.9
5.....	3.7	2.2	2.0	1.9	1.9	•1.8	1.9	19	14	2.8	2.1	1.9
6.....	3.8	2.2	•2.0	•1.9	•1.9	1.8	1.9	20	13	2.8	2.2	1.9
7.....	4.1	2.1	2.0	1.9	1.9	•1.8	4.8	14	13	2.8	2.2	3.7
8.....	3.8	2.0	2.0	1.9	•1.9	1.8	•4.4	15	11	2.8	2.8	3.6
9.....	3.8	2.1	•2.0	•1.9	1.9	•1.8	4.1	11	11	3.0	3.8	3.8
10.....	4.0	2.2	2.1	1.9	•1.9	1.8	3.7	11	11	2.7	3.8	3.8
11.....	3.6	2.1	•2.0	•1.9	1.9	•1.8	•3.7	11	11	2.6	4.1	4.0
12.....	3.2	2.1	•1.9	1.9	1.9	•1.8	3.7	12	11	2.6	4.1	4.1
13.....	2.5	2.6	•1.8	•1.9	•1.9	1.8	•3.2	12	9.4	2.5	3.8	4.1
14.....	2.5	2.4	1.8	1.9	1.9	•1.8	2.7	13	9.1	2.4	4.0	4.1
15.....	2.6	2.2	•1.8	1.9	•1.9	1.8	7.2	12	9.1	2.5	3.8	4.2
16.....	2.6	2.2	1.8	1.9	1.9	•1.8	•11	13	8.2	2.5	3.8	2.6
17.....	2.6	2.4	1.8	•1.9	•1.9	1.8	15	14	8.0	3.4	3.1	2.5
18.....	2.6	2.4	1.9	1.9	1.9	•1.8	20	17	8.0	2.6	2.1	2.4
19.....	2.8	2.2	2.0	•1.9	•1.9	•1.8	11	15	7.1	2.7	2.2	2.4
20.....	3.8	2.1	•2.0	1.9	1.9	1.8	7.9	11	5.5	2.6	2.1	2.4
21.....	4.8	2.0	•2.0	•1.9	•1.8	1.8	11	12	5.0	2.6	2.1	1.9
22.....	4.8	2.0	1.9	1.9	1.8	•1.8	12	12	5.2	2.6	2.0	1.9
23.....	4.4	2.1	•1.9	•1.9	•1.8	1.8	•12	12	5.6	2.5	3.8	3.8
24.....	4.5	2.1	1.9	1.9	1.8	•1.8	13	11	5.5	2.4	3.8	•4.2
25.....	3.6	2.1	1.9	•1.9	1.8	1.8	13	11	5.2	2.4	3.8	4.6
26.....	3.4	2.0	•1.9	1.9	•1.8	•1.8	13	13	4.9	2.2	4.0	4.5
27.....	3.4	2.1	1.9	•1.9	1.8	1.8	13	13	4.9	2.2	3.8	4.4
28.....	2.2	2.1	•1.9	1.9	•1.8	•1.8	13	15	4.4	2.4	4.1	3.8
29.....	2.1	2.1	1.9	1.9	1.8	1.8	14	17	3.6	2.2	4.1	3.8
30.....	2.8	2.0	•1.9	•1.9	-----	1.9	•14	16	3.0	2.2	3.7	4.2
31.....	2.7	-----	1.9	1.9	-----	1.9	-----	15	-----	2.2	3.1	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4.8	2.1	3.39	208
November.....	3.1	2.0	2.18	130
December.....	2.1	1.8	1.93	119
January.....	1.9	1.9	1.90	117
February.....	1.9	1.8	1.87	104
March.....	1.9	1.8	1.81	111
April.....	20	1.9	8.07	480
May.....	20	11	13.7	842
June.....	14	3.0	8.72	519
July.....	3.3	2.2	2.61	160
August.....	4.1	2.0	3.13	192
September.....	4.6	1.9	3.21	191
The year.....	20	1.8	4.39	3,170

• Interpolated.

• Estimated.

DEEP CREEK BELOW FIRST CREEK, NEAR MALAD, IDAHO

LOCATION.—Staff gage in sec. 7, T. 14 S., R. 37 E., immediately below proposed reservoir site, 1 mile north and $3\frac{1}{2}$ miles east from Malad, and 12 miles by stream above confluence of Deep Creek and Malad River.

RECORDS AVAILABLE.—October 1931 to September 1933.

DISCHARGE.—Maximum during year, 34 second-feet May 22; minimum, 1.9 second-feet Aug. 16, 20.

1931-33: Maximum, 64 second-feet May 14, 1932; minimum, 1.0 second-foot Oct. 1 to Nov. 4, 1932.

REMARKS.—Records good except those for Oct. 9-13, 15, Apr. 18 to May 17, which are fair. Discharge estimated Oct. 9-13, 15. Small diversions above station. No regulation.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.	3.2	2.2	3.3	2.8	3.4	3.6	6.7	20	31	13	5.6	3.1
2.	3.3	2.3	3.4	2.7	3.6	3.7	7.8	21	32	13	5.2	2.9
3.	3.1	2.4	3.6	2.9	3.7	3.4	8.2	21	31	13	5.2	2.6
4.	3.0	2.4	3.3	3.0	3.3	3.6	8.8	18	27	13	5.2	2.8
5.	2.9	2.5	3.4	3.2	3.4	3.3	8.6	23	28	12	5.4	2.9
6.	3.0	2.1	3.2	3.0	3.5	3.4	9.0	24	28	14	5.0	3.1
7.	2.9	3.2	3.0	2.9	3.4	3.6	8.4	21	29	15	4.5	2.5
8.	2.8	2.3	3.2	3.0	3.3	3.7	8.6	21	29	13	4.2	2.6
9.		2.2	3.0	3.2	3.4	3.8	9.8	20	26	13	3.7	2.8
10.		2.3	2.9	3.3	3.3	4.2	10	21	26	12	3.5	2.9
11.	2.6	2.4	2.9	3.0	3.2	3.7	9.2	21	25	12	3.4	3.1
12.		2.5	2.7	2.9	3.0	4.2	8.8	21	24	12	3.2	2.9
13.		2.4	2.7	3.0	3.2	4.3	8.6	20	23	8.6	2.9	2.6
14.	2.5	2.6	2.8	3.2	3.3	4.4	8.2	19	23	8.6	2.5	2.5
15.	2.4	2.7	2.8	3.2	3.0	4.3	9.8	21	22	8.1	2.2	2.6
16.	2.2	2.8	2.9	3.3	3.6	4.4	8.8	22	22	8.6	1.9	2.8
17.	2.2	2.8	2.9	3.3	3.4	4.2	15	27	21	8.1	2.4	2.4
18.	2.3	3.3	2.9	3.4	3.3	4.0	18	28	18	7.7	2.1	2.1
19.	2.3	3.4	2.8	3.4	3.2	3.6	21	29	16	7.3	2.0	2.2
20.	2.2	3.4	2.9	3.6	3.3	3.7	17	30	16	6.9	1.9	2.4
21.	2.1	3.3	2.8	3.7	3.4	3.8	17	31	16	6.7	2.0	2.5
22.	2.1	3.4	2.8	3.7	3.6	3.7	18	34	16	6.5	2.1	2.6
23.	2.2	3.3	2.9	3.8	3.4	3.4	14	30	16	6.3	2.4	2.8
24.	2.1	3.2	3.0	3.7	3.6	3.6	18	29	15	6.3	2.2	2.6
25.	2.2	3.3	2.9	3.8	3.7	3.7	18	30	15	6.3	2.1	2.9
26.	2.1	3.6	3.0	3.7	3.2	4.2	19	30	16	6.1	2.4	2.6
27.	2.2	3.4	2.9	3.8	3.4	4.3	18	29	15	6.1	2.9	2.5
28.	2.3	3.3	2.8	3.6	3.3	4.4	19	30	16	5.9	2.0	2.6
29.	2.2	3.4	2.9	3.3		4.6	20	32	16	5.9	2.6	2.8
30.	2.2	3.4	2.9	3.4		6.6	20	32	15	5.4	2.8	2.6
31.	2.1		2.8	3.3		6.9		32		5.4	2.9	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	3.3	2.1	2.49	153
November	3.6	2.1	2.82	168
December	3.6	2.7	2.98	183
January	3.8	2.7	3.29	202
February	3.7	3.0	3.38	188
March	6.9	3.3	4.07	250
April	21	6.7	13.0	774
May	34	18	25.4	1,560
June	32	15	21.8	1,300
July	15	5.4	9.22	567
August	5.6	1.9	3.17	195
September	3.1	2.1	2.68	159
The year	34	1.9	7.87	5,700

WEBER RIVER BASIN

WEBER RIVER NEAR OAKLEY, UTAH

LOCATION.—Staff gage in NE¼ sec. 15, T. 1 S., R. 6 E., near mouth of canyon, 2 miles below South Fork of Weber River, 3 miles northeast of Oakley, and 6 miles above Beaver or Kamas Creek.

DRAINAGE AREA.—163 square miles.

RECORDS AVAILABLE.—October 1904 to September 1933.

DISCHARGE.—Maximum recorded during year, 2,200 second-feet June 14 (gage height, 7.70 feet); minimum, 41 second-feet Mar. 10, 11, 15, 16 (gage height, 4.32 feet).

1904-1933: Maximum, 4,000 second-feet July 6, 1907, June 5-7, 1909; minimum, 29 second-feet several days in September 1931 (gage height, 4.18 feet). Average, 27 years (1906-33), 252 second-feet.

REMARKS.—Records fair. Discharge estimated because of ice Dec. 10 to Mar. 9. No large diversions above gage. Flow regulated slightly by storage in Fish Lake and a small reservoir on Smith and Morehouse Creek. Total capacity of both reservoirs, about 1,500 acre-feet.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	54	54	51	45	51	172	1,350	305	109	50
2.....	58	54	51		58	159	1,600	287	98	50
3.....	58	54	51		58	151	1,600	257	92	50
4.....	58	54	51		62	146	1,300	254	89	50
5.....	58	54	51		62	146	1,200	234	92	50
6.....	54	54	51	41	58	141	1,300	215	92	50
7.....	54	54	51		62	134	1,300	218	92	46
8.....	58	54	51		62	127	1,280	253	92	44
9.....	62	54	49		62	122	1,750	227	89	50
10.....	62	54			65	122	2,000	189	92	46
11.....	58	51		41	62	118	2,100	172	92	46
12.....	58	51		45	62	118	2,050	158	89	46
13.....	58	54		51	62	111	2,000	143	85	46
14.....	54	54		54	62	111	2,200	144	79	46
15.....	54	54		41	65	111	2,100	138	79	46
16.....	54	54		41	68	127	1,900	129	75	46
17.....	54	54		45	85	151	1,800	120	75	46
18.....	54	54		45	90	178	1,600	113	71	46
19.....	54	54		45	90	224	1,500	113	89	46
20.....	54	51	45	45	81	265	1,210	109	71	46
21.....	54	51		45	81	350	1,030	109	71	46
22.....	62	51		45	85	400	950	113	68	46
23.....	58	51		45	90	328	910	109	64	46
24.....	58	51		45	90	305	685	109	64	46
25.....	58	51		45	100	341	615	109	64	50
26.....	58	51		45	111	485	515	97	64	50
27.....	54	51		49	122	720	455	93	64	46
28.....	54	51		49	146	790	428	92	59	46
29.....	54	51		51	172	870	360	92	57	46
30.....	54	51		51	178	990	328	92	57	46
31.....	54			51		1,260		109	46	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	62	54	56.3	3,460
November.....	54	51	52.7	3,140
December.....			46.7	2,870
January.....			45	2,770
February.....			45	2,500
March.....			45.8	2,200
April.....	178	51	83.4	4,960
May.....	1,260	111	315	19,400
June.....	2,200	328	1,320	78,600
July.....	305	92	158	9,720
August.....	109	46	78.1	4,800
September.....	50	44	47.1	2,800
The year.....	2,200		190	138,000

WEBER RIVER NEAR COALVILLE, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 20, T. 2 N., R. 5 E., at river bridge above high-water contour for Echo Reservoir, 1½ miles south of Coalville.

DRAINAGE AREA.—438 square miles.

RECORDS AVAILABLE.—April 1927 to September 1933.

DISCHARGE.—Maximum during year, 1,670 second-feet June 14 (gage height, 3.86 feet); minimum, 27 second-feet Sept. 5 (gage height, 0.13 foot).

1927-33: Maximum, 1,960 second-feet June 17, 1929 (gage height, 4.30 feet); minimum, 14 second-feet several days in July 1931 (gage height, 0.10 foot).

REMARKS.—Records good except those for Dec. 7 to Apr. 4, which were estimated because of ice. Numerous irrigation diversions above and below station. 11,300 acre-feet were diverted through the Weber-Provo Diversion Canal from this basin. Flow slightly regulated by 2 small reservoirs above station. Gage-height record and results of 4 discharge measurements furnished by Weber River water commissioner.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	63	94	117		255	279	1,110	75	81	31
2.....	68	96	109		245	276	1,190	64	61	31
3.....	62	111	111		235	306	1,150	64	59	30
4.....	56	103	103		225	264	972	62	55	30
5.....	55	98	98		209	264	870	59	49	29
6.....	55	105	90		209	306	846	59	47	30
7.....	53	107			224	282	846	79	46	30
8.....	57	103			196	313	882	147	47	30
9.....	68	113			163	292	978	111	46	30
10.....	75	109		125	175	249	1,350	100	46	29
11.....	76	98			154	227	1,440	81	45	30
12.....	79	102			170	247	1,440	67	39	30
13.....	78	122			154	233	1,370	61	39	30
14.....	76	126			143	189	1,470	56	40	31
15.....	71	119			168	172	1,350	53	39	29
16.....	70	130			217	184	1,330	50	38	31
17.....	72	141			235	209	1,280	51	36	31
18.....	89	141		149	214	247	1,190	49	37	30
19.....	92	130	80		194	288	1,060	46	39	32
20.....	89	128			187	279	774	47	38	32
21.....	94	124		130	182	328	565	45	37	31
22.....	103	122			182	384	500	44	36	30
23.....	92	107			201	320	414	45	37	30
24.....	87	107			217	270	316	45	36	31
25.....	84	122		122	224	279	267	42	35	34
26.....	94	119		170	224	306	233	40	35	39
27.....	94	119		220	247	445	194	35	36	40
28.....	94	117		300	264	530	159	34	35	38
29.....	89	111		380	285	570	136	36	36	37
30.....	90	111		300	310	665	98	35	35	37
31.....	84			270		930		74	32	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	103	53	77.7	4,780
November.....	141	94	114	6,780
December.....			84.8	5,210
January.....			95	5,840
February.....			97	5,000
March.....			155	9,530
April.....	310	143	219	12,500
May.....	930	172	327	20,100
June.....	1,470	98	859	51,100
July.....	147	34	59.9	3,680
August.....	81	32	42.5	2,610
September.....	40	29	31.8	1,890
The year.....	1,470	29	178	129,000

WEBER RIVER BASIN

29

WEBER RIVER AT ECHO, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 25, T. 3 N., R. 4 E., 607 feet above Echo Creek, 2,400 feet downstream from Echo Dam, and 3,200 feet southeast of Echo.

DRAINAGE AREA.—732 square miles.

RECORDS AVAILABLE.—April 1927 to September 1933.

DISCHARGE.—Maximum during year, 1,530 second-feet June 10 (gage height, 4.71 feet); minimum, 6 second-feet Mar. 29 to Apr. 11.

1927-33: Maximum, 2,210 second-feet May 26, 1929; minimum, 4 second-feet several times in May 1931, March and April 1932.

REMARKS.—Records excellent. Numerous irrigation diversions above and below station. One small diversion between gage and Echo Dam. Flow regulated by Echo Reservoir.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	99	118	24	16	131	113	6	7	1,300	366	479	328
2.....	106	118	22	73	131	124	6	7	1,320	366	488	328
3.....	106	118	22	131	131	133	6	7	1,220	348	488	341
4.....	106	128	24	135	124	135	6	7	982	331	484	352
5.....	107	131	70	137	111	135	6	7	892	352	479	355
6.....	106	131	122	135	107	135	6	7	868	352	488	318
7.....	106	131	106	126	107	135	6	8	782	366	488	292
8.....	106	131	78	115	107	135	7	7	904	352	488	289
9.....	96	131	66	111	107	141	6	7	988	352	488	292
10.....	89	131	66	116	107	145	6	7	1,300	341	488	292
11.....	89	135	66	122	107	87	6	7	1,410	335	492	295
12.....	92	133	66	122	107	87	7	7	1,450	348	488	277
13.....	99	126	74	122	116	135	6	7	1,290	352	497	259
14.....	99	133	92	122	118	111	6	7	1,320	352	497	231
15.....	99	143	106	122	118	111	6	7	1,370	359	484	223
16.....	99	145	106	122	128	111	6	7	1,100	407	474	213
17.....	99	155	106	122	133	111	6	7	1,010	410	474	210
18.....	100	166	106	122	124	58	6	7	946	410	466	198
19.....	116	168	106	122	122	58	7	8	670	418	458	159
20.....	120	168	113	122	122	111	7	8	488	403	438	161
21.....	120	168	116	122	122	111	7	8	430	515	410	163
22.....	120	161	126	128	122	111	7	8	462	585	403	163
23.....	120	147	130	130	122	111	7	8	533	590	395	170
24.....	120	131	130	130	122	111	7	8	515	590	384	168
25.....	118	128	88	130	122	63	7	8	484	585	380	153
26.....	118	147	80	133	116	60	7	8	488	528	380	97
27.....	118	155	133	135	113	115	7	8	510	479	380	79
28.....	118	147	135	76	113	66	7	8	458	474	380	75
29.....	118	141	135	18	-----	6	7	418	391	502	377	79
30.....	118	128	128	18	-----	6	7	721	387	502	366	88
31.....	118	-----	97	74	-----	6	-----	1,030	-----	492	328	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	120	89	108	6,640
November.....	168	118	140	8,330
December.....	135	22	91.6	5,630
January.....	137	16	110	6,760
February.....	133	107	118	6,550
March.....	145	6	99.3	6,110
April.....	7	6	6.5	387
May.....	1,030	7	7.7	4,730
June.....	1,450	387	875	52,100
July.....	590	331	425	26,100
August.....	497	328	445	27,400
September.....	355	75	222	13,200
The year.....	1,450	6	226	164,000

WEBER RIVER AT DEVILS SLIDE, UTAH

LOCATION.—Staff gage in SW $\frac{1}{4}$ sec. 19, T. 4 N., R. 4 E., 500 feet downstream from highway bridge at Devils Slide and a quarter of a mile below Lost Creek.

DRAINAGE AREA.—1,090 square miles.

RECORDS AVAILABLE.—February 1905 to September 1933.

DISCHARGE.—Maximum mean daily during year, 1,780 second-feet June 2 (gage height, 3.58 feet); minimum, 30 second-feet Jan. 2 (gage height, 0.55 foot).

1905-33: Maximum, 6,000 second-feet May 22, 1920; minimum, 21 second-feet Apr. 23, 1931. Average, 28 years (1905-33), 505 second-feet.

REMARKS.—Records fair. Numerous diversions above station for irrigation and domestic use. Flow regulated by storage in Echo Reservoir.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	101	132	75	48	161	143	82	271	1,670	411	489	365
2.....	124	135	52	30	164	174	82	267	1,780	402	510	374
3.....	114	138	50	158	174	155	89	252	1,600	383	499	383
4.....	119	138	48	167	161	180	108	230	1,350	340	499	392
5.....	116	144	41	171	164	180	98	252	1,240	374	489	402
6.....	116	144	141	171	152	180	91	237	1,140	365	510	402
7.....	119	149	144	121	155	164	103	216	984	392	510	331
8.....	119	146	114	155	155	167	98	216	1,130	392	510	331
9.....	121	149	71	149	164	177	86	196	1,180	379	510	331
10.....	106	152	103	132	271	186	89	186	1,550	374	510	331
11.....	108	152	86	155	183	199	71	177	1,530	365	510	331
12.....	108	152	65	146	167	57	93	180	1,670	374	510	315
13.....	119	152	75	138	146	220	89	171	1,400	374	510	302
14.....	119	152	89	158	171	155	84	164	1,480	374	510	267
15.....	119	158	135	149	183	155	84	177	1,480	370	510	260
16.....	119	161	135	164	155	158	93	196	1,120	420	489	245
17.....	119	174	130	141	158	154	111	260	1,030	420	499	245
18.....	119	133	135	141	170	158	127	348	920	420	499	241
19.....	135	133	141	143	152	158	132	411	648	420	478	193
20.....	135	183	144	143	152	158	127	468	611	415	468	186
21.....	135	183	146	146	180	161	116	542	438	564	449	183
22.....	135	186	146	149	152	158	121	575	499	564	439	183
23.....	138	167	158	149	149	152	138	478	543	575	430	183
24.....	132	152	155	146	152	152	174	434	531	587	420	193
25.....	135	144	152	149	202	130	206	468	499	581	425	186
26.....	135	144	45	161	183	63	220	499	509	510	420	146
27.....	132	152	158	155	177	177	245	520	542	510	420	103
28.....	132	158	164	155	146	183	310	494	542	489	420	98
29.....	132	155	158	40	-----	87	348	473	411	510	415	91
30.....	132	155	149	53	-----	84	315	1,060	420	515	420	98
31.....	130	-----	164	46	-----	82	-----	1,190	-----	520	370	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	138	101	123	7,560
November.....	186	132	156	9,280
December.....	164	41	115	7,070
January.....	171	30	133	8,180
February.....	271	146	168	9,330
March.....	220	57	152	9,350
April.....	348	71	138	8,210
May.....	1,190	164	374	23,000
June.....	1,780	411	1,020	60,700
July.....	587	340	442	27,200
August.....	510	370	472	29,000
September.....	402	91	256	15,200
The year.....	1,780	30	295	214,000

WEBER RIVER AT GATEWAY, UTAH

LOCATION.—Water-stage recorder in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 5 N., R. 1 E., 2,500 feet below mouth of Strawberry Creek, 800 feet below Union Pacific Railroad bridge, and 2,500 feet above section house at Gateway.

DRAINAGE AREA.—1,610 square miles.

RECORDS AVAILABLE.—June to September 1919; July 1920 to September 1933. October 1889 to July 1903 at a station 1 mile downstream known as Weber River near Uinta, Utah. Records are comparable.

DISCHARGE.—Maximum during year, 2,870 second-feet June 1 (gage height, 5.15 feet); minimum discharge, not recorded.

1889–1903, 1919–33: Maximum, 7,980 second-feet May 31, 1896; minimum, 46 second-feet Sept. 6, 1931. Average, 13 years (1920–33), 670 second-feet.

REMARKS.—Records good except those for Dec. 11 to Jan. 3 and Feb. 5 to Mar. 4, which were estimated because of ice, and those estimated for Nov. 14–17. Numerous diversions for irrigation above and below station. Flow affected by storage in East Canyon Creek and Echo Reservoirs.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	249	220	204	150	194	220	352	992	2,730	680	560	424
2.....	256	223	161	120	217	225	419	920	2,730	722	560	419
3.....	233	226	161	160	217	230	545	854	2,500	734	570	410
4.....	223	223	156	213	213	230	628	758	2,190	680	565	424
5.....	233	226	150	217		217	482	782	1,850	686	565	424
6.....	233	230	185	223		230	482	752	1,760	674	565	437
7.....	223	236	194	226		233	565	716	1,580	662	575	428
8.....	220	240	185	246		240	440	800	1,600	656	570	432
9.....	230	243	148	207		213	355	698	1,630	662	565	432
10.....	217	246	179	207	210	263	316	639	1,760	694	560	432
11.....	217	246		210		284	277	580	2,030	639	570	432
12.....	220	249		240		217	302	656	2,020	617	565	424
13.....	217	249		217		336	288	612	1,900	634	565	410
14.....	217	251		210		284	284	575	1,770	622	580	393
15.....	217	254		213		270	376	600	1,890	612	570	368
16.....	217	258		217	202	266	555	692	1,650	622	555	372
17.....	210	262		213		270	722	902	1,470	650	540	364
18.....	210	266		217		266	692	1,160	1,370	650	565	356
19.....	210	270		213		204	565	1,370	1,140	634	565	336
20.....	220	274		210		266	491	1,530	890	639	540	317
21.....	220	274	205	210		280	473	1,700	716	639	514	280
22.....	223	270		217	220	270	560	1,760	680	644	504	270
23.....	223	256		217		263	692	1,530	722	662	486	270
24.....	223	246		217		260	812	1,390	740	662	478	270
25.....	223	233		217		263	914	1,490	722	650	468	288
26.....	220	233		217		223	944	1,630	698	639	473	277
27.....	223	249		220		313	992	1,730	704	606	473	266
28.....	223	256		226		410	1,160	1,700	740	570	468	246
29.....	217	246		170		385	1,320	1,740	716	575	468	236
30.....	217	243		150		306	1,230	2,320	692	585	462	240
31.....	220			145		306		2,450		580	437	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	256	210	223	13,700
November.....	274	220	247	14,700
December.....			164	11,960
January.....	246	120	204	12,500
February.....			214	11,900
March.....	410	217	267	16,400
April.....	1,320	277	608	36,200
May.....	2,450	575	1,160	71,300
June.....	2,730	692	1,450	86,300
July.....	734	570	645	39,700
August.....	580	437	552	32,700
September.....	437	236	356	21,200
The year.....	2,730		509	368,000

WEBER RIVER NEAR PLAIN CITY, UTAH

LOCATION.—Chain gage in SE¼ sec. 5, T. 6 N., R. 2 W., at county highway bridge 6 miles above mouth, 1 mile south of Plain City, and 1 mile below mouth of Fourmile Creek.

DRAINAGE AREA.—2,060 square miles.

RECORDS AVAILABLE.—May 1905 to September 1933. Records obtained in 1904 by State engineer.

DISCHARGE.—Maximum recorded during year, 3,300 second-feet June 1 (gage height, 14.36 feet); minimum, 10 second-feet Sept. 2, 13.

1904-33: Maximum, 7,580 second-feet June 6, 1909 (gage height, 19.1 feet); practically no flow during latter part of several summers since 1915. Average, 26 years (1906-19, 1920-33), 883 second-feet.

REMARKS.—Records fair. In summer practically entire flow of Weber River above station is diverted for irrigation. Flow is affected by storage in Echo and East Canyon Creek Reservoirs.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	39	102	241	272	244	342	884	2,260	3,300	55	18	12
2.....	40	104	202	227	335	350	1,030	1,890	3,160	54	19	10
3.....	41	113	178	205	331	370	1,100	1,690	3,060	58	18	11
4.....	43	104	164	283	320	370	1,490	1,590	2,460	57	19	12
5.....	46	119	172	283	305	386	1,170	1,650	2,150	55	15	12
6.....	48	178	156	269	339	394	1,180	1,670	1,830	54	12	12
7.....	49	175	211	269	398	1,350	1,680	1,420	52	13	13	
8.....	50	170	193	280	422	1,180	1,690	1,340	49	16	14	
9.....	52	181	170	280	426	950	1,410	1,410	46	15	15	
10.....	52	199	193	301	485	950	1,280	1,540	48	14	13	
11.....	52	202	221	255	300	570	698	1,200	1,980	57	12	13
12.....	53	199	181	276	655	776	1,410	1,310	46	12	14	
13.....	55	196	148	305	710	818	1,300	1,240	47	13	10	
14.....	60	190	141	312	722	722	1,240	1,170	48	12	12	
15.....	60	193	143	312	350	665	776	1,150	48	12	14	
16.....	57	211	146	290	342	675	950	1,450	1,140	47	12	11
17.....	62	221	172	312	354	710	1,400	1,630	1,130	44	12	31
18.....	124	265	238	327	335	698	1,380	2,280	746	44	12	13
19.....	115	283	244	323	366	665	1,190	2,540	890	41	12	11
20.....	96	287	258	327	358	540	1,170	2,760	410	39	12	12
21.....	85	294	251	312	362	660	1,110	3,090	224	38	12	12
22.....	87	294	244	354	366	615	1,200	3,270	102	38	12	12
23.....	92	305	241	370	378	575	1,340	3,110	85	39	12	12
24.....	94	327	255	362	382	530	1,420	2,530	74	39	12	12
25.....	94	276	283	350	370	530	1,740	2,430	71	39	12	20
26.....	98	272	244	358	354	520	2,010	2,600	68	39	30	28
27.....	100	269	221	354	342	655	2,150	2,770	62	38	11	30
28.....	102	269	280	350	346	920	2,290	2,740	61	19	12	29
29.....	106	283	258	335	872	2,570	2,740	60	18	12	28	
30.....	106	272	301	258	872	2,900	2,980	58	17	12	28	
31.....	104	272	272	248	872	3,050	18	12	-----	-----	-----	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	124	39	73.0	4,490
November	327	102	218	13,000
December	301	141	214	13,200
January	370	205	302	18,600
February	382	244	331	18,400
March	920	342	586	36,000
April	2,900	698	1,330	79,100
May	3,270	1,200	2,100	129,000
June	3,300	58	1,120	66,600
July	58	17	42.9	2,640
August	30	11	13.8	848
September	31	10	15.9	946
The year	3,300	10	529	383,000

CHALK CREEK AT COALVILLE, UTAH

LOCATION.—Water-stage recorder in SE¼ sec. 8, T. 2 N., R. 5 E., 300 feet above highway bridge in Coalville and a third of a mile above confluence with Weber River.

DRAINAGE AREA.—253 square miles.

RECORDS AVAILABLE.—October 1904 to December 1905; April 1927 to September 1933.

DISCHARGE.—Maximum during year, 360 second-feet June 2 (gage height, 2.15 feet); minimum, 4 second-feet Sept. 21–25, and 27–30.

1927–33: Maximum, 696 second-feet May 4, 1929 (gage height, 4.0 feet); minimum, about 2 second-feet for several days in September and October 1931. REMARKS.—Records fair. Discharge interpolated Dec. 12–16, Mar. 26–31, Apr. 2–5, 7, 9–11, 13, 14. No diversions below station. Flow regulated by irrigation diversions above. Gage-height record and results of 8 discharge measurements furnished by Weber River water commissioner.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	20	22	19	18	17	30	64	323	23	23	9
2	11	21	21	20	17	17	30	62	318	22	14	9
3	10	21	21	20	17	16	31	63	299	23	14	9
4	9	18	18	20	18	17	31	55	256	21	14	8
5	10	18	15	19	19	16	32	55	243	29	14	8
6	12	24	16	19	18	16	33	56	239	27	12	8
7	12	22	10	18	20	19	35	50	224	28	11	7
8	12	21	14	19	19	19	38	53	216	29	12	7
9	13	27	10	20	18	20	36	50	214	28	11	7
10	14	24	12	19	24	21	34	48	230	26	10	7
11	13	16	18	18	19	24	33	46	218	24	10	6
12	13	16	18	19	17	26	31	47	205	23	10	6
13	13	21	17	19	17	25	30	53	185	23	10	6
14	13	21	17	18	16	21	29	47	167	21	9	6
15	14	18	16	19	18	21	28	48	155	18	9	5
16	14	21	16	19	17	21	25	54	144	14	8	5
17	14	21	15	19	18	26	47	67	126	19	8	5
18	16	22	16	18	17	21	72	90	115	18	8	5
19	17	21	18	19	17	20	57	115	106	18	8	5
20	15	22	18	19	16	19	45	137	90	18	7	5
21	15	21	20	19	16	22	35	176	82	15	7	4
22	17	22	20	18	16	18	38	198	75	14	8	4
23	18	17	19	17	17	17	45	162	58	11	8	4
24	18	15	20	20	15	19	58	137	48	11	9	4
25	16	21	20	18	15	19	64	160	42	12	10	4
26	17	24	20	17	18	20	62	211	42	13	10	5
27	19	21	20	18	18	21	71	241	40	12	10	4
28	20	22	20	19	18	22	84	260	35	16	9	4
29	19	19	20	17	-----	24	87	256	32	18	12	4
30	19	24	19	18	-----	26	84	280	31	18	11	4
31	18	-----	20	18	-----	28	-----	307	-----	18	10	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	20	9	14.6	898
November	27	15	20.7	1,230
December	22	10	17.6	1,080
January	20	17	18.7	1,150
February	24	15	17.6	978
March	28	16	20.6	1,270
April	87	25	45.2	2,690
May	307	46	118	7,260
June	323	31	152	9,040
July	33	11	21	1,290
August	23	7	15.5	646
September	9	4	5.8	345
The year	323	4	28.5	27,900

LOST CREEK AT DEVILS SLIDE, UTAH

LOCATION.—Water-stage recorder in SE¼ sec. 19, T. 4 N., R. 4 E., a quarter of a mile above confluence with Weber River and half a mile east of Devils Slide.

DRAINAGE AREA.—228 square miles.

RECORDS AVAILABLE.—April 1921 to September 1933 (discontinued). February to December 1905 at a site 150 feet above mouth of creek (published as "Lost Creek near Croyden, Utah").

DISCHARGE.—Maximum during year, 650 second-feet May 22 (gage height, 3.37 feet); minimum, 6 second-feet Dec. 17-26.

1905: 1921-33: Maximum, about 1,390 second-feet May 11, 1923 (gage height, 4.39 feet); minimum, 2 second-feet Oct. 1-7, 1931. Average, 12 years (1921-33), 59.8 second-feet.

REMARKS.—Records good. Practically all the water is diverted above gage during late irrigation season. Results of two discharge measurements furnished by Weber River water commissioner.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	10	11	17	11	18	22	37	247	436	25	12	9
2-----	10	11	17	12	19	21	40	227	388	26	12	8
3-----	10	12	17	16	18	22	44	219	346	27	11	8
4-----	10	12	17	16	14	22	53	202	310	25	11	7
5-----	10	13	16	17	12	18	55	204	279	25	11	7
6-----	10	13	16	16	11	21	55	209	245	25	11	7
7-----	10	13	14	16	11	22	56	194	217	25	11	7
8-----	9	14	12	14	10	22	57	176	185	30	11	7
9-----	9	14	11	15	10	22	56	152	167	29	11	7
10-----	9	14	11	17	9	22	54	143	150	26	11	7
11-----	9	14	8	13	8	22	49	141	135	19	10	7
12-----	8	14	8	13	8	23	53	137	115	16	10	8
13-----	8	15	8	16	8	27	51	133	93	16	10	7
14-----	8	16	7	16	10	26	51	131	91	16	11	7
15-----	8	16	7	16	11	25	53	133	75	12	11	7
16-----	8	16	7	16	14	25	58	150	65	10	10	7
17-----	8	16	6	16	13	24	70	194	55	12	9	7
18-----	8	16	6	16	15	24	81	346	51	13	9	7
19-----	8	16	6	16	17	24	86	445	53	13	9	7
20-----	8	16	6	16	18	24	86	508	50	13	9	7
21-----	8	17	6	17	19	25	86	587	46	15	10	7
22-----	8	17	6	17	20	25	88	604	42	14	9	7
23-----	8	17	6	16	21	25	104	490	34	13	9	7
24-----	8	17	6	16	21	25	131	442	36	13	9	7
25-----	8	17	6	17	17	25	190	484	37	13	9	7
26-----	9	17	6	17	16	27	224	527	33	12	10	7
27-----	9	17	8	18	18	29	250	558	38	12	10	7
28-----	9	17	10	19	22	30	307	541	34	12	9	7
29-----	10	17	11	16	-----	35	331	520	22	12	9	7
30-----	10	17	11	17	-----	36	290	502	24	13	9	7
31-----	10	-----	11	17	-----	37	-----	463	-----	13	9	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October-----	10	8	8.9	547
November-----	17	11	15.1	898
December-----	17	6	9.8	603
January-----	19	11	15.8	972
February-----	22	8	14.6	811
March-----	37	18	25.1	1,540
April-----	331	37	105	6,250
May-----	604	131	323	19,900
June-----	436	22	128	7,620
July-----	30	10	17.6	1,080
August-----	12	9	10.1	621
September-----	9	7	7.2	428
The year-----	604	6	56.9	41,300

SOUTH FORK OF OGDEN RIVER NEAR HUNTSVILLE, UTAH

LOCATION.—Water-stage recorder in SE $\frac{1}{4}$ sec. 12, T. 6 N., R. 2 E., half a mile below mouth of Magpie Creek, 1 mile above heading of Huntsville Mountain Canal, and 5 $\frac{1}{2}$ miles east of Huntsville.

DRAINAGE AREA.—148 square miles.

RECORDS AVAILABLE.—March 1921 to September 1933.

DISCHARGE.—Maximum during year, 876 second-feet May 21 (gage height, 3.94 feet); minimum, not recorded.

1921-33: Maximum, 1,480 second-feet May 14, 1932 (gage height, 5.35 feet); minimum, 20 second-feet Nov. 25, 1931 (gage height, 0.24 foot). Average, 12 years (1921-33), 113 second-feet.

REMARKS.—Records good except those estimated, Dec. 12 to Feb. 19, June 25 to July 4, which are fair. No large diversions above gage.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	38	38			36	105	335	739	64	42	36
2	37	38	38			36	129	325	676	63	42	36
3	37	39	38			36	173	289	592	62	41	36
4	37	38	38			37	189	277	504	61	41	36
5	36	38	36	36		38	141	302	444	60	40	36
6	36	38	36			38	148	260	405	64	40	36
7	36	38	35			39	160	234	371	65	39	36
8	36	38	36			40	130	223	338	64	40	36
9	37	38	34		35	41	110	210	304	61	38	36
10	38	38	34			45	95	204	274	60	38	36
11	38	38	34			52	88	191	244	57	38	35
12	37	38				58	85	193	223	54	37	35
13	36	38				62	78	189	212	53	37	35
14	38	38				55	76	208	206	51	37	35
15	38	38				54	95	255	195	49	36	35
16	37	38				55	143	322	185	48	36	35
17	38	39			45	55	195	469	173	48	35	35
18	39	38			40	54	204	578	161	48	36	34
19	38	38			35	53	185	648	154	47	39	34
20	38	38	34		35	55	158	732	139	46	38	34
21	38	37			35	56	152	816	129	46	38	34
22	38	37			35	55	171	806	118	45	38	34
23	38	37		36	35	53	219	638	112	44	38	34
24	38	37			36	52	267	564	105	44	36	34
25	38	37			36	54	309	642	95	44	36	35
26	38	37			36	64	333	743	85	43	37	35
27	38	37			36	84	388	799	80	42	37	35
28	38	37	36		36	102	463	771	75	43	38	35
29	38	37				107	497	754	70	43	37	36
30	38	37	36			96	423	750	64	42	36	36
31	38			35		99		750		42	36	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	39	36	37.5	2,310
November	39	37	37.7	2,240
December	38		35.0	2,150
January			36	2,210
February	45		35.7	1,980
March	107	36	56.8	3,490
April	497	76	197	11,700
May	816	189	467	28,700
June	739	64	249	14,800
July	65	42	51.7	3,180
August	42	35	38.0	2,340
September	36	34	35.2	2,090
The year	816		107	77,200

OGDEN RIVER NEAR OGDEN, UTAH

LOCATION.—Water-stage recorder in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 6 N., R. 1 E., at bridge 300 feet below Utah Power & Light Co.'s dam and 6 $\frac{1}{2}$ miles northeast of Ogden, Utah.

RECORDS AVAILABLE.—June 1895 to December 1896; January 1904 to October 1912; October 1931 to September 1933.

DISCHARGE.—1931–32: Maximum mean daily discharge during year, 2,600 second-feet May 14; practically no flow for several days.

1895–96, 1904–12, 1931–33: Maximum (river and pipe line), 3,260 second-feet Feb. 5, 1907; minimum (river and pipe line), 17 second-feet Dec. 2, 9–15, 19, 1931.

REMARKS.—Records good. Station is below irrigation diversions in Ogden Valley and above those in vicinity of Ogden. Water diverted for power development 300 feet above station. Records of combined discharge (p. 38) are comparable with records 1895–96 and 1904–12. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1931–33

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931–32											
1-----	0	0	0	3	3	684	859	523	14	5	4
2-----	0	0		3	3	950	1,200	445	16	7	3
3-----	1	0	0	3	3	1,360	1,730	354	12	6	3
4-----	1	0	0	3	3	1,080	1,790	354	9	6	3
5-----	1	0	0	3	3	916	2,060	354	9	4	3
6-----	1	0	0	4	3	674	1,720	401	9	7	2
7-----	1	0	1	7	3	620	1,440	340	9	8	2
8-----	1	0	3	7	20	626	1,550	318	7	8	1
9-----	1	0	3	6	7	632	1,790	274	10	8	0
10-----	1	0	3	30	6	684	2,030	237	16	6	0
11-----	1	0	3	9	6	859	2,250	194	25	5	0
12-----	1	0	3	3	3	1,020	2,380	190	22	5	0
13-----	1	0	3	3	3	1,040	2,490	204	23	4	0
14-----	1	0	3	3	3	1,480	2,600	176	26	4	1
15-----	1	0	3	3	3	1,750	2,470	176	20	4	1
16-----	1	0	3	3	3	1,600	2,060	163	20	5	1
17-----	1	0	3	3	3	1,820	1,840	115	20	5	1
18-----	1	0	3	3	3	1,840	1,840	137	20	6	1
19-----	1	0	3	3	536	1,620	1,730	115	23	5	1
20-----	1	0	3	3	1,110	1,790	1,660	95	24	5	1
21-----	1	0	3	3	733	1,310	1,590	46	19	1	1
22-----	1	1	3	3	568	1,110	1,550	23	18	1	1
23-----	1	1	3	3	445	832	1,140	18	16	1	1
24-----	1	1	3	3	376	797	938	17	11	1	1
25-----	1	1	3	3	531	674	719	11	16	0	1
26-----	1	1	3	3	406	697	708	14	8	0	2
27-----	1	1	3	3	354	762	610	20	5	2	2
28-----	1	1	3	3	484	806	536	15	4	3	2
29-----	0	1	3		557	1,016	562	24	4	4	2
30-----	0	1	3		453	806	568	14	5	34	2
31-----		1	3		432		523		4	7	

Discharge, in second-feet, of Ogden River near Ogden, Utah, 1931-33—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932-33												
1.....	2	1	2	2	2	1	223	1,000	1,380	37	1	1
2.....	2	1	2	2	2	1	308	900	1,280	35	1	1
3.....	2	1	2	2	2	1	440	756	1,150	42	1	1
4.....	1	1	2	2	2	1	641	648	932	37	1	1
5.....	1	1	2	2	2	1	414	714	792	37	1	1
6.....	1	0	2	2	1	1	412	672	708	27	1	1
7.....	1	0	2	2	1	1	544	569	634	27	1	1
8.....	1	0	2	2	1	2	428	680	553	27	1	1
9.....	1	0	2	2	1	2	283	534	498	22	1	0
10.....	1	0	2	2	1	2	225	525	437	41	1	0
11.....	1	0	2	2	1	2	150	483	389	25	1	0
12.....	2	0	2	2	1	2	186	538	354	15	1	0
13.....	2	0	2	2	1	8	158	544	262	6	0	0
14.....	2	0	2	2	1	21	139	504	242	2	1	0
15.....	2	0	2	2	1	10	175	572	198	4	1	0
16.....	2	0	2	2	1	2	312	690	173	6	1	1
17.....	2	1	2	2	1	2	472	888	155	6	1	1
18.....	2	2	2	2	1	2	513	1,180	136	6	1	1
19.....	1	2	2	2	1	2	472	1,280	108	9	1	1
20.....	1	2	2	2	1	2	356	1,410	90	11	1	1
21.....	1	2	2	2	1	2	395	1,540	72	11	2	1
22.....	1	2	2	2	1	1	378	1,670	59	9	2	1
23.....	2	2	2	2	1	1	437	1,370	66	9	2	1
24.....	2	2	2	2	1	1	627	1,120	61	9	2	1
25.....	2	2	2	2	1	1	812	1,220	61	8	2	2
26.....	1	2	2	2	1	2	880	1,360	60	6	2	2
27.....	1	2	2	2	1	11	992	1,460	48	2	2	2
28.....	1	2	2	2	1	91	1,140	1,460	45	1	2	2
29.....	1	2	2	2	-----	200	1,320	1,400	43	1	2	2
30.....	1	2	2	2	-----	167	1,240	1,340	42	1	2	2
31.....	1	-----	2	2	-----	184	-----	1,380	-----	1	2	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
1931-32				
November.....	1	0	0.87	52
December.....	1	0	.32	20
January.....	3	0	2.35	144
February.....	30	3	4.61	256
March.....	1,110	3	228	14,000
April.....	1,840	620	1,060	63,100
May.....	2,600	523	1,510	92,800
June.....	523	11	179	10,700
July.....	26	4	14.3	879
August.....	34	0	5.39	331
September.....	4	0	1.43	85
The period.....	2,600	0	252	182,000
1932-33				
October.....	2	1	1.42	87
November.....	2	0	1.07	64
December.....	2	2	2.0	123
January.....	2	2	2.0	123
February.....	2	1	1.18	66
March.....	200	1	23.5	1,440
April.....	1,320	139	502	29,900
May.....	1,670	493	981	60,300
June.....	1,380	42	368	21,900
July.....	42	1	14.4	885
August.....	2	0	1.32	81
September.....	2	0	.97	58
The year.....	1,670	0	159	115,000

NOTE.—No flow during October 1931. Records in the above table do not include the diversion by the Utah Power & Light Co.'s pipe line.

Combined discharge, in second-feet, of Ogden River and Utah Power & Light Co.'s pipe line near Ogden, Utah, 1931-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1	19	23	18	28	46	89	868	1,050	711	130	60	86
2	19	23	17	28	44	89	1,140	1,390	633	131	59	74
3	19	24	18	28	43	87	1,540	1,920	541	126	54	69
4	18	24	18	28	42	88	1,270	1,980	541	123	52	67
5	19	24	18	28	43	86	1,100	2,240	541	122	46	68
6	18	24	18	28	45	86	861	1,910	587	122	45	67
7	18	24	18	29	61	86	805	1,630	527	121	48	64
8	18	24	18	31	65	128	810	1,740	504	113	48	57
9	19	24	17	31	66	108	817	1,930	460	101	48	51
10	19	24	17	31	119	140	870	2,220	423	102	46	47
11	19	24	17	31	72	139	1,040	2,440	381	110	45	44
12	20	24	17	31	75	129	1,200	2,570	376	107	45	38
13	20	24	17	31	64	117	1,220	2,680	391	107	44	33
14	21	24	17	31	64	111	1,670	2,790	362	110	44	34
15	21	24	17	31	64	123	1,940	2,660	362	104	44	34
16	23	24	18	31	65	127	1,790	2,240	349	104	43	34
17	21	24	18	31	64	156	2,010	2,020	302	105	42	33
18	19	24	18	35	68	185	2,030	2,010	322	105	43	33
19	19	24	17	38	65	709	1,800	1,920	301	110	42	33
20	19	24	18	48	65	1,260	1,970	1,850	281	115	43	34
21	19	24	18	43	72	908	1,490	1,780	232	108	39	33
22	19	24	19	38	72	757	1,290	1,740	210	102	38	33
23	19	23	20	38	72	632	1,020	1,320	204	100	38	33
24	20	22	21	38	66	562	981	1,120	203	95	38	33
25	20	22	22	38	66	717	860	904	159	94	36	33
26	22	20	25	38	67	591	884	891	192	80	34	34
27	23	19	27	38	68	539	948	797	175	66	38	34
28	23	19	27	38	69	668	936	722	153	60	41	34
29	23	18	29	38	85	741	1,160	751	152	59	45	34
30	23	18	29	38	637	995	756	132	60	95	34	34
31	23	29	39	616	710	59	95	95	95	95	95	95
1932-33												
1	34	44	39	34	48	48	415	1,090	1,470	115	35	25
2	34	44	39	34	50	48	500	987	1,370	121	35	25
3	34	44	39	34	51	47	629	843	1,240	128	35	25
4	33	44	39	34	50	50	831	735	1,020	124	35	25
5	33	44	39	34	49	52	600	801	877	116	33	25
6	33	43	39	34	47	53	601	758	793	106	32	25
7	33	42	39	35	46	59	733	656	720	106	32	25
8	33	42	39	35	45	66	618	767	637	106	32	25
9	33	40	32	37	45	65	473	621	583	108	32	24
10	33	38	39	37	45	70	415	613	522	128	31	24
11	33	34	39	40	45	83	339	570	474	111	29	24
12	36	33	39	40	44	85	376	625	439	102	29	23
13	40	33	39	40	45	92	348	631	347	93	26	21
14	40	33	37	40	44	105	329	591	327	89	26	21
15	40	33	34	43	46	117	365	659	283	90	25	21
16	40	33	33	47	46	140	502	776	259	82	26	22
17	40	34	32	47	48	138	661	975	241	73	25	22
18	40	35	32	47	48	151	701	1,270	222	73	26	22
19	38	35	32	47	49	114	661	1,370	194	76	25	22
20	39	35	32	47	49	152	545	1,500	175	69	26	22
21	39	34	32	47	49	167	501	1,630	158	59	26	22
22	42	35	32	47	48	163	534	1,760	145	53	26	22
23	45	35	32	47	50	148	627	1,460	151	50	26	22
24	48	35	32	47	48	134	751	1,210	146	48	26	22
25	43	35	33	48	47	144	899	1,310	146	47	26	23
26	44	35	33	48	46	144	967	1,450	145	45	26	23
27	44	35	34	48	46	177	1,080	1,540	134	41	26	23
28	44	35	34	48	46	281	1,230	1,550	131	41	26	23
29	44	35	34	48	392	1,410	1,490	129	39	26	24	24
30	44	35	34	48	359	1,330	1,430	130	37	26	26	27
31	44	35	48	378	1,470	35	26	26	26	26	26	26

Combined discharge, in second-feet, of Ogden River and Utah Power & Light Co.'s pipe line near Ogden, Utah, 1931-33—Continued

Month	Maximum	Minimum	Mean	Run-off in acre-feet
1931-32				
October.....	23	18	20.1	1,240
November.....	24	18	22.9	1,360
December.....	29	17	18.9	1,220
January.....	48	28	33.9	2,080
February.....	119	42	64.7	3,720
March.....	1,260	86	368	22,600
April.....	2,030	805	1,250	74,400
May.....	2,790	710	1,700	105,000
June.....	711	132	357	21,200
July.....	131	59	102	6,270
August.....	95	34	47.7	2,930
September.....	86	33	44.5	2,650
The year.....	2,790	17	337	245,000
1932-33				
October.....	48	35	38.7	2,380
November.....	44	33	37.1	2,210
December.....	39	32	35.4	2,180
January.....	48	34	42.3	2,600
February.....	51	44	47.1	2,620
March.....	392	47	135	8,360
April.....	1,410	329	665	39,600
May.....	1,760	570	1,070	65,800
June.....	1,470	129	454	27,000
July.....	128	35	81.0	4,980
August.....	35	25	27.4	1,750
September.....	27	21	23.3	1,390
The year.....	1,760	21	222	161,000

JORDAN RIVER BASIN

JORDAN RIVER NEAR LEHI, UTAH

LOCATION.—Water-stage recorder in sec. 25, T. 5 S., R. 1 W., 800 feet below pumping station at outlet of Utah Lake and 4 miles southwest of Lehi.

DRAINAGE AREA.—2,570 square miles.

RECORDS AVAILABLE.—May to December 1904; July 1913 to September 1933.

DISCHARGE.—Maximum mean daily during year, 770 second-feet July 7 and 8; minimum, —35 second-feet Mar. 9 and 10.

1913-33: Maximum mean daily, 1,370 second-feet June 8, 1923 (gage height, 7.78 feet); minimum, —35 second-feet Mar. 9 and 10, 1933. Average, 20 years (1913-33), 430 second-feet.

REMARKS.—Records fair. Discharge computed from records of pump operation. Flow represents pumped outflow from Utah Lake and is controlled by operation of gates and pumping plant 800 feet above gage. Pumping records furnished by Utah Lake water commissioner.

Discharge, in second-feet, 1932-33

Day	Oct.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	219	0	0	-20	-5	-8	510	552	738	540	146
2.....	243	0	0	-20	-7	-8	418	595	746	548	166
3.....	187	0	0	-15	-10	-8	185	513	738	508	285
4.....	140	0	0	-10	-20	-12	0	425	738	510	286
5.....	246	0	0	-10	-15	-7	0	604	744	523	265
6.....	314	0	0	-8	-15	-6	0	645	708	500	68
7.....	132	0	0	-7	-15	-5	0	645	770	544	58
8.....	202	13	0	-7	-20	-8	0	686	770	536	113
9.....	44	14	0	-7	-35	-6	0	674	701	490	229
10.....	224	8	0	-7	-35	-5	0	666	651	532	22
11.....	238	14	0	-7	-30	-25	0	668	636	458	14
12.....	196	12	0	-7	-25	-25	0	672	657	455	32
13.....	192	0	0	-7	-20	-25	0	672	656	424	87
14.....	173	18	0	-7	-15	-20	0	672	658	427	371
15.....	242	15	0	-6	-10	-12	0	672	636	412	70
16.....	12	13	0	-6	-10	-8	0	644	628	441	20
17.....	12	19	0	-5	-12	-5	0	629	658	399	220
18.....	8	13	0	-5	-10	-10	0	638	671	417	176
19.....	13	18	0	-5	-10	-12	0	638	743	339	45
20.....	12	18	0	-5	-8	-20	85	644	674	500	295
21.....	13	12	0	-5	-12	-15	85	640	650	61	44
22.....	12	23	0	-5	-8	-12	330	656	656	199	18
23.....	0	12	0	-5	-12	-12	368	651	679	172	6
24.....	0	23	0	-5	-6	-15	372	656	698	268	74
25.....	0	12	0	-5	-6	-6	425	661	653	133	0
26.....	0	12	0	-5	-6	0	546	643	675	59	36
27.....	0	12	0	-5	-6	115	552	659	675	88	48
28.....	0	12	0	-5	-8	455	552	664	709	260	43
29.....	0	22	-2	-8	-8	510	537	664	646	300	80
30.....	0	35	-5	-8	-8	510	534	664	503	324	0
31.....	0	35	-12	-8	-8	-----	552	-----	632	34	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	314	0	99.2	6,100
December.....	35	0	12.4	762
January.....	0	-12	-61	-38
February.....	-5	-20	-7.54	-419
March.....	-5	-35	-13.4	-824
April.....	510	-25	43.2	2,570
May.....	552	0	195	12,000
June.....	686	425	637	37,900
July.....	770	503	680	41,800
August.....	548	34	368	22,600
September.....	371	0	111	6,610
The year.....	770	-35	178	129,000

NOTE.—No flow during November. Negative values Jan. 29 to Apr. 25 represent the flow (estimated by observer) back into the lake, when head gates 6 miles downstream were closed. These negative discharges have been deducted from the monthly and yearly values in order to eliminate this temporary inflow from the area below the outlet of the lake.

SALT CREEK NEAR NEPHI, UTAH

LOCATION.—Staff gage in NW¼ sec. 1, T. 13 S., R. 1 E., 50 feet below tailrace of Nephi municipal power plant, 100 feet above intake of Nephi Plaster Co.'s canal, 2½ miles below mouth of South Fork, and 3½ miles east of Nephi.

DRAINAGE AREA.—95 square miles.

RECORDS AVAILABLE.—April 1925 to September 1933.

DISCHARGE.—Maximum recorded during year, 131 second-feet May 31 (gage height, 2.00 feet); minimum, 4 second-feet Dec. 15.

1925-33: Maximum, about 800 second-feet July 17, 1932 (gage height, 5.0 feet); minimum, 4 second-feet Dec. 15, 1932.

REMARKS.—Records fair. A few small diversions above station.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	11	10	8	8	7	8	12	30	121	28	11	9
2.....	11	9	8	7	7	8	13	29	115	26	11	9
3.....	11	10	8	8	6	8	15	29	94	25	11	9
4.....	11	9	8	7	6	8	16	29	76	23	11	9
5.....	11	9	8	8	6	8	14	29	71	23	11	9
6.....	11	9	8	7	7	8	14	28	89	22	11	9
7.....	11	9	8	8	6	8	11	27	89	22	16	
8.....	11	9	8	7	6	8	11	26	94	22	11	
9.....	10	9	8	8	6	8	10	26	103	22	10	
10.....	10	9	6	8	6	9	10	25	107	22	10	
11.....	10	9	6	7	6	9	11	25	107	22	9	
12.....	10	9	6	7	6	9	11	27	108	20	9	
13.....	10	9	6	8	7	9	11	29	108	19	9	
14.....	10	8	6	8	7	9	11	33	89	18	9	
15.....	10	8	5	8	7	10	12	31	78	19	8	9
16.....	10	9	6	7	7	10	12	33	83	19	8	9
17.....	11	9	6	7	7	10	13	37	77	20	8	10
18.....	12	9	6	8	7	10	15	47	70	18	8	9
19.....	11	9	6	8	7	10	15	60	54	18	8	9
20.....	11	9	6	8	7	10	15	73	50	17	8	9
21.....	11	9	6	8	8	9	15	77	47	16	9	9
22.....	11	8	7	8	7	8	15	56	44	15	9	9
23.....	11	8	7	8	7	9	15	47	43	14	9	9
24.....	9	8	7	8	7	10	16	45	40	13	9	9
25.....	9	8	8	8	7	10	18	50	37	12	9	10
26.....	9	8	8	7	7	10	23	57	37	12	9	9
27.....	10	8	8	7	7	10	31	69	34	11	9	8
28.....	10	8	8	7	8	11	37	89	34	11	9	8
29.....	10	8	7	7	-----	10	35	89	33	11	9	8
30.....	10	8	7	8	-----	11	33	98	31	11	9	8
31.....	10	-----	8	7	-----	11	-----	119	-----	11	9	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	12	9	10.4	640
November.....	10	8	8.70	518
December.....	8	5	7.03	432
January.....	8	7	7.58	466
February.....	8	6	6.75	375
March.....	11	8	9.23	568
April.....	37	10	16.3	970
May.....	119	25	47.4	2,910
June.....	121	31	72.1	4,290
July.....	28	11	18.1	1,110
August.....	16	8	9.55	587
September.....	10	8	8.93	531
The year.....	121	5	18.5	13,400

PROVO RIVER AT FORKS, UTAH

LOCATION.—Staff gage in sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks and 200 feet above South Fork. Zero of auxiliary gage used since June 4, 1931, is 1.06 feet higher than that of gage used previously.

DRAINAGE AREA.—600 square miles.

RECORDS AVAILABLE.—November 1911 to September 1933. Records have been obtained at various points below mouth of South Fork since 1890.

DISCHARGE.—Maximum recorded during year, 1,370 second-feet June 4 (gage height, 3.92 feet on auxiliary gage); minimum, 102 second-feet Sept. 15.

1911-33: Maximum, 3,180 second-feet June 11, 1921 (gage height, 6.13 feet, on regular gage); minimum, 62 second-feet Aug. 26, 27, Sept. 8-10, 1931. Average, 21 years (1911-33), 377 second-feet.

REMARKS.—Records fair. Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo. Flow slightly regulated by small lakes at headwaters utilized as storage reservoirs. From May 15 to July 16 flow includes 11,300 acre-feet from Weber-Provo Diversion Canal, see p. 44. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	159	171	248	248	241	222	319	319	1,060	283	177	120
2	159	171	241	241	241	215	319	283	1,020	272	183	120
3	165	165	235	248	183	215	326	283	1,180	255	183	131
4	164	183	235	248	177	215	348	276	1,370	248	177	122
5	163	183	228	235	248	196	305	248	1,360	248	177	122
6	162	183	222	248	248	209	326	255	1,060	252	171	120
7	162	183	189	209	177	228	319	222	1,080	276	171	120
8	174	196	228	209	222	222	326	255	961	290	159	120
9	159	202	222	222	241	290	215	932	248	159	118	
10	159	202	209	241	175	241	283	215	932	262	153	122
11	159	202	209	209	209	276	269	215	1,080	248	159	110
12	158	196	209	209	276	276	209	1,150	241	153	110	
13	157	196	215	183	355	269	189	990	241	153	110	
14	156	215	228	248	319	255	177	922	228	145	112	
15	162	209	241	248	312	248	183	941	228	136	102	
16	156	215	200	241	248	301	269	183	817	222	136	105
17	153	222	235	177	355	290	183	733	222	136	110	
18	159	215	215	189	333	290	189	661	215	142	105	
19	168	228	241	222	326	290	196	618	215	159	102	
20	159	215	262	241	215	326	283	209	534	215	153	102
21	171	215	262	248	183	333	269	312	453	202	150	108
22	183	222	248	248	215	312	276	453	385	209	150	105
23	171	228	241	235	209	283	276	453	333	202	147	110
24	165	235	262	235	209	269	283	415	319	202	145	115
25	165	235	255	248	209	283	297	362	341	202	133	112
26	165	235	248	248	159	333	319	422	333	189	131	156
27	171	241	248	248	171	377	312	501	312	189	142	128
28	171	241	255	248	215	362	297	584	312	183	142	120
29	171	235	215	209	392	290	715	301	183	128	136	
30	171	235	241	248	326	348	770	283	177	128	136	
31	171	215	228	228	326	326	961	183	122	122	122	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	183	153	164	10, 100
November	241	165	209	12, 400
December			226	13, 900
January	248	209	234	14, 400
February			203	11, 300
March	392	196	290	17, 800
April	348	248	296	17, 600
May	961	177	337	20, 700
June	1, 370	283	759	45, 200
July	290	177	227	14, 000
August	183	122	152	9, 350
September	156	102	117	6, 960
The year	1, 370	102	268	194, 000

PROVO RIVER AT PROVO, UTAH

LOCATION.—Staff gage in SE¼ sec. 3, T. 7 S., R. 2 E., a quarter of a mile below highway bridge and 2 miles west of city hall at Provo.

RECORDS AVAILABLE.—May to September 1933, fragmentary. Records obtained at former stations three-quarters of a mile upstream May 1903 to June 1905. Except for 2 small ditches the flow is practically the same at both points.

DISCHARGE.—Maximum recorded during year, 559 second-feet June 3 (gage-height, 3.39 feet); no flow during part of year.

REMARKS.—Records fair. No records May 1, May 3 to June 7, June 9–12, 14, 15, 20, 21. Station below diversions except one small ditch. During the summer practically the entire flow is diverted above the station for irrigation.

Discharge, in second-feet, 1932–33

Day	May	June	July	Day	May	June	July	Day	May	June	July
1.....			0	11.....			3	21.....			0
2.....	8		0	12.....			2	22.....		4	0
3.....			0	13.....		559	1	23.....		2	0
4.....			0	14.....			1	24.....		2	0
5.....			0	15.....			1	25.....		1	0
6.....			0	16.....		347	0	26.....		0	0
7.....			0	17.....		276	0	27.....		0	0
8.....		475	1	18.....		208	0	28.....		1	0
9.....			10	19.....		161	0	29.....		0	0
10.....			4	20.....			0	30.....		0	0
								31.....			0

WEBER-PROVO DIVERSION CANAL NEAR WOODLAND, UTAH

LOCATION.—Parshall measuring flume in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 2 S., R. 6 E., 100 feet above confluence with Provo River and 4 $\frac{1}{2}$ miles northwest of Woodland.

RECORDS AVAILABLE.—October 1931 to September 1933.

REMARKS.—Canal diverts water from Weber River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 1 S., R. 6 E., for irrigation in the Provo River Basin. Daily discharge records furnished by Provo River water commissioner.

Discharge, in second-feet, 1931-33

Day	June	July	Day	June	July	Day	June	July
1931-32								
1.....	0	43	11.....	110	83	21.....	0	60
2.....	0	55	12.....	115	82	22.....	35	25
3.....	0	91	13.....	120	82	23.....	73	30
4.....	0	83	14.....	120	83	24.....	99	30
5.....	25	83	15.....	120	74	25.....	100	30
6.....	69	81	16.....	120	62	26.....	98	20
7.....	88	81	17.....	43	61	27.....	97	10
8.....	98	81	18.....	0	61	28.....	48	10
9.....	98	82	19.....	0	60	29.....	0	10
10.....	104	83	20.....	0	60	30.....	14	8
						31.....		3

Day	May	June	July	Day	May	June	July	Day	May	June	July
1932-33											
1.....	0	0	108	11.....	0	136	25	21.....	111	107	0
2.....	0	0	100	12.....	0	147	16	22.....	120	110	0
3.....	0	121	65	13.....	0	147	10	23.....	129	109	0
4.....	0	119	60	14.....	0	152	7	24.....	127	109	0
5.....	0	119	60	15.....	13	152	6	25.....	129	109	0
6.....	0	121	43	16.....	11	135	3	26.....	131	106	0
7.....	0	121	44	17.....	12	128	0	27.....	128	106	0
8.....	0	121	43	18.....	20	122	0	28.....	130	111	0
9.....	0	122	36	19.....	36	120	0	29.....	137	109	0
10.....	0	128	32	20.....	105	110	0	30.....	135	108	0
								31.....	135		0

Month				Maximum	Minimum	Mean	Run-off in acre-feet
1931-32							
June.....				120	0	59.8	3,560
July.....				91	0	55.1	3,390
The year.....				120	0	9.6	6,950
1932-33							
May.....				137	0	51.9	3,190
June.....				152	0	114	6,780
July.....				108	0	21.2	1,300
The year.....				152	0	15.5	11,300

NOTE.—No diversion during months omitted.

SOUTH FORK OF PROVO RIVER AT FORKS, UTAH

LOCATION.—Staff gage in sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks and a quarter of a mile above confluence with Provo River.

DRAINAGE AREA.—30 square miles.

RECORDS AVAILABLE.—November 1911 to September 1933.

DISCHARGE.—Maximum recorded during year, 40 second-feet June 6; minimum, 15 second feet Aug. 14, and 15.

1911-33: Maximum, 123 second-feet May 27, 1922; minimum, 14 second-feet Apr. 17, 1925. Average, 21 years (1911-33), 32.1 second-feet.

REMARKS.—Records fair. Station below all diversions. Flow regulated by diversions above. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	29	26	23	22	21	21	19	34	20	20	18
2	26	27	26	22	22	21	21	19	34	19	20	18
3	26	27	26	22	22	21	21	19	34	19	20	18
4	26	29	27	22	22	21	21	19	34	20	20	17
5	26	29	26	22	22	21	21	19	33	20	20	18
6	26	29	26	22	22	21	21	19	40	20	20	20
7	26	29	26	22	22	20	21	19	26	20	20	20
8	26	29	26	22	22	20	20	20	26	33	19	21
9	27	29	26	22	22	20	20	20	26	27	19	21
10	27	29	26	22	22	20	20	20	26	25	19	20
11	27	29	26	22	22	20	20	20	26	24	19	21
12	28	28	27	22	22	20	20	20	31	23	18	21
13	27	28	27	22	22	21	20	20	33	22	16	20
14	27	28	27	22	22	20	20	22	31	21	15	21
15	28	28	27	22	22	20	20	22	30	23	15	20
16	27	27	26	22	22	21	20	23	29	22	16	20
17	24	27	26	22	22	21	20	18	29	20	17	22
18	24	27	26	22	22	20	20	18	26	20	17	22
19	24	26	26	22	22	20	20	18	25	20	18	22
20	24	26	25	22	22	20	20	26	25	20	19	22
21	25	26	25	22	22	20	18	25	24	19	18	24
22	26	26	25	22	22	20	20	26	24	18	18	23
23	26	26	25	22	22	20	20	25	24	19	18	24
24	26	26	25	22	22	19	20	25	23	20	19	24
25	26	26	25	22	22	20	20	25	23	20	19	22
26	26	26	25	22	22	20	20	25	23	19	19	23
27	27	26	25	22	21	20	20	25	22	18	19	23
28	27	26	25	22	21	20	20	26	20	18	19	23
29	28	26	25	22	-----	21	18	26	20	20	19	2 3
30	27	26	25	23	-----	21	18	26	20	20	18	2 3
31	27	-----	25	22	-----	21	-----	32	-----	20	18	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	28	24	26.2	1,610
November	29	26	27.3	1,620
December	27	25	25.8	1,590
January	23	22	22.1	1,360
February	22	21	21.9	1,220
March	21	19	20.4	1,250
April	21	18	20.0	1,190
May	32	18	22.1	1,360
June	40	20	27.4	1,630
July	33	18	20.9	1,290
August	20	15	18.4	1,130
September	24	17	21.1	1,260
The year	40	15	22.8	16,500

SEVIER LAKE BASIN

SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—Water-stage recorder in NW¼ sec. 16, T. 30 S., R. 3 W., 1 mile west of Kingston and 2 miles above mouth of East Fork.

DRAINAGE AREA.—1,110 square miles.

RECORDS AVAILABLE.—June 1914 to September 1933.

DISCHARGE.—Maximum during year, 736 second-feet Aug. 21 or 22 (gage height, 2.62 feet); minimum (estimated), about 10 second-feet.

1914-33: Maximum, 1,460 second-feet May 21, 1922 (gage height, 4.92 feet); minimum, 5 second-feet June 16-20, 1931 (gage height, 0.56 foot). Average, 19 years (1914-33), 160 second-feet.

REMARKS.—Records fair. Numerous diversions above station; none between gage and mouth of East Fork.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	a 110					158	35	223	13	a 20	a 16
2	60						165	35	208	13	a 18	a 17
3	68			86			171	33	165	13	16	17
4	62					a 150		39	137	14	16	a 18
5	60				70			43	126	15	13	19
6	57	121					a 175	a 40	137	15	12	
7	60	115						38	a 138	29	16	a 40
8	64	121		77		171		51	a 139	41	75	
9	68					158	184	77	140	23	38	
10	70					152	165		135	a 22	24	66
11	70	a 120				149	143	a 70	149	a 100	17	a 55
12	75				92	155				a 55	14	
13	75					143	a 125		a 120	a 50	10	
14	72								62	49	a 10	
15	70								62	88	a 12	
16	70	121				a 150	108	62	79	137	a 14	44
17	70	129		68			95	57	a 70	a 200	16	
18	88	132	115				98	41	62		16	
19	88	126					98	35	62		19	
20	92	126					95	26	51		19	
21		129			112	171	95	21	41	a 40	a 150	a 35
22		135					92	23	23		a 250	
23		135		49			92	25			60	
24		137					92	26				
25		143					86	23				
26	a 100	146			132	a 160	72	17	19	38	a 35	23
27		143					55	19	13	32		
28		140					43	24		29		
29		140					38	75		30		
30		143	100				36	110		a 13		
31				49				158		a 22	16	a 25
											a 16	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October		49	80.3	4,940
November	146		126	7,500
December			a 110	6,760
January			a 70	4,300
February			a 100	5,550
March			155	9,530
April		36	119	7,080
May	158	17	49.6	3,050
June	223		88.9	5,290
July		13	42.9	2,640
August		10	35.4	2,180
September		16	36.7	2,180
The year		10	84.2	61,000

a Estimated.

PIUTE RESERVOIR NEAR MARYSVALE, UTAH

LOCATION.—Staff gage in NW $\frac{1}{4}$ sec. 3, T. 29 S., R. 3 W., at Piute Dam, 11 miles south of Marysville.

RECORDS AVAILABLE.—March 1914 to September 1933.

REMARKS.—Capacity of reservoir, 90,000 acre-feet. Gage-height record furnished by Piute Reservoir & Irrigation Co.

Contents, in acre-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	10,300	6,640	7,520	16,200	25,000	30,000	40,600	35,600	32,200	20,300	7,690	1,600
2-----	10,100	6,560	7,690	16,500	25,200	30,300	40,500	35,000	31,900	19,800	7,600	1,250
3-----	9,900	6,480	7,960	16,700	25,400	30,600	40,500	34,500	31,600	19,400	7,600	950
4-----	9,800	6,480	8,230	16,800	25,500	30,800	40,500	34,000	31,300	19,000	7,360	700
5-----	9,700	6,480	8,600	17,000	25,600	31,100	40,500	33,500	30,800	18,500	7,120	480
6-----	9,600	6,400	8,800	17,100	25,800	31,400	40,500	33,000	30,300	18,000	6,880	0
7-----	9,500	6,400	9,100	17,200	26,000	31,900	40,500	32,700	29,800	17,600	6,640	0
8-----	9,400	6,320	9,500	17,400	26,100	32,400	40,500	32,600	29,200	17,100	6,480	0
9-----	9,300	6,320	9,900	17,700	26,200	32,900	40,500	32,700	28,600	16,600	6,320	0
10-----	9,000	6,320	10,400	17,900	26,400	33,400	40,500	33,000	28,200	16,200	6,160	0
11-----	8,700	6,240	10,800	18,200	26,600	33,700	40,600	33,400	27,800	15,900	6,000	0
12-----	8,320	6,240	11,100	18,500	26,700	34,200	40,800	33,800	27,300	15,500	5,920	0
13-----	8,050	6,160	11,300	18,800	26,800	34,500	40,600	33,900	26,800	15,200	5,920	0
14-----	7,690	6,240	11,500	19,200	27,000	34,800	40,500	34,000	26,400	14,700	5,840	100
15-----	7,280	6,240	11,700	19,400	27,200	35,300	40,300	34,300	26,100	14,200	5,680	490
16-----	6,800	6,320	11,900	19,700	27,400	35,600	40,100	34,600	25,800	13,800	5,520	800
17-----	6,640	6,320	12,200	20,100	27,800	35,900	40,000	35,000	25,500	13,600	5,200	1,100
18-----	6,400	6,320	12,400	20,400	27,900	36,400	39,800	35,300	25,400	13,400	4,920	1,370
19-----	6,480	6,400	12,700	20,700	28,000	36,700	39,600	35,400	25,200	13,000	4,640	1,680
20-----	6,560	6,400	13,000	21,000	28,200	37,100	39,500	35,600	24,900	12,600	4,380	1,720
21-----	6,640	6,480	13,400	21,200	28,400	37,600	39,300	35,800	24,400	12,000	4,200	1,780
22-----	6,720	6,560	13,600	21,800	28,600	37,900	39,200	35,600	24,000	11,600	4,320	1,780
23-----	6,800	6,640	13,800	22,200	29,000	38,400	39,100	35,400	23,600	11,100	4,200	1,720
24-----	6,800	6,720	14,000	22,600	29,100	38,800	38,800	34,800	23,200	10,800	4,080	1,600
25-----	6,800	6,800	14,400	23,000	29,200	39,100	38,400	34,800	23,000	10,400	3,900	1,480
26-----	6,800	6,880	14,700	23,200	29,400	39,500	37,900	34,500	22,500	9,800	3,540	1,370
27-----	6,800	6,960	14,900	23,600	29,600	39,600	37,400	34,200	22,100	9,200	3,300	1,480
28-----	6,800	7,040	15,200	23,800	29,700	40,000	36,900	33,800	21,700	8,800	3,000	1,600
29-----	6,720	7,200	15,400	24,200	-----	40,300	36,400	33,500	21,200	8,410	2,700	1,680
30-----	6,720	7,360	15,600	24,400	-----	40,600	35,900	33,000	20,800	8,050	2,450	1,800
31-----	6,640	-----	16,000	24,800	-----	40,600	-----	32,600	-----	7,870	2,040	-----

SEVIER RIVER BELOW PIUTE DAM, NEAR MARYSVALE, UTAH

LOCATION.—Water-stage recorder in sec. 34, T. 28 S., R. 3 W., 700 yards below dam of Piute Reservoir and 11 miles south of Marysville.

DRAINAGE AREA.—2,440 square miles.

RECORDS AVAILABLE.—May to August 1911; May 1912 to September 1933.

DISCHARGE.—Maximum mean daily during year, 592 second-feet July 18, 19 (gage height, 2.07 feet); minimum (principally leakage), 3 second-feet Sept. 18, 19.

1911-33: Maximum, 2,600 second-feet part of May 23, 24, 1922 (gage height, 4.45 feet); practically no flow at times when reservoir gates are closed. Average, 21 years (1912-33), 274 second-feet.

REMARKS.—Records good except those for Dec. 9 to Feb. 25, Mar. 7-17, May 17, which were estimated. No diversion between gage and Piute Reservoir. Flow regulated by operation of gates in dam.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	193	138			60	189	353	500	348	218	228
2	184	193	131			60	189	353	500	348	218	205
3	184	193	124			60	189	353	506	337	315	180
4	164	180	101			62	189	348	486	342	326	172
5	157	180	94			65	189	315	500	353	289	164
6	160	180	91	60		35	189	310	500	382	284	117
7	172	180	88			189	310	500	500	461	284	88
8	176	180	74			189	218	506	513	513	274	84
9	201	180				189	114	520	513	513	236	101
10	232	176				189	80	506	520	228	107	
11	260	176				189	55	448	486	205	131	
12	260	180				210	43	442	473	157	131	
13	265	180		40	75	260	43	411	486	172	146	
14	250	180				250	43	376	520	189	73	
15	255	180				250	43	337	555	184	53	
16	289	180				250	35	337	578	197	9	
17	245	180				250	5	265	578	236	5	
18	214	180				11	279	55	168	592	236	3
19	176	180				36	326	80	168	592	241	3
20	157	172	60			30	326	80	228	578	236	41
21	153	164		10		28	315	80	365	555	228	79
22	157	164				28	304	157	365	540	236	88
23	164	164				28	326	255	353	500	236	104
24	172	164				28	337	289	221	342	223	114
25	172	164				28	337	359	221	420	218	114
26	176	164			82	28	337	353	221	493	218	65
27	197	157			82	28	348	326	326	454	228	37
28	197	153		50	55	28	353	376	348	382	236	37
29	197	153				28	353	394	348	370	236	36
30	197	138		70		36	353	394	348	337	197	36
31	193					124		436		274	214	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	289	153	199	12,200
November	193	138	174	10,400
December	138		71.6	4,400
January			37.7	2,320
February		55	74.8	4,150
March	124		28.6	1,760
April	353	189	261	15,500
May	436	5	215	13,200
June	520	168	377	22,400
July	592	274	459	28,200
August	326	157	232	14,300
September	228	3	92.0	5,470
The year	592	3	186	134,000

SEVIER RIVER NEAR VERMILION, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 19, T. 22 S., R. 1 W., at highway bridge half a mile below Rockyford Dam, 2 miles northeast of Vermilion, and 4 miles above mouth of Lost Creek.

DRAINAGE AREA.—3,340 square miles.

RECORDS AVAILABLE.—July to September 1912; July 1914 to September 1933.

DISCHARGE.—Maximum during year, 340 second-feet May 9, 10 (gage height, 4.60 feet); practically no flow (seepage only) July 16–24, Aug. 17, 20–22.

1914–33: Maximum, 2,400 second-feet May 30, 1922 (gage height, about 8.1 feet); practically no flow (seepage only) when Rockyford gates are closed. Average, 19 years (1914–33), 129 second-feet.

REMARKS.—Records good except those estimated, which are fair. Entire flow usually diverted during low-water season. Flow past station at such times represents seepage and return flow from canals. Flow also regulated by dams and reservoirs above.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1.....	45	50	} a 110	119	134	184	} a 115	179	105	35	35	} a 2	
2.....	44	57		128	138	176		214	78	35	35		
3.....	43	62		128	132	163		221	80	35	27		
4.....	41	66		130	128	156		202	84	64	35		
5.....	41	69		132	128	149		193	80	117	41		
6.....	40	66	} a 110	130	140	140	} 163	193	69	114	44	} 2	
7.....	19	75		128	a 135	143		199	74	108	52		
8.....	4	78		95	126	a 130		140	239	76	105		74
9.....	4	78		103	126	126		a 200	306	64	108		78
10.....	4	78		125	117	117		326	65	107	55		
11.....	4	76	} a 110	125	} a 135	114	} 151	283	100	114	52	} 2	
12.....	4	76		114		110		250	140	126	62		
13.....	4	76		126		22		214	154	114	64		
14.....	4	78		121		16		190	158	60	72		
15.....	4	81		114		115		50	a 150	168	147		16
16.....	26	81	123	119	143	} a 60	187	149	0	10	} a 2		
17.....	59	81	123	119	147		199	126	0	0			
18.....	68		126	115	143		a 140	232	114	0		5	
19.....	64		112	128	132		64	75	243	92		0	21
20.....	64	} a 90	a 114	123	136		a 75	a 110	193	60		0	0
21.....	65		a 116	121	140	a 85	a 145	145	14	0	0		
22.....	64		119	128	145	95	179	108	12	0	0		
23.....	61		97	117	123	149	184	79	8	0	6		
24.....	59		95	125	117	151	179	47	a 9	0	11		
25.....	59	98	115	112	147	163	45	a 9	38	4	} a 2		
26.....	60	108	114	108	149	} a 85	149	45	a 9	78			
27.....	57	119	117	105	158		136	66	13	75			
28.....	56	115	121	114	174		121	81	31	56		} a 2	
29.....	48	115	114	110			126	89	24	34			
30.....	48	114	117	114			74	151	94	26	32		
31.....	49		115	119		80		90		41	2		
Month						Maximum	Minimum	Mean		Run-off in acre-feet			
October.....						68	4	39.1		2,400			
November.....						119	50	84.6		5,030			
December.....						126		114		7,010			
January.....						132	105	121		7,440			
February.....						174		140		7,780			
March.....						184	16	98.5		6,060			
April.....								150		8,930			
May.....						326	45	172		10,600			
June.....						158	8	72.3		4,300			
July.....						126	0	52.0		3,200			
August.....						78	0	27.5		1,690			
September.....								2.1		125			
The year.....						326	0	89.0		64,600			

• Estimated.

SEVIER RIVER BELOW SAN PITCH RIVER, NEAR GUNNISON, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 14, T. 19 S., R. 1 W., 1,000 feet below mouth of San Pitch River and 3 miles west of Gunnison.

DRAINAGE AREA.—4,880 square miles.

RECORDS AVAILABLE.—October 1917 to September 1933.

DISCHARGE.—Maximum during year, 424 second-feet May 12 (gage height, 2.12 feet); minimum, 14 second-feet Sept. 3, 4.

1917-33: Maximum, 2,620 second-feet June 1, 1922 (gage height, 5.32 feet); minimum, 14 second-feet Sept. 3, 4, 1933. Average, 16 years (1917-33), 248 second-feet.

REMARKS.—Records good except those estimated, which are fair. Most of flow is diverted above station during irrigation season. Flow regulated by operation of reservoirs and numerous irrigation diversions above.

Discharge, in second-feet, 1933-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	94	92	206	-----	-----	° 310	102	215	345	50	121	28
2.....	97	94	206	-----	-----	° 300	106	251	345	58	64	17
3.....	99	94	206	-----	-----	288	114	284	325	67	70	15
4.....	92	102	209	-----	206	278	148	302	298	69	57	19
5.....	92	104	200	-----	-----	251	159	278	269	80	40	28
6.....	94	114	197	-----	-----	236	170	260	275	138	42	29
7.....	97	116	194	188	-----	236	176	254	263	184	55	34
8.....	92	-----	194	-----	-----	248	194	260	225	192	82	34
9.....	78	-----	197	-----	-----	245	236	281	213	198	112	49
10.....	73	-----	200	-----	194	233	239	326	238	216	121	65
11.....	74	° 130	-----	-----	-----	218	230	386	266	259	116	64
12.....	74		-----	-----	-----	203	215	404	266	186	107	39
13.....	73		-----	-----	-----	194	185	368	272	159	121	44
14.....	74		-----	224	-----	156	170	335	279	124	126	30
15.....	74	° 190	-----	-----	-----	121	173	308	279	92	126	29
16.....	73		139	-----	-----	104	170	295	275	55	124	28
17.....	68		156	-----	-----	111	191	282	263	40	94	27
18.....	81		159	-----	-----	119	191	275	234	39	40	26
19.....	90	159	-----	-----	200	116	176	269	213	39	30	34
20.....	85	162	188	-----	-----	116	° 180	295	195	39	34	39
21.....	85	176	-----	-----	-----	132	° 200	295	167	39	48	34
22.....	88	179	° 190	206	-----	156	215	241	143	38	33	29
23.....	92	179		-----	-----	148	239	207	121	35	40	16
24.....	92	° 180		194	-----	134	236	184	62	55	50	24
25.....	92	° 181		-----	-----	126	224	159	54	60	60	32
26.....	92	182	° 195	-----	-----	124	215	128	46	57	64	36
27.....	90	191		-----	212	114	206	128	44	121	60	43
28.....	94	206		-----	-----	106	191	189	44	128	55	52
29.....	97	203		194	-----	102	179	225	44	116	55	46
30.....	97	206	-----	-----	-----	104	179	269	44	101	49	46
31.....	92	-----	200	-----	-----	99	-----	328	-----	64	32	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	99	68	86.6	5,320
November.....	206	92	147	8,750
December.....	-----	-----	195	12,000
January.....	-----	-----	° 200	12,300
February.....	-----	-----	° 200	11,100
March.....	310	99	175	10,800
April.....	239	102	187	11,100
May.....	404	128	267	16,400
June.....	345	44	204	12,100
July.....	259	35	99.9	6,140
August.....	126	30	71.9	4,420
September.....	65	15	34.5	2,050
The year.....	404	15	155	112,000

° Estimated.

SEVIER BRIDGE RESERVOIR NEAR JUAB, UTAH

LOCATION.—Staff gage in NW¼ sec. 1, T. 17 S., R. 2 W., at dam of Consolidated Sevier Bridge Reservoir Co., 13 miles southwest of Juab.

RECORDS AVAILABLE.—January 1914 to September 1933.

REMARKS.—Reservoir capacity, 250,000 acre-feet. Gage-height record and capacity rating table furnished by Consolidated Sevier Bridge Reservoir Co.

Contents, in acre-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	6,190	3,990	13,600	24,400	37,000	48,400	59,500	61,800	50,600	35,200	7,610
2	6,430	4,150	14,000	24,800	37,400	48,900	59,700	61,300	49,900	34,600	7,500
3	6,620	4,530	14,400	25,200	38,000	49,500	59,900	60,800	48,900	34,000	7,300
4	6,760	4,920	14,800	25,600	38,300	50,200	60,200	60,200	48,300	33,100	7,200
5	6,620	5,230	15,200	26,100	38,700	50,800	60,400	60,100	47,700	32,100	7,100
6	6,470	5,540	15,500	26,400	39,000	51,100	60,500	60,100	47,200	31,100	7,000
7	6,380	5,770	15,800	26,800	39,200	51,600	60,600	60,400	46,700	29,900	6,810
8	6,230	6,000	16,100	27,200	39,500	52,100	61,000	60,600	46,300	29,000	6,430
9	6,140	6,280	16,400	27,600	39,900	52,700	61,600	61,300	45,800	28,000	6,050
10	6,000	6,570	16,700	28,100	40,200	53,000	62,100	61,800	45,300	26,500	5,770
11	5,870	6,760	17,000	28,500	40,600	53,400	62,500	62,500	44,800	25,600	5,590
12	5,730	7,100	17,300	28,900	40,900	53,700	62,900	63,200	44,800	24,500	5,270
13	5,590	7,400	17,600	29,200	41,100	53,900	63,500	64,200	44,200	23,600	4,970
14	5,410	7,710	18,000	29,600	41,500	54,200	63,900	64,900	43,200	22,600	4,620
15	5,230	8,060	18,300	30,300	41,800	54,600	63,900	65,400	42,500	21,600	3,950
16	4,700	8,430	18,600	30,600	42,300	55,000	63,600	66,000	41,800	20,700	3,950
17	4,190	8,800	18,900	31,000	42,700	55,300	63,200	66,300	41,100	19,700	3,950
18	3,950	9,170	19,200	31,400	43,200	55,700	62,900	66,400	40,400	18,300	3,700
19	3,300	9,500	19,600	31,900	43,700	56,100	62,700	66,700	39,800	16,600	3,420
20	2,270	9,790	20,000	32,200	44,100	56,500	62,400	65,800	39,300	15,400	3,220
21	1,550	10,100	20,300	32,700	44,600	56,900	62,400	64,900	39,300	14,700	2,840
22	917	10,300	20,600	33,100	45,100	57,200	62,700	64,000	39,300	13,200	2,480
23	1,490	10,700	21,000	33,500	45,500	57,400	62,800	62,900	39,300	12,200	1,960
24	2,130	11,100	21,300	34,000	46,000	57,700	62,900	61,600	39,200	11,200	1,340
25	2,480	11,500	21,700	34,400	46,500	58,000	62,900	60,800	39,100	10,200	45
26	2,840	11,800	22,200	34,900	47,000	58,200	62,900	59,100	38,900	9,620	0
27	3,070	12,200	22,700	35,300	47,500	58,500	62,900	58,000	38,400	9,220	0
28	3,260	12,600	23,000	35,700	47,900	58,700	62,900	56,400	38,000	8,960	0
29	3,420	12,900	23,400	36,100	-----	59,000	62,700	55,000	37,300	8,750	0
30	3,580	13,200	23,700	36,400	-----	59,100	62,200	53,050	36,300	8,540	0
31	3,780	-----	24,100	36,700	-----	59,400	-----	52,000	-----	8,220	0

NOTE.—No storage in September.

SEVIER RIVER NEAR JUAB, UTAH

LOCATION.—Water-stage recorder in NE¼ sec. 2, T. 17 S., R. 2 W., 1,600 feet downstream from Sevier Bridge Dam and 13 miles southwest of Juab.

DRAINAGE AREA.—5,120 square miles.

RECORDS AVAILABLE.—September 1911 to September 1933.

DISCHARGE.—Maximum during year, 1,110 second-feet May 29–31 (gage height, 4.74 feet); minimum, 3 second-feet Oct. 22 to Jan. 31, while gates were closed.

1911–33: Maximum, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet); practically no flow when reservoir gates are closed. Average, 22 years (1911–33), 289 second-feet.

REMARKS.—Records fair. No diversions between this station and that near Gunnison. Flow regulated by gates in Sevier Bridge Dam. Gage-height record furnished by Consolidated Sevier Bridge Reservoir Co.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	a 5							446	894	481	325	57
2.....	a 5							487	711	450	205	48
3.....	a 5							487	655	538	185	a 40
4.....	127							399	608	569	168	34
5.....	162							322	630	569	168	34
6.....	162							178	595	665	168	52
7.....	162						a 5	57	537	746	269	a 45
8.....	162							57	494	838	310	57
9.....	162							28	468	872	310	62
10.....	162							3	441	872	343	68
11.....	160							3	418	872	363	75
12.....	160							3	537	872	355	81
13.....	160							3	638	811	350	62
14.....	160						100	3	638	760	350	57
15.....	237						215	3	638	681	326	52
16.....	302	3	3	3	4	4	215	16	638	614	305	43
17.....	300						215	80	638	761	302	38
18.....	297						295	165	638	886	300	34
19.....	290						360	428	511	876	300	34
20.....	284						292	647	331	654	300	34
21.....	277						167	669	270	676	292	57
22.....	70						109	669	161	711	316	34
23.....							109	711	112	669	354	34
24.....							172	746	150	669	380	34
25.....							225	784	150	541	242	34
26.....		3					225	816	199	377	116	34
27.....							266	846	240	330	a 100	34
28.....							300	872	319	330	94	34
29.....							353	1,000	451	330	a 85	34
30.....							398	1,110	518	330	75	34
31.....								1,110		376	a 65	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	302		124	7,620
November.....			a 3	179
December.....			a 3	184
January.....			a 3	184
February.....			a 4	222
March.....			a 4	246
April.....	398		136	8,090
May.....	1,110	3	424	26,100
June.....	894	112	474	28,200
July.....	886	330	636	39,100
August.....	380	65	252	15,500
September.....	81	34	46	2,740
The year.....	1,110		177	128,000

a Estimated.

EAST FORK OF SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—Water-stage recorder in SW $\frac{1}{4}$ sec. 13, T. 20 S., R. 3 W., 1 mile below highway bridge and 2 miles east of Kingston.

DRAINAGE AREA.—1,260 square miles.

RECORDS AVAILABLE.—April 1914 to September 1933. Records obtained 1½ miles above Rockyford Bridge March 1913 to April 1914; also three-quarters of a mile north of Kingston May to September 1912.

DISCHARGE.—Maximum during year, 282 second-feet May 21 (gage height, 3.90 feet); minimum not recorded.

1913-33: Maximum, about 2,000 second-feet Aug. 26, 1929; minimum, 6 second-feet Oct. 30, 1930 (revised). Average, 20 years (1913-33), 101 second-feet.

REMARKS.—Records fair. Station above all diversions in vicinity of Kingston. Flow regulated at Otter Creek Reservoir, 8 miles above.

Discharge, in second-feet, 1930-33

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31											
1.....	193	18	-----	15	13	14	115	122	108	125	46
2.....	186	19	-----		13	14	118	122	112	122	45
3.....	177	19	-----		13	14	125	112	112	118	44
4.....	168	21	-----		12	14	122	118	112	112	42
5.....	162	26	-----		12	14	120	122	108	112	40
6.....	156	26	-----		12	15	120	120	105	110	39
7.....	147	26	-----		14	15	122	120	102	108	38
8.....	139	26	-----		11	15	125	120	102	105	36
9.....	125	26	-----		12	15	128	118	102	108	37
10.....	120	26	-----		12	15	128	118	105	108	35
11.....	120	26	-----		13	15	128	118	108	108	35
12.....	112	26	-----		14	16	128	118	108	108	32
13.....	108	26	-----		14	16	125	112	112	110	30
14.....	102	27	-----		15	16	122	105	118	110	29
15.....	66	27	-----		15	16	120	118	118	110	30
16.....	26	27	20	13	15	16	122	115	112	100	29
17.....	24			13	15	16	120	112	112	92	29
18.....	21			13	15	18	118	112	112	83	27
19.....	20			12	16	24	118	108	112	75	26
20.....	20		-----	12	16	21	120	108	108	68	26
21.....	18		-----	12	16	21	125	108	118	61	26
22.....	15		-----	11	16	40	128	108	150	55	26
23.....	12	25	-----	11	16	125	125	110	142	53	25
24.....	10		-----	13	16	125	122	112	131	50	26
25.....	9		-----	12	15	125	122	112	128	50	26
26.....	8		-----	12	14	122	122	112	125	50	26
27.....	8		-----	12	14	122	128	112	125	50	28
28.....	8		-----	12	14	122	128	112	136	50	29
29.....	7		-----		14	120	128	112	131	48	28
30.....	7		-----		14	120	122	112	128	48	28
31.....	12		-----		14	-----	120	-----	131	48	-----

*Discharge, in second-feet, of East Fork of Sevier River near Kingston, Utah,
1930-33—Continued*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1931-32												
1.....	29	19	-----	-----	-----	24	18	128	209	189	47	202
2.....	20	19	-----	-----	-----	26	18	131	209	186	45	264
3.....	16	19	-----	-----	-----	26	19	133	209	180	45	256
4.....	12	21	-----	-----	-----	24	22	136	202	180	45	249
5.....	12	21	-----	-----	-----	25	23	150	196	177	45	242
6.....	12	21	-----	-----	-----	24	23	147	209	174	46	235
7.....	15	21	-----	-----	19	24	22	205	212	171	46	232
8.....	15	21	-----	-----	-----	25	21	209	209	168	46	229
9.....	14	21	-----	-----	-----	25	21	212	205	168	48	225
10.....	14	21	-----	-----	-----	24	21	215	196	168	48	215
11.....	15	22	-----	-----	-----	24	21	222	196	171	49	196
12.....	15	22	-----	-----	-----	24	21	222	202	193	47	186
13.....	15	22	-----	-----	-----	24	21	222	196	193	43	180
14.....	15	19	-----	-----	-----	24	20	199	193	183	45	174
15.....	15	20	-----	-----	20	24	20	212	189	183	45	168
16.....	15	21	18	-----	-----	24	20	242	189	183	47	156
17.....	15	21	-----	19	-----	24	21	253	183	165	47	122
18.....	16	21	-----	-----	-----	24	24	253	180	159	54	115
19.....	16	21	-----	-----	-----	24	22	271	171	156	196	87
20.....	16	-----	-----	-----	-----	25	24	279	165	108	196	16
21.....	16	-----	-----	-----	20	23	24	264	165	63	229	13
22.....	16	-----	-----	-----	-----	25	122	253	168	57	413	13
23.....	16	-----	-----	-----	-----	24	118	229	171	54	368	13
24.....	17	-----	-----	-----	-----	27	115	215	174	48	232	13
25.....	17	20	-----	-----	-----	27	118	215	180	46	222	13
26.....	17	-----	-----	18	-----	26	120	212	193	47	218	12
27.....	17	-----	-----	-----	-----	23	120	209	189	48	253	12
28.....	17	-----	-----	-----	18	20	122	209	193	47	286	12
29.....	17	-----	-----	-----	-----	20	122	205	193	47	347	12
30.....	18	-----	-----	-----	-----	20	125	202	193	47	239	12
31.....	18	-----	-----	-----	-----	18	-----	209	-----	47	205	-----

Day	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1932-33									
1.....	11	18	14	• 20	108	136	102	199	25
2.....	11	21	15	• 25	105	125	100	193	25
3.....	13	22	16	30	105	118	98	180	27
4.....	12	22	15	47	105	112	100	162	26
5.....	11	18	15	47	105	110	100	153	25
6.....	11	13	13	75	108	115	122	153	24
7.....	13	12	11	77	110	115	215	162	25
8.....	13	12	12	83	118	108	215	156	26
9.....	12	12	15	83	120	110	215	142	31
10.....	11	13	18	87	120	102	218	131	31
11.....	12	13	-----	87	120	94	218	122	31
12.....	22	16	-----	92	118	94	218	112	30
13.....	25	13	-----	94	115	96	218	102	31
14.....	25	13	-----	100	112	98	• 218	94	32
15.....	19	13	-----	105	110	98	• 218	85	30
16.....	22	12	-----	105	110	98	218	79	28
17.....	24	13	-----	110	108	98	218	72	27
18.....	24	13	-----	115	108	102	205	66	25
19.....	25	12	-----	118	112	105	196	61	25
20.....	23	12	-----	125	159	105	196	57	24
21.....	21	12	• 15	131	229	110	202	58	24
22.....	18	13	-----	128	150	115	196	55	24
23.....	18	16	-----	128	122	115	193	48	23
24.....	16	15	-----	125	115	• 114	193	44	20
25.....	15	13	-----	122	122	• 113	196	39	• 20
26.....	16	13	-----	122	156	112	196	34	• 20
27.....	16	13	-----	120	189	112	196	32	20
28.....	16	12	-----	118	189	110	205	30	• 20
29.....	17	12	-----	115	156	105	209	27	• 20
30.....	17	12	-----	110	150	102	205	25	• 20
31.....	17	-----	-----	-----	139	-----	205	25	-----

• Estimated.

*Discharge, in second-feet, of East Fork of Sevier River near Kingston, Utah,
1930-33—Continued*

Month	Maximum	Minimum	Mean	Run-off in acre-feet
1930-31				
October.....	193	7	74.4	4,570
November.....		18	24.7	1,470
December.....			^a 20	1,230
January.....			^a 17	1,050
February.....		11	13.5	750
March.....	16	11	14	861
April.....	125	14	45.4	2,700
May.....	128	115	123	7,560
June.....	122	105	114	6,780
July.....	150	102	117	7,190
August.....	125	48	85.6	5,260
September.....	46	25	32.1	1,910
The year.....	193	7	57.1	41,300
1931-32				
October.....	29	12	16.1	990
November.....	22		20.4	1,210
December.....			^a 18	1,110
January.....			^a 18	1,110
February.....			^a 19	1,090
March.....	27	18	23.9	1,470
April.....	125	18	50.9	3,030
May.....	279	128	208	12,800
June.....	212	165	191	11,400
July.....	193	46	129	7,930
August.....	413	43	137	8,420
September.....	264	12	129	7,680
The year.....	413	12	80.3	58,200
1932-33				
October.....	25	11	17.0	1,050
November.....	22	12	14.1	839
December.....			14.8	910
January.....			^a 18	1,110
February.....			^a 15	833
March.....			^a 15	922
April.....	131		94.8	5,640
May.....	229	105	129	7,930
June.....	136	94	108	6,430
July.....	218	98	187	11,500
August.....	199	25	93.5	5,750
September.....	32	20	25.3	1,510
The year.....	229	11	61.4	44,400

^a Estimated.

NOTE.—Records for 1930-32 supersede those published in Water-Supply Papers 720 and 735.

ROCKYFORD CANAL NEAR VERMILION, UTAH

LOCATION.—Water-stage recorder in sec. 19, T. 22 S., R. 1 W., 300 feet below head of canal and 2 miles northeast of Vermilion.

RECORDS AVAILABLE.—July 1914 to September 1933.

DISCHARGE.—Average, 19 years (1914–33), 45.7 second-feet.

REMARKS.—Records fair. Discharge estimated Dec. 15 to Mar. 13. Gage is a short distance below wasteway which returns surplus water to Sevier River. Flow regulated by head gates and wasteway. This canal diverts from Rockyford Reservoir on Sevier River at Vermilion. Water used for irrigation north of Vermilion. Record of daily discharge Apr. 1 to Sept. 30 furnished by Sevier River water commissioner.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	30	25	25		4	27	77	44	85	46
2.....	30	24	25		4	21	77	44	82	47
3.....	30	20	25		9	11	70	44	72	53
4.....	30	20	25		13	7	56	11	58	55
5.....	29	21	25		13	6	53	27	50	64
6.....	29	24	25		14	5	55	55	41	60
7.....	39	24	25	4	18	4	49	57	38	49
8.....	63	24	30		21	4	39	55	5	52
9.....	62	24	32		18	4	36	52	5	46
10.....	64	24	29		15	4	36	41	32	41
11.....	64	24	21		18	3	34	38	33	32
12.....	65	24	21		21	2	32	16	30	20
13.....	68	24	21		21	1	32	13	30	18
14.....	70	24	21	13	22	1	32	50	48	18
15.....	73	24		14	23	1	41	75	75	18
16.....	44	24		14	22	1	38	93	75	18
17.....	23	24		15	35	0	47	76	75	18
18.....	23	24		15	49	0	53	55	73	37
19.....	23	24		16	58	0	63	61	81	51
20.....	22	24		12	49	18	69	73	84	58
21.....	22	24		9	20	36	60	90	72	63
22.....	22	24		6	12	44	54	90	56	62
23.....	24	24	3		12	58	64	90	50	62
24.....	26	24			25	66	67	68	57	63
25.....	25	24			40	66	54	49	75	63
26.....	25	24		5	43	66	46	38	77	57
27.....	25	24			43	66	46	38	67	47
28.....	25	24			43	66	46	38	32	46
29.....	25	25			45	66	56	50	49	46
30.....	24	25		4	35	66	56	58	49	46
31.....	25			4		70		66	45	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	73	22	37.1	2,280
November.....	25	20	23.7	1,410
December.....	32		12.9	793
January.....			3	184
February.....			3	167
March.....	16		6.74	414
April.....	58	4	25.5	1,520
May.....	70	0	25.5	1,570
June.....	77	32	51.3	3,050
July.....	93	13	53.4	3,280
August.....	85	5	55.5	3,410
September.....	64	18	45.2	2,690
The year.....	93	0	28.7	20,800

BEAVER RIVER BASIN

BEAVER RIVER NEAR BEAVER, UTAH

LOCATION.—Water-stage recorder in SE¼ sec. 18, T. 29 S., R. 6 W., a quarter of a mile above city diversion dam at mouth of canyon and 4½ miles east of Beaver.

DRAINAGE AREA.—82 square miles.

RECORDS AVAILABLE.—June to September 1906; March 1914 to September 1933.

DISCHARGE.—Maximum during year, 542 second-feet June 1 (gage height, 5.85 feet); minimum not recorded.

1914-33: Maximum, 785 second-feet May 25, 1922 (gage height, 6.31 feet); minimum, about 5 second-feet Aug. 29, 1931 (gage height, 3.19 feet). Average, 19 years (1914-33), 56.2 second-feet.

REMARKS.—Records good except those estimated, which are fair. No irrigation diversions above station. Water diverted by Beaver River Power Co. but returned to stream several miles above. Flow slightly regulated by operation of power plants and storage in Kents Lake.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	22	21			13		24	409	86	° 33	22
2	24	21	17			13		27	393	81	34	22
3	21	22	19		° 16	14		26	362	77	33	25
4	22	17	19			15		24	320	77	31	25
5	21	18	19			15	° 18	31	338	° 77	31	25
6	21	21	18			19		27	312	77	30	26
7	21	22	24	° 25		17		26	283	77	31	25
8	22	18	24			16		28	312	78	31	33
9	22	20	24			16	18	29	350	66	29	30
10	22	20	16			16		25	326		28	24
11	23	16				16		27	303	° 58	29	22
12	22	18				17	° 22	26	281		29	20
13	22	19						27	243		26	22
14	22	19						27	227	49	27	24
15	20	17						32	214	46	29	24
16	21	19				° 15	31	31	200	57	31	24
17	23	19						45	190	63	27	24
18	23	20						54	173	46	37	24
19	26	17				13		78	152	44	36	22
20	26	17				13	° 22	108	135	48	36	22
21	28	18	° 20			13		129	127	45	42	24
22	24	18				107		118	118	° 42	33	24
23	27	16				14	18	84	108	40	30	22
24	24	17				14	° 20	90	103	38	31	22
25	19	17				14	22	120	108	37	31	22
26	19	20				16	22	162	100	35	31	19
27	22	19					25	202	93	35	31	19
28	19	17					32	235	° 91	36	29	20
29	19	17				° 17	31	262	° 89	38	27	20
30	18	18					27	303	° 87	38	26	21
31	17					18		362		33	27	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	28	17	22.1	1,360
November	22	16	18.6	1,110
December			20.0	1,230
January			° 25	1,540
February			° 18	1,000
March	19		15.2	935
April	32		21.8	1,300
May	362	24	89.6	5,510
June	409	87	218	13,000
July	86	33	54.8	3,370
August	42	26	30.8	1,890
September	33	19	23.3	1,390
The year	409		46.4	33,600

° Estimated.

° Discharge measurement.

BEAVER RIVER AT ADAMSVILLE, UTAH

LOCATION.—Water-stage recorder in $S\frac{1}{2}$ sec. 30, T. 29 S., R. 8 W., 100 yards below highway bridge on road from Milford to Beaver, a quarter of a mile above mouth of Indian Creek, and three-quarters of a mile south of Adamsville.

DRAINAGE AREA.—272 square miles.

RECORDS AVAILABLE.—December 1913 to September 1933.

DISCHARGE.—Maximum during year, 234 second-feet June 1 (gage height, 3.12 feet); minimum, 1 second-foot Apr. 26–28.

1913–33: Maximum, 796 second-feet May 23, 1920 (gage height, 4.85 feet); no flow during periods in 1924, 1931. Average, 19 years (1914–33), 37.9 second-feet.

REMARKS.—Records fair. Discharge estimated Dec. 13 to Jan. 12, Jan. 23 to Mar. 1. No diversions between station and storage reservoir of Beaver County Irrigation Co. Several ditches above station supply Adamsville and Beaver districts. Flow practically all diverted during irrigation season.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	11	29	48	40	-----	50	41	6	165	3	6	6
2.....	12	40	48		-----	52	35	5	175	3	6	6
3.....	11	39	45		22	49	29	6	133	4	6	6
4.....	11	38	45		-----	41	29	8	96	4	5	6
5.....	11	40	44		-----	34	26	4	83	5	4	6
6.....	10	41	41	40	-----	37	23	4	96	12	4	6
7.....	10	42	39		-----	40	24	4	65	16	3	6
8.....	10	42	38		-----	43	23	14	69	11	4	5
9.....	11	43	41		-----	45	23	17	106	8	10	4
10.....	11	41	39		-----	43	24	12	109	8	9	4
11.....	11	41	46	37	-----	41	24	11	83	9	8	4
12.....	13	37	38		-----	42	21	12	58	13	6	3
13.....	12	40	-----		37	38	13	10	45	13	7	4
14.....	11	42	-----		42	37	7	7	32	14	7	6
15.....	11	41	-----		38	36	5	6	26	13	7	5
16.....	10	42	-----	42	-----	33	5	6	20	16	6	4
17.....	9	44	-----	43	-----	36	4	6	12	24	6	4
18.....	12	43	-----	45	-----	37	2	4	8	16	8	4
19.....	18	42	-----	43	-----	42	3	3	6	14	8	4
20.....	16	42	-----	37	-----	48	3	3	6	11	8	4
21.....	16	42	38	39	-----	53	3	2	6	13	8	4
22.....	16	43		37	-----	44	4	3	6	13	8	4
23.....	18	42		-----	-----	48	3	4	6	11	8	4
24.....	20	42		-----	-----	44	2	4	6	10	8	5
25.....	20	43		-----	-----	41	2	5	6	10	8	5
26.....	21	44	35	35	-----	41	1	11	6	9	8	4
27.....	22	45			-----	41	1	22	4	9	8	4
28.....	23	46			-----	42	1	33	4	7	8	4
29.....	25	42			-----	42	6	40	4	6	8	4
30.....	26	42			-----	42	10	83	4	6	7	4
31.....	26	-----	-----	-----	-----	42	-----	81	-----	6	7	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	26	9	15.0	922
November.....	46	29	41.3	2,460
December.....	48	-----	39.8	2,450
January.....	-----	-----	38.6	2,370
February.....	-----	-----	35	1,940
March.....	53	33	42.1	2,590
April.....	41	1	13.2	786
May.....	83	2	14.4	885
June.....	175	4	48.2	2,870
July.....	24	3	10.2	627
August.....	10	3	6.9	424
September.....	6	3	4.6	276
The year.....	175	1	25.7	18,600

BEAVER RIVER AT ROCKYFORD DAM, NEAR MINERSVILLE, UTAH

LOCATION.—Staff gage in NW¼ sec. 11, T. 30 S., R. 9 W., half a mile below Rockyford Dam and 4 miles east of Minersville.

DRAINAGE AREA.—512 square miles.

RECORDS AVAILABLE.—December 1913 to September 1933.

DISCHARGE.—Maximum during year, 121 second-feet May 24 and 25 (gage height, 1.67 feet); minimum, 4 second-feet Oct. 18-31.

1913-33: Maximum, 727 second-feet June 10, 1921 (gage height, 3.53 feet); minimum (estimated), 0.3 second-foot Mar. 19, 20, 1914. Average, 19 years (1914-33), 40.5 second-feet.

REMARKS.—Records good. Gage read about once weekly, also read before and after every change in gate openings; discharge interpolated for intervening days. No diversions between dam and gage. Flow regulated by operation of gages at Rockyford Dam. Gage-height record furnished by Beaver County Irrigation Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	9	5	5	6	7	7	10	26	80	71	41	44
2.....	8	5	5	6	7	7	10	37	67	71	41	31
3.....	7	5	5	6	7	7	10	20	55	58	41	31
4.....	7	5	5	6	7	7	10	10	52	41	41	31
5.....	7	5	5	6	7	7	10	10	52	41	46	30
6.....	7	5	5	6	7	7	10	10	46	67	48	30
7.....	7	5	5	6	7	7	10	10	44	76	48	30
8.....	7	5	5	6	7	7	10	10	44	76	48	30
9.....	7	5	5	6	7	7	10	10	44	76	48	31
10.....	7	5	5	6	7	7	10	10	44	76	48	31
11.....	7	5	5	6	7	7	10	10	44	76	48	31
12.....	7	5	5	6	7	7	10	10	56	82	48	31
13.....	7	5	5	6	7	7	10	10	60	92	48	24
14.....	7	5	5	6	7	7	10	10	60	96	53	13
15.....	7	5	5	6	7	7	10	19	40	107	75	13
16.....	7	5	5	6	7	7	10	42	36	107	78	13
17.....	6	5	5	6	7	7	24	61	43	107	78	13
18.....	4	5	5	6	7	7	13	65	65	107	78	13
19.....	4	5	5	6	7	7	10	100	65	107	78	13
20.....	4	5	5	6	7	7	10	117	65	106	78	13
21.....	4	5	5	6	7	7	10	117	65	103	78	13
22.....		5	5	6	7	7	10	117	65	101	64	13
23.....	4	5	5	6	7	7	10	117	65	98	48	12
24.....	4	5	5	6	7	7	10	116	65	67	48	12
25.....	4	5	5	6	7	7	29	118	66	58	48	12
26.....	4	5	5	6	7	7	36	98	71	58	48	12
27.....	4	5	5	6	7	7	36	98	71	45	48	12
28.....	4	5	5	6	7	7	36	82	71	41	48	12
29.....	4	5	5	6		7	36	86	71	41	48	12
30.....	4	5	5	6		7	21	86	71	41	48	13
31.....	4		5	6		7		86		41	48	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	9	4	5.7	350
November.....	5	5	5.0	298
December.....	5	5	5.0	307
January.....	6	6	6.0	369
February.....	7	7	7.0	389
March.....	7	7	7.0	430
April.....	36	10	15.0	893
May.....	118	10	55.4	3,410
June.....	80	36	58.1	3,460
July.....	107	41	75.1	4,620
August.....	78	41	54.4	3,340
September.....	44	12	20.6	1,230
The year.....	118	4	26.4	19,100

SALTON SINK BASIN

SALTON SEA, CALIF.¹

LOCATION.—Bench mark set by Imperial Irrigation District in NW¼ sec. 27, T. 8. S., R. 9 E., 1 mile northeast of Fig Tree John Spring and about 9 miles south of Mecca.

RECORDS AVAILABLE.—November 1904 to September 1933; revision 1904-32 published in Water-Supply Paper 735.

EXTREMES.—Maximum stage, 195.0 feet below sea level in February and March 1907; minimum (since 1906), 250.7 feet below sea level in November 1924; bottom of Sea (from 1904-5 determinations) is 273.5 feet below sea level.

REMARKS.—See Water-Supply Paper 735 for condensed history of Salton Sea and all records to 1932. Area of water surface is 266 square miles when Sea is at elevation 250 feet below sea level; and 328 square miles when at elevation 240 feet below sea level. Elevations in the following table, furnished by Imperial Irrigation District, were determined directly by leveling from the bench mark.

Elevation, in feet, below mean sea level, 1932-33

Oct. 1, 1932.....	244.8	Mar. 1, 1933.....	243.5	July 1, 1933.....	243.7
Nov. 1, 1932.....	244.5	Apr. 1, 1933.....	243.3	Aug. 1, 1933.....	244.0
Dec. 1, 1932.....	244.3	May 1, 1933.....	243.3	Sept. 1, 1933.....	244.8
Jan. 1, 1933.....	244.0	June 1, 1933.....	243.5	Oct. 1, 1933.....	245.4
Feb. 1, 1933.....	243.6				

¹ Formerly published as Salton Sea near Salton, Calif.

SOUTHERN PACIFIC CO.'S DITCH NEAR WHITEWATER, CALIF.

LOCATION.—Water-stage recorder in NW¼ sec. 33, T. 3 S., R. 3 E., 200 feet below intake and 3½ miles southwest of Whitewater. Altitude, about 1,900 feet.

RECORDS AVAILABLE.—July 1921 to September 1927; October 1929 to September 1930; October 1931 to September 1933.

REMARKS.—Ditch diverts all low-water flow of Snow Creek. No record available for Snow Creek for 1932 or 1933. Record of daily discharge furnished by Southern Sierras Power Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	7.1	5.0	5.1	5.3	5.9	5.7	7.1	9.1	14.6	5.5	4.2	3.4
2.....	6.3	5.0	5.1	5.2	5.8	5.7	7.9	9.3	13.9	5.5	4.2	3.6
3.....	5.7	5.0	5.1	5.2	5.7	5.8	8.5	9.1	12.5	5.6	4.0	3.6
4.....	5.3	5.0	5.1	5.2	5.5	5.9	9.3	8.9	9.7	5.3	4.0	3.6
5.....	5.3	5.0	5.1	5.2	5.5	5.9	9.1	9.5	9.5	5.5	4.0	3.4
6.....	5.1	5.0	5.1	5.1	5.5	5.7	8.3	9.3	9.1	5.5	4.0	3.4
7.....	5.1	5.0	5.1	5.1	5.5	6.1	8.1	9.5	9.1	5.3	4.0	3.4
8.....	5.3	5.0	5.1	5.1	5.3	6.5	7.9	10.3	9.3	5.3	4.2	3.4
9.....	11.7	5.0	5.3	5.2	5.3	6.9	7.5	9.5	9.3	5.1	4.2	3.4
10.....	8.9	4.8	5.5	5.4	5.3	6.9	7.3	10.1	9.1	5.1	4.2	3.3
11.....	6.5	4.8	5.5	5.3	5.2	6.9	6.9	9.7	9.3	5.1	4.4	3.3
12.....	5.7	4.8	6.5	5.2	5.5	6.9	6.9	9.3	9.3	5.1	4.2	3.3
13.....	5.5	4.0	5.9	5.1	5.5	6.7	6.9	9.1	9.3	5.1	4.2	3.3
14.....	5.1	4.0	5.5	5.1	5.5	6.5	6.9	8.7	9.1	5.1	4.4	3.2
15.....	5.3	3.8	5.5	5.2	5.4	6.3	7.1	8.7	9.1	5.1	4.4	3.2
16.....	5.3	3.8	5.5	5.3	5.4	6.3	7.9	8.9	9.1	5.1	4.4	3.2
17.....	5.1	3.8	5.7	7.1	5.7	6.7	7.9	9.3	8.7	5.1	4.2	3.2
18.....	5.1	4.0	5.7	5.9	5.6	6.7	7.9	9.5	8.3	5.0	4.0	3.2
19.....	5.1	4.0	5.5	5.9	5.5	6.5	7.5	9.5	8.1	5.0	4.0	3.2
20.....	5.1	5.0	5.7	7.3	5.4	6.5	7.5	9.5	7.5	5.0	4.0	3.2
21.....	5.1	5.0	5.9	6.4	5.4	6.7	7.3	10.3	7.3	4.8	4.0	3.2
22.....	5.1	5.0	5.9	6.0	5.4	6.7	7.3	11.9	7.1	4.8	4.0	3.2
23.....	5.1	4.8	5.9	6.5	5.4	6.5	7.5	11.2	6.9	4.6	4.0	3.2
24.....	5.1	4.8	6.1	6.0	5.5	6.3	7.9	11.0	6.7	4.4	3.8	3.4
25.....	5.1	4.8	5.7	5.9	5.5	6.1	8.7	11.2	6.3	4.6	3.8	3.4
26.....	5.1	4.8	5.5	5.9	5.5	5.9	8.9	11.4	6.1	4.4	3.8	3.4
27.....	5.1	5.1	5.5	5.7	5.5	5.9	8.7	12.1	6.1	4.6	3.6	3.4
28.....	5.1	5.1	5.5	5.7	5.5	6.1	9.1	12.5	5.9	4.6	3.6	3.4
29.....	5.1	5.1	5.3	5.9	-----	6.3	9.5	12.5	5.8	4.6	3.6	3.4
30.....	5.0	5.1	5.3	6.2	-----	6.3	9.9	13.6	5.7	4.6	3.6	3.4
31.....	5.0	-----	5.3	5.9	-----	6.5	-----	15.0	-----	4.4	3.4	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	11.7	5.0	5.66	348
November.....	5.1	3.8	4.71	280
December.....	6.5	5.1	5.50	338
January.....	7.3	5.1	5.66	348
February.....	5.9	5.2	5.49	305
March.....	6.9	5.7	6.34	390
April.....	9.9	6.9	7.97	474
May.....	15.0	8.7	10.3	633
June.....	14.6	5.7	8.59	511
July.....	5.5	4.4	4.99	307
August.....	4.4	3.4	4.01	247
September.....	3.6	3.2	3.34	199
The year.....	15.0	3.2	6.05	4,380

• Estimated.

PALM CANYON CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.—Water-stage recorder in $S\frac{1}{2}$ sec. 11, T. 5 S., R. 4 E., three-quarters of a mile above Murray Canyon Creek and 6 miles south of Palm Springs. Altitude, about 800 feet.

DRAINAGE AREA.—94.0 square miles.

RECORDS AVAILABLE.—January 1930 to September 1933.

DISCHARGE.—Maximum during year, 514 second-feet Oct. 9 (gage height, 2.17 feet); no flow for several months.

1930-33: Maximum, 1,870 second-feet Feb. 9, 1932; stream dry for several months each year.

REMARKS.—Records fair. Discharge estimated Feb. 26 to Mar. 1.

Discharge, in second-feet, 1932-33

Day	Oct.	Dec.	Jan.	Feb.	Mar.	Apr.	May
1.....	0	0	1.2	5.5	2.4	1.2	1.0
2.....	0	0	1.1	5.5	2.4	1.2	.9
3.....	0	0	1.1	5.5	2.4	1.5	.9
4.....	0	0	1.2	5	2.4	1.6	.6
5.....	0	0	.9	4.8	2.4	1.5	.6
6.....	0	0	.9	4.5	2.4	1.5	.6
7.....	0	0	.9	4.2	2.4	1.4	.6
8.....	0	0	1.0	4.2	2.4	1.2	.5
9.....	82	0	1.1	4.2	2.4	1.1	.5
10.....	23	1.3	1.1	3.9	2.6	1.0	1.0
11.....	.2	3.0	1.1	3.6	2.6	1.0	1.1
12.....	.1	4.2	1.2	3.6	2.6	1.0	1.0
13.....	0	3.9	1.0	3.6	2.6	.9	.9
14.....	0	3.6	1.0	3.6	2.6	.8	.6
15.....	0	2.9	1.0	3.3	2.4	.8	.4
16.....	0	2.7	1.1	3.0	2.4	.6	.4
17.....	0	2.6	1.1	3.0	2.6	.9	.4
18.....	0	2.3	5.5	3.0	2.6	1.0	.3
19.....	0	2.0	5	3.0	2.6	1.1	.3
20.....	0	1.7	7.5	3.0	2.4	1.0	.2
21.....	0	1.5	6	3.0	2.3	1.0	.2
22.....	0	1.7	5.5	3.0	2.2	.9	.5
23.....	0	1.5	7.5	3.0	2.2	.6	.3
24.....	0	1.5	6.5	3.0	2.0	.4	.1
25.....	0	1.4	5	3.0	1.9	.4	0
26.....	0	1.4	5.5	2.8	1.7	.5	0
27.....	0	1.2	5	2.8	1.6	.6	0
28.....	0	1.2	5	2.6	1.5	.9	0
29.....	0	1.2	5	-----	1.5	1.1	0
30.....	0	1.2	6	-----	1.5	1.5	0
31.....	0	1.2	5.5	-----	1.4	-----	0
Month	Maximum		Minimum		Mean		Run-off in acre-feet
October.....	82		0		3.40		209
December.....	4.2		0		1.46		89.8
January.....	11		.9		3.50		215
February.....	5.5		2.6		3.69		205
March.....	2.6		1.4		2.24		136
April.....	1.6		.4		1.01		60.1
May.....	1.1		0		.45		27.5
The year.....	82		0		1.80		944

NOTE.—No flow during months omitted.

MOJAVE RIVER BASIN

DEEP CREEK NEAR HESPERIA, CALIF.

LOCATION.—Water-stage recorder in SE¼ sec. 18, T. 3 N., R. 3 W., half a mile above junction with West Fork of Mojave River and 8 miles southeast of Hesperia. Altitude, about 3,050 feet.

DRAINAGE AREA.—137 square miles.

RECORDS AVAILABLE.—December 1929 to September 1933.

DISCHARGE.—Maximum during year, 168 second-feet Apr. 4 (gage height, 2.52 feet); minimum, 0.1 second-foot July 12–26, July 30 to Aug. 8, Aug. 19 to Sept. 30.

1929–33: Maximum, 7,900 second-feet Feb. 9; 1932 (gage height, 11.30 feet); minimum, 0.1 second-foot Sept. 7–9, 13–15, 1932, and July 12–26, July 30 to Aug. 8, Aug. 19 to Sept. 30, 1933.

REMARKS.—Record good. Discharge estimated June 21 to July 4, Sept. 26–30. Hesperia Water Co.'s canal diverts about 2 miles above station.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	4.6	6	12	18	66	96	42	16	1.0	0.1	0.1
2	11	3.8	6	11	18	73	115	35	15	.9	.1	.1
3	3.7	3.8	6	12	18	79	126	32	14	.8	.1	.1
4	3.4	4.3	6	12	18	79	126	29	14	.8	.1	.1
5	1.9	4.6	6	12	18	73	120	27	14	.7	.1	.1
6	1.1	4.8	6	12	19	65	93	27	20	.8	.1	.1
7	1.0	4.9	6	12	22	84	80	26	20	.7	.1	.1
8	.9	4.8	6	13	20	108	67	26	17	.7	.1	.1
9	1.1	4.8	8.5	14	20	109	66	24	13	.6	.2	.1
10	3.0	4.9	12	15	20	113	56	26	11	.6	.2	.1
11	5.8	4.9	10	14	21	109	50	28	10	.2	.2	.1
12	3.4	5	13	13	24	102	46	27	8.5	.1	.2	.1
13	1.5	5	20	14	28	94	46	29	7.5	.1	.2	.1
14	1.6	5	16	14	26	80	46	30	7	.1	.1	.1
15	2.1	4.9	18	14	26	82	46	28	6	.1	.2	.1
16	2.1	4.9	14	16	32	80	46	26	5.5	.1	.2	.1
17	2.2	5	12	20	39	84	44	24	3.8	.1	.3	.1
18	1.8	5	11	15	39	91	39	26	3.1	.1	.2	.1
19	2.6	6	11	20	34	84	36	25	2.9	.1	.1	.1
20	3.7	6	10	24	31	76	33	24	2.4	.1	.1	.1
21	4.0	6.5	10	29	33	96	33	22	2.0	.1	.1	.1
22	4.3	7.5	12	33	37	94	33	24	1.9	.1	.1	.1
23	4.3	5.5	12	26	45	82	30	27	1.6	.1	.1	.1
24	3.6	5.5	14	22	50	60	33	26	1.5	.1	.1	.1
25	2.7	5.5	11	26	35	54	36	24	1.4	.1	.1	.1
26	2.6	5.5	11	26	31	58	33	22	1.3	.1	.1	.1
27	2.9	5.5	11	26	37	65	31	21	1.2	.2	.1	.1
28	3.1	5.5	11	22	54	85	34	20	1.1	.2	.1	.1
29	3.0	5.5	10	19	88	37	37	19	1.1	.2	.1	.1
30	3.4	6	11	20	84	49	18	18	1.0	.1	.1	.1
31	4.8		11	17	86			17		.1	.1	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	11	0.9	3.04	187
November	7.5	3.8	5.18	308
December	20	6	10.6	652
January	33	11	17.9	1,100
February	54	18	27.0	1,610
March	113	54	83.3	5,120
April	126	30	57.5	3,420
May	42	17	25.8	1,590
June	20	1.0	7.49	446
July	1.0	.1	.32	19.9
August	.3	.1	.13	8.1
September	.1	.1	.10	6.0
The year	126	.1	27.0	14,500

MOJAVE RIVER AT VICTORVILLE, CALIF.

LOCATION.—Water-stage recorder in NW¼SE¼ sec. 10, T. 5 N., R. 4 W., 500 feet above Bear Valley highway at Victorville.

RECORDS AVAILABLE.—November 1930 to September 1933.

DISCHARGE.—Maximum during the year, about 200 second-feet Oct. 1 (gage height, 1.70 feet); minimum, 15 second-feet Aug. 4 (gage height, 0.86 foot). 1930-33: Maximum, 12,500 second-feet Feb. 9, 1932; minimum 15 second-feet Aug. 13, 1932, Aug. 4, 1933.

REMARKS.—Records fair. Discharge estimated Oct. 1-3, Sept. 18-24. Slight regulation by storage in Lake Arrowhead.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	50	33	40	45	41	40	44	34	28	20	18	22
2.....	36	33	40	45	44	38	42	32	29	21	18	22
3.....	35	33	41	44	47	40	40	33	31	20	16	24
4.....	33	33	42	41	45	38	33	36	31	20	16	22
5.....	33	34	42	42	45	38	29	32	28	23	17	22
6.....	33	36	42	44	45	38	32	32	29	26	17	23
7.....	32	34	38	47	44	42	37	32	29	24	16	23
8.....	31	34	40	45	44	38	37	34	27	24	19	20
9.....	27	36	41	45	42	37	36	34	26	24	21	20
10.....	23	33	42	47	41	36	36	34	26	23	23	22
11.....	24	33	41	44	41	37	36	38	26	23	22	22
12.....	23	33	41	41	38	42	36	40	27	24	22	22
13.....	24	34	42	40	44	42	36	34	27	24	21	22
14.....	24	32	41	40	41	41	36	36	27	24	20	23
15.....	23	34	41	41	42	41	36	34	27	26	19	27
16.....	24	38	42	47	45	44	34	31	26	26	20	27
17.....	23	40	41	65	47	44	34	33	24	23	21	27
18.....	22	37	44	51	44	44	34	32	24	22	19	28
19.....	24	37	44	50	42	42	32	31	24	24	19	30
20.....	27	41	41	57	38	41	34	31	26	26	20	32
21.....	29	38	40	56	38	44	34	31	24	24	20	31
22.....	27	37	41	54	41	38	34	32	23	21	20	31
23.....	32	34	41	54	42	37	36	31	23	18	20	28
24.....	36	37	40	54	42	36	36	31	22	18	20	26
25.....	34	41	38	52	42	34	37	32	22	21	19	26
26.....	34	40	37	51	44	33	37	33	23	21	20	25
27.....	33	40	38	50	41	36	38	33	20	21	21	25
28.....	33	38	41	50	44	36	40	31	20	21	20	24
29.....	31	36	41	45		36	37	32	20	22	19	24
30.....	33	41	42	44		36	34	32	19	21	22	24
31.....	36		47	41		41		28		20		
Month	Maximum					Minimum			Mean		Run-off in acre-feet	
October.....	50					22			30.0		1,840	
November.....	41					32			36.0		2,140	
December.....	47					37			41.0		2,520	
January.....	65					40			47.5		2,920	
February.....	47					38			42.6		2,370	
March.....	44					33			39.0		2,400	
April.....	44					29			35.9		2,140	
May.....	40					28			32.9		2,020	
June.....	31					19			25.3		1,510	
July.....	26					18			22.4		1,380	
August.....	23					16			19.6		1,210	
September.....	32					20			24.8		1,480	
The year.....	65					16			33.0		23,900	

MOJAVE RIVER AT BARSTOW, CALIF.

LOCATION.—Water-stage recorder in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 10 N., R. 1 W., on U.S. Highway 91 at Barstow.

RECORDS AVAILABLE.—November 1930 to September 1933.

DISCHARGE.—1930-33: Maximum, 8,300 second-feet Feb. 9, 1932 (gage height, 3.95 feet); no flow during part of each year.

REMARKS.—No flow past station during year ending Sept. 30, 1933. Considerable diversion for irrigation above the station.

WEST FORK OF MOJAVE RIVER NEAR HESPERIA, CALIF.

LOCATION.—Water-stage recorder in SE $\frac{1}{4}$ sec. 13, T. 3 N., R. 4 W., at highway bridge half a mile above junction with Mohave River and 7 miles southeast of Hesperia. Altitude, about 3,050 feet.

DRAINAGE AREA.—74.8 square miles.

RECORDS AVAILABLE.—January 1930 to September 1933.

DISCHARGE.—Maximum during year, 464 second-feet Jan. 19 (gage height, 3.28 feet); no flow during summer.

1930-33: Maximum, 6,000 second-feet Feb. 8, 1932 (gage height, 10.00 feet); no flow during each summer.

REMARKS.—Records good.

Discharge, in second-feet, 1932-33

Day	Jan.	Feb.	Mar.	Apr.	May	June	Day	Jan.	Feb.	Mar.	Apr.	May	June
1-----	0	38	38	35	21	0.4	16-----	0.5	23	60	13	9	0
2-----	0	33	45	38	15	.3	17-----	32	24	83	12	9	0
3-----	0	29	48	40	14	.3	18-----	11	23	80	12	8	0
4-----	0	25	49	44	13	.2	19-----	103	21	70	11	8	0
5-----	0	23	48	40	11	.2	20-----	123	21	62	10	6	0
6-----	0	22	44	37	9.5	.2	21-----	40	23	57	10	4.0	0
7-----	0	21	49	36	9	.2	22-----	30	23	53	9	8	0
8-----	0	20	65	34	8.5	.2	23-----	40	25	51	8	4.8	0
9-----	0	18	73	32	8	.2	24-----	31	30	42	7.5	4.4	0
10-----	0	17	84	28	12	.2	25-----	26	27	38	7	3.4	0
11-----	0	18	84	26	19	.2	26-----	25	26	38	6.5	2.8	0
12-----	0	18	80	21	18	.2	27-----	25	26	36	6.5	2.0	0
13-----	0	20	78	18	13	.1	28-----	33	34	37	7	1.6	0
14-----	0	23	68	16	11	0	29-----	47	-----	42	18	1.2	0
15-----	0	23	62	15	9.5	0	30-----	88	-----	38	29	.8	0
							31-----	48	-----	36	-----	.6	-----
Month						Maximum	Minimum	Mean		Run-off in acre-feet			
January-----						123	0	22.7		1,400			
February-----						38	17	24.1		1,340			
March-----						84	36	56.1		3,450			
April-----						44	6.5	20.9		1,240			
May-----						21	.6	8.55		526			
June-----						.4	0	.10		5.8			
The year-----						123	0	11.0		7,960			

NOTE.—No flow during months omitted.

ANTELOPE VALLEY BASIN

ROCK CREEK NEAR VALVERMO, CALIF.

LOCATION.—Water-stage recorder in NE¼ sec. 20, T. 4 N., R. 9 W., 1¼ miles southeast of Valvermo. Altitude, about 4,050 feet.

DRAINAGE AREA.—23.0 square miles.

RECORDS AVAILABLE.—January 1923 to September 1933.

DISCHARGE.—Maximum during year, 24 second-feet Apr. 4 (gauge height, 1.82 feet); minimum, 2.4 second-feet Sept. 17 (gauge height, 1.13 feet).

1923-33: Maximum, 510 second-feet Feb. 16, 1927; minimum, 1.2 second-feet Aug. 22, 1925. Average, 10 years (1923-33), 10.6 second-feet.

REMARKS.—Records good. Discharge estimated Sept. 26-30. No diversions. Results of some discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	9	6.5	5	6	7	10	18	12	13	9	4.9	3.4
2.....	8.5	6.5	5	6	7	11	20	12	13	9	4.7	3.4
3.....	8	6.5	4.9	6	6.5	12	22	12	13	9.5	4.7	3.4
4.....	8	6.5	4.9	6	6.5	13	22	12	13	9.5	4.4	3.4
5.....	7.5	6.5	4.9	6	6.5	13	22	12	13	9	4.4	3.4
6.....	7.5	6.5	4.9	6	6.5	12	20	12	12	9	4.7	3.5
7.....	7.5	6.5	4.9	6	6.5	12	19	12	11	8.5	4.4	3.4
8.....	8	6.5	4.9	6	6.5	15	18	12	11	8.5	4.4	3.5
9.....	8	6.5	4.9	6	6.5	17	16	13	11	8	4.2	3.4
10.....	7.5	6.5	5	5.5	6.5	17	15	13	11	7.5	4.2	3.4
11.....	6.5	7	5.5	5.5	6.5	17	14	11	10	7	4.0	3.4
12.....	6.5	7	5.5	5.5	6.5	17	13	10	10	7	4.0	3.4
13.....	7	7	5.5	5.5	6.5	16	13	9.5	10	6.5	4.0	3.4
14.....	6.5	6.5	6	5.5	6.5	15	13	9.5	9.5	6.5	4.0	3.4
15.....	7	6.5	6.5	5.5	6.5	15	14	10	9	6	4.4	3.2
16.....	7	6.5	6.5	6	6.5	15	15	11	9	5.5	4.4	3.0
17.....	7	6	7	6	7	16	16	11	8.5	5.5	4.2	3.0
18.....	7	6	7	6.5	7	15	15	12	8.5	5	4.2	3.0
19.....	6.5	5.5	7	11	7	15	14	13	8.5	5	4.2	3.0
20.....	6.5	5.5	7	9	7	16	14	13	8.5	5	4.2	3.0
21.....	6.5	5.5	7	7.5	7.5	17	13	13	8.5	4.9	4.2	3.0
22.....	6.5	5.5	6.5	7.5	7.5	17	14	12	8.5	4.9	4.2	3.0
23.....	6	5.5	7	7	8.5	16	14	12	7.5	4.7	4.2	3.2
24.....	6	5.5	6.5	7	8.5	15	15	12	7.5	4.7	4.2	3.0
25.....	6	5.5	6.5	7	8.5	14	15	12	8.5	4.7	4.2	3.0
26.....	5.5	5	6	7	8.5	13	14	13	9	4.7	3.9	3.0
27.....	4.4	5	6	7	8.5	13	14	13	9	4.7	3.9	3.0
28.....	5.5	5	6	7	9.5	14	13	13	9.5	4.9	3.9	3.0
29.....	6	5	6	7	-----	14	13	13	9.5	4.9	3.9	3.0
30.....	6	5	6	7	-----	15	13	13	9	4.7	3.7	3.0
31.....	6.5	-----	6	7	-----	15	-----	13	-----	4.9	3.5	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	9	4.4	6.84	421
November.....	7	5	6.03	359
December.....	7	4.9	5.88	362
January.....	11	5.5	6.56	403
February.....	9.5	6.5	7.14	397
March.....	17	10	14.6	898
April.....	22	13	15.7	934
May.....	13	9.5	12.0	738
June.....	13	7.5	9.97	593
July.....	9.5	4.7	6.43	395
August.....	4.9	3.5	4.21	259
September.....	3.5	3.0	3.21	191
The year.....	22	3.0	8.21	5,950

LITTLE ROCK CREEK NEAR LITTLE ROCK, CALIF.

LOCATION.—Water-stage recorder about a quarter of a mile above junction with Santiago Creek and 5 miles south of Little Rock, Los Angeles County.

DRAINAGE AREA.—49.0 square miles.

RECORDS AVAILABLE.—October 1930 to September 1933.

DISCHARGE.—Maximum during year, 66 second-feet Mar. 9; no flow several months.

1930-33: Maximum, 2,200 second-feet Feb. 8, 1932; no flow part of each year.

REMARKS.—Entire record furnished by Palmdale Irrigation District and Los Angeles County Flood Control District.

Discharge, in second-feet, 1932-33

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
1	0	1.0	0.2	25	13	25	2.6	0.5
2	0	1.0	0	30	21	25	3.0	.4
3	0	1.5	0	31	30	26	3.0	.4
4	0	1.7	0	34	32	28	3.0	.4
5	0	2.0	1.0	30	32	28	3.5	.3
6	0	2.0	7.5	31	30	28	3.5	.3
7	0	2.6	8	39	24	26	3.5	.2
8	0	2.6	8	52	22	25	4.0	.2
9	0	2.6	7.5	56	17	21	4.7	.2
10	0	2.3	7	41	14	20	4.7	.2
11	0	2.3	6	24	13	17	4.7	.1
12	0	1.7	7.5	22	12	16	5.5	.1
13	0	1.7	10	12	12	13	4.7	.1
14	0	1.7	12	11	12	12	4.0	.1
15	0	1.0	12	11	13	11	4.0	.1
16	0	1.0	14	14	14	11	3.5	.1
17	0	1.0	17	11	14	10	3.0	.1
18	.1	1.0	21	12	15	9	2.3	.1
19	.1	6	18	11	15	8	1.5	.1
20	.2	13	17	11	13	7.5	1.0	0
21	.2	12	16	10	12	6	.8	0
22	.3	9	18	10	16	5.5	.8	0
23	.4	7.5	22	9	20	5.5	.6	0
24	.5	6	24	9	18	4.7	.8	0
25	.5	4	20	9	22	3.5	.7	0
26	.6	2.6	15	8	24	3.5	.7	0
27	.7	1.7	15	10	26	3.0	.6	0
28	.8	1.3	17	10	21	2.3	.6	0
29	1.0	1.3	—	10	21	2.6	.6	0
30	1.1	.8	—	9	24	2.6	.5	0
31	1.1	.5	—	9	—	2.6	—	0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
December	1.1	0	0.24	15.1
January	13	.5	3.11	191
February	24	0	11.5	639
March	56	8	15.7	1,210
April	32	12	15.1	1,140
May	28	2.3	13.2	812
June	5.5	.5	2.55	152
July	.5	0	.13	7.9
The year	56	0	5.74	4,170

NOTE.—No flow during months omitted.

OWENS LAKE BASIN

OWENS RIVER NEAR ROUND VALLEY, CALIF.

LOCATION.—Water-stage recorder in SE¼ sec. 10, T. 6 S., R. 31 E., below Sheep Bridge, 700 feet above mouth of Rock Creek, and 2 miles north of Round Valley. Altitude, about 4,450 feet.

DRAINAGE AREA.—450 square miles.

RECORDS AVAILABLE.—August 1903 to September 1923; April 1927 to September 1933.

DISCHARGE.—Maximum during year, 450 second-feet June 17 (gage height, 2.90 feet); minimum, 86 second-feet Sept. 4-5.

1903-23, 1927-33: Maximum discharge recorded, 1,190 second-feet June 30, 1907 (gage height, 4.0 feet); minimum, 5.4 second-feet Feb. 13, 1923.

Average discharge, 26 years (1903-23, 1927-33), 232 second-feet.

REMARKS.—No diversions above station. Daily discharge record furnished by city of Los Angeles.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	145	133	131	139	183	147	283	114	210	245	150	92
2.....	138	134	133	139	183	149	247	115	202	242	150	91
3.....	138	131	127	138	183	149	230	115	204	243	148	89
4.....	134	133	126	140	175	151	218	112	210	244	140	86
5.....	131	139	121	140	171	159	186	107	212	239	136	86
6.....	131	141	123	140	169	163	181	102	205	245	131	89
7.....	131	137	118	138	145	177	170	107	202	258	122	89
8.....	132	137	121	138	155	215	155	106	216	261	122	95
9.....	132	135	116	141	137	263	138	106	230	242	116	99
10.....	131	135	100	143	137	290	138	101	244	232	109	99
11.....	131	133	103	136	145	279	138	117	271	222	109	99
12.....	132	133	96	137	155	304	136	112	303	225	105	97
13.....	131	134	90	138	163	201	136	115	328	235	102	97
14.....	130	133	96	140	153	206	132	108	358	242	102	102
15.....	130	135	105	138	167	187	132	110	405	250	107	97
16.....	128	138	112	137	159	187	130	107	439	256	109	94
17.....	127	138	127	138	153	185	123	101	439	240	113	95
18.....	133	136	130	138	153	187	128	94	412	222	113	92
19.....	132	130	133	96	147	201	144	92	375	210	116	89
20.....	132	128	126	95	155	239	142	92	348	202	111	95
21.....	132	127	122	160	153	285	121	92	319	191	109	94
22.....	133	127	129	194	153	247	124	92	306	180	105	95
23.....	131	125	130	206	157	242	130	92	303	172	109	94
24.....	130	125	123	220	137	183	121	98	306	164	107	92
25.....	129	125	133	173	149	189	123	102	309	164	109	92
26.....	130	137	131	149	155	209	121	112	306	172	102	99
27.....	130	135	137	177	147	260	115	121	296	178	97	111
28.....	131	132	126	163	147	301	115	130	293	164	94	109
29.....	131	130	130	189	-----	247	117	146	271	156	94	109
30.....	129	129	150	177	-----	266	112	168	256	156	97	109
31.....	130	-----	145	183	-----	293	-----	172	-----	156	92	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	145	127	132	8,120
November.....	141	125	133	7,910
December.....	150	90	122	7,500
January.....	220	95	151	9,280
February.....	183	137	157	8,720
March.....	304	147	218	13,400
April.....	283	112	150	8,930
May.....	172	92	112	6,890
June.....	439	202	293	17,400
July.....	261	156	213	13,100
August.....	150	92	114	7,010
September.....	111	86	95.9	5,710
The year.....	439	86	157	114,000

OWENS RIVER AT PLEASANT VALLEY, NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in NW¼ sec. 24, T. 6 S., R. 31 E., 1,000 feet above Owens River canal intake and 8 miles northwest of Bishop. Altitude, about 4,350 feet.

DRAINAGE AREA.—596 square miles.

RECORDS AVAILABLE.—March 1918 to September 1933.

DISCHARGE.—Maximum during year, 636 second-feet June 16 (gage height, 4.72 feet); minimum, 97 second-feet Dec. 13.

1918-33: Maximum, 1,580 second-feet June 13, 1921 (gage height, 6.15 feet); minimum, 53 second-feet Aug. 25, 1931. Average discharge, 15 years (1918-33), 231 second-feet.

REMARKS.—Diversions from tributaries above station. Daily-discharge record furnished by city of Los Angeles.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	202	190	209	205	223	209	365	160	290	347	200	128
2	193	188	196	205	221	209	328	162	292	345	196	128
3	191	181	215	203	216	207	306	170	288	343	187	127
4	186	183	209	203	223	207	293	156	282	341	181	125
5	184	201	202	203	219	214	252	150	282	339	178	130
6	186	213	200	205	221	221	241	147	308	347	170	131
7	186	200	191	200	190	237	228	152	259	372	163	131
8	188	191	198	200	192	292	212	150	262	381	162	137
9	186	191	190	210	194	314	199	150	312	376	157	143
10	186	191	162	218	195	352	199	146	357	339	151	143
11	186	184	140	191	197	344	199	163	393	306	150	143
12	188	186	115	203	199	373	194	166	439	317	146	142
13	186	193	102	201	200	264	190	162	483	341	145	142
14	183	191	129	205	202	266	187	163	539	358	148	143
15	184	191	152	199	204	246	188	163	579	372	146	138
16	184	191	168	198	212	241	182	157	618	378	146	136
17	181	188	210	198	207	237	175	144	607	363	154	138
18	191	190	200	179	207	241	169	134	545	335	152	137
19	190	183	198	135	202	260	175	132	486	297	154	137
20	190	185	191	132	216	304	175	132	449	277	146	138
21	190	183	174	189	216	359	170	132	431	261	148	138
22	190	183	174	225	216	329	168	134	428	247	142	142
23	188	181	186	243	214	308	166	133	436	232	140	143
24	188	184	159	226	197	241	174	138	451	217	136	138
25	186	191	174	225	209	250	166	144	460	208	140	138
26	191	228	186	189	226	264	160	150	440	213	133	143
27	193	206	216	223	225	312	156	162	440	217	129	143
28	193	198	191	210	216	350	159	176	415	216	126	143
29	193	198	188	230	---	310	166	193	398	211	126	144
30	191	200	238	217	---	335	154	225	376	210	126	144
31	188	---	224	226	---	366	---	255	---	208	126	---

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	202	181	188	11,600
November	228	181	192	11,400
December	238	102	183	11,300
January	243	132	203	12,500
February	226	190	209	11,600
March	373	207	279	17,200
April	365	154	203	12,100
May	255	132	158	9,720
June	618	259	412	24,500
July	381	208	300	18,400
August	200	126	152	9,350
September	144	125	138	8,210
The year	618	102	218	158,000

OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.—Water-stage recorder in sec. 2, T. 11 S., R. 34 E., at Charles Butte, 11 miles southeast of Big Pine. Altitude, about 3,850 feet.

DRAINAGE AREA.—1,930 square miles.

RECORDS AVAILABLE.—September 1906 to September 1933.

DISCHARGE.—Maximum during year, 555 second-feet June 24 (gare height, 4.41 feet); minimum, 8 second-feet May 21–25.

1906–33: Maximum, about 3,220 second-feet Jan. 26, 1914 (gage height, 11.2 feet); minimum, 4 second-feet June 6, 1930. Average discharge, 27 years (1906–33), 332 second-feet.

REMARKS.—Diversions above station from river and tributaries and storage in Tinemaha Reservoir, capacity 16,600 acre-feet. Daily-discharge record furnished by city of Los Angeles.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	270	269	329	358	459	436	319	13	324	546	328	150
2.....	270	269	318	358	412	464	319	13	324	547	331	149
3.....	270	271	309	358	388	477	354	12	326	542	331	149
4.....	257	271	312	358	385	494	399	12	331	535	329	148
5.....	237	271	314	358	384	504	394	12	335	529	328	148
6.....	208	271	336	354	382	510	396	11	340	525	325	135
7.....	46	274	350	352	385	513	392	11	344	528	325	102
8.....	12	276	331	350	384	513	388	11	348	528	325	101
9.....	10	276	307	348	377	510	394	10	348	526	325	101
10.....	10	278	283	354	345	497	398	10	350	525	323	101
11.....	10	280	287	368	354	484	392	10	448	522	322	101
12.....	10	278	283	368	373	476	349	10	548	524	319	100
13.....	10	280	137	368	396	466	308	10	544	526	320	100
14.....	10	283	59	361	398	459	306	10	543	458	320	100
15.....	430	283	20	348	389	438	306	10	543	375	319	100
16.....	450	320	13	345	388	429	307	9	543	372	317	100
17.....	454	366	13	364	384	428	312	9	543	370	315	100
18.....	448	346	12	385	383	431	313	9	544	370	313	99
19.....	457	327	50	398	383	427	314	9	548	351	311	99
20.....	445	310	323	409	380	434	316	9	550	329	316	99
21.....	445	294	325	440	378	410	313	8	550	331	315	95
22.....	407	267	327	438	381	408	297	8	550	332	314	93
23.....	290	274	335	437	402	438	275	8	551	329	263	93
24.....	290	304	339	436	406	454	247	8	553	331	180	93
25.....	287	334	345	441	404	454	223	8	551	329	157	93
26.....	285	323	351	501	403	447	207	96	550	331	153	93
27.....	285	313	358	494	403	413	122	314	550	331	152	94
28.....	278	307	361	487	407	338	35	316	548	328	152	94
29.....	274	308	358	482	-----	328	17	326	546	331	152	87
30.....	271	326	358	472	-----	322	14	324	544	328	151	18
31.....	269	-----	356	476	-----	321	-----	322	-----	331	151	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	457	10	248	15,200
November.....	366	267	295	17,600
December.....	361	12	264	16,200
January.....	501	345	399	24,500
February.....	459	345	390	21,700
March.....	513	321	443	27,200
April.....	399	14	291	17,300
May.....	326	8	62.8	3,860
June.....	553	324	474	28,200
July.....	547	328	425	26,100
August.....	331	151	277	17,000
September.....	150	18	104	6,190
The year.....	553	8	306	221,000

ROCK CREEK AT SHERWIN HILL, NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in SW¼ sec. 29, T. 5 S., R. 31 E., at Sherwin Hill, 3 miles above Pine Creek and 14 miles northwest of Bishop. Altitude, about 4,900 feet.

DRAINAGE AREA.—51.7 square miles (revised).

RECORDS AVAILABLE.—August 1922 to September 1933.

DISCHARGE.—Maximum during year, 79 second-feet June 15 (gage height, 2.11 feet); minimum, 4.2 second-feet Dec. 9.

1922-33: Maximum recorded, 162 second-feet June 17, 1927 (gage height, 3.04 feet at old gage); minimum, 1.8 second-feet Jan. 6-7, 1930. Average discharge, 11 years (1922-33), 21.1 second-feet.

REMARKS.—No diversions. Daily-discharge record furnished by city of Los Angeles.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	17	12	11	12	14	11	15	16	44	37	22	11
2.....	17	12	11	12	11	12	15	16	46	33	21	8.5
3.....	17	12	12	12	12	12	15	15	42	33	19	10
4.....	16	12	12	11	12	12	16	15	37	32	16	10
5.....	16	13	11	11	10	12	16	16	35	33	15	10
6.....	16	12	11	11	10	13	16	15	40	32	14	9
7.....	15	12	11	11	12	13	16	16	33	41	13	10
8.....	15	12	11	11	14	13	15	15	33	42	12	12
9.....	15	12	9.5	11	9.5	13	15	15	38	42	15	12
10.....	14	12	16	11	13	12	15	10	51	37	14	11
11.....	14	12	16	11	14	12	15	10	54	32	14	11
12.....	14	12	16	13	11	13	15	10	57	32	14	11
13.....	13	12	15	11	12	13	16	10	56	32	17	11
14.....	13	11	14	11	15	11	16	10	70	40	16	10
15.....	13	11	13	11	16	12	17	10	78	42	13	10
16.....	12	12	12	11	13	12	18	10	77	40	13	9.5
17.....	12	12	12	12	14	12	18	13	75	46	14	9
18.....	13	12	11	12	15	13	15	13	74	44	15	9
19.....	13	11	11	16	15	13	15	14	62	42	15	9
20.....	13	11	11	16	14	13	16	15	56	39	14	8.5
21.....	13	11	11	17	13	13	16	15	52	32	14	8.5
22.....	13	11	11	16	12	11	16	11	51	32	14	8.5
23.....	13	11	11	19	12	12	16	11	52	32	14	8
24.....	13	11	12	18	14	11	16	11	52	22	14	8
25.....	13	12	13	18	17	12	16	16	51	27	14	8
26.....	12	12	12	17	14	13	16	15	50	22	14	8
27.....	12	12	12	22	13	13	16	15	49	25	15	8
28.....	12	11	12	17	11	13	16	18	48	27	14	8
29.....	12	11	12	26	-----	12	17	20	45	26	11	8
30.....	12	11	12	20	-----	13	15	25	42	26	8.5	8
31.....	12	-----	12	20	-----	14	-----	38	-----	26	11	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	17	12	13.7	842
November.....	13	11	11.7	696
December.....	16	9.5	12.1	744
January.....	26	11	14.4	885
February.....	17	9.5	12.9	716
March.....	14	11	12.4	762
April.....	18	15	15.8	940
May.....	38	10	14.8	910
June.....	78	33	51.7	3,080
July.....	49	24	34.9	2,150
August.....	22	8.5	14.5	892
September.....	12	8	9.42	561
The year.....	78	8	18.2	13,200

ROCK CREEK NEAR ROUND VALLEY, CALIF.

LOCATION.—Water-stage recorder in SE¼ sec. 9, T. 6 S., R. 31 E., a short distance above mouth of Pine Creek and 2 miles northwest of Round Valley. Altitude, about 4,450 feet.

DRAINAGE AREA.—About 96 square miles.

RECORDS AVAILABLE.—August 1903 to September 1923; April 1930 to September 1933.

DISCHARGE.—Maximum during year, 92 second-feet June 15 (gage height, 2.14 feet); minimum, 7.5 second-feet Sept. 16.

1903–23, 1930–33: Maximum recorded, 360 second-feet Jan. 25, 1914 (gage height, 5.0 feet at old gage); minimum, that of Sept. 16, 1933. Average discharge, 23 years (1903–23, 1930–33), 40 second-feet.

REMARKS.—Water diverted above station for irrigation. Record of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	25	25	23	24	29	29	21	13	38	33	24	10
2.....	25	25	22	25	28	29	21	13	44	33	24	11
3.....	26	25	23	25	26	24	22	15	38	29	22	11
4.....	25	25	24	25	29	22	23	14	31	27	21	11
5.....	25	25	24	24	26	21	23	14	32	28	20	12
6.....	25	25	23	24	27	21	23	15	34	30	20	12
7.....	25	25	24	23	24	20	23	14	26	32	18	10
8.....	24	25	24	24	27	20	22	14	26	34	16	10
9.....	24	24	22	24	25	19	22	14	31	34	16	10
10.....	24	24	18	23	24	19	21	14	41	31	15	11
11.....	24	24	18	21	26	19	20	13	37	30	14	11
12.....	23	24	18	23	25	19	20	12	46	28	16	11
13.....	23	24	17	20	25	20	19	13	55	32	17	11
14.....	22	24	19	22	24	21	18	14	78	36	18	11
15.....	22	24	21	20	25	22	19	14	86	40	15	9
16.....	22	24	24	21	24	22	19	13	86	45	13	7.5
17.....	22	24	25	22	24	20	18	14	85	47	12	9
18.....	23	24	24	19	24	21	17	13	78	41	12	9
19.....	23	24	24	21	24	20	15	13	69	44	12	9
20.....	23	24	24	23	24	21	14	14	55	36	12	10
21.....	24	24	24	25	25	21	13	13	52	36	12	12
22.....	24	24	24	24	27	21	13	13	52	36	11	13
23.....	24	24	24	25	29	21	14	12	54	35	11	12
24.....	24	23	24	25	26	19	14	12	55	32	11	13
25.....	25	24	25	26	25	21	12	14	50	26	11	15
26.....	25	24	25	26	29	21	12	14	47	25	12	15
27.....	25	24	26	28	31	21	12	14	47	23	12	13
28.....	25	24	25	26	29	21	12	17	48	24	12	13
29.....	25	24	27	28	-----	20	12	18	45	25	12	15
30.....	25	23	26	26	-----	21	12	21	38	26	10	16
31.....	25	-----	25	28	-----	21	-----	29	-----	26	10	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	26	22	24.1	1,480
November.....	25	23	24.2	1,440
December.....	27	17	23.1	1,420
January.....	28	19	23.9	1,470
February.....	31	24	26.1	1,450
March.....	29	19	21.2	1,300
April.....	23	12	17.5	1,040
May.....	29	12	14.5	892
June.....	86	26	50.1	2,980
July.....	47	23	32.4	1,990
August.....	24	10	14.9	916
September.....	16	7.5	11.4	678
The year.....	86	7.5	23.6	17,100

PINE CREEK AT DIVISION BOX NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in NW¼ sec. 19, T. 6 S., R. 31 E., a quarter of a mile above division box and forks of creek, 4 miles west of Round Valley, and 13 miles northwest of Bishop. Altitude, about 5,250 feet.

DRAINAGE AREA.—37.9 square miles.

RECORDS AVAILABLE.—October 1921 to September 1933.

DISCHARGE.—Maximum during year, 195 second-feet June 14 (gage height, 3.0 feet); minimum, 15 second-feet May 14-18.

1921-33: Maximum discharge, 315 second-feet June 20, 1922 (gage height, 3.65 feet); minimum, 10 second-feet Jan. 8, 1930. Average discharge, 12 years (1921-33), 37.2 second-feet.

REMARKS.—No diversions. Daily-discharge record furnished by city of Los Angeles.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	33	19	18	17	18	17	18	18	90	84	49	24
2.....	32	19	18	17	18	17	18	18	77	86	47	23
3.....	32	19	18	17	18	16	19	18	66	82	44	21
4.....	32	19	18	17	18	16	20	18	54	91	43	21
5.....	31	19	18	17	18	16	20	18	47	97	41	21
6.....	32	19	18	17	18	16	20	18	41	110	39	21
7.....	32	19	18	17	18	16	21	18	46	113	38	21
8.....	32	19	18	17	18	16	20	18	79	104	36	20
9.....	31	19	17	17	18	16	19	17	114	86	35	20
10.....	31	19	16	17	18	16	18	17	124	80	34	19
11.....	31	19	16	17	18	16	18	17	133	80	33	19
12.....	30	19	16	17	18	16	17	16	139	100	33	19
13.....	30	19	17	17	17	16	17	16	155	109	32	19
14.....	30	19	17	17	17	16	18	15	167	111	31	18
15.....	29	19	17	17	17	16	21	15	151	109	31	18
16.....	28	19	17	17	17	17	22	15	149	101	31	18
17.....	27	19	17	17	17	17	21	15	121	95	31	17
18.....	27	19	17	17	17	17	20	15	87	87	31	17
19.....	26	19	17	17	17	17	19	17	95	80	30	17
20.....	25	18	17	17	17	17	18	18	99	77	30	17
21.....	24	18	17	16	17	17	18	18	99	73	30	17
22.....	24	18	17	16	17	17	18	18	101	63	29	17
23.....	23	18	17	16	17	17	18	21	99	55	29	17
24.....	22	18	17	16	17	17	18	24	101	54	28	17
25.....	21	18	17	16	17	17	18	31	97	52	28	17
26.....	20	18	17	16	17	17	18	39	93	52	27	17
27.....	20	18	17	16	17	17	18	47	95	65	27	17
28.....	19	18	17	16	17	17	18	56	80	65	27	16
29.....	19	18	17	16	-----	17	18	71	83	61	26	16
30.....	19	18	17	17	-----	17	18	94	85	58	26	16
31.....	19	-----	17	17	-----	17	-----	94	-----	54	24	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	33	19	26.8	1,650
November.....	19	18	18.6	1,110
December.....	18	16	17.2	1,060
January.....	17	16	16.7	1,030
February.....	18	17	17.4	966
March.....	17	16	16.6	1,020
April.....	22	17	18.8	1,120
May.....	94	15	27.4	1,680
June.....	167	41	98.9	5,880
July.....	113	52	81.7	5,020
August.....	49	24	32.9	2,020
September.....	24	16	18.6	1,110
The year.....	167	15	32.7	23,700

PINE CREEK NEAR ROUND VALLEY, CALIF.

LOCATION.—Water-stage recorder in SE¼ sec. 9, T. 6 S., R. 31 E., 600 feet above junction with Rock Creek and 2 miles northwest of Round Valley. Altitude, about 4,450 feet.

DRAINAGE AREA.—About 58 square miles.

RECORDS AVAILABLE.—August 1903 to September 1923; April 1930 to September 1933.

DISCHARGE.—Maximum during year, 102 second-feet June 16 (gage height, 2.20 feet); minimum, 0.2 second-foot Sept. 14.

1903-23, 1930-33: Maximum mean daily (estimated), 37.9 second-feet June 22, 1911; minimum, 0.1 second-foot July 30, Aug. 13, 1920, May 23, 1930, and many days in 1931. Average, 23 years (1903-23, 1930-33), 22.3 second-feet.

REMARKS.—Water diverted above station for irrigation. Daily-discharge record furnished by city of Los Angeles.

Discharge, in second-feet, of 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	4.4	6	6.5	8	16	3.0	1.0	23	30	2.5	1.1
2	5.5	4.2	6.5	6	8.5	13	2.7	.8	20	30	2.5	.6
3	5.5	3.8	6.5	6.5	8	11	2.7	.8	17	33	1.9	1.3
4	5	3.8	6	6.5	8	9	2.7	.8	12	39	1.7	1.9
5	5	5	6	6.5	8	8	2.7	.7	11	52	1.8	2.8
6	5	5.5	6	6.5	8	7.5	2.7	.7	9.5	59	2.2	2.4
7	5	5.5	6	6.5	8	8	1.9	.7	4.2	67	3.3	1.2
8	5	5.5	6	6.5	8	7.5	1.5	.8	9	67	2.2	1.1
9	4.9	5.5	5.5	6.5	8	6.5	1.4	1.4	42	53	3.3	.6
10	4.7	4.7	5	6.5	8	6.5	1.5	1.3	57	45	3.7	.8
11	4.7	4.4	4.4	5.5	8	6	1.7	1.8	69	34	3.8	1.1
12	4.7	4.2	4.6	6.5	8.5	6	1.7	1.0	71	38	4.0	.7
13	4.7	5	4.6	6.5	8	8	1.7	.8	74	52	4.2	1.0
14	4.7	6	5.5	6.5	6.5	6	1.7	.8	88	53	3.5	.6
15	4.7	6	5.5	8	6.5	6	1.7	1.0	89	54	3.7	.8
16	4.7	6	5.5	8	7.5	5.5	1.7	1.1	96	50	4.0	.7
17	4.7	6	5.5	8.5	8	5.5	1.5	.8	80	47	5.5	.7
18	4.7	5.5	5.5	8.5	7.5	5.5	1.5	.8	57	38	5.5	.6
19	5.5	5.5	5.5	8	7.5	5	1.5	1.0	42	34	4.2	.6
20	5.5	5.5	5.5	8	8	5	1.7	.8	42	26	3.7	.5
21	5.5	5.5	7	8	8.5	4.7	1.8	.8	41	24	3.7	.7
22	5.5	5.5	7.5	8	8.5	4.7	1.7	.8	42	20	1.5	1.5
23	5.5	6	8	8	10	4.6	1.7	.8	42	17	2.1	1.5
24	5.5	6	7.5	8	9.5	4.6	1.7	.8	52	15	.8	1.2
25	5.5	6	8	8.5	8.5	4.4	1.7	.8	54	6	1.1	1.2
26	5.5	6.5	8	8.5	8.5	4.2	2.2	.8	47	3.8	.6	1.1
27	5.5	6.5	9	8.5	14	4.4	1.9	1.0	47	3.8	1.2	1.1
28	5	6	8.5	8.5	14	4.0	1.8	1.2	34	6.5	1.3	1.0
29	4.9	6.5	8.5	8		3.8	1.2	1.7	34	8.5	1.5	.8
30	4.7	6.5	8			3.8	.8	11	34	6	1.5	.8
31	4.6		6.5	8		3.7		24		3.8	1.1	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.5	4.6	5.11	314
November	6.5	3.8	5.43	323
December	9	4.4	6.39	393
January	8.5	5.5	7.37	453
February	14	6.5	8.50	472
March	16	3.7	6.40	394
April	3.0	.8	1.86	111
May	24	.7	2.02	124
June	96	4.2	44.7	2,660
July	67	3.8	32.8	2,020
August	5.5	.6	2.70	166
September	2.8	.5	1.07	63.7
The year	96	.5	10.3	7,490

MONO LAKE BASIN

MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.—Staff gage in SE¼NE¼ sec. 31, T. 2 N., R. 26 E., about a mile (revised) south of Mono Lake post office. Elevation of zero of gage is 6,423.90 feet above mean sea level.

RECORDS AVAILABLE.—June 1912 to September 1933 (fragmentary).

EXTREMES.—1912-33: Maximum water-surface elevation, 6,437.45 feet July 18, 1919; minimum, 6,426.00 feet Sept. 18, 1933.

REMARKS.—Gage-height record furnished by United States Forest Service.

Elevation, in feet, 1932-33

Nov. 28.....	6,427.01	June 19.....	6,426.96	Aug. 19.....	6,426.45
Apr. 9.....	6,427.14	July 15.....	6,426.81	Sept. 18.....	6,426.00
May 18.....	6,426.95				

WALKER LAKE BASIN

WALKER LAKE NEAR HAWTHORNE, NEV.

LOCATION.—Elevations determined by spirit leveling in NW¼ sec. 1, T. 8 N., R. 29 E., at bathing beach of United States Naval Ammunition Depot, 6 miles northwest of Hawthorne.

RECORDS AVAILABLE.—August 1928 to September 1933. Occasional readings prior to August 1928.

EXTREMES.—1928-33: Maximum elevation recorded, 4,051.8 feet Mar. 13, 1928 (United States Indian Service); minimum, 4,033.4 feet Aug. 11, 1933. On Sept. 27, 1908, lake elevation was 4,078.0 feet, determined by United States Coast and Geodetic Survey. Elevation based on 1912 adjustment heights of bench marks along the precise level lines of the Coast & Geodetic Survey.

REMARKS.—Records furnished by United States Navy Department.

Elevation, in feet, above mean sea level, 1933

Jan. 3.....	4,034.6	Aug. 11.....	4,033.
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BRIDGEPORT RESERVOIR NEAR BRIDGEPORT, CALIF.

LOCATION.—Elevation determined at Bridgeport Dam, in SE¼ sec. 34, T. 6 N., R. 25 E., 4½ miles north of Bridgeport.

RECORDS AVAILABLE.—October 1931 to September 1933.

REMARKS.—Gage-height record and capacity table furnished by Walker River Irrigation District. Capacity of reservoir, 42,500 acre-feet.

Contents, in acre-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1....	21,200	23,400	26,300	27,800	28,200	32,100	40,000	37,900	30,400	30,000	20,100	8,280
2....	21,300	23,600	26,400	27,800	28,200	32,600	40,100	37,800	30,400	29,800	18,800	8,030
3....	21,300	23,700	26,500	27,900	28,200	33,000	40,100	37,200	30,400	29,800	17,900	7,740
4....	21,400	23,800	26,600	27,900	28,200	33,400	40,200	36,800	30,000	29,500	17,200	7,410
5....	21,400	23,800	26,800	27,900	28,400	34,000	40,200	36,800	29,800	29,300	16,600	7,080
6....	21,500	23,900	26,900	27,900	27,400	34,500	40,200	36,400	29,200	29,200	16,400	6,770
7....	21,600	23,900	27,000	27,900	28,400	34,900	40,400	36,400	29,200	29,300	16,100	6,460
8....	21,600	24,100	27,100	27,900	28,400	35,400	40,400	36,200	29,800	29,200	15,700	6,160
9....	21,700	24,200	27,200	27,900	28,400	36,000	40,200	36,000	29,700	29,000	15,500	5,960
10....	21,700	24,400	27,300	28,000	28,500	36,600	40,200	36,000	29,900	29,000	15,300	5,720
11....	21,800	24,500	27,300	28,000	28,500	37,000	40,200	35,700	29,200	28,900	15,000	5,560
12....	21,900	24,600	27,300	28,000	28,500	37,600	40,200	35,600	29,200	28,900	14,700	5,330
13....	21,900	24,700	27,300	28,000	28,600	38,200	40,100	35,600	29,200	28,900	14,400	5,180
14....	22,000	24,800	27,400	28,000	28,700	38,300	40,100	35,600	29,200	28,800	14,100	5,120
15....	22,000	24,900	27,400	28,000	28,700	38,600	40,200	35,600	29,300	28,700	13,600	5,000
16....	22,100	25,000	27,400	28,000	28,800	38,700	40,200	35,700	29,500	28,500	13,200	4,930
17....	22,100	25,100	27,500	28,000	28,900	38,800	40,200	35,600	29,800	28,000	13,000	4,860
18....	22,200	25,100	27,600	28,000	29,000	39,000	40,200	35,400	30,000	27,600	12,800	4,780
19....	22,300	25,200	27,600	28,000	29,200	39,200	40,200	35,300	30,100	27,100	12,500	4,710
20....	22,400	25,300	27,600	28,000	29,200	39,300	40,100	35,200	30,100	26,700	12,100	4,640
21....	22,400	25,400	27,600	28,100	29,200	39,500	40,100	34,900	29,900	26,200	11,800	4,610
22....	22,500	25,500	27,700	28,100	29,300	39,700	40,000	34,600	29,500	26,000	11,600	4,540
23....	22,500	25,600	27,700	28,100	29,500	39,700	39,800	34,300	29,400	25,400	11,100	4,510
24....	22,600	25,800	27,700	28,100	29,800	39,500	39,500	34,000	29,600	24,900	10,800	4,540
25....	22,700	25,800	27,700	28,100	30,200	39,500	39,400	33,600	29,600	24,400	10,400	4,580
26....	22,800	25,900	27,700	28,100	30,700	39,500	39,200	33,300	29,600	23,200	10,200	4,580
27....	22,800	26,000	27,800	28,100	31,100	39,500	38,400	32,800	29,900	22,600	9,820	4,580
28....	22,900	26,100	27,800	28,100	31,700	39,700	37,900	32,600	30,100	22,200	9,540	4,610
29....	23,000	26,200	27,800	28,100	-----	39,700	37,900	32,100	30,100	21,600	9,260	4,620
30....	23,200	26,300	27,800	28,100	-----	39,800	37,900	31,400	30,100	21,200	8,900	4,640
31....	23,300	-----	27,800	28,200	-----	40,000	-----	31,000	-----	20,300	8,640	-----

EAST WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.—Staff gage in SW¼NE¼ sec. 34, T. 6 N., R. 25 E., 1,500 feet downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles above Sweetwater Creek.

DRAINAGE AREA.—362 square miles.

RECORDS AVAILABLE.—October 1921 to September 1933. July 1911 to September 1914, at a site 1½ miles upstream.

DISCHARGE.—Maximum during year, 408 second-feet Aug. 2, 3 (gage height, 4.48 feet); minimum, 3 second-feet Nov. 23 to Dec. 24 (gage height, 2.16 feet).

1921 to 1933: Maximum discharge, 1,050 second-feet June 28–30, 1922 (estimated from comparison with flow at station near Mason); minimum, 2 second-feet at various times when gates at dam have been closed. Average, 10 years (1921–24, 1926–33), 96.0 second-feet.

REMARKS.—Records good except those estimated, which are fair. Considerable areas of meadow and pasture irrigated near Bridgeport. Flow regulated by Bridgeport Reservoir; capacity, 42,000 acre-feet. Gage-height record furnished by Walker River Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	11		8	8	8	136	177	282	195	357	200
2	30	11		8	8	8	132	177	292	195	408	200
3	30	11		8	8	8	132	171	282	225	408	200
4	30	11		8	8	8	132	145	282	225	400	195
5	30	11		8	8	8	132	146	282	225	400	195
6	17	11		8	8	8	132	146	282	225	296	195
7	17	11		8	8	8	132	112	282	197	296	193
8	17	11		8	8	8	132	112	282	197	246	193
9	17	11		8	8	8	132	112	282	197	204	141
10	17	11		8	8	8	104	112	230	197	204	141
11	17	11		8	8	8	104	112	230	197	204	141
12	17	10	3	8	8	8	104	84	230	197	204	141
13	17	10		8	8	8	77	71	304	197	204	101
14	17	10		8	8	8	77	71	304	197	204	101
15	17	10		8	8	8	77	71	304	197	253	99
16	17	10		8	8	8	99	99	304	299	17	99
17	17	10		8	8	8	99	102	304	253	253	70
18	17	10		8	8	21	99	102	304	253	221	70
19	15	10		8	8	44	99	102	304	253	221	70
20	14	10		8	8	81	99	152	304	277	221	70
21	14	10		8	8	122	99	152	330	277	221	70
22	14	7		8	8	124	99	152	330	277	221	70
23	14			8	8	141	160	152	330	277	221	35
24	14			8	8	141	160	152	330	277	221	25
25	11		8	8	8	141	160	189	272	274	221	33
26	11	3	8	8	8	141	206	221	272	360	204	33
27	11		8	8	8	141	206	221	221	360	204	33
28	11		8	8	8	141	206	221	221	360	204	33
29	11		8	8		136	206	221	221	360	204	33
30	11		8	8		136	177	284	195	360	204	33
31	11		8	8		136		284		357	204	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	30	11	17.2	1,060
November	11		8.4	500
December	8		4.13	254
January	8	8	8.0	492
February	8	8	8.0	444
March	141	8	57.5	3,540
April	206	77	130	7,740
May	284	71	149	9,160
June	330	195	279	16,600
July	360	195	279	15,700
August	408	17	274	15,000
September	200	25	107	6,370
The year	408		196	76,900

WALKER RIVER NEAR WABUSKA, NEV.

LOCATION.—Water-stage recorder in SE¼ sec. 16, T. 15 N., R. 26 E., on Walker River Indian Reservation, 6½ miles east of Wabuska.

RECORDS AVAILABLE.—October 1929 to September 1933; July 1902 to July 1908 at railroad bridge 4½ miles upstream; January 1920 to September 1929 at Parker ranch 1½ miles upstream.

DISCHARGE.—Maximum during year not recorded; minimum mean daily, 16 second-feet Sept. 27–30.

1920–33: Maximum, 2,220 second-feet June 8, 1922; no flow at times in 1924, 1925, 1931. Average, 12 years (1920–24, 1925–33), 94.6 second-feet.

REMARKS.—Records good except those for Dec. 6–17 and Jan. 27 to Mar. 21, which were estimated. Records of daily discharge furnished by United States Indian Service. Station below all diversions except for the Indian reservation. Regulated by storage in reservoirs above station; also by diversions.

Discharge, in second-feet, 1923–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	26	27	55	125		91	32	93	88	45	21
2	33	24	26	50			91	46	81	73	55	21
3	32	24	26	63			91	45	71	69	57	21
4	30	25	26	57			88	45	65	63	53	21
5	29	25	26	57			82	52	61	59	57	21
6	28	25		57	50		73	52	69	50	63	22
7	27	25		57			61	48	79	50	59	25
8	26	25		48			57	48	75	55	35	24
9	26	26		45			52	53	79	57	31	22
10	26	26		45			50	57	98	59	27	26
11	26	26		45			51	57	103	57	24	25
12	26	26	30	46			48	67	111	52	22	24
13	26	26		46			43	71	106	45	26	24
14	26	26		40			40	67	103	41	29	22
15	27	26		48			37	57	98	35	31	22
16	26	26		43	75		36	53	103	34	30	22
17	26	26		33			34	52	114	33	30	21
18	26	26		40			30	50	126	30	31	21
19	26	26		65			29	46	114	29	35	21
20	25	26		57			27	45	101	27	41	21
21	25	26		48	100		27	43	88	29	43	20
22	24	26		40		50	26	42	81	35	40	20
23	26	26		42		57	26	40	81	40	40	20
24	26	26		40		69	24	34	88	40	40	19
25	26	26		48		77	22	33	90	38	33	18
26	26	27		45		86	21	34	90	34	25	17
27	26	27		57		91	18	54	93	33	24	16
28	26	28		57		88	20	79	96	35	22	16
29	26	28		52		86	27	88	98	40	21	16
30	26	27		52		91	29	101	93	38	21	16
31	26		52			91		106		38	21	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	33	24	26.9	1,650
November	28	24	25.9	1,540
December	57		37.6	2,310
January	65	33	48.2	2,960
February			73.2	4,070
March			92.3	5,680
April	91	18	45.0	2,680
May	106	32	54.7	3,360
June	126	61	91.6	5,450
July	88	27	45.4	2,790
August	63	21	35.8	2,200
September	26	16	20.8	1,240
The year		16	49.6	35,900

WALKER RIVER AT SCHURZ, NEV.

LOCATION.—Staff gage in sec. 36, T. 13 N., R. 28 E., at Southern Pacific Railroad bridge at Schurz, 3 miles above Walker Lake and 6 miles below diversion dam of Walker River Indian Reservation.

DRAINAGE AREA.—2,850 square miles.

RECORDS AVAILABLE.—July 1913 to September 1933.

DISCHARGE.—Maximum during year, 139 second-feet Mar. 1 (gage height, 1.90 feet); minimum, one second-foot or less for several days in September.

1913-33: Maximum, 2,530 second-feet June 8, 9, 1914 (gage height, 11.0 feet); practically no flow for periods during nearly every year. Average, 19 years (1913-18, 1919-33), 148 second-feet.

REMARKS.—Records fair. Station is below all diversions. Flow regulated by Twin Lakes, Bridgeport, Poor Lake and Topaz Lake Reservoirs; also by irrigation diversion.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	3	4	13	42	42	136	79	5	28	25	2	2
2.....	3	2	14	49	41	127	76	6	30	22	2	1
3.....	3	4	13	46	41	120	73	8	28	20	2	1
4.....	3	5	12	45	43	131	55	8	26	17	2	2
5.....	5	5	11	46	38	130	44	8	12	14	2	2
6.....	5	5	9	43	37	130	35	5	14	7	2	2
7.....	3	6	6	46	37	125	31	5	18	15	2	2
8.....	2	6	6	44	39	116	20	6	15	7	3	2
9.....	2	7	5	43	41	110	18	8	24	3	2	1
10.....	3	8	5	42	37	103	16	10	23	3	2	1
11.....	4	8	4	40	37	96	14	18	34	3	2	2
12.....	4	9	5	43	37	92	7	14	44	3	2	2
13.....	3	8	5	42	40	89	6	11	29	3	2	2
14.....	3	8	6	42	44	88	10	9	18	3	2	1
15.....	2	8	6	41	51	87	11	26	24	3	2	2
16.....	2	8	7	41	60	85	12	23	22	2	3	2
17.....	2	8	7	40	75	82	10	17	19	2	3	2
18.....	2	11	8	46	88	78	8	14	27	2	2	2
19.....	2	12	8	46	84	78	8	12	108	2	2	2
20.....	3	12	8	43	84	76	6	11	84	2	2	1
21.....	3	12	10	44	87	74	5	12	62	2	2	2
22.....	3	12	11	41	92	72	5	15	37	2	2	2
23.....	4	10	15	38	108	69	5	18	24	2	2	1
24.....	4	12	12	37	118	67	13	15	15	2	2	1
25.....	5	13	14	37	118	65	6	12	22	2	2	2
26.....	5	14	17	37	123	64	8	10	26	2	2	2
27.....	5	14	21	42	132	68	7	6	26	2	2	2
28.....	5	14	26	44	134	70	8	9	34	2	2	1
29.....	5	13	30	46	-----	74	6	17	32	2	2	2
30.....	5	12	29	46	-----	80	4	20	28	2	2	1
31.....	4	-----	36	43	-----	80	-----	24	-----	2	2	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5	2	3.4	212
November.....	14	2	9.0	536
December.....	36	4	12.2	756
January.....	49	37	42.7	2,636
February.....	134	37	68.1	3,780
March.....	136	64	92.3	5,680
April.....	79	4	20.2	1,200
May.....	26	5	12.3	756
June.....	108	12	31.1	1,850
July.....	25	2	5.81	357
August.....	3	2	2.1	129
September.....	2	1	1.67	99
The year.....	136	1	24.8	18,000

WEST WALKER RIVER NEAR COLEVILLE, CALIF.

LOCATION.—Water-stage recorder in NE¼ sec. 28, T. 8 N., R. 23 E., immediately below Rock Creek (Rose Canyon), at head of Antelope Valley, 5 miles south-east of Coleville and 10 miles below East Fork.

DRAINAGE AREA.—245 square miles.

RECORDS AVAILABLE.—June 1915 to September 1933. October 1902 to July 1908 at a site half a mile upstream.

DISCHARGE.—Maximum during year, 2,120 second-feet June 14 (gage height, 5.45 feet); minimum not recorded.

1915-33: Maximum, 2,710 second-feet June 12, 1921 (gage height, 5.74 feet); minimum, 5 second-feet Dec. 3, 1924, Aug. 27, 1931. Average, 23 years (1902-07, 1915-33), 284 second-feet.

REMARKS.—Records good except those estimated, which are fair. Station is above all diversions except one small canal 1½ miles upstream, which diverts a maximum of 3 second-feet. Very slight regulation from storage in Poor Lake Reservoir, 17 miles upstream; capacity unknown.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	55	39	30	39	77	215	1,070	438	82	39
2	49	38	27	38	86	209	1,020	457	70	38
3	46	35	33	35	104	178	882	447	63	38
4	45	32	37	34	133	190	665	425	56	37
5	44	40	26	34	129	186	738	457	54	35
6	44	39		35	125	178	810	471	52	35
7	42	38		39	121	166	882	447	51	35
8	42	38		39	117	150	1,020	403	50	37
9	42	38		45	113	150	1,070	343	47	37
10	43	38		45	106	137	1,110	310	47	35
11	43	35		43	109	144	1,130	293	45	35
12	42	37		45	113	144	1,310	317	45	34
13	40	36		47	125	137	1,430	335	49	34
14	38	36		37	142	144	1,600	320	44	33
15	38	35		38	181	150	1,620	306	49	31
16	38	38		39	218	178	1,470	266	49	30
17	40	38		40	204	164	1,240	232	96	29
18	42	38		42	150	157	1,000	215	68	28
19	38	35	30	43	168	150	63	206	105	28
20	38	33		45	172	173	818	198	70	27
21	38	35		50	176	215	837	188	54	27
22	43	31		46	180	212	785	164	50	27
23	42	27		45	183	220	755	146	50	28
24	35	33		44	186	266	737	140	49	29
25	33	37		43	206	374	695	135	46	30
26	40	37		43	204	594	689	140	46	30
27	40	36		44	193	665	701	125	45	30
28	39	35		49	220	804	516	115	44	29
29	38	33		44	250	947	485	104	41	28
30	38	34		46	226	1,080	466	96	41	28
31	38			59		1,130		89	41	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	55	33	41.1	2,530
November	40	27	35.8	2,130
December			30.1	1,850
January			35	2,150
February			35	1,940
March	59	34	42.1	2,590
April	250	77	157	9,340
May	1,130	137	316	19,400
June	1,620	466	917	56,400
July	471	89	279	16,500
August	105	41	54.8	3,370
September	39	27	32.0	1,900
The year	16,20		196	120,000

* Estimated.

TOPAZ RESERVOIR NEAR TOPAZ, CALIF.

LOCATION.—Elevations obtained near outlet works of Topaz Reservoir, in sec. 28, T. 10 N., R. 22 E., 6 miles north of Topaz.

RECORDS AVAILABLE.—October 1931 to September 1933.

REMARKS.—Gage-height record and capacity table furnished by Walker River Irrigation District. Alkali Lake was converted into a storage reservoir by diverting water through a feeder canal from the West Walker River and construction of outlet works through a low saddle in the rim of the lake. Alkali Lake occupied the bottom of a large natural depression about 3 miles from the West Walker River. Contents shown represent usable contents only and not the total quantity of water in the reservoir.

Contents, in acre-feet, 1932-33

Day	Oct	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul ⁷	Aug.	Sept.
1....	15,700	15,400	18,200	21,700	26,200	30,100	34,500	33,200	29,000	37,600	24,500	10,100
2....	15,700	15,400	18,300	21,900	26,400	30,300	34,600	33,000	29,700	36,900	23,700	9,800
3....	15,700	15,500	18,500	22,100	26,600	30,500	34,600	33,000	30,100	36,700	23,100	9,420
4....	15,700	15,500	18,600	22,300	26,800	30,600	34,800	32,800	30,500	36,500	22,500	9,010
5....	15,700	15,500	18,700	22,400	26,900	30,800	35,000	32,600	30,400	36,500	21,700	8,480
6....	15,700	15,600	18,800	22,600	27,000	31,000	35,200	32,400	30,300	36,400	21,300	8,120
7....	15,700	15,800	18,900	22,700	27,100	31,100	35,400	32,300	30,000	36,400	20,800	7,770
8....	15,700	15,900	19,100	22,800	27,200	31,300	35,400	32,000	30,000	36,300	20,200	7,340
9....	15,600	16,000	19,200	22,900	27,300	31,400	35,500	31,800	30,100	36,200	19,600	6,990
10....	15,600	16,100	19,300	23,000	27,400	31,600	35,500	31,600	30,400	36,000	19,100	6,660
11....	15,600	16,200	19,400	23,100	27,500	31,800	35,600	31,400	31,000	35,800	18,300	6,360
12....	15,600	16,300	19,500	23,300	27,600	32,000	35,600	31,300	31,600	35,700	17,800	6,150
13....	15,500	16,400	19,600	23,400	27,800	32,100	35,600	31,200	32,300	35,600	17,300	5,840
14....	15,500	16,400	19,700	23,600	28,000	32,300	35,700	30,800	33,100	35,500	16,800	5,500
15....	15,500	16,500	19,800	23,800	28,100	32,400	35,600	30,700	34,600	35,200	16,000	5,270
16....	15,500	16,700	19,900	23,900	28,300	32,600	35,600	30,500	35,600	35,000	15,800	5,130
17....	15,500	16,800	20,000	24,000	28,500	32,700	35,600	30,500	36,000	34,700	15,400	5,000
18....	15,500	16,900	20,000	24,000	28,800	32,800	35,600	30,400	37,400	34,600	14,900	4,920
19....	15,500	17,000	20,100	24,100	29,200	32,900	35,500	30,300	38,200	34,000	14,400	4,770
20....	15,500	17,100	20,300	24,200	29,500	33,100	35,400	30,100	38,300	33,400	14,000	4,770
21....	15,500	17,300	20,400	24,300	29,800	33,200	35,300	29,900	38,500	33,100	13,500	4,770
22....	15,500	17,300	20,600	24,400	29,800	33,300	35,100	29,700	38,900	32,800	13,100	4,770
23....	15,500	17,400	20,700	24,600	29,900	33,400	34,900	29,500	38,900	32,000	12,800	4,770
24....	15,500	17,500	20,900	24,700	29,900	33,500	34,700	29,300	38,700	30,500	12,300	4,770
25....	15,500	17,600	21,000	24,900	30,000	33,700	34,600	29,100	38,500	30,000	12,100	4,770
26....	15,500	17,600	21,100	25,100	30,000	33,800	34,500	28,900	38,300	29,200	11,900	4,850
27....	15,500	17,800	21,200	25,200	30,000	33,800	34,300	28,700	38,200	28,400	11,500	4,850
28....	15,500	17,900	21,300	25,300	30,000	34,000	34,100	28,500	38,000	27,600	11,100	4,850
29....	15,500	18,000	21,300	25,400	-----	34,100	33,800	28,400	37,900	26,900	10,800	4,880
30....	15,400	18,100	21,400	25,600	-----	34,200	33,600	27,800	37,700	25,900	10,600	4,890
31....	15,400	-----	21,400	25,900	-----	34,400	-----	28,400	-----	25,200	10,300	-----

HUMBOLDT-CARSON SINK BASIN

CARSON RIVER BASIN

CARSON RIVER NEAR FORT CHURCHILL, NEV.

LOCATION.—Water-stage recorder in sec. 5, T. 16 N., R. 23 E., 1 mile west of Clifton station on Mound House-Churchill branch of Southern Pacific Railroad, 9 miles west of Fort Churchill, and 10 miles east of Dayton.

DRAINAGE AREA.—1,200 square miles.

RECORDS AVAILABLE.—April 1911 to September 1933.

DISCHARGE.—Maximum mean daily during year, 1,370 second-feet June 1 and 2 (gage height, 7.16 feet); minimum, 13 second-feet Sept. 5-24.

1911-33: Maximum, 6,150 second-feet Jan. 26, 1914 (gage height, 11.5 feet); no flow during periods in nearly every year since 1923. Average, 22 years (1911-33), 358 second-feet.

REMARKS.—Carson and Dayton Valleys are irrigated above station. Records of daily discharge furnished by Bureau of Reclamation.

Discharge, in second-feet, 1932-33

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	120	118	190	165	121	1,370	235	35	15
2.....	121	120	201	178	121	1,370	206	34	14
3.....	126	124	251	195	125	1,190	194	34	14
4.....	129	125	280	213	129	1,130	187	33	14
5.....	132	125	288	225	131	986	178	32	13
6.....	134	125	273	233	129	871	168	31	13
7.....	134	124	255	233	122	904	161	31	13
8.....	132	124	243	212	124	1,060	146	29	13
9.....	132	122	237	185	138	1,030	135	29	13
10.....	132	122	235	172	153	1,140	125	29	13
11.....	129	121	235	162	162	1,210	117	28	13
12.....	128	120	227	143	197	1,130	108	28	13
13.....	126	118	221	124	194	1,070	98	27	13
14.....	125	117	223	107	180	1,010	91	26	13
15.....	125	125	217	107	161	947	84	25	13
16.....	122	140	213	116	147	888	76	24	13
17.....	121	150	208	170	131	830	69	24	13
18.....	121	152	202	199	116	770	65	23	13
19.....	118	150	194	187	116	723	60	22	13
20.....	113	147	182	165	120	667	55	22	13
21.....	108	147	175	134	118	612	52	21	13
22.....	107	147	177	121	126	560	50	20	13
23.....	109	149	184	112	165	518	47	19	13
24.....	115	153	175	113	159	480	45	18	13
25.....	118	159	170	129	155	435	42	18	14
26.....	113	167	159	118	233	402	42	17	14
27.....	108	170	153	111	563	364	41	17	15
28.....	111	175	150	98	750	342	39	16	15
29.....	111	-----	152	88	871	311	38	16	15
30.....	113	-----	158	92	1,020	257	37	16	15
31.....	117	-----	164	-----	1,220	-----	36	16	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	-----	-----	°41	2,520
November.....	-----	-----	°67	3,990
December.....	-----	-----	°81	4,980
January.....	134	107	121	7,440
February.....	175	117	127	7,610
March.....	288	150	206	12,700
April.....	233	88	154	9,160
May.....	1,220	116	264	16,200
June.....	1,370	257	819	48,700
July.....	235	36	°7.6	6,000
August.....	35	16	24.5	1,510
September.....	15	13	13.5	803
The year.....	1,370	13	1°8	122,000

° Estimated.

HUMBOLDT RIVER BASIN

HUMBOLDT RIVER AT PALISADE, NEV.

LOCATION.—Chain gage in sec. 36, T. 32 N., R. 51 E., at highway bridge at Palisade, 100 feet below Southern Pacific Railroad bridge and 1 mile above mouth of Pine Creek.

DRAINAGE AREA.—5,010 square miles.

RECORDS AVAILABLE.—November 1902 to October 1906; July 1911 to September 1933.

DISCHARGE.—Maximum during year, 1,330 second-feet June 17 (gage height, 5.08 feet); minimum, 11 second-feet Aug. 31 (gage height, 1.08 feet).
1902-6, 1911-33: Maximum, 4,300 second-feet Mar. 3, 1921 (gage height, 8.6 feet); minimum, 2 second-feet Aug. 25-28, 1931. Average, 25 years (1903-6, 1911-33), 346 second-feet.

REMARKS.—Records good except those for periods estimated, which are fair. Water is diverted for irrigation of about 150,000 acres above station.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	30	31	47	51		67	395	403	458	333	24	13
2.....	31	32	48	52		63	388	410	510	307	22	14
3.....	30	31	50	53		61	509	442	592	277	20	14
4.....	30	30	51	55		57	467	450	650	218	20	14
5.....	31	30	50	57		59	410	434	710	203	19	14
6.....	32	27	48	55		63	395	442	791	189	18	14
7.....	34	28	50	53		74	442	450	857	158	17	14
8.....	33	30	48	53		84	388	442	926	150	17	14
9.....	32	32	43			74	359	434	950	175	16	15
10.....	31	31	40			95	339	450	974	184	17	14
11.....	32	30			50	156	326	442	1,060	175	16	14
12.....	32	32				171	320	450	1,090	162	15	14
13.....	31	33	35			171	301	442	1,130	143	16	14
14.....	30	32				203	283	434	1,230	121	15	15
15.....	31	38				213	289	450	1,260	104	14	14
16.....	32	45				228	295	458	1,280	95	15	15
17.....	32	44				244	271	442	1,330	87	16	14
18.....	31	45				266	277	418	1,270	82	15	14
19.....	32	45				295	271	366	1,240	72	14	14
20.....	31	45		50		301	289	342	1,150	59	15	15
21.....	32	47	40			289	289	326	1,100	57	14	14
22.....	33	50				289	301	333	974	55	16	14
23.....	32	48			55	301	301	333	846	51	15	14
24.....	32	47				295	307	339	780	44	16	14
25.....	31	48			59	295	313	333	680	41	17	16
26.....	30	50			57	301	320	333	592	39	16	15
27.....	31	48			59	289	346	320	518	38	14	14
28.....	32	50			63	289	342	307	467	36	14	15
29.....	31	50	45			295	366	359	410	31	14	14
30.....	33	48				307	388	388	359	28	12	15
31.....	32					339		418		26	11	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	34	30	31.5	1,940
November.....	50	27	39.2	2,330
December.....			42.6	2,620
January.....	57		50.9	3,130
February.....	63		51.9	2,880
March.....	339	57	201	12,400
April.....	509	271	343	20,400
May.....	458	307	400	24,600
June.....	1,330	359	874	52,000
July.....	333	26	121	7,440
August.....	24	11	16.1	990
September.....	16	13	14.3	851
The year.....	1,330	11	182	132,000

HUMBOLDT RIVER NEAR HUMBOLDT, NEV.

LOCATION.—In sec. 26, T. 31 N., R. 32 E., about 5 miles west of Humboldt. Outlet canal from Humboldt Lovelocks Irrigation Light & Power Co.'s reservoir enters a short distance downstream.

RECORDS AVAILABLE.—April to August 1933.

REMARKS.—Records furnished by water commissioner for Humboldt River.

When combined with those for the outlet canal the records are comparable with the flow at the gaging station known as "Humboldt River near Oreana, Nev.," about 20 miles downstream, except for whatever channel losses may be involved. The combined records give practically the entire flow for the year except for a few days prior to Apr. 3. During the rest of the year the flow varied from 0 to 2 or 3 second-feet.

Discharge, in second-feet, 1933

Day	Apr.	May	June	July	Aug.	Day	Apr.	May	June	July	Aug.
1		161	146	80	61	16	203	84	73	84	5
2		148	140	58	60	17	196	86	124	112	5
3	92	140	120	73	50	18	191	101	118	118	7
4	147	148	86	64	46	19	168	93	114	99	7
5	180	156	80	58	31	20	161	86	93	99	7
6		211	185	93	42	21	142	80	80	93	7
7		221	233	101	28	22	150	80	78	86	7
8	223	253	93	24	21	23	160	80	102	82	7
9	216	241	93	29	20	24	155	86	100	76	7
10	218	231	80	48	18	25	155	122	92	79	5
11	212	219	86	41	16	26	187	216	89	84	5
12	221	207	60	40	14	27	181	228	93	82	3
13	218	106	53	44	10	28	213	216	101	80	0
14	216	93	53	48	9	29	213	172	102	72	0
15	211	86	40	60	7	30	217	140	102	64	0
						31		132		64	0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 3-30	223	92	188	10,400
May	253	80	149	9,160
June	146	40	92.8	5,520
July	118	24	68.1	4,190
August	61	0	15.7	965
The period				30,200

MARTIN CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—Water-stage recorder in SE¼NE¼ sec. 11, T. 42 N., R. 40 E., 1½ miles above Silver State flour mill and 8 miles northeast of Paradise Valley.

RECORDS AVAILABLE.—October 1921 to September 1933.

DISCHARGE.—Maximum during year, 700 second-feet Aug. 18 (gage height, 9.30 feet); minimum, 6 second-feet for several days during July–Sept.

1921–33: Maximum, about 1,000 second-feet Feb. 21 or 22, 1927 (gage height, about 12 feet); minimum, 2 second-feet Sept. 1–9, 1928. Average, 11 years (1921–26, 1927–33), 23 second-feet.

REMARKS.—Records fair. No diversions above gage. Results of several discharge measurements furnished by Little Humboldt River water commissioner.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	9	8			29	67	102	6	6	6
2	7	9	8			32	76	104	6	6	6
3	7	8	8			44	68	101	6	6	6
4	8	9	9			58	62	93	6	6	6
5	8	11	10		* 10	33	63	83	6	6	6
6	8	10	10			32	56	81	7	6	6
7	8	8	9			35	53	70		6	6
8	7	8	9			23	49	66		6	6
9	7	8	9		10	16	46	66		6	6
10	7	9	9		10	15	45	63		6	6
11	7	9	9		10	13	45	57		7	6
12	8	9			11	14	41	53	* 6	7	6
13	8	* 9			11	14	40			7	6
14	8	* 9			11	17	42			7	6
15	8	* 9	* 9		12	32	48	* 35		7	6
16	8	* 8			12	49	53			6	6
17	9	* 8			12	35	53			6	6
18	9	* 8	9		12	27	48	24	6	57	6
19	8	* 8			12	22	46		6		6
20	8	8		11	13	24	51		6		6
21	8	9			12	31	60	* 15	6		7
22	8	9			12	42	60		6	* 10	7
23	8	8			12	50	58		6		7
24	8	8			12	56	63		6		7
25	9	8	* 9		12	82	72	11	6		8
26	9	8			12	71	80	10	6		8
27	9	7			12	74	84	9	6	6	8
28	9	7			16	81	83	8	6	6	8
29	8	7			17	108	86	7	6	6	8
30	8	7			18	81	97	7	6	6	7
31	8				26		101		6	6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	9	7	7.97	490
November	11	7	8.4	500
December			8.97	552
January			* 9	553
February			* 11	555
March	26		12.2	750
April	108	13	41.3	2,460
May	101	40	61.2	3,760
June	104	7	42.7	2,540
July			6.03	371
August	57	6	8.84	544
September	8	6	6.5	387
The year	108	6	13.6	13,500

* Estimated.

COTTONWOOD CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—Staff gage in SW $\frac{1}{4}$ sec. 3, T. 42 N., R. 39 E., at Case ranch, 5 mile northwest of Paradise Valley.

RECORDS AVAILABLE.—May 1925 to September 1933.

DISCHARGE.—Maximum during year, 22 second-feet June 2 (gage height, 4.55 feet); minimum not recorded.

1925-33: Maximum, 183 second-feet Mar. 19, 1932 (gage height, 5.80 feet); no flow for periods during practically every year.

REMARKS.—Records fair. Two small diversions above station.

Discharge, in second-feet, 1932-33

Day	Mar.	Apr.	May	June	July	Day	Mar.	Apr.	May	June	July
1-----	1	3	14	18	2	16-----	4	6	12	10	} • 0.5
2-----	1	4	13	19	2	17-----	2	5	12	9	
3-----	1	5	12	18	2	18-----	2	5	12	8	
4-----	1	6	12	17	2	19-----	4	5	12	8	
5-----	1	6	12	16	2	20-----	5	6	13	7	
6-----	1	6	11	16	2	21-----	2	7	13	6	
7-----	1	4	11	16	1	22-----	1	9	13	4	
8-----	1	4	10	14	2	23-----	2	10	13	4	
9-----	2	3	10	15	1	24-----	2	12	14	3	
10-----	3	3	10	14	2	25-----	2	13	15	3	
11-----	3	3	10	14	1	26-----	2	13	15	4	} • 0.5
12-----	4	3	10	14	1	27-----	2	14	16	3	
13-----	3	3	10	12	1	28-----	2	16	15	2	
14-----	3	4	11	12	} • 0.5	29-----	3	18	16	2	
15-----	4	6	12	12		30-----	3	15	18	2	
						31-----	3		18		

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October-----			• 0.7	43
November-----			• 0.9	54
December-----			• 1.0	61
January-----			• 1.0	61
February-----			1.0	56
March-----	5	1	2.29	141
April-----	18	3	7.23	430
May-----	18	10	12.7	781
June-----	19	2	10.1	601
July-----	2		.97	60
August-----			• 5	31
September-----			• 5	30
The year-----	19		3.24	2,350

• Estimated.

HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S OUTLET CANAL NEAR HUMBOLDT
NEV.

LOCATION.—Staff gage and weir in SE¼ sec. 30, T. 32 N., R. 33 E., at outlet of lower Taylor-Pitt Reservoir, 2½ miles west of Humboldt.

RECORDS AVAILABLE.—February 1914 to September 1920; October 1921 to September 1933.

REMARKS.—Records good. Flow regulated by reservoir outlet gates a few hundred feet upstream. Canal conducts stored water released from Taylor-Pitt Reservoirs to Humboldt River in SW¼ sec. 31, T. 32 N., R. 33 E., for irrigation in Lovelock Valley, several miles downstream. Gage-height record furnished by Humboldt-Lovelock Irrigation, Light, & Power Co.

Discharge, in second-feet, 1932-33

Day	Oct.	Apr.	May	June	July	Aug.	Day	Oct.	Apr.	May	June	July	Aug.
1.....	6	0	70	31	47	26	16.....	0	0	16	100	13	38
2.....	0	0	74	31	47	28	17.....	0	0	21	97	16	30
3.....	0	0	77	24	47	35	18.....	0	0	21	82	23	30
4.....	0	0	79	21	47	35	19.....	0	0	21	65	23	30
5.....	0	0	81	21	44	40	20.....	0	0	21	65	23	20
6.....	0	0	98	24	37	47	21.....	0	0	21	58	16	0
7.....	0	0	96	31	26	52	22.....	0	0	31	50	14	0
8.....	0	0	73	28	13	52	23.....	0	0	43	52	15	0
9.....	0	0	62	36	7	52	24.....	0	20	43	58	14	0
10.....	0	0	55	48	8	53	25.....	0	54	47	61	18	0
11.....	0	0	50	59	7	54	26.....	0	54	52	58	27	0
12.....	0	0	35	72	0	52	27.....	0	54	52	50	28	0
13.....	0	0	26	86	0	52	28.....	0	54	52	51	26	0
14.....	0	0	26	97	6	52	29.....	0	63	50	50	26	0
15.....	0	0	16	97	12	52	30.....	0	70	52	47	26	0
							31.....	0		42		26	0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	6	0	0.2	12
April.....	70	0	12.3	732
May.....	98	16	48.5	2,980
June.....	100	21	55.0	3,270
July.....	47	0	22.0	1,350
August.....	57	0	26.8	1,640
The year.....	100	0	13.8	9,980

NOTE.—No flow during months omitted.

PYRAMID AND WINNEMUCCA LAKES BASIN

PYRAMID LAKE NEAR NIXON, NEV.

LOCATION.—Elevations since 1904 determined by spirit leveling at points at south end of lake, adjacent to General Land Office bench mark 1, which is top of iron post in forks of road about 900 feet north of the quarter corner of secs. 29 and 30, T. 23 N., R. 23 E., and $4\frac{1}{2}$ miles west of Pyramid Lake Sanatorium, at Nixon. Elevation of bench mark 1 is 3,882.258 feet above mean sea level based on 1912 adjustments of heights of bench marks along precise-level lines of United States Coast and Geodetic Survey. Location of observations prior to 1904 unknown.

RECORDS AVAILABLE.—Occasional elevations 1867 to September 1933.

REMARKS.—Records furnished by United States Indian Service. Reductions to mean sea level datum by United States Geological Survey.

Elevation, in feet, above mean sea level, 1932-33

Oct. 13.....	3,829.6	Apr. 20.....	3,828.3	July 7.....	3,828.1
Nov. 17.....	3,829.1	May 19.....	3,828.2	Aug. 14.....	3,827.2
Dec. 24.....	3,828.8	June 26.....	3,828.6	Sept. 27.....	3,826.9
Jan. 28.....	3,828.5				

LAKE TAHOE AT TAHOE, CALIF.

LOCATION.—Staff gage in NW $\frac{1}{4}$ sec. 7, T. 15 N., R. 17 E., near outlet of lake at Tahoe. Zero of gage is 6,220.0 feet above mean sea level; rim of lake (natural control of outlet), 6,223.0 feet; sill of outlet gates below natural control, 6,219.0 feet.

DRAINAGE AREA.—519 square miles (including water surface of lake, which is 193 square miles).

RECORDS AVAILABLE.—1900 to September 1933.

EXTREMES.—Maximum stage during year, 3.83 feet June 28 to July 9; minimum, 2.65 feet Jan. 17-18.

1900-1933: Maximum stage, 11.26 feet July 14, 15, 17, 18, 1907; minimum, 1.79 feet Dec. 8, 1931.

REMARKS.—Gage read to hundredths once daily. See "Truckee River at Tahoe, Calif." Record furnished by Truckee-Carson Irrigation District.

Gage-heights, in feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	3.66	3.14	2.91	2.78	3.06	2.88	3.00	3.05	3.43	3.83	3.69	3.35
2.....	3.65	3.13	2.90	2.77	3.05	2.87	3.00	3.11	3.45	3.83	3.68	3.34
3.....	3.64	3.13	2.89	2.78	3.03	2.86	3.00	3.12	3.46	3.83	3.67	3.33
4.....	3.64	3.11	2.89	2.77	3.01	2.86	3.01	3.12	3.47	3.83	3.65	3.32
5.....	3.64	3.10	2.89	2.76	3.00	2.86	3.01	3.12	3.49	3.83	3.62	3.30
6.....	3.63	3.09	2.88	2.76	3.00	2.85	3.02	3.13	3.52	3.83	3.59	3.27
7.....	3.61	3.08	2.88	2.75	2.99	2.85	3.02	3.16	3.54	3.83	3.58	3.24
8.....	3.59	3.07	2.86	2.75	2.98	2.85	3.01	3.17	3.56	3.83	3.57	3.22
9.....	3.58	3.06	2.86	2.75	2.97	2.84	3.00	3.18	3.58	3.83	3.56	3.21
10.....	3.55	3.06	2.85	2.74	2.96	2.83	3.00	3.19	3.60	3.82	3.55	3.20
11.....	3.55	3.05	2.84	2.72	2.96	2.82	3.00	3.20	3.62	3.82	3.54	3.18
12.....	3.54	3.05	2.81	2.71	2.97	2.86	3.00	3.21	3.65	3.82	3.54	3.16
13.....	3.53	3.04	2.78	2.70	2.98	2.95	2.99	3.22	3.68	3.82	3.53	3.15
14.....	3.52	3.06	2.77	2.69	2.97	2.96	2.99	3.23	3.71	3.82	3.53	3.14
15.....	3.51	3.03	2.75	2.67	2.96	2.96	2.99	3.24	3.73	3.82	3.52	3.11
16.....	3.49	3.02	2.75	2.66	2.97	2.99	2.98	3.25	3.75	3.81	3.52	3.09
17.....	3.46	3.01	2.78	2.65	2.96	3.04	2.97	3.26	3.77	3.81	3.52	3.08
18.....	3.43	3.01	2.77	2.65	2.95	3.03	2.97	3.26	3.79	3.80	3.52	3.05
19.....	3.40	3.01	2.77	2.81	2.94	3.03	2.97	3.26	3.80	3.79	3.53	3.04
20.....	3.36	3.01	2.80	2.85	2.94	3.03	2.97	3.27	3.80	3.79	3.52	3.02
21.....	3.33	3.00	2.81	2.85	2.93	3.03	2.97	3.27	3.80	3.78	3.51	3.00
22.....	3.31	3.00	2.82	2.86	2.93	3.03	2.98	3.27	3.80	3.77	3.50	2.99
23.....	3.28	2.99	2.84	2.88	2.92	3.02	2.98	3.26	3.81	3.76	3.48	2.97
24.....	3.24	2.99	2.85	2.87	2.92	3.02	2.99	3.26	3.81	3.75	3.47	2.94
25.....	3.20	2.98	2.85	2.93	2.90	3.02	2.99	3.27	3.82	3.74	3.46	2.93
26.....	3.19	3.98	2.84	2.96	2.89	3.03	3.00	3.28	3.82	3.73	3.44	2.91
27.....	3.18	2.97	2.82	3.00	2.89	3.03	3.00	3.30	3.82	3.73	3.42	2.90
28.....	3.17	2.95	2.81	3.05	2.88	3.01	3.01	3.32	3.83	3.72	3.41	2.90
29.....	3.16	2.93	2.79	3.08	-----	3.01	3.02	3.34	3.83	3.72	3.40	2.89
30.....	3.16	2.93	2.79	3.08	-----	3.00	3.04	3.37	3.83	3.71	3.38	2.89
31.....	3.15	-----	2.78	3.07	-----	3.00	-----	3.40	-----	3.70	3.36	-----

TRUCKEE RIVER AT TAHOE, CALIF.

LOCATION.—Staff gage in NW¼ sec. 7, T. 15 N., R. 17 E., at Tahoe, just below dam at outlet of Lake Tahoe. Altitude, about 6,200 feet.

DRAINAGE AREA.—519 square miles.

RECORDS AVAILABLE.—July 1895 to February 1896; June 1900 to September 1933.

DISCHARGE.—Maximum mean daily during year, 50 second-feet June 28 to July 9; no flow most of year.

1895-96, 1900-1933: Maximum mean daily discharge, 1,340 second-feet July 13-20, 1907; no flow during parts of 1900, 1901, 1914, 1918-33. Average, 33 years (1900-1933), 265 second-feet.

REMARKS.—Flow regulated by operation of gates in dam at Lake Tahoe. Daily discharge record furnished by Truckee-Carson Irrigation District.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	June	July	Aug.	Sept.	Day	Oct.	Nov.	June	July	Aug.	Sept.
1.....	31	2	0	50	25	9	16.....	17	0	0	47	19	1
2.....	30	2	0	50	25	9	17.....	15	0	0	47	19	1
3.....	29	2	0	50	25	8	18.....	14	0	0	46	19	1
4.....	29	1	0	50	25	8	19.....	12	0	0	45	20	0
5.....	29	1	0	50	25	7	20.....	10	0	0	45	19	0
6.....	28	1	0	50	25	6	21.....	8	0	0	44	19	0
7.....	27	1	0	50	24	5	22.....	7	0	0	42	18	0
8.....	25	1	0	50	23	4	23.....	6	0	0	41	17	0
9.....	24	1	0	50	23	4	24.....	5	0	0	13	16	0
10.....	22	1	0	48	22	3	25.....	3	0	0	0	15	0
11.....	22	1	0	48	21	3	26.....	3	0	30	0	14	0
12.....	21	1	0	48	21	2	27.....	3	0	48	0	13	0
13.....	20	0	0	48	20	2	28.....	3	0	50	7	12	0
14.....	19	0	0	48	20	2	29.....	2	0	50	30	12	0
15.....	19	0	0	48	19	1	30.....	2	0	50	27	11	0
							31.....	2			25	10	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	31	2	15.7	965
November.....	2	0	.50	29.8
June.....	50	0	7.60	452
July.....	50	0	3.6	2,370
August.....	25	10	13.2	1,180
September.....	9	0	2.53	151
The year.....	50	0	7.12	5,150

NOTE.—No flow during months omitted.

TRUCKEE RIVER AT ICELAND, CALIF.

LOCATION.—Water-stage recorder in sec. 36, T. 18 N., R. 17 E., above dam of National Ice Co. at Iceland. Altitude, about 5,420 feet.

DRAINAGE AREA.—937 square miles.

RECORDS AVAILABLE.—August 1912 to September 1933. September 1899 to August 1912 at Nevada-California State line, 3 miles downstream.

DISCHARGE.—Maximum during year, 2,140 second-feet May 31 (gage height, 5.75 feet); minimum 37 second-feet Sept. 15.

1899–1933: Maximum mean daily, 15,300 second-feet Mar. 18, 1907 (gage height, 11.5 feet); minimum 28 second-feet Dec. 18, 1930. Average, 21 years (1912–33), 650 second-feet.

REMARKS.—Flow regulated by operation of gates in dam at Lake Tahoe. Daily discharge record furnished by Truckee-Carson Irrigation District.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	106	82	94	96	93	109	269	686	1,780	383	109	49
2.....	111	91	85	107	88	112	368	659	1,530	362	96	47
3.....	114	109	82	85	78	104	495	562	1,390	342	90	47
4.....	114	106	85	85	60	115	639	600	1,140	322	96	43
5.....	111	106	82	85	64	107	706	600	1,090	302	93	41
6.....	111	109	76	85	74	101	606	507	1,310	288	96	40
7.....	117	109	• 75	98	69	101	593	495	1,460	279	93	40
8.....	114	106	• 75	98	83	107	519	490	1,480	260	90	40
9.....	111	104	• 75	90	88	124	416	478	1,500	243	88	41
10.....	106	101	• 75	90	88	134	399	466	1,440	226	85	41
11.....	106	99	• 75	98	101	143	444	444	1,370	213	88	41
12.....	104	99	• 75	98	93	146	525	449	1,440	201	88	40
13.....	101	96	• 75	98	93	157	568	432	1,520	194	83	40
14.....	109	94	• 75	104	83	134	619	478	1,520	190	80	38
15.....	104	91	• 80	93	85	137	734	519	1,620	178	78	37
16.....	99	99	• 85	101	85	134	679	568	1,530	171	90	45
17.....	94	101	• 95	98	74	131	513	568	1,210	164	93	45
18.....	94	101	109	88	76	131	410	587	888	157	96	43
19.....	94	96	114	93	74	131	362	720	706	146	98	45
20.....	94	96	109	96	76	137	373	798	639	143	88	49
21.....	96	94	104	101	80	160	444	991	632	134	85	51
22.....	96	89	99	104	98	164	525	798	606	322	80	52
23.....	89	85	101	98	98	160	600	791	587	327	76	54
24.....	87	85	96	93	90	157	813	903	568	327	74	58
25.....	85	87	99	96	88	157	655	1,010	531	288	74	60
26.....	85	87	104	96	96	157	632	1,150	519	269	71	62
27.....	82	85	106	93	104	157	655	1,240	556	274	69	60
28.....	80	82	106	93	109	171	903	1,470	507	274	67	58
29.....	78	80	106	85	-----	194	991	1,730	478	256	64	56
30.....	78	89	106	93	-----	197	734	2,010	449	107	58	56
31.....	76	-----	104	93	-----	226	-----	1,950	-----	104	54	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	117	76	98.3	6,040
November.....	109	80	95.3	5,670
December.....	114	75	91.2	5,610
January.....	107	85	94.5	5,810
February.....	109	60	85.3	4,740
March.....	226	101	142	8,730
April.....	991	269	573	34,100
May.....	2,010	432	811	49,900
June.....	1,780	449	1,070	63,700
July.....	383	104	240	14,800
August.....	109	54	83.5	5,130
September.....	62	37	47.3	2,810
The year.....	2,010	37	286	207,000

• Estimated.

DONNER CREEK NEAR TRUCKEE, CALIF.

LOCATION.—Water-stage recorder in SE¼ sec. 16, T. 17 N., R. 16 E., 1 mile below Cold Creek and 1½ miles southwest of Truckee. Altitude, about 5,800 feet.

DRAINAGE AREA.—30 square miles.

RECORDS AVAILABLE.—October 1902 to September 1915; March 1928 to June 1933.

DISCHARGE.—Maximum discharge during year, 474 second-feet May 30 (gage height, 3.27 feet); minimum, 2 second-feet Sept. 1-30.

1902-15, 1928-33: Maximum mean daily discharge, 541 second-feet May 15, 1932 (gage height 3.47 feet); minimum, less than 1 second-foot many years during summer. Average, 15 years (1903-13, 1928-33), 76.3 second-feet.

REMARKS.—No diversions. Flow is partially controlled by outlet gates at Donner Lake. Record of daily discharge furnished by Truckee-Carson Irrigation District.

Discharge, in second-feet, 1928-33

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1928							
1.....		• 215	255	103	14	2	2
2.....		215	259	100	13	2	2
3.....		205	239	94	12	2	2
4.....		195	239	89	12	2	2
5.....		172	255	86	11	2	2
6.....		161	273	81	10	2	2
7.....		154	300	76	10	2	2
8.....		151	312	66	9	2	2
9.....		145	300	52	8	2	2
10.....		151	323	49	8	2	2
11.....		164	309	46	7	2	2
12.....		52	182	277	7	2	2
13.....		50	182	213	5	2	2
14.....		50	177	188	4	2	2
15.....		51	193	181	2	2	2
16.....		52	179	173	2	2	2
17.....		58	168	177	2	2	2
18.....		64	159	177	2	2	2
19.....		68	151	184	2	2	2
20.....		73	143	182	2	2	2
21.....		77	139	173	2	2	2
22.....		88	143	177	2	2	2
23.....		100	153	177	2	2	2
24.....			156	177	2	2	2
25.....			• 170	163	2	2	2
26.....			• 184	164	18	2	2
27.....			• 198	153	17	2	2
28.....			• 212	140	16	2	2
29.....			• 226	133	16	2	2
30.....			• 240	118	14	2	2
31.....			109		2	2	

• Estimated.

Discharge, in second-feet, of Donner Creek near Truckee, Calif., 1928-33—Contd.

Day	Oct.	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1928-29											
1.....	2	2	* 1	16	5	28	105	70	140	5	15
2.....	2	2		18	1	32	121	64	148	5	4
3.....	2	2		21	2	28	177	64	146	4	3
4.....	2	2		26	3	29	223	62	71	4	3
5.....	2	2		27	7	27	215	60	25	4	3
6.....	2	2		24	9	28	207	61	24	4	2
7.....	2	2	35	33	9	32	205	118	21	4	3
8.....	2	2	55	64	8	32	209	126	20	4	2
9.....	2	2	38	93	15	37	159	76	19	4	3
10.....	2	2	37	110	19	32	116	106	17	4	2
11.....	2	2	36	115	16	32	119	109	16	21	2
12.....	2	2	35	115	13	33	128	65	15	95	2
13.....	2	2	34	79	10	33	186	70	14	96	2
14.....	2	2	31	50	10	37	237	68	13	96	1
15.....	2	2	30	51	9	43	230	113	47	96	1
16.....	2	5	30	50	10	49	198	244	100	85	1
17.....	2	24	30	49	11	59	168	175	99	71	1
18.....	2	24	29	47	11	63	158	75	97	12	1
19.....	2	77	37	47	11	62	207	67	94	4	1
20.....	2	21	29	44	13	59	266	64	94	3	1
21.....	2	2	37	39	21	59	264	62	48	3	* 1
22.....	2	2	30	31	44	58	256	59	8	3	
23.....	2	2	23	19	30	56	205	57	7	3	
24.....	2	2	33	13	29	57	150	55	6	3	
25.....	2	2	20	13	23	59	136	52	6	3	
26.....	2	2	20	12	20	61	109	49	5	3	* 1
27.....	2	2	20	12	21	79	96	47	5	8	
28.....	2	2	19	10	26	83	80	44	5	49	
29.....	2	2	18		31	80	80	39	5	45	
30.....	2	2	18		30	94	80	79	5	39	
31.....	2		16		29		75		5	35	
1929-30											
1.....		2	21	24	35	136	147	82	86	2	2
2.....		2	21	27	33	138	168	83	99	2	2
3.....		2	21	28	33	138	174	87	89	11	2
4.....		1	17	28	33	140	150	94	57	93	1
5.....		1	49	30	33	147	145	103	25	93	1
6.....		2	87	30	32	154	141	116	25	93	1
7.....		2	110	31	34	170	117	170	24	93	1
8.....		2	103	32	33	189	110	216	23	66	1
9.....		14	88	33	32	176	106	166	22	6	1
10.....		69	63	34	32	158	103	112	21	6	2
11.....		35	47	35	34	154	106	125	20	6	2
12.....		104	41	55	35	156	114	141	38	5	1
13.....		138	26	156	36	174	123	145	12	5	1
14.....		69	18	125	37	158	128	136	11	4	1
15.....		62	22	78	36	172	123	133	10	4	1
16.....		65	89	77	35	172	133	79	9	4	1
17.....		47	98	80	35	170	145	64	8	4	1
18.....		60	70	83	35	168	128	58	8	4	1
19.....		56	30	83	60	166	150	58	7	4	1
20.....		42	26	86	92	164	234	53	7	4	2
21.....		36	25	82	93	162	287	50	7	4	2
22.....		32	25	85	96	160	239	48	7	14	2
23.....		30	29	82	98	158	116	44	7	70	2
24.....		28	24	64	113	156	141	38	6	96	2
25.....		27	24	39	123	154	241	32	6	96	2
26.....		27	24	41	131	152	250	30	6	93	2
27.....		24	24	39	136	150	206	28	6	93	2
28.....		24	24	36	140	149	126	27	6	89	2
29.....		24	24		147	149	141	25	6	74	2
30.....		23	24		154	147	180	40	5	55	3
31.....		21	24		140		170		5	5	

* Estimated.

Discharge, in second-feet, of Donner Creek near Truckee, Calif., 1928-33—Contd.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1930-31												
1.....	2	57	5	15	3	21	33	107	37	22	24	23
2.....	2	65	3	42	3	4	37	147	35	21	24	23
3.....	1	55	3	22	3	4	33	152	18	21	24	23
4.....	1	55	4	16	3	27	31	145	18	20	24	24
5.....	1	54	3	12	4	49	33	130	35	19	24	24
6.....	1	53	3	10	4	50	38	101	35	20	24	24
7.....	1	51	5	6	3	51	44	91	34	25	23	24
8.....	1	38	5	6	4	50	41	120	37	25	19	24
9.....	1	23	5	6	4	23	41	136	35	25	19	24
10.....	2	30	3	6	4	9	44	101	33	24	18	24
11.....	2	31	4	6	4	10	42	81	31	24	18	25
12.....	2	32	4	6	4	8	39	75	30	24	18	26
13.....	2	34	3	6	5	7	37	72	23	24	22	25
14.....	1	39	4	6	5	7	36	74	22	24	22	24
15.....	1	27	5	6	4	7	42	71	23	23	22	26
16.....	1	18	5	6	4	10	48	71	45	23	21	34
17.....	1	10	4	5	4	14	55	65	31	23	21	34
18.....	1	9	3	5	5	48	57	58	28	23	21	32
19.....	1	8	6	5	5	34	60	54	25	22	20	33
20.....	1	9	1	5	4	30	62	53	23	23	19	32
21.....	1	7	1	5	5	33	71	51	19	24	19	31
22.....	1	5	1	5	5	33	63	48	21	24	19	32
23.....	1	6	1	5	5	30	57	39	23	24	18	30
24.....	1	6	1	5	40	28	53	51	22	24	21	30
25.....	1	6	2	5	48	24	57	97	21	24	21	29
26.....	1	5	2	4	51	23	66	145	21	24	21	27
27.....	1	5	2	4	57	22	73	96	21	24	21	22
28.....	1	5	2	4	55	18	81	45	23	24	20	22
29.....	1	5	3	4	20	88	35	23	24	20	21	21
30.....	1	5	5	4	22	88	41	22	24	20	21	21
31.....	1		19	4		28		45	24	20		
1931-32												
1.....	19	4	10	70	53	19	15	247	145	102	70	1
2.....	19	3	10	70	79	18	13	231	114	154	85	17
3.....	19	3	10	70	91	16	7	234	130	147	85	33
4.....	19	3	11	50	78	15	8	206	218	131	80	33
5.....	20	4	14	40	45	13	7	209	299	88	77	11
6.....	20	4	15	40	41	9	7	150	250	58	63	1
7.....	24	4	10	50	38	8	9	89	247	51	67	1
8.....	26	5	10	60	35	6	11	109	272	45	60	1
9.....	26	5	10	60	35	6	15	133	204	42	68	1
10.....	26	6	17	50	35	5	22	221	170	37	70	1
11.....	25	6	29	55	30	5	30	341	275	33	89	1
12.....	11	6	21	55	55	5	37	419	328	30	93	1
13.....	5	7	15	53	43	4	40	495	321	30	96	1
14.....	5	11	15	48	42	4	45	522	318	27	96	1
15.....	5	8	15	47	58	3	53	463	312	27	94	1
16.....	17	7	15	45	49	3	61	438	296	25	94	1
17.....	21	9	16	43	47	4	58	390	272	24	93	1
18.....	20	9	16	41	45	5	65	324	223	22	89	1
19.....	20	7	16	39	45	13	77	315	206	20	26	1
20.....	20	7	16	41	42	12	88	315	176	19	3	1
21.....	20	7	18	36	37	7	138	387	172	18	3	1
22.....	13	7	20	38	35	5	126	387	172	16	2	1
23.....	60	9	29	38	32	3	126	372	154	15	1	1
24.....	75	12	38	64	32	6	141	383	156	14	1	1
25.....	50	8	27	61	31	8	162	315	202	14	1	17
26.....	50	8	27	55	30	7	162	234	202	13	1	37
27.....	35	9	39	54	27	7	164	250	200	13	1	35
28.....	14	9	75	53	25	9	168	255	141	12	1	28
29.....	10		100	52	21	8	176	197	112	27	1	28
30.....	7	10	100	51		8	195	182	102	79	1	30
31.....	6		90	49		10		176		72	1	

* Estimated.

Discharge, in second-feet, of Donner Creek near Truckee, Calif., 1928-33—Contd.

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1932-33										
1.....	21	59	22	4	13	54	350	47	16	2
2.....	6	59	21	4	17	60	290	48	16	1
3.....	6	55	19	4	22	59	249	45	22	2
4.....	6	55	19	4	28	57	189	43	25	2
5.....	6	53	18	4	29	55	212	39	24	2
6.....	7	51	18	4	32	53	290	35	24	2
7.....	7	49	17	5	32	51	316	34	25	2
8.....	8	47	16	6	24	49	319	31	24	2
9.....	8	44	16	6	27	48	299	30	24	2
10.....	8	42	16	7	28	47	270	28	23	2
11.....	9	39	15	7	30	46	268	26	21	2
12.....	10	37	15	7	34	45	290	25	21	2
13.....	10	35	15	7	38	44	293	24	21	2
14.....	10	38	15	6	45	43	287	23	21	2
15.....	10	42	15	5	55	45	273	21	21	2
16.....	11	43	15	5	49	45	224	18	21	2
17.....	12	39	14	6	39	45	162	20	23	2
18.....	12	37	14	5	35	134	115	19	23	2
19.....	12	39	14	6	33	197	92	19	23	2
20.....	13	42	14	7	35	205	90	14	24	2
21.....	13	39	14	7	42	208	91	11	24	2
22.....	14	36	14	7	47	197	104	212	20	2
23.....	15	33	14	6	59	205	108	208	17	2
24.....	15	30	14	7	78	180	100	205	17	2
25.....	16	28	14	6	60	151	85	208	17	2
26.....	17	26	13	6	65	162	81	208	17	2
27.....	18	24	13	7	79	184	73	217	17	2
28.....	18	24	13	8	85	265	64	217	17	2
29.....	19	25	12	9	77	341	58	105	15	2
30.....	20	24	12	10	58	400	53	16	12	2
31.....	48		12	10		410		16	5	
Month					Maximum	Minimum	Mear	Run-off in acre-feet		
1928										
April.....					240	139	176	10,500		
May.....					323	109	210	12,900		
June.....					103	14	44.2	2,630		
July.....					14	2	5.29	325		
August.....					2	2	2.00	123		
September.....					2	2	2.00	119		
The period.....								26,600		
1928-29										
October.....					2	2	2.00	123		
November.....					77	2	6.70	399		
December.....							2.0	123		
January.....					55	1	24.1	1,480		
February.....					115	10	43.9	2,440		
March.....					44	1	16.0	984		
April.....					94	27	48.7	2,900		
May.....					266	75	167	10,300		
June.....					244	39	80.0	4,760		
July.....					148	5	42.7	2,630		
August.....					96	3	26.3	1,620		
September.....					15	1	2.10	125		
The year.....					266	1	38.4	27,900		

• Estimated.

Discharge, in second-feet, of Donner Creek near Truckee, Calif., 1928-33—Contd.

Month	Maximum	Minimum	Mean	Run-off in acre-feet
1929-30				
October.....			a 1.0	61.5
November.....			a 1.0	59.5
December.....	138	1	34.5	2,120
January.....	110	17	42.5	2,610
February.....	156	24	58.0	3,220
March.....	154	32	68.9	4,240
April.....	189	136	158	9,400
May.....	287	103	156	9,590
June.....	216	25	86.1	5,120
July.....	99	5	21.5	1,320
August.....	96	2	38.6	2,370
September.....	3	1	1.57	93.4
The year.....	287	1	55.6	40,200
1930-31				
October.....	2	1	1.19	73.2
November.....	65	5	25.1	1,490
December.....	19	1	3.77	232
January.....	42	4	7.94	488
February.....	57	3	12.3	683
March.....	51	4	24.0	1,480
April.....	88	31	51.7	3,080
May.....	152	35	83.8	5,150
June.....	45	18	27.1	1,610
July.....	25	19	23.2	1,430
August.....	24	18	20.9	1,290
September.....	34	21	26.4	1,570
The year.....	152	1	25.6	18,600
1931-32				
October.....	75	5	22.8	1,400
November.....	12	3	6.93	412
December.....	100	10	27.5	1,690
January.....	70	36	50.9	3,130
February.....	91	21	43.3	2,490
March.....	19	3	8.10	498
April.....	195	7	74.2	4,420
May.....	522	89	290	17,800
June.....	328	102	213	12,700
July.....	154	12	45.3	2,790
August.....	96	1	48.8	3,000
September.....	37	1	9.63	573
The year.....	522	1	70.1	50,900
1932-33				
October.....	48	6	13.1	806
November.....	59	24	39.8	2,370
December.....	22	12	15.3	941
January.....			16.3	a 1,000
February.....			5.04	a 280
March.....	10	4	6.19	381
April.....	85	13	43.2	2,570
May.....	410	43	132	8,120
June.....	350	53	190	11,300
July.....	217	11	71.4	4,390
August.....	25	5	20.0	1,230
September.....	2	2	2.00	119
The year.....	410		46.2	33,500

a Estimated.

WARNER LAKES BASIN

DEEP CREEK ABOVE ADEL, OREG.

LOCATION.—Water-stage recorder in E½ sec. 15, T. 39 S., R. 23 E., a third of a mile below Drake Creek and 5 miles west of Adel.

RECORDS AVAILABLE.—September 1922 to September 1923, October 1932 to September 1933. Records October 1929 to September 1932 available in office of State engineer.

DISCHARGE.—Maximum during year, 320 second-feet Apr. 29 (gage height, 2.79 feet); minimum, 4 second-feet at times Aug. 14–29.

1922–23, 1932–33: Maximum, 405 second-feet Apr. 17, 1923 (gage height at former gage, 2.70 feet); minimum, that of Aug. 14–29, 1933.

Maximum known, 4,950 second-feet Mar. 2, 1910, at station 5 miles downstream at Adel.

REMARKS.—Records good except those estimated, Dec. 7, Dec. 9 to Mar. 7, and those for Mar. 8 to Apr. 20, May 3 to June 14, which are poor. Diversions for irrigation above station. Records furnished by State engineer.

Discharge, in second-feet, 1932–33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	11	14				61	228	278	41	6	5
2		7	11				74	201	258	32	7	5
3	7	12	15				94	182	258	27	7	5
4	7	12	14			9	162	178	252	24	6	5
5	7	13	13				158	174	236	22	6	5
6		8	15				167	152	224	20	6	5
7	9	22	10	7			111	143	218	19	5	5
8	8	17	10			10	79	143	214	22	5	5
9	8	16				13	63	152	214	18	5	5
10	8	15				20	61	138	214	15	5	5
11	8	13				20	70	136	208	14	5	5
12	8	13				21	84	122	207	13	5	5
13	9	13		7		21	114	113	203	12	5	5
14	9	12			8	20	129	115	201	10	4	5
15	9	12				20	156	125	184	10	4	5
16	10	14				20	183	134	159	9	4	5
17	10	14				18	183	156	139	8	4	5
18	10	14				17	154	180	122	8	4	6
19	11	13				19	139	170	99	7	4	6
20	11	14	7			22	129	157	87	7	4	6
21	11	13				22	136	150	75	6	4	6
22	11	11		7		23	191	148	66	6	4	6
23	12	11				22	222	147	65	6	4	6
24	12	14				23	236	150	58	7	4	6
25	13	13				19	252	167	52	6	4	9
26	13	13				17	278	174	52	6	4	10
27	13	14				18	278	205	47	6	4	9
28	13	13				23	252	212	49	5	4	8
29	13	13				28	310	224	45	5	4	8
30	12	13				33	278	244	47	5	5	7
31	11					47	278			5	5	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	13	7	9.8	603
November	22	11	13.5	803
December	15		8.5	523
January			7.0	430
February			8.0	444
March	47		18.7	1,150
April	310	61	160	9,520
May	278	113	168	10,300
June	278	45	151	8,980
July	41	5	12.9	793
August	7	4	4.7	289
September	10	5	5.9	351
The year	310	4	47.3	34,200

ABERT LAKE BASIN

CHEWAUCAN RIVER ABOVE CONN DITCH, NEAR PAISLEY, ORFG.

LOCATION.—Water-stage recorder in SW¼ sec. 27, T. 33 S., R. 18 E., at bridge 20 feet below power plant of R. R. Severin, 700 feet above diversion dam of Conn Ditch, a quarter of a mile below mouth of Mill Creek, and 2½ miles west of Paisley.

DRAINAGE AREA.—266 square miles.

RECORDS AVAILABLE.—April to September 1912; May 1924 to September 1933.

Records at stations giving practically same yearly run-off are available January 1905 to December 1907; January 1909 to September 1921.

DISCHARGE.—Maximum during year, 649 second-feet May 31 (gage height, 3.64 feet); no flow part of Dec. 12.

1905-7, 1909-21, 1924-33: Maximum (estimated), 4,000 second-feet Nov. 23, 1909 (gage height, 9.40 feet at former station); frozen dry Dec. 7, 1927, Dec. 12, 1932. Average, 23 years (1905-7, 1909-21, 1924-33), 134 second-feet.

REMARKS.—Records good except those estimated, which are fair. Low-water flow partly regulated by power plant above station. About 160 acres are irrigated above station. Records furnished by State engineer.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	a 20	25			a 24	a 27	83	214	576	89	23	17
2.....	a 20	26			a 25	a 28	107	197	526	83	27	16
3.....	20	a 29		a 20	a 25	a 29	176	168	548	77	26	16
4.....	19	a 32			a 26	a 30	159	173	510	70	28	16
5.....	20	a 35			26	31	131	168	466	65	28	16
6.....	20	a 38		21		a 32	137	148	440	63	24	16
7.....	a 21	41		22		33	107	145	435	58	23	16
8.....	22	33	a 17	23		a 36	89	143	410	67	21	17
9.....	a 21	33		23		a 39	65	141	498	64	20	17
10.....	20	a 31		25		a 42	57	131	466	53	19	17
11.....	20	a 29		24		a 45	71	121	425	49	19	16
12.....	20	27		24	a 28	47	77	112	410	45	18	16
13.....	20	a 26		24		a 45	91	117	392	43	18	16
14.....	20	26		25		a 43	107	141	365	41	18	16
15.....	a 22	23		a 26		a 41	145	148	329	37	18	16
16.....	a 23	32	8	a 27		40	145	168	297	35	17	17
17.....	25	36	9	a 28		38	116	202	260	34	17	18
18.....		32	13	a 28		a 42	100	197	227	32	18	19
19.....		28	15	28	29	47	103	159	202	31	18	21
20.....		28				53	98	154	176	29	16	20
21.....	a 25	27				57	117	163	159	28	16	20
22.....		23		a 25	a 26	48	141	173	148	28	16	21
23.....		18				42	166	208	135	27	17	19
24.....	25	21				43	188	250	127	24	16	21
25.....	23	a 22		22		43	194	309	119	23	16	27
26.....	27	23	a 19		24	43	176	357	114	23	16	25
27.....	26	27			a 24	47	234	370	107	21	16	24
28.....	26	25			a 25	57	274	392	108	20	16	23
29.....	25	29				57	365	471	100	20	16	21
30.....	23	a 30				58	240	554	98	20	17	20
31.....	23					72		586		20	17	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	27	19	22.6	1,390
November.....	41	18	28.5	1,700
December.....			17.0	1,050
January.....			23.5	1,440
February.....			26.7	1,480
March.....	72	27	43.1	2,650
April.....	365	57	142	8,450
May.....	586	112	225	13,800
June.....	576	98	306	18,200
July.....	89	20	42.5	2,610
August.....	28	16	19.2	1,180
September.....	27	16	18.7	1,110
The year.....	586		76.1	55,100

a Estimated.

SILVER LAKE BASIN

SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—Water-stage recorder in SW¼ sec. 28, T. 28 S., R. 14 E., 1½ miles below diversion dam of Silver Lake Irrigation District, 1½ miles southwest of Silver Lake post office, and 3 miles above mouth of Bridge Creek. Zero of gage is 4,361.28 feet above mean sea level.

DRAINAGE AREA.—221 square miles.

RECORDS AVAILABLE.—December 1904 to March 1907, January 1909 to September 1933 (incomplete).

DISCHARGE.—Maximum during year, 37 second-feet May 17 (gage height, about 2.38 feet); minimum observed, 0.3 second-foot Dec. 19-26, probably less at times when stage was affected by ice.

1904-7, 1909-33: Maximum, 910 second-feet Nov. 23, 1909 (gage height, 7.4 feet); no flow July 5 to Sept. 30, 1931, Oct. 21, 1931, Sept. 13, 1932. Average, 23 years (1905-6, 1909-27, 1929-33), 27.1 second-feet.

REMARKS.—Records good except those estimated and those for June 24 to Aug. 9, which are fair. Silver Lake Irrigation District Canal diverts water above gages during irrigation season. Diversion dam 1½ miles above gage impounds about 800 acre-feet; also storage in Thompson Valley Reservoir. Records furnished by State engineer.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	2.3	1.8	2.3	0.4	1.0	2.3	3.4	22	29	2'	4.3	3.4
2.....	2.3	1.8	2.3	.5	.8	1.8	10	24	30	20	4.8	3.4
3.....	2.3	1.7	2.3	.5	.7	1.5	14	28	31	2'	4.3	3.4
4.....	2.3	1.7	2.3	.5	.6	1.1	14	31	30	2'	4.6	3.4
5.....	2.3	1.7	2.2	.5	.5		13	30	28	20	4.6	3.4
6.....	2.3	2.3		.6	.5		13	31	27	20	4.6	3.4
7.....	2.2	1.8		.7	.6		12	32	25	2'	4.0	3.4
8.....	2.3	1.7		.8	.5	2.0	11	32	24	2'	4.0	3.2
9.....	2.3	1.7		.8			9.6	33	24	22	2.3	3.2
10.....	2.3	1.7		.8			9.6	34	23	19	1.8	2.6
11.....	2.2	1.7	.6	.8			9.6	31	22	19	1.7	2.6
12.....	2.0	1.7		.8	.9		9.6	30	20	18	2.0	2.4
13.....	2.2	1.7		.7	.9	3.7	9.6	31	19	18	1.8	2.3
14.....	2.2	1.7		.8		4.0	9.6	30	19	19	1.7	1.8
15.....	2.0	1.7		.8		4.3	11	32	19	18	2.0	1.7
16.....	2.0	1.7		.9		4.3	12	33	20	17	3.4	1.6
17.....	2.0	1.6	.5	.9	1.7	4.0	11	35	19	17	3.4	2.2
18.....	2.2	1.6	.4	.8	2.0	3.7	10	33	20	19	3.4	2.4
19.....	2.0	1.6	.3	.8	2.0	3.7	10	31	20	19	3.2	2.2
20.....	2.0	1.6	.3	.8	2.0	4.0	11	30	20	18	2.6	2.2
21.....	2.0	1.6	.3	.9	2.2	3.7	10	30	19	18	1.1	1.8
22.....	2.0	1.6	.3	.9	2.2	3.7	9.6	30	20	18	1.0	1.6
23.....	2.0	1.7	.3	.8	2.2	3.7	11	30	20	17	1.0	1.2
24.....	1.8	1.7	.3	.7	2.2	3.2	11	31	21	13	1.0	1.4
25.....	1.8	1.7	.3	.8	2.0	3.2	11	31	21	10	1.7	1.8
26.....	1.8	1.7	.3	1.0	2.0	2.6	16	31	22	9.2	5.7	1.8
27.....	1.8	1.7	.4	1.0	2.0	2.6	17	32	24	7.8	5.4	1.8
28.....	1.8	2.3	.4	1.0	2.2	2.6	17	29	21	7.1	4.0	1.8
29.....	1.8	2.3	.4	1.0		2.3	18	29	20	6.1	4.0	2.0
30.....	1.8	2.3	.4	.9		2.3	20	28	21	2.6	3.7	1.6
31.....	1.8		.4	.9		2.6		28		1.2	3.7	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2.3	1.8	2.07	127
November.....	2.3	1.6	1.77	105
December.....	2.3		.75	46
January.....	1.0	.4	.78	48
February.....	2.2		1.32	73
March.....	4.3		2.80	172
April.....	20	3.4	11.8	702
May.....	35	22	31.4	1,870
June.....	31	19	22.6	1,340
July.....	24	1.2	15.2	996
August.....	5.7	1.0	3.12	192
September.....	3.4	1.2	2.37	141
The year.....	35		8.03	5,810

* Estimated.

SILVER LAKE IRRIGATION DISTRICT CANAL NEAR SILVER LAKE, OREG.

LOCATION.—Staff gage in NE¼ sec. 5, T. 29 S., R. 14 E., at diversion dam of Silver Lake Irrigation District, 2½ miles southwest of Silver Lake post office.

RECORDS AVAILABLE.—October 1922 to September 1928; October 1930 to September 1933.

DISCHARGE.—Maximum during year, 30 second-feet May 27, 29, June 20, 21, 24-26; no flow at times.

1923-28, 1930-33: Maximum, 60 second-feet June 26-29, 1923; no flow at times.

REMARKS.—Records good except those estimated, Apr. 28-30. May 1, 3-8, which are fair. Canal diverts from Silver Creek water released from storage in Thompson Valley Reservoir. Records furnished by State engineer.

Discharge, in second-feet, 1932-33

Day	Apr.	May	June	July	Day	Apr.	May	June	July
1.....	0	0.1	28	25	16.....	0	22	26	0
2.....	0	.1	28	25	17.....	0	24	28	0
3.....	0		28	25	18.....	0	25	28	0
4.....	0		29	25	19.....	0	25	28	0
5.....	0	.5	26	25	20.....	0	25	29	0
6.....	0		25	25	21.....	0	25	30	0
7.....	0		24	26	22.....	0	26	29	0
8.....	0	4	22	26	23.....	0	28	28	0
9.....	0	7	22	26	24.....	0	28	29	0
10.....	0	12	20	25	25.....	0	28	29	0
11.....	0	17	19	10	26.....	0	29	29	0
12.....	0	18	25	0	27.....	0	29	28	0
13.....	0	20	25	0	28.....	.1	28	26	0
14.....	0	20	25	0	29.....	.1	29	26	0
15.....	0	10	25	0	30.....	.1	29	25	0
					31.....		29		0

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April.....	0.1	0	0.01	1
May.....	29	.1	17.4	1,070
June.....	30	19	26.3	1,560
July.....	26	0	8.5	523
The year.....	30	0	4.36	3,150

NOTE.—No flow during months omitted.

MALHEUR AND HARNEY LAKES BASIN

SILVIES RIVER NEAR BURNS, OREG.

LOCATION.—Water-stage recorder in or near SE¼ sec. 25, T. 21 S., R. 29 E., 1 mile below dam site for proposed lower Silvies Reservoir and 11 miles northwest of Burns. Staff gage in sec. 7, T. 22 S., R. 30 E., at Parker ranch, sometimes used during winter.

DRAINAGE AREA.—940 square miles.

RECORDS AVAILABLE.—May 1903 to July 1906, December 1908 to September 1933.

DISCHARGE.—Maximum during year, 660 second-foot May 2 (gage height, 8.02 feet); minimum, 0.9 second-foot Sept. 3 (gage height, 0.67 foot).

1903-6, 1908-33: Maximum, 4,730 second-foot Apr. 15, 1904 (gage height, 17.12 feet, original datum); minimum, 0.1 second-foot Sept. 6-12, 1931. Average, 20 years (1903-5, 1909-12, 1917-21, 1922-33), 141 second-feet.

REMARKS.—Records good except those estimated, Dec. 17 to Mar. 24, which are poor. A large area on headwaters of Silvies River is irrigated with flood water. Records furnished by State engineer.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	3.6	7.4	18				148	534	170	28	5.0	1.7
2.....	3.3	8.2	18				175	612	166	27	4.0	1.3
3.....	3.6	8.2	18				238	600	162	24	3.1	1.0
4.....	3.8	7.4	19				224	556	166	22	3.6	1.1
5.....	4.0	8.2	a 16				198	534	180	20	3.3	1.2
6.....	4.5	12					206	479	180	18	3.8	1.2
7.....	6.4	13	13				206	435	184	17	4.3	1.4
8.....	8.2	14					193	415	184	17	3.1	1.4
9.....	6.8	13					180	395	175	17	2.6	1.6
10.....	6.4	14					157	385	175	15	2.4	1.9
11.....	6.0	14					144	355	162	14	2.2	2.0
12.....	6.0	12				a 35	144	295	152	13	1.9	2.0
13.....	6.4	16					152	285	144	17	1.7	1.9
14.....	6.8	16					170	265	139	11	1.7	1.9
15.....	7.1	16					198	275	126		1.6	2.2
16.....	7.1	14					220	275	104	8.4	1.6	2.3
17.....	8.2	18	6.4				224	295	100	8.4	1.8	4.5
18.....	8.2	21					238	325	65	8.4	1.8	2.5
19.....	10	21					220	335	66	8.4	1.7	2.4
20.....	9.0	20					211	315	64	8.2	1.6	2.4
21.....	8.5	19					229	315	57	7.8	1.4	2.6
22.....	9.0	20					275	295	47	7.4	1.6	2.5
23.....	9.4	18					345	265	44	8.8	1.6	2.6
24.....	10	a 17	a 13				385	256	39	9.8	1.5	3.3
25.....	10	16		b 12		46	457	256	34	8.5	1.4	3.8
26.....	9.8	18				53	523	229	30	7.8	1.4	4.0
27.....	9.4	18				67	545	211	28	5.7	1.4	4.0
28.....	9.4	18				93	578	206	28	14	1.5	3.8
29.....	9.4	18				121	578	198	29	9.8	1.4	3.8
30.....	7.8	17				152	567	188	29	4.3	1.4	3.8
31.....	7.8					148		180		9.8	1.6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	10	3.3	7.29	448
November.....	21	7.4	15.1	898
December.....			11.2	689
January.....			a 15.0	922
February.....			a 21.0	1,110
March.....	152		43.0	3,010
April.....	578	144	27.3	16,500
May.....	612	180	34.7	21,000
June.....	184	28	10.3	6,430
July.....	28	4.3	13.1	806
August.....	5.0	1.4	2.23	137
September.....	4.5	1.0	2.40	143
The year.....	612	1.0	7.9	52,100

a Estimated.

b Discharge measurement.

ALVORD LAKE BASIN

TROUT CREEK NEAR DENIO, OREG.

LOCATION.—Water-stage recorder in SW $\frac{1}{4}$ sec. 26, T. 39 S., R. 36 E., 0.4 mile above bridge at mouth of canyon, 5 miles east of Trout Creek ranch, and 14 miles northeast of Denio.

RECORDS AVAILABLE.—March 1911 to March 1912, April 1922 to November 1923, April 1925 to September 1933 (incomplete).

DISCHARGE.—Maximum during period, 343 second-feet Aug. 1 (gage height, 5.26 feet); minimum, 0.9 second-foot several days in August.

1911-12, 1922-23, 1925-33: Maximum discharge, that of Aug. 1, 1933; probably no flow at times.

Maximum stage known, 6.0 feet (caused by cloudburst), between 1922 and 1932.

REMARKS.—Records good except those for Apr. 9 to May 4, which are fair, and those estimated, which are poor. A little water is diverted for irrigating small ranch fields above station; large areas irrigated below mouth of canyon. Records furnished by State engineer.

Discharge, in second-feet, 1932-33

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	6.0	4.6		5.8		6.2	29	75	10	30	1.1
2	2.8	5.5	4.4		5.3		6.6	26	63	8.6	4.8	1.1
3	2.6	5.5	4.6		4.8		7.6	15	65	7.6	2.5	1.1
4	2.6	5.1	4.6		4.6		9.2	9.5	57	7.3	2.0	1.1
5	2.7	5.3	4.8		* 4.2	* 6	8.4	8.1	46	6.9	1.8	1.1
6	2.9	5.5	3.1		* 3.8		8.1	8.6	44	6.9	1.8	1.4
7	6.4	5.5		* 7	2.8		8.1	11	44	7.3	1.8	1.7
8	4.2	5.5					7.3	12	43	7.1	1.7	1.5
9	3.3	5.5				5.5	* 7.0	12	44	6.6	1.6	1.6
10	3.7	5.5				5.5	* 6.8	12	41	6.2	1.5	1.5
11	3.7	4.6				5.1	6.6	13	34	5.8	1.3	1.4
12	4.2	5.3				5.3	5.5	13	34	5.3	1.2	1.4
13	4.2	5.1				5.3	5.8	14	31	4.6	1.1	1.4
14	4.0	4.6		6.0		5.8	6.2	15	27	4.0	1.0	1.3
15	4.0	4.4		5.3		5.3	6.6	18	22	3.7	1.0	1.1
16	4.2	4.8		4.6		4.8	7.3	22	20	3.1	1.0	1.2
17	4.4	4.6		4.6		* 5.2	8.1	24	20	2.7	.9	1.2
18	4.4	5.1		3.7	* 4	5.5	7.6	25	20	2.4	.9	1.2
19	4.4	5.1	* 4				6.9	24	17	2.0	.9	1.4
20	4.2	4.4					6.2	28	16	1.8	1.0	1.5
21	4.8	4.8					6.2	34	15		1.0	1.6
22	4.4	4.8					7.8	30	15		1.0	1.7
23	4.8	3.5					12	31	17		1.0	1.8
24	4.8	3.5		5.5			14	39	15		1.0	2.4
25	4.6	5.8		5.1		5.8	18	53	12		1.0	2.8
26	5.1	5.5		5.1		5.1	24	75	13	* 1.6	1.0	2.1
27	5.5	5.5		* 5.4		5.3	32	77	13		1.0	1.8
28	5.5	5.5		5.8		5.8	39	69	11		1.0	1.7
29	6.0	5.1		5.3		6.0	48	71	12		1.0	1.7
30	5.8	4.8		5.8		5.8	36	78	12		1.1	1.7
31	5.8			6.0		6.0		82		1.3	1.1	
Month	Maximum		Minimum		Mean		Run-off in		acre-feet			
October	6.4	2.6	4.29	264								
November	6.0	3.5	5.06	301								
December			4.07	250*								
January			5.78	355								
February			4.12	229*								
March			5.71	351								
April	48	5.5	12.6	750*								
May	82	8.1	31.6	1,940*								
June	75	11	29.9	1,780*								
July	10		4.10	252								
August	30	.9	2.29	141								
September	2.8	1.1	1.52	90*								
The year	82		9.26	6,700*								

* Estimated.

MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Great Basin made at points other than regular gaging stations during the year ending September 30, 1933, are listed in the following table:

Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1933

Bear River Basin

Date	Stream	Tributary to—	Locality	Gage height	Dis-charge
				<i>Feet</i>	<i>Sec.-ft.</i>
Oct. 15	Malad River.....	Bear River.....	Sec. 22, T. 14 S., R. 35 E., 600 feet above old dam, 2 miles below source, 7 miles by stream above confluence with Little Malad River, and 5 miles west of Malad, Idaho.	0.96	7.52
15	do.....	do.....	Sec. 5, T. 14 N., R. 3 W., 1 mile east of Portage, Utah.		21.2
16	Little Malad River..	Malad River.....	Line between secs. 35 and 36, T. 12 S., R. 34 E., 2 miles below mouth of Wrights Creek, 2½ miles above Elkhorn Dam, and 14 miles northwest of Malad, Idaho.	.47	13.1
16	Wright Creek.....	Little Malad River.	Sec. 8, T. 12 S., R. 35 E., a quarter of a mile east and 2 miles north of Daniels, 3 miles above confluence with Little Malad River, and 20 miles (by road) northwest of Malad, Idaho.	.27	1.42
16	Dairy Creek.....	Wright Creek.....	Sec. 36, T. 11 S., R. 34 E., 4 miles north of Daniels, 2¼ miles above confluence with Wrights Creek, 23 miles (by road) northwest of Malad, Idaho.	.21	1.04
15	Devil Creek (below Evans Dividers).	Malad River.....	Sec. 35, T. 13 S., R. 36 E., 3 miles northeast of Malad, Idaho.		1.29
Mar. 30	do.....	do.....	do.....		0
Apr. 17	do.....	do.....	do.....		13.2
May 18	do.....	do.....	do.....		11.9
June 5	do.....	do.....	do.....		11.4
19	do.....	do.....	do.....		6.56
July 13	do.....	do.....	do.....		1.05
Aug. 29	do.....	do.....	do.....		4.80
Oct. 15	Spring Creek (below Evans Dividers).	Diverted from Devil Creek.	do.....		3.45
Mar. 30	do.....	do.....	do.....		9.78
Apr. 17	do.....	do.....	do.....		14.3
May 18	do.....	do.....	do.....		16.5
June 5	do.....	do.....	do.....		10.7
19	do.....	do.....	do.....		6.75
July 13	do.....	do.....	do.....		6.18
Aug. 29	do.....	do.....	do.....		3.48
Oct. 15	Deep Creek.....	Malad River.....	Sec. 21, T. 14 S., R. 37 E., one-third mile above Third Creek, 14¼ miles above confluence with Malad River, and 5 miles east of Malad, Idaho.	.10	8.25
15	Third Creek.....	Deep Creek.....	Sec. 21, T. 14 S., R. 37 E., ½ mile above confluence with Deep Creek and 5½ miles east of Malad, Idaho.		0

Curlew Creek Basin

Oct. 15	Curlew Creek (below Holbrook Springs).	Great Salt Lake...	Sec. 13, T. 15 S., R. 32 E., 3 miles south of Holbrook, Idaho.		28.0
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• Float measurement.

• Estimated.

Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1933—Continued

Weber River Basin

Date	Stream	Tributary to—	Locality	Gage height	Dis-charge
Aug. 12	Ogden River	Weber River	SW $\frac{1}{4}$ sec. 23, T. 6 N., R. 1 W., at highway bridge at mouth of canyon $\frac{1}{4}$ mile above El Monte resort and $2\frac{1}{2}$ miles northeast of Ogden, Utah.	Feet	Sec.-ft. 28.8

Jordan River Basin

Nov. 12	Jordan River	Great Salt Lake...	SW $\frac{1}{4}$ sec. 23, T. 2 S., R. 1 W., at Winchester Road bridge $9\frac{1}{2}$ miles south of Salt Lake City, Utah.		104
Nov. 15	do.	do.	SW $\frac{1}{4}$ sec. 26, T. 1 S., R. 1 W., at 33d South Street Bridge, Salt Lake City, Utah.		207
Nov. 14	do.	do.	NW $\frac{1}{4}$ sec. 2, T. 1 S., R. 1 W., at Utah Power & Light Co.'s gaging station at 2d South Street Bridge, Salt Lake City, Utah.		192
23	Snyder Spring	Provo River	NW $\frac{1}{4}$ sec. 34, T. 2 S., R. 5 E., $1\frac{1}{2}$ miles above Murdock power plant and 7 miles southeast of Park City, Utah.		3.7
June 8	Factory Race	do.	SE $\frac{1}{4}$ sec. 12, T. 7 S., R. 2 E., at Municipal Golf Club at Provo, Utah.	1.60	28.1
13	do.	do.	do.	1.50	26.3
16	do.	do.	do.	1.12	16.1
22	do.	do.	do.	0.95	8.8
23	Utah Lake Distributing Co.'s High Lift Canal.	Utah Lake	NE $\frac{1}{4}$ sec. 2, T. 6 S., R. 1 W., at head of canal, $1\frac{1}{2}$ miles south of Saratoga, Utah (total pumped).		76.5
23	Utah Lake Distributing Co.'s Low Lift Canal.	do.	SE $\frac{1}{4}$ sec. 35, T. 5 S., R. 1 W., near head of canal, $1\frac{1}{4}$ miles south of Saratoga, Utah.	1.22	21.8
23	East Jordan Canal...	Jordan River	NW $\frac{1}{4}$ sec. 26, T. 4 S., R. 1 W., at water commissioner's gaging station 22 miles south of Salt Lake City, Utah.	4.07	170
22	Utah & Salt Lake Canal.	do.	SW $\frac{1}{4}$ sec. 23, T. 4 S., R. 1 W., at water commissioner's gaging station 22 miles south of Salt Lake City, Utah.	5.93	253
Sept. 7	Alpine Spring area...	do.	Along line between secs. 22 and 23, T. 4 S., R. 1 W., on right bank of Jordan River 21 miles south of Salt Lake City, Utah.		1.0
Sept. 7	Denver & Rio Grande Spring.	do.	SE $\frac{1}{4}$ sec. 22, T. 4 S., R. 1 W., on left bank of Jordan River 21 miles south of Salt Lake City, Utah.		0.14
June 22	South Jordan Canal.	do.	NE $\frac{1}{4}$ sec. 22, T. 4 S., R. 1 W., at water commissioner's gaging station 21 miles south of Salt Lake City, Utah.	2.44	143
22	City Canal.	do.	do.	1.57	49.7
23	(Draper) Utah Lake Irrigation Co. Canal.	do.	SW $\frac{1}{4}$ sec. 14, T. 4 S., R. 1 W., at rating flume 21 miles south of Salt Lake City, Utah (pumped discharge).		30.1
22	North Jordan Canal.	do.	NW $\frac{1}{4}$ sec. 35, T. 2 S., R. 1 W., at water commissioner's gaging station 11 miles south of Salt Lake City, Utah.	0.65	58.3

Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1933—Continued

Jordan River Basin—Continued

Date	Stream	Tributary to—	Locality	Gage height	Dis-charge
				<i>Feet</i>	<i>Sec.-ft.</i>
Nov. 12	North Jordan Canal	Jordan River.....	SE $\frac{1}{4}$ sec. 23, T. 2 S., R. 1 W., at Winchester Road bridge $9\frac{1}{2}$ miles south of Salt Lake City, Utah.	-----	6.2
June 22	West Jordan Mill tailrace.	do.....	SW $\frac{1}{4}$ sec. 26, T. 2 S., R. 1 W., at water commissioners' gaging station, 11 miles south of Salt Lake City, Utah.	0.98	30.9
Nov. 11	Little Cottonwood Creek	do.....	NE $\frac{1}{4}$ sec. 12, T. 2 S., R. 1 W., at 2d West Street, Murray, Utah.	-----	9.3
Oct. 20	Diversion Ditch.....	Little Cottonwood Creek.	NE $\frac{1}{4}$ sec. 12, T. 2 S., R. 1 W., at 2d West Street just south of 48th South Street, $\frac{1}{2}$ mile west of Murray, Utah.	-----	5.9
Nov. 8	Cottonwood Creek	Jordan River.....	NW $\frac{1}{4}$ sec. 8, T. 2 S., R. 1 E., at 9th East Street Bridge, $1\frac{1}{2}$ miles east of Murray, Utah.	-----	2.9
Nov. 8	do.....	do.....	NW $\frac{1}{4}$ sec. 6, T. 2 S., R. 1 E., at State Street Bridge, 1 mile north of Murray, Utah.	-----	37.9
Nov. 4	do.....	do.....	NW $\frac{1}{4}$ sec. 1, T. 2 S., R. 1 W., about $\frac{1}{4}$ mile above mouth, at 4th West Street Bridge, $1\frac{1}{4}$ miles northwest of Murray, Utah.	-----	44.7
Nov. 8	do.....	do.....	do.....	-----	38.1
Nov. 8	Spring Run	Cottonwood Creek.	NW $\frac{1}{4}$ sec. 8, T. 2 S., R. 1 E., at 9th East Street Bridge, $1\frac{1}{2}$ miles east of Murray, Utah.	-----	14.5
Nov. 4	Mill Creek	Jordan River.....	NW $\frac{1}{4}$ sec. 30, T. 1 S., R. 1 E., at 3d East Street Bridge, $5\frac{1}{2}$ miles south of Salt Lake City, Utah.	-----	22.2
Aug. 7	do.....	do.....	do.....	-----	22.2
Nov. 4	do.....	do.....	NE $\frac{1}{4}$ sec. 26, T. 1 S., R. 1 W., about 700 feet above mouth and $4\frac{1}{2}$ miles southwest of Salt Lake City, Utah.	-----	19.0
Nov. 14	Drainage Canal from Decker Lake.	do.....	SE $\frac{1}{4}$ sec. 22, T. 1 S., R. 1 W., at Redwood Road bridge $4\frac{3}{4}$ miles southwest of Salt Lake City, Utah.	-----	6.2
Nov. 14	Surplus Canal	do.....	NE $\frac{1}{4}$ sec. 15, T. 1 S., R. 1 W., at Utah Power & Light Co.'s gaging station at intersection of Redwood Road and California Ave., Salt Lake City, Utah.	-----	47.2
Nov. 11	Springs emerging from bed of Parley Creek.	Parley Creek.....	NW $\frac{1}{4}$ sec. 21, T. 1 S., R. 1 E., just below 13th East Street Bridge, Salt Lake City, Utah.	-----	1.3

Beaver River Basin

Oct. 30	Beaver River.....	Sevier River.....	NE $\frac{1}{4}$ sec. 17, T. 29 S., R. 5 W., $\frac{1}{4}$ mile above Merchant Valley Dam and 12 miles east of Beaver, Utah.	-----	10.3
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Miscellaneous discharge measurements in the Great Basin during the year ending September 30, 1933—Continued

Salton Sink Basin

Date	Stream	Tributary to—	Locality	Gage height	Dis-charge
				<i>Feet</i>	<i>Sec.-ft.</i>
Oct. 4	Whitewater River	Salton Sea	Near Whitewater, Calif.		15
Nov. 15	do	do	do		12
Dec. 12	do	do	do		20
21	do	do	do		14
29	do	do	do		13
Jan. 4	do	do	do		12
11	do	do	do		9.5
16	do	do	do		11
23	do	do	do		9.3
Feb. 3	do	do	do		7.8
8	do	do	do		9.1
17	do	do	do		11
24	do	do	do		7.7
Mar. 2	do	do	do		8.6
7	do	do	do		7.7
15	do	do	do		8.2
21	do	do	do		7.2
27	do	do	do		5.6
Apr. 3	do	do	do		5.3
10	do	do	do		4.8
20	do	do	do		3.8
28	do	do	do		3.8
May 8	do	do	do		3.6
22	do	do	do		3.2
June 7	do	do	do		.1
Oct. 10	Murray Canyon Creek	Palm Canyon Creek	Junction with Palm Canyon Creek, near Palm Springs, Calif.		.6
10	Andreas Canyon Creek	do	do		.5
10	Tahquitz Creek	do	do		6.7
Apr. 3	do	do	do		1.85
10	do	do	do		.55
20	do	do	do		.35
28	do	do	do		.75
May 8	do	do	do		.7
22	do	do	do		.50
Oct. 16	San Felipe Creek	Salton Sink	Highway bridge near Julian, Calif.		1.9
June 30	do	do	do		2.0

Mojave River Basin

Oct. 4	Mojave River	Great Basin	Lower Narrows near Victorville, Calif.		31
4	do	do	Near Bryman, Calif.		28
Mar. 2	do	do	Near Hodge, Calif.		23
Apr. 7	do	do	do		18
	do	do	do		a. 2

Antelope Valley Basin

Mar. 8	Punch Bowl Creek	Rock Creek	Near Valyermo, Calif.		3
13	do	do	do		1.3
Apr. 3	do	do	do		1.7

* Estimated.

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