DEPARTMENT OF THE INTERIOR
Ray Lyman Wilbur, Secretary

U. S. GEOLOGICAL SURVEY
George Otis Smith, Director

WATER-SUPPLY PAPER 610

SURFACE WATER SUPPLY OF THE UNITED STATES

1925

PART X. THE GREAT BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
A. B. PURTON, H. D. McGLASHAN, F. F. HENSHAW, C. G. PAULSEN and ROBERT FOLLANSBEE
District Engineers

Prepared in cooperation with the States of
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UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1929

For sale by the Superintendent of Documents, Washington, D. C. - - - - - - - - Price 20 cent

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ILLUSTRATION

SURFACE WATER SUPPLY OF THE GREAT BASIN, 1925

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of flow made on streams in the United States during the year ending September 30, 1925.

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 products of the national domain.

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

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

Annual appropriations for the fiscal years ending June 30, 1895–1925

1895	$12, 500. 00	1911–1917	$150, 000. 00
1896	24, 500. 00	1918	175, 000. 00
1897–1899	50, 000. 00	1919	148, 244. 10
1900	70, 000. 00	1920	175, 000. 00
1901–1902	100, 000. 00	1921	180, 000. 00
1903–1906	200, 000. 00	1922	180, 000. 00
1907	150, 000. 00	1923	180, 000. 00
1908–1910	100, 000. 00	1924–1925	170, 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 5,120 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1925, 1,710 gaging stations were being maintained by the Survey and the cooperating organizations. Many miscellaneous discharge measurements are made at other points. In connection with this work data were also collected in

regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

DEFINITION OF TERMS

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

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

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

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in depth 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 section or sections of the stream below the gage which determines the stage-discharge relation at the gage. It should be noted that the control may not be the same section or sections at all stages.

The "point of zero flow" for a gaging station is that point on the gage—the gage height—at which water ceases to flow over the control.

EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1924, and ending September 30, 1925. At the beginning of Janu-

ary in most parts of the United States much of the precipitation in the preceding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as ground 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

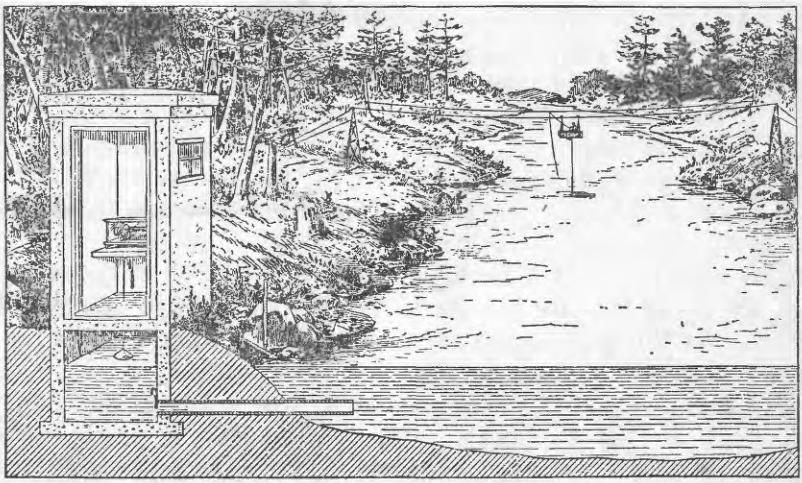

FIGURE 1.—Typical gaging station

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. The general methods are 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.

From the discharge measurements rating tables are prepared that give the discharge for any stage. 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 giving results of discharge measurements, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off.

If the base data are insufficient to determine the daily discharge, tables giving daily gage heights and results of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any condition that may affect the permanence of the stage-discharge relation, covering such subjects as the occurrence of ice, the use of the stream for log driving, shifting of control, and the cause and effect of backwater; it gives also information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the mean of the gage heights read each day. At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders the mean daily discharge may be obtained by averaging discharge at regular intervals during the day or by using the discharge integrator, an instrument operating on the principle of the planimeter and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest. As the gage height is the mean for the day it does not indicate correctly the stage when the water surface was at crest height, and the corresponding discharge was consequently larger than given in the maximum column. Likewise, in the column headed "Minimum" the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow in cubic feet for each second during the month. On this average flow computations recorded in the remaining columns, which are defined on page 2, are based.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

A paragraph in the description of the station gives information regarding the (1) permanence of the stage-discharge relation, (2) precision with which the discharge rating curve is defined, (3) refinement of gage readings, (4) frequency of gage readings, and (5) methods of applying daily gage heights to the rating table to obtain the daily discharge.

For the rating tables "well defined" indicates, in general, that the rating is probably accurate within 5 per cent; "fairly well defined," within 10 per cent; "poorly defined" within 15 to 25 per cent. These notes are very general and are based on the plotting of the individual measurements with reference to the main rating curve.

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. All figures representing "second-feet per square mile" and "run-off in inches" published in earlier reports by the Survey should be used with caution because of possible inherent sources of error not known to the Survey.

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. To give an idea of the amount of prior appropriations, a paragraph on diversions is presented in each station description. The figures given can not be considered exact but represent the best information available.

The table of monthly discharge gives only a general idea of the flow at the station and should not be used for other than preliminary estimates; the tables of daily discharge allow 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.

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 powers, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, annual reports, and monographs.

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

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

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

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

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

Boston, Mass., 2500 Customhouse.
Albany, N. Y., 904 Home Savings Bank Building.
Trenton, N. J., Statehouse.
Charlottesville, Va., Care of University of Virginia.
Ashville, N. C., 608 City Hall.
Chattanooga, Tenn., 830 Power Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Chicago, Ill., 1510 Consumers Building.
Madison, Wis., care of Railroad Commission of Wisconsin.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Helena, Mont., 45–46 Federal Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Tacoma, Wash., 404 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.

Los Angeles, Calif., 600 Federal Building.
Tucson, Ariz., 104 Agriculture Building, University of Arizona.
Austin, Tex., State Capitol.
Honolulu, Hawaii, Territorial Office Building.

A list of the Geological Survey's 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 5,120 points in the United States, and the data obtained have been published in the reports tabulated on pages 7 and 9.

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

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept., 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	Mean discharge in second-feet	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893
B 131	Descriptions, measurements, gage heights, and ratings	1893 and 1894.
16th A, pt. 2	Descriptive, information only	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895 and 1896.
W 15	Descriptions, measurements, and gage heights eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.

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

The table following gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1922. 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 for Machias River at Whitneyville, Maine, 1903 to 1921, are published in Water-Supply Papers 97, 124, 165, 201, 241, 261, 281, 301, 321, 351, 381, 401, 431, 451, 471, 501, and 521, which contains records for the New England streams from 1903 to 1921. Results of miscellaneous measurements are published by drainage basins.

Numbers of water-supply papers containing results of stream measurements, 1899–1925

[For basins included see p. 6]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
												A	B	C
1899 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900 [g]	47, [h] 48	48	48, [i] 49	49	49	49, [j] 50	50	50	50	51	51	51	51	51
1901	65, 75	65, 75	65, 75	65, 75	[k] 65, 66, 75	66, 75	[k] 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902	82	[b] 82, 83	83	[l] 82, 83	[k] 83, 85	84	[k] 83, 84	84	85	85	85	85	85	85
1903	97	[b] 97, 98	98	97	[k] 98, 99, [m] 100	99	[k] 98, 99	99	100	100	100	100	100	100
1904	[n] 124, [o] 125, [p] 126	[p] 126, 127	128	129	[k] 128, 130	130, [q] 131	[k] 128, 131	132	133	133, [r] 134	134	135	135	135
1905	[n] 165, [o] 166, [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332–A	332–B	332–C
1913	351	352	353	354	355	356	357	358	359	360	361	362–A	362–B	362–C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	779	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614

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

COOPERATION

During the year ending September 30, 1925, the work in Utah, Nevada, California, Oregon, Idaho, and Wyoming has been done under cooperative agreements between the United States Geological Survey and the respective States.

Special acknowledgments are due to Lloyd Garrison and George M. Bacon, State engineers of Utah; Robert A. Allen, State engineer of Nevada; W. F. McClure, State engineer of California; the division of water rights, Department of Public Works of the State of California; Rhea Luper, State engineer of Oregon; W. G. Swendsen, commissioner of reclamation of Idaho; and Frank C. Emerson, State engineer of Wyoming, for the very efficient manner in which they have represented their States in the cooperative investigations.

Acknowledgments are also due to the officials and employees of the United States Bureau of Reclamation, United States Weather Bureau, Utah Power & Light Co., and Southern Pacific Co.

Financial assistance has been rendered by the United States Office of Indian Affairs, Utah Power & Light Co., Walker River Irrigation District, Sevier River Water Users, and Empire Irrigation District.

DIVISION OF WORK

Data for stations in Utah and Nevada were collected and prepared for publication under the direction of A. B. Purton, district engineer, assisted by J. W. Mangan, M. T. Wilson, D. M. Corbett, and Miss Lysle Christensen.

Data for stations in California were collected and prepared for publication under the direction of H. D. McGlashan, district engineer, assisted by William Kessler, Charles Leidl, Jesse Arnold, and J. E. Jones.

Data for the stations in Oregon were collected and prepared for publication by A. H. Page, R. J. McKinney, and G. A. Hathaway, assistants to the State engineer under the direction of F. F. Henshaw, district engineer.

Data for stations on Soda Creek in Idaho were collected and prepared for publication under the direction of C. G. Paulsen, district engineer, assisted by Berkeley Johnson, F. M. Veatch, and Miss E. H. Haugse.

Data for the station in Wyoming were collected and prepared for publication under the direction of Robert Follansbee, assisted by P. V. Hodges and J. W. Mangan.

The records were reviewed and the manuscript assembled by J. W. Mangan and J. H. Morgan.

GAGING-STATION RECORDS

GREAT SALT LAKE BASIN

GAGES ON GREAT SALT LAKE

LOCATION.—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.

RECORDS AVAILABLE.—September 14, 1875, to December 15, 1899; March to July, 1904; October 1, 1912, to September 30, 1925.

GAGES.—Midlake gage read August 15, 1902, to September 30, 1925, by Southern Pacific Co. Saltair gage read July 1, 1903, to September 30, 1925, by United States Weather Bureau. Other gages used at various times are described in earlier water-supply papers. Datum of Midlake gage is 4,198.0 feet above mean sea level as determined by comparative readings with other gages in 1916. Datum of Saltair gage is 4,196.8 feet above mean sea level as determined by levels by topographic branch in 1922.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4,204.2 feet above mean sea level May 1 and June 1 and 15 at Saltair gage. Minimum stage, 4,202.9 feet September 15 at Saltair gage.

1850–1925: Maximum stage recorded, 4,211.3 feet above mean sea level July 12, 1877. Estimated maximum stage, 4,212.5 feet occurred in 1868 (data furnished by Marcus E. Jones, Salt Lake City). Minimum stage, 4,195.7 feet in 1902.

ACCURACY.—Saltair gage is read to tenths of feet. Midlake gage is read to quarter inches and reductions have been made to feet and hundredths. Apparent inconsistencies in readings are probably largely due to the effect of wind, as the two gages are about 40 miles apart.

COOPERATION.—Readings on Midlake gage are furnished by Southern Pacific Co.; readings on Saltair gage by United States Weather Bureau.

Gage height, in feet, of Great Salt Lake, Utah, for the year ending September 30, 1925

Day	Saltair	Midlake	Day	Saltair	Midlake	Day	Saltair	Midlake
Oct. 1	6.2	5.00	Feb. 1	6.6	5.25	June 1	7.4	6.08
Oct. 15	6.1	4.92	Feb. 15	6.8	5.50	June 15	7.4	6.17
Nov. 1	6.1	4.92	Mar. 1	6.9	5.50	July 1	7.2	6.12
Nov. 15	6.2	5.00	Mar. 15	7.1	5.75	July 15	7.1	6.04
Dec. 1	6.2	5.00	Apr. 1	7.2	5.75	Aug. 1	7.0	5.75
Dec. 15	6.3	5.00	Apr. 15	7.3	5.92	Aug. 15	6.9	5.50
Jan. 1	6.4	5.17	May 1	7.4	6.04	Sept. 1	6.6	5.25
Jan. 15	6.5	5.17	May 15	7.3	6.00	Sept. 15	6.5	5.12

BEAR RIVER BASIN

BEAR RIVER NEAR EVANSTON, WYO.

LOCATION.—In sec. 1, T. 15 N., R. 121 W., 300 feet above highway bridge and 3½ miles northwest of Evanston, Uinta County. Nearest tributary, a small stream entering from southwest half a mile above.

DRAINAGE AREA.—645 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—October 26, 1913, to September 30, 1925.

GAGE.—Chain on left bank, 300 feet above bridge; read by Mrs. Alex. Morrow.

DISCHARGE MEASUREMENTS.—Made from cable just below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel. Control at riffle a short distance below gage; slightly shifting at long intervals. Banks subject to overflow at stage of about 5 feet.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.15 feet on May 21 and 31 (discharge, 1,170 second-feet); minimum discharge, 6 second-feet October 1–3.

1914–1925: Maximum stage recorded, 6.35 feet at 6.30 p. m. June 14, 1921 (discharge, 3,690 second-feet). Minimum discharge, river dry August 9–24 and August 27 to September 30, 1924.

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Adjudicated diversions for irrigation of 30,300 acres from Bear River above station.

REGULATION.—Diurnal fluctuation during spring caused by alternate melting and freezing of mountain snow. No artificial regulation.

ACCURACY.—Stage-discharge relation practically permanent. Rating curve well defined. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean gage height to rating table. Records good.

The following discharge measurements were made:

June 15, 1925: Gage height, 2.87 feet; discharge, 500 second-feet.

September 5, 1925: Gage height, 1.61 feet; discharge, 104 second-feet.

September 6, 1925: Gage height, 1.46 feet; discharge, 84 second-feet.

Daily discharge, in second-feet, of Bear River near Evanston, Wyo., for the year ending September 30, 1925

Day	Oct.	Nov.	May	June	July	Aug.	Sept.
1	6	49	------	1,060	414	19	80
2	6	52	------	966	630	17	66
3	6	------	------	816	655	17	62
4	8	------	------	760	690	19	62
5	8	------	------	710	670	33	84
6	8	------	------	562	495	52	75
7	9	------	------	499	314	44	69
8	9	------	------	432	273	37	75
9	10	------	------	390	230	31	96
10	10	------	------	400	202	38	82
11	12	------	------	439	172	40	73
12	12	------	------	450	148	46	71
13	12	------	538	418	128	54	78
14	14	------	562	404	112	54	96
15	15	------	538	439	94	48	86
16	16	------	507	474	73	37	75
17	16	------	507	450	57	34	62
18	16	------	531	432	52	27	59
19	16	------	725	503	32	26	121
20	16	------	954	562	24	26	148
21	18	------	1,150	595	21	26	148
22	20	------	1,110	960	27	24	160
23	21	------	1,010	695	26	24	158
24	23	------	972	615	21	24	137
25	25	------	972	488	20	23	126
26	26	------	1,010	436	20	37	108
27	26	------	1,110	404	20	57	96
28	29	------	1,120	366	20	86	96
29	34	------	1,110	327	21	126	98
30	38	------	1,070	348	21	110	100
31	44	------	1,150	------	20	96	------

Monthly discharge of Bear River near Evanston, Wyo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	44	6	17.1	1,050
May 13–31	1,150	507	876	33,000
June	1,060	327	547	32,500
July	690	20	184	11,300
August	126	17	43.0	2,640
September	160	59	94.9	5,650

BEAR RIVER AT HARER, IDAHO

LOCATION.—In NE. ¼ sec. 22, T. 14 S., R. 45 E., three-fourths of a mile north of Harer siding on Oregon Short Line Railroad, 7 miles above Dingle and 14 miles southeast of Montpelier, Bear Lake County.

DRAINAGE AREA.—2,780 square miles (determined by Utah Power & Light Co.).

RECORDS AVAILABLE.—June 21, 1913, to September 30, 1916; January 1, 1919, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; installed August 24, 1914; replaced by Au recorder July 8, 1925. Gages inspected by Karl Gilgen.

DISCHARGE MEASUREMENTS.—Made by wading or from cable.

CHANNEL AND CONTROL.—Bed clean and firm, hard material; left bank overflowed at extremely high stages. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 6.07 feet at 8 a. m. May 27 (discharge, 1,460 second-feet). Minimum discharge, 122 second-feet December 20 (stage-discharge relation affected by ice).

1913–1916; 1919–1925: Maximum stage recorded, 10.51 feet June 2, 1920 (discharge, 3,860 second-feet); minimum stage, 2.61 feet at 6.25 a. m. September 1, 1919 (discharge, 81 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Numerous diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed twice during year; affected by ice November 12 to March 15. Rating curves well defined. Water-stage recorder operated satisfactorily. Daily discharge determined by applying to rating table mean daily gage height ascertained from recorder graph, except during periods when it was affected by ice as follows: Discharge estimated from discharge measurements November 13, 14, December 6–20, and December 23 to February 7. Mean daily gage heights were corrected for ice effect by means of a backwater table before applying to rating table November 12, November 15 to December 5, December 21, 22, and February 8 to March 15. Records good.

COOPERATION.—Data are collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with records furnished for project 20, Idaho, of Federal Power Commission.

Discharge measurements of Bear River at Harer, Idaho, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	3.14	199	Mar. 16	4.03	491	July 8	5.02	959
Oct. 9	3.20	212	Mar. 25	5.32	1,130	July 14	4.41	668
Oct. 17	3.22	220	Mar. 30	5.28	1,090	July 21	3.99	470
Oct. 24	3.23	222	Apr. 6	4.82	881	July 30	3.54	306
Oct. 31	3.23	213	Apr. 15	4.50	732	Aug. 3	3.36	251
Nov. 6	3.24	227	Apr. 24	4.74	831	Aug. 11	3.28	233
Nov. 14	3.14	[a] 175	May 4	4.50	738	Aug. 26	3.18	196
Dec. 8	3.53	[a] 239	May 21	5.38	1,150	Sept. 2	3.32	235
Dec. 20	3.18	[a] 122	May 28	5.99	1,420	Sept. 8	3.42	254
Jan. 8	3.63	[a] 194	June 3	5.54	1,200	Sept. 15	3.44	262
Jan. 26	3.81	[a] 224	June 11	4.94	904	Sept. 26	3.64	342
Feb. 7	3.72	[b] 253	June 20	4.38	656	Sept. 29	3.72	375
Feb. 26	3.68	[b] 247	June 24	4.58	736			
Mar. 9	4.75	734	June 30	4.32	621			

[a] Complete ice cover. [b] Incomplete ice cover.

Daily discharge, in second-feet, of Bear River at Harer, Idaho, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	219	216			234	1,080	679	1,230	703	276	228
2	193	219	216			234	1,160	684	1,210	679	253	231
3	202	222	222			244	1,140	698	1,210	660	250	234
4	210	219	207	190	240	266	1,020	718	1,280	689	247	250
5	210	222	225			263	971	780	1,300	727	240	263
6	213	222	230			253	882	799	1,400	824	234	266
7	213	222	235		253	259	833	814	1,400	902	225	273
8	210	219	239	194	240	329	799	873	1,290	951	219	266
8	210	216			237	698	756	946	1,150	951	219	259
10	210	222			240	853	713	956	1,040	966	219	259
11	219	219			217	902	684	976	917	878	219	259
12	228	200			205	838	665	1,010	853	819	217	259
13	225	190			217	746	689	985	814	742	217	259
14	219	175	190		225	619	713	1,000	780	674	231	266
15	219	213			228	578	722	1,080	780	670	256	270
16	219	202		210	231	574	737	1,100	775	637	283	270
17	219	202			231	494	761	1,120	756	600	266	280
18	216	188			214	520	785	1,130	708	551	247	280
19	219	213			208	515	819	1,130	670	524	240	273
20	228	225	122		208	465	804	1,130	655	515	240	287
21	228	231	131		219	560	761	1,140	660	481	234	314
22	225	237	142		234	619	766	1,140	689	460	214	340
23	225	216			234	828	814	1,160	718	444	211	351
24	219	256			234	980	824	1,180	737	432	208	355
25	216	231			237	1,100	804	1,200	718	416	205	351
26	213	259	150	224	234	1,180	828	1,390	703	389	203	340
27	213	219			228	1,120	746	1,450	679	370	211	344
28	210	231			228	1,060	761	1,430	670	347	231	351
29	219	222		240	-------	1,020	737	1,400	646	322	234	366
30	222	225			-------	1,100	713	1,320	628	308	234	370
31	219	-------			-------	1,070	-------	1,280	-------	290	231	-------

NOTE.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Bear River at Harer, Idaho, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	228	193	216	13,300
November	259	175	219	13,000
December	-------	-------	181	11,100
January	-------	-------	210	12,900
February	-------	205	230	12,800
March	1,180	234	662	40,700
April	1,160	565	816	48,600
May	1,450	679	1,050	64,600
June	1,400	628	902	53,700
July	966	290	610	37,500
August	283	203	233	14,300
September	370	228	290	17,300
The year	1,450	-------	470	340,000

BEAR RIVER AT ALEXANDER, IDAHO

LOCATION.—In NW. ¼ sec. 17, T. 9 S., R. 41 E., 600 feet below Soda hydroelectric plant, half a mile southeast from Alexander, Caribou County, 3 miles above intake of Last Chance Canal, and 6 miles above dam of Utah Power & Light Co. near Grace. Station was moved upstream 600 feet from NE. ¼ sec. 18, July 15, 1925.

DRAINAGE AREA.—3,844 square miles (measured on Utah Power & Light Co.'s map).

RECORDS AVAILABLE.—March 27, 1911, to September 30, 1916; and April 17, 1919, to September 30, 1925.

GAGE.—Stevens water-stage recorder on right bank; installed July 15, 1925; inspected by Karl Gilgen. Same gage formerly 600 feet downstream at different datum.

DISCHARGE MEASUREMENTS.—Made from cable 200 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 3.82 feet (upper gage) at 4 p. m. October 31 (discharge, 2,460 second-feet); minimum stage, 4.35 feet (lower gage) at 2 p. m. March 12 (discharge, 80 second-feet).

1911–1916; 1919–1925: Maximum stage recorded, 15.95 feet December 11, 1919, during ice-affected period. Maximum discharge, 4,590 second-feet occurred May 9, 1922, at gage height 10.14 feet. Minimum stage, same as above.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Water is diverted above station for irrigation and for storage in Bear Lake.

REGULATION.—Largely regulated by water released at Bear Lake and returned to Bear River about 30 miles above station. Large diurnal fluctuation produced by Soda hydroelectric plant.

ACCURACY.—Stage-discharge relation permanent during year; not affected by ice. Rating curves well defined. Water-stage recorder operated satisfactorily during year, except as stated in footnote to daily-discharge table. Daily discharge determined by applying to rating table mean daily gage height ascertained by inspection of recorder graph. Records good.

COOPERATION.—Data are collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with project 20, Idaho, of Federal Power Commission.

Discharge measurements of Bear River at Alexander, Idaho, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	6.44	975	Feb. 17	6.30	832	June 13	6.40	913
Oct. 7	6.48	950	Feb. 25	5.39	355	June 25	6.69	1,100
Oct. 14	6.54	1,040	Feb. 25	5.78	552	July 10	6.79	1,220
Oct. 21	6.38	926	Mar. 4	6.26	793	July 27	6.89	1,290
Nov. 1	6.18	746	Mar. 10	6.09	700	Aug. 1	6.88	1,270
Nov. 3	6.20	787	Mar. 12	4.35	80	Aug. 7		764
Jan. 7	6.59	1,010	Do	5.73	528	Aug. 8	6.67	1,120
Jan. 14	6.49	944	Mar. 24	5.29	323	Aug. 29	6.74	1,140
Jan. 19	6.65	1,090	Apr. 28	6.13	711	Sept. 17	6.76	1,190
Jan. 28	6.40	888	May 5	6.72	1,060	Sept. 30	6.62	1,070
Feb. 4	5.90	570	May 23	6.52	993	Do	6.63	1,080
Feb. 10	6.37	897	May 30	6.55	1,020			

Daily discharge, in second-feet, of Bear River at Alexander, Idaho, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,000	742	890	730	748	575	809	480	781	1,110	1,230	942
2	1,040	618	1,010	879	900	580	921	712	823	1,090	1,130	1,050
3	1,070	767	904	893	830	570	900	767	949	1,040	1,080	990
4	1,050	890	854	872	712	694	767	865	979	712	1,280	998
5	816	884	842	977	612	676	742	886	886	942	1,210	1,050
6	1,050	767	878	1,020	736	590	935	590	851	991	1,160	910
7	953	860	689	970	767	545	928	844	886	977	793	1,070
8	1,000	904	940	977	688	454	865	724	886	1,050	934	1,090
9	953	724	860	977	706	520	823	676	893	1,070	1,110	1,160
10	884	774	904	893	765	596	700	640	914	1,150	1,190	1,160
11	946	884	904	879	788	624	629	730	900	1,130	1,140	982
12	890	904	872	963	795	612	774	774	879	893	1,060	1,040
13	976	878	848	1,000	742	612	730	760	865	1,180	1,050	982
14	939	872	730	935	712	535	730	742	946	1,180	1,050	1,100
15	890	774	760	865	688	505	774	670	900	1,230	1,020	1,100

Daily discharge, in second-feet, of Bear River at Alexander, Idaho, for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	953	795	830	1,020	730	612	781	767	981	1,180	950	1,120
17	897	939	774	949	724	612	754	774	960	1,150	1,090	1,160
18	890	939	946	795	760	565	802	886	1,030	1,140	1,170	1,140
19	742	781	1,140	928	706	570	688	1,030	1,060	1,040	1,160	1,090
20	754	842	1,190	963	652	624	767	1,040	992	1,150	1,140	865
21	836	872	976	963	700	500	823	1,020	900	1,180	1,160	1,050
22	866	781	1,030	977	676	380	754	942	1,040	1,160	1,160	850
23	836	774	904	914	664	472	736	984	970	1,140	1,090	850
24	809	860	946	865	694	368	730	977	1,020	1,040	1,120	895
25	795	878	515	767	682	480	646	1,100	1,040	1,140	1,210	828
26	836	878	830	830	712	495	629	1,200	1,030	1,010	1,200	807
27	767	754	1,010	942	670	570	624	1,120	1,030	1,130	1,160	716
28	823	890	897	907	640	495	682	977	1,010	1,160	966	934
29	854	925	992	872	-------	412	624	1,030	1,120	1,170	1,050	926
30	866	672	984	795	-------	540	629	998	1,130	1,210	814	888
31	742	-------	897	774	-------	570	-------	998	-------	1,240	1,050	-------

NOTE.—No gage-height record Dec. 8, 9, Feb. 9, 10, and June 14–22; discharge determined from kilowatt output of Soda power plant.

Monthly discharge of Bear River at Alexander, Idaho, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,070	742	894	55,000
November	939	618	827	49,200
December	1,190	515	895	55,000
January	1,020	730	906	55,700
February	900	612	721	40,000
March	694	368	547	33,600
April	935	624	757	45,000
May	1,200	480	861	52,900
June	1,130	781	952	56,600
July	1,240	712	1,100	67,600
August	1,280	793	1,090	67,000
September	1,160	716	991	59,000
The year	1,280	368	880	637,000

BEAR RIVER NEAR WESTON, IDAHO

LOCATION.—In SW. ¼ SE. ¼ sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge, 3 miles east of Weston, Franklin County.

RECORDS AVAILABLE.—October 21, 1919, to September 30, 1925. Records at this station are comparable with those obtained at gaging station near Preston, Idaho, maintained October 11, 1889, to January 15, 1917.

GAGE.—Stevens continuous water-stage recorder replaced by Au continuous recorder July 12, 1925; inspected by Mrs. Mart Rasmussen.

DISCHARGE MEASUREMENTS.—Made from highway bridge immediately below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and earth. Banks fairly high and covered with brush. One channel at all stages. Low-water control is fairly well defined gravel riffle 200 feet below gage; not permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.41 feet at 5 a. m. May 2 (discharge, 2,160 second-feet); minimum stage, 1.56 feet at 11 p. m. May 5 (discharge, 126 second-feet).

1920–1925: Maximum stage recorded, 12.1 feet May 8 or 9, 1922 (discharge, 6,100 second-feet); minimum discharge, 126 second-feet at 11 p. m. May 5, 1925.

ICE.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—Numerous irrigation diversions above. West Cache Canal diverts about 15 miles upstream and carries about 30,000 acre-feet around this station.

REGULATION.—Considerable diurnal fluctuation is caused by operation of Oneida power plant about 25 miles above, and seasonal flow is affected by storage at Bear Lake about 160 miles above.

ACCURACY.—Stage-discharge relation changed in January. Rating curves fairly well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to daily-discharge table. Records when recorder was in operation good; estimated records fair.

COOPERATION.—Data collected and records compiled by Utah Power & Light Co. (under supervision of the Geological Survey) in connection with records furnished for project 20, Idaho, of Federal Power Commission.

Discharge measurements of Bear River near Weston, Idaho, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 13	2.55	429	June 23	1.97	277	July 15	4.02	1,110
Nov. 3	3.57	798	June 24	3.25	748	Do	3.84	995
Mar. 26	2.60	443	July 1	3.13	687	Do	3.75	998
May 5	1.56	126	July 8	3.17	713	July 30	3.35	837
May 29	3.37	917	July 15	3.55	964	Aug. 5	3.29	822
June 6	2.57	451	Do	3.73	1,090	Sept. 24	2.73	525
June 10	2.45	427	Do	3.91	1,140			
June 19	3.01	660	Do	4.05	1,160			

Daily discharge, in second-feet, of Bear River near Weston, Idaho, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,080	1,240	1,100	------	1,140	930	1,250	1,840	975	764	849	945
2	1,210	1,050	850	------	1,020	1,050	1,300	2,420	1,080	998	898	1,150
3	1,250	1,500	1,090	------	1,100	1,400	1,020	1,200	950	1,180	1,150	831
4	1,060	955	1,290	------	1,380	965	1,490	190	710	588	912	1,240
5	1,320	1,190	1,060	------	2,020	772	1,610	190	970	469	728	1,340
6	990	1,100	930	------	1,820	777	1,300	380	808	885	1,020	1,000
7	1,390	1,150	1,290	------	1,260	1,020	1,040	1,320	505	1,080	1,140	638
8	1,000	938	720	------	921	1,180	1,200	728	646	1,420	1,070	646
9	1,190	643	1,500	------	1,100	1,120	1,190	1,430	1,010	1,020	955	840
10	1,550	1,240	1,080	------	1,150	1,020	1,270	1,250	867	674	854	858
11	1,350	1,220	908	------	1,400	844	1,820	1,020	606	930	908	1,180
12	670	1,000	990	------	1,140	989	1,080	984	862	926	876	1,120
13	1,100	1,390	1,240	------	970	898	782	1,250	1,000	984	808	1,020
14	1,370	1,280	880	------	1,150	615	1,370	1,360	628	872	854	818
15	1,270	1,600	1,240	------	1,190	912	1,320	1,480	433	930	876	1,040
16	1,050	160	940	------	795	840	1,250	1,340	1,050	903	826	1,020
17	1,070	820	1,330	------	1,020	885	1,360	1,220	651	898	836	1,160
18	1,260	1,210	1,360	------	921	945	1,520	1,140	998	898	880	1,060
19	985	1,460	1,140	------	1,020	1,080	1,060	916	651	862	890	1,060
20	1,330	1,110	1,200	------	1,380	930	1,540	772	485	898	1,070	1,040
21	1,300	968	1,050	------	1,200	872	1,260	1,210	723	935	1,200	1,060
22	772	1,180	1,170	------	1,080	970	1,000	1,140	885	926	930	822
23	1,000	1,110	1,570	------	867	1,260	1,150	1,060	768	849	912	1,220
24	965	1,170	1,260	------	1,100	750	1,110	1,010	980	940	926	786
25	1,060	1,140	810	------	1,240	1,020	1,120	1,240	800	1,020	1,160	1,180
26	1,100	1,040	900	------	1,030	912	921	1,390	692	935	980	1,180
27	1,130	1,190	1,170	------	930	960	795	1,090	1,120	862	894	1,040
28	1,100	1,130	1,220	------	1,300	513	1,300	1,180	714	903	1,020	692
29	1,250	880	1,220	------	------	714	1,290	1,220	728	854	1,020	759
30	1,060	1,390	1,130	1,180	------	1,320	1,480	1,010	732	970	980	1,090
31	1,140	------	1,310	1,380	------	1,380	------	880	------	945	898	------

NOTE.—No gage-height record; discharge estimated by comparison with record of Bear River below Oneida Oct. 1–16, Nov. 13 to Dec. 31, Mar. 9, 10, and May 3–6. No record Jan. 1–29; daily discharge estimates not attempted see monthly table.

Monthly discharge of Bear River near Weston, Idaho, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,550	670	1,140	70,100
November	1,600	160	1,120	66,600
December	1,570	720	1,130	69,500
January			[a] 1,100	67,600
February	2,020	795	1,170	65,000
March	1,380	513	963	59,200
April	1,820	782	1,240	73,800
May	2,420	190	1,120	68,900
June	1,120	505	801	47,700
July	1,420	469	913	56,100
August	1,200	728	946	58,200
September	1,340	638	994	59,100
The year	2,420	160	1,050	762,000

[a] Estimated.

BEAR RIVER NEAR COLLINSTON, UTAH

LOCATION.—In W. ½ sec. 34, T. 13 N., R. 2 W., a quarter of a mile below power plant of Utah Power & Light Co., at railroad siding called Wheelon, 4 miles north of Collinston, Box Elder County. Little Malad River enters 20 miles below station.

DRAINAGE AREA.—6,000 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—July 1, 1889, to September 30, 1925.

GAGE.—Friez 8-day water-stage recorder on left bank; installed November 17, 1919; inspected by H. O. Durfey.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. Left bank high and covered with willows; not subject to overflow. Right bank fairly high and covered with willows; may be overflowed by exceptionally high floods. Control not well defined.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.40 feet at 4 p. m. February 5 (discharge, 4,280 second-feet); minimum stage, 1.08 feet July 6 (discharge, 80 second-feet).

1889–1925: Maximum stage recorded, 7.7 feet June 7–10, 1909 (discharge, 11,600 second-feet); minimum stage, 0.42 foot at midnight August 5, 1920 (discharge, practically zero).

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—West Side and Hammond Canals divert water on both sides of Bear River about 2 miles above station. Water can be used from either or both of these canals to supply Wheelon power plant. Water passing Wheelon penstocks is used for irrigation or returned to river. Numerous ditches farther upstream divert water for irrigation.

REGULATION.—Flow at station is affected by operation of power plants; also by storage and release of water from Bear Lake Reservoir.

ACCURACY.—Stage-discharge relation changed slightly about February 5; affected by ice December 22 to January 13. Rating curves well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

COOPERATION.—Gage-height record and discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Bear River near Collinston, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 14	2.17	897	Mar. 24	3.11	2,170	July 29	1.47	328
Dec. 9	2.47	1,240	May 19	3.42	2,650	Sept. 23	2.33	1,140
Feb. 5	4.19	3,840	June 24	2.15	899			

Daily discharge, in second-feet, of Bear River near Collinston, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	986	1,190	1,350		2,070	1,970	2,510	2,360	1,490	222	350	662
2	942	1,160	1,480		1,890	1,670	2,380	2,750	1,620	254	301	671
3	975	1,050	1,210		1,670	1,890	2,350	2,970	1,720	380	350	790
4	1,080	1,340	1,220		2,430	2,000	2,360	1,590	2,200	497	410	760
5	1,040	1,170	1,540		3,680	1,640	2,670	1,350	2,160	144	473	880
6	1,140	1,560	1,430		3,920	1,590	2,680	1,280	2,400	80	248	924
7	964	1,400	1,270	1,650	3,630	1,670	2,430	2,200	2,220	197	343	740
8	1,310	1,400	1,450		2,780	2,300	2,180	2,330	1,900	365	465	457
9	1,110	1,210	1,370		2,060	2,590	2,240	2,120	2,030	556	395	395
10	1,160	1,190	1,370		1,790	2,600	2,180	2,560	2,090	402	425	564
11	1,340	1,610	1,770		1,670	2,200	2,360	2,430	1,870	100	425	590
12	1,560	1,480	1,530		1,690	1,760	2,970	2,300	1,690	254	946	720
13	1,140	1,370	1,530		1,510	1,710	2,410	2,150	1,860	248	891	935
14	953	1,670	1,480	1,680	1,580	1,680	2,320	2,270	1,930	254	810	870
15	1,440	1,810	1,440	1,840	2,030	1,490	2,830	2,490	1,590	155	760	720
16	1,280	1,880	1,400	2,060	1,960	1,510	2,700	2,670	1,540	161	760	740
17	1,300	1,360	1,700	1,730	1,870	1,540	2,810	2,670	1,960	111	740	810
18	1,150	964	1,400	1,640	2,090	1,550	2,940	2,540	1,720	150	690	902
19	1,400	1,370	1,350	1,660	2,000	1,550	3,130	2,560	1,780	185	599	1,080
20	1,130	1,810	1,740	1,780	1,900	1,580	2,830	2,480	1,490	241	573	1,090
21	1,600	1,530	1,670	1,700	2,150	1,550	3,120	2,510	1,260	215	590	1,170
22	1,430	1,600		1,820	2,400	1,670	2,750	2,860	1,280	465	617	1,360
23	986	1,520		1,740	2,000	1,830	2,490	2,880	1,330	449	564	1,270
24	1,170	1,600		1,660	2,000	2,210	2,510	2,840	990	505	380	1,330
25	1,220	1,500		1,730	2,060	1,790	2,410	2,680	924	465	388	1,040
26	1,270	1,560	1,700	1,660	2,200	1,920	2,330	2,720	720	473	481	1,280
27	1,150	1,410		1,710	1,860	1,800	2,060	2,620	473	465	671	1,380
28	1,010	1,440		1,820	1,780	1,790	2,040	2,160	573	365	700	1,220
29	1,090	1,520		1,590	-------	1,510	2,280	2,030	372	395	644	957
30	1,230	1,170		1,450	-------	1,870	2,330	1,830	222	336	671	1,030
31	1,030	-------		1,670	-------	2,560	-------	1,660	-------	388	662	------

NOTE.—No gage-height record Dec. 14, 15, and Jan. 23; discharge interpolated. Braced figures show estimated mean discharge for periods indicated when stage-discharge was affected by ice.

Monthly discharge of Bear River near Collinston, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,600	942	1,180	72,600
November	1,880	964	1,430	85,100
December	-------	1,210	1,540	94,700
January	2,060	-------	1,690	104,000
February	3,920	1,510	2,170	121,000
March	2,600	1,490	1,840	113,000
April	3,130	2,040	2,520	150,000
May	2,970	1,280	2,350	144,000
June	2,400	222	1,510	89,800
July	556	80	306	18,800
August	946	248	559	34,400
September	1,360	395	911	54,200
The year	3,920	80	1,490	1,080,000

SODA CREEK AT LAU RANCH, NEAR SODA SPRINGS, IDAHO

LOCATION.—In sec. 12, T. 8 S., R. 41 E., 100 feet east of Lau ranch house and 6 miles north of Soda Springs, Caribou County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 1, 1923, to September 30, 1925.

GAGE.—Vertical staff on left bank, installed October 19, 1923; read by George Schmidt.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock and fine gravel; subject to slight aquatic growth. Control formed by well-defined riffle 20 feet below gage. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.34 feet March 30 (discharge, about 108 second-feet); minimum discharge estimated, 0.5 second-foot December 18–31.

1923–1925: Maximum stage recorded, 2.88 feet April 14, 1924 (discharge, about 172 second-feet); minimum discharge estimated, 0.5 second-foot January 1–31 and December 18–31, 1924.

ICE.—Stage-discharge relation seriously affected by ice during winter.

DIVERSIONS.—Schmidt ditch diverts a small amount of water for irrigation, 150 feet above gage on right bank.

REGULATION.—Flow affected by placement and removal of flashboards in low earth dam at outlet of Five-Mile Meadows about 400 feet above gage, and by diversion above.

ACCURACY.—Stage-discharge relation not permanent. Rating curves, well defined below 40 second-feet and extended above, used October 1 to March 31 and July 23 to September 30. Shifting-control method used during intervening period. Gage read to nearest two-hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table except as noted in footnote to table of daily discharge. Records fair except for estimated periods for which they are poor.

Discharge measurements of Soda Creek at Lau ranch, near Soda Springs, Idaho, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 7	0.90	8.2	May 30	1.00	6.9	July 28	0.78	6.3
Do	.90	8.6	July 3	.78	5.6	Sept. 23	.72	5.1
Apr. 30	.74	4.5	July 8	.80	5.7			

Daily discharge, in second-feet, of Soda Creek at Lau ranch, near Soda Springs, Idaho, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	2.3	1.8		1.5		94	4.5	7.0	5.8	5.4	4.0
2	2.1	2.3	1.8				41	4.5	7.2	5.6	5.3	4.0
3	2.1	2.1	1.8		1.8		26	4.1	7.2	5.6	5.1	4.0
4	2.1	2.1	1.8		1.8		22	4.1	7.4	5.6	5.1	4.0
5	2.1	2.1	1.8		2.1		16	4.1	7.4	5.6	5.1	4.0
6	2.1	2.1	1.8		2.1		9.9	4.5	7.6	5.6	5.1	4.0
7	2.3	2.1	1.8				8.4	5.1	7.6	5.8	4.8	4.0
8	2.3	2.1	1.8	1.0	2.0	2.0	12	6.2	7.8	5.9	4.8	4.0
9	2.3	2.1	1.8				12	6.2	7.4	5.9	4.8	4.0
10	2.3	2.1	1.8				13	6.6	7.4	5.9	4.8	4.0
11	2.3	2.1	1.8				13	6.4	7.6	5.8	4.8	4.0
12	2.3	2.1	1.8		1.5		12	6.8	7.2	5.3	4.8	4.0
13	2.3	2.1	1.8				11	7.0	7.4	5.8	5.1	4.0
14	2.5	2.1	1.8				6.1	7.4	7.4	5.9	5.8	4.0
15	2.5	2.1	1.8				6.1	7.8	7.4	9.2	5.6	4.0

Daily discharge, in second-feet, of Soda Creek at Lau ranch, near Soda Springs, Idaho, for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	2.5	2.1	1.8				6.1	7.6	7.6	16	5.4	4.0
17	2.5	2.1	1.8				6.2	7.6	7.6	16	5.1	4.0
18	2.5	2.1					6.0	7.4	7.8	14	4.8	4.0
19	2.5	2.1				2.0	5.8	7.4	7.8	14	4.8	4.2
20	2.5	2.0					6.2	7.4	8.0	13	4.8	4.8
21	2.5	2.0					6.2	7.2	8.0	11	4.8	5.4
22	2.5	1.8			1.5		6.2	7.2	7.8	11	4.8	5.8
23	2.5	1.8		1.0			5.8	7.0	7.4	10	4.5	5.1
24	2.4	1.8	.5			15	5.3	8.1	6.8	10	4.2	5.1
25	2.4	1.8					5.3	9.7	6.4	9.4	4.2	4.8
26	2.4	1.8					5.3	10	6.2	7.6	4.0	4.8
27	2.3	1.8				34	5.0	10	5.9	6.4	4.0	4.8
28	2.3	1.8				33	4.5	9.2	5.6	5.9	4.0	4.5
29	2.3	1.8				47	4.5	8.0	5.8	5.6	4.0	4.5
30	2.3	1.8				106	4.5	7.0	5.8	5.6	4.0	4.5
31	2.3							7.0		5.4	4.0	

NOTE.—Discharge estimated Dec. 18 to Feb. 2 and Feb. 7 to Mar. 26, because of ice, and Mar. 30, 31, Apr. 1, 6, 13, 18, May 24, 29, July 16, and Aug. 13 on basis of observer's notes and weather records. Braced figures show mean discharge for periods indicated.

Monthly discharge of Soda Creek at Lau ranch, near Soda Springs, Idaho, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2.5	2.1	2.34	144
November	2.3	1.8	2.02	120
December	1.8		1.21	74.4
January			1.00	61.5
February			1.62	90.0
March			14.3	879
April		4.5	12.8	762
May	10	4.1	6.87	422
June	8.0	5.6	7.18	427
July		5.3	8.07	496
August	5.8	4.0	4.77	293
September	5.8	4.0	4.34	258
The year			5.57	4,030

NOTE.—The Schmidt ditch diverted from right bank 150 feet above gage the following amounts of water as determined by occasional discharge measurements and from observer's notes: May, 10 acre-feet; June, 118 acre-feet; July, 51 acre-feet. Ditch reported dry during remainder of year.

SODA CREEK NEAR SODA SPRINGS, IDAHO

LOCATION.—In sec. 24, T. 8 S., R. 41 E., at George Schmidt ranch, one-eighth mile below confluence of two branches of creek and 5 miles north of Soda Springs, Caribou County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 5, 1913, to September 30, 1925.

GAGE.—Vertical staff set in concrete on left bank, a quarter of a mile south of ranch house, installed June 28, 1921, at a datum 3.30 feet higher than former vertical staff at same location which was used August 1, 1913, to July 27, 1921; read by George Schmidt. Gage used March 5 to July 31, 1913, was 30 feet upstream but had same control. Datum of this gage was between 0.1 and 0.2 foot above that of gage used August 1, 1913, to July 27, 1921.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of lava rock. Control is a reef about 15 feet below gage. Stage-discharge relation affected by aquatic growth.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 1.32 feet March 30 (discharge, 155 second-feet); minimum stage, 0.67 foot February 27 and 28 (discharge, 45 second-feet).

1913–1925: Maximum stage recorded, 5.3 feet April 6, 1913 (discharge, 324 second-feet); minimum stage, 3.95 feet January 8 and 12–15, 1919 (discharge, 38 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Schmidt ditch diverts water above station; a small ditch diverts water just below gage.

ACCURACY.—Stage-discharge relation not permanent on account of effect of aquatic growth, but flow is uniform. Gage read to nearest two-hundredths once daily. Daily discharge ascertained by using shifting-control method throughout the year based on standard rating curve and several curves parallel thereto. Records October to March, fair; April to September, good.

Discharge measurements of Soda Creek near Soda Springs, Idaho, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 7	0.80	60.9	May 30	0.83	59.7	July 28	0.82	48.6
Apr. 30	.78	56.7	July 3	.84	54.7	Sept. 23	.82	50.8

Daily discharge, in second-feet, of Soda Creek near Soda Springs, Idaho, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	53	48	47	47	46	113	57	62	53	49	49
2	48	53	48	47	48	46	105	57	62	52	51	49
3	48	51	48	47	51	47	94	57	62	54	51	49
4	48	52	48	46	53	48	91	57	63	54	51	49
5	48	52	48	46	53	49	87	57	63	54	49	51
6	49	52	48	46	55	51	75	58	63	53	49	51
7	49	52	48	46	55	53	60	59	63	53	48	51
8	52	52	48	46	55	53	65	59	63	54	48	51
9	52	52	48	46	55	51	66	59	59	54	48	51
10	52	51	48	46	55	51	66	62	59	53	48	51
11	52	51	48	47	53	51	66	60	59	53	48	51
12	52	51	49	47	51	51	66	60	57	52	51	51
13	51	51	49	47	51	51	63	60	57	52	51	51
14	51	51	49	47	48	51	60	63	55	51	49	51
15	51	51	49	47	48	49	60	63	55	51	48	51
16	48	51	48	47	48	49	58	63	58	59	48	51
17	48	51	48	47	48	48	63	63	58	65	49	51
18	48	51	48	47	48	48	63	63	58	70	49	51
19	51	51	48	46	48	49	62	63	57	65	49	53
20	53	51	48	46	48	51	65	63	57	65	49	55
21	53	51	48	46	48	53	65	62	57	59	49	55
22	53	51	48	46	48	53	65	62	57	58	49	53
23	53	49	47	46	46	58	65	62	57	55	49	51
24	53	49	47	46	46	59	62	62	55	53	49	51
25	53	49	47	46	46	60	62	63	55	51	49	51
26	51	51	47	46	46	66	62	65	55	51	49	51
27	51	49	47	46	45	78	62	65	55	51	49	51
28	51	49	47	46	45	78	59	65	54	48	49	51
29	51	49	47	46	------	98	59	62	53	49	49	51
30	53	49	48	46	------	155	57	60	53	49	49	51
31	53	------	48	46	------	150	------	62	------	49	49	------

Monthly discharge of Soda Creek near Soda Springs, Idaho, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	53	48	50.8	3,120
November	53	49	50.9	3,030
December	49	47	47.9	2,950
January	47	46	46.4	2,850
February	55	45	49.6	2,750
March	155	46	61.3	3,770
April	113	57	68.9	4,100
May	65	57	61.1	3,760
June	63	53	58.0	3,450
July	70	48	54.5	3,350
August	51	48	49.1	3,020
September	55	49	51.1	3,040
The year	155	45	54.1	39,200

LOGAN RIVER ABOVE STATE DAM, NEAR LOGAN, UTAH

LOCATION.—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 above Logan, Cache County.

DRAINAGE AREA.—218 square miles (measured on topographic map).

RECORDS AVAILABLE.—May 7, 1913, to September 30, 1925. June 1, 1896, to July 17, 1903, and April 14, 1904, to December 31, 1912, at old station a quarter of a mile downstream; flow at present station plus that of tailrace comparable to that at old station.

GAGE.—Stevens continuous water-stage recorder on right bank about 100 feet west of power house; installed May 7, 1913; inspected by operator at power plant.

DISCHARGE MEASUREMENTS.—Made by wading at gage; high-water measurements made from cable 400 feet downstream and flow in tailrace deducted.

CHANNEL AND CONTROL.—Banks high, clean, and not subject to overflow; right bank is dry rubble retaining wall. Control is concrete cut-off wall about 6 feet below gage; rebuilt during August, 1924.

EXTREMES OF DISCHARGE.—Maximum stage during year, 453 feet at 11.30 a. m. May 21 (discharge, 870 second-feet); minimum stage, 1.90 feet January 10 (discharge, 10 second-feet).

1913–1925: Maximum stage recorded, 5.6 feet at 9.30 a. m. March 21, 1916 (discharge estimated, 2,000 second-feet); minimum discharge, 8 second-feet, December 11, 1915.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Utah Power & Light Co. diverts water above station for power, and Logan, Hyde Park & Smithfield Canal diverts for irrigation. Logan has a municipal power plant about 2 miles above station, but water is returned to river above two diversions noted. Logan is entitled to divert for municipal supply, from 4 to 10 second-feet, from springs in sec. 22, T. 12 N., R. 2 E., the quantity depending on flow in river.

REGULATION.—Some diurnal fluctuation is caused at times by operation of two power plants.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 600 second-feet. Water-stage recorder operated satisfactorily. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

COOPERATION.—Gage-height record and six discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Logan River above State dam, near Logan, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 10	1.99	17.3	Apr. 13	2.73	126	June 23	3.15	250
Oct. 28	2.04	16.8	May 7	3.34	285	July 28	2.05	17.6
Dec. 13	2.00	16.6	May 31	3.77	479	Sept. 22	2.07	22.0
Mar. 23	2.32	48.2	June 2	3.52	367			

Daily discharge, in second-feet, of Logan River above State dam, near Logan, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	18	19	19	14	15	16	41	428	134	52	25
2	20	18	21	19	14	15	14	71	373	125	93	25
3	18	18	20	19	14	15	15	134	342	112	78	26
4	19	20	18	19	14	15	32	188	331	95	78	25
5	19	22	18	19	15	15	35	225	323	88	78	25
6	18	22	18	18	22	16	25	270	298	82	70	25
7	18	21	18	18	22	17	22	334	284	68	71	34
8	18	21	16	14	17	21	22	463	270	54	71	26
9	18	22	18	10	18	20	39	386	256	48	80	26
10	16	26	18	12	14	18	61	386	270	50	66	25
11	16	15	16	11	13	15	82	398	298	55	28	25
12	18	15	18	12	15	15	118	346	291	46	27	25
13	17	14	18	12	14	15	132	353	277	38	29	26
14	18	15	18	11	14	15	148	415	277	42	27	25
15	18	22	18	12	14	14	169	441	305	42	27	25
16	22	15	20	12	14	18	139	490	316	39	26	24
17	22	18	20	13	15	14	174	515	284	31	24	30
18	19	24	19	14	15	18	150	620	280	27	24	25
19	16	23	18	13	15	21	118	665	287	30	24	25
20	16	24	18	14	16	21	84	690	256	31	25	24
21	18	22	19	13	15	22	61	715	247	24	24	25
22	18	18	17	14	15	24	64	680	247	27	25	22
23	20	19	16	14	15	49	44	585	241	27	24	20
24	19	19	16	14	15	46	29	575	213	24	24	21
25	19	29	16	13	14	45	21	585	208	27	28	22
26	18	21	15	13	15	35	22	575	185	29	26	21
27	19	21	16	14	14	21	22	565	171	23	28	21
28	19	22	18	14	15	21	22	555	161	22	25	22
29	22	19	22	13	-------	18	24	520	154	23	24	36
30	19	18	22	14	-------	34	29	525	144	20	23	33
31	18	-------	19	14	-------	25	-------	490	-------	22	24	-------

NOTE.—No gage-height record Apr. 18; discharge estimated.

Monthly discharge of Logan River above State dam, near Logan, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	22	16	18.6	1,140
November	29	14	20.0	1,190
December	22	15	18.2	1,120
January	19	10	14.2	873
February	22	13	15.3	850
March	49	14	21.7	1,330
April	174	14	64.4	3,830
May	715	41	445	27,400
June	428	144	267	15,900
July	134	20	48.5	2,980
August	93	23	41.1	2,530
September	36	20	25.3	1,510
The year	715	10	83.8	60,700

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

LOCATION.—In NE. ¼ sec. 36, T. 12 N., R. 1 E., 100 feet below power house at plant of Utah Power & Light Co. and 2½ miles east of Logan, Cache County.

RECORDS AVAILABLE.—May 7, 1913, to September 30, 1925.

GAGE.—Stevens continuous. water-stage recorder on right bank just above weir; inspected by plant operators.

DISCHARGE MEASUREMENTS.—Made from footbridge just above gage.

CHANNEL AND CONTROL.—A rectangular wooden weir, with metal crest strip, just below gage acts as control. Capacity of channel above weir not sufficient to eliminate all velocity of approach. Length of crest, 17.7 feet. Stage of zero flow, zero on gage.

ICE.—Stage-discharge relation not affected by ice.

REGULATION.—Flow at station affected by operation of power plant.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Gage-height record and six discharge measurements furnished by Utah Power & Light Co.

Canal diverts water from right bank of Logan River in SE. ¼ SW. ¼ sec. 29, T. 12 N., R. 2 E. Water is returned to river 125 feet below gaging station on Logan River above State dam in NE. ¼ sec. 36, T. 12 N., R. 1 E. Water is used for development of power.

Discharge measurements of Utah Power & Light Co.'s tailrace near Logan, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 10	1.28	91.9	Apr. 13	1.80	163	June 23	1.87	174
Oct. 28	1.29	92.8	May 4	1.84	175	July 28	1.89	181
Mar. 23	1.20	82.7	May 31	1.88	177	Sept. 22	1.49	121

Daily discharge, in second-feet, of Utah Power & Light Co.'s tailrace near Logan, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	94	84	85	81	80	148	169	179	179	126	126
2	93	93	84	88	81	78	141	169	176	177	99	126
3	93	92	85	83	83	80	154	169	176	174	103	127
4	93	94	88	87	84	81	158	169	176	171	99	124
5	93	95	93	86	84	83	158	169	174	168	100	123
6	93	92	92	85	84	82	156	168	169	168	102	121
7	93	95	91	84	84	84	151	157	174	166	103	114
8	93	94	93	81	84	83	151	166	171	166	103	123
9	93	93	92	83	84	83	156	166	168	171	99	124
10	93	95	91	84	82	83	165	166	168	177	110	120
11	93	105	91	83	78	83	166	169	169	174	147	119
12	93	102	90	84	83	83	163	169	174	176	147	119
13	93	95	88	83	85	83	165	168	174	174	144	120
14	95	88	88	84	83	83	166	168	176	174	138	121
15	100	91	90	80	82	82	168	168	174	174	137	117
16	94	92	90	79	82	84	148	168	166	174	141	116
17	93	91	91	79	81	83	168	166	171	174	140	110
18	105	84	69	82	78	83	166	166	171	176	138	116
19	119	84	50	81	79	82	165	165	171	175	133	117
20	119	93	64	81	79	82	166	165	171	176	133	115
21	117	93	79	79	82	82	168	160	173	179	133	117
22	108	92	95	80	82	84	168	166	174	177	131	119
23	93	91	95	79	82	84	168	169	174	176	130	117
24	94	90	72	80	81	84	169	171	174	171	130	115
25	94	74	66	78	80	84	168	171	181	176	127	112
26	94	88	74	71	78	99	168	173	177	174	127	111
27	93	85	86	74	79	117	169	168	177	177	127	111
28	93	86	92	79	81	123	169	171	177	176	126	111
29	92	86	95	80	------	130	169	154	176	171	128	111
30	94	83	94	81	------	138	169	174	176	171	127	116
31	94	------	92	81	------	138	------	176	------	168	126	------

Monthly discharge of Utah Power & Light Co.'s tailrace near Logan, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	119	90	96.7	5,950
November	105	74	91.0	5,410
December	95	50	85.3	5,240
January	88	71	81.4	5,010
February	85	78	81.6	4,530
March	138	78	90.6	5,570
April	169	141	162	9,640
May	176	154	168	10,300
June	181	166	174	10,400
July	179	166	174	10,700
August	147	99	124	7,620
September	127	110	118	7,020
The year	181	50	121	87,400

LOGAN, HYDE PARK & SMITHFIELD CANAL NEAR LOGAN, UTAH

LOCATION.—In SE. ¼ sec. 25, T. 12 N., R. 1 E., at concrete rating flume 1¼ miles below head of canal and 2½ miles east of Logan, Cache County.

RECORDS AVAILABLE.—Fragmentary records 1904 to 1925.

GAGE.—Stevens continuous water-stage recorder on right bank at rating flume; installed May 29, 1924; inspected by employees of Logan, Hyde Park & Smithfield Canal Co.

DISCHARGE MEASUREMENTS.—Made from footplank at flume or by wading.

CHANNEL AND CONTROL.—Rectangular concrete rating flume. Stage of zero flow at zero on gage.

ICE.—Recording gage usually removed during winter. A small flow of water is maintained for domestic use.

DIVERSIONS.—None above gage.

REGULATION.—Flow regulated by head gates at diversion works.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimates fair.

Canal diverts water from Logan River in NE. ¼ NE. ¼ sec. 31, T. 12 N., R. 2 E. for irrigation and domestic use in territory north of Logan.

The following discharge measurements were made:

December 13, 1924: Gage height, 0.25 foot; discharge, 4.73 second-feet.

April 13, 1925: Gage height, 0.74 foot; discharge, 33.4 second-feet.

May 31, 1925: Gage height, 1.99 feet; discharge, 112 second-feet.

Daily discharge, in second-feet, of Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27							83	111	119	43	32
2	28							93	108	119	42	32
3	29							99	100	119	47	31
4	30							109	75	118	47	32
5	29							114	42	116	42	32
6	30	10	5	5	5	5	0	116	41	115	40	32
7	30							119	40	116	40	30
8	30							119	40	119	39	33
9	30							117	39	117	38	30
10	30						10	114	38	102	39	29

Daily discharge, in second-feet, of Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	30		5		5		20	110	32	91	40	29
12	30		5		5		25	106	22	90	42	29
13	29		5		5		33	105	35	91	38	28
14							44	79	40	79	43	28
15							55	57	41	72	43	27
16							64	58	41	70	40	27
17							88	41	40	76	38	27
18							97		38	74	39	29
19							79		39	74	38	33
20							74		76	71	40	32
21		10		5	5	5	67	0	92	66	38	36
22	25		5				61		82	64	36	31
23							60		87	57	37	28
24							56	16	105	54	36	26
25							51	36	115	47	36	26
26							48	49	116	42	36	26
27							49	68	118	43	44	26
28							49	89	120	43	42	26
29							57	114	120	43	36	11
30							67	113	120	43	34	6
31								112		43	32	

NOTE.—No gage-height record and discharge estimated Oct. 14 to Apr. 15. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Logan, Hyde Park & Smithfield Canal near Logan, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	30		26.8	1,650
November			[a] 10	595
December			[a] 5	307
January			[a] 5	307
February			[a] 5	278
March			[a] 5	307
April	97	0	38.5	2,290
May	119	0	72.1	4,430
June	120	22	70.4	4,190
July	119	42	80.4	4,940
August	47	32	39.5	2,430
September	36	6	28.1	1,670
The year	120	0	32.3	23,400

[a] Estimated.

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

LOCATION.—In NE. ¼ 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, Cache County.

DRAINAGE AREA.—260 square miles (measured on topographic maps and map of Cache National Forest).

RECORDS AVAILABLE.—July 19, 1900, to December 31, 1902; November 28, 1913, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank 500 feet above wagon bridge and nearly a mile above dam; installed November 28, 1913; inspected by watchman at dam.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 1 mile above gage.

CHANNEL AND CONTROL.—Bed rough but fairly permanent; one channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.71 feet April 17 (discharge, 362 second-feet); minimum stage, 1.14 feet March 2 (discharge, 66 second-feet).

1913–1925: Maximum stage determined by levels from high-water mark in well, 6.5 feet May 15, 1917 (discharge from extension of rating curve, 1,620 second-feet); minimum stage, 0.85 foot at 6 a. m. February 6, 1916 (discharge from extension of rating curve, 22 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Above all important diversions.

REGULATION.—None.

ACCURACY.—Stage-discharge relation assumed permanent during year. Rating curve well defined. Operation of water-stage recorder satisfactory, except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Discharge estimated for periods of missing gage heights by comparison with Venturi meter records at Utah Power & Light Co.'s plant. Records good.

COOPERATION.—Gage-height record and six discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Blacksmith Fork above Utah Power & Light Co.'s dam, near Hyrum, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 15	1.53	93.9	May 7	2.46	300	July 28	1.63	103
Mar. 25	1.61	125	May 29	2.00	184	Sept. 25	1.55	98.4
Apr. 15	2.36	254	June 22	1.76	118			

Daily discharge, in second-feet, of Blacksmith Fork above Utah Power & Light Co.'s dam, near Hyrum, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	89	87		79	67	143	247	165	114	102	86
2	86	89	89		80	66	135	260	170	114	101	88
3	86	89	89		81	67	177	275	174	110	101	90
4	87	89	89		83	68	179	289	184	108	100	95
5	86	91	90		88	72	181	286	179	106	99	96
6	88	90	89		93	76	154	283	177	102	99	97
7	89	89	88		89	85	143	294	174	101	97	100
8	90	90	87		89	94	150	311	172	100	95	102
9	93	91	85		88	86	168	289	168	101	93	102
10	95	94	85		84	84	196	278	165	102	93	102
11	96	89	86		87	82	220	286	163	106	97	101
12	96	89			85	83	262	270	161	108	99	99
13	96	87			80	84	281	265	156	113	94	99
14	95	86			78	84	286	294	158	116	91	95
15	93	85	83	77	78	84	292	286	170	122	89	93
16	93	84			77	84	286	281	161	127	88	91
17	93	84			76	86	333	278	154	129	88	90
18	96	82	80		76	85	300	270	148	129	86	93
19	95	80			76	86	262	268	139	133	85	93
20	91	79			76	90	237	265	135	133	84	93
21	90	79			76	113	234	270	135	133	82	94
22	89	78			75	126	252	257	131	135	80	95
23	89	76			74	126	237	242	126	131	80	96
24	89	76			72	106	237	230	126	127	80	95
25	89	76	78		70	120	230	220	124	124	79	95
26	89	78			68	126	237	210	122	116	79	95
27	88	80			67	122	237	198	120	107	84	94
28	88	83			67	133	234	186	118	106	83	94
29	94	84			-------	156	232	179	114	104	83	94
30	89	85		79	-------	191	232	172	113	102	83	93
31	89	-------		79	-------	141	-------	174	-------	102	84	------

NOTE.—No gage-height record Dec. 10, 12–17, Dec. 19 to Jan. 29, and Sept. 19–22; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	96	86	90.8	5,580
November	94	76	84.7	5,040
December	90		82.5	5,070
January			77.1	4,740
February	93	67	79.0	4,390
March	191	66	99.1	6,090
April	333	135	225	13,400
May	311	172	255	15,700
June	184	113	150	8,930
July	135	100	115	7,070
August	102	79	89.6	5,510
September	102	86	95.0	5,650
The year	333	66	120	87,200

WEST SIDE CANAL NEAR COLLINSTON, UTAH

LOCATION.—In NW. ¼ sec. 34, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 600 feet below penstock of Utah Power & Light Co.'s Wheelon plant, 1,000 feet northwest of gaging station on Bear River, and 4 miles north of Collinston, Box Elder County.

RECORDS AVAILABLE.—June 1, 1912, to September 30, 1925.

GAGE.—Stevens water-stage recorder on left bank; installed in 1924.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of earth and gravel. Banks steep and clean. Control not well defined; stage-discharge relation is probably affected by aquatic vegetation and slight silt deposit.

ICE.—Stage-discharge relation seriously affected at times by ice.

DIVERSIONS.—Water is taken out of canal, about 600 feet above gage, for power plant; and if necessary water can also be siphoned across river to Hammond Canal.

REGULATION.—Flow can be regulated at head gates, and also at fore bay of power plant.

COOPERATION.—Records furnished by Utah Power & Light Co.

Canal diverts water from west side of Bear River in SW. ¼ sec. 23, T. 13 N., R. 2 W., by means of low diversion dam. Part of water is used through Wheelon plant of Utah Power & Light Co. about 1½ miles below; the rest which passes gaging station is used for irrigation on west side of river. When cleaning or repairing Hammond Canal in canyon water can be siphoned across the river from West Side Canal.

Discharge measurements of West Side Canal near Collinston, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 14	4.26	226	June 24	6.64	564
Dec. 8	1.74	42.4	July 29	6.40	502
Feb. 6	.88	13	Sept. 23	5.02	335
May 19	4.49	276			

Daily discharge, in second-feet, of West Side Canal near Collinston, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	377	152	84	28	29	6		0	507	587	500	490
2	377	147	83	26	10	4		0	504	587	501	488
3	375	149	82	24	12	5		84	396	582	500	437
4	368	152	82	24	13	6		89	252	587	505	465
5	343	146	76	24	12	6		111	181	580	486	480
6	353	148	65	24	12	6		153	180	564	486	477
7	353	150	41	24	14	6		197	185	580	505	480
8	276	156	40	24	12	6		210	183	586	504	470
9	284	136	42	26	13	8		211	183	586	505	456
10	281	134	43	26	12	6		214	200	586	505	456
11	293	138	42	24	12	6		222	226	586	265	438
12	239	134	42	28	12	6		217	212	586	208	438
13	235	131	42	24	12	6		248	205	586	307	404
14	234	102	41	24	12	6		270	243	587	311	418
15	226	79	41	24	12	6		271	307	587	315	430
16	250	79	42	24	12	6	0	273	308	586	319	424
17	227	75	45	28	12	6		264	304	584	327	420
18	220	75	42	57	13	2		267	303	584	356	421
19	229	77	38	63	12			271	311	590	424	369
20	209	75	30	92	12			275	358	588	452	384
21	198	74	32	80	12			276	389	530	449	376
22	194	73	32	69	9			285	413	489	467	337
23	192	99	30	115	13			278	441	481	522	345
24	186	65	51	108	13			272	507	482	536	338
25	177	61	8	82	12	0		308	564	487	534	337
26	168	82	51	45	12			346	564	487	557	327
27	158	71	51	55	6			371	570	487	382	330
28	160	76	51	47	8			424	582	495	407	327
29	158	69	51	81	-------			459	582	500	487	323
30	159	84	30	64	-------			515	586	498	487	308
31	154	-------	30	46	-------		-------	507	-------	498	487	-----

Monthly discharge of West Side Canal near Collinston, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	377	154	247	15,200
November	156	61	106	6,310
December	84	8	47.1	2,900
January	115	24	46.1	2,830
February	29	6	12.3	683
March	8	0	3.3	203
April	0	0	0	0
May	515	0	254	15,600
June	586	180	358	21,300
July	590	481	552	33,900
August	557	208	439	27,000
September	490	308	406	24,200
The year	590	0	207	150,000

HAMMOND (EAST SIDE) CANAL NEAR COLLINSTON, UTAH

LOCATION.—In NW. ¼ sec. 34, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 400 feet below penstock of Utah Power & Light Co. and 4 miles north of Collinston, Box Elder County.

RECORDS AVAILABLE.—June 1, 1912, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; installed in 1924.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of earth and gravel. Control not well defined.

DIVERSIONS.—Water is taken from this canal 400 feet above gage for power plant.

REGULATION.—Flow can be regulated at head gates and by means of a wasteway at power plant fore bay; also affected by operation of plant.

COOPERATION.—Records furnished by Utah Power & Light Co.

Canal diverts water on east side of Bear River in SW. ¼ sec. 23, T. 13 N., R. 2 W., at same diversion dam as West Side Canal. Part of water is used by Wheelon plant of Utah Power & Light Co. and remainder is either wasted into river or passes gaging station for irrigation use.

Discharge measurements of Hammond (East Side) Canal near Collinston, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 14	3.25	55	July 29	4.53	130
May 19	3.36	76	Sept. 23	2.86	45
June 24	4.12	108			

Daily discharge, in second-feet, of Hammond (East Side) Canal near Collinston, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	92	9	------	30	123	144	133	101
2	93	------	------	39	122	142	134	100
3	87	------	------	34	114	144	136	101
4	83	------	------	41	92	142	141	100
5	75	------	------	52	57	136	137	102
6	70	------	------	53	40	128	136	102
7	68	------	------	64	41	129	138	104
8	66	------	------	70	40	136	139	106
9	66	------	------	69	41	138	140	100
10	65	------	------	70	40	137	138	100
11	60	------	------	71	40	132	114	102
12	54	------	------	73	41	136	93	108
13	54	------	------	71	52	136	84	102
14	54	------	------	73	59	139	90	93
15	53	------	30	75	58	140	92	93
16	52	------	49	73	58	140	92	93
17	46	------	34	74	59	142	96	91
18	45	------	30	73	59	136	100	92
19	48	------	28	74	58	112	106	71
20	42	------	27	72	57	115	112	71
21	39	------	18	72	65	138	118	71
22	40	------	12	72	86	120	138	44
23	40	------	16	73	94	110	138	44
24	40	------	17	72	109	102	140	44
25	40	------	17	74	124	102	138	45
26	33	------	17	72	129	104	138	44
27	26	------	19	71	139	102	118	44
28	13	------	23	73	147	106	81	44
29	12	------	32	100	142	119	74	36
30	12	------	36	114	141	128	96	0
31	12	------	------	122	------	128	100	------

NOTE.—Canal dry Nov. 2 to Apr. 14 and Sept. 30.

Monthly discharge of Hammond (East Side) Canal near Collinston, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	93	12	51.0	3,140
November	9	0	.3	18
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	49	0	13.5	803
May	122	30	69.9	4,300
June	147	40	80.9	4,810
July	144	102	128	7,870
August	141	74	117	7,190
September	108	0	78.3	4,660
The year	147	0	45.3	32,800

WEBER RIVER BASIN

WEBER RIVER NEAR OAKLEY, UTAH

LOCATION.—In NE. ¼ sec. 15, T. 1 S., R. 6 E., near mouth of canyon, 3 miles northeast of Oakley, Summit County. South Fork of Weber River enters 2 miles above station and Beaver or Kamas Creek 6 miles below.

DRAINAGE AREA.—163 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 22, 1904, to September 30, 1925.

GAGE.—Inclined staff on left bank a quarter of a mile above upper ditch diverting from Weber River. Read by John Franson.

DISCHARGE MEASUREMENTS.—Made from cable near gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders. One channel at all stages; steep and rough, but fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.9 feet May 21, 22, 28, 29 (discharge, 1,290 second-feet); minimum discharge, probably less than 50 second-feet, occurred during ice-affected period.

1904–1925: Maximum discharge recorded, 4,000 second-feet July 6, 1907, and June 5–7, 1909; minimum stage, 4.0 feet for periods during February and March, 1908 (discharge, 46 second-feet).

ICE.—Stage-discharge relation seriously affected by ice every winter.

DIVERSIONS.—Above all important diversions.

REGULATION.—During the year a dam was built at the outlet of Fish Lake near the headwaters of the river creating a small reservoir. About 200 acre-feet of water was stored which was released in August.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 1,200 second-feet; extended above. Gage read to quarter-tenths once a day, except as stated in footnote to daily-discharge table. Daily discharge determined by applying daily gage height to rating table. Records good for October and July 1 to September 30; fair for rest of year.

The following discharge measurements were made:

January 29, 1925: Gage height, 4.13 feet; discharge, 58.0 second-feet.

June 9, 1925: Gage height, 5.50 feet; discharge, 423 second-feet.

Daily discharge, in second-feet, of Weber River near Oakley, Utah, for the year year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	64			56	59	113	270	850	419	123	87
2	53	63			55	59	113	304	670	378	123	82
3	52	61			55	59	123	340	610	378	123	82
4	52	60				61	123	378	560	510	133	87
5	51	59				63	123	463	463	340	113	82
			60									
6	51	59			55	65	123	560	419	270	99	82
7	51	59				65	133	610	419	254	95	82
8	51	59				65	144	730	419	238	92	95
9	51	55				65	144	730	419	208	92	87
10	53				55	63	156	670	560	194	92	82
11	55		72		55	61	181	670	670	181	87	82
12	55	50			55	60	208	610	560	168	104	79
13	55				55	59	238	560	560	156	95	79
14	55		65	50		61	270	560	535	156	92	76
15	57					63	304	510	510	144	87	76
					55							
16	57	60				65	340	510	610	144	79	76
17	57				55	65	378	510	610	133	79	76
18	58				53	72	340	670	670	133	79	79
19	59	65			52	72	340	920	730	123	79	181
20	58	64			51	72	304	1,130	730	123	79	113
21	57	63			51	79	238	1,290	670	123	82	113
22	57	61			52	79	208	1,290	850	123	79	113
23	55	59			53	79	208	920	670	104	76	113
24	55		50		53	87	181	1,060	610	104	72	104
25	55				55	87	181	1,130	560	104	72	104
26	56	55			57	87	181	1,210	510	104	72	104
27	57			55	59	95	194	1,210	463	104	95	104
28	57				59	95	194	1,290	419	95	208	104
29	64			57	-------	104	208	1,290	419	95	113	95
30	65			57	-------	104	238	1,210	419	95	95	95
31	65	-------		56	-------	104	-------	1,130	-------	92	87	------

NOTE.—Discharge estimated, because of ice, from temperature records and by comparison with Devils Slide record Nov. 10–18, Nov. 24 to Dec. 10, Dec. 12 to Jan. 28, and Feb. 7. No gage-height record Oct. 24, 26, Feb. 1, 2, 4–6, 8, 9, 11–12, 14–16, 18, 19, 21–23, 25, 26, 28, Mar. 1, 2, 4, 5, 7, 8, 10–12, 14, 15, 22, June 14, 29, July 26, and Sept. 15; discharge interpolated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Weber River near Oakley, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	65	51	55.7	3,420
November	----------	----------	57.5	3,420
December	----------	----------	55.9	3,440
January	----------	----------	51.1	3,140
February	----------	----------	54.7	3,040
March	104	----------	73.4	4,510
April	378	113	208	12,400
May	1,290	270	798	49,100
June	850	419	572	34,000
July	510	92	187	11,500
August	208	72	96.6	5,940
September	181	76	93.8	5,580
The year	1,290	----------	193	139,000

WEBER RIVER AT DEVILS SLIDE, UTAH

LOCATION.—In SW. ¼ sec. 19, T. 4 N., R. 4 E., 300 feet north of hotel and 500 feet downstream from highway bridge at Devils Slide, Morgan County. Lost Creek enters from right a quarter of a mile above station.

DRAINAGE AREA.—1,090 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—February 1, 1905, to September 30, 1925.

GAGE.—Vertical staff on left bank; installed September 21, 1915; read by A. E. Lucas.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand; shifts occasionally. One channel at all stages. Stage of zero flow at gage height about 1.2 feet; determined August 27, 1924.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.23 feet at noon May 22 (discharge, 1,580 second-feet); minimum stage, 1.72 feet at noon July 28 (discharge, 59 second-feet).

1905–1925: Maximum stage recorded, 8.0 feet at 6 p. m. May 22, 1920 (discharge, 6,000 second-feet); minimum discharge, 31 second-feet September 3, 1919.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—A number of canals divert water above this station for irrigation and domestic use.

REGULATION.—Diversions for irrigation only.

ACCURACY.—Stage-discharge relation shifted during winter. Standard rating curve well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Shifting-control method used November 8 to July 6. Records good.

Discharge measurements of Weber River at Devils Slide, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 25	2.00	125	Feb. 18	2.10	171	May 6	3.50	976
Jan. 28	2.14	208	Apr. 10	2.67	405	June 9	3.33	827
Do	2.14	210	Do	2.67	404			

Daily discharge, in second-feet, of Weber River at Devils Slide, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	163	156	192	223	181	450	636	1,340	324	85	141
2	71	181	253	196	236	200	440	678	1,300	699	94	138
3	71	188	192	188	253	223	420	734	1,050	798	99	133
4	75	177	141	188	284	253	466	850	1,160	622	112	144
5	75	181	192	196	356	333	520	880	1,150	671	125	141
6	77	170	196	188	380	544	455	988	1,080	685	112	138
7	80	177	181	181	333	706	420	1,000	988	508	112	130
8	85	188	159	170	240	734	420	1,200	880	420	102	130
9	85	219	147	166	253	390	400	1,100	835	365	115	128
10	87	266	156	174	159	288	420	1,100	805	328	125	125
11	89	240	215	184	174	261	478	1,090	850	315	115	128
12	99	204	200	177	204	219	550	988	820	270	138	133
13	99	163	177	181	240	244	643	880	762	236	125	141
14	102	147	174	188	231	231	664	902	783	196	125	147
15	104	211	163	188	219	257	692	940	762	181	115	141
16	104	223	236	170	223	244	720	865	783	166	109	128
17	104	215	211	156	200	270	762	996	762	128	104	122
18	107	219	130	184	184	244	741	910	706	122	102	120
19	122	227	147	196	188	261	685	1,070	776	102	102	266
20	133	227	196	196	211	315	678	1,210	805	94	99	200
21	128	231	144	200	227	514	713	1,470	776	89	109	196
22	125	223	166	184	204	538	812	1,580	956	85	97	223
23	128	200	170	188	196	484	798	1,350	783	71	99	208
24	125	188	147	188	196	405	713	1,330	671	75	89	200
25	125	163	141	184	188	445	629	1,310	556	75	87	196
26	125	181	112	177	208	502	574	1,330	450	69	89	188
27	125	163	125	184	188	472	587	1,380	405	61	94	181
28	125	181	184	208	200	425	608	1,420	346	59	152	174
29	136	170	208	211	------	556	608	1,400	333	63	166	170
30	156	166	200	223	------	671	622	1,260	320	71	138	181
31	147	------	200	227	------	466	------	1,400	------	71	130	------

Monthly discharge of Weber River at Devils Slide, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	156	71	106	6,250
November	266	147	195	11,600
December	253	112	175	10,800
January	227	156	188	11,600
February	380	159	228	12,700
March	734	181	383	23,600
April	812	400	590	35,100
May	1,580	636	1,100	67,600
June	1,340	320	800	47,600
July	798	59	259	15,900
August	166	85	112	6,890
September	266	120	160	9,520
The year	1,580	59	359	259,000

WEBER RIVER AT GATEWAY, UTAH

LOCATION.—In NW. ¼ SW. ¼ sec. 27, T. 5 N., R. 1 E., 300 feet below mouth of Strawberry Creek, 1,400 feet above Union Pacific Railroad bridge across Weber River and 4,400 feet above section house at Gateway, Morgan County. East Canyon Creek enters from left 9 miles above station, and Ogden River enters from right 16 miles below.

DRAINAGE AREA.—1,610 square miles (measured on Utah Water Storage Association map for 1919).

RECORDS AVAILABLE.—June 22 to September 17, 1919, and July 26, 1920, to September 30, 1925. Records were obtained from October, 1889, to July, 1903, at a station 1 mile downstream known as Weber River near Uinta, Utah. Records at these stations are comparable, as there were no diversions and no important tributaries between the two points.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by William Poll.

DISCHARGE MEASUREMENTS.—From cable about 1,000 feet above gage or by wading. Flow of Strawberry Creek is added when cable is used.

CHANNEL AND CONTROL.—Bed composed of gravel and cobblestones. Right bank high. At high stages river overflows a bar opposite gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, 3.50 feet at 10 p. m. May 22 (discharge, 1,940 second-feet); minimum stage, 0.25 foot from 2 to 3 a. m. October 1 (discharge, 116 second-feet).

1889–1903; 1919–1925: Maximum discharge recorded, 7,980 second-feet May 31, 1896; minimum discharge, 65 second-feet August 7–13, 1898.

ICE.—Affected by ice usually only for short periods.

DIVERSIONS.—Numerous diversions from Weber River and tributaries for irrigation above Gateway. Davis & Weber Canal diverts water 3 miles below station, for irrigation on bench lands south of Ogden. Entire low-water flow is diverted by various canals during irrigation season so that river is practically dry at Plain City station.

REGULATION.—Water stored by Davis & Weber Canal Co. on East Canyon Creek is released from July to September, inclusive, and passes gaging station.

ACCURACY.—Stage-discharge relation changed during first part of March; affected by ice part of December and January. Rating curves well defined. Operation of water-stage recorder satisfactory, except for periods stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good, except for estimated periods for which they are fair.

Discharge measurements of Weber River at Gateway, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 16	0.48	177	Apr. 9	1.86	777	June 8	2.52	1,190
Feb. 18	.78	269	May 6	3.15	1,630	Aug. 5	.91	337

Daily discharge, in second-feet, of Weber River at Gateway, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	247	212	245	275	302	850	1,190	1,660	459	270	320
2	131	264	231	240	285	317	800	1,290	1,610	626	303	317
3	136	278	238	235	299	369	850	1,420	1,510	850	303	306
4	141	282	215	231	320	424	940	1,570	1,680	725	348	297
5	149	288	240	235	400	490	964	1,620	1,530	809	341	281
6	149	296	258	230	510	708	900	1,700	1,440	792	334	180
7	154	282	240	220	500	1,010	800	1,740	1,310	651	327	180
8	165	288	225	215	388	1,120	750	1,740	1,200	565	320	180
9	174	310	210	210	350	704	736	1,650	1,110	502	323	170
10	176	350	235	220	320	560	838	1,580	1,080	447	323	170
11	182	335	260	231	350	480	970	1,570	1,090	439	337	160
12	180	292	250	220	290	440	1,100	1,440	1,070	419	351	150
13	179	268	225	225	310	440	1,210	1,300	1,000	411	344	160
14	178	238	225	230	290	430	1,270	1,320	994	410	337	170
15	177	285	220	230	270	440	1,300	1,360	982	410	327	180
16	176	288	300	215	270	430	1,330	1,300	946	410	320	170
17	179	288	270	200	271	430	1,470	1,350	910	350	313	160
18	176	292	200	230	268	430	1,390	1,330	844	320	303	160
19	188	299	200	235	264	430	1,340	1,370	815	315	297	200
20	203	310	240	235	278	520	1,180	1,510	833	315	293	260
21	203	313	200	240	313	764	1,270	1,740	827	315	287	320
22	197	317	220	225	306	898	1,340	1,860	952	315	277	320
23	195	302	220	230	299	952	1,280	1,730	868	320	265	320
24	193	268	200	230	288	764	1,200	1,530	764	310	262	300
25	191	260	190	230	296	736	1,060	1,520	662	300	274	300
26	191	250	180	220	306	821	988	1,460	565	290	274	290
27	191	250	225	230	313	804	1,010	1,480	497	290	281	270
28	194	230	240	245	306	850	1,050	1,480	447	290	290	260
29	225	230	250	250	-------	1,030	1,070	1,460	423	290	334	260
30	241	220	250	260	-------	1,200	1,110	1,370	472	280	323	270
31	241	-------	250	270	-------	928	-------	1,420	-------	280	320	------

NOTE.—No gage-height record Oct. 12–15, 23, 24, Nov. 25–30, Dec. 5, 7–12, 14–31, Jan. 1–3, 5–10, 12–23, 26–31, Feb. 5–7, 9–16, Mar. 11–20, Apr. 1–3, 6–8, July 14–31, and Sept. 6–30; discharge estimated by comparative hydrographs using those for station at Devils Slide and Utah Power & Light Co.'s station at mouth of canyon.

Monthly discharge of Weber River at Gateway, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	241	123	180	11,100
November	350	220	281	16,700
December	300	180	230	14,100
January	270	210	231	14,200
February	510	264	319	17,700
March	1,200	302	652	40,100
April	1,470	736	1,080	64,300
May	1,860	1,190	1,500	92,200
June	1,680	423	1,000	59,500
July	850	280	436	26,800
August	351	262	310	19,100
September	320	150	236	14,000
The year	1,860	123	538	390,000

WEBER RIVER NEAR PLAIN CITY, UTAH

LOCATION.—In SE. ¼ sec. 5, T. 6 N., R. 2 W., at county highway bridge 1 mile south of Plain City, Weber County, on road to Ogden, 1 mile below mouth of Fourmile Creek, and 6 miles above point where Weber River empties into Great Salt Lake.

DRAINAGE AREA.—2,060 square miles (measured on topographic and United States Forest Service maps).

RECORDS AVAILABLE.—May 14, 1905, to September 30, 1925. Records obtained at this point in 1904 by State engineer.

GAGE.—Tape gage on upstream side of highway bridge; installed September 8, 1924; read by W. E. Davies.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading; conditions fair.

CHANNEL AND CONTROL.—Bed composed of sand and mud; shifting. One channel at all stages. Banks are high.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 12.25 feet April 20 (discharge, 2,790 second-feet); minimum stage, 2.07 feet August 5 (discharge, 12 second-feet).

1904–1925: Maximum stage recorded, 19.1 feet June 6, 1909 (discharge, 7,580 second-feet); river practically dry during later part of several summers since 1915.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—In summer practically entire flow of Weber River above station is diverted for irrigation.

REGULATION.—Flow affected by diversions.

ACCURACY.—Stage-discharge relation assumed permanent throughout year. Rating curve fairly well defined. Gage read to hundredths once a day. Daily discharge ascertained by applying daily gage height to rating table. Records probably fair.

Discharge measurements of Weber River near Plain City, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 14	5.70	611	June 24	5.60	464
May 7	11.04	2,310	July 16	2.37	20.4
June 10	8.82	1,660			

Daily discharge, in second-feet, of Weber River near Plain City, Utah, for the year ending September 30, 1925

May	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	218	281	300	399	520	1,550	2,030	966	51	16	16
2	18	225	300	315	436	527	1,480	2,120	1,350	90	17	18
3	21	226	343	306	461	532	1,460	2,210	1,530	372	20	20
4	28	207	319	296	489	615	1,540	2,380	2,350	245	16	23
5	27	289	315	290	615	726	1,740	2,370	2,240	343	16	27
6	24	311	308	333	990	816	1,560	2,360	2,090	367	15	19
7	28	319	311	317	1,030	1,070	1,420	2,360	1,870	333	14	22
8	34	300	300	304	843	1,930	1,400	2,360	1,390	256	13	26
9	40	317	317	283	758	1,290	1,340	2,260	1,470	152	14	66
10	53	374	329	281	623	1,130	1,460	2,100	1,550	132	16	82
11	58	410	353	277	477	948	1,710	1,970	1,410	99	19	83
12	68	363	372	287	501	840	1,860	1,840	1,360	40	60	63
13	73	308	359	321	569	804	2,070	1,790	1,300	27	33	52
14	88	319	343	327	564	766	2,210	1,750	1,260	24	16	68
15	87	335	355	331	559	701	2 270	1,790	1,330	26	18	84

Daily discharge, in second-feet, of Weber River near Plain City, Utah, for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	86	353	363	310	539	738	2,300	1,770	1,310	22	22	100
17	82	343	380	296	515	746	2,380	1,840	1,190	22	22	68
18	88	335	427	287	508	766	2,560	1,810	1,080	23	21	61
19	96	321	349	296	496	764	2,790	1,770	879	23	18	90
20	100	319	323	308	491	781	2,790	1,890	775	17	16	256
21	110	323	343	315	520	752	2,660	1,950	717	24	14	427
22	118	339	327	323	584	1,280	2,570	2,000	703	23	13	361
23	135	329	304	325	549	1,310	2,180	1,890	605	23	15	430
24	117	319	292	325	505	1,380	2,090	1,700	452	23	13	382
25	118	311	254	329	503	1,350	1,920	1,630	351	19	12	363
26	125	294	212	313	503	1,240	1,880	1,420	220	17	13	351
27	128	283	267	321	532	1,260	1,920	1,330	132	16	13	339
28	130	294	329	335	527	1,260	2,000	1,250	101	19	13	323
29	202	304	300	353	-------	1,440	2,000	1,130	99	20	14	300
30	215	276	268	382	-------	2,020	2,010	1,040	53	18	17	285
31	217	-------	306	388	-------	1,600	-------	936	-------	17	17	------

NOTE.—No gage heights, Oct. 28 and May 5; discharge estimated.

Monthly discharge of Weber River near Plain City, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	217	18	88.1	5,420
November	410	207	309	18,400
December	427	212	321	19,700
January	388	277	315	19,400
February	1,030	399	574	31,900
March	2,020	520	1,030	63,300
April	2,790	1,340	1,970	117,000
May	2,380	936	1,840	113,000
June	2,350	53	1,070	63,700
July	372	16	93.0	5,720
August	60	12	17.9	1,100
September	430	16	160	9,520
The year	2,790	12	647	468,000

LOST CREEK AT DEVILS SLIDE, UTAH

LOCATION.—In SE. ¼ sec. 19, T. 4 N., R. 4 E., a quarter of a mile above confluence with Weber River, half a mile east of Devils Slide, Morgan County.

DRAINAGE AREA.—228 square miles (measured on United States Bureau of Reclamation map).

RECORDS AVAILABLE.—April 1, 1921, to September 30, 1925, at present site. February 2 to December 31, 1905, at a site 150 feet above mouth of creek (published as "Lost Creek near Croyden, Utah").

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by A. E. Lucas.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Bed consists of gravel; rocky at gage. Straight for 100 feet above and below gage. One channel at all stages. Some moss on rocks at control. Control shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.28 feet at 10 p. m. May 7 (discharge, 325 second-feet); minimum discharge, 8 second-feet, October 1–3, 5, and 6.

1905; 1921–1925: Maximum stage, 4.39 feet from 4–6 a. m. May 11, 1923 (discharge, from extension of rating curve, 1,390 second-feet); minimum discharge, 8 second-feet December 9, 1923, and parts of September and October, 1924.

ICE.—Stage-discharge relation not often affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent except when affected by backwater from moss. Rating curves well defined. Water-stage recorder successfully operated except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder gage. Records good except for estimated periods for which they are fair.

Discharge measurements of Lost Creek at Devils Slide, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 25	0.80	12.0	May 5	2.09	262
Jan. 28	.90	22.3	June 9	1.40	85.5
Apr. 10	1.59	121			

Daily discharge, in second-feet, of Lost Creek at Devils Slide, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	14	23	23	21	27		225	46	27	14	12
2	8	18	24	23	22	27	90	236	67	28	17	12
3	8	27	24	21	24	29		271	84	29	16	12
4	9	28	23	23	27	31	103	294	110	29	15	13
5	8	29	23	23	28	34	112	284	108	38	15	14
6	8	30	23	23	29	42	110	290	99	42	14	14
7	9	30	23	21	30	44		297	99	38	14	14
8	9	30	21	20	25	47	118	294	94	31	15	14
9	9	30	20	19	26	44		255	88	25	16	14
10	10	33	20	19	21		125	230	77	23	16	14
11	11	30	23	20	23	38	147	218	64	23	15	14
12	12	29	23	20	25		170	206	55	23	16	12
13	13	27	24	20	25		183	186	58	27	15	12
14	13	24	25	20	26	33	200	175	62	23	15	12
15	14	27	24	19		35	209	170	66	21	17	12
16	14	27	25	19	23	35	218	170	67	21	17	10
17	14	27	26	19		36	221	172	49	19	18	10
18	14	27	22	19	20		224	157	47	17	17	10
19	15	26	18	19	22	39	224	147	49	17	17	11
20	15	26	15	21	25			132	39	17	16	11
21	15	25		21	27	42	180	118	40	17	16	12
22	15	25		21		48		112	42	17	14	12
23	15	26		20		56		103	38	17	14	12
24	14	25	14	20				94	35	17	14	12
25	13	23		20	26		142	76	30	17	16	11
26	14	24		19		57		55	27	17	16	11
27	13	24	13	20			170	48	28	16	17	10
28	13	24	14	22	26	58		37	28	16	16	10
29	13	23	20	20	-------	62	203	33	27	14	14	10
30	12	23	23	20	-------	70	215	31	26	14	14	11
31	12	-------	23	20	-------	80	-------	40	-------	12	13	-------

NOTE.—No gage-height record Dec. 21–26, Jan. 13–16, 22, 23, Feb. 6, 13, 15–17, 19, 20, 22–27, Mar. 10–13, 18–20, 24–27, 30, 31, Apr. 1–3, 7–9, 17, 20–24, 26–28, 30, and May 1; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Lost Creek at Devils Slide, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	15	8	11.9	732
November	33	14	26.0	1,550
December	26	13	20.2	1,240
January	23	19	20.5	1,260
February	30	20	24.9	1,380
March	80	27	44.4	2,730
April			161	9,580
May	297	31	166	10,200
June	110	26	58.1	3,460
July	42	12	22.3	1,370
August	18	13	15.5	953
September	14	10	11.9	708
The year	297	8	48.6	35,200

SOUTH FORK OF OGDEN RIVER NEAR HUNTSVILLE, UTAH

LOCATION.—In SE. ¼ 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 5½ miles east of Huntsville, Weber County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 21, 1921, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by T. L. Pass. Datum lowered 0.50 foot September 6, 1922.

DISCHARGE MEASUREMENTS.—Made by wading a quarter of a mile below gage.

CHANNEL AND CONTROL.—Bed of stream rocky and clean. One channel for all stages. Control of boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.91 feet 9 to 10 p. m. May 8 (discharge, 523 second-feet); minimum stage, 0.33 foot October 5 (discharge, 30 second-feet).

1921–1925: Maximum stage, 5.4 feet at 10 p. m. May 10, 1923 (discharge, 1,450 second-feet); minimum stage, 0.33 foot October 5, 1924 (discharge, 30 second-feet).

ICE.—Stage-discharge relation only occasionally affected.

DIVERSIONS.—Above all, except few small ranch diversions.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent during year; affected by ice December 18–31. Rating curve well defined. Water-stage recorder operated satisfactorily except for periods stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimates fair.

Discharge measurements of South Fork of Ogden River near Huntsville, Utah, duriny the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 13	0.60	49.3	July 13	0.67	61.9
Apr. 3	1.31	154	Aug. 14	.52	43.5
June 3	1.33	165	Sept. 8	.50	46.2
June 10	1.43	175			

Daily discharge, in second-feet, of South Fork of Ogden River near Huntsville, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	46	37	41	43	61	171	410	157	92	53	45
2	35	46	38	41	43	66	151	430	166	92	52	44
3	32	45	39	41	43	73	164	466	175	90	54	44
4	32	44	40	41	45	81	210	450	192	93	55	44
5	30	44	41	41	50	100	224	448	188	92	50	44
6	32	43	42	41	60	119	184	438	182	88	49	44
7	34	44	43	41	75	133	161	440	184	84	48	44
8	37	44	43	42	72	141	149	463	180	80	47	46
9	40	44	43	42	69	116	171	484	182	77	48	46
10	43	44	42	42	66	101	230	458	179	74	48	45
11	46	44	42	42	63	92	294	430	175	71	49	45
12	49	43	41	42	60	88	368	398	168	68	52	44
13	48	43	41	42	57	85	398	380	162	65	52	46
14	47	43	41	43	57	81	418	375	159	64	49	46
15	46	42	41	43	56	80	425	355	153	62	48	44
16	45	42	41	44	55	76	428	340	147	61	47	43
17	44	42	41	44	55	75	496	330	141	60	46	44
18	43	42	40	45	57	70	430	322	135	59	45	47
19	42	42	40	45	59	72	372	318	130	59	45	49
20	41	42	40	44	59	84	302	308	125	60	46	47
21	40	42	40	44	62	107	290	306	120	61	45	58
22	39	42	40	43	62	130	278	282	116	64	43	53
23	40	42	40	43	64	144	266	258	108	61	43	50
24	41	42	40	42	61	119	254	236	101	58	44	49
25	42	42	40	42	60	122	282	220	97	57	43	48
26	43	41	40	42	60	135	300	206	93	56	44	48
27	43	40	40	42	61	140	340	188	92	55	49	46
28	44	39	41	42	61	148	350	179	90	55	48	46
29	44	38	41	43	-------	180	360	166	92	54	46	46
30	45	38	41	43	-------	234	380	159	90	54	45	46
31	45	-------	41	43	-------	182	-------	159	-------	53	45	-------

NOTE.—No gage-height record Oct. 6–8, 13–18, 20, 21, 27–31, Nov. 1, Dec. 15–31, Jan. 1–3, 5–10, 12–17, 19–24, 26–31, Feb. 2–7, 9–12, Apr. 27–30, May 1, 2, June 15–20, and July 6–12; discharge interpolated or estimated by comparison with records of Utah Power & Light Co. at Pioneer Dam, downstream.

Monthly discharge of South Fork of Ogden River near Huntsville, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	49	30	40.9	2,510
November	46	38	42.5	2,530
December	43	37	40.6	2,500
January	45	41	42.5	2,610
February	a 75	43	58.4	3,240
March	234	61	111	6,820
April	496	149	295	17,600
May	484	159	336	20,700
June	192	90	143	8,510
July	93	53	68.4	4,210
August	55	43	47.7	2,930
September	58	43	46.4	2,760
The year	496	30	106	76,900

a Estimated.

JORDAN RIVER BASIN

JORDAN RIVER NEAR LEHI, UTAH

LOCATION.—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, Utah County.

DRAINAGE AREA.—2,570 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 30 to December 31, 1904; July 22, 1913, to September 30, 1925.

GAGE.—Stevens 8-day water-stage recorder on right bank about 25 feet above bridge since May 16, 1920; operated by W. A. Knight.

DISCHARGE MEASUREMENTS.—Made from cable about 400 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of clay and hardpan. Banks clean and low; not subject to overflow. One channel at gage. Area slightly constricted below by highway bridge.

EXTREMES OF DISCHARGE.—Maximum mean daily stage during year, 5.90 feet July 21 (discharge, 855 second-feet); minimum mean daily stage, 1.39 feet March 26 (discharge, 40 second-feet).

1913–1925: Maximum mean daily stage reported, 7.78 feet June 8, 1923 (discharge, 1,370 second-feet). Minimum stage occurred at 6 p. m. December 15, 1915, when river was dry owing to strong north wind which blew water in lake away from outlet gates. River was dry also August 14–15 and September 2, 1919, because of dam placed in lake outlet to permit repairing cut-off wall under pump house, and October 16, 1919, to May 15, 1920, because of dam placed in lake outlet incident to construction of new pumping plant.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—None from Jordan River above station. In Narrows about 6 miles north (downstream several miles by river) a number of large canals divert for irrigation in Salt Lake Valley and for use by smelters, etc., in vicinity of Garfield.

REGULATION.—During irrigation season when natural flow from Utah Lake is inadequate for demands below, water is pumped from lake into Jordan River. A pumping plant, capacity about 1,500 second-feet, is at outlet of lake, 800 feet above gage; owned and operated by several canal companies interested in stream. This 1,500 second-foot capacity includes four 200-second-foot units installed during winter of 1919–20.

ACCURACY.—Stage-discharge relation affected by backwater from storage at Narrows October 21–28 and March 14–27. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated from three discharge measurements when gage heights were affected by backwater. Records good.

COOPERATION.—Records of mean daily gage height furnished by W. A. Knight, water commissioner.

Discharge measurements of Jordan River near Lehi, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 22	2.43	121	Mar. 24	1.40	41.0	Apr. 14	2.65	180
Oct. 23	2.36	119	Apr. 2	1.70	76.9	Aug. 4	5.72	829

Daily discharge, in second-feet, of Jordan River near Lehi, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	407	103	101	101	101	105	76	438	730	778	828	653
2	465	103	101	101	101	105	75	438	713	770	830	657
3	407	103	101	101	101	81	75	528	653	798	815	662
4	528	103	101	101	101	81	75	692	478	788	810	657
5	539	103	101	101	101	82	75	713	446	782	798	657
6	539	103	101	101	101	83	75	713	334	782	788	657
7	528	103	101	101	101	83	109	715	334	782	770	639
8	520	103	101	101	101	85	162	699	334	780	746	572
9	442	103	101	101	101	87	168	710	344	778	739	570
10	401	103	101	101	101	88	171	708	334	780	746	565
11	371	103	101	101	101	83	186	706	452	785	722	563
12	351	103	101	101	101	83	182	708	583	800	746	532
13	351	101	101	101	101	84	179	708	598	798	746	543
14	351	101	101	101	101	41	183	708	618	795	653	541
15	322	101	101	101	101	41	183	710	623	795	708	546
16	268	101	101	101	101	41	375	713	623	830	708	546
17	250	101	101	101	102	41	448	713	625	832	722	546
18	247	101	101	101	103	41	486	713	628	842	706	543
19	233	101	101	101	104	41	526	720	630	832	710	496
20	233	101	101	101	105	42	530	722	685	832	696	492
21	150	101	101	101	107	42	530	730	708	855	692	524
22	121	101	101	101	110	43	530	730	710	790	678	457
23	119	101	101	101	116	44	444	730	710	788	639	461
24	116	101	101	101	118	41	427	727	710	795	363	457
25	114	101	101	101	118	41	530	722	713	790	499	454
26	111	101	101	101	115	40	507	730	720	782	563	401
27	109	101	101	101	110	41	444	730	720	832	641	401
28	107	101	101	101	108	77	436	737	758	840	639	324
29	103	101	101	101	------	76	436	734	770	802	630	292
30	103	101	101	101	------	75	436	734	775	830	625	375
31	103	------	101	101	------	76	------	730	------	830	625	------

Monthly discharge of Jordan River near Lehi, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	539	103	291	17,900
November	103	101	102	6,070
December	101	101	101	6,210
January	101	101	101	6,210
February	118	101	105	5,830
March	105	40	65	4,000
April	530	75	302	18,000
May	737	438	694	42,700
June	775	334	602	35,800
July	855	770	803	49,400
August	830	363	696	42,800
September	662	292	526	31,300
The year	855	40	368	266,000

SALT CREEK NEAR NEPHI, UTAH

LOCATION.—In NW. ¼ 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, Juab County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—April 27 to September 30, 1925.

GAGE.—Vertical enameled staff on left bank; read by J. A. Kendall.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge just below gage.

CHANNEL AND CONTROL.—Bed of gravel; wooded banks; one channel at all stages. Control is a coarse-gravel bar.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 1.29 feet, evening reading July 4 (discharge, 126 second-feet); minimum stage, 0.29 foot several times in August (discharge, 11 second-feet).

ICE.—No information.

DIVERSIONS.—A few small diversions above.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

The following discharge measurements were made:
April 27, 1925: Gage height, 0.69 foot; discharge, 35.8 second-feet.
August 18, 1925: Gage height, 0.32 foot; discharge, 12.1 second-feet.

Daily discharge, in second-feet, of Salt Creek near Nephi, Utah, for the year ending September 30, 1925

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	------	42	65	31	11	11	16	------	46	39	17	12	11
2	------	44	46	39	11	11	17	------	48	47	17	11	17
3	------	53	46	33	11	12	18	------	48	44	17	12	22
4	------	57	63	65	11	12	19	------	55	42	17	12	12
5	------	57	60	32	11	11	20	------	64	46	17	12	12
6	------	57	40	30	11	12	21	------	79	44	16	12	12
7	------	60	37	28	12	12	22	------	79	42	16	12	12
8	------	70	36	26	12	12	23	------	74	41	15	12	12
9	------	70	36	25	13	11	24	------	68	40	12	11	12
10	------	68	38	23	12	11	25	------	67	39	16	11	12
11	------	65	36	22	17	11	26	------	67	36	14	11	12
12	------	60	37	21	13	11	27	36	67	35	13	11	12
13	------	52	32	20	12	11	28	37	68	35	13	12	12
14	------	60	37	18	12	11	29	39	70	34	12	11	12
15	------	52	37	18	12	11	30	40	68	31	12	11	12
							31	------	57	------	12	11	------

Monthly discharge of Salt Creek near Nephi, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
April 27-30	40	36	38.0	301
May	79	42	61.0	3,750
June	65	31	41.4	2,460
July	65	12	21.5	1,320
August	17	11	11.8	726
September	22	11	12.1	720
The period				9,280

SPANISH FORK AT THISTLE, UTAH

LOCATION.—In SW. ¼ sec. 28, T. 9 S., R. 4 E., in Thistle, Utah County, 800 feet below point where Soldier Fork and Thistle Creek unite to form Spanish Fork, 3 miles above confluence with Diamond Fork.

DRAINAGE AREA.—490 square miles (measured on topographic map).

RECORDS AVAILABLE.—December 3, 1907, to September 30, 1925.

GAGE.—Inclined staff on right bank 10 feet below cable; installed May 4, 1915; read by W. W. McClure.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. One channel at all stages. Left bank low and subject to overflow; right bank high and partly wooded. Channel straight for 100 feet above and 600 feet below gage. Control is gravel bar about 30 feet below gage; shifting.

ICE.—Stage-discharge relation affected by ice for short periods.
DIVERSIONS.—No important diversions above station.
REGULATION.—None.
COOPERATION.—Records since January 1, 1911, furnished by United States Bureau of Reclamation.

Discharge measurements of Spanish Fork at Thistle, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 24	5.32	67.2	June 10	5.29	51.6
May 8	5.77	143	July 9	5.08	38.0

Daily discharge, in second-feet, of Spanish Fork at Thistle, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	44	35	52	52	64	63	77	56	47	26	26
2	30	49	40	52	52	64	63	77	56	47	26	26
3	30	52	39	52	52	71	63	87	56	54	25	26
4	30	52	35	52	52	74	67	109	62	187	25	51
5	33	52	49	52	64	79	67	113	67	48	25	28
6	33	52	49	52	62	79	67	120	67	48	24	26
7	35	52	52	52	64	82	67	131	63	40	24	26
8	35	52	57	52	64	91	63	136	63	40	23	26
9	35	62	57	52	64	71	63	142	59	38	29	26
10	35	62	57	52	64	71	63	142	55	36	29	26
11	39	49	44	52	67	71	63	142	54	32	29	26
12	39	49	39	52	58	70	70	149	54	32	27	26
13	40	35	39	52	67	68	77	129	55	32	27	26
14	40	35	39	52	64	64	82	129	55	31	27	26
15	40	35	39	52	58	58	85	129	55	30	26	26
16	40	40	39	52	58	64	84	126	52	29	26	26
17	40	44	49	52	52	64	84	111	62	29	25	28
18	40	49	52	52	58	58	84	105	58	28	25	29
19	40	49	52	52	58	55	76	105	56	27	25	30
20	40	49	52	52	58	66	76	100	54	27	134	30
21	40	49	52	52	58	71	76	100	50	27	28	31
22	40	45	52	52	62	68	76	96	48	29	26	31
23	40	42	52	52	62	68	76	96	45	29	26	31
24	40	35	52	52	58	67	68	87	43	29	26	31
25	40	35	52	52	58	67	84	91	42	29	26	31
26	40	35	52	52	62	64	67	81	39	29	26	31
27	40	35	52	52	58	66	64	73	37	29	70	31
28	44	35	52	52	55	67	64	66	37	28	26	31
29	52	35	52	52	------	67	64	63	37	27	26	31
30	49	35	52	52	------	63	74	58	37	27	26	31
31	44	------	52	52	------	63	------	57	------	27	26	------

Monthly discharge of Spanish Fork at Thistle, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	52	30	38.5	2,370
November	62	35	44.8	2,670
December	57	35	47.9	2,950
January	52	52	52.0	3,200
February	67	52	59.3	3,290
March	91	55	68.2	4,190
April	85	63	71.3	4,240
May	142	57	104	6,400
June	67	37	52.5	3,120
July	187	27	38.5	2,370
August	134	23	30.9	1,900
September	51	26	29.0	1,730
The year	187	23	53.1	38,400

SPANISH FORK AT CASTILLA, UTAH

LOCATION.—In SE. ¼ sec. 12, T. 9 S., R. 3 E., 600 feet above outlet of Cold Springs,[1] a mile northwest of Castilla railroad station, Utah County, 1¾ miles above diversion dam of United States Bureau of Reclamation, and 2 miles below mouth of Diamond Fork.

DRAINAGE AREA.—670 square miles.

RECORDS AVAILABLE.—May 3, 1919, to September 30, 1925.

GAGE.—Stevens 8-day water-stage recorder used since April 15, 1920, attended daily by E. P. Johnson. From May 3, 1919, to May 21, 1920, a vertical staff gage near left bank end of footbridge was read by Mr. Johnson daily at about 8 a. m.; since May 22, 1920, he has read daily about 8 a. m. slope gage on right bank set to original datum and to which recorder is referred.

DISCHARGE MEASUREMENTS.—Made from suspension footbridge at gage or by wading.

CHANNEL AND CONTROL.—Bed of gravel and boulders; one channel at all stages. Banks high; not subject to overflow. Control of boulders 20 feet below footbridge; fairly permanent.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Several small diversions for irrigation above station. Water is diverted from Colorado River Basin into Diamond Fork of Spanish Fork by tunnel from Strawberry Reservoir on Strawberry River.

REGULATION.—Flow augmented by release of water from Strawberry Reservoir.

COOPERATION.—Daily-discharge record and list of discharge measurements furnished by United States Bureau of Reclamation.

Discharge measurements of Spanish Fork at Castilla, Utah, during the year ending September 30, 1919–1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1919	*Feet*	*Sec.-ft.*	1921	*Feet*	*Sec.-ft.*	1923	*Feet*	*Sec.-ft.*
Apr. 2		213	May 2	5.62	623	Mar. 31	4.05	225
Apr. 10	3.82	160	May 9	6.10	709	Apr. 19	5.28	565
Apr. 24	4.46	336	May 14	6.74	919	Apr. 28	4.70	400
May 4	4.89	454	May 16	7.03	991	May 7	6.20	826
May 20	4.20	276	May 23	6.33	853	May 12	6.57	994
July 20	4.09	223	June 3	6.08	820	Oct. 9	3.77	167
Sept. 5	4.01	192	June 8	5.70	675			
Oct. 7	3.36	72.4	June 13	5.01	443	1924		
1920			Aug. 26	5.00	444	Mar. 8	3.22	77.0
Apr. 22	4.14	165	Sept. 9	3.61	144	Apr. 8	3.55	145
May 6	5.66	609				June 19	4.87	418
May 19	7.27	1,140	1922			July 10	4.70	401
May 22	8.20	1,540	Apr. 18	3.93	202	Dec. 2	3.08	73.4
May 28	6.70	953	Apr. 26	5.52	617			
June 2	5.81	639	Apr. 30	6.10	790	1925		
June 7	5.16	451	May 2	6.10	829	Mar. 24	3.29	97.2
July 24	5.08	446	May 5	6.72	1,040	May 8	4.62	366
Aug. 16	4.42	263	May 7	7.85	1,410	June 10	3.20	101
Sept. 13	4.53	306	Sept. 15	4.74	396	July 2	5.35	565
Oct. 15	3.40	96.8				Aug. 31	3.75	175

[1] See footnote to daily-discharge table.

Daily discharge, in second-feet, of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1919											
1	436	297	515	394	295	16	344	402	480	345	276
2	444	287	528	392	287	17	320	395	397	345	254
3	449	270	515	392	257	18	302	400	383	342	249
4	451	237	323	353	268	19	288	400	367	337	231
5	455	237	323	320	227	20	265	430	230	356	252
6	449	237	483	320	197	21	397	432	268	350	231
7	435	237	487	315	187	22	422	450	265	350	231
8	403	225	480	350	187	23	457	450	260	350	231
9	385	220	487	369	187	24	460	450	260	350	217
10	478	220	490	345	187	25	452	490	301	342	225
11	455	270	490	339	181	26	450	480	364	337	225
12	448	320	483	347	208	27	445	475	369	340	281
13	443	345	487	347	214	28	430	510	369	334	362
14	345	360	498	350	323	29	437	517	369	334	273
15	345	365	483	342	254	30	455	515	369	334	254
						31	373	------	369	323	------

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1919-20												
1	95	72	73	75	90	90	105	530	738	515	361	275
2	81	73	70	79	98	291	101	539	657	524	349	292
3	81	73	65	79	93	115	104	561	604	515	404	292
4	82	73	74	76	90	86	98	583	562	507	381	292
5	81	73	75	80	85	86	109	576	515	501	354	318
6	78	72	81	79	77	96	154	576	487	504	352	330
7	77	72	81	82	82	73	160	656	438	507	354	316
8	77	73	58	72	83	82	175	720	422	499	344	354
9	77	72	35	70	83	101	197	786	417	501	332	354
10	73	61	55	70	77	106	202	881	441	490	337	354
11	73	70	70	72	79	101	193	819	487	501	306	330
12	73	72	60	72	73	82	234	746	499	513	279	314
13	72	68	50	83	83	126	199	839	473	510	292	296
14	73	58	42	83	75	126	246	884	462	510	292	290
15	75	65	35	86	73	87	291	913	465	510	277	292
16	73	68	39	99	82	82	438	976	449	510	273	308
17	73	70	45	98	73	86	302	999	446	530	325	308
18	73	70	50	79	79	87	241	1,066	443	550	349	308
19	74	73	52	83	75	117	221	1,214	425	556	465	306
20	72	68	61	86	83	87	234	1,269	412	544	420	325
21	73	68	63	86	87	101	209	1,450	402	501	357	310
22	73	70	63	87	93	117	186	1,516	404	499	337	310
23	72	73	65	98	114	109	202	1,476	433	457	330	332
24	72	72	67	86	93	101	188	1,383	417	438	292	314
25	72	70	68	86	85	101	197	1,315	420	415	312	314
26	75	75	68	86	70	106	195	1,155	438	407	301	299
27	73	57	74	86	72	101	216	1,039	485	404	318	296
28	70	68	74	87	90	101	283	983	521	399	299	286
29	75	73	73	89	93	99	438	911	538	433	271	282
30	73	73	70	90	------	98	395	858	524	425	263	282
31	70	------	73	86	------	109	------	841	------	386	273	------

Daily discharge, in second-feet, of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1920–21												
1	282	118	105	77	82	133	175	472	852	541	429	558
2	213	114	100	89	91	143	246	635	833	555	444	362
3	162	109	103	91	96	157	273	668	849	575	424	212
4	162	110	92	82	96	250	296	738	794	610	421	172
5	159	110	103	89	54	352	255	781	763	628	387	157
6	159	115	74	89	93	352	248	781	730	643	372	156
7	159	115	95	89	66	226	253	768	707	632	370	151
8	152	118	97	92	69	177	224	768	680	632	375	149
9	152	113	101	78	81	146	224	705	643	632	392	143
10	118	110	101	73	97	151	229	691	606	665	426	217
11	124	108	103	76	83	167	235	687	531	646	418	241
12	114	108	103	39	104	182	253	722	491	628	426	281
13	112	108	86	71	55	238	292	807	469	578	450	296
14	112	108	106	73	108	226	333	890	421	565	462	336
15	108	108	67	76	105	253	305	956	381	646	507	350
16	108	108	85	80	105	229	281	998	456	592	475	367
17	108	108	90	90	60	248	271	995	459	589	450	385
18	133	108	95	96	102	253	271	975	504	558	459	392
19	119	108	106	108	105	365	308	935	514	475	459	395
20	119	112	97	97	104	235	326	889	521	453	475	407
21	117	108	100	91	109	209	324	858	507	456	534	395
22	114	106	97	74	105	203	317	833	504	402	469	362
23	115	107	98	82	102	228	380	841	524	321	447	345
24	110	96	99	83	103	201	370	878	498	273	450	333
25	108	106	99	72	102	201	350	892	558	261	429	336
26	108	100	98	86	110	198	336	871	544	355	429	336
27	108	108	98	85	114	184	326	895	538	429	432	336
28	108	99	97	82	128	175	340	926	527	429	453	360
29	108	80	99	90	-------	184	357	948	521	435	459	362
30	108	84	97	57	-------	184	377	928	538	462	475	360
31	127	-------	91	72	-------	184	-------	883	-------	456	507	-------
1921–22												
1	381	127	133	127	100	93	250	842	865	598	504	311
2	352	127	123	168	93	99	259	913	789	569	532	287
3	355	127	119	125	96	120	306	947	721	564	416	285
4	343	127	94	99	99	118	348	1,008	686	555	421	259
5	350	127	98	111	102	111	373	848	683	572	389	280
6	365	120	104	80	94	106	292	1,421	649	561	348	306
7	312	124	100	116	110	100	287	1,439	631	555	292	313
8	281	123	100	81	103	108	282	1,425	590	558	287	313
9	275	120	99	80	118	102	262	1,266	601	561	285	311
10	271	116	103	87	162	106	246	1,355	622	561	287	335
11	263	120	108	87	135	106	236	882	655	567	299	348
12	263	117	108	81	97	106	232	815	578	572	297	399
13	265	119	115	76	90	113	236	812	448	578	294	397
14	246	120	116	80	94	150	206	855	552	572	143	397
15	233	119	117	86	94	191	223	930	575	569	383	394
16	126	124	108	89	110	257	229	1,046	581	578	437	392
17	123	120	94	96	110	309	213	1,212	572	581	459	370
18	120	119	110	86	111	306	206	1,351	552	564	496	373
19	119	117	123	70	122	321	218	1,384	530	561	515	397
20	119	123	166	64	148	429	264	1,355	518	561	513	399
21	117	120	177	68	216	527	348	1,321	535	575	440	328
22	117	120	160	79	174	674	440	1,291	532	584	426	328
23	119	123	149	80	144	721	490	1,310	543	587	365	318
24	143	116	137	86	141	538	610	1,340	584	578	345	285
25	130	120	133	96	135	471	671	1,340	581	569	338	250
26	126	120	129	102	148	289	693	1,321	564	552	333	246
27	132	116	129	102	144	278	708	1,198	561	558	328	246
28	126	119	128	97	114	236	773	1,008	572	558	292	264
29	126	117	124	90	-------	223	839	1,001	584	535	318	264
30	127	119	126	96	-------	232	862	977	575	530	311	410
31	127	-------	135	99	-------	225	-------	923	-------	518	287	-------

Daily discharge, in second-feet, of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1922–23												
1	413	105	94	97	95	108	393	499	570	522	471	471
2	413	116	94	79	83	115	306	537	525	564	364	468
3	413	114	100	79	44	113	262	588	502	579	336	466
4	397	113	100	83	39	90	236	686	673	594	234	468
5	394	113	99	77	41	90	256	787	651	606	223	446
6	394	97	100	108	56	108	349	929	644	622	234	419
7	391	108	102	106	56	110	311	894	625	622	290	416
8	391	105	81	115	75	111	283	971	610	670	297	403
9	389	105	84	88	83	110	306	1,040	585	744	304	401
10	328	108	93	97	74	110	326	1,137	422	734	318	398
11	316	105	100	93	79	108	354	1,094	595	672	316	372
12	316	105	108	90	84	102	419	986	588	597	316	383
13	316	100	118	97	84	108	422	968	579	606	351	380
14	160	86	116	54	88	102	409	897	567	606	367	328
15	129	102	116	57	88	90	424	862	567	576	359	316
16	129	96	114	83	90	102	466	901	564	561	357	314
17	100	100	78	92	90	104	531	961	549	576	370	311
18	96	99	82	99	93	97	591	1,090	540	591	372	309
19	96	96	96	95	99	104	591	1,126	528	591	375	306
20	96	100	100	99	108	124	534	1,144	528	597	390	304
21	94	94	74	79	113	111	517	1,119	401	648	351	304
22	93	94	68	90	117	106	454	1,011	388	648	354	323
23	89	93	74	101	117	113	401	918	375	502	351	318
24	93	89	74	101	117	124	388	901	362	328	364	318
25	93	87	80	95	113	132	388	918	354	357	419	306
26	93	80	80	95	102	134	411	911	349	499	416	287
27	90	103	94	92	99	162	427	842	357	496	416	269
28	96	99	94	92	99	203	449	767	398	471	414	260
29	105	97	96	101	-------	258	499	718	468	466	449	210
30	97	97	82	101	-------	292	508	689	485	380	449	203
31	96	-------	94	95	-------	316	-------	628	-------	443	491	-------
1923–24												
1	207	113	92	59	75	95	86	430	227	582	341	354
2	184	113	90	59	88	101	104	496	184	576	351	354
3	184	113	88	59	79	113	115	537	160	558	336	333
4	184	101	86	59	79	99	119	546	115	564	336	341
5	180	110	84	59	88	92	119	546	184	517	377	346
6	164	115	83	59	88	92	128	570	254	511	403	351
7	162	115	81	59	88	99	141	594	234	454	377	331
8	160	110	81	77	88	92	164	594	265	454	351	331
9	174	110	41	77	90	88	160	603	336	411	351	299
10	160	115	46	77	90	88	139	600	393	383	351	283
11	160	115	49	83	90	92	130	543	390	349	359	280
12	149	147	49	86	86	88	130	543	383	341	372	249
13	145	164	57	86	99	90	135	543	383	344	388	243
14	141	164	75	68	102	92	143	546	414	349	398	234
15	141	164	75	79	110	92	143	543	414	406	393	232
16	141	164	63	84	108	84	128	531	416	452	383	232
17	99	160	61	84	108	84	124	528	416	468	364	203
18	95	83	66	88	99	88	119	519	411	477	383	203
19	117	83	66	88	93	92	115	499	414	480	375	190
20	117	83	81	70	102	93	119	502	380	485	370	232
21	117	83	79	70	111	92	122	496	362	482	364	210
22	115	83	75	88	120	90	201	494	362	468	372	203
23	108	83	66	84	81	90	249	517	357	416	380	203
24	122	83	57	90	77	86	232	528	393	278	396	195
25	122	83	75	79	74	90	225	485	482	393	380	195
26	122	83	77	97	92	95	287	496	525	385	364	195
27	117	79	59	79	101	110	331	422	508	385	359	195
28	115	50	59	79	101	108	336	411	528	388	359	188
29	117	65	77	88	88	101	338	398	529	377	359	188
30	117	92	77	90	-------	97	267	341	582	364	357	188
31	115	-------	77	88	-------	84	-------	267	-------	362	357	-------

Daily discharge, in second-feet, of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1924–25												
1	184	95	70	84	89	71	103	223	491	586	273	162
2	176	95	70	84	89	74	97	227	478	565	284	162
3	180	93	79	74	89	79	98	236	451	459	298	233
4	186	93	77	74	90	80	106	248	390	467	300	233
5	160	90	81	86	97	86	102	233	312	336	312	197
6	113	84	84	86	101	95	94	203	236	255	319	186
7	92	72	75	68	97	102	92	300	170	289	317	182
8	77	75	68	58	90	115	86	351	138	277	312	184
9	75	84	59	64	95	97	86	358	131	262	326	184
10	77	86	59	65	66	84	94	369	110	305	329	186
11	88	65	59	80	75	84	99	361	98	348	366	190
12	79	88	59	80	80	80	106	346	94	358	366	186
13	72	74	63	81	81	77	113	336	117	351	341	177
14	72	74	63	82	76	72	117	338	205	361	319	168
15	75	79	70	86	71	74	153	326	215	408	284	161
16	77	79	79	72	71	75	164	324	221	453	266	162
17	83	81	86	72	71	75	211	305	227	462	262	166
18	83	83	46	72	71	72	257	282	231	459	271	166
19	84	92	36	80	66	73	246	262	246	456	284	184
20	83	92	38	77	74	92	298	262	275	426	361	141
21	81	92	42	71	80	110	294	296	303	387	366	123
22	83	81	50	71	74	115	287	257	334	336	322	112
23	83	70	59	81	74	112	259	277	341	223	322	98
24	83	70	44	88	74	98	246	303	353	177	319	89
25	83	59	44	89	72	98	221	303	400	175	305	85
26	83	84	44	84	76	105	186	397	472	177	277	120
27	81	75	49	84	72	97	164	437	472	193	307	125
28	83	72	49	86	74	98	164	497	500	207	296	153
29	104	72	77	88	-------	106	155	516	531	225	233	193
30	99	70	95	88	-------	116	213	502	568	248	203	179
31	95	-------	99	85	-------	102	-------	500	-------	268	175	-------

NOTE.—5 second-feet have been added up to Dec. 31, 1920, to include flow of Cold Springs. Discharge May 1 and 2, 1919, determined from station at diversion dam of U. S. Bureau of Reclamation.

Monthly discharge of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1919				
May	478	265	411	25,200
June	517	220	364	21,700
July	528	230	403	24,800
August	394	315	347	21,300
September	362	181	242	14,400
The period				107,000
1919–20				
October	95	70	75	4,620
November	75	57	70	4,160
December	81	35	62	3,830
January	99	70	83	5,100
February	114	70	84	4,820
March	291	73	105	6,450
April	438	98	217	12,900
May	1,520	530	937	57,600
June	738	402	481	28,600
July	556	386	486	29,900
August	404	263	329	20,200
September	354	275	309	18,400
The year	1,520	35	271	197,000

Monthly discharge of Spanish Fork at Castilla, Utah, for the years ending September 30, 1919–1925—Continued

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1920–21				
October	282	108	132	8,140
November	118	80	107	6,370
December	106	67	96	5,910
January	108	39	82	5,020
February	128	54	94	5,220
March	365	133	214	13,200
April	380	175	292	17,400
May	998	472	826	50,800
June	852	381	582	34,600
July	665	261	520	32,000
August	534	370	442	27,200
September	558	143	308	18,400
The year	998	39	310	224,000
1921–22				
October	381	117	211	13,000
November	127	116	121	7,190
December	177	94	121	7,470
January	168	64	93	5,720
February	216	90	122	6,750
March	721	93	250	15,400
April	862	206	387	23,000
May	1,440	812	1,130	69,700
June	865	448	601	35,800
July	598	518	565	34,700
August	532	143	367	22,600
September	410	246	327	19,500
The year	1,440	64	360	261,000
1922–23				
October	413	89	217	13,300
November	116	80	100	5,950
December	118	68	93.1	5,720
January	115	54	91.3	5,610
February	117	39	86.6	4,810
March	316	90	131	8,060
April	591	236	407	24,200
May	1,140	499	888	54,600
June	673	349	512	30,500
July	744	328	562	34,600
August	491	223	359	22,100
September	471	203	349	20,800
The year	1,140	39	318	230,000
1923–24				
October	207	95	140	8,610
November	164	50	108	6,430
December	92	41	70.7	4,350
January	97	59	77.2	4,750
February	120	74	92.9	5,340
March	113	84	93.5	5,750
April	338	86	172	10,200
May	603	267	505	31,100
June	582	115	367	21,800
July	582	278	434	26,700
August	403	336	368	22,600
September	354	188	253	15,100
The year	603	41	224	163,000
1924–25				
October	186	72	99.2	6,100
November	95	59	80.6	4,830
December	99	36	63.6	3,100
January	89	58	78.7	4,840
February	101	66	79.8	4,850
March	116	71	90.8	5,490
April	298	86	164	9,760
May	516	203	328	20,200
June	568	94	304	18,100
July	586	175	339	20,800
August	366	175	300	18,400
September	233	85	163	9,700
The year	586	36	175	127,000

NOTE.—Water, in acre-feet, released from Strawberry Tunnel into Diamond Fork during the year ending Sept. 30, 1920, was 63,600; 1921, 67,300; 1922, 71,000; 1923, 79,500; 1924, 113,000; and 1925, 82,600.

SPANISH FORK AT LAKE SHORE, UTAH

LOCATION.—In NW. ¼ sec. 15, T. 8 S., R. 2 E., 1 mile east of Lake Shore, Utah County, 3 miles above mouth, 3 miles northwest of Spanish Fork, and below all tributaries and diversions.

DRAINAGE AREA.—700 square miles (measured on topographic map).

RECORDS AVAILABLE.—December 10, 1903, to July 10, 1907; March 10, 1909, to September 30, 1925.

GAGE.—Staff on left bank about half a mile below highway bridge since January 1, 1923; read by Andrew Poulsen.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed soft; fairly permanent. One channel at all stages; banks of earth, high and covered with willows.

ICE.—Stage-discharge relation slightly affected for short periods.

DIVERSIONS.—Entire flow is diverted above station during later part of irrigation season; only waste and return waters pass gage at that time.

REGULATION.—Natural flow affected by irrigation diversions.

COOPERATION.—Since January 1, 1911, records have been furnished by United States Bureau of Reclamation.

Discharge measurements of Spanish Fork at Lake Shore, Utah, during the year ending September 30, 1925

[Made by Kenneth Borg]

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 27	5.00	[a] 60.0	Apr. 15	3.70	8.1
Mar. 23	5.90	134	Sept. 25	3.60	3.6

[a] Measured 1 mile above gage.

Daily discharge, in second-feet, of Spanish Fork at Lake Shore, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	57	67	153	89	106	128	4	4	35	4	4
2	1	57	67	119	102	109	121	4	4	22	4	4
3	1	60	67	154	113	112	131	4	4	22	4	22
4	1	60	67	120	115	112	137	4	4	26	4	4
5	2	60	67	116	122	115	130	4	4	276	4	4
6	2	62	65	108	129	115	124	4	4	22	4	4
7	2	61	70	111	171	115	104	4	4	4	4	4
8	2	64	73	109	139	115	98	4	4	4	4	4
9	2	61	73	102	165	115	92	4	4	4	4	4
10	2	65	78	102	129	115	73	4	4	4	4	4
11	2	71	82	103	130	115	67	4	4	4	4	4
12	2	64	82	103	124	115	9	4	4	4	4	4
13	2	64	82	100	127	110	9	4	4	1	4	4
14	2	71	82	100	125	110	9	4	4	4	4	4
15	2	63	82	103	106	110	8	4	4	4	4	4
16	2	63	82	103	99	110	8	4	4	4	4	4
17	2	63	77	104	106	113	8	4	4	8	4	4
18	2	65	68	104	112	116	22	4	4	8	4	4
19	2	65	61	105	118	123	8	4	4	4	4	4
20	2	64	61	108	122	129	6	4	4	4	4	4
21	2	65	61	105	126	136	6	4	4	8	17	4
22	2	65	54	106	120	133	4	4	4	4	8	4
23	2	93	57	106	114	127	4	4	4	4	4	4
24	2	70	54	106	108	116	4	4	4	4	4	4
25	1	69	54	99	101	124	4	4	4	4	4	4
26	1	69	54	96	101	130	4	4	4	4	4	4
27	1	93	54	88	99	130	4	4	4	4	4	5
28	1	69	60	92	102	127	4	4	4	4	4	5
29	46	68	81	85	-------	124	4	4	22	4	4	5
30	44	68	100	82	-------	127	4	4	29	4	4	5
31	51	-------	119	83	-------	128	-------	4	-------	4	4	-------

Monthly discharge of Spanish Fork at Lake Shore, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	51	1	6.1	375
November	93	57	66.3	3,950
December	119	54	71.0	4,370
January	154	82	106	6,520
February	171	89	118	6,550
March	136	106	119	7,320
April	137	4	44.1	2,620
May	4	4	4.0	246
June	29	4	5.4	321
July	276	1	16.5	1,010
August	17	4	4.5	277
September	22	4	4.7	280
The year	276	1	46.8	33,800

PROVO RIVER AT FORKS, UTAH

LOCATION.—In sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks, Utah County, and 400 feet above South Fork.

DRAINAGE AREA.—600 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 17, 1911, to September 30, 1925. Records have been obtained at various points below mouth of South Fork since 1890.

GAGE.—Vertical staff on right bank, 16 feet above steel bridge; installed July 21, 1920; read by J. F. Carter.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; fairly permanent. Banks fairly high and not subject to overflow; one channel at all stages. Control is gravel riffle; shifting.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.26 feet at 8 a. m. May 22 (discharge, 695 second-feet); minimum discharge, 124 second-feet December 20.

1911–1925: Maximum stage recorded, 6.13 feet at 7 p. m. June 11, 1921 (discharge, 3,180 second-feet); minimum discharge, 122 second-feet September 18, 1924.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo.

REGULATION.—A number of small lakes at headwaters have been utilized as storage reservoirs and flow is regulated to slight extent.

ACCURACY.—Stage-discharge relation changed frequently during year. Fairly well defined standard curve used shifting to measurements. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

COOPERATION.—Nine discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of Provo River at Forks, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	1.72	132	Apr. 17	2.16	222	July 2	2.30	276
Nov. 20	2.28	257	Do	2.21	[a] 227	July 29	2.16	216
Jan. 29	2.06	208	Apr. 30	2.16	223	Aug. 4	2.08	194
Apr. 1	2.29	279	June 10	2.52	342	Sept. 16	2.13	197

[a] Very windy during measurement.

Daily discharge, in second-feet, of Provo River at Forks, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	170	229	239	207	236	310	210	594	268	210	229
2	130	170	232	232	226	242	282	204	584	275	216	229
3	132	173	229	226	220	275	262	223	485	317	210	216
4	132	173	223	184	220	296	272	249	543	289	210	236
5	135	178	242	232	245	346	286	255	553	365	210	229
6	135	178	236	232	286	392	286	296	543	317	198	220
7	130	176	229	173	314	409	262	369	422	289	181	220
8	135	181	223	184	292	426	255	405	373	278	181	226
9	135	187	210	196	306	346	252	480	335	265	181	220
10	137	357	193	201	173	303	239	471	328	258	181	220
11	147	245	226	193	196	289	258	490	342	272	198	220
12	149	245	232	223	245	268	252	444	380	258	204	220
13	147	236	226	198	258	268	245	361	350	245	210	220
14	144	229	223	229	245	268	242	392	357	239	204	220
15	154	296	226	229	239	262	216	409	342	229	201	220
16	154	262	232	154	232	262	223	376	317	229	201	201
17	154	252	249	187	226	268	216	426	324	229	196	196
18	168	258	232	165	239	262	229	401	328	236	220	184
19	162	252	128	187	239	262	229	453	292	239	220	328
20	165	252	124	196	239	262	249	579	268	245	196	300
21	170	252	193	184	245	324	255	649	289	245	201	245
22	168	252	236	198	245	310	249	695	300	245	196	258
23	168	252	236	201	245	317	262	649	292	239	196	239
24	159	239	176	210	239	289	262	543	278	229	196	239
25	154	220	176	220	232	275	242	553	272	223	190	239
26	147	220	170	220	232	296	216	584	252	223	181	232
27	147	220	165	213	239	275	204	573	232	216	216	245
28	147	239	249	207	245	275	198	553	236	216	376	239
29	147	232	289	207	------	282	193	543	236	216	275	239
30	176	232	275	207	------	310	216	518	249	216	236	232
31	170	------	275	201	------	303	------	485	------	210	216	------

Monthly discharge of Provo River at Forks, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	176	130	149	9,160
November	357	170	228	13,600
December	289	124	219	13,500
January	239	154	204	12,500
February	314	173	242	13,400
March	426	236	297	18,300
April	310	193	245	14,600
May	695	204	446	27,400
June	594	232	357	21,200
July	365	210	252	15,500
August	376	181	210	12,900
September	328	184	232	13,800
The year	695	124	257	186,000

SOUTH FORK OF PROVO RIVER AT FORKS, UTAH

LOCATION.—In sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks, Utah County, a quarter of a mile above confluence with Provo River, and 12 miles up Provo Canyon on highway and railroad from Provo to Heber.

DRAINAGE AREA.—30 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 17, 1911, to September 30, 1925.

GAGE.—Vertical staff nailed to cottonwood tree on right bank since May 2, 1922; read by J. F. Carter.

DISCHARGE MEASUREMENTS.—Made from foot log near gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel; shifting. One channel at all stages; banks low, but are rarely overflowed.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year, 39 second-feet September 19; minimum discharge, 14 second-feet, discharge measurements April 17.

1911–1925: Maximum discharge recorded, 123 second-feet May 27, 1922; minimum discharge, 14 second-feet, discharge measurement April 17, 1925.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—Somewhat by irrigation.

ACCURACY.—Stage-discharge relation changed frequently. Standard rating curve fairly well defined. Gage read to hundredths once a day. Daily discharge ascertained by applying gage height to rating table, using shifting-control method. Records fair.

COOPERATION.—Nine discharge measurements furnished by Utah Power & Light Co.

Discharge measurements of South Fork of Provo River at Forks, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	1.54	23.8	Apr. 17	1.08	14.2	July 29	1.37	28.6
Nov. 19	1.34	24.7	Apr. 30	1.25	21.9	Aug. 4	1.26	19.6
Jan. 29	1.30	23.0	June 10	1.26	22.6	Sept. 16	1.28	23.0
Apr. 1	1.28	23.0	July 2	1.21	18.2			

Daily discharge, in second-feet, of South Fork of Provo River at Forks, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	28	26	27	23	22	23	23	26	18	22	23
2	27	26	26	27	23	23	23	23	24	18	21	23
3	27	28	26	26	23	23	23	23	24	20	20	22
4	27	28	26	26	23	23	22	23	25	18	20	22
5	27	28	27	26	24	23	28	23	25	30	20	22
6	27	28	28	26	27	24	28	23	24	23	20	22
7	27	28	28	26	24	24	28	23	24	22	17	21
8	27	28	26	26	23	24	28	23	24	22	17	22
9	27	28	26	26	23	23	28	24	24	22	16	22
10	25	29	26	26	22	23	28	24	24	22	16	22
11	23	28	26	26	23	23	28	24	24	21	16	22
12	25	28	26	26	23	24	28	24	24	20	16	22
13	25	26	26	26	22	24	28	24	24	20	16	22
14	25	26	26	26	22	24	28	24	23	20	16	24
15	25	26	26	26	22	24	28	24	22	20	16	24
16	25	26	28	24	22	24	28	24	22	20	16	24
17	25	28	28	26	22	24	20	24	19	20	16	24
18	26	28	26	24	22	24	15	24	19	20	16	24
19	28	26	25	24	23	24	16	24	20	21	16	39
20	28	26	25	24	23	24	18	24	20	21	16	23
21	28	26	26	24	23	24	20	24	20	19	20	35
22	28	26	28	24	23	24	21	24	20	38	20	32
23	28	26	26	26	23	24	22	24	20	31	20	32
24	28	26	25	26	23	24	22	26	19	29	18	30
25	28	26	26	23	22	24	22	26	19	28	18	32
26	28	26	26	23	22	24	23	26	19	25	18	30
27	28	26	26	23	22	24	23	26	18	23	20	30
28	28	26	26	23	22	24	23	26	18	23	30	30
29	28	26	26	23	------	23	23	26	18	23	24	32
30	28	26	27	23	------	24	23	26	18	28	22	30
31	28	------	27	23	------	23	------	26	------	22	24	------

Monthly discharge of South Fork of Provo River at Forks, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	28	23	26.8	1,650
November	29	26	26.9	1,600
December	28	25	26.3	1,620
January	27	23	25.0	1,540
February	27	22	22.8	1,270
March	24	22	23.6	1,450
April	28	15	23.9	1,420
May	26	23	24.3	1,490
June	26	18	21.7	1,290
July	38	18	22.8	1,400
August	30	16	18.8	1,160
September	39	21	26.1	1,550
The year	39	15	24.1	17,400

SEVIER LAKE BASIN

SEVIER RIVER AT HATCH, UTAH

LOCATION.—In SE. ¼ sec. 28, T. 36 S., R. 5 W., at county bridge a quarter of a mile east of J. C. Barnhurst's house at Hatch, Garfield County, and 1½ miles below dam site of former Hatchtown Reservoir.

DRAINAGE AREA.—260 square miles (measured on topographic maps.)

RECORDS AVAILABLE.—June 3, 1911, to July 31, 1921, and April 1, 1922, to September 30, 1925; fragmentary.

GAGE.—Stevens continuous water-stage recorder on left bank installed August 23, 1914; inspected by J. C. Barnhurst.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed composed of sand and gravel.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.00 feet at 8 p. m. September 5 (discharge, 689 second-feet); minimum stage not recorded.

1911–1925: Maximum stage occurred about 9 p. m. May 25, 1914, when Hatchtown Dam failed (discharge not determined). Maximum stage recorded, 5.25 feet at 4 a. m. May 26, 1922 (discharge, 1,490 second-feet); minimum flow, 10 second-feet on days in January, March, and April, 1912, while water was being stored at Hatchtown Reservoir.

ICE.—Stage-discharge relation slightly affected by ice.

DIVERSIONS.—Above all diversions, except Hatch Bench Canal, and Panguitch Lake ditch, which divert a small quantity of water from Mammoth Creek. Hillsdale ditch diverts about 4 miles downstream, and several other canals about 7 miles below for irrigation in Panguitch Valley.

REGULATION.—Entire flow controlled by gates in Hatchtown Reservoir Dam before May 25, 1914. No regulation since that date.

ACCURACY.—Stage-discharge relation shifted slightly during year. Standard rating curve fairly well defined. Water-stage recorder record badly broken. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Shifting-control method used. Records fair; estimates may be poor.

Discharge measurements of Sevier River at Hatch, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 20	0.66	62.6	June 27	0.84	92.1
Mar. 5	.68	59.7	July 25	.76	74.2
May 27	1.29	197	Aug. 25	.72	74.1
June 12	1.12	154			

Daily discharge, in second-feet, of Sevier River at Hatch, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	65	63						154	98	68	80
2	65	65	66						152	96	80	77
3	65		68					125	145	116	74	77
4	65					59			143	100	74	74
5	65								130	100	70	168
6	67								152	100	72	130
7	68				60	59			141	96	72	70
8	64							300	139	95	74	70
9	62								150	95	70	70
10	62		68					347	152	102	72	70
11	62	64						341	152	102	74	68
12	64							288	154	100	74	68
13	64						125	262	150	96		68
14	64				62			242	145	93		68
15	64							230	137	91		68
16	64			50		59		237	135	89	74	68
17	64				62			244	137	87		84
18	64							267	135	89		253
19	64							288	128	118		260
20	64	62						302	118	135	100	118
21	64	65			62			283	148	95		110
22	62	65						254	176	95	70	89
23	62	65						237	143	95		82
24	62	67	50					230	95	84		80
25	62	68			60			220	95	74	70	80
26	62	67					124	210	93	74	77	74
27	65	68						196	93	74	130	72
28	65	70			59	125	125	187	91	74	116	
29	68	55						176	93	75	110	72
30	67	60						161	98	75	106	
31	65							159		72	98	

NOTE.—No gage-height record Nov. 3–19, 29, 30, Dec. 1, 2, 4–17, 19–31, Jan. 1, 2, 4–9, 11–16, 18–23, 25–30, Feb. 1–13, 15–20, 22–27, Mar. 1–4, 6, 8–17, 19–31, Apr. 1–25, 27–30, May 1–9, June 10, 11, July 4. Aug. 3, 4, 13–24, Sept. 6, 7, and 28–30; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River at Hatch, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	68	62	64.2	3,950
November	70	55	64.3	3,830
December			59.6	3,660
January			50	3,070
February			60.5	3,360
March			71.8	4,410
April			125	7,440
May			232	14,300
June	176	91	133	7,910
July	135	72	93.1	5,720
August	130	68	80.0	4,920
September	260	68	93.7	5,580
The year			94.1	68,200

SEVIER RIVER NEAR CIRCLEVILLE, UTAH

LOCATION.—In sec. 29, T. 31 S., R. 4 W., 2½ miles above mouth of Pine Creek and 8 miles southwest of Circleville, Piute County.

DRAINAGE AREA.—950 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 10 to September 19, 1912; April 23, 1914, to September 30, 1925; fragmentary for 1923 and 1925.

GAGE.—Stevens continuous water-stage recorder; installed April 23, 1914; attended by J. A. Betenson.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—One channel at all stages; stream bed composed of sand; shifting.

EXTREMES OF DISCHARGE.—Maximum stage during year, 5.20 feet at 8.30 a. m. September 19 (discharge, 770 second-feet); minimum stage, 2.03 feet from noon to 6 p. m. July 17 (discharge, 49 second-feet).

1912–1925: Maximum stage occurred in 1914 during flood resulting from failure of Hatchtown Dam; discharge not determined. Maximum discharge recorded, 1,600 second-feet August 6, 1916, and May 30, 1922; minimum stage, 2.00 feet June 19, 1924 (discharge, 45 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Above all diversions for Circle Valley; below several diversions for Hatchtown project and Panguitch Valley.

REGULATION.—Flow affected by diversions only.

ACCURACY.—Stage-discharge relation changed slightly from June 11 to September 19. Rating curves well defined. Water-stage recorder operated satisfactorily, except for periods given in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph; shifting-control method used June 11 to September 19. Records good; estimates fair.

Discharge measurements of Sevier River near Circleville, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 21	2.80	127	July 24	2.26	68.4
June 11	2.38	77.2	Aug. 13	2.37	79.5
June 25	2.10	53.2			

Daily discharge, in second-feet, of Sevier River near Circleville, Utah, for the year ending September 30, 1925

Day	Oct.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79		125	144	84	59	61	163
2	79		120	133		62	61	163
3	78		118	122		84	62	148
4	78		116	126	86	80	72	159
5	79		114	136		74	64	163
6	79		124	136		64	65	379
7	82		129	136	88	58	73	195
8	86		126	219	77	57	78	163
9	84		124	244	72	56	76	146
10	84		123	276	74	58	68	136
11	84		122	303	77	60	74	136
12	84		123		84	57	82	141
13	84		139	175	76	57	78	195
14	88		139			52	72	154
15	87		134		72	50	71	136
16	87		148	156		50	69	126
17	85		159	154		50	67	126
18	88		165	156	67	52	66	226
19	87		192	157	66	57	109	560
20	88		186	188	64	63	88	
21	90		204	222	65	237	114	
22	91		209	209	64	100	101	175
23	89		165		59	75	94	
24	90		158	125	56	68	85	
25	86		152		53	68	77	146
26	80	143	146	101	52	73	111	138
27	80	141	136	97	51	68	139	129
28	89	143	129	89	51	68	176	126
29	101	138	136		55	68	150	114
30	101	135	138	86	58	69	139	122
31	102	130				64	169	

NOTE.—No record Nov. 1 to Mar. 25. No gage-height record Oct. 30, 31, Mar. 30 to Apr. 4, Apr. 24, 25, May 2, 12–15, 23–25, 29–31, June 2–6, 14–17, July 22, 23, Sept. 20–24, and 26; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River near Circleville, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	[a] 102	78	86.1	5,290
March 25-31	143	130	138	1,640
April	209	114	143	8,510
May	303	----------	156	9,590
June	----------	51	70.4	4,190
July	237	50	69.6	4,280
August	169	61	90.7	5,580
September	560	114	176	10,500
The period	560	50	----------	49,600

[a] Estimated.

SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—In NW. ¼ sec. 16, T. 30 S., R. 3 W., 1 mile west of Kingston, Piute County, and 2 miles above mouth of East Fork.

DRAINAGE AREA.—1,110 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 12, 1914, to September 30, 1925; also several miscellaneous measurements in 1911, published in Water-Supply Paper 310 as "South Fork near Junction, Utah."

GAGE.—Stevens continuous water-stage recorder on left bank; installed September 20, 1918; inspected by W. S. Price.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Concrete control 10 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.55 feet at 1.30 p. m. September 19 (discharge, 650 second-feet); minimum stage, 0.75 foot 3 p. m. August 23 (discharge, 14 second-feet).

1914–1925: Maximum stage recorded, 4.92 feet at 4 p. m. May 21, 1922 (discharge, 1,460 second-feet); minimum stage, 0.70 foot from 7 to 8 p. m. July 4, 1924 (discharge, 11 second-feet).

ICE.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—Below all diversions from main stream above Piute Reservoir.

REGULATION.—Flow affected by diversions for irrigation.

ACCURACY.—Stage-discharge relation shifted slightly throughout year; not affected by ice. Standard rating curve well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

COOPERATION.—Discharge measurements furnished by water commissioner, Sevier River.

Discharge measurements of Sevier River near Kingston, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 22	1.36	127	June 24	0.81	21.6
Mar. 4	1.48	192	July 23	.82	27.7
Apr. 15	1.40	147	Aug. 14	.84	23.6
June 8	.92	38.3			

Daily discharge, in second-feet, of Sevier River near Kingston, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	83	136		155	194	151	62	22	28	19	108
2	45	83	145		165	198	151	47	25	29	18	102
3	46	80	136	115	174	202	145	34	31	32	18	95
4	47	78	136		164	194	142	25	35	29	19	87
5	48	78	148		127	202	139	22	40	27	19	87
6	50	78	157	116	133	202	154	21	38	25	19	228
7	50	85	148		167	206	177	24	40	25	18	161
8	50	92	145	120	167	209	167	27	38	25	19	136
9	50	110	151		164	191	161	56	32	24	22	127
10	52	136			157	180	151	78	28	24	24	113
11	54	113			167	167	148	105		25	22	108
12	58	113			170	167	148	130		25	25	105
13	54	113	150	124	170	154	148	75		24	28	127
14	52	127				161	148	47	28	24	24	121
15	56	133				170	148	40		24	21	110
16	56	136			174	174		32		24	18	108
17	56	136	148	122		174		28		24	18	102
18	58	130				167			27	24	17	145
19	60	130		121	177	164			27	22	31	390
20	60	130			191	167	146		28	21	21	293
21	60	130	125	125	206	167		28	28	69	29	213
22	60	130			198	167			29	58	20	191
23	58	127			196	174			27	29	15	139
24	58	124			194	174	145		22	27	16	136
25	56	130		130	191	167	124		22	27	17	102
26	56	133	92		194	170	102	29	22	28	25	113
27	56	130			198	161	87	29	22	29	62	108
28	60	130	100	145	198	180	75	28	24	27	100	95
29	75	133			-------	170	67	21	25	22	97	75
30	83	139			-------	167	60	20	27	21	83	62
31	83	-------	110		-------	161	-------	21	-------	19	95	------

NOTE.—No gage-height record Oct. 3–5, Dec. 10–16, 18–25, 27–30, Jan. 1–5, 7–11, 13–18, 20–24, 26–31, Feb. 1, 14–18, 23, 24, Apr. 16–23, May 18–25, and June 11–17; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River near Kingston, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	83	45	56.5	3,470
November	139	78	116	6,900
December	----------	----------	132	8,120
January	----------	----------	126	7,750
February	206	127	175	9,720
March	209	154	177	10,900
April	177	60	137	8,150
May	130	20	39.5	2,430
June	40	22	28.5	1,700
July	69	19	27.8	1,710
August	100	15	31.6	1,940
September	390	62	136	8,090
The year	390	15	97.9	70,900

PIUTE RESERVOIR NEAR MARYSVALE, UTAH

LOCATION.—In NW. ¼ sec. 3, T. 29 S., R. 3 W., at Piute Dam, 11 miles south of Marysvale, Piute County.

RECORDS AVAILABLE.—March 22, 1914, to September 30, 1925.

GAGE.—Iron pins driven every foot into rock face at outlet gates; readings between foot marks are measured with a graduated scale.

COOPERATION.—Gage-height record furnished by Piute Reservoir & Irrigation Co.

Daily contents, in acre-feet, of Piute Reservoir near Marysvale, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,250	4,640	12,600	21,900	31,700	43,000	51,600	35,400	16,700	16,200	7,360	155
2	2,220	4,780	12,900	22,200	32,200	43,500	51,600	34,600	16,400	15,800	6,800	320
3	2,200	5,060	13,200	22,600	32,600	43,800	51,700	33,800	16,100	15,300	6,560	440
4	2,160	5,320	13,500	22,900	33,100	44,100	51,000	33,000	16,500	14,800	5,880	740
5	2,140	5,480	13,900	23,200	33,600	44,500	50,800	32,000	15,900	14,400	5,880	1,190
6	2,080	5,680	14,400	23,500	34,200	44,800	50,900	31,000	16,000	13,800	5,920	1,680
7	2,040	5,800	15,000	23,800	34,800	45,200	50,800	30,000	16,600	13,300	5,960	2,250
8	2,000	5,920	15,800	24,200	35,300	45,500	50,700	29,200	17,200	12,700	6,040	2,760
9	1,940	6,160	15,900	24,400	35,900	45,900	50,600	28,500	17,400	12,300	6,120	3,180
10	1,900	6,400	16,100	24,800	36,300	46,200	50,200	27,800	17,900	11,900	6,200	3,660
11	1,840	6,600	16,200	25,000	36,700	46,500	49,900	27,100	18,300	11,500	6,240	3,900
12	1,840	6,800	16,500	25,400	37,100	46,700	49,200	26,600	18,600	11,200	6,280	4,110
13	2,000	7,040	16,700	25,600	37,400	47,000	48,300	26,000	19,000	10,600	6,280	4,500
14	2,160	7,240	17,000	25,900	37,800	47,300	47,600	25,400	19,400	10,000	6,000	5,060
15	2,300	7,400	17,200	26,100	38,100	47,600	46,800	24,800	19,700	9,300	5,600	5,520
16	2,500	7,690	17,600	26,400	38,400	47,900	46,100	24,200	20,000	8,700	4,200	5,720
17	2,680	8,000	17,900	26,700	38,800	48,300	45,400	23,600	20,300	8,230	3,600	6,000
18	2,730	8,410	18,200	26,900	39,200	48,700	44,800	22,600	20,500	7,520	3,000	5,840
19	2,910	8,800	18,400	27,200	39,500	49,000	43,900	21,800	20,500	6,880	2,400	5,840
20	3,090	9,150	18,700	27,400	39,800	49,300	43,000	21,100	20,400	5,280	1,880	6,000
21	3,270	9,500	18,900	27,800	40,100	49,600	42,500	20,400	20,300	4,570	1,680	6,400
22	3,450	9,850	19,200	28,200	40,600	49,800	42,200	19,900	19,800	4,920	1,370	6,480
23	3,600	10,200	19,600	28,700	41,000	50,100	41,700	19,400	19,600	5,920	1,140	6,320
24	3,750	10,500	19,900	29,200	41,300	50,400	41,300	19,000	19,300	7,200	760	6,480
25	3,900	10,800	20,200	29,500	41,700	50,700	40,500	18,700	18,900	7,870	600	6,640
26	4,020	11,000	20,400	29,600	42,000	51,000	39,600	18,200	18,400	8,320	520	6,800
27	4,140	11,400	20,600	29,800	42,400	51,300	38,800	17,700	18,000	8,700	380	6,960
28	4,260	11,600	20,800	30,200	42,700	51,600	37,900	17,400	17,600	8,900	200	7,120
29	4,350	11,900	21,000	30,600	-------	51,600	37,100	17,200	17,100	8,700	250	6,920
30	4,440	12,300	21,200	31,000	-------	51,700	36,200	17,000	16,600	8,320	75	6,720
31	4,500	-------	21,500	31,400	-------	51,700	-------	16,900	-------	7,870	50	-------

SEVIER RIVER BELOW PIUTE DAM, NEAR MARYSVALE, UTAH

LOCATION.—In sec. 34, T. 28 S., R. 3 W., 700 yards below dam of Piute Reservoir and 11 miles south of Marysvale, Piute County.

DRAINAGE AREA.—2,440 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 17 to August 31, 1911; May 1, 1912, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed June 17, 1922; inspected by M. C. Jensen.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. One channel at all stages. Control is riffle of heavy gravel and rocks immediately below gage; shifts occasionally.

EXTREMES OF DISCHARGE.—1911–1925: Maximum stage, 4.45 feet between 6 p. m. May 23 and 8 a. m. May 24, 1922 (discharge, 2,600 second-feet); practically no flow when reservoir gates are closed.

ICE.—Stage-discharge relation often slightly affected by ice.

DIVERSIONS.—No water diverted between station and Piute Reservoir.

REGULATION.—Flow past station regulated by operation of gates in dam above.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Operation of water-stage recorder satisfactory, except October 1 to March 6 when daily staff readings were used. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Discharge measurements furnished by Brice McBride, water commissioner, Sevier River.

Discharge measurements of Sevier River below Piute Dam, near Marysvale, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 29	0.51	79.9	June 27	1.68	430
Apr. 14	1.92	546	July 26	.86	145
May 9	1.72	450	Aug. 15	1.80	482
June 13	[a] −.20	7.0			

[a] Estimated.

Daily discharge, in second-feet, of Sevier River below Piute Dam, near Marysvale, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	126	59				185	552	303	470	529	241
2	147	136	50				195	518	303	496	518	248
3	147	136	46			2	229	502	303	496	502	194
4	147	136	50				226	502	220	485	377	86
5	147	136	49				180	475	220	496	282	99
6	147	133	49			6	152	455	190	490	264	99
7	151	128	45			16	180	460	37	490	248	99
8	164	117	33			13	225	465	37	496	245	92
9	164	115	25			13	345	440	16	296	248	96
10	164	109			2	13	426	422	7	496	248	96
11	164	89				13	465	404	7	496	248	96
12	147	83				13	540	404	6	496	248	96
13	97	83				13	552	440	11	524	373	96
14	93	83				13	552	435	20	558	502	97
15	81	73				13	529	450	41	570	485	97
16	81	43		2		13	564	450	60	570	470	94
17	81	43				13	552	445	74	552	455	127
18	81	43				13	540	455	113	534	435	293
19	81	42			6	14	524	479	260	518	417	319
20	81	42	2		20	20	524	390	319	502	394	319
21	81	42			20	27	512	368	348	349	311	311
22	81	44			20	20	496	339	426	69	319	311
23	81	43			20	29	496	307	426	7	282	241
24	81	43			20	34	507	307	430	22	220	140
25	81	43			6	34	507	307	426	104	217	140
26	81	48				33	540	307	426	145	211	140
27	81	62			2	34	540	303	426	145	205	152
28	81	62				35	546	303	426	359	223	154
29	81	62			------	62	540	319	450	417	258	162
30	80	62			------	73	534	307	502	518	226	226
31	92	------			------	86	------	303	------	540	220	------

NOTE.—Reservoir gates closed; seepage only Dec. 10 to Feb. 18 and Feb. 25 to Mar. 5. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River below Piute Dam, near Marysvale, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	164	80	110	6,760
November	136	42	80.2	4,770
December	59	2	14.5	892
January	2	2	2.0	123
February	20	2	5.5	305
March	86	2	21.8	1,340
April	564	152	430	25,600
May	552	303	407	25,000
June	502	6	228	13,600
July	570	7	416	25,600
August	529	205	328	20,200
September	319	86	165	9,820
The year	570	2	185	134,000

SEVIER RIVER AT SEVIER, UTAH

LOCATION.—In E. ½ sec. 32, T. 25 S., R. 4 W., at Sevier, Sevier County; 100 yards above railroad bridge on Y spur of Denver & Rio Grande Western Railroad. Clear Creek enters Sevier River immediately above this station. Prior to November 15, 1916, Clear Creek entered Sevier River 45 yards below this station.

DRAINAGE AREA.—2,850 square miles including Clear Creek which was diverted into Sevier River above this station on November 15, 1916; 2,700 square miles exclusive of Clear Creek. Areas measured on topographic maps.

RECORDS AVAILABLE.—May 20, 1911, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by R. W. Levie and P. Carter.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Channel straight; composed of gravel. Banks seldom overflowed. Control composed of coarse gravel about 75 feet below gage; somewhat shifting.

EXTREMES OF DISCHARGE.—Maximum stage during year, 5.47 feet at 9.40 p. m. July 20 (discharge, 1,340 second-feet); minimum stage not recorded.

1911–1925: Maximum discharge estimated, 2,800 second-feet during last week in May, 1922; minimum stage, 1.15 feet at 2 p. m. November 27, 1919 (discharge, 10 second-feet.)

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—A few small ditches divert between station and Piute Dam.

REGULATION.—Largely regulated by operation of gates in Piute Dam, about 27 miles above.

ACCURACY.—Stage-discharge relation changed July 20; affected by ice about December 8 to January 20. Rating curves well defined. Water-stage recorder operated successfully. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimated periods fair.

COOPERATION.—Discharge measurements furnished by Brice McBride, water commissioner, Sevier River.

Discharge measurements of Sevier River at Sevier, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 31	2.84	94.9	June 14	3.05	151	July 27	3.41	182
Mar. 1	2.36	30.8	June 28	4.41	581	Aug. 16	4.27	500

Daily discharge, in second-feet, of Sevier River at Sevier, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	202	120	82		41	30	127	609	476	638	539	265
2	162	145	80		41	34	238	604	462	628	535	297
3	160	150	72		37	36	259	567	458	609	531	304
4	160	153	68		35	35	275	585	462	614	503	214
5	160	148	69		36	36	275	604	377	609	382	149
6	168	148	74		37	41	213	594	362	590	340	146
7	183	150	74		34	40	210	590	207	576	322	140
8	183	143	70		31	40	224	609	181	562	308	138
9	180	143	55		33	48	311	614	155	558	297	129
10	183	145	40		34	45	422	580	136	558	297	129
11	183	145		30	33	47	480	554	133	558	300	126
12	153	120			34	45	545	545	136	554	300	126
13	113	107			35	44	567	545	127	558	308	123
14	105	105			36	42	585	571	138	590	467	123
15	97	103			36	46	590	554	165	609	511	123
16	95	103			35	45	594	576	191	604	499	121
17	95	84			34	49	594	567	204	609	495	118
18	95	79			33	49	614	576	199	594	483	179
19	95	74			33	48	609	604	281	554	463	340
20	95	72			32	48	604	585	422	585	444	355
21	95	72	25	33	40	54	599	571	458	436	405	348
22	95	70			47	66	599	545	549	217	348	348
23	95	68		33	48	64	571	495	590	126	348	344
24	95	68			49	64	562	484	594	110	300	244
25	93	66		33	52	68	558	469	585	126	262	185
26	93	69		36	57	87	576	469	576	185	262	182
27	91	66		36	52	86	585	469	599	188	254	167
28	95	75		37	50	82	594	472	594	231	240	176
29	97	77		37	-------	84	590	491	585	424	286	176
30	103	84		38	-------	99	594	499	633	491	282	204
31	99	-------		38	-------	103	-------	480	-------	535	262	-------

NOTE.—No gage-height record Dec. 8–13, 15–27, 29–31, Jan. 1–3, 5–10, 12–20, 22–24, and June 8; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River at Sevier, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	202	91	126	7,750
November	153	66	105	6,250
December	82	----------	39.0	2,400
January	38	----------	31.8	1,960
February	57	31	39.1	2,170
March	103	30	55.0	3,380
April	614	127	472	28,100
May	614	469	551	33,900
June	633	127	368	21,900
July	638	110	478	29,400
August	539	240	373	22,900
September	355	118	201	12,000
The year	638	----------	237	172,000

SEVIER RIVER NEAR VERMILION, UTAH

LOCATION.—In NE. ¼ sec. 19, T. 22 S., R. 1 W., at highway bridge half a mile below Rockyford Dam, 2 miles below Vermilion, Sevier County, and 4 miles above mouth of Lost Creek.

DRAINAGE AREA.—3,340 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 15 to September 23, 1912; July 31, 1914, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by Orsen Wilkenson.

DISCHARGE MEASUREMENTS.—Made by wading or from highway bridge.

CHANNEL AND CONTROL.—Fairly permanent.

EXTREMES OF DISCHARGE.—1914–1925: Maximum stage, about 8.1 feet May 30, 1922 (discharge, 2,400 second-feet); minimum discharge, about 1 second-foot July 16–18, 1923 (seepage only).

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Entire flow usually diverted above station during low-water season. Flow past station at such times represents seepage and return flow from canals.

REGULATION.—Flow regulated to large extent by dams and reservoirs above

ACCURACY.—Stage-discharge relation changed slightly about October 12 and September 4. Rating curves well defined. Water-stage recorder operated satisfactorily for intermittent periods (see footnote to daily-discharge table); weekly gage readings were made for rest of year. Daily discharge ascertained by applying mean daily gage height or weekly reading to rating table. Records good; estimated periods fair.

COOPERATION.—Discharge measurements furnished by Brice McBride, water commissioner, Sevier River.

Discharge measurements of Sevier River near Vermilion, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 25	4.18	120	July 20	3.94	66.1
June 16	3.56	23.8	Aug. 10	3.56	24.8

Daily discharge, in second-feet, of Sevier River at Vermilion, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		143	150	126	148	124	90	1	4	31	21	5
2		143		126	148		90	1	4	14	21	5
3	26	131		122	148	120	35	1	4	14	20	29
4		138	150	102	148		35		4	20	20	22
5		146		88			35		4	40	20	14
6	6	148		105	170	114	35	2	4	45	20	15
7	21	160	153			117			4	48	20	17
8		170	146	99	184	119			4	53	20	22
9		170				119	30		4	50	24	23
10	21	166				119		3	10	46	25	22
11			146	93	160	114			20	44	29	22
12				82		107	27		20	41	46	22
13	100			88		107	25		21	37	47	22
14	102	150	146	98		105	25	3	24	32	26	31
15			148	95	143	105			25	36	25	35
16	104			93	141	105	1		25	32	22	37
17		148		91		107		3	25	25	19	38
18			138	77		107			25	27	18	35
19	105	136	130		140	110	1		26	31	18	27
20	112		130			110		3	27	67	17	27
21		130	129	120		110	1		27	163	16	27
22	110		131		138	110			75	297	13	28
23		124	131		138	110			156	339	10	30
24		119	107			110	40	4	134	237	6	30
25	110	119		120		110			112	126	4	33
26	86		110	148	130	110	77		90	52	9	39
27	143	128		148		110		4	68	26	16	36
28				148		110	70		46	24	17	33
29	143		117			91			24	24	14	34
30		136	124	148	-------	91			33	22	5	33
31		-------	124		-------	91	-------		-------	22	5	-------

NOTE.—Discharge estimated for following periods because of lack of gage-height record: Oct. 1–5, 8–12 15–18, 21–24, 28–31, Nov. 1, 7, 8, 11–17, 20–22, 26–29, Dec. 2–6, 9–13, 16–20, 25–28, Jan. 7–10, 19–25, 29–31, Feb 5–7, 9–14, 17–21, 24–28, Mar. 2–5, 27, 28, 31, Apr. 1–4, 6–11, 13–18, 20–25, 27–30, May 1, 2, 4–9, 11–16, 18–23 25–31, June 1, 2, and 23–27. Braced figures show estimated mean discharge for periods indicated. From June 28 to Sept. 15 about 6,000 acre-feet of water from Piute Reservoir passed this station for use on the lower river.

Monthly discharge of Sevier River near Vermilion, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	6	79.0	4,860
November	170	119	141	8,390
December	153	107	136	8,360
January	148	77	113	6,950
February	184	----------	148	8,220
March	124	91	110	6,760
April	90	1	34.4	2,050
May	4	1	2.9	178
June	156	4	35.0	2,080
July	339	14	66.6	4,100
August	47	4	19.1	1,170
September	39	5	26.4	1,570
The year	339	1	75.7	54,700

NOTE.—From June 28 to Sept. 15 about 6,000 acre-feet of water from Piute Reservoir passed this station for use on the lower river.

SEVIER RIVER BELOW SAN PITCH RIVER, NEAR GUNNISON, UTAH

LOCATION.—In NE. ¼ sec. 14, T. 19 S., R. 1 W., 1,000 feet below mouth of San Pitch River, 3 miles west of Gunnison, Sanpete County.

DRAINAGE AREA.—4,880 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 1, 1917, to September 30, 1925. Records of Sevier River near Gunnison were made above confluence with San Pitch River June 29, 1900, to September 30, 1917. Combined flow of Sevier River near Gunnison and San Pitch River near Gunnison is comparable with flow at present station.

GAGE.—Stevens continuous water-stage recorder on left bank installed October 4, 1917; inspected by L. D. Christensen and Reuben Christensen.

DISCHARGE MEASUREMENTS.—Made from cable about 250 feet above gage or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed is composed of fine sand and gravel; shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.45 feet at 10.30 p. m. February 5 (discharge, 510 second-feet); minimum stage, 1.23 feet August 25 (discharge, 56 second-feet).

1918–1925: Maximum stage, 5.32 feet at 2 a. m. June 1, 1922 (discharge, 2,620 second-feet); minimum discharge, 55 second-feet July 20 and 21, 1924.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—During irrigation season greater part of flow is diverted above station.

REGULATION.—Flow at gage is affected by operation of reservoirs and numerous irrigation diversions above.

ACCURACY.—Stage-discharge relation shifting; affected by ice parts of December and January. Standard rating curve fairly well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

Discharge measurements of Sevier River below San Pitch River, near Gunnison, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 8	1.78	188	May 17	1.46	103	Aug. 2	1.36	84.0
Nov. 8	1.81	183	May 29	1.32	62.4	Aug. 18	1.26	60.2
Mar. 7	1.96	282	June 16	1.55	126	Sept. 3	1.40	88.4
Apr. 22	1.52	109	July 1	1.55	132			
May 3	1.60	132	July 15	1.34	77.0			

Daily discharge, in second-feet, of Sevier River below San Pitch River, near Gunnison, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	238	246		306	306	214	78	66	117	95	76
2	158	238	255		324	298	226	88	76	144	90	83
3	161	246	263		370	306	222	125	88	106	88	90
4	165	251	272		429	293	242	144	98	117	90	158
5	158	251	280	240	488	289	226	131	141	280	100	172
6	158	280	276		471	284	202	135	154	176	117	148
7	168	246	284		461	280	206	144	161	158	122	103
8	183	202	284		414	280	202	154	168	151	83	90
9	191	315	284		380	284	194	154	154	138	81	100
10	194	320	280	238	342	289	187	151	128	125	81	86
11	194	320	267		320	293	198	135	144	111	81	86
12	202	302	267		315	289	202	111	154	106	93	93
13	194	298	267		338	293	206	106	151	103	106	90
14	198	293		240	361	272	172	128	138	98	106	88
15	202	293			352	272	148	120	144	81	86	88
16	198	289	200		338	272	138	114	122	78	74	90
17	198	293		238	342	267	125	108	125	78	70	88
18	198	298			338	263	111	111	120	78	68	88
19	214	293			329	259	106	106	120	78	64	90
20	222	276	183		324	259	98	100	117	90	64	86
21	226	267		240	338	267	103	87	125	218	68	72
22	234	263			333	267	108	78	183	306	60	72
23	238	259			329	276	106	74	194	342	62	70
24	238	255		242	320	272	103	70	226	352	58	74
25	234	251	175	259	315	267	98	66	198	284	56	78
26	234	251		267	315	267	95	66	168	172	56	81
27	230	246		284	306	267	95	66	172	122	83	78
28	218	251		284	302	259	98	64	168	108	76	78
29	218	246		280	-------	251	92	66	128	106	68	79
30	238	242	200	284	-------	238	88	62	108	98	62	80
31	246	-------	200	298	-------	230	-------	62	-------	98	69	-------

NOTE.—No gage-height record Dec. 14–19, 21–26, 28–31, Jan. 1, 2, 4–9, 11–16, 18–23, Aug. 31, Sept. 1, 2, 24, 25, 29, and 30; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River below San Pitch River near Gunnison, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	246	158	202	12,400
November	320	202	269	16,000
December	284	----------	222	13,600
January	298	----------	249	15,300
February	488	302	354	19,700
March	306	230	274	16,800
April	242	88	154	9,160
May	154	62	103	6,330
June	226	66	141	8,390
July	352	78	149	9,160
August	122	56	79.9	4,910
September	172	70	91.8	5,460
The year	488	56	190	137,000

NOTE.—June 28 to Sept. 15 about 6,000 acre-feet of water from Piute Reservoir passed this station for use below.

SEVIER BRIDGE RESERVOIR NEAR JUAB, UTAH

LOCATION.—In NW. ¼ sec. 1, T. 17 S., R. 2 W., at dam of Consolidated Sevier Bridge Reservoir Co., 13 miles southwest of Juab, Juab County.

RECORDS AVAILABLE.—January 1, 1914, to September 30, 1925.

GAGE.—Inclined staff gage about 100 feet upstream from south end of dam, since April 26, 1914.

COOPERATION.—Gage-height record furnished by Consolidated Sevier Bridge Reservoir Co.

Daily contents, in acre-feet, of Sevier Bridge Reservoir near Juab, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,650	21,200	40,600	58,000	74,700	95,500	111,000	93,500	53,000	48,700	27,400	8,440
2	3,810	22,000	41,400	58,700	75,300	96,200	111,000	92,100	51,900	48,300	26,200	7,750
3	4,210	22,600	41,900	59,200	76,000	96,600	112,000	90,700	50,600	47,500	25,100	6,920
4	4,750	22,900	42,500	59,700	77,000	97,200	112,000	89,400	50,000	46,700	24,200	6,220
5	5,240	23,500	43,200	60,200	77,600	97,700	112,000	88,000	50,300	45,800	23,400	6,050
6	5,710	24,400	43,700	60,700	78,700	98,300	112,000	86,700	50,800	45,300	22,600	5,880
7	6,050	25,200	44,400	61,200	79,600	98,800	112,000	85,500	51,200	44,400	22,000	5,710
8	6,560	25,800	45,000	61,700	80,600	99,400	112,000	83,900	51,700	43,600	21,800	5,630
9	7,000	26,300	45,600	62,100	81,500	99,900	112,000	82,700	52,100	42,900	21,500	5,630
10	7,600	27,000	46,100	62,600	82,400	100,000	111,000	81,400	52,400	41,900	21,200	5,440
11	8,230	27,800	46,800	63,100	83,200	101,000	111,000	79,700	52,600	40,900	21,000	5,210
12	8,810	28,600	47,400	63,500	83,700	102,000	110,000	78,200	52,800	39,900	20,600	5,010
13	9,390	29,300	48,000	64,000	84,300	102,000	110,000	77,000	53,100	38,900	20,200	4,790
14	9,910	30,000	48,500	64,500	85,100	103,000	110,000	75,100	53,300	38,300	19,900	4,720
15	10,400	30,600	49,100	65,000	85,700	103,000	110,000	73,800	53,600	37,500	19,600	4,500
16	11,000	31,300	49,600	65,400	86,400	104,000	109,000	72,100	53,600	36,700	19,300	4,360
17	11,600	32,000	50,100	65,900	87,100	104,000	109,000	70,800	53,700	35,700	19,100	4,210
18	12,300	32,800	50,700	66,400	87,800	105,000	108,000	69,400	53,400	35,200	18,800	4,040
19	13,000	33,500	51,400	67,000	88,600	105,000	107,000	68,200	53,000	34,700	18,100	3,910
20	13,600	34,200	52,000	67,400	89,400	106,000	106,000	67,100	52,800	34,500	17,400	3,880
21	14,300	34,900	52,600	68,000	90,200	106,000	104,000	66,000	52,300	34,400	16,900	4,140
22	14,900	35,500	53,000	68,700	91,000	106,000	103,000	65,000	51,900	34,300	16,300	4,610
23	15,500	36,200	53,400	69,200	91,700	107,000	102,000	63,800	51,300	34,000	15,600	4,980
24	16,200	36,700	53,800	69,800	92,400	107,000	101,000	62,700	50,700	33,700	15,000	5,090
25	16,800	37,300	54,100	70,300	92,900	108,000	100,000	61,700	50,500	33,700	14,100	5,480
26	17,400	37,900	54,500	71,000	93,600	108,000	99,400	60,600	50,300	33,400	13,000	6,220
27	18,100	38,500	55,000	71,600	94,300	109,000	98,300	59,400	50,000	32,800	12,100	5,800
28	18,700	39,000	55,500	72,200	94,900	109,000	97,200	58,000	49,900	32,000	11,300	5,630
29	19,300	39,600	55,900	72,700	-------	110,000	96,400	56,900	49,600	30,900	10,600	5,400
30	20,000	40,100	56,800	73,400	-------	110,000	95,000	55,700	49,200	29,800	9,850	5,630
31	20,700	-------	57,500	74,000	-------	110,000	-------	54,400	-------	28,500	8,970	-------

SEVIER RIVER NEAR JUAB, UTAH

LOCATION.—In NE. ¼ sec. 2, T. 17 S., R. 2 W., 1,600 feet downstream from Sevier Bridge Dam and 13 miles southwest of Juab, Juab County.

DRAINAGE AREA.—5,120 square miles (measured on topographic maps).

RECORDS AVAILABLE.—September 23, 1911, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed April 16, 1914; inspected by O. E. Howard.

DISCHARGE MEASUREMENTS.—Made from cable 600 feet above gage or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Bed composed of sand, clay, and fine gravel. Artificial control of rocks below gage.

EXTREMES OF DISCHARGE.—1911–1925: Maximum stage recorded, 8.50 feet at 7 p. m. June 2, 1922 (discharge, 2,140 second-feet). No flow March 7, 1918.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—None between this station and that near Gunnison.

REGULATION.—Flow regulated by gates in dam just above station.

ACCURACY.—Stage-discharge relation unsettled during July and August. Standard rating curve well defined. Water-stage recorder operated satisfactorily, except during winter when only seepage water was passing gage. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph; shifting-control method used July 3 to September 5. Discharge estimated during winter when recorder was not operated. Records good.

COOPERATION.—Water commissioner of Sevier River furnished eight measurements during year.

Discharge measurements of Sevier River near Juab, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	2.46	290	May 6	4.10	821	June 16	1.88	127
Oct. 9	1.44	28.1	May 16	4.32	908	July 14	2.89	397
Apr. 21	3.89	767	June 5	1.28	10.7	Aug. 19	2.77	401

Daily discharge, in second-feet, of Sevier River near Juab, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	157	2	2		3	2	12	795	761	401	717	440
2	32	2	2		3	2	12	795	703	511	720	452
3	22	2	2		3	2	48	795	538	593	666	456
4	22	2	2		3	2	117	820	157	596	580	347
5	24	2	2		3	2	149	837	10	596	573	280
6	25	2	2		3	2	173	830	11	639	468	259
7	27	2	2	2	3	2	206	830	11	593	347	229
8	27	2	2		3	3	206	837	10	530	286	147
9	18	2	3		3	3	244	893	9	573	277	192
10	7	3	3		3	3	283	963	8	633	271	209
11	6	2	3		3	3	283	921	27	662	302	209
12	6	2	3		3	3	290	910	51	659	299	206
13	6	2	3		3	3	308	932	51	517	302	195
14	6	2	3	3	3	3	334	942	51	430	299	184
15	5	2	3		3	3	334	928	99	481	299	241
16	5	2	3		3	2	334	896	126	550	253	268
17	4	2	4		3	2	414	872	204	478	224	238
18	4	1			3	2	593	844	299	372	308	229
19	4	2			3	2	693	741	321	259	385	190
20	3	2			3	2	717	707	353	204	398	89
21	6	2		3	3	2	727	703	385	238	398	61
22	14	2			2	2	686	700	417	344	385	61
23	8	2			2	3	639	703	449	484	363	61
24	4	2			2	2	596	707	360	420	462	22
25	2	2	2		2	2	606	703	305	401	563	3
26	2	2			2	2	606	690	302	488	557	86
27	2	2			2	3	646	720	302	573	553	131
28	2	2		3	2	26	673	768	308	639	488	136
29	2	2		3		8	700	771	360	679	420	131
30	2	2		3		11	775	768	392	710	408	126
31	2			3		11		809		741	414	

NOTE.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River near Juab, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	157	2	14.7	904
November	3	1	2.0	119
December	4		2.3	141
January			2.6	160
February	3	2	2.8	156
March	26	2	3.9	240
April	775	12	413	24,600
May	963	690	811	49,900
June	761	8	246	14,600
July	741	204	516	31,700
August	720	224	419	25,800
September	456	3	196	11,700
The year	963	1	221	160,000

SEVIER RIVER AT OASIS, UTAH

LOCATION.—In E. ½ sec. 33, T. 17 S., R. 7 W., three-quarters of a mile northwest of Oasis, Millard County, and 1½ miles below county bridge, locally known as Hinckley Bridge.

DRAINAGE AREA.—8,080 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 13, 1912, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed April 24, 1914; inspected by Alfred Stanworth.

DISCHARGE MEASUREMENTS.—Made from county bridge or by wading.

CHANNEL AND CONTROL.—Two channels at extremely high water, one channel at low and medium stages. Bed composed of sand with slight aquatic vegetation. Control is fairly permanent.

EXTREMES OF DISCHARGE.—1912–1925: Maximum discharge, 1,580 second-feet June 12, 1914; minimum discharge, 0.5 second-foot May 13–19, 1912.

ICE.—Stage-discharge relation at times affected by ice.

DIVERSIONS.—Numerous diversions above station take practically entire flow during irrigation season; water passing gage at such times is largely seepage or return water entering below Gunnison Bend Reservoir.

REGULATION.—Flow controlled by storage reservoirs and diversion dams above station.

ACCURACY.—Stage-discharge relation changed by disappearance of aquatic vegetation in fall and its reappearance in spring; probably affected by ice during winter. Rating curves well defined. Water-stage recorder operated satisfactorily, except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph or weekly readings obtained when recorder was not in operation. Shifting-control method used October 1–26. Records fair; estimated periods may be poor.

COOPERATION.—Discharge measurements furnished by Sevier River water commissioner.

Discharge measurements of Sevier River at Oasis, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 14	1.42	17.9	July 9	1.60	19.3
Apr. 30	1.62	27.6	July 30	1.44	14.2
June 26	1.46	15.7			

Daily discharge, in second-feet, of Sevier River at Oasis, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	25	21					29		16	17	15
2	21	19	21					30		15	18	15
3	16	22	21					29		15	20	16
4	16	22	22					29	27	17	20	16
5	13	22	22					29		17	19	19
6	13	22	20	27	27	27	27	30		18	20	20
7	15	22	16					30	31	18	19	19
8	15	22	22					31		19	19	17
9	15	18	21					31	22	19	19	17
10	15	22	22					32		19	18	17

Daily discharge, in second-feet, of Sevier River at Oasis, Utah, for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	15							31		21	18	16
12	16		21					32	22	21	18	16
13	17							39		21	18	15
14	18		16					42	14	19	17	15
15	19		21				27	43		18	17	15
16	23		22					40		18	16	15
17	29	21	22					40	14	16	17	15
18	31		22					36		17	18	15
19	29						26	29		16	17	15
20	30		25		27		26	29		16	16	15
21	29			27		27	27	29	14	16	16	15
22	28		29				28	28		17	16	16
23	29	20	28				28	28	15	16	15	16
24	28	20					27	28		16	14	15
25	28						27			15	14	15
26	17						27		16	14	16	15
27	22	20	27				28	26	16	14	14	15
28	22						27		15	15	15	17
29	29						28		14	15	15	16
30	28				-------		29		15	15	15	15
31	26	-------			-------		-------	24	-------	15	14	------

NOTE.—Discharge estimated for following periods because of lack of gage-height record: Nov. 11–22, 25–30, Dec. 1, 11–13, 19–21, 24–31, Jan. 1 to Apr. 18, May 21–23, 25–30, June 1–6, 8–13, 15–20, 22–25, and Sept. 14–19. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Sevier River at Oasis, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	31	13	21.7	1,330
November	25	----------	20.9	1,240
December	29	16	23.3	1,430
January	----------	----------	a 27.0	1,660
February	----------	----------	a 27.0	1,500
March	----------	----------	a 27.0	1,660
April	29	----------	27.1	1,610
May	43	24	30.8	1,890
June	31	----------	19.1	1,140
July	21	14	16.9	1,040
August	20	14	16.9	1,040
September	20	15	15.7	930
The year	43	13	22.8	16,560

a Estimated.

EAST FORK OF SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—In SW. ¼ sec. 13, T. 30 S., R. 3 W., 1 mile below highway bridge and 2 miles east of Kingston, Piute County.

DRAINAGE AREA.—1,260 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 29, 1914, to September 30, 1925. Records obtained about 1½ miles above Rockyford Bridge, in SW. ¼ sec. 16, T. 30 S., R. 2½ W., March 27, 1913, to April 28, 1914; also at gage three-fourths of a mile north of Kingston, in NE. ¼ sec. 10, T. 30 S., R. 3 W., May 11 to September 20, 1912.

GAGE.—Stevens continuous water-stage recorder on right bank, 1 mile below highway bridge; established April 29, 1914; inspected by W. S. Price.

DISCHARGE MEASUREMENTS.—Made from cable 2 miles above gage, from highway bridge 1 mile above, or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Right bank is overflowed during high water. Bed composed of gravel. Concrete control built December 4–11, 1917, 20 feet below gage.

EXTREMES OF DISCHARGE.—1913–1925: Maximum stage recorded, 6.10 feet May 8, 1922 (discharge, 1,740 second-feet); minimum stage, 1.00 foot September 19, 20, and 21, 1913 (discharge, 8 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Above all diversions in vicinity of Kingston.

REGULATION.—Flow largely regulated at Otter Creek Reservoir 8 miles above.

ACCURACY.—Stage-discharge relation changed slightly during summer; affected by ice December 10 to about February 1. Rating curves well defined. Operation of water-stage recorder satisfactory, except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimated periods fair.

COOPERATION.—Discharge measurements furnished by Brice McBride, water commissioner, Sevier River.

Discharge measurements of East Fork of Sevier River near Kingston, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 19	2.56	17.7	June 13	3.50	205	July 26	3.82	293
Mar. 4	2.52	16.9	June 24	3.58	217	Aug. 14	3.46	182
Apr. 15	2.88	49.1	July 22	3.62	225			

Daily discharge, in second-feet, of East Fork of Sevier River near Kingston, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	19	36		13	15	18	18	186	222	288	92
2	63	18	30		84	15	20	19	186	222	288	92
3	56	18	24		84	15	20	20	186	225	288	97
4	37	18	31		84	15	18	28	189	225	280	99
5	36	18	24		84		26	28	195	229	272	97
6	38	18	20		84		32	29	199	229	265	103
7	52	18	20		84		24	33	205	229	257	97
8	41	18	23		25		20	35	205	225	247	95
9	38	19	20				20	30	205	222	236	95
10	37	21				18	20	26	202	222	225	92
11	35	19					31	26	199	225	218	88
12	37	20	20				53	28	205	222	212	88
13	46	19			20		50	44	205	222	202	92
14	53	22					46	39	205	222	180	92
15	53	20					45	41	199	222	171	90
16	53	21	15	13			55	41	199	218	154	86
17	53	22	15				59	39	202	222	146	82
18	52	23					55	38	199	222	138	97
19	50	18			13		20	36	199	225	135	110
20		17				15	20	35	195	225	146	110
21		20					20	36	195	225	128	90
22	50	21			14		20	36	212	239	112	40
23		22					20	38	215	323	103	41
24		21	10				20	39	218	295	101	43
25		21			14		20	36	218	291	103	43
26	37	24				18	18	35	215	291	97	44
27	14	25			14		20	48	215	295	97	44
28	18	26				18	18	189	215	291	97	44
29	18	31			-------		17	195	218	291	95	43
30	19	32	13		-------		17	189	218	295	88	43
31	19	-------	13		-------	18	-------	186	-------	295	90	-------

NOTE.—Discharge estimated because of ice effect Dec. 10 to Feb. 1, and because of lack of gage-height reco rd Oct. 20–27, Feb. 2–7, 9–18, 20–24, 26–28, Mar. 1, 5–9, 11–16, 18–25, 27–30, and Apr. 20–23.

Monthly discharge of East Fork of Sevier River near Kingston, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	66	14	42.6	2,620
November	32	17	21.0	1,250
December	36	------	16.9	1,040
January	------	------	13.0	799
February	84	------	31.5	1,750
March	------	------	16.6	1,020
April	59	17	28.1	1,670
May	195	18	53.5	3,290
June	218	186	203	12,100
July	323	218	245	15,100
August	288	88	176	10,800
September	110	40	79.0	4,700
The year	323	------	77.6	56,100

ROCKYFORD CANAL NEAR VERMILION, UTAH

LOCATION.—In sec. 19, T. 22 S., R. 1 W., 300 feet below head of canal and 2 miles northeast of Vermilion, Sevier County.

RECORDS AVAILABLE.—July 8, 1914, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed October 18, 1917; inspected by O. A. Wilkinson.

DISCHARGE MEASUREMENTS.—Made from highway bridge 400 feet downstream or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and clay; shifting. Banks lined with willows.

ICE.—Stage-discharge relation affected at times by ice.

DIVERSIONS.—None above gage. Gage is a short distance below wasteway which returns surplus water to Sevier River.

REGULATION.—Flow regulated by head gates and wasteway.

ACCURACY.—Stage-discharge relation shifting. Standard rating curve used with shifts to measurements. Water-stage recorder operated satisfactorily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph or weekly readings. Records fair.

Canal diverts water from Rockyford Reservoir, a small reservoir on Sevier River at Vermilion, in sec. 19, T. 22 S., R. 1 W. Flow dependent on water stored in reservoir and seepage and return waters below Richfield. Water used for irrigation north of Vermilion.

Discharge measurements of Rockyford Canal near Vermilion, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 25	[a] 1.48	26.4	June 21	[a] 1.83	36.7	Aug. 21	1.99	57.3
May 6	[b] 1.95	72.8	June 29	[a] 2.68	97.1	Sept. 13	1.98	58.2
June 3	[a] 2.38	66.8	July 20	[a] 1.98	44.4			
June 16	[a] 1.80	32.7	Aug. 10	2.10	57.0			

[a] Check gate in. [b] Check gate out.

NOTE.—New check gate put in June 25, 1925.

Daily discharge, in second-feet, of Rockyford Canal near Vermilion, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67	26	22	20	9	8	45	92	84	67	62	89
2		26	23				46	92	67	61	60	84
3		26	23			9	48	81	67	69	58	36
4		26	23	20			44	71	69	72	60	63
5		28	23	20			41	71	70	55	58	76
6	67	25	23		8	10	42	72	69	61	59	77
7		21	24			10	47	74	72	61	60	69
8		23	24	19		10	48	74	65	60	59	60
9		25	24			10	48	70	60	60	58	58
10	58	25	24			10	45	65	48	60	57	56
11		25	24	18		10	45	65	28	60	49	56
12		24	24			9	45	66	30	60	22	58
13	50	24	24			9	32	80	32	60	24	59
14		23	24			9	41	85	32	58	59	47
15		23	24	15		9	48	79	32	46	60	42
16	36	23	24			9	48	86	33	58	66	42
17		23	24		9	9	49	86	34	71	77	42
18		23	24	12		9	49	88	35	83	84	45
19	23	22	23			10	62	76	36	93	79	57
20		22	22			10	76	78	35	45	69	57
21	24	22	22			10	77	80	37	0	60	60
22		22	22		9	10	80	81	34	29	67	61
23		22	22			10	105	82	30	49	75	64
24		22				6	103	81	30	70	70	77
25	26	22		10	9	0	99	82	8	74	76	81
26	26	22	21			0	99	81	71	71	67	56
27	26	22				0	99	82	92	70	64	47
28	26	22				0	96	84	93	67	68	44
29	27	22	20		-------	21	96	86	97	66	74	44
30	26	22	20		-------	47	94	86	73	65	85	44
31	27	-------	20		-------	47	-------	85	-------	63	84	-------

NOTE.—Discharge estimated because of no gage-height record Oct. 2–5, 7–12, 14–18, 20–24, Nov. 8, Dec. 19, 20, 24–28, 30, 31, Jan. 1–3, 6–10, 12–17, Jan. 19 to Feb. 7, 9–14, 16–21, 23–28, and Mar. 2–5. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Rockyford Canal near Vermilion, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	-------	-------	42.2	2,590
November	28	21	23.4	1,390
December	24	20	22.6	1,390
January	-------	-------	14.4	885
February	-------	-------	8.8	489
March	47	0	10.9	670
April	105	32	63.2	3,760
May	92	65	79.4	4,880
June	97	8	52.1	3,100
July	93	0	60.8	3,740
August	85	22	63.5	3,900
September	89	36	58.4	3,480
The year	105	0	41.8	30,300

BEAVER RIVER BASIN

BEAVER RIVER NEAR BEAVER, UTAH

LOCATION.—In SE. ¼ sec. 18, T. 29 S., R. 6 W., a quarter of a mile above city diversion dam at mouth of canyon, 4½ miles above Beaver, Beaver County.

DRAINAGE AREA.—82 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 15 to September 22, 1906; March 15, 1914, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank used since November 14, 1914; inspected by G. W. Valantine.

DISCHARGE MEASUREMENTS.—Made from footbridge 70 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of boulders and coarse gravel. One channel; left bank subject to overflow at extremely high stages. Control composed of small boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 5.25 feet at 6.30 p. m. May 20 (discharge, 382 second-feet); minimum discharge during ice-affected period, probably less than 12 second-feet.

1914–1925: Maximum stage, 6.31 feet at 6 p. m. May 25, 1922 (discharge 785 second-feet); minimum stage, 3.12 feet at 1 p. m. September 27, 1924 (discharge, 7 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—Above all irrigation diversions. Above station is a small storage reservoir known as Kents Lake. Water is diverted by Beaver River Power Co. but returned to stream several miles above station.

REGULATION.—Flow may be slightly affected by operation of Beaver River Power Co.'s plants and to some extent by Kents Lake Reservoir.

ACCURACY.—Stage-discharge relation shifted about May 3; affected by ice during part of November, December, and January. Rating curves well defined. Water-stage recorder operated successfully, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating tables mean daily gage height determined from recorder graph, using a parallel shift May 8 to September 30. Records good, except for estimated periods, for which they are fair.

The following discharge measurements were made:

April 22, 1925: Gage height, 3.84 feet; discharge, 56.1 second-feet.

August 20, 1925: Gage height, 3.54 feet; discharge, 32.6 second-feet.

Daily discharge, in second-feet, of Beaver River near Beaver, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	20	15		17	17	34	89	113	106	38	36
2	16	20	16		17	19	33	121	113	101	37	32
3	16	21	17		19	20	35	163	104	91	39	34
4	16	19	15		18	20	43	183	106	92	38	36
5	14	21			19	24	46	198	100	85	38	35
6	16	17	15		18	22	38	239	94	77	43	34
7	17	17			17	22	34	258	95	74	42	31
8	18	18	16		16	22	32	269	113	71	51	31
9	17	18	17		16	22	36	264	120	72	48	30
10	16	19	28		17	20	39	241	115	76	45	29
11	16	16	47		17	21	54	218	115	71	49	28
12	14	21	57	15	17	21	73	208	108	66	53	29
13	17	20	54		18	20	85	221	108	61	42	28
14	18	20	19		17	20	90	208	113	58	38	28
15	18	19	12		17	19	96	200	108	58	45	28
16	17	19	16		17	20		203	100	56	35	27
17	21	17	16		17	20	105	210	98	57	34	27
18	17	18	15		17	20		244	90	56	32	31
19	17	17			17	19	115	261	87	56	34	35
20	19	16			17	21	90	287	90	57	30	28
21	19	17			19	22	70	272	92	61	30	26
22	20	18			18	24	59	231	95	58	28	27
23	19	15		17	18	26	55	223	87	52	28	27
24	19		12	17	18	24	50	210	83	50	28	26
25	19			17	18	26	49	206	83	48	28	26
26	17	15		19	18	31	53	196	80	45	36	26
27	19			17	19	33	60	181	78	44	44	26
28	18			17	17	32	73	167	80	42	34	26
29	19			17	------	33	83	156	88	43	30	26
30	17			18	------	34	83	143	86	39	28	26
31	16	------		17	------	33	------	129	------	38	33	------

NOTE.—Discharge estimated because of ice effect Nov. 24 to Dec. 1, Dec. 7, and Dec. 19 to Jan. 22, and because of no gage-height record Nov. 7, 8, 14, 15, Dec. 5, 6, Apr. 16-18, 20, and 21. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Beaver River near Beaver, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	21	14	17.4	1,070
November	21	----------	17.6	1,050
December	57	----------	18.1	1,110
January	----------	----------	15.7	965
February	19	16	17.5	972
March	34	17	23.5	1,440
April	----------	32	64.1	3,810
May	287	89	206	12,700
June	120	78	98.1	5,840
July	106	38	63.3	3,890
August	53	28	37.4	2,300
September	36	26	29.3	1,740
The year	287	----------	50.9	36,900

BEAVER RIVER AT ADAMSVILLE, UTAH

LOCATION.—In S. ½ 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, Beaver County.

DRAINAGE AREA.—272 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 16, 1913, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank installed March 13, 1914; inspected by W. A. Rees.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of fine gravel. Banks low; covered with willows; subject to overflow at extremely high stages. Concrete control constructed July 11, 1916, and rebuilt September 26, 1919.

EXTREMES OF DISCHARGE.—Maximum stage during year, 3.21 feet at 3 p. m. June 4 (discharge, 268 second-feet); practically no flow during first week in October.

1914–1925: Maximum stage, 4.85 feet at 6 a. m. May 23, 1920 (discharge, 796 second-feet); practically no flow parts of May, August, September, and October, 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—No diversions between station and storage reservoir of Beaver County Irrigation Co. There are a number of ditches above station supplying Adamsville and Beaver districts.

REGULATION.—Low-water flow affected by irrigation diversions.

ACCURACY.—Stage-discharge relation permanent; affected by ice December 19 to January 27. Rating curve fairly well defined. Water-stage recorder operated satisfactorily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good, except for estimated periods, for which they are fair.

The following discharge measurements were made:

April 22, 1925: Gage height, 1.38 feet; discharge, 3.62 second-feet.

August 20, 1925: Gage height, 1.53 feet; discharge, 9.24 second-feet.

Daily discharge, in second-feet, of Beaver River at Adamsville, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		8	35		32	29	26	3	8	25	6	25
2		8	36		32	30	24	3	12	41	6	24
3	0	8	36		36	30	22	3	12	46	5	23
4		9	36		45	30	20	8	106	35	4	24
5		9	36		61	28	18	6	113	41	3	22
6		12	36		65	26	26	7	58	28	4	21
7		14	39		60	26	31	16	56	22	5	20
8		16	39		47	26	25	24	44	20	4	19
9	1	18	46		41	27	23	33	30	15	6	18
10		28	53		38	29	19	32	26	13	6	16
11		22	60		35	27	18	26	22	14	12	16
12		19	50		36	26	20	19	22	11	24	17
13	2	17	44		40	27	22	16	21	7	20	17
14	3	24	41	25	41	25	22	16	16	4	15	16
15	3	23	39		40	23	20	12	12	4	12	13
16	3	26	38		38	23	16	10	10	5	11	11
17	3	26	38		36	22	19	9	14	7	10	8
18	3	27	38		36	18	17	8	15	7	10	12
19	3	23			38	18	12	19	13	7	10	15
20	3	26			41	18	8	29	14	9	10	14
21	4	24			48	18	4	64	18	16	16	13
22	4	24			45	18	4	42	40	10	11	14
23	4	24			44	17	4	31	24	8	10	17
24	4	25			44	16	3	24	18	6	10	19
25	4	26	30		40	16	3	19	19	6	11	18
26	4	28			35	22	3	14	14	6	18	17
27	5	28			33	26	3	12	14	5	33	18
28	5	29		28	29	30	3	9	11	5	26	19
29	4	33		29	------	28	3	8	17	5	19	18
30	5	34		31	------	31	3	6	20	6	16	18
31	7	------		32	------	27	------	6	------	6	19	------

NOTE.—Discharge estimated Dec. 19 to Jan. 27 because of ice effect. Braced figures show estimated mean discharge for periods indicated. No gage height Dec. 9; discharge interpolated.

Monthly discharge of Beaver River at Adamsville, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7	0	2.5	154
November	34	8	21.3	1,270
December	60	----------	36.5	2,240
January	----------	----------	25.6	1,570
February	65	29	41.3	2,290
March	31	16	24.4	1,500
April	31	3	14.7	875
May	64	3	17.2	1,060
June	113	8	27.3	1,620
July	46	4	14.2	873
August	33	3	12.0	738
September	25	8	17.4	1,040
The year	113	0	21.0	15,200

BEAVER RIVER AT ROCKYFORD DAM, NEAR MINERSVILLE, UTAH

LOCATION.—In NW. ¼ sec. 11, T. 30 S., R. 9 W., half a mile below Rockyford Dam and 4 miles above Minersville, Beaver County.

DRAINAGE AREA.—512 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 18, 1913, to September 30, 1925.

GAGE.—Friez water-stage recorder on right bank installed June 1, 1916; inspected by F. B. Robinson.

DISCHARGE MEASUREMENTS.—Made by wading or from cable 1,000 feet below gage.

CHANNEL AND CONTROL.—Bed composed of gravel; some aquatic vegetation. One channel at all stages. Banks not subject to overflow. Concrete control installed November 2–12, 1916. Slight growth of moss on control during summer. Stage of zero flow, at gage height 0.60 foot.

EXTREMES OF DISCHARGE.—Maximum stage during year, 1.67 feet May 30 and 31 (discharge, 103 second-feet); minimum discharge, 7 second-feet October 1 to November 9 and September 26.

1913–1925: Maximum stage, 3.53 feet at 7 p. m. June 10, 1921 (discharge, 727 second-feet); minimum discharge estimated, 0.3 second-foot March 19 and 20, 1914.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—None between dam and station. Several above Adamsville.

REGULATION.—Flow regulated by operation of gates at Rockyford Dam.

ACCURACY.—Stage-discharge relation temporarily changed by débris lodging on control. Rating curves well defined. When water-stage recorder was not operating observer supplied data of stage and gate operation from which accurate daily discharge was obtained. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

COOPERATION.—Gage-height record furnished by Beaver County Irrigation Co.

The following discharge measurements were made:

April 22, 1925: Gage height, 1.48 feet; discharge, 70.8 second-feet.

August 20, 1925: Gage height, 1.41 feet; discharge, 61.9 second-feet.

Daily discharge, in second-feet, of Beaver River at Rockyford Dam, near Minersville, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	7	9	9	9	9	17	84	95	67	57	40
2	7	7	9	9	9	9	17	84	76	50	52	39
3	7	7	9	9	9	12	17	84	64	24	49	39
4	7	7	9	9	9	14	17	84	46	16	49	38
5	7	7	9	9	9	14	17	84	25	15	49	38
6	7	7	9	9	9	14	17	84	16	15	49	38
7	7	7	9	9	9	14	17	82	11	24	54	38
8	7	7	9	9	9	14	17	79	13	52	56	38
9	7	7	25	9	9	14	17	79	13	69	56	37
10	7	8	34	9	9	14	17	59	13	76	57	24
11	7	8	35	9	9	14	17	60	13	76	57	8
12	7	9	35	9	9	14	17	74	29	77	66	8
13	7	9	36	9	9	14	17	56	44	79	72	8
14	7	9	36	9	9	14	17	45	43	88	72	8
15	7	9	36	9	9	18	17	64	41	89	70	8
16	7	9	36	9	9	22	17	74	41	89	69	8
17	7	9	36	9	9	22	27	74	19	89	67	8
18	7	9	36	9	9	22	44	71	19	89	66	8
19	7	9	31	9	9	22	54	71	18	88	64	8
20	7	17	9	9	9	22	64	74	18	84	60	8
21	7	23	9	9	9	22	71	76	16	84	60	8
22	7	9	9	9	9	22	71	76	13	82	60	8
23	7	9	9	9	9	20	74	80	13	82	60	8
24	7	9	9	9	9	17	74	80	16	82	60	8
25	7	9	9	9	9	17	74	85	34	82	58	8
26	7	9	9	9	9	17	80	90	46	74	56	7
27	7	9	9	9	9	17	84	94	60	64	56	10
28	7	9	9	9	9	17	84	94	63	60	56	14
29	7	9	9	9	------	17	84	99	54	60	56	14
30	7	9	9	9	------	17	84	103	46	57	56	14
31	7	------	9	9	------	17	------	103	------	57	45	------

Monthly discharge of Beaver River at Rockyford Dam, near Minersville, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7	7	7.0	430
November	23	7	9.1	541
December	36	9	17.9	1,100
January	9	9	9.0	553
February	9	9	9.0	500
March	22	9	16.5	1,010
April	84	17	41.4	2,460
May	103	45	78.9	4,850
June	95	11	33.9	2,020
July	89	15	65.8	4,050
August	72	45	58.5	3,600
September	40	7	18.3	1,090
The year	103	7	30.7	22,200

SALTON SINK BASIN

SNOW CREEK NEAR WHITEWATER, CALIF.

LOCATION.—In NW. ¼ NW. ¼ sec. 33, T. 3 S., R. 3 E., 100 feet below intake of Southern Pacific Co.'s ditch, 300 feet below junction of forks, and 3½ miles southwest of Whitewater, Riverside County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—July 21, 1921, to September 30, 1925.

GAGE.—Water-stage recorder on left bank just above weir.

DISCHARGE MEASUREMENTS.—Made from gaging bridge just above intake of Southern Pacific Co.'s ditch or by wading.

CHANNEL AND CONTROL.—Bed consists of boulders and is rough. Control is concrete, rectangular, compound weir with end contractions and steel plates for crest.

EXTREMES OF STAGE.—Not reported.

DIVERSIONS.—See Southern Pacific Co.'s ditch record, page 81.

REGULATION.—None.

COOPERATION—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Snow Creek near Whitewater, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.3	0.6	0.2	0.7	0.8	1.0	1.0	0.8	2.2	0.2	0.2
2	.2	.3	.6	.2	.7	.8	.9	1.2	.7	.1	.2	.2
3	.2	.4	.6	.2	.7	.8	.9	1.4	.7	.1	.2	.3
4	.2	.4	.6	.2	.7	.8	2.8	1.6	.8	.1	.2	.4
5	.2	.5	.6	.3	.7	.8	2.2	1.6	.8	.2	.2	.4
6	.2	.5	.6	.3	.8	.8	1.2	1.6	.8	.2	.2	.4
7	.2	.6	.6	.3	.7	.8	1.1	1.7	.8	.2	.2	.4
8	.2	.6	.6	.3	.7	.8	1.0	1.6	.8	.2	.4	.4
9	.2	.6	.6	.2	.6	.8	1.1	1.4	.8	.2	.4	.4
10	.2	.6	.6	.2	.6	.8	1.3	1.2	.8	.2	.4	.4
11	.2	.7	.6	.2	.6	.8	1.9	1.1	.8	.3	.4	.4
12	.2	.6	.6	.2	.6	.8	2.6	1.0	.8	.4	.5	.4
13	.2	.6	.6	.2	.6	.8	1.6	.9	.8	.4	.5	.4
14	.2	.6	.6	.2	.6	.8	1.6	1.2	.8	.4	.5	.4
15	.2	.6	.6	.2	.6	.8	1.6	1.0	.8	.4	.6	.4
16	.2	.6	4.6	.2	.6	.8	1.9	.9	.8	.4	.6	.4
17	.2	.6	.8	.3	.6	.8	2.6	.9	.8	.4	.6	.4
18	.3	.6	.1	.6	.7	.8	1.2	1.0	.8	.5	.6	.4
19	.3	.6	.1	.6	.7	.8	1.0	1.1	.8	.5	.6	.4
20	.3	.6	.1	.6	.8	.8	.9	1.3	.8	.5	.6	.4

Daily discharge, in second-feet, of Snow Creek near Whitewater, Calif., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	0.3	0.6	0.1	0.6	0.8	0.8	1.6	1.1	0.8	0.6	0.6	0.5
22	.3	.6	.2	.6	.8	.8	1.2	1.0	.8	.6	.6	.5
23	.3	.6	.2	.6	.8	.8	1.3	1.1	.8	.6	.6	.5
24	.3	.6	.5	.6	.8	.8	1.0	1.2	.8	.6	.5	.5
25	.3	.6	.1	.6	.8	.8	.8	1.2	.8	.6	.5	.5
26	.3	.6	.1	.6	.8	.8	1.0	1.2	.8	.6	3.9	.5
27	.3	.6	.3	.6	.8	.9	1.2	1.1	.8	.4	.5	.5
28	.3	.6	.3	.6	.8	1.0	1.2	1.0	.9	.2	.2	.5
29	.3	.6	.3	.7	------	1.3	1.2	1.1	.8	.2	.4	.5
30	.3	.6	.3	.7	------	1.0	1.0	.8	.9	.2	.4	.5
31	.3	------	.3	.7	------	1.1	------	.8	------	.2	.4	------

Monthly discharge of Snow Creek near Whitewater, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0.3	0.2	0.25	15.4
November	.7	.3	.56	33.3
December	4.6	.1	.56	34.4
January	.7	.2	.41	25.2
February	.8	.6	.70	38.9
March	1.3	.8	.84	51.6
April	2.8	.8	1.40	83.3
May	1.7	.8	1.17	71.9
June	.9	.7	.80	47.6
July	2.2	.1	.41	25.2
August	3.9	.2	.54	33.2
September	.5	.2	.42	25.0
The year	4.6	.1	.67	484.

Combined daily discharge, in second-feet, of Snow Creek and Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	4.8	5.1	6.2	5.0	5.3	7.6	9.3	7.2	10.1	4.0	4.5
2	4.2	4.8	4.9	5.8	5.0	5.3	7.5	9.5	7.1	6.7	4.5	4.5
3	4.2	4.7	5.1	5.8	5.0	5.1	7.3	10.2	6.9	5.9	4.5	4.8
4	4.3	4.7	5.1	5.6	5.0	5.1	11.6	10.9	7.6	5.1	4.2	4.7
5	4.3	4.8	5.3	5.5	5.0	5.1	12.0	10.7	7.4	5.2	4.0	4.2
6	4.5	4.8	6.2	5.5	5.3	5.3	10.3	10.7	7.2	5.1	3.9	4.2
7	4.5	4.9	5.8	5.3	5.4	7.6	9.9	11.0	6.8	4.9	3.9	4.2
8	4.5	4.9	5.6	5.3	5.4	6.6	9.8	10.9	6.6	4.7	3.8	4.2
9	4.5	4.9	5.8	5.4	5.3	6.2	9.9	9.7	6.6	4.5	4.1	4.2
10	4.3	5.8	5.5	5.2	5.5	5.8	10.4	9.8	6.4	4.5	3.9	4.1
11	4.5	6.1	5.3	5.2	5.3	5.8	10.7	9.4	6.2	4.4	3.9	4.1
12	4.5	5.5	5.1	5.2	5.3	5.8	12.2	8.9	6.2	4.4	4.0	4.1
13	4.5	5.3	5.1	5.2	5.6	5.7	10.9	8.8	6.2	4.4	3.8	4.1
14	4.5	5.1	5.1	5.4	5.5	5.5	10.7	9.1	6.2	4.4	3.9	3.9
15	4.3	4.9	5.1	5.4	5.5	5.5	10.9	8.9	5.8	4.5	3.8	3.9
16	4.3	4.9	13.4	5.2	5.3	5.5	11.7	8.1	6.3	4.1	4.0	3.9
17	4.3	4.9	9.9	5.3	5.3	5.5	12.7	8.1	5.5	4.1	4.0	4.1
18	4.4	4.9	6.7	5.3	5.2	5.5	10.3	8.5	5.5	4.2	4.1	4.1
19	4.6	4.9	5.9	5.3	5.2	5.3	9.8	8.6	5.3	4.3	4.1	3.9
20	4.4	4.9	5.5	5.3	5.3	5.3	9.5	9.2	5.1	4.2	4.1	3.9
21	4.4	4.9	5.5	5.3	7.0	5.3	10.9	9.0	5.1	4.3	4.3	4.0
22	4.4	4.9	6.0	5.3	6.2	5.5	10.0	8.2	5.1	4.1	4.1	4.0
23	4.4	4.9	10.3	5.1	5.8	5.5	10.4	8.1	5.1	4.1	4.0	4.0
24	4.4	4.9	8.8	5.1	5.7	5.7	9.3	8.7	4.9	4.1	4.0	4.0
25	4.4	4.9	6.9	5.1	5.7	5.8	9.1	8.7	4.9	3.8	4.0	4.0
26	4.6	4.9	6.3	5.1	5.5	5.8	9.6	8.7	4.9	4.0	13.7	4.0
27	4.4	4.9	6.1	5.1	5.3	7.1	9.8	8.3	4.8	3.8	8.8	4.0
28	4.6	4.9	5.9	5.1	5.3	7.4	10.0	8.2	7.1	3.9	7.2	4.0
29	4.8	4.9	5.7	5.2	------	8.8	10.0	8.6	5.8	3.9	4.7	4.0
30	5.0	5.1	5.7	5.2	------	8.5	9.6	7.4	11.7	3.9	4.9	4.0
31	4.8	------	6.5	5.0	------	8.6	------	7.2	------	3.9	4.9	------

Combined monthly discharge of Snow Creek and Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	5.0	4.2	4.45	274
November	6.1	4.7	4.99	297
December	13.4	4.9	6.30	387
January	6.2	5.0	5.32	327
February	7.0	5.0	5.42	301
March	8.8	5.1	6.03	371
April	12.7	7.3	10.1	601
May	11.0	7.2	9.08	558
June	11.7	4.8	6.25	372
July	10.1	3.8	4.63	285
August	13.7	3.8	4.68	288
September	4.8	3.9	4.12	245
The year	13.7	3.8	5.95	4,310

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

LOCATION.—In NW. ¼ NW. ¼ sec. 33, T. 3 S., R. 3 E., 200 feet below intake and 3½ miles southwest of Whitewater, Riverside County.

RECORDS AVAILABLE.—July 20, 1921, to September 30, 1925.

GAGE.—Water-stage recorder on left bank 200 feet below intake.

DISCHARGE MEASUREMENTS.—Made from foot log at gage or by wading.

CHANNEL AND CONTROL.—Bed of channel consists of small boulders and gravel; both banks covered with trees.

EXTREMES OF STAGE.—Not reported.

COOPERATION.—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Southern Pacific Co.'s ditch near Whitewater, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	4.5	4.5	6.0	4.3	4.5	6.6	8.3	6.4	7.9	3.8	4.3
2	4.0	4.5	4.3	5.6	4.3	4.5	6.6	8.3	6.4	6.6	4.3	4.3
3	4.0	4.3	4.5	5.6	4.3	4.3	6.4	8.8	6.2	5.8	4.3	4.5
4	4.1	4.3	4.5	5.4	4.3	4.3	8.8	9.3	6.8	5.0	4.0	4.3
5	4.1	4.3	4.7	5.2	4.3	4.3	9.8	9.1	6.6	5.0	3.8	3.8
6	4.3	4.3	5.6	5.2	4.5	4.5	9.1	9.1	6.4	4.9	3.7	3.8
7	4.3	4.3	5.2	5.0	4.7	6.8	8.8	9.3	6.0	4.7	3.7	3.8
8	4.3	4.3	5.0	5.0	4.7	5.8	8.8	9.3	5.8	4.5	3.4	3.8
9	4.3	4.3	5.2	5.2	4.7	5.4	8.8	8.3	5.8	4.3	3.7	3.8
10	4.1	5.2	4.9	5.0	4.9	5.0	9.1	8.6	5.6	4.3	3.5	3.7
11	4.3	5.4	4.7	5.0	4.7	5.0	8.8	8.3	5.4	4.1	3.5	3.7
12	4.3	4.9	4.5	5.0	4.7	5.0	9.6	7.9	5.4	4.0	3.5	3.7
13	4.3	4.7	4.5	5.0	5.0	4.9	9.3	7.9	5.4	4.0	3.3	3.7
14	4.3	4.5	4.5	5.2	4.9	4.7	9.1	7.9	5.4	4.0	3.4	3.5
15	4.1	4.3	4.5	5.2	4.9	4.7	9.3	7.9	5.0	4.1	3.2	3.5
16	4.1	4.3	8.8	5.0	4.7	4.7	9.8	7.2	5.5	3.7	3.4	3.5
17	4.1	4.3	9.1	5.0	4.7	4.7	10.1	7.2	4.7	3.7	3.4	3.7
18	4.1	4.3	6.6	4.7	4.5	4.7	9.1	7.5	4.7	3.7	3.5	3.7
19	4.3	4.3	5.8	4.7	4.5	4.5	8.8	7.5	4.5	3.8	3.5	3.5
20	4.1	4.3	5.4	4.7	4.5	4.5	8.6	7.9	4.3	3.7	3.5	3.5
21	4.1	4.3	5.4	4.7	6.2	4.5	9.3	7.9	4.3	3.7	3.7	3.5
22	4.1	4.3	5.8	4.7	5.4	4.7	8.8	7.2	4.3	3.5	3.5	3.5
23	4.1	4.3	10.1	4.5	5.0	4.7	9.1	7.0	4.3	3.5	3.4	3.5
24	4.1	4.3	8.3	4.5	4.9	4.9	8.3	7.5	4.1	3.5	3.5	3.5
25	4.1	4.3	6.8	4.5	4.9	5.0	8.3	7.5	4.1	3.2	3.5	3.5
26	4.3	4.3	6.2	4.5	4.7	5.0	8.6	7.5	4.1	3.4	9.8	3.5
27	4.1	4.3	5.8	4.5	4.5	6.2	8.6	7.2	4.0	3.4	8.3	3.5
28	4.3	4.3	5.6	4.5	4.5	6.4	8.8	7.2	6.2	3.7	7.0	3.5
29	4.5	4.3	5.4	4.5	-------	7.5	8.8	7.5	5.0	3.7	4.3	3.5
30	4.7	4.5	5.4	4.5	-------	7.5	8.6	6.6	10.8	3.7	4.5	3.5
31	4.5	-------	6.2	4.3	-------	7.5	-------	6.4	-------	3.7	4.5	-------

Monthly discharge of Southern Pacific Co.'s. ditch near Whitewater, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	4.7	4.0	4.21	259
November	5.4	4.3	4.43	264
December	10.1	4.3	5.74	353
January	6.0	4.3	4.92	303
February	6.2	4.3	4.72	262
March	7.5	4.3	5.18	319
April	10.1	6.4	8.75	521
May	9.3	6.4	7.91	486
June	10.8	4.0	5.45	324
July	7.9	3.2	4.22	259
August	9.8	3.2	4.14	255
September	4.5	3.5	3.70	220
The year	10.8	3.2	5.28	3,820

FALLS CREEK NEAR WHITEWATER, CALIF.

LOCATION.—In NE. ¼ NE. ¼ sec. 33, T. 3 S., R. 3 E., 3¼ miles southwest of Whitewater, Riverside County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 1, 1922, to September 30, 1925.

GAGE.—Water-stage recorder on right bank, 2¼ miles above junction with Snow Creek.

DISCHARGE MEASUREMENTS.—Made from foot log at gage or by wading.

CHANNEL AND CONTROL.—Channel is composed of boulders and is rough. The trees and brush along each bank collect drift during high stages. Control is a weir just below gage.

EXTREMES OF STAGE.—Not reported.

DIVERSIONS.—None.

REGULATION.—None.

COOPERATION.—Record of daily discharge furnished by Southern Sierras Power Co.

Daily discharge, in second-feet, of Falls Creek near Whitewater, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.1	1.5	1.9	1.4	1.4	1.8	1.2	0.9	3.0	0.6	0.8
2	.6	1.1	1.6	1.8	1.4	1.4	1.6	1.2	.8	2.0	1.0	.8
3	.7	1.1	1.8	1.6	1.4	1.4	1.4	1.4	.9	1.6	1.6	.8
4	.8	1.0	1.9	1.6	1.4	1.4	1.8	1.4	.9	1.4	.9	.8
5	.8	1.0	1.7	1.5	1.4	1.4	2.0	1.5	.9	1.2	.8	.9
6	.9	1.1	1.7	1.5	1.6	1.4	2.0	1.6	1.0	1.1	.7	.9
7	.9	1.1	1.6	1.4	1.7	2.2	1.8	1.6	.9	.9	.6	.9
8	.9	1.2	1.6	1.4	1.6	2.0	1.6	1.7	.9	.9	.6	.9
9	.9	1.2	1.6	1.5	1.7	1.9	1.6	1.5	.8	.8	.6	.9
10	.8	1.3	1.6	1.6	1.8	1.7	1.6	1.5	.8	.8	.6	.8
11	1.1	1.4	1.6	1.6	1.6	1.6	1.5	1.4	.8	.6	.6	.8
12	1.0	1.4	1.5	1.6	1.6	1.6	1.7	1.4	.8	.6	.5	.9
13	1.0	1.3	1.5	1.7	1.6	1.5	1.6	1.2	.8	.5	.5	.9
14	.9	1.2	1.5	1.7	1.7	1.5	1.6	1.2	.8	.6	.5	.8
15	.9	1.2	1.5	1.8	1.7	1.4	1.6	1.2	.8	.7	.4	.8
16	.9	1.2	3.1	1.8	1.7	1.4	1.7	1.2	.8	.6	.4	.8
17	.9	1.2	2.5	1.8	1.6	1.3	1.8	1.2	.8	.5	.4	.8
18	.9	1.2	2.0	1.7	1.6	1.3	1.7	1.1	.8	.5	.4	.9
19	.9	1.1	1.8	1.6	1.5	1.2	1.6	1.1	.7	.5	.5	.9
20	.9	1.2	1.8	1.6	1.5	1.2	1.4	1.2	.6	.4	.4	.9

Daily discharge, in second-feet, of Falls Creek near Whitewater, Calif., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	0.9	1.1	1.8	1.6	1.6	1.2	1.7	1.2	0.6	0.4	0.4	0.9
22	.9	1.1	1.9	1.6	1.6	1.2	1.6	1.1	.6	.4	.4	.9
23	.9	1.2	2.8	1.5	1.6	1.2	1.6	1.1	.6	.4	.5	.9
24	.8	1.2	2.2	1.5	1.6	1.2	1.4	1.1	.5	.4	.5	.9
25	.9	1.3	1.8	1.5	1.6	1.3	1.2	1.1	.5	.4	.6	.9
26	.9	1.4	1.8	1.5	1.5	1.4	1.2	1.1	.5	.4	2.8	.9
27	.9	1.4	1.7	1.6	1.5	1.6	1.2	1.1	.5	.4	2.2	.9
28	.9	1.4	1.7	1.6	1.4	1.6	1.2	1.1	4.5	.4	1.4	.9
29	.9	1.5	1.8	1.6	------	1.4	1.2	1.1	1.6	.4	1.1	.9
30	1.1	1.6	1.7	1.5	------	1.7	1.2	.9	5	.4	.8	.9
31	1.1	------	2.1	1.5	------	1.8	------	.8	------	.4	.8	------

Monthly discharge of Falls Creek near Whitewater, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1.1	0.6	0.89	54.7
November	1.6	1.0	1.23	73.2
December	3.1	1.5	1.83	113
January	1.9	1.4	1.60	98.4
February	1.8	1.4	1.57	87.2
March	2.2	1.2	1.48	91.0
April	2.0	1.2	1.56	92.8
May	1.7	.8	1.24	76.2
June	5	.5	1.05	62.5
July	3.0	.4	.76	46.7
August	2.8	.4	.78	48.0
September	.9	.8	.87	51.8
The year	5	.4	1.24	896

OWENS LAKE BASIN

OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.—In sec. 2, T. 11 S., R. 34 E., at Charlies Butte, 11 miles southeast of Big Pine, Inyo County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 20, 1906, to September 30, 1925.

GAGE.—Water-stage recorder on left bank.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Sand and gravel; shift slightly. Right bank high; left bank subject to overflow during floods.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge during the year, 456 second-feet July 4; minimum mean daily discharge, 51 second-feet October 1–4.

1906–1925: Maximum stage recorded, 11.2 feet about 9 p. m. January 26, 1914 (discharge, from extension of rating curve, about 3,220 second-feet); minimum stage, −0.05 foot June 13–16, 1908 (discharge, 36 second-feet).

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—On account of diversions above the station, the record does not indicate the total run-off from the drainage area.

REGULATION.—Flow is partly regulated by diversions.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve fairly well defined. Good record from water-stage recorder. Daily discharge ascertained by applying mean daily gage height to rating table using shifting-control method. Records good.

COOPERATION.—Gage-height record and discharge measurements furnished by the city of Los Angeles.

Discharge measurements of Owens River near Big Pine, Calif., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 6	0.51	53	Feb. 10	2.11	230	June 15	1.50	149
Oct. 18	1.14	118	Feb. 20	1.58	148	June 24	2.45	284
Oct. 24	1.31	132	Mar. 2	1.46	141	June 29	2.81	339
Nov. 3	1.73	197	Mar. 9	1.39	139	July 7	3.02	365
Nov. 10	2.12	234	Mar. 19	1.36	130	July 20	2.70	320
Nov. 18	2.40	297	Mar. 27	1.16	110	July 27	1.74	166
Nov. 26	2.26	253	Apr. 6	1.47	145	Aug. 3	1.86	186
Dec. 8	2.24	257	Apr. 22	1.05	98	Aug. 11	1.87	188
Dec. 17	2.26	253	May 4	1.03	93	Aug. 19	1.23	112
Jan. 5	2.35	260	May 11	.93	88	Aug. 26	.75	63
Jan. 12	2.26	261	May 21	.74	68	Sept. 18	.60	55
Jan. 20	2.29	262	June 1	1.55	149	Sept. 28	1.20	112
Jan. 30	2.35	277	June 8	1.42	133			

Daily discharge, in second-feet, of Owens River near Big Pine, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	162	254	347	270	144	106	94	150	353	138	57
2	51	176	245	297	259	143	109	95	154	379	148	54
3	51	194	243	287	251	146	119	95	150	414	180	53
4	51	207	240	271	256	148	129	92	140	456	195	52
5	53	212	245	263	253	149	129	90	143	440	192	53
6	54	208	250	261	253	150	148	91	132	420	174	53
7	56	214	261	263	254	152	189	94	130	375	157	53
8	58	214	256	259	278	149	183	88	130	356	150	54
9	61	222	266	261	243	143	160	88	119	324	169	55
10	62	253	273	263	228	143	141	83	110	295	184	54
11	64	312	273	261	212	139	120	90	105	282	207	57
12	68	310	266	261	201	140	110	92	100	245	207	55
13	72	285	264	258	200	138	108	99	112	242	194	55
14	77	275	261	261	204	146	104	99	130	232	179	55
15	86	280	264	261	195	141	103	107	148	219	154	56
16	112	290	263	254	177	144	103	113	158	226	152	56
17	117	293	259	256	163	144	99	112	176	234	132	55
18	120	295	243	254	152	138	97	94	188	246	130	54
19	127	292	225	261	152	133	100	82	201	287	110	54
20	136	288	214	263	152	129	102	74	214	340	103	55
21	138	292	214	264	150	130	99	69	222	381	92	57
22	141	288	236	264	153	130	102	68	243	356	86	61
23	138	283	243	258	154	130	119	68	266	319	72	67
24	133	275	226	256	153	132	141	70	292	268	67	80
25	130	263	207	261	153	130	150	69	316	232	67	100
26	134	254	201	273	153	120	140	75	324	189	65	106
27	135	253	201	273	150	110	136	84	333	167	65	108
28	140	256	204	268	144	104	132	93	346	161	65	112
29	145	259	238	271	-------	98	117	102	346	156	61	113
30	149	259	276	276	-------	95	102	119	347	148	62	117
31	162	-------	297	276	-------	96	-------	143	-------	130	60	-------

Monthly discharge of Owens River near Big Pine, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	162	51	99.1	6,090
November	312	162	255	15,200
December	297	201	245	15,100
January	347	254	268	16,500
February	278	144	199	11,100
March	152	95	133	8,180
April	189	97	123	7,320
May	143	68	91.4	5,620
June	347	100	198	11,800
July	456	130	286	17,600
August	207	60	130	7,990
September	117	52	67.0	3,990
The year	456	51	175	126,000

ANTELOPE VALLEY BASIN

ROCK CREEK NEAR VALYERMO, CALIF.

LOCATION.—In NE. ¼ sec. 20, T. 4 N., R. 9 W., 1¾ miles southeast of Valyermo, Los Angeles County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—January 17, 1923, to September 30, 1925.

GAGE.—Water-stage recorder on right bank a quarter of a mile south of boundary of Angeles National Forest.

DISCHARGE MEASUREMENTS.—Made from footbridge 20 feet below gage or by wading.

CHANNEL AND CONTROL.—Boulders and gravel which may shift at high stages; fairly permanent at low and medium stages.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 1.41 feet at noon April 4 (discharge, 16 second-feet); minimum stage, 0.83 foot at 6 p. m. August 22 (discharge, 1.2 second-feet).

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve fairly well defined. Water-stage recorder record excellent, except August 3–7 when inlet was clogged. Daily discharge ascertained by applying mean daily gage height to rating table using shifting-control method. Discharge estimated August 3–7. Records good.

Discharge measurements of Rock Creek near Valyermo, Calif., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	0.84	1.9	Apr. 9	1.11	7.0	July 8	0.90	2.9
Oct. 24	.86	1.9	Apr. 15	1.20	9.5	Aug. 7	.87	1.8
Dec. 10	1.03	2.5	May 2	1.14	8.2	Aug. 24	.89	2.1
Jan. 14	1.02	3.2	May 5	1.12	8.6	Sept. 5	.84	1.8
Feb. 17	1.02	3.3	May 29	1.00	5.0	Sept. 26	.86	1.9
Mar. 11	1.02	3.3	June 22	.95	4.2			

Daily discharge, in second-feet, of Rock Creek near Valyermo, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	3.1	2.3	4.7	2.9	3.5	4.7	8	5.5	3.5	2.2	2.0
2	2.3	2.9	2.3	4.7	2.9	3.3	4.7	8	5.5	3.3	2.9	2.0
3	2.5	2.9	2.3	4.7	2.9	3.3	4.7	8	5.5	3.3	2.3	2.0
4	2.5	2.9	2.2	4.7	2.9	3.3	7.5	9	5.5	3.1	2.3	2.2
5	2.7	2.9	2.2	4.7	2.9	3.3	7.5	9	6	2.9	2.3	2.2
6	3.1	2.9	2.2	4.7	2.9	3.8	7	8.5	6	2.7	2.3	2.3
7	3.1	2.9	2.0	4.7	2.9	4.0	6	8.5	6	2.5	2.3	2.3
8	3.1	2.7	2.2	5.0	2.9	3.5	7	8.5	6	2.2	2.3	2.5
9	3.1	2.7	2.3	5.0	2.9	3.5	7.5	9	6	2.2	2.3	2.7
10	3.3	2.5	2.5	5.0	2.9	3.3	8	9	6	2.2	2.5	2.7
11	3.5	2.3	2.5	4.0	2.9	3.3	9.5	9	5.5	2.2	2.7	2.9
12	3.5	2.3	2.5	3.1	2.9	3.3	9.5	9	5.5	2.2	2.7	2.9
13	3.1	2.3	2.5	3.1	3.1	3.3	8	9	5.5	2.2	2.7	2.9
14	3.1	2.3	2.5	3.1	3.3	3.3	8	9	5.5	2.2	2.5	2.9
15	3.1	2.3	2.5	3.1	3.3	3.5	9.5	9	5.5	2.2	2.5	2.9
16	2.9	2.3	4.0	3.1	3.3	3.8	11	9	5	2.2	2.2	2.9
17	3.1	2.2	4.2	3.1	3.3	3.8	12	8.5	5	2.2	2.2	2.9
18	2.7	2.2	4.2	3.1	3.3	3.8	11	8.5	4.7	2.2	2.0	3.1
19	2.7	2.2	4.2	2.9	3.3	3.8	10	8.5	4.5	2.2	2.0	3.1
20	2.5	2.2	4.2	2.9	3.3	4.0	10	8	4.2	2.2	1.8	2.7
21	2.5	2.0	4.2	2.9	3.3	4.2	10	8	4.0	2.3	1.8	2.7
22	2.3	2.0	4.2	2.9	3.3	4.2	9.5	7.5	4.0	2.3	1.7	2.3
23	2.3	2.0	4.2	2.7	3.3	4.2	9.5	7.5	3.8	2.2	1.8	2.0
24	2.3	2.0	4.5	2.7	3.3	4.5	9.5	7	3.8	2.2	1.8	1.8
25	2.2	2.0	4.5	2.7	3.3	4.5	9	7	3.8	2.2	2.0	1.8
26	2.2	2.3	4.5	2.7	3.3	4.5	9.5	6.5	3.8	2.2	2.0	1.8
27	2.2	2.2	4.5	2.7	3.5	4.5	9	6.5	4.0	2.2	1.8	1.8
28	2.3	2.3	4.5	2.7	3.5	4.7	9	5.5	4.0	2.2	2.0	1.8
29	3.1	2.5	4.5	2.7	-------	5.5	9	5.5	4.0	2.2	2.0	1.8
30	3.1	2.5	4.2	2.7	-------	4.5	9	5.5	4.0	2.2	1.8	1.8
31	3.1	-------	4.2	2.7	-------	4.7	-------	5.5	-------	2.2	2.0	------

Monthly discharge of Rock Creek near Valyermo, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	3.5	2.0	2.76	170
November	3.1	2.0	2.43	145
December	4.5	2.0	3.35	206
January	5.0	2.7	3.53	217
February	3.5	2.9	3.14	174
March	5.5	3.3	3.89	239
April	12	4.7	8.54	508
May	9	5.5	7.90	486
June	6	3.8	4.94	294
July	3.5	2.2	2.40	148
August	2.9	1.7	2.18	134
September	3.1	1.8	2.39	142
The year	12	1.7	3.95	2,860

MONO LAKE BASIN

MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.—In lot 6, SE. ¼ NE. ¼ sec. 31, T. 2 N., R. 26 E., 2 miles south of Mono Lake post office, Mono County.

RECORDS AVAILABLE.—June 15, 1912, to September 30, 1925 (fragmentary).

GAGE.—Vertical staff on support of boathouse, installed September, 1912; read once a month by W. E. Green. Original gage was vertical staff fastened to willow tree about 400 feet from Hammon's store.

EXTREMES OF STAGE.—1912–1925: Maximum stage recorded, 13.55 feet July 18, 1919; minimum stage, 7.93 feet December 11, 1913.

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

Gage height, in feet, of Mono Lake near Mono Lake, Calif., during the year ending September 30, 1925

Oct. 20 10.3	Apr. 25 10.4	Aug. 25 10.0
Nov. 18 10.1	May 23 10.4	Sept. 20 9.3
Dec. 10 10.2	June 16 10.3	
Apr. 14 10.3	July 18 10.4	

WALKER LAKE BASIN

EAST WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.—In SW. ¼ NE. ¼ sec. 34, T. 6 N., R. 25 E., 1,500 feet below Bridgeport Reservoir and 4¾ miles north of Bridgeport, Mono County.

DRAINAGE AREA.—362 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 29, 1911, to September 30, 1914 (fragmentary); miscellaneous measurements in 1920 and 1921; October 1, 1921, to September 30, 1925 (fragmentary).

GAGE.—Stevens continuous water-stage recorder on right bank; installed February 21, 1924; inspected by Walker River Irrigation District.

DISCHARGE MEASUREMENTS.—Made by wading or from highway bridge 1½ miles below gage.

CHANNEL AND CONTROL.—Channel straight above gage; bends to right below. Bed of boulders and sand. Control of boulders; fairly permanent.

ICE.—Stage-discharge relation probably seldom affected by ice.

DIVERSIONS.—Below all diversions in Bridgeport Valley.

REGULATION.—Regulation by Twin Lakes and Bridgeport Reservoirs. Bridgeport Reservoir, capacity 42,000 acre-feet, finished in November, 1924.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Water-stage recorder operated successfully, except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Walker River Irrigation District furnished gage-height record and two discharge measurements.

Discharge measurements of East Walker River near Bridgeport, Calif., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 28		*2.0	Apr. 18	3.56	172	May 16	3.39	146
Apr. 4	3.19	119	May 16	3.11	103	June 29	3.71	207

* Estimated before Bridgeport Reservoir gates were opened Feb. 28.

Daily discharge, in second-feet, of East Walker River near Bridgeport, Calif., for the year ending September 30, 1925

Day	Oct.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22		8	112	175	193	196	246	
2	20		2	112	175	217	193	233	
3	22		2	112	173	217	193	233	
4	22		2	109	171	217	200	226	
5	22		2	103	171	215	200	226	
6	23		3	62	154	202	182	185	
7	26		3	20	149	202	145	169	
8	26		3	48	171	202	174	169	
9	26		13	101	171	202	185	169	
10	28		40	114	171	204	185	171	
11	27		49	124	169	193	185	183	
12	28		53	161	169	187	189	185	98
13	29		53	161	140	189	200	185	103
14	29		52	161	103	189	206	185	106
15	28		52	161	100	193	217	183	106
16	28		60	169	109	193	217	161	89
17	28		52	175	104	196	217	149	106
18	29		42	177	114	196	217	149	103
19	29		61	177	158	196	155	149	103
20	29		64	177	169	196	3	147	103
21	28		64	177	169	196	75	163	101
22	29		79	153	169	193	136	165	101
23			98	104	169	191	2	167	101
24			138	104	169	191	104	169	101
25			173	131	175	193	245	169	98
26			173	177	219	193	224	169	79
27			173	177	226	198	103		79
28		12	160	177	221	210	117		79
29			114	177	219	208	118		50
30			116	175	206	204	6		57
31			114		181		165		

NOTE.—Gates of Bridgeport Reservoir closed from later part of October to Feb. 28, and recorder not operated; seepage estimated about 2 second-feet. No record Aug. 27 to Sept. 11, and owing to regulation of flow estimates of discharge not attempted.

Monthly discharge of East Walker River near Bridgeport, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October 1–22 [a]	29	20	26.3	1,150
March	173	2	65.1	4,000
April	177	20	136	8,090
May	226	100	166	10,200
June	217	187	199	11,800
July	245	2	160	9,840
August 1–26 [a]	246	149	181	9,330
September 12–30	106	50	92.8	3,500

[a] See footnote to daily-discharge table.

WALKER RIVER NEAR WABUSKA, NEV.

LOCATION.—In NE. ¼ sec. 20, T. 15 N., R. 26 E., half a mile above boundary line of Walker River Indian Reservation and 5 miles east of Wabuska, Lyon County.

RECORDS AVAILABLE.—January 15, 1920, to September 30, 1925; broken in 1925. Comparable records were obtained July 22, 1902, to July 31, 1908, at railroad bridge 3 miles upstream.

GAGE.—Low-water staff gage on bridge pier formerly used as auxiliary gage to water-stage recorder; read by Mrs. A. E. Parker.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Banks fairly high and clean. Bed of stream composed of sand. At very high stages abandoned channel on right may carry small quantity of water around gage. At stages below about 20 second-feet the stream meanders through sandy bed in two or more channels at gage.

EXTREMES OF DISCHARGE.—1920–1925: Maximum stage recorded, 7.08 feet at 10 a. m. June 8, 1922 (discharge, 2,220 second-feet); no flow in August and September, 1924, and numerous periods from March to September, 1925.

DIVERSIONS.—Below all diversions, except for Walker River Indian Reservation.

REGULATION.—Flow regulated by Twin Lakes, Bridgeport, Poor Lake and Topaz Lake Reservoirs; also by diversions.

ACCURACY.—Stage-discharge relation changed during high water in August. Rating curve used March 1 to August 15 well defined below 150 second-feet. Staff gage read once daily March 1 to September 30. Daily discharge ascertained by applying daily gage height to rating table; shifting-control method used August to September 30. Records fair.

Discharge measurements of Walker River near Wabuska, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 27	3.08	8.83	July 1	3.48	67.0
May 15	3.80	130	July 10	3.40	49.4

Daily discharge, in second-feet, of Walker River near Wabuska, Nev., for the year ending September 30, 1925

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	35	1	10	74	22	0
2	3	35	11	9	66	22	0
3	1	22	0	10	59	59	0
4	1	22	22	11	98	59	0
5	1	1	50	26	218	68	9
6	0	68	50	36	166	68	83
7	0	50	50	61	119	68	126
8	0	35	42	63	78	130	137
9	0	28	42	89	28	154	126
10	0	11	28	91	50	205	104
11	1	6	42	59	11	259	104
12	1	1	42	50	11	259	83
13	1	6	87	35	1	259	47
14	1	11	179	38	0	301	32
15	1	6	130	40	1	287	20
16	1	6	68	28	1	254	14
17	1	1	50	18	22	227	9
18	1	1	50	11	22	200	4
19	1	1	42	6	28	149	4
20	1	1	35	2	59	83	9
21	11	1	22	0	273	83	9
22	35	11	22	0	130	47	14
23	36	50	35	2	59	9	14
24	38	35	42	4	35	32	14
25	40	11	50	20	35	40	20
26	50	11	68	41	35	44	20
27	68	6	48	38	35	9	20
28	87	6	22	47	35	1	32
29	87	6	13	68	22	0	32
30	87	3	16	108	22	0	32
31	87	.....	13	.....	22	0	.....

NOTE.—No flow reported to have reached Walker River Indian Reservation diversion dam before Jan. 1.

Monthly discharge of Walker River near Wabuska, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October 1–10	0	0	0	0
March	87	0	20.9	1,290
April	68	1	16.2	964
May	179	0	44.3	2,720
June	108	0	34.0	2,020
July	273	0	58.5	3,600
August	301	0	110	6,760
September	137	0	37.3	2,220
The period				19,600

NOTE.—No flow reported to have reached Walker River Indian Reservation diversion dam before Jan. 1.

WALKER RIVER AT SCHURZ, NEV.

LOCATION.—In sec. 36, T. 13 N., R. 28 E., 50 feet below Southern Pacific Railroad bridge at Schurz, Mineral County, 3 miles above Walker Lake, and 6 miles below diversion dam of Walker River Indian Reservation.

DRAINAGE AREA.—2,850 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 2, 1913, to September 30, 1925.

GAGE.—Inclined staff gage on right bank 50 feet below Southern Pacific Railroad bridge; read by Irving Clark.

DISCHARGE MEASUREMENTS.—Made by wading or from flume half a mile below gage.

CHANNEL AND CONTROL.—Bed composed of loose sand; shifts occasionally. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 2.8 feet at 6.38 a. m. July 22 (discharge, 318 second-feet); river dry during most of the year.

1913–1925: Maximum stage recorded, 11.0 feet June 8 and 9, 1914 (discharge, 2,530 second-feet); no flow during periods in 1913, 1920, 1921, 1922, 1924, and 1925.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Below all diversions.

REGULATION.—Flow regulated by Twin Lakes, Bridgeport, Poor Lake, and Topaz Lake Reservoirs; also by irrigation diversion.

ACCURACY.—Stage-discharge relation assumed permanent; flow only for short periods during year. Rating curve poorly defined owing to insufficient number of measurements. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records probably fair.

Station visited March 1, 1925; river found dry.

Daily discharge of Walker River at Schurz, Nev., for the year ending September 30, 1925

Date	Discharge (second-feet)	Date	Discharge (second-feet)	Date	Discharge (second-feet)
Jan. 23	2	July 9	5	Aug. 18	207
Jan. 25	30	July 22	250	Aug. 19	195
Jan. 25	17	July 23	71	Aug. 20	177
Jan. 26	14	Aug. 6	15	Aug. 21	102
Jan. 27	11	Aug. 7	45	Aug. 22	8
Jan. 28	6	Aug. 8	52	Aug. 23	2
Jan. 29	3	Aug. 9	45	Sept. 8	13
Jan. 30	6	Aug. 10	6	Sept. 9	19
May 15	19	Aug. 11	5	Sept. 10	20
May 16	109	Aug. 12	13	Sept. 11	19
May 17	32	Aug. 13	109	Sept. 12	5
May 18	16	Aug. 14	241	Sept. 13	4
July 6	1	Aug. 15	246	Sept. 14	7
July 7	50	Aug. 16	243	Sept. 15	8
July 8	58	Aug. 17	224	Sept. 16	2

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Walker River at Schurz, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
January	30	0	2.9	178
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	109	0	5.7	350
June	0	0	0	0
July	250	0	14.0	861
August	246	0	62.4	3,840
September	20	0	3.2	190
The year	250	0	7.5	5,420

WEST WALKER RIVER NEAR COLEVILLE, CALIF.

LOCATION.—In NE. ¼ NW. ¼ sec. 28, T. 8 N., R. 23 E., at mouth of Ross Canyon, at head of Antelope Valley, 400 feet east of State highway, 1,100 feet above Terry Canal heading, 1.4 miles above Terry ranch house, 6 miles above Coleville, Mono County, and 40 miles southeast of Gardnerville, Nev.

DRAINAGE AREA.—245 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 18, 1915, to September 30, 1925. October 5, 1902, to July 31, 1908, a station was maintained half a mile above present gage.

GAGE.—Stevens continuous water-stage recorder on left bank; installed May 5, 1922; inspected by T. F. Hardy.

DISCHARGE MEASUREMENTS.—Made from cable 1,000 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of large boulders, sand, and gravel; fairly permanent. One channel at all stages. Control composed of large boulders and some loose gravel; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.95 feet at 2 a. m. May 27 (discharge, 1,660 second-feet); minimum stage, 1.21 feet at 5 p. m. December 3 (discharge, 5 second-feet).

1915–1925: Maximum stage recorded, 5.74 feet at 3 a. m. June 12, 1921 (discharge, 2,710 second-feet); minimum stage, 1.21 feet at 5 p. m. December 3, 1924 (discharge, 5 second-feet).

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—Station is above all diversions, except one small canal 1½ miles upstream which diverts a maximum of 3 second-feet.

REGULATION.—A small reservoir at Poor Lake, 17 miles upstream, capacity unknown, stores water from spring floods and releases it in summer. Regulation is very slight.

ACCURACY.—Stage-discharge relation remained permanent; affected by ice December 17 to January 1. Rating curve well defined. Water-stage recorder operated satisfactorily, except as indicated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

Discharge measurements of West Walker River near Coleville, Calif., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 2	1.75	54.2	June 29	4.23	1,090
May 16	3.58	642	July 9	3.73	757

Daily discharge, in second-feet, of West Walker River near Coleville, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	38	35	35	38	58	127	622	811	1,050	315	72
2	19	38	36	38	42	62	127	798	687	945	243	70
3	19	40	25	41	48	64	138	994	611	863	214	75
4	19	38	38	38	54	73	138	1,150	512	850	197	75
5	23	41	38	38	87	92	127	1,230	453	883	176	70
6	28	30	34	35	155	90	146	1,270	399	824	162	68
7	27	30	32	41	78	82	153	1,210	421	779	150	76
8	25	38	41	38	67	68	164	1,020	571	754	148	82
9	24	62	32	37	49	72	197	890	767	711	155	75
10	24	46	30	36	58	70	240	767	863	699	237	70
11	23	33	30	33	57	61	329	645	837	669	304	66
12	26	34	28	38	44	62	383	582	1,000	549	214	61
13	26	35	31	36	57	64	387	507	1,210	517	189	61
14	25	36	32	40	54	67	412	467	1,130	543	160	60
15	24	37	32	38	53	68	507	628	1,040	554	142	55
16	23	38	32	27	55	70	767	717	966	588	125	53
17	25	38		40	61	73	616	736	987	527	116	55
18	24	35		41	52	76	408	798	1,060	501	108	54
19	24	37		41	53	87	352	843	1,240	577	104	57
20	24	37		35	61	115	315	767	1,300	527	101	57
21	24	37		37	52	143	277	675	1,250	457	97	55
22	23	38		36	53	171	274	850	1,270	371	94	55
23	23	32		38	49	184	246	1,070	1,230	312	90	55
24	23	30	30	38	44	174	243	1,230	1,290	281	88	52
25	23	34		37	46	176	271	1,320	1,330	261	85	50
26	23	38		37	53	203	294	1,390	1,230	246	83	49
27	23	36		40	53	217	326	1,490	1,370	243	80	48
28	28	33		45	55	205	379	1,470	1,110	240	78	48
29	52	32		42	-------	179	430	1,340	1,280	234	78	48
30	35	34		45	-------	150	491	1,090	1,110	234	73	49
31	42	-------		40	-------	153	-------	903	-------	234	83	-------

NOTE.—No gage-height record Nov. 13–15, Mar. 20, and 21; discharge interpolated. Braced figures show estimated mean discharge for period indicated.

Monthly discharge of West Walker River near Coleville, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	52	18	25.5	1,570
November	62	30	36.8	2,190
December	41	----------	31.5	1,940
January	45	27	38.1	2,340
February	155	38	58.1	3,230
March	217	58	111	6,820
April	767	127	309	18,400
May	1,490	467	951	58,500
June	1,370	399	978	58,200
July	1,050	234	549	33,800
August	315	73	145	8,920
September	82	48	60.7	3,610
The year	1,490	18	275	200,000

WEST WALKER RIVER AT HOYE BRIDGE, NEAR WELLINGTON, NEV.

LOCATION.—In SE. ¼ sec. 17, T. 10 N., R. 23 E., at Hoye Bridge, in Douglas County, 2 miles above head of Saroni Canal and 4 miles southwest of Wellington, Lyon County.

DRAINAGE AREA.—504 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 26 to August 31, 1910; March 9, 1924, to September 4, 1925. Record obtained 3¼ miles below in sec. 10, T. 10 N., R. 23 E., December 20, 1917, to May 11, 1924.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by employees of Walker River Irrigation District.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Banks not subject to overflow. Control fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 7.58 feet at 2.30 p. m. September 4 (discharge, 1,190 second-feet); minimum stage, 2.49 feet from 7 to 9 a. m. December 19 (discharge, 6 second-feet).

1924–1925: Same as above.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Station is below all diversions and return water in Antelope Valley, and above all diversions in Smith Valley.

REGULATION.—Flow partly regulated by Poor Lake and Topaz Lake Reservoirs; also by diversions in Antelope Valley.

ACCURACY.—Stage-discharge relation shifted somewhat during year; affected by ice December 20–28. Standard rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method. Records good.

Discharge measurements of West Walker River at Hoye Bridge, near Wellington, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 2	2.69	16.4	June 30	5.83	704
May 8	5.14	528	July 9	4.88	437
May 17	5.58	649			

Daily discharge, in second-feet, of West Walker River at Hoye Bridge, near Wellington, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	35	31	36	16	17	143	543	585	700	556	438
2	17	38	32	36	16	16	173	593	647	680	550	436
3	19	28	38	39	15	15	190	688	647	650	548	438
4	19	26	36	36	14	15	196	752	639	631	577	527
5	19	25	34	32	19	11	213	719	598	580	574	------
6	20	24	32	31	46	14	186	642	558	428	571	------
7	22	23	32	30	58	16	65	647	566	354	563	------
8	21	23	36	36	34	15	186	563	582	403	558	------
9	20	33	41	36	27	14	205	696	590	428	558	------
10	21	47	35	44	22	35	243	652	558	420	553	------
11	23	38	32	41	22	37	263	669	470	468	530	------
12	24	32	32	36	24	37	351	741	556	486	480	------
13	26	42	32	36	32	37	394	764	585	535	453	------
14	26	24	32	22	37	39	391	642	532	550	406	------
15	26	31	32	24	30	40	396	561	458	574	396	------
16	26	32	31	33	25	65	450	609	406	585	391	------
17	27	32	39	33	24	78	456	634	394	532	389	------
18	28	31	25	19	29	83	351	655	399	585	354	------
19	29	31	14	26	31	84	372	642	448	647	319	------
20	29	29		27	34	115	351	569	519	500	314	------
21	29	28		31	37	123	349	577	509	300	333	------
22	27	29		25	31	125	358	623	577	252	408	------
23	27	29		26	25	153	182	636	556	360	488	------
24	27	34	16	26	22	182	245	606	601	358	491	------
25	26	34		25	21	205	312	615	609	367	493	------
26	26	30		24	19	203	347	636	604	387	493	------
27		35		23	19	198	438	708	688	466	496	------
28		35		22	18	153	483	744	696	463	473	------
29	30	36	19	22	-------	147	496	674	724	443	448	------
30		37	39	21	-------	141	514	558	724	563	446	------
31		-------	38	20	-------	139	-------	561	-------	561	440	------

NOTE.—No gage-height record Oct. 27–31, Nov. 1, Dec. 20–28, July 1–3, 20, and 21; discharge estimated. Braced figures show estimated mean discharge for periods indicated. Storm Sept. 4 brought down great deal of wash from side gullies, stopped up intake pipe to recorder well and broke through banks of Saroni Canal below. Outlet gates of Topaz Lake above were closed while Saroni Canal was being repaired. Insufficient data Sept. 5–30 for determination of discharge.

Monthly discharge of West Walker River at Hoye Bridge, near Wellington Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	16	24.8	1,520
November	47	23	31.7	1,890
December	41	----------	27.6	1,700
January	44	19	29.6	1,820
February	58	14	26.7	1,480
March	205	11	82.3	5,060
April	514	65	310	18,400
May	764	543	643	39,500
June	724	394	568	33,800
July	[a] 700	252	492	30,300
August	577	314	473	29,100
The period	----------	----------	----------	165,000

[a] Estimated.

WEST WALKER RIVER NEAR HUDSON, NEV.

LOCATION.—In SE. ¼ sec. 13, T. 11 N., R. 24 E., half a mile above highway bridge in upper end of Wilson Canyon, 3 miles southeast of Hudson, Lyon County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 7, 1921, to March 1, 1925; when station was discontinued. Records for West Walker River at Hudson, August 3, 1914, to September 30, 1921.

GAGE.—Stevens continuous water-stage recorder on right bank; inspected by Walker River Irrigation District.

DISCHARGE MEASUREMENTS.—Made by wading near gage or from bridge, half a mile below gage.

CHANNEL AND CONTROL.—Channel fairly straight. Bed of sand and fine gravel with few rocks. Control is rock riffle 200 feet below gage.

EXTREMES OF DISCHARGE.—Not determined for period.

1921–1925: Maximum stage, 6.35 feet at noon June 7, 1922 (discharge, 3,530 second-feet); minimum stage, 0.88 foot September 27 to October 3, 1924 (discharge, 14 second-feet).

ICE.—Stage-discharge relation usually affected by ice.

DIVERSIONS.—Below all diversions in Smith Valley. Six canals divert between gage and mouth of river with total capacity of 100 second-feet.

REGULATION.—By Poor Lake, Topaz Lake Reservoirs, and irrigation.

ACCURACY.—Stage-discharge relation varied between narrow limits. Standard rating curve fairly well defined up to 400 second-feet; extended above. Water-stage recorder operated successfully, except when affected by ice. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method. Records fair.

COOPERATION.—Gage-height record and one discharge measurement furnished by Walker River Irrigation District.

The following discharge measurements were made:

February 28, 1925: Gage height, 1.03 feet; discharge, 22.4 second-feet.

April 8, 1925: Gage height, 1.96 feet; discharge, 107 second-feet.

Daily discharge, in second-feet, of West Walker River near Hudson, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	14	20	29	30	22	22	16	18	33	29	25	30	------
2	14	21	28	30	22	------	17	18	33	30	24	29	------
3	14	21	30	31	22	------	18	18	32		22	27	------
4	15	22	30	28	22	------	19	18	31		22	29	------
5	15	22	30	26	23	------	20	18	31		22	31	------
6	15	22	29	25	44	------	21	18	30		24	32	------
7	15	22	29	27	46	------	22	17	30		23	33	------
8	15	22	29	27	40	------	23	18	29		22	29	------
9	15	24	28	27	29	------	24	18	29		22	27	------
10	16	39	28	25	28	------	25	18	29	25	22	26	------
11	17	37	27	22	26	------	26	18	27		22	24	------
12	17	37	27	22	54	------	27	18	27		22	23	------
13	18	37	29	22	43	------	28	19	27		22	22	------
14	18	35	29	22	35	------	29	19	27		22	------	------
15	18	34	29	22	34	------	30	20	29		22	------	------
							31	20	------		22	------	------

NOTE.—No record Dec. 18 to Jan. 1; discharge estimated. Braced figures show estimated mean discharge for period indicated.

Monthly discharge of West Walker River near Hudson, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	20	14	17.1	1,050
November	39	20	28.6	1,700
December	----------	----------	27.1	1,670
January	31	22	24.1	1,480
February	54	22	30.4	1,690
The period	----------	----------	----------	7,590

HUMBOLDT-CARSON SINK BASIN

CARSON RIVER BASIN

EAST FORK OF CARSON RIVER NEAR MARKLEEVILLE, CALIF.

LOCATION.—In NE. ¼ sec. 27, T. 10 N., R. 20 E., at Hangmans Bridge 2 miles east of Markleeville, Alpine County. Indian Creek enters 100 feet above gage and Markleeville Creek 1¼ miles below.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 13, 1910, to September 30, 1925 (fragmentary).

GAGE.—Vertical staff, 75 feet below bridge, bolted to rock ledge on right bank; read by W. J. Clark.

DISCHARGE MEASUREMENTS.—Made from cable 400 feet below gage or by wading.

CHANNEL AND CONTROL.—Gravel and small boulders; appear permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.58 feet May 27 (discharge, 1,430 second-feet); minimum stage, 2.75 feet September 28 and 29 (discharge, 26 second-feet).

1910–1925: Maximum stage recorded, 7.7 feet June 7, 1911 (discharge not determined); minimum stage, 1.45 feet September 20, 1913 (discharge, 6 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—No information.

REGULATION.—Low-water flow augmented by storage developed on Silver Creek above station.

ACCURACY.—Stage-discharge relation may be permanent. Rating curve fairly well defined. Staff gage read to quarter-tenths occasionally when forest ranger passes gage; no ranger at station except during the summer. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

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

The following discharge measurement was made:

June 1, 1925: Gage height, 5.32 feet; discharge, 665 second-feet.

Daily discharge, in second-feet, of East Fork of Carson River near Markleeville, Calif., for the year ending September 30, 1925

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	------	------	660	535	------	52	18	745	------	705	------	116	30
2	------	------	------	------	------	52	19	------	------	------	------	63	------
3	------	------	------	------	98	------	22	------	------	------	------	------	------
4	------	------	448	------	------	------	23	452	------	800	------	------	------
6	------	------	------	430	------	------	24	385	------	------	116	63	------
8	------	------	------	400	------	------	25	------	------	------	------	57	------
9	------	------	535	------	------	52	26	------	------	------	------	69	------
14	------	------	------	------	63	------	27	------	1,430	------	------	63	------
15	------	------	------	------	------	30	28	------	------	------	------	------	26
17	------	------	------	------	83	------	29	------	------	------	------	------	26

NOTE.—No record on days for which no discharge is given.

EAST FORK OF CARSON RIVER NEAR GARDNERVILLE, NEV.

LOCATION.—In sec. 25, T. 12 N., R. 20 E., 300 feet below dam of Douglas Power Co., 1,000 feet above highway bridge, half a mile southwest of Rodenbah's ranch, and 5 miles southeast of Gardnerville, Douglas County.

DRAINAGE AREA.—381 square miles.

RECORDS AVAILABLE.—April 7, 1890, to December 31, 1893; October 17, 1900, to December 31, 1906; March 27, 1908, to December 26, 1910; June 22 to October 31, 1917; December 17, 1924, to September 30, 1925.

GAGE.—Vertical staff on right bank was used from December 17, 1924, to May 19, 1925, when a new enamel section to same datum was installed. Relation of datum to that of 1917 gage not determined. Gage read by Thornburg and Wood.

DISCHARGE MEASUREMENTS.—Made from highway bridge 1,000 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of large rocks and gravel. One channel at all stages. Banks high and not subject to overflow. Concrete weir control. Gage height of zero flow, 0.10 foot.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 4.00 feet at 6 a. m. May 6 (discharge, 3,350 second-feet); minimum stage, 0.29 foot December 18, 19, and 20 (discharge, 36 second-feet).

1890–1893; 1900–1906; 1908–1910; 1917; and 1925: Maximum discharge, 5,540 second-feet (estimated) December 25, 1892; minimum discharge, 8 second-feet December 4–10 and 19–23, 1904.

ICE.—Stage-discharge relation not affected by ice.

DIVERSIONS.—Above all diversions to Carson Valley, except the Rodenbah pump ditch.

REGULATION.—Flow affected to some extent by operation of Douglas Power Co.'s plant.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 1,500 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by Douglas Power Co.

Discharge measurements of East Fork of Carson River near Gardnerville, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 4	0.92	224	July 2	1.64	748
May 19	2.22	1,310	July 8	1.44	556

Daily discharge, in second-feet, of East Fork of Carson River near Gardnerville, Nev., for the year ending September 30, 1925

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		109	75	159	286	950	1,020	809	183	112
2		82	77	188	320	1,110	910	737	163	103
3		82	93	205	314	1,380	782	638	148	122
4		77	98	229	309	2,090	764	791	145	103
5		73	380	264	292	2,500	692	674	138	98
6		77	1,100	259	320	2,990	620	611	131	90
7		70	408	234	394	2,390	647	566	159	93
8		62	292	234	436	2,200	773	548	156	109
9		68	196	234	482	1,250	890	522	159	95
10		66	205	196	530	930	940	490	159	100
11		68	179	188	854	950	930	443	249	95
12		64	188	163	940	940	950	415	159	90
13		64	156	156	890	890	1,180	394	141	85
14		77	141	156	872	809	1,170	362	122	82
15		73	122	156	1,110	980	1,090	356	112	80
16		51	115	163	2,750	1,100	980	356	98	75
17	42	62	128	179	2,160	1,190	980	338	98	80
18	39	77	128	170	990	1,140	1,000	320	93	77
19	36	77	128	196	836	1,190	960	326	90	77
20	37	64	179	259	674	1,170	1,140	309	106	75
21	77	68	156	309	602	1,030	1,150	326	103	80
22	90	66	163	422	566	1,210	1,090	249	98	77
23	73	77	163	466	514	1,370	1,070	214	98	80
24	44	80	163	436	514	1,400	1,040	205	103	75
25	41	73	159	429	548	1,660	1,050	192	106	73
26	41	75	141	466	602	1,740	940	174	109	80
27	68	73	156	466	638	1,780	1,020	166	106	70
28	87	75	163	466	755	1,940	960	156	106	73
29	85	82	------	466	854	1,590	881	148	87	75
30	179	85	------	356	773	1,440	863	159	87	75
31	141	80	------	320	------	1,140	------	174	100	------

Monthly discharge of East Fork of Carson River near Gardnerville, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
December 17-31	179	36	72.0	2,140
January	109	51	73.5	4,520
February	1,100	75	202	11,200
March	466	156	277	17,000
April	2,750	286	738	43,900
May	2,990	809	1,430	87,900
June	1,180	620	949	56,500
July	809	148	393	24,200
August	249	87	126	7,750
September	122	70	86.6	5,150
The period				260,000

CARSON RIVER NEAR FORT CHURCHILL, NEV.

LOCATION.—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, Lyon County, and 10 miles east of Dayton.

DRAINAGE AREA.—1,200 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 13, 1911, to September 30, 1925.

GAGE.—Gurley water-stage recorder installed April 25, 1924, on left bank a quarter of a mile above inclined staff gage.

DISCHARGE MEASUREMENTS.—Made from suspension bridge 500 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel; shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum mean daily stage during year, 6.20 feet April 18 and May 8 (discharge, 1,960 second-feet); no flow during October.

1911–1925: Maximum stage, 11.5 feet January 26, 1914 (discharge, 6,150 second-feet); no flow August 27 to September 30, 1923, and June 28 to October 31, 1924.

ICE.—No information.

DIVERSIONS.—Carson and Dayton Valleys are irrigated above station.

REGULATION.—Flow affected by diversions.

COOPERATION.—Records of daily discharge and discharge measurements furnished by United States Bureau of Reclamation.

Discharge measurements of Carson River near Fort Churchill, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 3	2.76	2.08	Apr. 9	3.25	359	June 18	4.28	730
Jan. 23	2.40	143	Apr. 11	3.60	511	July 1	4.37	795
Feb. 7	5.79	1,980	Apr. 18	6.25	1,990	July 14	2.64	117
Feb. 10	3.52	478	May 11	4.94	992	July 25	2.25	67.5

Daily discharge, in second-feet, of Carson River near Fort Churchill, Nev., for the year ending September 30, 1925

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	21	138	225	173	327	380	623	1,120	785	34
2	27	142	225	171	318	341	690	995	712	34
3	27	140	225	169	318	307	940	860	677	31
4	26	136	222	169	336	298	1,360	820	677	31
5	27	130	215	202	350	312	1,650	785	785	31
6	31	128	213	707	390	344	1,830	750	835	31
7	31	148	202	1,750	390	350	1,930	677	760	30
8	70	148	198	880	357	356	1,960	636	622	30
9	110	152	186	580	330	365	1,650	623	540	28
10	150	154	173	472	318	387	1,390	600	432	27
11	191	160	162	443	307	460	1,140	636	350	26
12	234	188	169	436	293	645	995	654	307	27
13	193	220	164	472	277	860	968	690	253	34
14	173	215	164	483	271	860	1,020	810	202	38
15	182	195	173	450	269	875	995	885	178	38
16	180	154	164	411	267	1,020	1,080	870	121	38
17	173	-------	160	380	254	1,650	1,240	820	100	37
18	175	-------	152	383	245	1,960	1,330	760	90	34
19	173	-------	169	367	229	1,330	1,330	750	80	30
20	173	-------	182	367	247	951	1,390	795	90	30
21	169	-------	175	411	271	825	1,360	850	90	28
22	160	-------	169	499	305	737	1,260	940	100	28
23	160	-------	173	487	342	712	1,330	963	100	28
24	162	-------	175	499	398	645	1,390	963	90	28
25	160	-------	177	420	404	552	1,420	908	80	27
26	160	-------	182	357	390	506	1,490	850	71	27
27	156	-------	180	351	409	520	1,490	820	62	27
28	144	-------	175	342	436	520	1,560	908	62	25
29	142	-------	175	-------	454	548	1,590	995	54	24
30	142	-------	180	-------	472	609	1,460	923	54	24
31	-------	-------	175	-------	448	-------	1,330	-------	46	24

NOTE.—No flow during October, 1924. No record during September, 1925; estimated mean discharge, 10 second-feet.

Monthly discharge of Carson River near Fort Churchill, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0	0	0	0
November	234	21	131	7,800
January	225	152	183	11,300
February	1,750	169	458	25,400
March	472	229	336	20,700
April	1,960	298	674	40,100
May	1,960	623	1,330	81,800
June	1,120	600	822	48,900
July	835	46	303	18,600
August	38	24	30.0	1,840
September			[a]10.0	595

[a] Estimated.

MARKLEEVILLE CREEK [1] ABOVE MARKLEEVILLE, CALIF.

LOCATION.—At highway bridge above mouth of Pleasant Valley Creek, three-fourths mile above Markleeville, Alpine County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 7, 1911, to September 30, 1925 (fragmentary).

GAGE.—Vertical staff in two sections on left abutment of bridge; read by W. J. Clark; datum of gage was raised 5.71 feet August 18, 1914.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Gravel and small boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.90 feet May 5 and 6 (discharge, 340 second-feet); minimum stage, 0.70 foot August 19, 20, and 31 (discharge,1.0 second-foot).

1911–1925: Maximum stage recorded, 3.65 feet at 4.30 p. m. June 15, 1917 (discharge, 602 second-feet); minimum stage, 0.45 foot September 5, 1921 (discharge, 0.05 second-foot).

ICE.—No record obtained during winter.

DIVERSIONS.—Town ditch, which heads above the gage, furnishes water for irrigation and domestic supply at Markleeville. A small ditch also diverts water for irrigation on Hot Springs ranch.

REGULATION.—No information

ACCURACY.—Stage-discharge relation changed during year. Rating curve fairly well defined. Staff gage read to quarter-tenths occasionally when ranger is at the ranger station. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

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

The following discharge measurement was made:

June 1, 1925: Gage height, 2.01 feet; discharge, 107 second-feet.

[1] Known locally as Hot Springs Creek.

Daily discharge, in second-feet, of Markleeville Creek above Markleeville, Calif., for the year ending September 30, 1925

Day	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1		5		188	102		6	1.8
2		6		188	91		2.9	
3					82		4.5	
4				272	66			
5				340				
6				340				
7				242				
8				209				
9				169	82	18		
10								3.5
11					66			2.5
12								
13								
14				124	82			3.5
15						16	1.8	
16				160			3.5	
17						13		
18					82	13	3.5	
19				164	74	16	1.0	
20					74	16	1.0	
21	6			257			2.5	
22	6.5		66			7	2.2	3.5
23				164	42	7.5		3.5
24	7.5				40	10	3.5	2.5
25	6.5					4.5	2.9	4.5
26	7.5					2.5		4.5
27					36	3.5	2.5	
28	7		82	220		2.9		6
29	7.5		100	176	38	1.8		
30	7.5		104	146		2.5		
31							1.0	

MARKLEEVILLE CREEK AT MARKLEEVILLE, CALIF.

LOCATION.—In SE. ¼ sec. 21, T. 10 N., R. 20 E., at highway bridge at Markleeville, Alpine County, three-fourths of a mile below junction with Pleasant Valley Creek.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—November 11, 1910, to September 30, 1925 (fragmentary).

GAGE.—Vertical staff on left abutment of highway bridge near downstream end; read by W. J. Clark.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Gravel and boulders; somewhat shifting during high water. Banks are high and not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.3 feet May 6 (discharge, 750 second-feet); minimum stage, 0.8 foot August 26(discharge, 4.5 second-feet).

1910–1925: Maximum stage recorded, 5.3 feet June 15, 1912 (discharge, 915 second-feet); minimum stage, 0.65 foot September 6, 1920 (discharge, 2.0 second-feet). Flood of March, 1907, reached a stage of about 9 feet.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—See "Markleeville Creek near Markleeville." Water is also diverted from Pleasant Valley Creek for irrigation.

REGULATION.—Diversions partly regulate flow. Some storage has been developed on Pleasant Valley Creek.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve fairly well defined. Staff gage read to hundredths occasionally except during winter when no observer is available. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

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

The following discharge measurement was made:
June 1, 1925: Gage height, 3.06 feet; discharge, 254 second-feet.

Daily discharge, in second-feet, of Markleeville Creek at Markleeville, Calif., for the year ending September 30, 1925

Day	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1				387	265	96		36
2		13			218		12	29
3		26			218		29	26
4				650	176			21
5				700				
6				750		73		
7				600		73		15
8				464		65		
9				352	197	68		14
10								
11				278				
12				265				
13				241				
14				265				21
15				320	218			21
16				352	176			
17					197		7	
18			320	320	197		7	
19				387			8.5	
20				424		26		
21	15							
22	17			424	176	26		15
23			141	464	158		6	
24	15		141	464		22		
25	15			507		19	14	13
26	12			507	133	23	4.5	12
27				424	141		5.5	
28	13		218	552		15		12
29	15		253	424	125	13		
30	14		241	352	110			
31				292		12	29	

HUMBOLDT RIVER BASIN

HUMBOLDT RIVER AT PALISADE, NEV.

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

DRAINAGE AREA.—5,010 square miles (measured on Land Office maps).

RECORDS AVAILABLE.—November 27, 1920, to October 19, 1906, July 26, 1911, to September 30, 1925.

GAGE.—Chain gage at highway bridge since December 1, 1911; read daily by Mrs. Wendell Jones.

DISCHARGE MEASUREMENTS.—Made from railroad bridge half a mile below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. One channel at all stages. Control at low stages is gravel bar 50 to 75 feet below gage; at high stages a pile bent railroad bridge about 300 feet below gage and rock riffle a few hundred feet farther downstream become effective. Both fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.31 feet June 8 (discharge, 2,220 second-feet); minimum stage recorded, 1.24 feet October 1 (discharge, 15 second-feet).

1903–1906; 1911–1925: Maximum stage recorded, 8.6 feet at 10 a. m. March 3, 1921 (discharge, 4,300 second-feet). Minimum discharge, 9 second-feet August 25 to September 18, 1919, August 24, 29, and 31, 1924.

ICE.—Stage-discharge relation affected by ice.
DIVERSIONS.—Some water diverted for irrigation in valleys above canyon.
REGULATION.—Flow affected by irrigation diversions above.
ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Gage read to hundredths once daily, except December 14 to January 10. Daily discharge ascertained by applying daily gage height to rating table. Discharge estimated for days when gage heights were not recorded. Daily discharge good, estimated periods fair.

Discharge measurements of Humboldt River at Palisade, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	1.24	15.2	May 27	5.73	1,800
Feb. 21	3.00	280	June 23	4.74	1,120
Mar. 12	3.20	357	July 13	3.87	652
May 5	4.45	979			

Daily discharge, in second-feet, of Humboldt River at Palisade, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	28	34		101	306	561	1,140	1,670	1,150	153	49
2	16	24	33		107	320	543	1,130	1,660	1,160	141	45
3	17	22	32		131	327	561	1,060	1,680	1,100	137	44
4	17	22	33		160	380	561	960	1,710	1,130	137	45
5	18	24	32		192	458	570	972	1,800	1,370	122	44
				50								
6	17	24	29		364	471	561	984	1,910	1,230	115	45
7	16	26	31		431	426	580	996	2,100	1,100	109	45
8	17	28	32		293	401	660	1,030	2,220	1,030	99	44
9	17	34	33		250	418	690	1,060	2,120	954	88	47
10	16	39	32		306	392	730	1,060	2,010	882	85	51
11	17	36	33	52	286	352	780	1,100	1,910	850	102	49
12	18	32	34	53	268	345	840	1,150	1,520	770	119	47
13	17	30	36	56	262	330	830	1,190	1,400	660	133	45
14	18	29		58	256	330	820	1,160	1,280	580	153	44
15	17	29		58	250	323	810	1,150	1,180	498	141	45
			35									
16	18	30		58	239	323	820	1,140	1,120	435	115	45
17	18	35		54	233	330	820	1,160	1,080	418	102	47
18	18	38		54	233	303	850	1,210	1,010	368	99	49
19	18	39		57	239	316	870	1,220	996	323	93	49
20	18	43		59	233	330	966	1,180	948	296	88	58
21	18	44		59	300	384	1,000	1,320	1,010	271	82	112
22	20	41		59	286	426	1,160	1,490	1,070	392	77	119
23	22	36	30	57	274	444	1,260	1,600	1,150	368	72	112
24	22	39		59	268	471	1,430	1,600	1,140	323	67	105
25	22	40		64	268	489	1,680	1,590	1,130	283	65	102
26	24	42		68	280	516	1,710	1,740	1,120	231	60	99
27	24	40		73	286	534	1,640	1,810	1,100	220	58	96
28	24	40		76	293	516	1,430	1,740	1,090	189	58	93
29	28	37		76	-------	534	1,240	1,710	1,120	157	56	96
30	32	36	40	86	-------	525	1,160	1,710	1,150	162	53	93
31	30	-------		95	-------	570	-------	1,700	-------	157	51	------

NOTE.—Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Humboldt River at Palisade, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	32	15	19.6	1,210
November	44	22	33.6	2,000
December	----------	----------	32.7	2,010
January	95	----------	59.1	3,630
February	431	101	253	14,100
March	570	303	406	25,000
April	1,710	543	938	55,800
May	1,810	960	1,290	79,300
June	2,220	948	1,410	83,900
July	1,370	157	615	37,800
August	153	51	97.7	6,010
September	119	44	65.5	3,900
The year	2,220	15	435	315,000

HUMBOLDT RIVER AT COMUS, NEV.

LOCATION.—In NW. ¼ sec. 14, T. 36 N., R. 41 E., at Comus, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—September 25, 1917, to June 30, 1923, and May 23, 1925, to September 30, 1925.

GAGE.—Inclined staff on left bank 160 feet above Southern Pacific section house; established September 25, 1917; read by Charles Helton.

DISCHARGE MEASUREMENTS.—Made from cable or by wading near gage.

CHANNEL AND CONTROL.—Channel is about 125 feet wide and 8 feet deep. Bed composed of fine gravel and sand. Low-water control is gravel bar 150 feet downstream.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 7.3 feet June 18 (discharge, 1,180 second-feet); minimum stage, 1.42 feet September 4 (discharge, 28 second-feet).

1918–1925: Maximum stage recorded, 10.9 feet June 24 to 26, 1921 (discharge, 2,700 second-feet); no flow during periods in 1918, 1919, 1920, and 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Water is diverted all along river both above and below this station. Practically all flow during irrigation season is seepage.

REGULATION.—None except by diversion.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Gage read to hundredths once daily from May 23 to September 30. Daily discharge ascertained by applying daily gage height to rating table. Records good.

Discharge measurements of Humboldt River at Comus, Nev., during the years ending September 30, 1924 and 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1923	*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 6	1.65	32.3	June 22	1.00	4.8	Mar. 9	3.09	290
			Sept. 21	.70	.4	May 23	4.51	543
1924						June 24	5.80	773
Apr. 6	2.24	139	1925			July 12	5.60	767
May 1	1.72	63.0	Feb. 22	2.60	200			

Daily discharge, in second-feet, of Humboldt River at Comus, Nev., for the year ending September 30, 1925

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	------	616	559	256	38	16	------	1,090	690	165	38
2	------	671	614	237	36	17	------	1,150	654	148	38
3	------	730	595	218	36	18	------	1,180	614	132	36
4	------	822	595	218	28	19	------	1,150	559	116	36
5	------	860	614	200	36	20	------	1,090	541	101	36
6	------	835	652	200	47	21	------	1,040	523	101	38
7	------	860	671	182	59	22	------	960	487	101	36
8	------	935	710	165	59	23	543	860	452	86	36
9	------	1,010	716	148	72	24	487	800	421	86	38
10	------	1,010	860	148	59	25	505	750	418	86	47
11	------	1,010	792	182	59	26	487	595	401	72	47
12	------	990	750	132	49	27	543	559	387	62	39
13	------	1,010	734	132	47	28	579	505	384	59	47
14	------	1,090	734	135	38	29	559	491	352	49	59
15	------	1,120	712	132	47	30	595	545	330	47	51
						31	595	------	294	47	------

Monthly discharge of Humboldt River at Comus, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
May 23-31	595	487	544	9,710
June	1,180	491	878	52,200
July	860	294	575	35,400
August	256	47	134	8,240
September	72	28	44.4	2,640
The period				108,000

HUMBOLDT RIVER AT WINNEMUCCA, NEV.

LOCATION.—At bridge near Western Pacific depot at Winnemucca, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1924, to June 3, 1925, when station was discontinued.

GAGE.—Wooden vertical staff on downstream side of middle pier of concrete bridge; read by C. B. Smith.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

CHANNEL AND CONTROL.—Bed of sand; one channel at low stages; several at very high stages. Control is a coarse sand bar 200 feet below gage.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Numerous diversions above and below.

REGULATION.—Some by diversion dams.

ACCURACY.—Stage-discharge relation permanent during period except when affected by ice December 4–31 and by backwater from dam below February 27 to March 31. Rating curve well defined. Gage read to half-tenths once daily. Daily discharge ascertained by applying daily gage height to rating table. Records fair except for periods affected by ice and backwater for which they may be poor.

Discharge measurements of Humboldt River at Winnemucca, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Sept. 21	1.17	3.7	May 12	5.50	425
Dec. 18	[a] 1.40	5.3	May 22	6.15	529
Feb. 23	3.00	137			

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Humboldt River at Winnemucca, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1	5	14	12	10	109		237	640	690
2	5	15	12	17	109		237	592	750
3	5	17	12	17	104		237	548	750
4	5	17		17	104		207	504	-------
5	5	17		17	104		202	504	-------
6	5	14		17	104		197	488	-------
7	7	14		20	104		197	538	-------
8	7	14		23	106		197	592	-------
9	7	14		20	109		187	574	-------
10	7	14		26	114		227	515	-------
11	7	14	8	26	118		222	456	-------
12	7	14		26	118		184	424	-------
13	7	14		42	118		147	410	-------
14	7	13		42	118		118	410	-------
15	4	13		46	118		118	410	-------
16	4	13		46	122	290	118	424	-------
17	8	12		46	124		118	424	-------
18	2	12	5	46	127		122	424	-------
19	5	12		46	127		100	424	-------
20	5	12		50	132		96	424	-------
21	5	12		50	137		92	464	-------
22	5	12		53	137		92	538	-------
23	7	12		60	137		104	504	-------
24	7	12		68	137		118	488	-------
25	7	12	5	76	137		127	472	-------
26	9	12		88	137		172	592	-------
27	9	12		96	187		217	556	-------
28	9	12		100	237		227	592	-------
29	12	12		109	-------		448	592	-------
30	14	12		109	-------		670	592	-------
31	14	-------		109	-------		-------	641	-------

NOTE.—No gage-height record Oct. 5, 16, Nov. 2, 9, 14–16, 30, Jan. 1, 4, 11, Feb. 1, 8, 17, 22, Apr. 5, 12, 26, 29, May 3, 10, 24, and 31; discharge estimated. Stage-discharge relation affected by ice Dec. 4–31 and by backwater from dam below Feb. 27 to Mar. 31; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Humboldt River at Winnemucca, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	14	2	6.8	418
November	17	12	13.3	791
December	12	-------	[a] 7.0	430
January	109	10	49.0	3,010
February	[a] 237	104	126	7,000
March	-------	-------	[a] 290	17,800
April	670	92	191	11,400
May	[a] 641	410	508	31,200
The period	-------	-------	-------	72,000

[a] Estimated.

HUMBOLDT RIVER NEAR OREANA, NEV.

LOCATION.—In sec. 35, T. 29 N., R. 32 E., 2 miles above highway bridge near J. J. McCarthy's ranch and 2 miles southwest of Oreana, Pershing County.

DRAINAGE AREA.—13,800 square miles (measured on map issued by General Land Office.)

RECORDS AVAILABLE.—January 27, 1896, to December 31, 1909; September 7, 1910, to September 30, 1922; September 24, 1924, to September 30, 1925; fragmentary.

GAGE.—Stevens water-stage recorder on right bank since September 24, 1924; inspected by W. G. Lamoreaux.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet below gage or by wading.

CHANNEL AND CONTROL.—Bed composed of sand. Right bank high and comparatively clean. Left bank not subject to overflow, but subject to caving. Principal control not well defined but is probably about half a mile below gage, where bed is composed of firm clay; fairly permanent. Low-water control is about 50 feet below gage.

EXTREMES OF DISCHARGE.—1896–1925: Maximum stage recorded, 12.0 feet May 12, 1897 (discharge, 3,050 second-feet); minimum discharge, no flow during periods in 1905, 1915, 1918, and 1920.

ICE.—Stage-discharge relation seriously affected by ice every winter.

DIVERSIONS.—Station is above all diversions for Lovelock district, but considerable water is diverted above station for direct irrigation and storage.

REGULATION.—Flow is affected by water stored and released by Humboldt-Lovelock Irrigation, Light & Power Co. at its reservoirs a few miles up river, near Humboldt.

ACCURACY.—Stage-discharge relation permanent for period used. Rating curve well defined. Stevens continuous water-stage recorder operated only for intermittent periods; see footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height or weekly reading to rating table. Records good; estimates fair.

Discharge measurements of Humboldt River near Oreana, Nev., during the years ending September 30, 1923–1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1922	*Feet*	*Sec.-ft.*	1923	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*
Oct. 6	1.01	38.7	May 29	1.56	128	Feb. 26	1.46	85.5
Oct. 21	.76	19.7	Oct. 10		39.3	Mar. 5	1.08	29.6
						May 14	2.80	354
1923			1924			June 26	3.30	521
Jan. 26	[a] 1.96	105	Apr. 10	1.63	120	July 11	3.09	415
Feb. 1	[a] 3.05	167	May 4	1.85	161			
Mar. 11	2.45	273	June 16	1.27	57.9			
May 4	1.97	183	Sept. 24	.58	1.2			
			Dec. 18		[b]			

[a] Stage-discharge relation affected by ice.
[b] Complete ice cover; discharge estimated between 3 and 5 second-feet.

Daily discharge, in second-feet, of Humboldt River near Oreana, Nev., for the period September 24, 1924, to July 15, 1925

Day	Sept.	Oct.	Feb.	Mar.	Apr.	May	June	July
1		12		81	40	123		541
2		13		75	37	140		
3		14		68	35	94		
4		14		49	34	94	350	
5		16		33	38	94		
6		17		31	42	84		385
7		17		29	40	153		
8		18		28	41	192	375	
9		19		28	41	327	415	
10		16		26	38	412	420	
11		14		26	38	375	468	426
12		13		26	40	380	535	462
13		12		25	42	359	564	510
14		12		24	42	352	567	506
15		12		26	40	327	560	513
16		12		34	31	276	516	
17		12		48	26	255	471	
18		11		64	25	247	476	
19		11		86	23	267	459	
20		11	58	88	23	311	460	
21		11	75	88	23	306	460	
22		11	75	66	23	318	479	
23		12	77	59	23	324	480	
24	2	11	84	55	24		485	
25	2	11	86	52	26		490	
26	6	11	86	46	25		491	
27	8		64	45	23	320	510	
28	8		73	41	23		522	
29	8	11		40	23		513	
30	10			41	26		573	
31				41		324		

NOTE.—No gage-height record Oct. 27 to Feb. 19, May 7–10, 12, 24–30, June 1–7, 20, 21, 23–25, July 2–5, and 7–10. Braced figures show estimated mean discharge for periods indicated. Discharge also estimated May 7–10, 12, June 20, 21, and 23–25.

Monthly discharge of Humboldt River near Oreana, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	19	11	12.8	787
February 20–28	86	58	75.3	1,340
March	88	24	47.4	2,910
April	42	23	31.8	1,890
May	412	84	270	16,600
June	573		458	27,300

HUMBOLDT RIVER NEAR LOVELOCK, NEV.

LOCATION.—In NW. ¼ sec. 11, T. 25 N., R. 31 E., 1,500 feet below dam and reservoir on Big 5 ranch, and 9 miles south of Lovelock, Humboldt County.

DRAINAGE AREA.—14,200 square miles (measured on General Land Office maps).

RECORDS AVAILABLE.—February 7, 1912, to September 30, 1925, fragmentary.

GAGE.—Lietz water-stage recorder on right bank since October 10, 1921; inspected by H. F. Sommer.

DISCHARGE MEASUREMENTS.—Made from cable at gage or by wading.

CHANNEL AND CONTROL.—Bed is composed of firm clay. Control fairly permanent. One channel at all stages.

EXTREMES OF DISCHARGE.—1912–1925: Maximum stage recorded, 5.90 feet May 29 and 30, 1922 (discharge, 1,700 second-feet); minimum stage, stream dry for periods in nearly every year.

ICE.—Seldom affected by ice.

DIVERSIONS.—Below all irrigation diversions but one.

REGULATION.—Flow regulated by irrigation diversions and storage.

Station was visited and river found dry February 26, 1925. Station was visited on June 26, 1925, and it was estimated that about 10 second-feet was passing the gage. This was being diverted just below and not entering Humboldt Sink.

No flow into Humboldt Sink during the year.

MARYS RIVER NEAR DEETH, NEV.

LOCATION.—In NW. ¼ sec. 31, T. 40 N., R. 60 E., at bridge 300 feet east of Mala Vista ranch house of Nevada Land & Livestock Co. and 19 miles north of Deeth, Elko County.

DRAINAGE AREA.—355 square miles (measured on map of Nevada issued by General Land Office, edition of 1908).

RECORDS AVAILABLE.—November 24, 1902, to July 14, 1903; January 17, 1912, to September 30, 1925.

GAGE.—Vertical staff on right bank since April 12, 1923, read by Herbert Clayton.

DISCHARGE MEASUREMENTS.—Made from bridge at gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and loose sand; banks below gage subject to caving; one channel at all stages. Rock and gravel control 25 feet below gage, slightly shifting. Point of zero flow at gage height about 1.6 feet; determined September 30, 1924.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.30 feet at 1.40 p. m. May 10 (discharge, 410 second-feet). Minimum discharge, 1 second-foot October 1–21.

1912–1925: Maximum stage recorded, 7.70 feet at 2 p. m. May 8, 1922 (discharge, 616 second-feet); practically no flow part of August and September, 1924.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Station is below all diversions, except one small ditch on the Mala Vista ranch and Cross ranch diversions about 12 miles below.

REGULATION.—During low-water periods flow is affected by diversions above.

ACCURACY.—Stage-discharge relation changed during winter; returned to normal in May; affected by ice December 21 to February 17. Rating curve well defined. Gage read to hundredths once daily, except during period of ice effect. Daily discharge ascertained by applying daily gage height to rating table, using shifting-control method February 18 to May 3. Records fair.

Discharge measurements of Marys River near Deeth, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 18	2.42	15.0	June 17	3.25	55.7
May 9	6.23	403	July 15	2.45	9.9
May 24	5.26	264			

Daily discharge, in second-feet, of Marys River near Deeth, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	2	6			16	58	236	121		6	3
2	1	3	6			15	93	260	116	28	6	3
3	1	3	6			16	64	279	111		6	3
4	1	3	6			15	68	297	106		6	3
5	1	3	6			17	73	317	96	19	6	3
6	1	3	5			19	100	338	91	18	5	3
7	1	3	5			20	118	359	86	16	5	3
8	1	3	5			24	132	395	77	15	5	3
9	1	3	5			22	172	402	68	14	5	3
10	1	3	5		8	18	206	410	64	14	4	3
11	1	3	5			20	235	395	64	12	4	3
12	1	3	4			20	265	380	60	11	4	3
13	1	3	4			20	290	373	56	11	4	3
14	1	3	5			20	316	338	56	10	4	3
15	1	3	5			19	337	317	52	10	4	3
16	1	3	5	5		20	358	297	51	9	4	3
17	1	3	5			20	372	284	49	8	4	3
18	1	3	5		14	23	394	278	49	8	4	3
19	1	4	5		15	26	363	284	48	10	3	4
20	1	4	5		10	44	335	297	48	10	3	4
21	1	3			12	47	307	317	49	9	3	4
22	2	3			14	50	281	324	48	8	3	4
23	2	3			15	53	269	331	46	8	3	4
24	2	4			17	59	255	265	45	8	3	4
25	2	4			16	55	243	235	44	8	3	5
26	2	3	5		15	57	225	211	42	7	3	5
27	2	4			15	63	208	184	41	7	3	5
28	2	4			16	75	202	162	39	7	3	5
29	2	6			-------	82	201	146	38	7	3	5
30	2	6			-------	83	218	136	37	7	3	5
31	2	-------			-------	91	-------	126	-------	7	3	-------

NOTE.—Stage-discharge relation affected by ice Dec. 21 to Feb. 17. No record July 1–4. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Marys River near Deeth, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2	1	1.3	80
November	6	2	3.4	202
December	6	4	5.1	314
January	----------	----------	*5.0	307
February	17	----------	10.5	583
March	91	15	36.4	2,240
April	394	58	225	13,400
May	410	126	289	17,800
June	121	37	63.3	3,770
July	----------	7	12.6	775
August	6	3	4.0	246
September	5	3	3.6	214
The year	410	1	55.2	39,900

* Estimated.

SOUTH FORK OF HUMBOLDT RIVER NEAR ELKO, NEV.

LOCATION.—In sec. 19, T. 33 N., R. 55 E., at head of canyon below Cowlings ranch, 4 miles above mouth and 10 miles southwest of Elko, Elko County.

DRAINAGE AREA.—Not measured (1,150 square miles at old station 1½ miles above.

RECORDS AVAILABLE.—August 29, 1896, to December 31, 1909; September 9, 1910, to January 31, 1921; April 1 to November 30, 1921; March 29 to September 30, 1922, and October 1, 1923, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank 1½ miles below highway bridge since November 14, 1913; inspected by Albert Lamori.

DISCHARGE MEASUREMENTS.—Made from cable 110 feet above gage or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. Basalt dike a short distance below gage affords well-defined control. One channel at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, 5.35 feet at 5 p. m. July 4 (discharge, 1,470 second-feet); practically no flow during first few days of October

1896–1925: Maximum discharge recorded, 2,400 second-feet January 26, 1914; river dry at times in 1915, 1916, 1918, 1919, 1921, 1924, and 1925.

ICE.—Stage-discharge relation seriously affected by ice during winter.

DIVERSIONS.—Below all tributaries and all diversions except those of Hunter & Banks ranch 3 miles downstream.

REGULATION.—Flow affected by diversions above.

ACCURACY.—Stage-discharge relation permanent during year; affected by ice November 16 to February 28. Rating curve well defined. Operation of water-stage recorder satisfactory except as stated in footnote to daily-discharge table. Daily discharge determined by applying to rating table mean daily gage height determined from recorder graph or staff reading. For periods of no gage readings, discharge estimated from temperature charts and hydrographic comparison with Humboldt River at Palisade. Records for estimated periods fair; others good.

Discharge measurements of South Fork of Humboldt River near Elko, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 17	[a] 1.87	42.2	May 28	3.37	593
Mar. 11	1.20	51.3	June 16	2.87	404
Apr. 21	1.92	159	July 13	1.90	157
May 10	2.86	392			

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of South Fork of Humboldt River near Elko, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		13				47	90	246	574	530	30	5
2		15				44	87	256	546	466	32	4
3						46	83	279	518	415	34	4
4						47	82	323	566	526	28	5
5		15				51	87	371	654	486	25	6
6	4					57	108	408	815	387	23	6
7						58	130	422	730	356	20	6
8			15	15	30	55	133	422	542	274	18	9
9		15				55	136	408	474	238	16	11
10						52	139	380	454	216	17	11
11						51	144	365	429	195	31	11
12	6	15				46	147	356	412	175	31	11
13	5					47	164	308	436	156	30	11
14	4					48	162	266	450	145	23	11
15	4					50	162	240	418	147	22	11

Daily discharge, in second-feet, of South Fork of Humboldt River near Elko, Nev., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	6		15		30	48	160	274	387	142	19	10
17	6				42	47	160	359	359	113	16	9
18	7					46	160	356	365	100	15	9
19	7					45	158	490	387	89	14	14
20	7					44	155	690	462	84	13	56
21	9					46	152	670	566	320	10	30
22	11					47	171	650	686	128	9	25
23	12	20		15	43	52	210	578	670	108	7	25
24	12					57	290	518	610	79	6	20
25	11		10			62	344	510	578	64	6	20
26	11					67	365	540	518	53	7	20
27	11					72	335	546	470	48	13	20
28	11					79	285	594	446	43	7	19
29	12				-------	86	258	650	518	44	5	20
30	13				-------	89	248	678	602	56	3	19
31	13	-------			-------	90	-------	630	-------	37	3	-------

NOTE.—No gage-height record Oct. 1–11, Nov. 3 to Feb. 28, Mar. 13, 14, 17–19, 23–26, Apr. 2, 8–11, 14–17, 20, May 21, 25, 26, Sept. 21–26, and 28–30; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of South Fork of Humboldt River near Elko, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	13	----------	7.2	443
November	----------	----------	17.4	1,040
December	----------	----------	[a] 12.7	781
January	----------	----------	[a] 15.0	922
February	----------	----------	35.5	1,970
March	90	44	55.8	3,430
April	365	82	117	10,500
May	690	240	445	27,400
June	815	359	521	31,000
July	530	37	201	12,400
August	34	3	17.2	1,060
September	56	4	14.6	869
The year	815	----------	127	91,800

[a] Estimated.

ROCK CREEK NEAR BATTLE MOUNTAIN, NEV.

LOCATION.—In NE. ¼ sec. 17, T. 34 N., R. 48 E., at mouth of canyon below all tributaries, half a mile above highway bridge on Overland Trail, in Eureka County, and 25 miles northeast of Battle Mountain, Lander County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 26, 1918, to September 30, 1923; April 5 to September 30, 1924; April 20 to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed March 26, 1918.

DISCHARGE MEASUREMENTS.—Made by wading near gage or from highway bridge half a mile downstream.

CHANNEL AND CONTROL.—One channel at all stages. Banks high and not subject to overflow. Stream bed composed of gravel and boulders. Principal control is rock riffle 50 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during period, 2.00 feet April 20 (discharge, 92 second-feet). Minimum not determined.

1918–1925: Maximum stage, 5.54 feet at 1 a. m. February 11, 1921 (discharge, 2,240 second-feet); no flow during parts of October, July, August, and September nearly every year.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—There are diversions in valleys above canyon. Station is above all diversions in Boulder Flat and is below all tributaries.

REGULATION.—A small reservoir in Squaw Valley about 30 miles upstream may affect run-off to small extent.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Operation of water-stage recorder satisfactory April 20 to June 20, June 24 to July 8, and July 21–24. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good; estimates fair.

The following discharge measurements were made:

April 20, 1925: Gage height, 2.00 feet; discharge, 91.3 second-feet.

May 11, 1925: Gage height, 1.22 feet; discharge, 10.0 second-feet.

June 24, 1925: Gage height, 0.86 foot; discharge estimated, 2.0 second-feet.

Daily discharge, in second-feet, of Rock Creek near Battle Mountain, Nev., for the year ending September 30, 1925

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1	------	9	2				16	------	32	21			
2	------	14	2				17	------	33	24			
3	------	41	4				18	------	30	20	1		
4	------	18	15				19	------	24	15			
5	------	16	37				20	92	23	10			
6	------	16	32				21	84	26	8	4		
7	------	20	16				22	69	24	6	5		
8	------	23	10	1	1	1	23	69	20	4	1	1	1
9	------	21	7				24	54	18	2	1		
10	------	18	4				25	34	18				
1	------	12	4				26	26	14				
12	------	15	6				27	20	8	1			
13	------	12	13				28	14	6		1		
14	------	20	15				29	10	4				
15	------	22	16				30	9	4				
							31	------	3	------			-----

NOTE.—Flow during October, 1924, less than 1 second-foot. Discharge estimated June 21–23. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Rock Creek near Battle Mountain, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
April 20–30	92	9	43.7	954
May	41	3	18.2	1,120
June	37	----------	10.0	595
July	5	----------	1.2	74
August	----------	----------	1	61
September	----------	----------	1	60
The period	----------	----------	----------	2,860

LITTLE HUMBOLDT RIVER NEAR PARADISE VALLEY, NEV.

LOCATION.—In NE. ¼ sec. 19, T. 41 N., R. 41 E., 300 feet south of Humboldt Hot Springs, 40 miles northeast of Winnemucca, and 11 miles southeast of Paradise Valley, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1921, to September 30, 1923, and April 1, 1924, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; installed October 2, 1921; inspected by G. S. Reed.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge 4 miles above gage.

CHANNEL AND CONTROL.—Bed composed of firm sand and clay. One channel for all stages. Control is shale ledge 40 feet below gage.

EXTREMES OF DISCHARGE.—Maximum discharge during year, 36 second-feet from 9 a. m. to noon March 20 and 2 a. m. March 29; minimum discharge, probably 5 second-feet December 28.

1922–1925: Maximum stage, 9.30 feet at 8 a. m. May 8, 1922 (discharge, 331 second-feet); minimum discharge, 5 second-feet December 28, 1924.

ICE.—Stage-discharge relation seldom affected by ice.

DIVERSIONS.—Above all diversions in Paradise Valley. Bull Head ranch diverts in valley above.

REGULATION.—Affected by Bull Head irrigation diversion.

ACCURACY.—Stage-discharge relation shifted during year. Standard rating curve fairly well defined. Operation of water-stage recorder satisfactory, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph, using shifting-control method. Owing to insufficient number of discharge measurements, record may be poor.

The following discharge measurements were made:

February 24, 1925: Gage height, 3.35 feet: discharge, 24.4 second-feet.

May 13, 1925: Gage height, 3.44 feet; discharge, 20.9 second-feet.

June 25, 1925: Gage height, 2.83 feet; discharge, 8.8 second-feet.

Daily discharge, in second-feet, of Little Humboldt River near Paradise Valley, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	11	11		18	25	29	27	10	10		
2	9	11	11		20	25	29	25	11	9		
3	10	10	11	9	22	26	31	25	13	8		
4	10	10	11		22	26	29	25	17	9		
5	10	11	11		18	25	25	25	17	11		
6	10	11	11	11	13	24	26	25	19	11		
7	10	11	11		12	22	27	24	18	10		
8	10	11	11		10	19	26	22	15	9		
9	10	11	12		10	18	24	21	12	8		
10	10		11		13	19	23	20	11	8		
11	10		10	12	17	21	22	21	11	8	8	10
12	10		9		19	23	21	21	11	8		
13	10		8		20	24	20	20	11	8		
14	10		8		20	24	20	21	11	8		
15	10	11		13	19	24	21	21	11	8		
16	10				21	24	18	20	11	8		
17	10		6		23	25	16	23	10			
18	10			15	24	25	15	22	12		8	
19	10				25	32	15	17	11			
20	10				25	35	15	16	10			

Daily discharge, in second-feet, of Little Humboldt River near Paradise Valley, Nev., for the year ending September 30, 1925—Continued

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

NOTE.—No gage-height record Nov. 10–29, Dec. 11–13, 15–27, 29–31, Jan. 1–5, 7–14, 16–31, Feb. 1, 2, May 7–9, June 22, and July 17 to Sept. 30; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Little Humboldt River near Paradise Valley, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	10	9	9.9	609
November	11	10	10.9	649
December	12	5	8.0	492
January	----------	----------	13.1	806
February	26	10	20.2	1,120
March	35	18	26.3	1,620
April	31	15	22.7	1,350
May	27	10	20.1	1,240
June	19	9	11.6	690
July	11	----------	8.4	516
August	----------	----------	[a] 8	492
September	----------	----------	[a] 10	595
The year	35	5	14.1	10,200

[a] Estimated.

MARTIN CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—In SE. ¼ NE. ¼ sec. 11, T. 42 N., R. 40 E., 1½ miles above Silver State flour mill and 8 miles northeast of Paradise Valley, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1921, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on right bank; installed March 21, 1923; inspected by Edmond Recanzone.

DISCHARGE MEASUREMENTS.—Made from bridge 2½ miles below gage or by wading.

CHANNEL AND CONTROL.—Channel of rock and earth. One channel at all stages. Control is rock and gravel riffle immediately below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, about 8.6 feet February 4 (discharge, about 450 second-feet); minimum stage, 3.64 feet several days in July, August, and September (discharge, 6 second-feet).

1922–1925: Maximum stage, about 8.6 feet February 4, 1925 (discharge, about 450 second-feet); minimum stage, 3.54 feet parts of August 16–18, 1923 (discharge less than 5 second-feet).

ICE.—Stage-discharge relation slightly affected by ice.

REGULATION.—None.

DIVERSIONS.—None above gage.

ACCURACY.—Stage-discharge relation permanent during year. Rating curve well defined below 70 second-feet; extended above. Water-stage recorder operated satisfactorily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height or weekly gage reading to rating table. Discharge interpolated or estimated for days of missing gage heights. Records good; estimates October to February may be poor.

The following discharge measurements were made:
February 24, 1925: Gage height, 3.90 feet; discharge, 16.3 second-feet.
May 13, 1925: Gage height, 4.53 feet; discharge, 61.4 second-feet.
June 25, 1925: Gage height, 3.86 feet; discharge, 14.1 second-feet.

Daily discharge, in second-feet, of Martin Creek near Paradise Valley, Nev., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7			10	20	17	33	56	36	12		7
2	7			10	20	20	31	64	34	11		6
3	7				200	23	31	77	33	10		
4	7				300	28	33	86	32	10	6	
5	7	9			100	41	34	91	31	10		
6					70	34	36	112	29	10		
7					43	29	37	119	28	9		7
8	10				41	26	42	96	27	8	6	
9		8			30	20	52	87	26	8	6	
10				11		24	62	82	25	7	6	
11					18	80	72	24	7	8		
12					20	20	79	65	24	7	10	8
13						20	77	59	23	7	11	8
14						19	78	61	24	7	10	8
15	12				17	21	85	61	24	6	9	8
16		11	10			22	97	67	24	6	8	9
17						20	98	69	23	6	8	9
18				12	17	20	81	64	21	6	7	9
19	12					23	76	65	19	6	7	9
20						26	71	64	18	7	7	9
21				14	19	34	66	64	18	7	7	8
22	12				18	40	62	55	18	8	7	8
23		11			16	57	56	49	16	8	7	7
24					15	43	48	48	15	7	7	8
25					15	43	36	47	14	7	8	7
26	12	11			16	35	37	44	14	6	7	8
27					17	37	38	41	13	6	7	8
28				15	16	36	40	39	12	6	7	9
29	15				-------	39	43	38	13	6	7	9
30		12			-------	34	49	37	15	6	7	9
31		-------	10		-------	36	-------	37	-------	6	7	-------

NOTE.—Discharge for following periods estimated or interpolated because of lack of gage-height records: Oct. 1-4, 6-18, 20-25, 27-31, Nov. 1-8, 10-22, 24-29, Dec. 1-30, Jan. 1, 3-17, 19-31, Feb. 1-6, 9-14, 16-20, 22, 23, Apr. 20, 21, May 26, 27, July 30, 31, Aug. 1-7, Sept. 3-11, and 13-19. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Martin Creek near Paradise Valley, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	7	11.4	701
November	----------	----------	10.4	619
December	----------	----------	10	615
January	----------	----------	12.5	769
February	[a] 300	15	41.4	2,300
March	57	17	29.2	1,800
April	98	31	56.3	3,350
May	119	37	65	4,000
June	36	12	22.4	1,330
July	12	6	7.5	461
August	11	6	7.2	443
September	9	6	7.8	464
The year	----------	6	23.3	16,900

[a] Estimated

COTTONWOOD CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—In SW. ¼ sec. 3, T. 42 N., R. 39 E., at Case ranch, 5 miles north of Paradise Valley, Humboldt County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—May 22 to September 30, 1925.

GAGE.—Vertical enameled staff on left bank; installed May 22, 1925; read by J. S. Case.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed of gravel; one channel. Banks not subject to overflow. Control of large boulders.

ICE.—Stage-discharge relation probably affected by ice.

DIVERSIONS.—Several diversions above and below station.

REGULATION.—None, except by diversions.

ACCURACY.—Stage-discharge relation permanent. Rating curve fairly well defined. Gage read to hundredths once daily, sometimes twice. Daily discharge ascertained by applying daily gage height or mean daily gage height to rating table. Records fair.

Discharge measurements of Cottonwood Creek near Paradise Valley, Nev., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
1911	*Feet*	*Sec.-ft.*	1912	*Feet*	*Sec.-ft.*
Feb. 24		2.5	May 22	4.90	22.4
Mar. 6		5.0	June 25	4.34	3.4
May 13		19.4			

Daily discharge, in second-feet, of Cottonwood Creek near Paradise Valley, Nev., for the year ending September 30, 1925

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

NOTE.—Braced figure shows estimated mean flow for period indicated. After July 20 creek was dry for periods in each month and maximum flow was less than 1 second-foot. Run-off in June, 536 acre-feet; in July, 49 second-feet.

HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S FEEDER CANAL NEAR MILL CITY, NEV.

LOCATION.—In SW. ¼ sec. 29, T. 33 N., R. 35 E., a quarter of a mile below head of canal and 2 miles north of Mill City, Pershing County.

RECORDS AVAILABLE.—February 19, 1914, to September 30, 1925; fragmentary.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by G. L. Pitt.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage or by wading.

CHANNEL AND CONTROL.—Earth section. Channel control. Stage-discharge relation is affected by growth of aquatic plants, and by the wash from several small gullies below station.

ICE.—Stage-discharge relation seriously affected by ice.
DIVERSIONS.—None.
REGULATION.—Flow regulated by head gates one-fourth mile above station.
ACCURACY.—Stage-discharge relation permanent during year; affected by backwater from footbridge above gage height about 4.5 feet. Rating curve fairly well defined. Water-stage recorder operated July 11 to August 14; auxiliary staff gage readings with notes of operation of gates, rest of time. Discharge obtained by applying mean daily or daily gage height to rating table, or by approximate integration for days of wide range in stage. Records fair; estimates may be poor.

Canal diverts from Humboldt River in sec. 29, T. 33 N., E. 36 E., for storage in Taylor-Pitt Reservoirs near Humboldt. The water is returned to river during irrigation season, about 3 miles west of Humboldt through Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal, and carried in natural channel to head gates of canals serving Lovelock district.

Discharge measurements of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Utah, during the year ending September 30, 1925.

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 26	0.84	[a] 1.5	June 26	[c] 5.36	209
May 14		[b]	July 11	1.78	14.8

[a] Estimated. [b] Dry. [c] Affected by backwater from footbridge below.

Daily discharge, in second-feet, of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev., for the year ending September 30, 1925

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							13	
2							13	
3							14	
4							31	
5						150	63	
6							52	
7					0		15	
8		1					11	
9						130	11	
10						49	11	
11						14	33	
12						13	40	
13						13	40	
14					70	12	72	
15					200	19	93	
16			0	0	200	42	107	0
17					210	131	109	
18					220	131	101	
19						109	80	
20						133	59	
21						182	51	
22					210	195	20	
23						195	9	
24		0				200	9	
25						200	23	
26	1				209	210	30	
27	1					210	15	
28	1				180	183	6	
29						68	1	
30						13	1	
31						13	1	

NOTE.—No gage-height record Oct. 1 to Feb. 25; probably little or no flow. No gage-height record June 15, 16, 19–25, 27–30, July 1–8, and Aug. 29–31; discharge estimated. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
March	1	0	0.5	31
April	0	0	.0	0
May	0	0	.0	0
June	220	0	110	6,550
July	210	12	118	7,260
August	109	1	36.6	2,250
September	0	0	.0	0
The period				16,100

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

LOCATION.—In SE. ¼ sec. 30, T. 32 N., R. 33 E., at outlet of lower Taylor-Pitt Reservoir, 2½ miles west of Humboldt, Pershing County.

RECORDS AVAILABLE.—February 15, 1914, to September 30, 1920; October 1, 1921, to September 30, 1924.

GAGE.—Stevens continuous water-stage recorder on right bank about 100 feet above weirs; not operated in 1925. Staff gage read by employees of reservoir company when gates were open.

DISCHARGE MEASUREMENTS.—Made from footbridge one-fourth mile below gage or by wading.

CHANNEL AND CONTROL.—Two 8-foot Cippoletti weirs form a permanent control. Stage of zero flow at gage height, 0.04 foot; determined April 7, 1917.

ICE.—Gates usually closed during winter.

DIVERSIONS.—None.

REGULATION.—Flow regulated by reservoir outlet gates a few hundred feet above station.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined below 150 second-feet; extended above. Staff gage read when reservoir gates were open. Daily discharge ascertained by applying daily gage height to rating table. See footnote to daily-discharge table. Daily discharge good; estimated periods fair.

Canal conducts stored water released from Taylor-Pitt Reservoirs to Humboldt River in SW. ¼ sec. 31, T. 33 N., R. 33 E., for irrigation in Lovelock Valley several miles downstream.

Station visited February 26, June 26, and July 11; flow consisted of seepage water only (less than 1 second-foot).

Daily discharge, in second-feet, of Humboldt-Lovelock Irrigation Light & Power Co.'s outlet canal near Humboldt, Nev., for the year ending September 30, 1925

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

NOTE.—Discharge estimated because of no gage-height record, by comparison with reservoir records Oct. 1–15, 4 second-feet; May 26–30 and June 2–3, 3 second-feet. Seepage water only: Less than 1 second-foot Oct. 15 to Apr. 2, Apr. 16-21, May 3, 9–25, May 31 to June 2, and June 5 to Sept. 30. Braced figures show estimated mean discharge for period indicated.

Monthly discharge of Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev., for the year ending September 30, 1925

Month	Mean discharge in second-feet	Run-off in acre-feet	Month	Mean discharge in second-feet	Run-off in acre-feet	Month	Mean discharge in second-feet	Run-off in acre-feet
October	2	123	March	0.5	31	August	0.5	31
November	.5	30	April	8.9	530	September	.5	30
December	.5	31	May	4.4	271			
January	.5	31	June	.7	42	The year		1,210
February	.5	28	July	.5	31			

NOTE.—See footnote to daily-discharge table.

PYRAMID AND WINNEMUCCA LAKES BASIN

LAKE TAHOE AT TAHOE, CALIF.

LOCATION.—In SE. ¼ sec. 6, T. 15 N., R. 17 E., near outlet of lake at Tahoe, Placer County.

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

RECORDS AVAILABLE.—1900 to September 30, 1925.

GAGE.—Vertical staff fastened to piling of boat landing near outlet; read once a day by an employee of the United States Bureau of Reclamation. Datum is 6,220 feet above sea level. Mean low-water elevation of lake is 6,226.0 feet.

EXTREMES OF STAGE.—Maximum stage recorded during year, 5.55 feet July 5–8; minimum stage, 2.84 feet October 26.

1900–1925: Maximum stage recorded, 11.26 feet July 14, 15, 17, and 18, 1907; minimum stage, 2.84 feet October 26, 1924.

ACCURACY.—Gage read to hundredths once daily.

COOPERATION.—Record furnished by United States Bureau of Reclamation.

Daily elevation, in feet, of Lake Tahoe at Tahoe, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.30	2.95	2.88	2.98	2.96	3.74	3.88	4.39	5.07	5.48	5.36	4.89
2	3.26	2.93	2.90	2.98	2.95	3.73	3.88	4.41	5.08	5.48	5.35	4.89
3	3.24	2.92	2.90	2.96	2.95	3.73	3.88	4.43	5.12	5.50	5.33	4.88
4	3.21	2.91	2.89	2.98	2.97	3.72	3.89	4.45	5.13	5.51	5.31	4.89
5	3.20	2.90	2.90	3.00	3.06	3.71	3.91	4.48	5.14	5.55	5.29	4.87
6	3.19	2.90	2.90	3.00	3.20	3.71	3.91	4.51	5.16	5.55	5.28	4.85
7	3.18	2.88	2.91	2.99	3.37	3.72	3.92	4.53	5.17	5.55	5.26	4.85
8	3.17	2.90	2.92	2.99	3.42	3.73	3.93	4.55	5.18	5.55	5.24	4.83
9	3.03	2.94	2.94	3.01	3.43	3.74	3.94	4.56	5.20	5.54	5.23	4.83
10	3.00	3.01	2.94	3.00	3.46	3.79	3.94	4.56	5.21	5.54	5.21	4.82
11	3.00	3.02	2.93	3.00	3.48	3.80	4.00	4.58	5.21	5.53	5.26	4.82
12	2.99	3.00	2.93	2.99	3.50	3.80	4.04	4.60	5.21	5.51	5.26	4.81
13	2.99	3.00	2.92	2.98	3.57	3.79	4.05	4.64	5.23	5.51	5.25	4.79
14	2.98	3.00	2.93	2.97	3.61	3.79	4.06	4.68	5.24	5.51	5.24	4.78
15	2.97	2.99	2.93	2.97	3.63	3.79	4.08	4.71	5.24	5.51	5.22	4.75
16	2.95	2.98	2.96	2.97	3.65	3.79	4.12	4.74	5.26	5.51	5.21	4.72
17	2.95	2.97	2.96	2.95	3.66	3.78	4.16	4.76	5.27	5.51	5.19	4.70
18	2.94	2.95	2.95	2.94	3.67	3.78	4.18	4.78	5.28	5.50	5.16	4.69
19	2.93	2.94	2.94	2.93	3.67	3.78	4.21	4.80	5.30	5.51	5.13	4.66
20	2.92	2.94	2.94	2.93	3.67	3.78	4.24	4.83	5.32	5.51	5.13	4.68
21	2.91	2.93	2.95	2.92	3.69	3.78	4.27	4.85	5.35	5.50	5.11	4.66
22	2.90	2.93	2.96	2.92	3.72	3.78	4.30	4.88	5.38	5.49	5.04	4.65
23	2.88	2.92	2.98	2.90	3.75	3.79	4.30	4.90	5.38	5.48	5.03	4.64
24	2.87	2.92	3.00	2.94	3.74	3.79	4.31	4.92	5.39	5.45	5.00	4.63
55	2.86	2.91	3.00	2.95	3.75	3.80	4.32	4.95	5.40	5.43	4.98	4.62
26	2.84	2.91	2.99	2.98	3.75	3.80	4.33	4.98	5.43	5.42	4.98	4.60
27	2.86	2.90	2.98	2.98	3.76	3.83	4.34	5.00	5.45	5.41	4.95	4.59
28	2.90	2.89	2.98	3.00	3.75	3.83	4.35	5.01	5.46	5.39	4.95	4.57
29	3.01	2.88	2.96	2.98	------	3.85	4.37	5.03	5.47	5.38	4.95	4.56
30	3.01	2.88	2.97	2.98	------	3.86	4.38	5.04	5.48	5.37	4.90	4.54
31	2.99	------	2.98	2.96	------	3.87	------	5.05	------	5.36	4.90	------

TRUCKEE RIVER AT TAHOE, CALIF.

LOCATION.—In NW. ¼ sec. 7, T. 15 N., R. 17 E., at Tahoe, Placer County, a short distance below dam at outlet of Lake Tahoe.

DRAINAGE AREA.—519 square miles.

RECORDS AVAILABLE.—July 3, 1895, to February 29, 1896; June 17, 1900, to September 30, 1925.

GAGE.—Vertical staff fastened to a large cottonwood tree on left bank, 300 feet below dam at outlet of Lake Tahoe. Original gage, 100 feet above, was destroyed by dredging operations July 15, 1912.

DISCHARGE MEASUREMENTS.—Made from cable 140 feet below gage or by wading.

CHANNEL AND CONTROL.—Gravel; practically permanent.

EXTREMES OF DISCHARGE.—1895–1896; 1900–1925: Maximum mean daily discharge, 1,340 second-feet July 13–20, 1907 (stage, 4.3 feet); river dry during parts of 1900, 1901, 1914, and 1918–1925.

ICE.—Stage-discharge relation not seriously affected by ice.

DIVERSIONS.—No information.

REGULATION.—Flow regulated by operation of gates in dam at Lake Tahoe.

ACCURACY.—Stage-discharge relation did not change during year. Rating curve well defined. Gage read to hundredths at least once each day. Stage controlled by outlet gates at Lake Tahoe. Daily discharge ascertained by United States Bureau of Reclamation by applying mean daily gage height to rating table.

COOPERATION.—Daily-discharge record furnished by United States Bureau of Reclamation.

No discharge measurements were made during the year.

Daily discharge, in second-feet, of Truckee River at Tahoe, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	July	Aug.	Sept.	Day	Oct.	Nov.	July	Aug.	Sept.
1	134	95	0	476	168	16	95	------	337	405	134
2	81	95	220	472	170	17	85	------	367	389	134
3	102	111	220	469	174	18	83	------	367	385	157
4	107	111	0	462	174	19	107	------	367	379	157
5	107	107	0	469	174	20	107	------	367	375	159
6	99	107	392	476	174	21	87	------	367	366	157
7	100	107	392	472	174	22	93	------	367	362	157
8	100	------	307	458	157	23	93	------	392	350	155
9	99	------	263	454	157	24	100	------	389	340	191
10	99	------	289	440	159	25	100	------	392	331	186
11	99	------	289	469	157	26	95	------	392	214	152
12	99	------	286	178	152	27	105	------	389	211	152
13	97	------	286	346	152	28	97	------	459	182	148
14	93	------	325	343	150	29	95	------	455	182	148
15	95	------	337	389	147	30	102	------	455	168	145
						31	97	------	476	168	------

NOTE.—No flow Nov. 8 to July 1 and July 4 and 5.

Monthly discharge of Truckee River at Tahoe, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	134	81	98.5	6,060
November	111	0	24.4	1,450
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	476	0	321	19,700
August	476	168	361	22,200
September	191	134	159	9,460
The year	476	0	81.3	58,900

TRUCKEE RIVER AT ICELAND, CALIF.

LOCATION.—In sec. 36, T. 18 N., R. 17 E., above dam of National Ice Co., 400 feet northeast of Southern Pacific Railroad station at Iceland, Nevada County, and 23 miles west of Reno, Nev.

DRAINAGE AREA.—937 square miles.

RECORDS AVAILABLE.—August 1, 1912, to September 30, 1925.

GAGE.—Water-stage recorder on right bank above dam; auxiliary vertical staff fastened to gage well.

DISCHARGE MEASUREMENTS.—Made from cable 130 feet above gage.

CHANNEL AND CONTROL.—Bed consists of small boulders; fairly smooth and permanent. Left bank high; right bank subject to overflow at high stages. Dam of National Ice Co. is the control.

EXTREMES OF DISCHARGE.—1907–1925: Maximum mean daily discharge, 15,300 second-feet March 18, 1907; minimum mean daily discharge, 40 second-feet January 19 and 20, 1925.

ICE.—Stage-discharge relation somewhat affected by ice.

DIVERSIONS.—No information.

REGULATION.—See "Truckee River at Tahoe."

ACCURACY.—Stage-discharge relation did not change during year. Rating curve well defined. Mean daily gage heights determined from water-stage recorder sheets. Daily discharge ascertained by United States Bureau of Reclamation by applying mean daily gage height to rating table.

COOPERATION.—Daily-discharge record furnished by United States Bureau of Reclamation.

No discharge measurements were made during the year.

Daily discharge, in second-feet, of Truckee River at Iceland, Calif., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	257	243	82	182	117	302	554	1,320	762	473	480	243
2	162	209	77	170	200	349	554	1,500	702	407	488	249
3	126	200	59	95	302	382	577	1,690	648	473	488	257
4	136	218	70	99	568	436	563	1,840	577	418	480	281
5	162	223	87	73	1,480	577	533	1,970	542	365	488	266
6	200	209	95	73	3,430	577	546	2,040	533	317	476	266
7	167	188	82	78	1,440	436	577	1,900	546	554	447	278
8	167	162	110	78	995	418	648	1,590	554	577	429	278
9	162	317	106	66	738	418	685	1,340	599	480	500	257
10	167	302	77	50	738	365	868	1,120	623	492	577	272
11	167	223	80	50	648	349	1,160	1,080	623	484	599	266
12	165	135	84	50	554	349	1,240	1,070	659	465	407	272
13	162	84	95	50	533	332	1,160	1,160	762	473	462	272
14	157	114	99	50	473	332	1,180	1,030	732	480	436	263
15	152	114	97	50	400	349	1,650	1,030	659	480	436	263
16	167	106	95	50	365	436	2,820	1,320	648	480	440	251
17	167	99	130	50	386	418	3,040	1,220	648	504	436	234
18	160	97	121	50	349	400	2,040	1,220	623	504	433	237
19	150	95	148	40	317	473	1,590	1,220	674	508	418	249
20	152	101	50	40	342	577	1,340	1,260	702	516	425	257
21	150	106	50	50	332	702	1,160	1,240	732	504	418	257
22	148	110	50	126	339	907	1,080	1,280	762	480	418	249
23	150	91	50	108	317	1,160	973	1,260	714	473	410	240
24	144	80	59	133	296	1,080	932	1,280	648	465	400	272
25	142	84	59	135	302	868	868	1,360	623	462	382	278
26	144	86	59	135	308	830	948	1,260	599	451	302	251
27	144	82	59	212	326	762	973	1,220	554	433	293	243
28	243	75	59	162	326	868	990	1,220	473	443	263	249
29	257	80	59	162	-------	732	1,090	1,220	512	473	263	249
30	240	80	215	151	-------	732	1,180	990	512	473	254	249
31	237	-------	188	162	-------	648	-------	845	-------	484	251	-------

Monthly discharge of Truckee River at Iceland, Calif., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	257	126	171	10,500
November	317	75	144	8,570
December	215	50	88.7	5,450
January	212	40	96.1	5,910
February	3,430	117	604	33,500
March	1,160	302	567	34,900
April	3,040	533	1,120	66,600
May	2,040	845	1,330	81,800
June	762	473	632	37,600
July	577	317	471	29,000
August	599	251	419	25,800
September	281	234	258	15,400
The year	3,430	40	490	355,000

ABERT LAKE BASIN

CHEWAUCAN RIVER ABOVE CONN DITCH, NEAR PAISLEY, OREG.

LOCATION.—In SW. ¼ sec. 27, T. 33 S., R. 18 E., 200 feet below power plant of R. R. Severin, 500 feet above diversion dam of Conn ditch, one-fourth mile below mouth of Mill Creek, and 2½ miles above Paisley, Lake County.

DRAINAGE AREA.—266 square miles (measured on map of Fremont National Forest).

RECORDS AVAILABLE.—April 3 to September 30, 1912; May 1, 1924, to September 30, 1925. Records at stations giving practically the same yearly run-off are available January 4, 1905, to December 31, 1907, and January 18, 1909, to April 15, 1912.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by R. R. Severin.

DISCHARGE MEASUREMENTS.—Made from footbridge at power plant or by wading.

CHANNEL AND CONTROL.—Control of rock and boulders; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year ending September 30, 1925, from water-stage recorder, 2.40 feet at midnight February 4 and 6 to 7 a. m. May 21 (discharge, 960 second-feet); minimum stage, 0.22 foot at 9 a. m. October 25 (discharge, 8 second-feet).

1924–1925: Maximum stage recorded in 1925; minimum stage, 0.17 foot at 4 p. m. July 29, 1924 (discharge, 4.2 second-feet).

ICE.—Stage-discharge relation seriously affected by ice.

DIVERSIONS.—About 160 acres are shown as irrigated above station on surveys made by State engineer.

REGULATION.—Slight fluctuations caused by power plant above; no appreciable pondage.

ACCURACY.—Stage-discharge relation fairly permanent; affected by ice December 17 to January 7. Rating curve fairly well defined below 500 second-feet. Operation of water-stage recorder satisfactory except for a few short periods. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspecting recorder graph. Records fair.

The following discharge measurements were made:

January 25, 1925: Gage height, 0.40 foot; discharge, 37.8 second-feet.

May 18, 1925: Gage height, 1.50 feet; discharge, 411 second-feet.

July 27, 1925: Gage height, 0.44 foot; discharge, 39.4 second-feet.

Daily discharge, in second-feet, of Chewaucan River above Conn ditch, near Paisley, Oreg., for the years ending September 30, 1924 and 1925

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	97	34	16	10	16	16	61	24	11	16	22
2	94	32	16	11	16	17	57	19	12	19	21
3		32	18	13	16	18	57	21	12	18	19
4		34	21	16	18	19	49	19	12	19	19
5		36	21		18	20	47	16	12	25	21
6	80	40	19		18	21	46	14	13	24	21
7		42	19	14	18	22	45	11	12	21	21
8		41	19		22	23	44	11	12	18	21
9		42	19		24	24	44	11	12	17	24
10		41	18		22	25	46	13	13	14	25
11	66	41	18	13	24	26	47	14	13	13	25
12	64	35	18	12	22	27	44	16	11	13	24
13	64	32	16	11	22	28		16	11	13	24
14	66	26	16	12	21	29	39	18	10	13	22
15	68	26	14	12	22	30		18	10	13	22
						31		------	10	14	------

Daily discharge, in second-feet, of Chewaucan River above Conn ditch, near Paisley, Oreg., for the years ending September 30, 1924 and 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1924–25												
1	24	35	44		103	52	129	405	460	66	32	24
2	25	32	46		147	77	118	432	405	64	32	22
3	25	38	49		270	74	118	460	322	59	32	26
4	28	38	46		528	90	132	505	295	57	29	28
5	29	42	41	32	414	87	147	550	270	56	28	28
6	32	35	42		270	103	138	610	232	52	28	28
7		29	34		153	92	156	670	209	50	28	32
8		32	35	29	124	77	177	550	189	49	29	31
9		46	40	29	64	72	214	520	189	47	31	29
10	32	38	34	31	82	68	270	432	162	44	31	28
11		34	36	34	101	57	378	432	156	42	29	26
12	32	41	32	35	96	79	378	405	153	41	35	26
13	32	54	40	34	98	74	378	405	156	40	35	28
14	32	46	38	35	81	77	434	405	144	40	31	32
15	31	32	40	35	72	74	490	405	135	38	28	29
16	29	31	35	32	64	72	520	432	135	36	31	34
17	29	22		29	68	64	550	405	150	36	28	46
18	29	25		32	68	68	432	405	127	38	28	42
19	28	31		38	70	79	405	378	116	38	28	38
20	26	105		38	83	98	405	582	113	40	28	44
21	26	98		34	83	113	405	830	121	57	26	41
22	26	87		34	66	135	378	580	113	59	26	35
23	26	61		36	64	141	295	490	103	50	32	29
24	26	44	24	35	68	138	295	490	96	46	40	29
25	24	35		35	56	156	322	432	90	42	28	28
26	28	35		41	61	141	295	432	90	40	26	28
27	31	38		121	68	162	322	405	85	38	26	28
28	49	40		138	57	173	322	405	79	36	26	34
29	47	32		166	-------	141	350	405	75	36	28	36
30	32	35		170	-------	147	378	350	70	38	26	35
31	36	-------		135	-------	135	-------	378	-------	34	25	-------

Monthly discharge of Chewaucan River above Conn ditch, near Paisley, Oreg., for the years ending September 30, 1924 and 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1924				
May	97	----------	61.4	3,780
June	42	11	25.8	1,540
July	21	10	14.6	898
August	25	10	15.0	922
September	25	16	21.0	1,250
The period	----------	----------	----------	8,390
1924–25				
October	49	24	30.4	1,870
November	105	22	43.0	2,560
December	49	----------	32.0	1,970
January	170	29	51.6	3,170
February	528	57	124	6,890
March	173	52	101	6,210
April	550	118	311	18,500
May	830	350	470	28,900
June	460	70	168	10,000
July	66	34	45.5	2,800
August	35	25	29.4	1,810
September	46	22	31.5	1,870
The year	830	----------	120	86,600

SILVER LAKE BASIN

SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—In SW. ¼ 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, Lake County, and 3 miles above mouth of Bridge Creek. During part of each year the record is obtained in spillway flume of diversion dam or at weir below outlet tunnel of dam, in NE. ¼ sec. 5, T. 29 S., R. 14 E.

DRAINAGE AREA.—221 square miles.

RECORDS AVAILABLE.—December 29, 1904, to March 31, 1907; January 11, 1909, to September 30, 1925.

GAGES.—River gage: Inclined staff on right bank 1½ miles below diversion dam, used when water is flowing over spillway or during nonirrigation season.

Spillway-flume gage: Vertical staff on right side just above weir at lower end of rectangular flume 100 feet long from intake to chute where it discharges into river.

Outlet tunnel gage: Vertical staff at 7-foot Cippoletti weir just below outlet tunnel in dam; used to measure small quantities of water released through dam. No water released through outlet tunnel of dam when water is passing through spillway flume.

DISCHARGE MEASUREMENTS.—Referred to river gage, made from cable at gage or by wading; to spillway-flume gage, from plank 20 feet upstream. Discharge through outlet tunnel computed from weir formula for 7-foot Cippoletti weir.

CHANNEL AND CONTROL.—At river gage, composed of rocks and gravel; fairly permanent. Spillway flume is built of lumber 6.7 feet wide; weir below gage is solid and practically permanent. Control for gage below outlet tunnel in dam is a 7-foot Cippoletti weir.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during year ending September 30, 1923, 45 second-feet June 15–18; minimum discharge, 1 second-foot March 21.

Maximum discharge recorded during year ending September 30, 1924, 9.6 second-feet April 18; minimum discharge, 0.8 second-foot July 18.

Maximum discharge recorded during year ending September 30, 1925, 122 second-feet May 22; minimum discharge, 2 second-feet February 1–3.

1905–1907; 1909–1925: Maximum stage recorded, 6.40 feet November 23, 1909 (discharge, 910 second-feet); minimum discharge, 0.3 second-foot August 30, September 2 and 6, 1918 (gage height, 0.18 foot).

ICE.—Stage-discharge relation occasionally affected by ice.

DIVERSIONS.—Silver Lake Irrigation District Canal diverts water past gages during irrigation season.

REGULATION.—Water was stored in reservoir of Silver Lake Irrigation District at Thompson Valley for the first time in 1923. No record was obtained in 1923, but no stored water was carried over at end of year. On February 9 and 17, 1924, gage read 5,067.0 feet (storage, 847 acre-feet), and it was never any higher during season. It has been estimated that there were 217 acre-feet in reservoir on October 1, 1924, and 3,500 acre-feet on September 30, 1925. The maximum accumulation of storage in 1925 was 14,650 acre-feet on May 24 (gage-height, 5,082.5 feet). The diversion dam above gage which impounds about 800 acre-feet, was filled in spring of 1923 and emptied during August and September, 1923. It was not filled to any extent in 1924; during 1925 it was filled and has not been emptied since.

ACCURACY.—Stage-discharge relation permanent. Rating curves for river and for spillway-flume gages fairly well defined. Staff gages read to hundredths once a day during irrigation season and less often at other times. Records good except for estimated periods for which they are fair.

Discharge measurements of Silver Creek near Silver Lake, Oreg., during the years ending September 30, 1923 and 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1923	*Feet*	*Sec.-ft.*	1923	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*
Jan. 25	[a] 0.15	[b] 1.5	May 15	[a] 0.62	12.7	May 15	[c] 1.00	28.4
Mar. 21	[a] .05	[b] 1.5	May 16	[a] .46	7.5	May 16	[c] 1.40	44.8
Apr. 14	[c] 1.12	33.0	May 18	[c] 1.10	29.4			
May 15	[c] .98	26.4						

[a] On river gage. [b] Estimated. [c] On gage in spillway flume.

Daily discharge, in second-feet, of Silver Creek near Silver Lake, Oreg., for the years ending September 30, 1923–1925

Day	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1922–23										
1					23	33	31	12	2	
2					27	31	24	12	2	
3		1.5			27	40	24	12	2	
4					31	40	25	15	2	
5					40	40	27	15	2	
6					40	40	27	15	2	
7			1.5		31	40	27	15		
8					31	40	27	15		
9					35	42	27	12		
10	2				35	40	27	12		
11					23	40	31	12		
12					19	40	31	12		
13					31	40	31	12		
14					35	35	31	9		
15		1.5		1.5	31	35	45	9		10
16					33	35	45	9		
17					33	35	45	6		
18			1.5		31	31	45	6		
19					31	35	31	6	11	
20	2				27	35	27	6		
21					31	35	23	7		
22					31	31	23	7		
23					33	31	23	5		
24					33	33	19	5		
25		1.5			33	33	19	5		
26					33	33	19	4		
27					31	33	19	4		
28		1.5			33	33	19	4		
29				9.0	33	31	15	4		
30				12	33	33	15	4		2
31				12		31		4		

Day	Apr.	May	June	July	Day	Apr.	May	June	July
1923–24					1923–24				
1	4.1			3.0	17	5.0	8.8		
2		6.0			18	9.6		4.5	1.0
3					19	7.7	7.8		
4					20	5.9			
5			4.7		21	4.1		3.5	
6					22	4.8			
7					23	4.0			
8					24	5.3			.8
9	4.6	7.8		4.1	25				
10					26	8.0	7.8		
11					27		7.4		
12		7.8			28	11.			
13					29	11.	4.9		
14					30	11.		1.8	
15			4.5		31		4.7		
16		7.8							

Daily discharge, in second-feet, of Silver Creek near Silver Lake, Oreg., for the years ending September 30, 1923–1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1924–25												
1	4				2	8	15	45	29	31	3	3
2	4				2	8	23	45	29	31	3	3
3	4				2	12	23	45	29	29	3	3
4	4				8	12	23	45	29	29	3	3
5	4				8	12	23	45	29	29	3	3
6	4				15	9	23	45	29	29	3	3
7	4				15	9	23	45	29	29	3	3
8	4				15	9	19	45	29	29	5	3
9	4				15	8	21	45	29	29	5	4
10	4				20	6	21	45	29	29	5	4
11	4				30	4	21	45	29	27	5	4
12	4				30	4	21	40	29	27	4	4
13	4				25	4	20	40	29	27	4	4
14	4				20	4	35	40	29	27	3	4
15	4	3	2	2	20	4	23	40	29	27	3	4
16	4				20	4	35	40	29	27	3	5
17	4				20	4	35	30	29	25	3	5
18	4				20	4	21	30	29	25	3	5
19	4				15	5	21	30	27	22	3	5
20	4				15	4	27	30	27	22	3	5
21	4				13	6	27	30	27	15	3	5
22	4				13	7	27	122	27	15	3	5
23	4				10	8	27	48	27	15	4	5
24	4				10	8	27	30	27	13	4	5
25					10	7	27	31	31	7	4	5
26					10	6	31	31	31	4	3	5
27	4				10	8	35	27	31	4	3	5
28					10	7	45	27	31	3	3	5
29					-------	6	45	31	31	3	3	5
30		-------			-------	7	45	31	31	3	3	5
31		-------			-------	10	-------	31	-------	8	3	-------

NOTE.—Braced figures show mean discharges for periods included; interpolated except Aug. 6–31 and Sept. 1–29, 1923, when means were estimated from observer's notes of average stage at river gage and storage released.

Monthly discharge of Silver Creek near Silver Lake, Oreg., for the years ending September 30, 1923–1925

Month	Discharge in second-feet			Run-off in acre-feet	
	Maximum	Minimum	Mean	At gage	Plus amount diverted by Silver Lake Irrigation District Canal
1922–23					
October	----------	----------	[a] 2.5	154	154
November	----------	----------	[a] 2.0	119	119
December	----------	----------	[a] 2.0	123	123
January	----------	----------	[a] 1.5	92	92
February	----------	----------	[a] 1.5	83	83
March	12.	----------	2.42	149	165
April	40	19	31.3	1,860	2,410
May	42	31	35.6	2,190	3,190
June	45	15	27.4	1,630	3,390
July	15	4	8.9	547	2,040
August	----------	2	9.3	572	643
September	----------	2	9.7	577	577
The year	45	----------	11.2	8,100	13,000

[a] Estimated.

Monthly discharge of Silver Creek near Silver Lake, Oreg., for the years ending September 30, 1923–1925—Continued

Month	Discharge in second-feet			Run-off in acre-feet	
	Maximum	Minimum	Mean	At gage	Plus amount diverted by Silver Lake Irrigation District Canal
1923–24					
October			[a] 2.5	154	154
November			[a] 2.5	149	149
December			[a] 2.0	123	123
January			[a] 1.0	61	61
February			[a] 2.5	139	139
March			[a] 2.5	154	154
April	11		5.88	350	350
May	8.8	4.7	[b] 7.1	437	437
June	4.7	1.8	[b] 3.8	226	226
July	4.1	.8	[b] 2.2	135	135
August			[a] 1.0	61	61
September			[a] 2.0	119	119
The year	11		2.91	2,110	2,110
1924–25					
October	4	4	4.0	246	246
November			[a] 3.0	179	179
December			[a] 2.0	123	123
January			[a] 2.0	123	123
February	30	2	14.4	800	800
March	12	4	6.9	424	468
April	45	15	27.0	1,610	2,560
May	122	27	40.5	2,490	3,280
June	31	27	29.0	1,730	3,050
July	31	3	20.5	1,260	3,220
August	5	3	3.4	209	812
September	5	3	4.2	250	256
The year	122		13.0	9,440	15,100

[a] Estimated. [b] Mean of days on which gage was read.

NOTE.—No water diverted in canal during 1924.

WEST FORK OF SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—In NW. ¼ sec. 8, T. 29 S., R. 14 E., 1 mile above mouth of West Fork and 7 miles by road southwest of Silver Lake post office, Lake County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—Irrigation seasons 1919 to 1923 and March 11 to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder installed on left bank, half a mile above location used 1919 to 1921; inspected by G. W. Marvin.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed of gravel and small boulders. Banks clean but of friable soil and may shift by undercutting.

EXTREMES OF DISCHARGE.—Maximum stage during period occurred May 22 when water-stage recorder was not operating (discharge, estimated at 115 second-feet; by comparison with record of flow of Silver Creek below diversion dam); minimum stage, 0.25 foot August 11–13 (discharge, 2 second-feet).

1919–1925: Maximum discharge, 138 second-feet April 11, 1921; stream is often nearly dry in extremely cold weather.

ICE.—Stage-discharge relation affected by ice during winter; no ice during period of record.

DIVERSIONS.—None.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during winter. Rating curve fairly well defined. Operation of water-stage recorder not satisfactory March 11 to May 14, when gage readings by observer were used, and for periods stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph, except as stated in footnote to daily-discharge table. Records good except for periods of no gage height records for which they are fair.

The following discharge measurements were made:
May 14, 1925: Gage height, 1.06 feet; discharge, 30.5 second-feet.
May 16, 1925: Gage height, 1.08 feet; discharge, 33.8 second-feet.
July 28, 1925: Gage height, 0.36 foot; discharge, 3.3 second-feet.

Daily discharge, in second-feet, of West Fork of Silver Creek near Silver Lake, Oreg., for the year ending September 30, 1925

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1		14	34			2	2
2		13	38			2	
3		15	39			2	
4		16	42	30		2	
5		18	46			2	2
6		16	47			2	
7		13	46	23		2	
8		17	45	22		2	2
9		22	42	15		2	2
10		22	39	12		2	2
11	4	28	34	13		2	2
12	4	32	33	14	8	2	2
13	4	33	33	13		2	
14	4	39	31	14		2	
15	4	45	32	14		2	
16	5	50	34	14		2	2
17	5	53	34	14		2	
18	8	47	32	13		2	
19	8	44		15		2	
20	8	42		16		2	
21	11	40	53	17		2	2
22	11	34		17		2	3
23	12				4	2	3
24	12				4	2	3
25	15	30	41		4	2	2
26	15		42	15	4	2	2
27	16		41		3	2	2
28	16	27	41		3	2	2
29	15	28	40		3	2	2
30	15	30	40	-------	2	2	2
31	14	-------	40	-------	2	2	-------

NOTE.—No gage-height record Mar. 12–13, 15–16, 18–20, 22–23, 28–29, Apr. 19–20, 23–27, May 7, 9, 19–24, 30, 31, June 1–6, 23–30, July 1–22, 24, 26–27, Sept. 2–8, and 13–20. Discharge interpolated except May 19–24, when mean discharge was estimated by comparison with record of flow of Silver Creek below diversion dam near Silver Lake. Braced figures show mean discharge for periods included.

Monthly discharge of West Fork of Silver Creek near Silver Lake, Oreg., during the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
March 11–31	16	4	9.8	409
April	53	13	29.6	1,760
May	47	31	41.4	2,550
June	-------	10	18.2	1,080
July	-------	2	6.6	406
August	2	2	2	123
September	3	2	2.1	125
The period	-------	-------	-------	6,450

SILVER LAKE IRRIGATION DISTRICT CANAL NEAR SILVER LAKE, OREG.

LOCATION.—In NE. ¼ sec. 5, T. 29 S., R. 14 E., at diversion dam of Silver Lake Irrigation District, 2½ miles southwest of Silver Lake post office, Lake County.

RECORDS AVAILABLE.—October 1, 1922, to September 30, 1925.

GAGE.—Vertical staff on right side of timber flume 80 feet below head gate.

DISCHARGE MEASUREMENTS.—Made from plank across flume 30 feet upstream just above a fish wheel.

CHANNEL AND CONTROL.—Rectangular timber flume 6.7 feet wide; channel control.

EXTREMES OF DISCHARGE.—Maximum discharge recorded during the period of record, 60 second-feet June 26–29, 1923. Canal dry during 1924 and for periods during 1923 and 1925 for which no daily discharge is given.

ACCURACY.—Stage-discharge relation permanent 1923–1925. Rating curve fairly well defined below 20 second-feet by four discharge measurements; extended above to 60 second-feet parallel to subsequent curve well defined by 12 discharge measurements made in 1926 and 1927. Staff gage read to hundredths once a day when water was in canal except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying daily gage reading to rating table. Records good except for discharges above 20 second-feet for which they are fair.

Discharge measurements of Silver Lake Irrigation District Canal near Silver Lake, Oreg., during the years ending September 30, 1923 and 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
1923	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*
Apr. 14	0.90	13.5	May 17	1.10	21.0
May 16	.64	6.3	July 28	1.20	17.9
May 16	.35	2.4			

Daily discharge, in second-feet, of Silver Lake Irrigation District Canal near Silver Lake, Oreg., for the years ending September 30, 1923 and 1925

	1923						1925						
Day	Mar.	Apr.	May	June	July	Aug.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		3	10	16	44	10		5	19	14	36	12	3
2		3	14	16	44	10		4	19	14	36	10	
3		4	14	16	44	6		4	20	14	36	10	
4		6	14	18	24	6		4	20	16	30	10	
5		6	14	19	6	3		4	21	16	30	10	
6		4	14	24		1		8	21	16	40	16	
7		8	14	5				8	21	16	40	16	
8		8	14					10	21	18	40	19	
9		12	16		18			12	21	18	44	19	
10		6	19		27			12	21	19	44	16	
11		8	19	20	27			12	20	19	48	14	
12		8	19	30	27			12	19	19	48	8	
13		12	19	30	33			19	19	19	48	8	
14		12	16	30	33			21	16	21	44	8	
15		12	16	19	33			21	16	21	44	6	
16		16	14	19	33			21	16	21	44	6	
17		15	14	19	33			24	5	21	40	3	
18		14	16	19	33			24		24	40	1	
19		14	14	24	30			24		24	36	1	
20		14	16	24	30			24		24	36	4	

Daily discharge, in second feet, of Silver Lake Irrigation District Canal near Silver Lake, Oreg., for the years ending September 30, 1923 and 1925—Continued

Day	1923 Mar.	Apr.	May	June	July	Aug.	1925 Mar.	Apr.	May	June	July	Aug.	Sept.
21		14	16	44	30			24		24	33	6	
22		10	16	52	30			24		24	11	10	
23		8	16	52	24			24		27		10	
24		4	16	52	24			19		27	16	10	
25		6	18	56	24			19	3	27	19	10	
26		10	18	60	24		1	19	11	27	19	10	
27		12	20	60	19		2	19	11	33	19	10	
28		10	21	60	19		3	19	14	33	19	10	
29		10	19	60	14		3	19	14	33	16	10	
30	4	10	18	44	14		4	19	14	33	16	10	
31	4		18		10		4		14		14	10	

NOTE.—No flow on days for which no discharge is given. No water diverted through canal in 1924

Monthly discharge of Silver Lake Irrigation District Canal near Silver Lake, Oreg., for the years ending September 30, 1923 and 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1923				
March	4	0	0.26	16
April	16	3	9.3	553
May	21	10	16.2	996
June	60	0	29.6	1,760
July	44	0	24.2	1,490
August	10	0	1.16	71
The year				4,890
1925				
March	4	0	0.55	34
April	24	4	15.9	946
May	21	0	12.8	787
June	33	14	22.1	1,320
July	48	0	31.8	1,960
August	19	1	9.8	603
September	3	0	.10	6
The year				5,660

NOTE.—Water turned into canal Mar. 30 and turned out Aug. 3, 1923. Water turned in Mar. 26 and shut off Sept. 1, 1925.

MALHEUR AND HARNEY LAKES BASIN

SILVIES RIVER NEAR BURNS, OREG.

LOCATION.—In or near SE. ¼ sec. 25, T. 21 S., R. 29 E., 1 mile below dam site for proposed lower Silvies Reservoir and 15 miles northwest of Burns, Harney County.

DRAINAGE AREA.—940 square miles (measured on map prepared by United States Bureau of Reclamation).

RECORDS AVAILABLE.—May 10, 1903, to July 24, 1906; December 14, 1908, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder on left bank; installed April 7, 1922. Staff gage in sec. 7, T. 22 S., R. 30 E., at Parker ranch used prior to April 6, 1922, and during winter of 1924–25.

DISCHARGE MEASUREMENTS.—Made from cable 1½ miles below recorder, by wading near gage, or from bridge at Parker ranch.

CHANNEL AND CONTROL.—Low-water control is a gravel riffle about 200 feet below gage, fairly permanent. In times of flood river overflows its banks near both gages.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 9.67 feet at 11 p. m. April 15 (discharge, 900 second-feet); minimum stage, 0.99 foot at 6 a. m. October 1 (discharge, 7 second-feet).

1903–1906; 1909–1925: Maximum stage recorded, 17.12 feet on original datum April 15, 1904 (discharge, 4,730 second-feet); minimum discharge, 0.6 second-foot September 2, 1924 (gage height at recorder, 0.66 foot).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—A large area of land in the headwaters of Silvies River is irrigated with flood water.

REGULATION.—None at recorder; flow at lower station occasionally affected by operation at Sylvester Dam half a mile above.

ACCURACY.—Stage-discharge relation fairly permanent; affected by ice December 17 to January 20. Rating curves well defined. Staff gage at Parker Bridge read to hundredths December 17 to March 18. Water-stage recorder operated satisfactorily before and after the above period. Daily discharge ascertained by applying daily or mean daily gage height to rating table, except when stage-discharge relation is affected by ice when mean discharge is estimated from climatic data. Records good.

COOPERATION.—Record furnished by State engineer of Oregon.

Discharge measurements of Silvies River near Burns, Oreg., during the year ending September, 30, 1925

Recorder station			Station at Parker Bridge		
Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 25	9.20	823	Feb. 26	1.94	167
May 25	4.25	245	Apr. 25	9.20	785
June 11	2.95	86.5	May 25	2.86	237
July 6	1.05	9.9	July 6	0.8	11

Daily discharge, in second-feet, of Silvies River near Burns, Oreg., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	10	21		233	371	486	475	168	45	9	7
2	7	10	21		264	371	475	442	168	43	9	7
3	7	10	20		288	530	486	420	182	39	8	7
4	7	10	20		494	690	508	409	182	37	8	7
5	7	10	20		700	635	590	398	182	35	8	7
6	7	10	19		740	580	692	365	182	33	8	7
7	7	10	19		791	454	748	335	164	31	8	7
8	7	11	18		562	328	806	325	160	29	8	7
9	7	11	18		328	269	822	325	150	28	7	7
10	7	13	18	70	211	211	838	315	137	27	7	7
11	7	14	18		204		822	305	128	25	7	7
12	7	14	18		197		822	305	120	24	7	7
13	7	14	18		197		822	295	112	23	7	7
14	7	14	18		197	260	838	285	104	22	7	7
15	7	14	18		186		870	285	100	20	7	7
16	7	14	17		175		822	275	96	19	7	8
17	7	15			172		790	275	92	18	7	8
18	7	19	15		168	236	776	275	89	18	7	8
19	7	22			168	305	776	265	86	17	7	9
20	7	20		112	168	345	748	255	82	16	7	9

Daily discharge, in second-feet, of Silvies River near Burns, Oreg., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	7	21		112	172	464	706	245	78	16	7	9
22	7	22		112	175	542	650	245	72	16	7	10
23	8	24		119	193	626	650	245	68	16	7	10
24	8	27		126	211	638	720	236	65	16	7	10
25	8	27		126	182	626	790	236	62	16	7	11
26	8	30	15	126	164	602	692	236	59	15	7	11
27	8	30		168	238	578	650	218	56	14	7	12
28	9	27		211	312	578	590	209	51	14	7	12
29	10	25		218	-------	590	554	200	50	13	7	14
30	10	24		226	-------	566	519	182	46	12	7	14
31	10	-------		230	-------	530	-------	182	-------	11	7	------

Monthly discharge of Silvies River near Burns, Oreg., during the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	10	7	7.5	461
November	30	10	17.4	1,040
December	21	----------	17.0	1,050
January	230	----------	104	6,400
February	791	164	289	16,000
March	690	211	435	26,700
April	870	475	702	41,800
May	475	182	292	18,000
June	182	46	110	6,550
July	45	11	22.8	1,400
August	9	7	7.3	449
September	14	7	8.7	518
The year	870	7	166	120,000

ALVORD LAKE BASIN

TROUT CREEK NEAR DENIO, OREG.

LOCATION.—In SW. ¼ sec. 26, T. 39 S., R. 36 E., 800 feet above bridge at mouth of canyon, 5 miles east of Trout Creek ranch, and 14 miles northeast of Denio, Harney County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—March 25, 1911, to March 31, 1912; April 15, 1922, to November 4, 1923; April 3 to July 3, 1925.

GAGE.—Stevens 8-day water-stage recorder on right bank; inspected by Frank Henry.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

CHANNEL AND CONTROL.—Control of fairly large gravel and boulders, shifting at high stages. Banks fairly high, covered with willows.

EXTREMES OF DISCHARGE.—Maximum stage during period April 3 to July 3, from water-stage recorder 2.63 feet, at 11 a. m. April 15 (discharge, 92 second-feet); minimum stage, 0.98 foot June 26 (discharge, 2 second-feet).

1911–12, 1922–1923, and 1925: Maximum stage recorded, 3.07 feet May 19, 1922 (discharge, 149 second-feet); minimum discharge, 0.3 second-foot July 18, 1922.

ICE.—No record.

DIVERSIONS.—A little water diverted for irrigating small ranch fields above station. Large area irrigated below mouth of canyon.

REGULATION.—None.

ACCURACY.—Stage-discharge relation probably permanent. Rating curve fairly well defined. Operation of water-stage recorder satisfactory April 3 to July 3. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection. Records fair.

The following discharge measurements were made:
March 23, 1925: Gage height, 1.27 feet; discharge, 6.3 second-feet.
April 3, 1925: Gage height, 1.36 feet; discharge, 11.5 second-feet.
April 19, 1925: Gage height, 2.06 feet; discharge, 47.0 second-feet.

Daily discharge, in second-feet, of Trout Creek near Denio, Oreg., for the year ending September 30, 1925

Day	Mar.	Apr.	May	June	July	Day	Mar.	Apr.	May	June	July
1			36	12	4	16		76	29	12	
2			37	17	5	17		74	28	10	
3		10	43	20	5	18		57	26	8	
4		10	45	18		19		48	26	7	
5		10	44	18		20		42	31	8	
6		12	48	17		21		39	36	8	
7		13	50	15		22		33	30	6	
8		15	38	12		23	7	28	26	5	
9		20	33	14		24		22	24	4	
10		27	31	12		25		19	22	3	
11		35	30	11		26		21	22	2	
12		41	29	11		27		26	19	3	
13		46	29	9		28		30	20	3	
14		53	30	9		29		32	17	4	
15		59	28	8		30		35	16	4	
						31			13		

Monthly discharge of Trout Creek near Denio, Oreg., for the period April 3 to June 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
April 3–30	76		33.3	1,850
May	50	13	30.2	1,860
June	20	2	9.7	577
The period				

MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Great Basin at points other than regular gaging stations, made during the years ending September 30, 1924 and 1925, are listed in the following table.

Miscellaneous discharge measurements in the Great Basin during the years ending September 30, 1924 and 1925

Bear River Basin

Date	Stream	Tributary to or diverting from	Locality	Gage height	Discharge
1924–25				*Feet*	*Sec.-ft.*
Oct. 30	Bear River	Great Salt Lake	Sec. 28, T. 13 S., R. 44 E., half a mile below Stewart Dam and 4 miles south of Montpelier, Idaho.		135
Sept. 29	do	do	do	22.14	270
Oct. 31	do	do	Sec. 6, T. 12 S., R. 46 E., at Pescadero Siding, 6 miles northwest of Montpelier, Idaho.	7.46	643
Nov. 12	do	do	Sec. 26, T. 13 S., R. 40 E., immediately below junction of Oneida tailrace with river near Mink Creek, Idaho.	3.58	999
Sept. 30	do	do	do	3.77	1,100

Miscellaneous discharge measurements in the Great Basin during the years ending September 30, 1924 and 1925—Continued

Bear River Basin—Continued

Date	Stream	Tributary to or diverting from	Locality	Gage height	Discharge
1924–25				*Feet*	*Sec.-ft.*
Oct. 30	Bear Lake outlet canal	Bear Lake	Sec. 8, T. 14 S., R. 44 E., 1,000 feet below dike near Paris, Idaho.	15.28	441
Sept. 29	do	do	do	14.89	358
May 1	Tule Lakes outlet	Soda Creek	S. ½ sec. 27 and N. ½ sec. 34, T. 7 S., R. 42 E., at J. Staat ranch, 11 miles northeast of Soda Springs, Idaho.		17.7
30	do	do	do		19.8
July 6	do	do	do		20.3
28	do	do	do		18.3
Sept. 27	do	do	do		19.3
Apr. 30	Formation Springs	do	SE. ¼ sec. 28, T. 8 S., R. 42 E., at Russell Panning ranch, 5½ miles northeast of Soda Springs, Idaho.		25.8
May 30	do	do	do		24.9
July 7	do	do	do		27.6
28	do	do	do		26.2
Sept. 27	do	do	do		25.7
Weber River Basin					
May 5	East Canyon Creek	Weber River	NE. ¼ sec. 9, T. 2 N., R. 3 E., at old measuring weirs three-eighths of a mile below Davis and Weber Counties' Reservoir and 9 miles southeast of Morgan, Utah.	0.25	7.7
Jordan River Basin					
Aug. 4	South Jordan Canal	Jordan River	NE. ¼ sec. 22, T. 4 S., R. 1 W., at concrete rating flume 600 feet below point of division between South Jordan and Jordan & Salt Lake Canals.	2.34	131
Sevier Lake Basin					
June 9	Otter Creek	Sevier River	W. ½ sec. 28, T. 30 S., R. 2 W., just below outlet of Otter Creek Reservoir, at former gaging station "Otter Creek near Coyoto, Utah."	1.84	166
24	do	do	do	1.97	199
Aug. 14	do	do	do	1.72	153
May 29	Bullion Creek	do	Sec. 35, T. 27 S., R. 4 W., at former gaging station "Bullion Creek (upper station) near Marysvale, Utah."		57.1
					57.1
Apr. 14	Clear Creek	do	SE. ¼ sec. 32, T. 25 S., R. 4 W., at former gaging station "Clear Creek at Sevier, Utah."	1.94	31.2
May 8	do	do	do	2.38	75.2
June 14	do	do	do	2.28	37.9
28	do	do	do	2.46	81.4
July 27	do	do	do	1.08	13.5
Aug. 26	Brooklyn Canal	do	Sec. 6, T. 25 S., R. 3 W., one-fourth mile below head of canal at former gaging station "Brooklyn Canal near Elsinore, Utah."	.87	24.4
26	North Brooklyn Canal	Brooklyn Canal	300 yards east of Brooklyn Canal station, Utah.	(a)	11.4
26	East Brooklyn Canal	do	300 yards east of Brooklyn Canal station, Utah.	(b)	12.9

[a] Submerged orifice, 12 feet by 0.25 foot, complete contraction, head 0.50 foot.
[b] Submerged orifice, 12 feet by 0.25 foot, complete contractions, head 0.67 foot.

Miscellaneous discharge measurements in the Great Basin during the years ending September 30, 1924 and 1925—Continued

Minor basins in Nevada

Date	Stream	Tributary to or diverting from	Locality	Gage height	Discharge
1924-25				*Feet*	*Sec.-ft.*
July 14	Overland Creek	Franklin Lake	NE. ¼ sec. 26, T. 30 N., R. 58 E., 1 mile northeast of Ruby Valley at former gaging station "Overland Creek near Ruby Valley, Nev."	0.86	22.0

Antelope Valley Basin

1923-24					
Nov. 20	Rock Creek	Antelope Valley drainage basin.	Just above diversion tunnel at Pallett Creek near Valyermo, Calif.		[a] 6.2
Jan. 9	do	do	do		[a] 4.0
Feb. 4	do	do	do		[a] 3.4
Mar. 18	do	do	do		[a] 3.8
Apr. 8	do	do	do		15
May 8	do	do	do		[a] 4.4
June 6	do	do	do		[a] 2.5
Nov. 20	do	do	Just below outlet of diversion tunnel, near Valyermo, Calif.		9.6
Apr. 8	Rock Creek tunnel diversion.	Rock Creek	Intake above Pallet Creek, near Valyermo, Calif.		7.3
Nov. 20	Pallett Creek	do	1 mile above mouth, near Valyermo, Calif.		1.0
20	do	do	Just above mouth, near Valyermo, Calif.		.5
1924-25					
Oct. 1	Rock Creek	Antelope Valley drainage basin.	Just above junction with Pallett Creek near Valyermo, Calif.		1.6
24	do	do	do		1.8
Dec. 10	do	do	do		2.4
Jan. 14	do	do	do		2.3
Feb. 17	do	do	do		2.6
Mar. 11	do	do	do		1.8
Apr. 9	do	do	do		4.6
15	do	do	do		3.5
May 2	do	do	do		3.4
5	do	do	do		3.2
29	do	do	do		2.0
June 22	do	do	do		2.0
July 8	do	do	do		1.9
Aug. 24	do	do	do		2.1
Sept. 5	do	do	do		1.8
26	do	do	do		2.1

Walker River Basin

Oct. 24	East Walker River	Walker River	SW. ¼ sec. 4, T. 11 N., R. 26 E., at former gaging station, "East Walker River above Mason Valley, near Mason, Nev."	0.44	10.6
Feb. 18	do	do	do	.48	14.2
Mar. 3	do	do	do	.54	12.7
24	do	do	do	.98	55.8
May 18	do	do	do	1.20	82.7
June 25	do	do	do	1.51	124
Mar. 2	Topaz Lake feeder canal.	West Walker River	Sec. 12, T. 9 N., R. 22 E., 1½ miles north of Swarger ranch and 4 miles north of Topaz, Calif.	2.04	66.6
Apr. 15	do	do	do	3.98	277
May 9	do	do	do	5.00	469
17	do	do	do	4.46	372
June 30	do	do	do	5.65	622

[a] Entire flow diverted into tunnel.

Miscellaneous discharge measurements in the Great Basin during the years ending September 30, 1924 and 1925—Continued

Humboldt-Carson Sink Basin

Date	Stream	Tributary to or diverting from	Locality	Gage height	Discharge
1924–25				*Feet*	*Sec.-ft.*
June 17	Starr Creek	Humboldt River	NE. ¼ sec. 12, T. 36 N., R. 59 E., at former gaging station "Starr Creek near Deeth, Nev."	2.76	94.4
17	Secret Creek	Lamoille Creek	Sec. 1, T. 34 N., R. 59 E., 15 miles southeast of Halleck, at former gaging station "Secret Creek near Halleck, Nev."	.86	28.6
Feb. 20	Maggie Creek	Humboldt River	Sec. 26, T. 33 N., R. 52 E., at former gaging station, "Maggie Creek at Carlin, Nev."	1.60	11.6

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