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

Water-Supply Paper 629

SURFACE WATER SUPPLY *of the* UNITED STATES 1926

PART IX
COLORADO RIVER BASIN

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Prepared in cooperation with
THE STATES OF COLORADO, WYOMING
UTAH, CALIFORNIA, and ARIZONA

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SURFACE WATER SUPPLY OF THE COLORADO RIVER BASIN, 1926

AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting records of measurements of flow made on streams in the United States during the year ending September 30, 1926.

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, 1895–1926

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
1901–2	100,000.00	1921–1923	180,000.00
1903–1906	200,000.00	1924–25	170,000.00
1907	150,000.00	1926	165,000.00
1908–1910	100,000.00	1927	151,000.00

In the execution of the work many private and State organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 8.

Measurements of stream flow have been made at about 5,250 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1926, 1,730 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at

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

DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner's inches, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, 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 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, 1925, and ending September 30, 1926. 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

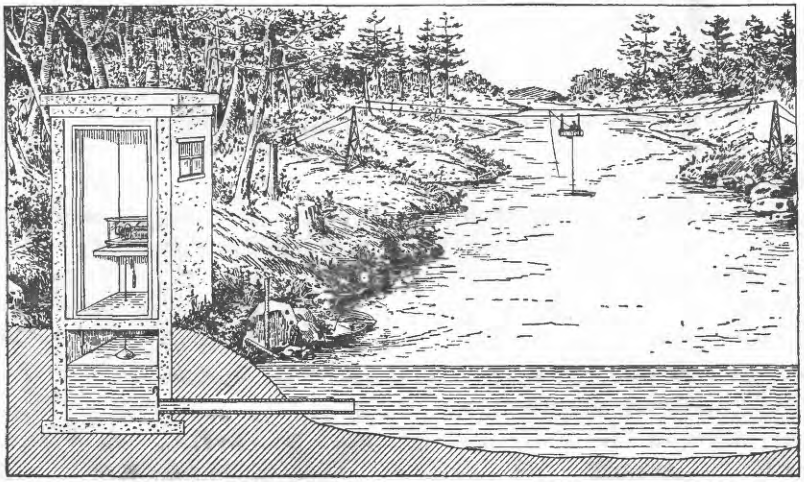

FIGURE 1.—Typical gaging station

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 Geological Survey should be used with caution because of possible inherent but unknown sources of error.

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 on application furnish lists giving prices.

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

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

Augusta, Me., State House.
Boston, Mass., 2500 Customhouse.
Hartford, Conn., 64 State Capitol.
Albany, N. Y., 904 Home Savings Bank Building.
Trenton, N. J., 423 Statehouse Annex.
Charlottesville, Va., Brooks Museum, University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 608 City Hall.
Chattanooga, Tenn., 630 Power Building.
Tuscaloosa, Ala., Post Office Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Chicago, Ill., 1510 Consumers Building.
Madison, Wis., 337N State Capitol.
Thief River Falls, Minn., 618 Knight Avenue north.
Topeka, Kans., 23 Federal Building.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Capitol.
Tucson, Ariz., 104 Agricultural Building, University of Arizona.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.

Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Helena, Mont., 45–46 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 600 Federal Building.
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 5,250 points in the United States, and the data obtained have been published in the reports tabulated below:

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

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

Report	Character of data	Year
10th A, pt. 2	Descriptive information only	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept., 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	Mean discharge in second-feet	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893.
B 131	Descriptions, measurements, gage heights, and ratings	1893 and 1894.
16th A, pt. 2	Descriptive information only	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895 and 1896.
W 15	Descriptions, measurements, and gage heights eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.

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 following table 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, Me., 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 contain 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, 1899–1926

[For basins included see p. 6]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII–A	XII–B	XII–C
1899 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	33	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] 179, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912	321	322	323	324	325	326	327	328	329	330	331	332–A	332–B	332–C
1913	351	352	353	354	355	356	357	358	359	360	361	362–A	362–B	362–C
1914	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919–20	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926	621	622	623	624	625	626	627	628	629	630	631	632	633	634

[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

The work in Arizona, Utah, and Wyoming was carried on under cooperative agreement between the United States Geological Survey and the States. Special acknowledgments are due to the cooperating State officials, F. P. Trott, State water commissioner of Arizona; G. M. Bacon, State engineer of Utah; and F. C. Emerson, State engineer of Wyoming.

The State engineer of Colorado, M. C. Hinderlider, furnished field data for some stations in Colorado and complete records for other stations.

The United States Bureau of Reclamation paid the gage observer on Taylor River at Almont, Colo.

The United States Weather Bureau paid the gage observer for the station on Green River at Green River, Wyo.

The United States Indian Service assisted in the maintenance of stations on Gila River near San Carlos and Kelvin, Ariz. Financial assistance for work on Colorado River in Arizona was furnished by the United States Bureau of Reclamation, the Federal Power Commission, the United States Weather Bureau, the State of California, the city of Los Angeles, the Palo Verde Irrigation District, and Southern California Edison Co.

Assistance in the collection of data was rendered by Utah Power & Light Co., Best Flume & Power Co., Vernal Milling & Light Co., Redlands Irrigation Co., John L. Fish, and Gila Water Co.

DIVISION OF WORK

Data for stations in Arizona were collected and prepared for publication under the direction of W. E. Dickinson, district engineer, who was assisted by D. A. Dudley, J. H. Gardiner, D. H. Barber, B. S. Barnes, J. A. Baumgartner, W. E. Code, K. C. McCarter, G. S. Hayes, and J. E. Klohr.

Data for stations in Colorado and Wyoming were collected and prepared for publication under the direction of Robert Follansbee, district engineer who was assisted by P. V. Hodges and Miss Nellie L. Esterly.

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

The records were reviewed and the manuscript assembled by B. J. Peterson.

GAGING-STATION RECORDS

COLORADO RIVER BASIN

COLORADO RIVER AND TRIBUTARIES ABOVE GREEN RIVER

COLORADO RIVER AT HOT SULPHUR SPRINGS, COLO.

LOCATION.—In sec. 2, T. 1 N., R. 78 W., at highway bridge near Denver & Salt Lake Railroad station in Hot Sulphur Springs, Grand County. Nearest tributary, Ute Bill Creek, enters some distance upstream.

DRAINAGE AREA.—785 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—July 22, 1904, to September 30, 1909; September 23, 1910, to September 30, 1924; October 1, 1925, to September 30, 1926.

GAGE.—Chain gage on downstream side of bridge; read by C. S. Jenne.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of well-compacted gravel; control 150 feet downstream; somewhat shifting. Banks subject to overflow at extreme high stage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.4 feet at 7.30 p. m. June 7 (discharge, 5,950 second-feet); minimum discharge occurred during winter.

1904–1909; 1910–1924; 1926: Maximum stage recorded, 8.7 feet at 5 a. m. June 15, 1921 (discharge, 10,300 second-feet); minimum discharge, 63 second-feet February 25 and 26, 1908.

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

DIVERSIONS.—Water diverted from Colorado River and tributaries above station for irrigation of 18,000 acres. In addition, 14,400 acre-feet was diverted into Cache la Poudre drainage basin during 1926.

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

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice. Rating curve well defined. Gage read to half-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method October 7 to November 13. Records good except for periods of missing gage heights and for periods affected by ice, for which they are fair.

Discharge measurements of Colorado River at Hot Sulphur Springs, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft*
Oct. 27	1.88	353	Apr. 6	[a] 3.00	209	Aug. 12	2.57	640
Dec. 8		133	May 13	3.50	1,180	Sept. 22	1.56	164
Jan. 26		135	June 11	6.88	4,900			
Feb. 24		108	July 13	4.70	1,900			

[a] Stage-discharge relation affected by ice.

NOTE.—Measurements made by employees of the State engineer.

Daily discharge, in second-feet, of Colorado River at Hot Sulphur Springs, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	May	June	July	Aug.	Sept.
1	300	292	1,770	4,280	2,600	700	284
2	275	288	1,830	4,540	2,620	558	271
3	280	292	1,980	4,630	2,640	644	263
4	350	288	2,480	4,840	2,530	711	292
5	410	204	2,800	4,600	2,600	700	305
6	440	288	3,000	4,900	2,260	722	310
7	471	276	2,640	5,910	2,340	814	280
8	431	250	1,980	5,710	2,930	856	292
9	388	225	1,710	5,320	2,370	797	280
10	369	212	1,720	4,900	2,840	780	251
11	417	200	1,430	4,840	2,280	700	239
12	466	196	1,250	4,660	1,950	628	239
13	441	204	1,180	5,510	1,860	589	235
14	417		1,090	4,980	1,770	522	227
15	431		1,170	4,370	1,730	486	215
16	412	157	1,360	4,460	1,590	486	204
17	402		1,570	3,950	1,530	486	200
18	388		1,750	3,620	1,510	456	215
19	359		1,720	3,270	1,490	456	185
20	355		1,980	3,000	1,370	407	178
21	332		2,620	2,450	1,370	388	163
22	323		3,180	2,340	1,290	388	163
23	341	135	3,700	2,120	1,170	359	160
24	336		4,200	2,080	1,030	341	153
25	341		4,420	2,230	885	341	149
26	323		4,540	2,340	944	314	149
27	350		5,080	2,560	914	314	163
28	328	145	4,460	2,640	897	314	171
29	355		4,320	2,530	914	305	163
30	332		3,700	2,600	838	271	160
31	341	-------	4,030	-------	856	263	-------

NOTE.—No gage-height record Oct. 1–6; stage-discharge relation affected by ice Nov. 8–9 and 14–30; discharge based on comparison with flow of Colorado River at Glenwood Springs. Braced figures give mean discharge for period indicated.

Monthly discharge of Colorado River at Hot Sulphur Springs, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	471	275	371	22,800
November	292	----------	190	11,300
May	5,080	1,090	2,600	160,000
June	5,910	2,080	3,870	230,000
July	2,930	838	1,740	107,000
August	856	263	519	31,900
September	310	149	219	13,000

COLORADO RIVER AT GLENWOOD SPRINGS, COLO.

LOCATION.—In sec. 9, T. 6 S., R. 89 W., at Glenwood Springs, Garfield County No Name Creek enters Colorado River 2 miles above station and Roaring Fork enters half a mile below.

DRAINAGE AREA.—4,560 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—January 1, 1900, to September 30, 1926, also May 12 to July 17, 1899, at point just above Roaring Fork.

GAGE.—Friez water-stage recorder on right bank in front of power house; inspected by C. H. Oberly and Andrew Dickson.

DISCHARGE MEASUREMENTS.—Made from cable beneath State Street bridge, a third of a mile below gage.

CHANNEL AND CONTROL.—Bed composed of well-compacted gravel, on which silt is deposited. Control at riffle 300 feet downstream; slightly shifting at intervals. Banks not subject to overflow except at extremely high stages.

EXTREMES OF DISCHARGE.—Maximum discharge occurred when water-stage recorder was not operating. By comparison with record of Roaring Fork at Glenwood Springs the mean daily discharge was estimated at 22,700 second-feet on June 7; minimum stage, 2.1 feet from 7 to 11 a. m. December 30 and 31 (discharge, 200 second-feet).

1900–1926: Maximum stage recorded, 12.55 feet at noon June 14 and 15, 1918 (discharge, 30,100 second-feet); minimum stage, 1.6 feet at 5 p. m. February 6, 1921 (discharge, 80 second-feet).

ICE.—Stage-discharge relation not affected by ice. Hot water from springs keeps river open.

DIVERSIONS.—Between this station and Hot Sulphur Springs, water is diverted for irrigation of a few hundred acres.

REGULATION.—Shoshone power plant of Public Service Co., 7 miles upstream, controls flow during day at low water but has insufficient pondage to control it for more than a few hours.

ACCURACY.—Stage-discharge relation practically permanent; not affected by ice. Rating curve well defined. Operation of water-stage recorder satisfactory except as explained 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 from November 20 to April 5 when daily discharge was computed from bihourly discharge on account of diurnal fluctuations. Records excellent except for period of missing gage height, for which they are fair.

Discharge measurements of Colorado River at Glenwood Springs, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 7	3.81	1,150	May 11	6.50	5,930	Aug. 24	4.09	1,490
Nov. 18	3.68	1,080	June 8	10.55	21,800			
Mar. 30	3.73	1,150	July 28	5.27	3,030			

NOTE.—All measurements, except the one on Nov. 18, were furnished by State engineer.

Daily discharge, in second-feet, of Colorado River at Glenwood Springs, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	1,410	1,010	626	751	696	844	7,300	15,700	9,230	2,910	1,400
2	1,280	1,420	1,030	834	710	721	906	7,300	16,500	9,230	2,830	1,390
3	1,260	1,420	1,040	791	768	746	769	7,930	17,800	8,570	2,750	1,270
4	1,220	1,400	1,010	922	758	743	803	8,900	18,700	8,250	2,830	1,360
5	1,250	1,310	852	832	674	824	956	9,910	19,100	8,570	2,910	1,360
6	1,500	1,240	924	857	682	818	1,340	11,000	19,800	8,570	3,190	1,130
7	1,580	1,210	900	830	624	590	1,860	10,600	22,700	9,230	3,090	918
8	1,720	1,200	968	847	774	711	2,280	8,900	21,700	11,000	3,090	966
9	1,680	1,040	835	819	732	743	2,410	7,610	20,800	10,600	3,290	1,040
10	1,620	1,060	711	744	736	734	2,340	6,390	19,100	9,230	3,290	1,020
11	1,670	1,000	596	823	703	837	2,610	5,670	17,800	8,570	3,090	956
12	1,710	1,000	638	706	704	827	2,750	5,250	17,400	7,300	2,830	928
13	1,710	1,060	798	643	730	848	2,680	4,700	17,800	6,990	2,610	862
14	1,670	1,110	810	638	626	738	2,680	4,190	17,800	6,390	2,480	871
15	1,590	1,110	621	649	768	854	2,540	4,070	17,400	5,960	2,340	880

Daily discharge, in second-feet, of Colorado River at Glenwood Springs, Colo., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	1,540	1,020	708	704	697	810	2,680	4,700	16,100	5,670	2,220	937
17	1,500	946	740	703	745	833	3,500	5,670	14,000	5,530	2,100	966
18	1,470	1,020	631	728	687	825	4,320	6,690	12,000	5,250	1,980	985
19	1,460	1,040	732	723	650	931	4,320	6,990	10,600	4,970	1,860	975
20	1,410	969	733	760	712	984	4,700	7,300	10,600	4,700	1,740	946
21	1,420	893	754	763	612	966	4,570	8,900	10,200	4,570	1,680	918
22	1,400	858	796	696	752	919	4,970	11,300	9,230	4,320	1,620	862
23	1,400	878	843	724	681	1,110	5,250	13,200	8,800	4,070	1,570	844
24	1,430	959	842	614	645	1,200	5,250	15,200	8,250	3,840	1,510	790
25	1,470	932	842	725	678	1,410	4,440	16,500	8,250	3,610	1,460	799
26	1,430	1,010	785	737	704	1,310	4,570	17,000	8,570	3,400	1,460	742
27	1,390	1,010	785	743	707	1,100	5,110	16,500	8,570	3,090	1,360	844
28	1,370	1,050	733	570	653	1,070	5,670	15,700	8,900	3,090	1,390	758
29	1,400	1,060	662	648	-------	897	5,810	15,700	8,900	3,400	1,390	880
30	1,470	969	626	853	-------	940	6,390	14,000	8,900	3,610	1,360	899
31	1,480	-------	527	638	-------	869	-------	14,000	-------	3,190	1,360	-------

NOTE.—No gage-height record June 6–7, 23; discharge based on comparison with flow of Roaring Fork at Glenwood Springs.

Monthly discharge of Colorado River at Glenwood Springs, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,720	1,220	1,480	91,000
November	1,420	858	1,090	64,900
December	1,040	527	790	48,600
January	922	570	738	45,400
February	774	612	702	39,000
March	1,410	590	890	54,700
April	6,390	769	3,310	197,000
May	17,000	4,070	9,650	593,000
June	22,700	8,250	14,400	857,000
July	11,000	3,090	6,260	385,000
August	3,290	1,360	2,240	138,000
September	1,400	742	983	58,500
The year	22,700	527	3,550	2,570,000

COLORADO RIVER NEAR PALISADE, COLO.

LOCATION.—In sec. 2, T. 11 S., R. 98 W., at highway bridge 2 miles above Palisade, Mesa County. Nearest large tributary, Plateau Creek, enters 6 miles above.

DRAINAGE AREA.—8,790 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 9, 1902, to September 30, 1926.

GAGE.—Chain gage on downstream side of bridge near midspan; read by A. Barnhisel.

DISCHARGE MEASUREMENTS.—Made from bridge 2 miles below gage.

CHANNEL AND CONTROL.—Bed composed of gravel, silt, and scattered boulders; control is at rapids 300 feet downstream; practically permanent. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 21.8 feet at 6 p. m. June 7 (discharge, 34,300 second-feet); minimum stage, 11.8 feet at 6 p. m. September 26 (discharge, 900 second-feet).

1902–1926: Maximum stage recorded, 24.4 feet at 7 a. m. June 16, 1921 (discharge, 52,400 second-feet); minimum stage, 11.4 feet on September 2, 1924 (discharge, 630 second-feet).

ICE.—Stage-discharge relation affected by ice during some winters.

DIVERSIONS.—Principal diversion between Glenwood Springs and Palisade gaging station is the Government high-line canal, which has a capacity of 1,425 second-feet. Enough of the water diverted for power is returned to the river to supply a priority of 521 second-feet for the Grand Valley Canal.

REGULATION.—None.

COOPERATION.—Complete records furnished by Bureau of Reclamation.

Daily discharge, in second-feet, of Colorado River near Palisade, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,920	2,220	1,760	1,490	1,390	1,390	1,540	12,200	24,300	13,900	3,230	1,110
2	1,860	2,570	1,810	1,540	1,340	1,490	1,540	11,900	27,400	13,800	3,160	1,070
3	1,860	3,000	1,700	1,540	1,490	1,540	1,590	12,700	29,000	13,200	2,930	1,030
4	1,810	2,570	1,700	1,490	1,490	1,640	1,590	14,500	29,600	12,600	2,780	990
5	1,860	2,430	1,640	1,590	1,490	1,700	1,540	16,000	30,700	12,200	2,860	990
6	3,880	2,290	1,700	1,590	1,390	1,760	1,860	18,000	31,000	13,400	4,920	1,150
7	3,210	2,220	1,810	1,490	1,390	1,640	2,500	17,600	32,500	13,800	3,880	1,230
8	2,940	2,220	1,540	1,440	1,440	1,490	3,310	15,400	33,400	15,800	3,880	1,320
9	3,120	2,220	1,760	1,490	1,540	1,700	3,680	12,900	32,800	16,600	3,780	1,420
10	2,540	2,160	1,440	1,440	1,390	1,760	3,160	10,700	30,400	15,000	3,780	1,370
11	3,980	2,160	1,290	1,390	1,490	1,700	3,230	9,580	28,200	12,600	3,780	1,280
12	3,230	2,100	1,240	1,340	1,440	1,700	3,480	8,030	27,400	11,500	3,300	1,280
13	3,230	2,160	1,440	1,340	1,440	1,700	3,390	7,300	27,400	10,700	3,120	1,230
14	2,780	2,220	1,760	1,200	1,440	1,640	3,480	6,740	27,100	10,200	2,780	1,190
15	2,860	2,160	1,860	1,290	1,390	1,340	3,310	6,470	26,000	9,100	2,390	1,190
16	2,570	2,160	1,440	1,290	1,390	1,700	3,390	6,880	24,800	8,640	2,320	1,230
17	3,000	2,100	1,440	1,390	1,390	1,920	3,580	8,480	22,600	7,880	2,180	1,230
18	2,780	2,100	1,440	1,540	1,390	1,920	5,600	9,900	19,000	7,300	2,000	1,230
19	2,500	1,810	1,540	1,490	1,440	1,860	5,960	10,900	16,800	7,160	2,000	1,230
20	2,430	1,760	1,810	1,490	1,340	2,100	6,470	11,500	16,600	6,470	1,940	1,230
21	2,430	1,440	1,590	1,390	1,340	1,760	6,880	14,100	15,800	6,080	1,880	1,230
22	2,430	1,590	1,440	1,340	1,340	1,760	7,160	17,000	14,800	5,720	1,820	1,110
23	2,430	1,760	1,390	1,200	1,340	1,860	8,480	20,500	13,100	5,250	1,640	1,070
24	2,430	1,810	1,490	1,060	1,340	1,980	8,790	24,300	12,900	4,810	1,420	1,030
25	2,360	1,980	1,540	1,240	1,440	1,980	8,330	27,100	13,600	4,280	1,110	1,030
26	2,290	1,920	1,700	1,290	1,390	2,040	8,030	26,800	13,600	4,080	1,320	950
27	2,290	1,980	1,540	1,390	1,390	1,860	8,940	26,300	13,800	3,780	1,230	1,230
28	2,220	1,920	1,590	1,340	1,390	1,540	9,900	25,000	13,900	3,780	1,230	1,230
29	2,220	2,040	1,540	1,390	-------	1,490	10,200	24,000	13,900	3,880	1,190	1,190
30	2,220	1,920	1,490	1,700	-------	1,490	11,200	23,500	13,800	4,080	1,110	1,640
31	2,220	-------	1,440	1,760	-------	1,640	--------	22,600	--------	3,780	1,070	------

NOTE.—Quantities have been changed slightly to comply with rules of computation used by U. S. Geol. Survey.

Monthly discharge of Colorado River near Palisade, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	3,980	1,810	2,580	159,000
November	3,000	1,440	2,100	125,000
December	1,860	1,240	1,580	97,200
January	1,760	1,060	1,420	87,300
February	1,540	1,340	1,410	78,300
March	2,100	1,340	1,710	105,000
April	11,200	1,540	5,070	302,000
May	27,100	6,470	15,400	947,000
June	33,400	12,900	22,500	1,340,000
July	16,600	3,780	9,080	558,000
August	4,920	1,070	2,450	151,000
September	1,640	950	1,190	70,800
The year	33,400	950	5,560	4,020,000

NOTE.—Monthly discharge computed by U. S. Geol. Survey from daily-discharge record furnished by the U. S. Bureau of Reclamation.

COLORADO RIVER NEAR CISCO, UTAH

LOCATION.—In NW. ¼ sec. 17, T. 23 S., R. 24 E., 1 mile below mouth of Dolores River and 15 miles by road south of Cisco, Grand County.

DRAINAGE AREA.—24,100 square miles (measured on General Land Office map).

RECORDS AVAILABLE.—November 10, 1914, to September 30, 1917, and October 1, 1922, to September 30, 1926; 25 miles downstream at Moab October 1, 1913, to November 10, 1914; flow about the same at both places.

GAGE.—Au continuous water-stage recorder on left bank half a mile above suspension highway bridge; inspected by G. C. Brown and Frank Hittle.

DISCHARGE MEASUREMENTS.—Made from cable 400 feet below gage.

CHANNEL AND CONTROL.—Channel straight for several hundred feet above and below station. Left bank high and not subject to overflow; right bank in extreme floods is overflowed between station and bridge. Bed composed of sand and gravel. Low-water control is a riffle a quarter of a mile below gage; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 15.20 feet at 4 p. m. May 27 (discharge, 52,400 second-feet); minimum stage, 1.16 feet at 5 a. m. September 27 (discharge, 1,430 second-feet).

1915–1917; 1923–1926: Maximum stage, 19.7 feet at 9 p. m. June 19, 1917 (discharge, 76,800 second-feet); minimum stage, 1.14 feet at 8 p. m. September 3, 1924 (discharge, 844 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Below practically all diversions. A large amount of water is diverted in Colorado for irrigation.

REGULATION.—Station is too far downstream to be affected, except in a general way, by regulation in Colorado.

ACCURACY.—Stage-discharge relation practically permanent except for slight shifting caused by temporary deposits of sediment on control; affected by ice January 1 to February 11. Standard 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 or by shifting-control method. Discharge during ice-affected periods and periods of missing gage height estimated by hydrographic comparison with flow at stations in Colorado and at Lees Ferry in Arizona. Records good except for estimated periods for which they are fair.

Discharge measurements of Colorado River near Cisco, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 11	2.43	2,790	Apr. 29	8.60	24,400	Aug. 27	2.02	2,020
Mar. 24	2.85	3,760	June 23	7.62	19,700			

Daily discharge, in second-feet, of Colorado River near Cisco, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,810	4,320	3,310			2,340	3,290	26,300	34,600	17,400	4,500	1,620
2	3,690	4,430	3,220			2,420	3,430	25,500	37,900	17,900	4,200	1,560
3	3,390	4,790	3,260			2,470	3,390	24,500	41,300	17,800	4,000	1,540
4	3,270	4,890	3,350			2,610	3,450	26,600	43,200	16,700	3,900	1,510
5	5,200	4,630	3,240		2,700	2,880	3,290	28,800	44,600	16,000	3,800	1,470
6	13,000	4,350	2,990			3,140	3,510	32,300	44,800	17,400	5,500	1,460
7	5,880	3,940	3,100			3,270	4,390	35,800	45,200	18,100	5,500	1,470
8	5,470	3,830	3,160	2,400		2,950	6,950	31,700	46,800	20,400	5,000	1,650
9	5,220	3,920	3,080			2,540	9,070	27,900	45,200	22,700	5,000	1,670
10	5,030	3,830	3,030				8,600	22,500	43,700	20,800	5,500	1,820
11	5,670	3,730	2,770		2,700		7,650	18,700	41,300	18,800	5,500	1,810
12	6,610	3,790	2,650		2,680	2,800	8,040	16,200	39,300	16,000	5,200	1,810
13	5,800	3,730	2,650		2,660		8,720	15,000	38,300	14,000	4,600	1,790
14	6,090	3,860	2,650		2,880		8,630	13,800	37,900	13,000	4,000	1,810
15	6,170	3,770	2,650		2,750		8,880	13,500	35,800	12,000	3,400	1,880
16	5,780	3,710	2,680		2,660	3,060	9,520	13,400	34,600	11,000	3,300	1,840
17	5,320	3,430	2,580		2,720	3,590	13,100	15,000	32,600	10,000	3,000	1,880
18	5,130	3,490	2,540	2,200	2,580	3,810	12,400	17,300	29,400	9,500	2,800	1,790
19	5,010	3,550	2,560		2,520	4,060	14,000	19,200	25,400	9,000	2,800	1,760
20	4,890	3,530	2,560		2,420	4,240	16,700	20,900	22,700	8,000	2,600	1,750
21	4,770	3,350	2,600		2,380	4,320	18,200	24,200	21,600	7,600	2,400	1,750
22	4,570	3,180	2,500		2,440	4,410	20,100	29,800	21,000	7,300	2,300	1,940
23	4,540	3,140	2,450	2,100	2,360	4,210	22,400	33,400	19,500	6,800	2,200	1,720
24	4,630	3,160	2,400		2,410	3,940	22,600	37,200	18,200	6,200	2,100	1,580
25	4,660	3,240	2,500		2,330	4,460	23,900	40,800	18,200	5,600	1,900	1,480
26	4,660	3,410	2,650		2,230	5,060	23,800	41,900	18,200	5,300	2,100	1,510
27	4,570	3,510	2,800		2,360	4,820	24,400	47,500	18,000	5,000	2,020	1,600
28	4,460	3,470	2,830	2,300	2,360	4,460	25,100	42,100	18,000	5,000	1,900	1,760
29	4,390	3,370	2,750		-------	4,000	24,000	38,300	18,400	5,200	1,750	1,680
30	4,320	3,330	2,560		-------	3,710	24,600	35,200	17,800	5,500	1,680	1,880
31	4,320	-------	2,560	2,700	-------	3,450	--------	34,200	--------	5,500	1,670	------

NOTE.—No gage-height record and discharge estimated by hydrographic comparison Oct. 19, 20, Dec. 21-27, Jan. 1-30, Feb. 1-10, Mar. 11-15, and July 12 to Aug. 26. Braced figures give estimated mean discharge for periods indicated.

Monthly discharge of Colorado River near Cisco, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	13,000	3,270	5,170	318,000
November	4,890	3,140	3,760	224,000
December	3,350	2,400	2,790	172,000
January	2,700	----------	2,310	142,000
February	2,880	2,230	2,590	144,000
March	5,060	2,340	3,450	212,000
April	25,100	3,290	12,900	768,000
May	47,500	13,400	27,400	1,680,000
June	46,800	17,800	31,800	1,890,000
July	22,700	5,000	12,000	738,000
August	5,500	1,670	3,420	210,000
September	1,940	1,460	1,690	101,000
The year	47,500	1,460	9,120	6,600,000

COLORADO RIVER AT LEES FERRY, ARIZ.

LOCATION.—At Lees Ferry just above mouth of Paria River, at head of Marble Gorge, and at lower end of Glen Canyon, Coconino County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—June 13, 1921, to September 30, 1926.

GAGE.—Continuous water-stage recorder installed January 19, 1923, on left bank at head of Paria riffle. Zero of gage is 3,106.35 feet above sea level. Recorder inspected by D. A. Dudley and Jerry Johnson or Elmer Johnson.

DISCHARGE MEASUREMENTS.—Made from cable about 1 mile upstream.

CHANNEL AND CONTROL.—Channel at measuring section straight and fairly uniform. Banks high and not subject to overflow. Bed is composed of sand and silt and is scoured several feet during each flood season. Channel at gage confined between banks that are not subject to overflow. Control is Paria riffle; composed of gravel and boulders.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 16.7 feet at 8 a. m. May 29 (discharge, 86,500 second-feet); minimum stage from water-stage recorder, 6.16 feet at 9 p. m. September 10 (discharge, 3,100 second-feet).

1921–1926: Maximum stage recorded, 26.5 at 2 p. m. June 18, 1921 discharge, about 190,000 second-feet); minimum stage, 4.2 feet at 5 p. m. December 27, 1924 (discharge, 750 second-feet); river frozen over.

The high-water mark of the flood of 1884 at the ranch near the mouth of Paria River, as identified by Jerry Johnson, is at altitude of 3,137.1 feet above sea level.

ICE.—Stage-discharge relation occasionally affected by ice for short periods.

DIVERSIONS.—Water is diverted from main river and tributaries above station for irrigation of about 1,500,000 acres.

REGULATION.—None.

ACCURACY.—Stage-discharge relation practically permanent during year, except for slight changes at the beginning of the spring floods and more changeable conditions during the short periods of maximum discharge. Rating curves well defined below 72,000 second-feet, but not satisfactory above. During the year 39 discharge measurements were made, of which 27 were made during the period of the spring floods, April 16 to July 12. Operation of water-stage recorder satisfactory, except August 18–19. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph, except for periods indicated in footnote to table of daily discharge and for a few days when hourly discharge was used because of rapidly changing stage. Records good.

Daily discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,000	11,600	8,610	6,590	5,090	6,170	15,600	47,600	67,000	28,000	10,000	4,780
2	12,200	11,500	8,300	6,620	5,060	6,140	14,100	48,800	66,300	27,000	9,470	4,410
3	11,200	11,600	8,300	6,690	5,330	6,110	14,000	50,900	69,700	25,700	9,350	4,150
4	10,500	11,800	8,360	6,810	5,550	6,020	13,000	50,900	73,600	25,300	9,390	3,920
5	16,500	11,700	8,540	6,870	5,870	6,110	11,800	52,600	75,000	25,600	8,850	3,700
6	29,700	12,100	8,470	6,780	6,200	6,320	11,300	55,300	76,000	25,400	8,470	3,520
7	25,500	12,200	8,650	6,750	6,290	6,720	11,300	59,600	77,500	25,700	8,890	3,390
8	30,600	11,900	8,720	6,780	6,320	7,350	12,300	67,300	78,000	25,800	8,060	3,330
9	22,500	11,800	8,400	6,470	6,410	8,050	14,600	70,000	78,500	26,700	7,800	3,210
10	16,700	11,400	8,120	6,350	6,440	8,650	15,300	64,100	78,000	27,600	8,890	3,150
11	15,900	10,900	8,190	6,170	6,290	9,130	17,600	59,000	75,500	29,100	10,500	4,880
12	15,700	10,700	7,850	6,170	6,350	9,240	20,000	53,600	73,400	28,600	11,000	7,940
13	17,100	10,400	7,620	6,020	6,380	8,790	19,700	47,500	70,600	29,900	11,100	7,200
14	19,700	10,400	7,580	6,020	6,500	8,940	22,500	42,200	68,100	35,800	11,600	7,200
15	19,200	10,200	7,350	5,840	6,780	9,470	23,200	38,600	65,800	33,800	12,200	5,170
16	19,300	9,890	7,190	5,640	6,780	9,660	22,800	35,300	62,900	29,800	12,200	4,550
17	19,700	9,700	7,190	5,550	6,780	9,350	22,800	33,300	61,400	26,700	12,200	6,120
18	17,100	9,740	7,000	5,550	6,910	9,740	23,900	32,000	59,900	24,000	11,000	4,930
19	15,600	9,660	6,810	5,390	6,870	10,100	26,900	33,300	55,800	21,900	9,800	4,330
20	15,000	9,540	6,590	5,280	6,750	11,000	31,600	35,800	49,500	20,400	8,770	4,670

Daily discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	14,400	9,470	6,290	5,400	6,840	12,800	33,200	38,300	44,400	18,700	8,580	4,900
22	13,800	9,350	5,730	5,350	6,660	14,600	37,200	41,800	40,700	17,500	8,060	4,300
23	13,300	9,160	5,530	5,300	6,470	14,700	39,500	48,800	38,600	16,000	7,440	4,040
24	13,200	8,980	5,440	5,100	6,440	15,200	40,200	58,600	37,200	14,700	6,890	3,870
25	12,800	8,540	5,640	5,050	6,320	15,800	42,600	64,900	34,700	13,600	6,510	3,820
26	12,800	8,260	5,670	5,000	6,380	15,100	45,100	71,700	32,400	12,900	6,050	4,310
27	12,500	8,220	5,810	4,950	6,260	14,100	47,800	76,000	31,400	12,100	5,700	6,250
28	12,500	8,190	6,110	5,050	6,260	14,400	48,200	81,000	30,700	12,000	5,510	8,620
29	12,300	8,400	6,620	4,980	-------	14,700	48,300	84,000	29,200	13,400	5,320	7,800
30	12,000	8,650	6,720	4,980	-------	14,200	49,000	77,500	28,500	11,800	5,140	6,090
31	11,800	-------	6,690	4,980	-------	13,700	-------	71,700	-------	11,300	4,930	------

NOTE.—Discharge Jan. 18 and 21–28 estimated, because of ice, by hydrographic comparison with Colorado River near Grand Canyon. Discharge May 27–30 and June 5–11 estimated by hydrographic comparison with Colorado River near Grand Canyon because of unsatisfactory rating for Lees Ferry. Discharge Aug. 18–19 interpolated because of unsatisfactory record of gage height.

Monthly discharge of Colorado River at Lees Ferry, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	30,600	10,500	16,300	1,000,000
November	12,200	8,190	10,200	607,000
December	8,720	5,440	7,230	445,000
January	6,870	4,950	5,820	358,000
February	6,910	5,060	6,310	350,000
March	15,800	6,020	10,400	640,000
April	49,000	11,300	26,500	1,580,000
May	84,000	32,000	54,600	3,360,000
June	78,500	28,500	57,700	3,430,000
July	35,800	11,300	22,500	1,380,000
August	12,200	4,930	8,700	535,000
September	8,620	3,150	4,950	295,000
The year	84,000	3,150	19,300	14,000,000

COLORADO RIVER AT BRIGHT ANGEL CREEK, NEAR GRAND CANYON, ARIZ.

LOCATION.—300 feet above Kaibab Bridge, Grand Canyon National Park, a quarter of a mile above Bright Angel Creek, and 11 miles by trail northeast of Grand Canyon, Coconino County.

DRAINAGE AREA.—Not measured.

RECORDS AVAILABLE.—October 1, 1922, to September 30, 1926.

GAGE.—Water-stage recorder in concrete shelter and stilling well on right bank. Inspected by B. S. Barnes, D. H. Barber, W. E. Code, and K. C. McCarter, resident hydrographers. Zero of gage is 2,420.3 feet above sea level.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet upstream from gage.

CHANNEL AND CONTROL.—Channel at gage and measuring section ranges from a width of 250 feet at low water to 325 feet at high water. Banks are solid rock and very high. Bed is silt and sand which scours and fills each season. Control is Bright Angel Creek rapids.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 24.27 feet at 2.30 p. m. May 29 (discharge, 85,600 second-feet); minimum stage, from water-stage recorder, 2.14 feet at 1 a. m. September 12 (discharge, 3,810 second-feet).

1923–1926: Maximum stage recorded, 28.5 feet at 6 p. m. September 19, 1923 (discharge, 112,000 second-feet); minimum stage, —0.70 foot at 8 p. m. December 28, 1924 (discharge, 700 second-feet).

ICE.—No ice has occurred at this station during the period of record.

DIVERSIONS.—Water is diverted from main river and tributaries above station for irrigation of about 1,500,000 acres.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed to some extent during period of high water in May. Rating curves very well defined by 74 discharge measurements made during the year and well distributed with respect to both time and river stage. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records excellent.

Daily discharge, in second-feet, of Colorado River at Bright Angel Creek, near Grand Canyon, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14,000	11,900	8,770	6,840	5,280	6,500	14,400	50,200	68,500	28,200	11,500	5,260
2	13,300	11,700	8,660	6,800	5,250	6,380	16,800	50,000	67,100	27,600	10,400	5,000
3	12,300	11,700	8,550	6,790	5,280	6,320	14,700	51,800	68,700	26,400	10,200	4,790
4	11,300	11,800	8,530	6,740	5,550	6,350	14,000	52,700	72,400	25,500	10,000	4,590
5	11,600	12,000	8,560	6,960	5,800	6,450	13,000	52,400	74,700	26,100	9,780	4,460
6	28,400	11,900	8,600	7,030	6,170	6,430	12,100	55,800	75,600	25,800	9,440	4,320
7	28,900	12,400	8,550	6,970	6,500	6,720	13,000	57,800	77,200	26,300	9,060	4,220
8	29,000	12,500	8,650	6,920	6,540	7,120	14,900	64,700	78,000	25,900	9,200	4,110
9	27,200	12,100	8,730	6,900	6,600	7,830	20,000	72,400	77,900	26,900	8,650	4,050
10	20,200	11,700	8,500	6,640	6,680	8,480	20,400	67,700	78,500	27,300	8,570	3,940
11	16,800	11,400	8,270	6,520	6,660	9,020	19,100	61,900	76,400	28,900	10,700	3,870
12	16,200	11,100	8,320	6,400	6,500	9,570	21,500	57,100	74,100	29,600	11,800	5,620
13	16,700	10,800	8,260	6,320	6,610	9,300	22,300	51,000	72,200	28,700	11,600	9,900
14	18,200	10,500	8,050	6,110	6,630	8,890	22,700	45,400	70,000	35,400	11,400	9,350
15	20,700	10,500	7,830	6,080	6,910	9,260	24,500	41,000	68,300	36,900	12,200	7,620
16	19,300	10,200	7,530	5,920	7,200	9,910	24,300	38,000	65,300	32,400	12,500	5,970
17	20,900	10,000	7,400	5,770	7,060	9,870	23,900	34,800	62,300	28,900	12,800	5,380
18	20,100	9,980	7,260	5,750	7,060	9,780	24,200	32,700	60,400	25,800	12,700	6,640
19	17,700	9,960	7,220	5,640	7,320	10,400	26,000	32,600	57,500	23,200	11,300	5,620
20	16,100	9,780	6,920	5,620	7,160	11,000	29,500	35,100	52,200	21,600	9,920	5,060
21	15,600	9,570	6,670	5,470	7,040	12,200	34,300	38,100	47,000	19,900	9,180	5,380
22	15,000	9,440	6,350	5,550	7,040	14,100	36,600	41,300	42,600	18,300	8,890	5,600
23	14,400	9,440	5,840	5,560	6,900	15,500	40,600	45,900	39,700	17,100	8,460	4,970
24	13,900	9,330	5,720	5,520	6,700	15,700	40,600	54,900	38,200	15,900	7,880	4,700
25	13,700	9,020	5,800	5,320	6,610	16,100	44,000	62,800	35,800	14,800	7,380	4,500
26	13,300	8,660	5,970	5,240	6,560	16,100	45,700	68,300	32,800	13,800	6,980	4,710
27	12,900	8,360	5,980	5,160	6,570	15,200	48,500	73,800	31,500	13,000	6,610	11,500
28	12,800	8,310	6,180	5,120	6,540	14,800	49,700	77,700	30,900	12,200	6,280	21,600
29	12,600	8,320	6,560	5,250	-------	14,900	50,100	84,000	29,800	12,400	5,970	13,400
30	12,400	8,630	6,940	5,150	-------	15,100	50,800	78,800	28,600	13,600	5,670	9,150
31	12,100	-------	6,940	5,240	-------	14,700	-------	72,700	-------	11,800	5,450	-------

Monthly discharge of Colorado River at Bright Angel Creek, near Grand Canyon, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	29,000	11,300	17,000	1,050,000
November	12,500	8,310	10,400	619,000
December	8,770	5,720	7,490	461,000
January	7,030	5,120	6,040	371,000
February	7,320	5,250	6,530	363,000
March	16,100	6,320	10,600	652,000
April	50,800	12,100	27,700	1,650,000
May	84,000	32,600	54,900	3,380,000
June	78,500	28,600	58,500	3,480,000
July	36,900	11,800	23,200	1,430,000
August	12,800	5,450	9,430	580,000
September	21,600	3,870	6,510	387,000
The year	84,000	3,870	19,900	14,400,000

COLORADO RIVER NEAR TOPOCK, ARIZ.

LOCATION.—At lower end of a narrow section of Mohave Canyon, 3 miles below Topock, Mohave County.

DRAINAGE AREA.—171,000 square miles.

RECORDS AVAILABLE.—February 1, 1917, to September 30, 1926.

GAGE.—Continuous water-stage recorder on left bank; inspected by J. A. Baumgartner, K. C. McCarter, and J. E. Klohr, resident hydrographers. Zero of gage is 423.2 feet above sea level.

DISCHARGE MEASUREMENTS.—Made from cable 20 feet upstream from gage.

CHANNEL AND CONTROL.—Channel is straight above and below gage. Banks are rock and have steep slopes. Bed is composed of sand and silt and shifts continually. The control is indefinite.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 19.80 feet at 2.30 a. m. June 1 (discharge, 84,800 second-feet); minimum stage recorded, 4.66 feet at 11 p. m. September 13 (discharge, 3,390 second-feet).

1917–1926: Maximum stage recorded, 28.2 feet at 6 a. m. June 22, 1921 (discharge, 174,000 second-feet); minimum discharge, 1,800 second-feet at 8 a. m. January 4, 1925.

DIVERSIONS.—Water is diverted from main river and tributaries above station for irrigation of about 1,500,000 acres.

REGULATION.—None.

ACCURACY.—Stage-discharge relation continually changing. Discharge measurements made on alternate days throughout year. Measurements also made on intervening days when there was rapid change in stage. Measurements were made each day August 25 to September 30. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method by applying to standard rating table mean daily gage height determined from recorder graph. Records good.

Daily discharge, in second-feet, of Colorado River near Topock, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,700	11,700	8,080	6,260	5,210	6,520	14,800	50,000	83,800	30,200	11,800	5,500
2	13,000	11,300	8,010	6,520	5,310	6,490	14,300	50,700	78,700	28,800	12,900	5,220
3	13,300	11,500	8,220	6,960	5,340	6,490	14,400	51,600	71,200	27,700	11,600	4,870
4	13,400	11,500	8,390	6,960	5,180	6,520	15,500	50,800	68,400	27,400	11,200	4,970
5	14,900	12,100	8,530	6,850	5,400	6,360	16,800	50,800	68,600	26,700	10,500	5,000
6	13,700	11,400	8,740	6,820	5,470	6,260	14,800	52,200	70,500	25,600	10,600	4,760
7	19,800	11,500	8,280	6,890	5,120	6,190	14,300	52,100	72,200	25,200	9,920	5,390
8	22,400	11,900	8,180	6,590	5,470	6,320	15,700	54,200	72,600	25,400	10,000	4,360
9	29,500	11,800	8,390	6,750	5,930	6,520	15,800	56,600	73,900	25,800	9,240	4,260
10	26,700	12,200	8,360	6,820	6,360	6,590	15,100	60,100	76,200	25,900	8,680	4,300
11	27,400	12,400	8,280	6,960	6,420	6,720	18,100	65,400	77,000	25,200	8,600	5,420
12	21,700	11,900	8,390	7,020	6,230	7,020	21,900	67,500	78,600	26,300	8,090	3,970
13	17,900	11,700	8,460	6,920	6,390	7,740	20,900	65,000	79,300	27,300	7,670	3,510
14	16,800	11,500	8,220	6,590	6,560	8,250	20,600	60,200	76,900	28,800	9,400	3,540
15	16,400	11,000	7,770	6,360	6,420	8,950	22,400	52,400	73,000	28,000	11,400	3,760
16	16,900	10,500	7,910	6,230	6,460	9,090	21,900	45,300	71,300	30,200	11,300	7,140
17	18,000	10,400	8,080	6,290	6,820	8,460	23,900	41,900	69,800	35,800	10,700	8,800
18	18,800	10,300	8,010	6,130	6,690	8,530	25,000	38,700	65,000	34,500	11,200	7,360
19	18,700	10,200	7,470	6,090	6,890	9,440	24,200	35,200	61,700	30,800	11,400	5,740
20	20,200	9,760	7,260	5,860	7,060	10,000	24,900	33,600	59,000	27,000	11,000	4,760
21	18,600	9,540	7,130	5,630	6,850	9,650	27,100	32,200	57,700	24,400	11,100	5,080
22	16,600	9,480	6,960	5,800	6,660	10,000	29,400	32,700	52,800	22,400	10,300	6,390
23	15,600	9,480	7,090	5,630	7,130	10,900	33,000	35,000	48,400	20,600	9,320	5,000
24	15,400	9,340	6,750	5,470	6,790	12,000	35,000	39,400	43,200	18,600	8,680	4,530
25	14,700	9,060	6,460	5,440	6,960	14,000	39,300	43,100	39,400	17,000	8,050	4,900
26	14,100	9,120	6,060	5,340	6,960	15,200	40,600	51,100	37,800	15,900	7,630	4,900
27	13,400	9,060	5,700	5,570	6,660	15,200	42,600	58,600	36,000	15,600	7,210	4,560
28	13,000	8,950	5,700	5,700	6,620	15,200	44,600	64,600	34,000	15,100	6,540	4,230
29	12,600	8,670	5,860	5,660	-------	15,000	47,700	69,100	32,800	13,700	6,470	4,040
30	12,500	8,390	6,090	5,340	-------	13,700	49,800	73,200	32,000	12,900	5,960	12,500
31	11,900	-------	6,000	5,080	-------	13,600	-------	80,700	-------	11,900	5,960	-------

Monthly discharge of Colorado River near Topock, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	29,500	11,900	17,100	1,050,000
November	12,400	8,390	10,600	631,000
December	8,740	5,700	7,510	462,000
January	7,020	5,080	6,210	382,000
February	7,130	5,120	6,260	348,000
March	15,200	6,190	9,450	581,000
April	49,800	14,300	25,500	1,520,000
May	80,700	32,200	52,100	3,200,000
June	83,800	32,000	62,100	3,700,000
July	35,800	11,900	24,200	1,490,000
August	12,900	5,960	9,500	584,000
September	12,500	3,510	5,290	315,000
The year	83,800	3,510	19,700	14,300,000

COLORADO RIVER AT YUMA, ARIZ.

LOCATION.—In NE. ¼ NE. ¼ sec. 35, T. 16 S., R. 22 E., San Bernardino base and meridian, 100 feet upstream from original Southern Pacific Railroad bridge and half a mile downstream from highway bridge at Yuma, Yuma County. Since the change in channel on June 7, 1920, Gila River enters from east 5 miles upstream from this station.

DRAINAGE AREA.—242,000 square miles (measured on map compiled from best available maps of the Colorado River Basin).

RECORDS AVAILABLE.—April 1, 1878, to September 30, 1926. Gage heights only, prior to January 1, 1902.

GAGE.—Long-distance water-stage recorder installed May 1, 1922. Sender in stilling well on left bank 100 feet upstream from original Southern Pacific Railroad bridge at same point as vertical staff gage formerly used. Continuous recorder in office of Bureau of Reclamation. Sender and recorder inspected daily by Dan Martinez. Prior to installation of recorder vertical staff at same location and datum. Zero of gage is 102.79 feet above mean sea level.

DISCHARGE MEASUREMENTS.—Made from cable 1,100 feet downstream from gage.

CHANNEL AND CONTROL.—Bed composed of shifting sand and silt; subject to much scour during high water. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum discharge during year, 73,100 second-feet on June 16 (stage, 25.18 feet); maximum stage, 26.65 feet at 1 p. m. June 6. Minimum stage, 15.90 feet at 7 p. m. September 16 (discharge, 2,130 second-feet).

1902–1926: Maximum daily mean discharge, 240,000 second-feet January 22, 1916; minimum discharge, 1,150 second-feet on January 8, 1925.

DIVERSIONS.—Water is diverted for irrigation and power from main river and tributaries. Some water is diverted out of the drainage basin above this station. Water for the Yuma project of the United States Bureau of Reclamation is diverted from right side of river at Laguna Dam 15 miles upstream. Canal siphons under river at Yuma. Wasteway from canal returns water to river in right side half a mile below gaging station. Imperial Irrigation District diverts water from river on right side 7 miles downstream from this station.

REGULATION.—Flow temporarily affected at times by sluicing at Laguna Dam Storage on tributaries has very little effect on flow at this station.

ACCURACY.—Stage-discharge relation continually changing. Discharge measurements made on alternate days except Sundays throughout year. Beginning January, 1926, discharge measurements made with equipment and methods similar to those used at other gaging stations on Colorado River. Operation of water-stage recorder satisfactory, except November 7–13 and December 15 to January 31, when staff readings were used. Staff gage read twice each day throughout year. Daily discharge ascertained by shifting-control method by applying to standard rating table mean daily gage height determined from recorder graph.

COOPERATION.—Station operated by United States Bureau of Reclamation. Records furnished by Bureau of Reclamation and reviewed and checked by Geological Survey. Monthly discharge computed by Geological Survey.

Daily discharge, in second-feet, of Colorado River at Yuma, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17,000	14,000	8,860	6,300	4,400	5,290	11,500	41,600	57,400	28,600	11,500	4,610
2	15,300	12,900	8,340	5,960	4,500	4,910	11,600	41,400	61,600	28,300	10,500	4,310
3	14,600	11,700	8,290	6,230	4,540	5,140	13,300	43,000	63,400	27,200	13,900	4,070
4	14,000	11,900	7,760	6,520	4,520	5,170	12,700	44,100	65,200	27,800	12,000	3,740
5	15,900	11,700	8,460	6,830	4,480	5,100	12,800	45,200	67,300	26,300	10,600	3,540
6	17,600	12,200	9,660	6,620	4,330	5,520	14,000	45,400	68,300	24,300	10,400	3,760
7	21,400	12,600	9,180	6,520	4,400	4,870	14,000	46,600	66,500	23,800	9,800	5,190
8	17,600	12,500	9,040	7,110	4,310	4,590	13,400	48,500	66,600	24,100	9,370	8,250
9	21,800	12,100	8,550	6,760	4,440	4,650	15,500	48,600	67,700	23,400	8,510	5,120
10	24,400	11,800	8,250	6,110	4,370	4,440	27,200	49,300	68,000	23,200	9,230	4,940
11	28,000	11,100	8,550	6,590	4,610	4,540	35,800	49,300	68,300	24,500	8,820	4,540
12	27,900	11,400	8,770	6,830	4,820	4,540	26,800	50,500	68,600	24,100	8,290	4,096
13	28,400	12,400	8,600	6,520	5,730	4,610	27,200	51,600	69,700	24,800	8,550	4,230
14	23,400	13,100	8,250	6,720	5,790	5,000	24,900	53,900	71,200	23,900	9,270	5,170
15	19,900	13,200	8,130	6,460	4,980	5,490	22,100	57,400	71,800	25,600	7,180	4,650
16	18,600	11,900	8,130	6,420	5,290	6,330	22,500	57,800	73,100	26,000	7,110	3,330
17	17,600	10,700	8,000	5,700	5,360	6,970	23,700	56,200	72,700	26,100	9,370	2,440
18	17,600	10,100	7,840	5,930	5,260	7,150	23,500	47,600	70,600	29,800	9,320	3,190
19	19,900	10,200	8,290	5,570	5,440	7,110	23,200	41,600	68,200	31,800	9,000	7,560
20	19,700	10,200	7,450	5,240	6,230	7,370	23,900	37,500	64,500	29,500	9,140	6,260
21	19,500	10,500	6,720	4,890	6,360	8,130	23,400	34,900	60,000	26,900	9,610	5,190
22	20,300	10,900	6,720	5,010	6,590	7,920	23,300	32,200	57,500	23,700	9,370	4,200
23	18,300	10,200	6,790	5,680	5,930	7,720	24,700	31,800	55,400	21,100	9,420	3,460
24	16,800	11,000	6,760	4,670	5,490	7,370	26,400	33,300	49,900	19,200	8,290	3,680
25	16,400	10,800	6,900	5,030	5,760	8,950	29,700	34,900	44,700	18,600	7,220	4,800
26	15,600	10,500	6,520	4,630	5,820	10,600	31,300	37,300	40,600	16,800	6,690	3,540
27	14,600	10,200	6,720	4,440	5,650	12,200	34,400	40,600	36,900	15,900	6,330	3,400
28	14,900	9,850	6,520	4,460	5,790	13,200	36,900	44,000	35,100	13,700	6,300	3,300
29	14,300	10,100	5,840	4,670	-------	13,600	39,000	48,000	33,900	11,900	5,700	3,360
30	13,300	9,460	5,490	4,800	-------	13,700	40,400	51,100	30,400	12,000	5,120	3,190
31	13,200	-------	5,590	4,420	-------	12,900	-------	54,400	-------	11,700	4,650	-------

Monthly discharge of Colorado River at Yuma, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	28,400	13,200	18,600	1,140,000
November	14,000	9,460	11,400	678,000
December	9,660	5,490	7,710	474,000
January	7,110	4,420	5,790	356,000
February	6,590	4,310	5,190	288,000
March	13,700	4,440	7,260	446,000
April	40,400	11,500	23,600	1,400,000
May	57,800	31,800	45,100	2,770,000
June	73,100	30,400	59,800	3,560,000
July	31,800	11,700	23,100	1,420,000
August	13,900	4,650	8,730	537,000
September	8,250	2,440	4,370	260,000
The year	73,100	2,440	18,400	13,300,000

FRASER RIVER NEAR WEST PORTAL, COLO.

LOCATION.—In NE. ¼ sec. 4, T. 2 S., R. 75 W., a quarter of a mile from Vasquez siding on Denver & Salt Lake Railroad and 1½ miles northwest of West Portal, Grand County. Nearest important tributary, Buck Creek, enters 7 miles upstream.

DRAINAGE AREA.—28 square miles (measured on topographic map).

RECORDS AVAILABLE.—September 23, 1910, to September 30, 1926.

GAGE.—Gurley water-stage recorder on left bank 300 feet upstream from old logging road crossing at Vasquez; inspected by forest ranger. During winter readings taken from staff gage 1 mile upstream at railroad bridge.

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

CHANNEL AND CONTROL.—Bed composed of boulders and coarse gravel; fairly permanent. No well-defined control. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 2.36 feet at 8 p. m. June 6 (discharge, 383 second-feet); minimum discharge, 5 second-feet January 8–10 and 20–25.

1911–1926: Maximum discharge recorded, 820 second-feet at 9 p. m. June 13, 1918 (gage height, 2.9 feet); minimum discharge, 2 second-feet on March 30, 1912 (gage height, 0.60 foot).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Court decree for diversions of 53 second-feet across divide from headwaters of Fraser River into headwaters of Clear Creek. Water is diverted below station for irrigation of 9,300 acres.

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

COOPERATION.—Complete records furnished by State engineer of Colorado.

Daily discharge, in second-feet, of Fraser River near West Portal, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	25	15	8	8	9	10	54	201	227	59	26
2	28	25	14	8	9	8	9	60	229	210	58	25
3	26	25	14	7	8	8	9	69	241	201	59	26
4	26	24	13	7	8	8	9	71	256	192	53	26
5	27	24	14	7	8	9	9	54	263	195	52	26
6	31	24	13	6	8	10	9	49	310	192	65	24
7	27	24	13	6	8	10	9	49	349	197	63	22
8	26	24	13	5	8	10	10	51	338	192	60	21
9	27	24	13	5	8	9	11	54	324	190	62	20
10	26	24	13	5	8	9	12	54	307	184	59	21
11	26	24	13	6	8	8	14	56	302	170	56	21
12	26	24	13	6	8	8	14	58	296	148	52	21
13	26	24	12	6	8	8	11	62	290	139	50	21
14	26	13	12	6	8	8	12	64	282	126	48	20
15	26	15	12	7	8	9	14	64	282	123	46	20
16	26	15	12	7	7	9	18	66	270	117	45	20
17	25	15	12	6	7	10	20	69	236	107	44	20
18	24	14	11	6	7	10	21	71	215	102	42	20
19	25	14	11	6	7	9	21	76	222	99	41	20
20	25	14	10	5	7	8	26	76	212	94	39	20
21	25	14	10	5	7	8	24	92	195	93	38	20
22	25	14	10	5	7	9	22	156	186	88	37	20
23	25	14	9	5	7	9	21	186	190	80	37	19
24	25	14	9	5	7	9	24	208	203	79	33	19
25	25	14	8	5	7	9	31	220	206	79	32	19
26	25	14	7	8	8	10	36	220	222	74	32	20
27	25	15	7	8	11	10	37	208	215	74	29	20
28	25	15	7	7	8	10	44	192	210	77	27	21
29	25	15	7	8	------	10	46	173	208	70	27	20
30	25	15	7	8	------	10	52	173	201	63	27	21
31	25	------	7	8	------	10	------	181	------	59	26	------

NOTE.—Stage-discharge relation affected by ice Oct. 22–31 and no gage-height record Sept. 19–24; discharge interpolated. Shifting-control method used Nov. 4 to Mar. 13.

Monthly discharge of Fraser River near West Portal, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	31	24	25.9	1,590
November	25	13	18.6	1,110
December	15	7	11.0	676
January	8	5	6.35	390
February	11	7	7.79	433
March	10	8	9.06	557
April	52	9	20.2	1,200
May	220	49	104	6,400
June	349	186	249	14,800
July	227	59	130	7,990
August	65	26	45.1	2,770
September	26	19	21.3	1,270
The year	349	5	54.2	39,200

BLUE RIVER AT DILLON, COLO.

LOCATION.—In sec. 18, T. 5 S., R. 77 W., at highway bridge on edge of Dillon, Summit County. Nearest tributaries, Snake River and Tenmile Creek, enter a short distance below.

DRAINAGE AREA.—129 squre miles (measured on Forest Service maps).

RECORDS AVAILABLE.—October 15, 1910, to September 30, 1926.

GAGE.—Gurley water-stage recorder installed April 21, 1920, and referred to vertical staff on right abutment of bridge, which was used previously; inspected by I. W. Blundell.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of compact gravel upon which lodges detritus from hydraulic dredges near Breckenridge. Control is riffle 50 feet downstream which shifts at long intervals. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.44 feet at 11.30 a. m. June 7 (discharge, 1,080 second-feet); minimum discharge occurred during winter.

1911–1926: Maximum stage recorded, 3.6 feet on June 14, 1924 (discharge, 1,180 second-feet); minimum discharge, 14 second-feet on January 30 and February 9, 1915 (gage height, 1.10 feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Except for a small diversion across Boreas Pass practically no diversions above station which do not return water to river.

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

COOPERATION.—Complete records furnished by State engineer of Colorado.

Daily discharge, in second-feet, of Blue River at Dillon, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	62				36	202	625	536	170	90
2	77	62				30	231	699	506	165	88
3	74	63				30	276	745	478	163	85
4	74	62				30	348	817	489	168	84
5	73	59				30	379	908	461	175	84
6	71	56				30	421	916	467	177	85
7	74	56				30	365	1050	500	196	84
8	78	56				34	314	995	495	196	81
9	77	56				38	280	977	495	213	78
10	76	54				40	251	900	450	234	77
11	74	54				45	231	874	431	219	76
12	73	54				45	213	858	445	196	73
13	73	54				38	196	874	426	172	73
14	73	54				42	190	858	388	154	71
15	73	52				50	202	817	374	143	71

Daily discharge, in second-feet, of Blue River at Dillon, Colo., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	74	50				78	237	784	361	138	69
17	73	48	37			84	280	684	343	132	68
18	73	45				90	295	599	335	128	68
19	71	42				90	291	566	331	122	65
20	70	42		28		108	318	548	318	122	65
21	70	42				102	393	530	306	116	65
22	69	42				100	472	495	287	116	65
23	69	42				98	548	467	262	116	65
24	65	42				102	606	467	254	114	63
25	63	42			31	107	722	484	262	107	60
26	58	45				118	737	478	247	102	59
27	63	45				128	669	484	231	97	60
28	63	45				149	592	489	222	95	60
29	68	45				156	506	506	199	94	60
30	66	45				175	512	548	190	94	59
31	63						554		180	92	

NOTE.—No gage-height record Nov. 15–30 and Apr. 1–21; discharge based on temperature record and current-meter measurements. Shifting-control method used Apr. 22 to June 15.

Monthly discharge of Blue River at Dillon, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	80	58	70.9	4,360
November	63		50.5	3,000
December			39	2,400
January			28	1,720
February			29	1,610
March			30	1,840
April	175		74.4	4,430
May	737	190	382	23,500
June	1,050	467	701	41,700
July	536	180	364	22,400
August	234	92	146	8,980
September	90	59	71.7	4,270
The year	1,050		166	120,000

NOTE.—Mean discharge for December, January, February, and March based on temperature record and three current-meter measurements.

ROARING FORK AT GLENWOOD SPRINGS, COLO.

LOCATION.—In sec. 9, T. 6 S., R. 89 W., 1,500 feet above mouth of river at Glenwood Springs, Garfield County.

DRAINAGE AREA.—1,460 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 6, 1906, to September 30, 1909; September 21, 1910, to September 30, 1926.

GAGE.—Gurley water-stage recorder installed October 27, 1917, and referred to inclined staff on left bank 800 feet above highway bridge; inspected by C. H. Oberly and Andrew Dickson.

DISCHARGE MEASUREMENTS.—Made from single-span highway bridge.

CHANNEL AND CONTROL.—Bed composed of boulders and coarse gravel; shifting at long intervals. No well-defined control. At rare intervals affected by backwater from Colorado River. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 6.36 feet at 7 a. m. June 7 with an estimated backwater effect of 0.3 foot (discharge, 9,640 second-feet); minimum stage, 0.80 foot from 1 p. m. to 8 p. m. February 24 (discharge, 300 second-feet).

1906–1909; 1910–1926: Maximum discharge recorded, 17,600 second-feet June 14, 1918, and June 14, 1921; minimum discharge, 225 second-feet on December 16, 1906 (gage height, 1.15 feet).

ICE.—Stage-discharge relation not seriously affected by ice except for short periods.

DIVERSIONS.—Water diverted from Roaring Fork for irrigation of 8,700 acres, and water diverted from tributaries for irrigation of 25,000 acres.

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

ACCURACY.—Stage-discharge relation shifts at intervals; slightly affected by ice. Rating curves used October 1 to December 9 and December 16 to September 25 are both well defined. Operation of water-stage recorder satisfactory except as explained in footnote to table of daily discharge. Daily discharge ascertained by applying to rating tables mean daily gage height obtained by inspection of recorder graph; shifting-control method used July 17 to August 11. Records good except for periods of missing gage heights and when affected by ice and by backwater, for which they are fair.

Discharge measurements of Roaring Fork at Glenwood Springs, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 7	1.45	749	May 11	2.37	1,470	July 28	2.25	1,450
Nov. 16	1.31	560	May 12	2.25	1,360	Aug. 24	1.53	652
Mar. 30	.98	367	June 8	5.35	6,890			

NOTE.—All measurements, except the one on Nov. 16, furnished by State engineer.

Daily discharge, in second-feet, of Roaring Fork at Glenwood Springs, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	990	805	586	432	390	346	370	2,100	3,390	3,800	1,150	523
2	960	796	586	402	374	352	395	2,100	3,240	3,450	1,100	511
3	920	852	593	394	360	360	386	2,520	3,110	2,970	1,080	511
4	890	834	532	386	363	370	394	2,950	3,800	3,060	1,110	529
5	940	754	580	363	363	382	402	3,430	6,620	3,430	1,300	565
6	1,250	746	580	378	356	366	419	3,430	7,540	3,450	1,250	578
7	1,200	805	568	370	370	338	517	2,610	8,440	4,240	1,270	578
8	1,090	805	520	374	370	352	572	2,230	7,510	5,120	1,290	578
9	1,050	788	509	386	370	374	529	1,900	7,590	4,750	1,300	600
10	1,040	780	480	363	363	382	517	1,670	6,890	3,840	1,260	580
11	1,200	771	455	378	370	386	535	1,450	6,860	3,530	1,240	541
12	1,140	762	440	356	360	398	529	1,310	7,110	3,340	1,100	530
13	1,070	754	430	352	363	394	565	1,190	6,970	3,110	950	525
14	1,020	754	420	370	363	382	584	1,130	6,280	2,880	825	500
15	980	698	400	370	349	402	591	1,300	6,060	2,640	807	520
16	970	690	352	398	378	419	679	1,410	6,090	2,440	780	540
17	1,000	660	390	398	360	446	880	1,630	4,870	2,330	764	565
18	970	619	394	395	356	475	1,110	1,750	4,170	2,260	748	591
19	930	606	437	398	338	475	1,220	1,800	4,190	2,160	732	595
20	900	606	442	400	370	475	1,270	2,210	4,370	2,080	715	590
21	881	580	419	390	374	465	1,260	2,950	4,260	2,030	700	585
22	872	580	424	370	342	446	1,370	3,760	3,780	1,860	693	575
23	881	600	432	338	363	455	1,590	4,100	3,760	1,750	686	550
24	900	600	432	342	335	500	1,610	5,000	4,130	1,710	651	535
25	843	606	424	428	366	495	1,450	5,500	4,330	1,680	617	517
26	852	586	394	398	346	446	1,670	6,000	3,950	1,580	604	505
27	843	580	390	398	335	442	1,800	5,100	4,020	1,500	591	540
28	843	580	390	330	346	414	1,800	4,250	4,060	1,450	578	500
29	852	580	402	370	-------	424	1,940	3,840	4,020	1,360	565	510
30	852	580	363	394	-------	410	2,170	3,740	3,740	1,280	553	520
31	824	-------	360	374	-------	385	-------	3,610	-------	1,200	535	-------

NOTE.—No gage-height record Jan. 17–22, 28–29, May 23–28, July 15–16, 25–27, Aug. 12–13, 20, Sept. 9–10, 12–17, 19–24, 26–30; stage-discharge relation affected by ice Dec. 10–15 and by backwater from Colorado River June 5–13; discharge based on comparison with flow of Colorado River at Glenwood Springs.

Monthly discharge of Roaring Fork at Glenwood Springs, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,250	824	966	59,400
November	852	580	692	41,200
December	593	352	456	28,000
January	432	330	380	23,400
February	390	335	360	20,000
March	500	338	411	25,300
April	2,170	370	971	57,800
May	6,000	1,130	2,840	175,000
June	8,440	3,110	5,170	308,000
July	5,120	1,200	2,650	163,000
August	1,300	535	889	54,700
September	600	500	546	32,500
The year	8,440	330	1,360	988,000

PARACHUTE CREEK AT GRAND VALLEY, COLO.

LOCATION.—In NW. ¼ sec. 12, T. 7 S., R. 96 W., at Aplin ranch, half a mile northwest of Grand Valley, Garfield County. No tributary between station and mouth, 1 mile below.

DRAINAGE AREA.—196 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 7, 1921, to September 30, 1926.

GAGE.—Vertical staff attached to side of left abutment of private bridge; read by W. T. Aplin.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of compact silt on shale rock. Control at rapids 200 feet downstream; slightly shifting during high water. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.2 feet at 8 a. m. and 6 p. m. April 27 (discharge, 226 second-feet); minimum stage, creek dry during greater part of August and September.

1921–1926: Maximum stage recorded, 3.0 feet at 5 p. m. May 9, 1922 (discharge, 790 second-feet); minimum discharge occurred in 1926.

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

DIVERSIONS.—Water diverted above station for irrigation of 2,000 acres.

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

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of Parachute Creek at Grand Valley, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	44	17	24	140	24	1	4	0
2	12	44	17	26	103	24	1	2	0
3	12	51	17	58	88	24	1	2	0
4	12	58	17	71	88	24	1	2	0
5	12	58	17	33	83	24	2	4	0
6	12	58	17	58	74	17	1	24	0
7	12	58	17	74	74	17	1	7	0
8	12	58	17	74	92	17	1	4	0
9	12	58	20	66	103	18	1	4	0
10	12	58	20	58	88	17	1	4	0
11	24	58	20	58	74	17	1	4	0
12	24	58	24	71	74	17	2	2	0
13	17	58	33	71	66	24	20	2	0
14	12	58	33	78	66	28	4	2	1
15	12	58	33	88	58	20	4	0	2

Daily discharge, in second-feet, of Parachute Creek at Grand Valley, Colo., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	16	58	24	88	58	12	2	0	0
17	16	58	26	96	58	7	1	0	0
18	12	58	24	96	44	7	1	0	0
19	12	58	24	119	44	7	1	0	0
20	12	58	28	140	44	4	1	0	0
21	12	58	26	154	44	4	1	0	0
22	12	58	24	190	42	2	1	0	0
23	17	58	28	211	33	2	1	0	0
24	17	58	38	211	33	2	1	1	2
25	17	58	24	211	33	2	1	0	2
26	24	58	24	196	31	1	1	0	3
27	24	58	24	226	28	1	1	0	4
28	28	58	24	196	26	1	1	0	7
29	33	58	17	211	24	1	1	0	7
30	33	58	20	127	20	1	1	0	33
31	33	-------	18	-------	18	-------	1	0	-------

Monthly discharge of Parachute Creek at Grand Valley, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	33	12	17.0	1,050
November	58	44	56.8	3,380
March	38	17	23.0	1,410
April	226	24	113	6,720
May	140	18	59.7	3,670
June	28	1	12.2	726
July	20	1	1.90	117
August	24	0	2.19	135
September	33	0	2.03	121

ROAN CREEK NEAR DE BEQUE, COLO.

LOCATION.—On line between secs. 10 and 15, T. 7 S., R. 98 W., at highway bridge 11 miles north of De Beque, Mesa County. Nearest tributary, Kimball Creek, enters half a mile above.

DRAINAGE AREA.—210 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 8, 1921, to September 30, 1926.

GAGE.—Chain gage attached to downstream side of bridge; read by J. D. Nethery.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of compact mud and gravel; shifting. No well-defined control. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.4 feet at 8 a. m. and 6 p. m. May 1 (discharge, 193 second-feet); minimum discharge probably occurred during winter.

1921–1926: Maximum stage recorded, 4.45 feet at 7.30 p. m. May 21, 1922 (discharge, 1,110 second-feet); minimum discharge, 8 second-feet at 7.30 p. m. August 4, 1922.

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

DIVERSIONS.—Water diverted for irrigation of 2,200 acres from Roan Creek, chiefly below station; also 3,400 acres from tributaries.

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

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of Roan Creek near De Beque, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	19		16	16	193	36	21	19	16
2	16	20		16	17	179	36	21	17	16
3	15	20		16	17	175	36	21	17	16
4	16	21		17	17	166	32	29	14	16
5	27	19		26	36	157	32	32	14	14
6	33	19		20	36	157	32	26	16	14
7	23	19		15	56	148	36	62	16	14
8	21	18		21	75	148	34	32	14	14
9	20	18		21	50	140	32	24	14	14
10	23	18	15	24	40	114	32	24	16	14
11	32	19		29	68	114	32	62	17	14
12	30	19		29	68	98	31	36	19	14
13	28	19		29	75	90	31	36	19	14
14	26	18		32	75	82	31	32	19	14
15	24	17		36	82	82	31	32	19	16
16	22	18		50	90	75	31	32	19	14
17	21	18		50	98	75	31	32	17	14
18	21	17		50	98	62	31	26	17	14
19	20	17	16	50	98	50	31	21	17	14
20	20	17	16	40	106	40	31	21	16	13
21	20	17	16	45	106	40	31	21	16	12
22	19	18	15	50	123	40	30	21	16	12
23	19	18	16	56	148	32	29	17	16	12
24	19	18	15	21	157	32	29	16	14	13
25	19	18	15	19	166	32	29	16	14	13
26	18	18	15	17	166	40	26	14	14	13
27	18	18	15	17	161	40	26	14	14	14
28	18	19	16	16	157	32	26	148	14	14
29	17	19	------	16	175	36	26	24	14	14
30	18	19	------	16	179	50	21	21	14	14
31	18	------	------	16	------	62	------	19	14	------

Monthly discharge of Roan Creek near De Beque, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	33	15	21.3	1,310
November	21	17	18.4	1,090
February	------	------	15	833
March	56	15	28.3	1,740
April	179	16	91.9	5,470
May	193	32	89.7	5,520
June	36	21	30.7	1,830
July	148	14	30.7	1,890
August	19	14	16.0	984
September	16	12	14.0	833

NOTE.—Mean discharge for February based on temperature and gage-height record.

TAYLOR RIVER AT ALMONT, COLO.

LOCATION.—In sec. 22, T. 51 N., R. 1 E., at highway bridge in Almont, Gunnison County, 300 feet above junction of Taylor and East Rivers.

DRAINAGE AREA.—440 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—July 27, 1910, to September 30, 1926.

GAGE.—Bristol float-type water-stage recorder installed April 16, 1922, on downstream end of center pier and referred to staff gage used previously; inspected by J. W. Brittain.

DISCHARGE MEASUREMENTS.—Made from 2-span bridge.

CHANNEL AND CONTROL.—Bed composed of small boulders and coarse gravel; slightly shifting. No well-defined control. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.1 feet at 6 a. m. June 7 (discharge, 2,320 second-feet); minimum discharge occurred during winter.

1910–1926: Maximum discharge recorded, 3,760 second-feet on June 9, 1920 (gage-height, 5.0 feet); minimum stage, 1.2 feet, several days during August, 1913 (discharge, 50 second-feet).

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

DIVERSIONS.—Water diverted by Taylor River for irrigation of 1,800 acres.

REGULATION.—None.

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice. Rating curve well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph; shifting-control method used August 12 to September 30. Records good except for periods of missing gage heights and when affected by ice, for which they are fair.

Discharge measurements of Taylor River at Almont, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 24	1.78	131	May 28	3.16	1,050	Aug. 9	2.35	395
Apr. 19	2.10	274	June 16	3.36	1,190	Sept. 11	1.82	176

NOTE.—Discharge measurements made by employees of State engineer.

Daily discharge, in second-feet, of Taylor River at Almont, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	180	220	78	100	430	1,450	676	289	175
2	184	215	78	103	486	1,680	620	280	175
3	180	211	105	105	545	1,610	605	284	175
4	188	184	105	105	590	1,730	692	303	216
5	252	184	98	112	605	1,710	834	372	294
6	284	180	76	119	628	1,750	927	435	280
7	229	184	57	140	446	1,910	927	435	243
8	224	166	69	144	419	1,480	898	408	229
9	275	171	78	130	367	1,520	708	382	188
10	280	171	87	126	327	1,410	590	362	180
11	275	175	96	122	308	1,360	575	322	184
12	275	166	100	130	298	1,410	700	322	224
13	234	158	100	153	289	1,510	636	280	216
14	238	158	105	193	298	1,260	575	270	202
15	229	103	105	229	398	1,200	560	270	180
16	224	103	105	303	486	1,120	532	270	180
17	238	120	105	357	480	946	469	275	175
18	224	136	119	313	506	861	452	280	171
19	234	136	105	298	532	834	424	266	175
20	211	136	105	275	708	798	414	257	175
21	211	136	108	234	908	756	424	266	188
22	224	136	110	313	1,070	716	398	270	216
23	229	136	130	480	1,200	724	372	252	211
24	224	136	136	398	1,320	748	367	234	193
25	188	136	136	372	1,260	708	357	229	188
26	252	136	119	458	1,220	708	342	229	193
27	252	136	112	486	1,120	692	317	220	211
28	255	136	108	377	994	644	367	211	202
29	240	136	112	458	994	652	367	211	193
30	230	136	116	480	1,120	732	332	206	216
31	225	-------	100	-------	1,270	-------	303	188	-------

NOTE.—No gage-height record Oct. 27 to Nov. 2, Mar. 21–23; stage-discharge relation affected by ice Nov. 17, 22–26, 30; discharge based on comparison with flow of Gunnison River near Gunnison. Braced figures show mean discharge for period indicated.

Monthly discharge of Taylor River at Almont, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	284	180	232	14,300
November	220	103	155	9,220
December	----------	----------	106	6,520
January	----------	----------	84	5,160
February	----------	----------	95	5,280
March	136	57	102	6,270
April	486	100	254	15,100
May	1,320	289	697	42,900
June	1,910	644	1,150	68,400
July	927	303	541	33,300
August	435	188	286	17,600
September	294	171	202	12,000
The year	1,910	----------	326	236,000

NOTE.—Mean discharge for December, January, and February based on temperature and gage-height records and comparison with flow of Gunnison River near Gunnison.

GUNNISON RIVER NEAR GUNNISON, COLO.

LOCATION.—In sec. 3, T. 49 N., R. 1 W., at highway bridge 2 miles southwest of Gunnison, Gunnison County. Nearest tributary, Tomichi Creek, enters 1 mile below.

DRAINAGE AREA.—1,010 square miles (measured on Forest Service map).

RECORDS AVAILABLE.—November 27, 1910, to November 30, 1914; April 27, 1916, to September 30, 1926.

GAGE.—Chain on downstream side of bridge; datum lowered 1.00 foot October 15, 1918; read by C. W. Chinery.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and small boulders. Control at well-defined rapids below bridge; somewhat shifting. Banks not subject to overflow except during extremely high stages.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.9 feet at 7 a. m. June 7 (discharge, 4,140 second-feet); minimum discharge probably occurred during winter.

1910–1914; 1916–1926: Maximum discharge, 11,400 second-feet June 13, 1918; minimum discharge recorded, 126 second-feet January 8, 1919, from current-meter measurement.

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

DIVERSIONS.—Water diverted by Gunnison River, between this station and forks at Almont, for irrigation of 8,800 acres.

REGULATION.—None.

ACCURACY.—Stage-discharge relation shifts at intervals; affected by ice. Rating curve used October 1 to December 24 and curve used December 25 to September 30 are both well defined. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table. Records good except for ice-affected periods, for which they are fair.

Discharge measurements of Gunnison River near Gunnison, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	1.08	292	Mar. 23	1.04	231	June 16	3.00	2,240
Jan. 21	a.82	110	Apr. 19	1.90	775	Aug. 9	1.82	782
Feb. 23	.90	171	May 27	3.10	2,600	Sept. 10	1.12	277

a Stage-discharge relation affected by ice.

NOTE.—Discharge measurements made by employees of State engineer.

Daily discharge, in second-feet, of Gunnison River near Gunnison, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	277	378				169	206	1,420	2,980	1,170	436	330
2	286	366				169	218	1,640	3,380	1,150	436	313
3	290	361	248			162	225	1,800	3,320	1,070	429	318
4	286	341				169	248	2,010	3,410	1,030	442	336
5	294	294		180	215	172	239	2,100	3,450	1,430	462	455
6	405	326				159	253	2,220	3,490	1,430	632	448
7	400	350				153	360	1,650	3,530	1,420	695	429
8	366	294	210			156	360	1,440	2,960	1,420	695	384
9	336	317				156	342	1,330	2,960	1,270	709	336
10	361	322				172	313	1,150	2,880	1,020	646	301
11	394	322				172	313	960	2,680	930	611	330
12	411	308	200			188	354	970	2,920	1,150	555	342
13	417	308			220	206	390	855	2,980	1,040	527	307
14	423	299				214	500	770	2,510	940	474	318
15	423		201	150		218	541	1,150	2,380	900	455	267
16	417		198			225	660	1,150	2,130	873	448	258
17	423	262	201			230	855	1,270	1,720	794	442	267
18	435		203		180	239	891	1,270	1,490	730	429	258
19	435		203			244	855	980	1,440	674	403	244
20	417		201			244	786	1,130	1,390	674	384	253
21	411		201			244	674	1,980	1,350	597	366	248
22	417		198			239	770	2,290	1,300	611	384	248
23	429	252	198	133	162	244	1,190	2,440	1,120	562	354	263
24	429		201			295	1,180	2,980	1,210	527	348	267
25	423		192			295	1,070	2,880	1,180	481	330	267
26	411		182		153	278	1,220	2,760	1,100	468	318	267
27	372				159	248	1,370	2,490	1,190	455	307	267
28	388	250		195	166	221	1,220	2,260	1,220	500	278	272
29	411		190		-------	214	1,390	2,060	1,190	562	263	278
30	361				-------	182	1,560	2,260	1,160	500	301	313
31	383	-------			-------	188	-------	2,580	-------	442	342	-------

NOTE.—Stage-discharge relation affected by ice Nov. 15 to Dec. 14, Dec. 23–24, 27–31, Jan. 1 to Feb. 25; discharge based on temperature and gage-height record and two current-meter measurements. Braced figures give mean discharge for period indicated.

Monthly discharge of Gunnison River near Gunnison, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	435	277	385	23,700
November	378	----------	289	17,200
December	----------	----------	207	12,700
January	----------	----------	166	10,200
February	----------	----------	194	10,800
March	295	153	209	12,900
April	1,560	206	685	40,800
May	2,980	770	1,750	108,000
June	3,530	1,100	2,200	131,000
July	1,430	442	865	53,200
August	709	263	448	27,500
September	455	244	306	18,200
The year	3,530	----------	643	466,000

GUNNISON RIVER NEAR GRAND JUNCTION, COLO.

LOCATION.—In NW. ¼ sec. 35, T. 1 S., R. 1 W., half a mile below Redlands Co.'s canal and 2 miles above mouth of Gunnison River, in Grand Junction, Mesa County; below all tributaries.

DRAINAGE AREA.—8,020 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 1, 1917, to September 30, 1926. From October 19, 1894, to December 21, 1895, and May 2, 1897, to September 30, 1899, station maintained nearer mouth.

GAGE.—Slope gage at left bank a quarter of a mile below canal intake; read by employee of Redlands Co.

DISCHARGE MEASUREMENTS.—Made from car and cable at gage section.

CHANNEL AND CONTROL.—Bed composed of well-compacted gravel; not permanent. Control at rapids 500 feet downstream; somewhat shifting. Banks high and not subject to overflow.

EXTREMES OF DISCHARGE.—Combined flow: Maximum stage recorded during year, 8.95 feet 6 p. m. June 7 (discharge, 14,200 second-feet); minimum discharge, 327 second-feet September 3.

1917–1926: Maximum stage recorded, 14.95 feet at 8 a. m. and noon May 23, 1920 (discharge, 35,700 second-feet); minimum discharge, 155 second-feet September 6, 1924.

ICE.—Stage-discharge relation affected by ice for short periods.

DIVERSIONS.—Below all diversions from Gunnison River and tributaries. Most of water diverted through Redlands power canal is for pumping and is returned to Colorado River below mouth of the Gunnison.

COMBINED FLOW.—Combined flow of Gunnison River and Redlands power canal represents flow of Gunnison River which enters Colorado River, less about 25 second-feet, which is used during irrigation season.

ACCURACY.—River and canal: Stage-discharge relation not permanent. Rating curves fairly well defined. Gages read to half-tenths twice daily. Daily discharge for river and canal ascertained by applying mean gage height to rating tables except period April 6 to August 20, when shifting control method was used for river. Combined daily discharge ascertained by adding the daily discharge of river and canal. Records fair.

Discharge measurements of Gunnison River and Redlands power canal near Grand Junction, Colo., during the year ending September 30, 1926

Gunnison River

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 16	3.42	1,810	Apr. 24	6.92	8,300	Sept. 6	0.60	22.8
Feb. 5	2.60	945	June 4	8.70	12,700			
Mar. 27	2.60	983	Aug. 1	1.80	528			

Redlands power canal

Mar. 27	4.98	478	June 4	5.52	535	Sept. 7	4.04	337

NOTE.—All measurements made by employees of the State.

Combined daily discharge, in second-feet, of Gunnison River and Redlands power canal near Grand Junction, Colo., for the year ending September 30, 1926

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1,060	1,140	9,470	11,500	3,530	1,110	330
2		1,070	1,190	8,150	12,500	3,790	1,060	330
3	950	1,050	1,190	8,740	13,800	3,570	948	327
4		946	1,130	9,190	13,600	3,490	874	341
5	960	888	1,100	9,940	13,900	3,820	869	356
6	960	872	1,390	12,700	13,600	3,980	814	363
7	1,000	789	1,800	11,500	13,800	4,430	873	367
8	960	803	2,230	8,910	13,700	4,960	1,150	377
9	1,050	746	2,590	7,850	11,700	5,070	1,350	357
10	960	810	2,270	6,580	11,400	4,010	1,770	361
11	960	868	2,050	5,630	10,900	3,500	1,580	365
12	1,000	948	1,950	4,920	10,300	3,080	1,870	387
13	1,050	951	2,150	4,650	10,900	3,250	1,700	465
14	1,050	964	2,180	4,220	10,200	3,130	845	474
15	1,000	1,000	2,440	3,920	9,070	2,840	853	453
16	960	997	2,610	4,680	8,710	2,490	813	415
17	870	1,000	4,060	5,420	7,560	1,930	586	419
18	960	900	4,870	6,070	7,310	1,770	562	419
19	1,050	939	5,410	6,450	5,690	1,590	544	425
20	1,100	1,160	5,200	7,680	5,330	1,360	511	599
21	1,140	1,520	5,500	9,460	5,070	1,370	447	422
22	1,050	1,610	6,680	11,200	5,010	1,340	422	366
23	960	1,550	7,810	12,300	4,440	1,270	421	356
24	1,000	1,570	8,870	13,200	4,300	1,180	418	356
25	1,120	1,470	8,870	13,600	4,490	1,180	421	350
26	1,180	1,430	8,710	12,300	4,040	1,040	395	363
27	1,170	1,430	9,490	12,100	3,900	1,040	415	408
28	1,050	2,020	9,240	12,100	4,120	1,080	394	443
29	-------	1,550	8,690	10,800	3,910	1,100	387	494
30	-------	1,180	9,350	9,690	3,520	1,340	366	564
31	-------	1,070	-------	10,700	-------	1,360	347	-------

NOTE.—No gage-height record Feb. 1–4; discharge estimated. Braced figures give mean discharge for period indicated.

Combined monthly discharge of Gunnison River and Redlands power canal near Grand Junction, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
February	1,180	870	1,010	56,100
March	2,020	746	1,130	69,500
April	9,490	1,100	4,410	262,000
May	13,600	3,920	8,840	544,000
June	13,900	3,520	8,610	512,000
July	5,070	1,040	2,540	156,000
August	1,870	347	810	49,800
September	599	327	402	23,900
The period				1,670,000

LEROUX CREEK NEAR LAZEAR, COLO.

LOCATION.—In sec. 33, T. 13 S., R. 93 W., at highway bridge 8 miles north of Lazear, Delta County. No large tributary within several miles.

DRAINAGE AREA.—52 square miles (measured on Forest Service map).

RECORDS AVAILABLE.—May 15, 1917, to September 30, 1926.

GAGE.—Stevens water-stage recorder installed during 1923 to replace Lallie water-stage recorder installed April 23, 1918, and referred to vertical staff fastened to face on left bridge abutment; inspected by G. H. Henderson.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel and boulders; very rough. Control 50 feet downstream; shifts during high water.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 2.78 feet at 8.30 p. m. May 21 (discharge, 401 second-feet); minimum discharge, 2 second-feet on September 22-24.

1917–1926: Maximum stage during period, 4.0 feet at 5 p. m. May 29, 1921 (discharge, 1,420 second-feet); minimum stage, creek practically dry during winter.

ICE.—No data. Flow very small as most of it is stored in reservoirs.

DIVERSIONS.—Water diverted for irrigation of 8,000 acres above station.

REGULATION.—Diurnal fluctuation during spring caused by alternate melting and freezing of mountain snow. Flow in nonirrigating season stored in reservoirs on headwaters. Decrees for such storage amount to 606 acre-feet.

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of Leroux Creek near Lazear, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	18	10	-------	14	11	201	277	28	4	12
2	18	18	10	-------	14	12	208	261	27	5	16
3	17	25	11	-------	13	8	233	301	25	10	17
4	18	30	12	-------	13	7	252	245	25	18	13
5	21	33	14	-------	13	7	298	245	25	19	7
6	101	37	14	-------	12	8	272	247	23	17	4
7	46	33	15	-------	12	13	173	229	32	13	7
8	26	30	16	-------	12	16	130	217	30	15	10
9	22	28	15	-------	10	10	98	197	26	19	5
10	42	28	16	-------	9	14	65	145	23	14	4
11	115	23	16	16	9	14	43	137	24	11	5
12	76	22	16	-------	8	22	39	134	23	9	5
13	84	22	16	-------	8	32	29	101	23	9	4
14	173	18	16	-------	7	29	52	94	22	12	5
15	140	14	16	-------	8	38	114	82	18	14	3
16	114	15	11	-------	9	71	144	75	14	12	3
17	80	12	12	-------	9	98	136	73	14	13	4
18	51	11	14	-------	10	95	138	67	12	16	3
19	36	11	14	-------	12	116	188	54	12	17	3
20	32	11	14	-------	9	114	266	52	10	16	3
21	33	14	15	-------	8	138	292	50	10	14	3
22	34	16	15	-------	6	175	288	47	10	13	2
23	26	16	15	-------	7	199	316	45	10	13	2
24	24	16	16	-------	11	215	306	43	12	13	2
25	20	13	16	-------	17	239	300	41	12	14	3
26	21	12	16	-------	17	237	257	38	14	12	3
27	22	13	16	-------	14	237	297	36	8	12	3
28	22	12	16	-------	10	224	297	34	13	11	3
29	23	11	16	-------	11	242	293	32	19	7	3
30	20	13	16	-------	13	242	277	30	16	6	7
31	20	-------	16	-------	13	-------	273	-------	8	10	-------

Monthly discharge of Leroux Creek near Lazear, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	173	17	48.2	2,960
November	37	11	19.2	1,140
December	----------	----------	14.5	892
January	----------	----------	14	861
February	----------	----------	16	889
March	17	----------	10.9	670
April	242	7	96.1	5,720
May	316	29	202	12,400
June	301	30	121	7,200
July	32	8	18.3	1,130
August	19	4	12.5	769
September	17	2	5.47	325
The year	316	2	48.4	35,000

NOTE.—Mean discharge for January and February based on temperature record and one current-meter measurement.

SURFACE CREEK AT CEDAREDGE, COLO.

LOCATION.—About sec. 29, T. 13 S., R. 94 W., at Cedaredge, Delta County. Nearest tributary, Mill Creek, enters 4 miles above.

DRAINAGE AREA.—43 square miles (measured on Forest Service map).

RECORDS AVAILABLE.—May 16, 1917, to September 30, 1926.

GAGE.—Stevens water-stage recorder referred to vertical staff fastened to concrete abutment of footbridge 400 feet upstream from highway bridge in Cedaredge; inspected by J. A. Bacon.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage section.

CHANNEL AND CONTROL.—Bed of small boulders filled in behind control, which is concrete weir filled up flush with boulders and gravel; situated 12 feet downstream. At high stages water flows through overflow channel.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 1.60 feet at 9.30 p. m. May 21 (discharge, 282 second-feet); minimum discharge during winter.

1917–1926: Maximum discharge, 715 second-feet at 7 a. m. May 24, 1920; minimum discharge during winter is practically zero.

ICE.—No data. Flow very small, as most of it is stored during winter.

DIVERSIONS.—Water diverted for irrigation of 18,000 acres above station.

REGULATION.—Alternate melting and freezing of snow in mountains caused diurnal fluctuation during spring of year. Adjudicated decrees for storage of 8,140 acre-feet on headwaters of Surface Creek. The release of this flow during irrigation season changes the natural flow.

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of Surface Creek at Cedaredge, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	15	2	3	132	204	77	9	41
2	9	14	2	2	153	207	63	22	37
3	9	15	2	2	180	198	49	11	30
4	9	15	2	2	183	198	44	22	28
5	25	17	2	2	195	180	49	20	39
6	88	20	2	2	175	153	52	14	33
7	52	22	2	2	113	122	62	18	34
8	44	24	2	2	88	113	54	9	33
9	38	26	2	2	72	101	46	9	12
10	34	28	2	2	66	79	39	9	9
11	49	24	2	4	52	51	46	14	9
12	39	21	3	6	45	62	45	16	9
13	36	24	3	6	41	65	41	20	20
14	24	27	3	8	52	54	46	24	23
15	21	31	4	24	88	51	36	16	22
16	18	26	4	49	95	51	46	27	22
17	18	20	7	58	93	62	42	30	16
18	16	22	7	63	97	65	37	44	17
19	15	25	6	82	115	65	34	41	19
20	13	27	5	82	161	63	34	41	17
21	13	26	4	140	189	60	42	39	15
22	13	25	3	161	186	58	37	73	16
23	14	24	4	164	169	60	39	92	14
24	13	24	7	161	172	65	30	86	16
25	13	24	7	158	172	62	20	79	11
26	12	24	11	166	169	63	20	65	8
27	11	22	7	155	166	58	20	70	9
28	10	22	7	158	164	58	23	59	9
29	8	22	8	183	153	52	18	47	6
30	7	22	11	175	186	82	11	48	10
31	11	-------	3	-------	207	-------	10	48	-------

NOTE.—No gage-height record Oct. 7–9, 20, 24, 26–28, 31, Nov. 5–9, 11, 13–14, 16, 18–19, 21–30, Mar. 1–9, Aug. 22 to Sept. 30; discharge obtained from water commissioner's daily report.

Monthly discharge of Surface Creek at Cedaredge, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	88	7	22.3	1,370
November	31	14	22.6	1,340
March	11	2	4.39	270
April	183	2	67.5	4,020
May	207	41	133	8,180
June	207	51	92.1	5,480
July	77	10	39.1	2,400
August	92	9	36.2	2,230
September	41	6	19.5	1,160

UNCOMPAHGRE RIVER BELOW OURAY, COLO.

LOCATION.—In sec. 30, T. 44 N., R. 7 W. New Mexico principal meridian, near lowest bridge in Ouray, Ouray County, a third of a mile below railroad station; below all tributaries in Ouray.

DRAINAGE AREA.—76 square miles (measured on topographic map).

RECORDS AVAILABLE.—May 12, 1913, to September 30, 1926.

GAGE.—Gurley water-stage recorder installed March 28, 1917, referred to vertical staff, attached to rock cliff 500 feet above bridge; inspected by F. A. Rice.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and small boulders. Control is broken rock ledge 50 feet downstream on which mill tailings are alternately deposited and scoured out. Banks not subject to overflow except at extreme high-water stage of 6.5 feet.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 5.1 feet at 10 p. m. June 6 (discharge, 1,320 second-feet); minimum stage, 0.92 foot at 8 a. m. April 2 (discharge, 20 second-feet).

1913–1926: Maximum discharge recorded, 2,530 second-feet at 1 a. m. June 14, 1918 (gage height, 5.5 feet); minimum discharge, 10 second-feet February 5 and 6, 1915, March 18, 1922, and January 21, 1923.

ICE.—Stage-discharge relation not affected by ice; warm springs keep river open.

DIVERSIONS.—Practically all diversions returned to river above station.

REGULATION.—Diurnal fluctuation during spring caused by alternate melting and freezing of mountain snow. Intermittent operation of power pipe line above station causes sudden decrease in discharge for short periods.

ACCURACY.—Stage-discharge relation not permanent; not affected by ice. Rating curve fairly well defined. Operation of water-stage recorder satisfactory except for periods as explained in footnote to daily-discharge table. Daily discharge ascertained by shifting-control method except October 1–4 and February 11 to March 5, when mean gage-height obtained by inspection of recorder graph was applied to rating table. Records fair.

Discharge measurements of Uncompahgre River below Ouray, Colo., during the the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 10	1.18	42.9	Apr. 30	2.58	244	Aug. 28	1.45	64
Mar. 18	1.40	47.6	June 12	4.02	700	Sept. 10	1.32	49.5
Apr. 12	1.40	42.4	Aug. 6	1.94	109			

NOTE.—Discharge measurements made by employees of the State.

Daily discharge, in second-feet, of Uncompahgre River below Ouray, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	74		40	32	44	36	258	650	464	129	56
2	90	78		41	32	41	35	269	675	428	120	56
3	88	73		40	32	41	36	290	725	394	127	58
4	95	66		40	34	40	36	343	775	397	122	61
5	[a] 173	60	43	38	34	36	37	354	800	391	124	63
6	173	68		40	34	37	37	285	902	374	108	53
7	154	66		39	37	35	38	225	872	415	108	53
8	144	68		41	40	38	41	210	715	460	129	50
9	135	64		41	41	37	39	179	842	400	112	49
10	135	64	43	40	42	37	37	156	902	310	103	48
11	133	63	46	38	40	37	41	147	842	295	115	58
12	131	63	48	38	37	37	48	149	740	290	100	61
13	144	63	45	38	36	35	59	140	544	280	95	57
14	144	63	45	38	35	37	70	158	640	275	93	55
15	136	60	46	38	34	44	96	169	640	270	90	53
16	133	55	45	39	33	51	136	189	548	265	85	51
17	129	53	47	38	32	57	140	222	496	258	88	49
18	104	50	47	38	32	54	153	244	468	251	80	47
19	90	48	44	37	33	48	154	315	472	244	76	44
20	86	46	41	37	34	48	120	450	500	229	73	44
21	84	44	44	34	32	45	149	564	484	214	76	52
22	86		43	36	32	50	156	595	476	197	73	58
23	103		41	34	32	60	177	620	508	179	72	51
24	103		44	34	30	65	181	620	504	166	68	47
25	105		41	34	29	59	208	556	476	158	68	47
26	100	44	44	34	33	46	231	540	504	149	65	129
27	98		47	34	36	40	227	453	520	145	65	98
28	96		44	34	40	38	227	348	456	238	64	68
29	96		42	34	-------	36	262	382	413	179	61	59
30	86		41	33	-------	36	267	453	419	154	60	73
31	79	-------	44	33	-------	33	-------	512	-------	144	58	------

[a] Cloudburst flood; maximum discharge, 504 second-feet.

NOTE.—No gage-height record Nov. 8–13, 15–20, 22–30, Dec. 1–9, 11, July 7–16, and Sept. 14–17; discharge based on comparison with records of flow of Uncompahgre River near Colona. Braced figures give mean discharge for period indicated.

Monthly discharge of Uncompahgre River below Ouray, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	173	79	114	7,010
November	78	----------	56.2	3,340
December	48	----------	43.8	2,690
January	41	33	37.2	2,290
February	42	29	34.6	1,920
March	65	33	43.3	2,660
April	267	35	116	6,900
May	620	140	335	20,600
June	902	413	617	36,700
July	464	144	278	17,100
August	129	58	90.5	5,560
September	129	44	58.3	3,470
The year	902	----------	152	110,000

UNCOMPAHGRE RIVER NEAR COLONA, COLO.

LOCATION.—In NE. ¼ sec. 32, T. 47 N., R. 8 W., 3 miles south of Colona, Ouray County. Nearest tributary, Billy Creek, enters a short distance upstream.

DRAINAGE AREA.—419 square miles (measured on topographic map).

RECORDS AVAILABLE.—April 6, 1917, to September 30, 1926.

GAGE.—Friez water-stage recorder installed at present site April 14, 1926. Prior to that time gage was 2 miles upstream near highway bridge. Billy Creek only stream entering between old and new sites.

DISCHARGE MEASUREMENTS.—Made from highway bridge.

CHANNEL AND CONTROL.—Shifting during high water.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 4.63 feet at 12 p. m. June 6 (discharge, 2,000 second-feet); minimum discharge probably occurred during winter.

1917–1926: Maximum discharge recorded, 4,080 second-feet June 13 and 14, 1921; minimum discharge, 16 second-feet on September 3, 1918.

ICE.—Station discontinued during winter.

DIVERSIONS.—Only a few small diversions above station.

COOPERATION.—Records of daily discharge furnished by United States Bureau of Reclamation.

Daily discharge, in second-feet, of Uncompahgre River near Colona, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	175	138	114	690	1,160	1,080	225	86
2	148	148	129	710	1,280	1,040	215	83
3	148	144	136	725	1,420	950	215	83
4	160	130	129	765	1,580	970	226	85
5	188	116	143	900	1,640	950	230	93
6	265	116	143	845	1,670	1,010	242	87
7	213	124	151	655	1,720	1,040	242	85
8	195	124	196	618	1,480	975	250	85
9	190	128	170	534	1,600	850	252	88
10	210	124	151	455	1,730	797	223	87
11	228	120	155	415	1,640	735	217	107
12	200	113	186	432	1,600	680	220	127
13	198	113	211	415	1,350	640	205	102
14	228	110	217	410	1,350	600	200	94
15	210	110	253	468	1,360	590	193	94
16	200	110	360	515	1,100	565	186	97
17	190	120	480	597	995	530	175	98
18	171	120	445	652	850	460	163	91
19	171	106	475	735	860	422	158	81
20	160	110	495	925	925	415	147	81
21	148	106	533	1,100	930	398	138	76
22	148	110	572	1,130	900	345	135	87
23	175	113	643	1,130	1,020	331	129	75
24	180	104	685	1,200	1,140	310	118	70
25	164		710	1,060	1,010	287	121	69
26	164		760	1,010	1,050	280	121	87
27	160	105	735	1,010	1,140	262	110	190
28	156		670	880	1,020	335	105	125
29	160		735	795	855	330	103	113
30	138		751	905	1,020	277	100	113
31	140			895		240	98	

NOTE.—No gage-height record Nov. 25–30; discharge based on temperature record. Braced figures give mean discharge for period indicated. Quantities have been changed slightly to comply with the rules of computations used by U. S. Geol. Survey.

Monthly discharge of Uncompahgre River near Colona, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	265	138	180	11,100
November	148	104	116	6,900
April	760	114	384	22,800
May	1,200	410	761	46,800
June	1,730	850	1,250	74,400
July	1,080	240	603	37,100
August	252	98	176	10,800
September	190	69	94.6	5,630

NOTE.—Monthly discharge computed by U. S. Geol. Survey from daily-discharge record furnished by the U. S. Bureau of Reclamation.

UNCOMPAHGRE RIVER AT DELTA, COLO.

LOCATION.—In NW. ¼ sec. 24, T. 15 S., R. 96 W., at railroad bridge half a mile west of Delta, Delta County. No tributaries between station and mouth, 1½ miles downstream.

DRAINAGE AREA.—1,110 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 26, 1924, to September 30, 1926. From April 29, 1903, to October 31, 1923, station maintained 3½ miles upstream. Records comparable except for return seepage water entering river between.

GAGE.—Bristol float-type water-stage recorder at right abutment; inspected by Bureau of Reclamation employee.

DISCHARGE MEASUREMENTS.—Made from bridge.

CHANNEL AND CONTROL.—Bed composed of silt and gravel. Control shifts during extremely high water. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.82 feet at 3 a. m. June 7 (discharge, 1,420 second-feet); minimum stage recorded, 1.42 feet from 5 a. m. to 8 a. m. April 15 (discharge, 44 second-feet).

1903–1926: Maximum discharge recorded, 2,490 second-feet at 7.30 p. m. June 12, 1921; minimum discharge recorded since diversion through Gunnison tunnel began in 1910, 7 second-feet on several days during July, 1910.

ICE.—No data, as records are discontinued during winter.

DIVERSIONS.—Ditches above station divert normal flow during irrigation season; records represent chiefly return seepage water.

REGULATION.—See diversions.

ACCURACY.—Stage-discharge relation practically permanent. Rating curve well defined. Operation of water-stage recorder satisfactory except for period as explained in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean gage height obtained by inspection of recorder graph. Records good.

COOPERATION.—Field data furnished by United States Bureau of Reclamation.

Discharge measurements of Uncompahgre River at Delta, Colo., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 13	1.61	85	June 17	2.19	349	July 17	1.94	218
Apr. 27	3.01	868	July 13	2.14	309			

NOTE.—Measurements made by United States Bureau of Reclamation.

Daily discharge, in second-feet, of Uncompahgre River at Delta, Colo., for the year ending September 30, 1926

Day	Oct	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	206	407		91	500	789	401	288	98
2	164	389		137	400	959	356	248	101
3	211	356		126	300	891	268	197	101
4	189	345		94	268	959	351	189	94
5	193	345		104	367	993	606	197	108
6	324	335		122	857	1,030	573	185	122
7	430	303		148	586	1,160	775	248	126
8	447	288		197	379	789	775	351	115
9	319	288		156	335	721	613	401	118
10	351	230		104	234	789	496	471	108

Daily discharge, in second-feet, of Uncompahgre River at Delta, Colo., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	483	176		74	197	823	453	258	118
12	447	164		61	225	857	390	152	145
13	471	156		68	185	959	309	148	160
14	520	152		51	164	620	309	197	133
15	527	150		63	156	687	293	197	115
16	527	145		148	185	586	225	189	122
17	471			319	283	288	206	176	118
18	459			367	335	202	215	176	118
19	496			490	356	172	211	168	104
20	465			553	586	351	172	164	108
21	442			436	436	351	164	160	98
22	447			586	508	263	156	168	94
23	447			721	407	373	185	152	101
24	453			857	483	424	193	164	91
25	418			891	520	185	193	152	91
26	413			823	373	215	215	145	111
27	407			789	620	340	220	133	115
28	413			700	789	351	234	129	137
29	418		81	650	520	238	298	133	129
30	418		81	600	553	229	309	129	141
31	418				721		278	111	

NOTE.—Discharge estimated Nov. 15–16 because of ice and interpolated Apr. 28 to May 3 because of missing gage heights.

Monthly discharge of Uncompahgre River at Delta, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	527	164	400	24,600
November 1–16	407	145	264	8,380
April	891	51	351	20,900
May	857	156	414	25,500
June	1,160	172	586	34,900
July	775	156	337	20,700
August	471	111	199	12,200
September	160	91	115	6,840

SAN MIGUEL RIVER AT NATURITA, COLO.

LOCATION.—In T. 46 N., on line between Rs. 15 and 16 W., at highway bridge in Naturita, Montrose County. Nearest tributary, Basin Creek, enters half a mile downstream.

DRAINAGE AREA.—1,080 square miles (measured on base map of Colorado).

RECORDS AVAILABLE.—April 26, 1918, to September 30, 1926.

GAGE.—Chain gage fastened to upstream side of bridge; read by Mrs. A. R. Payson.

DISCHARGE MEASUREMENTS.—Made from single-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and small boulders and is rough. Control at rapids 300 feet downstream; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.2 feet at 7.30 a. m. May 6 and 6,30 a. m. June 6 (discharge, 1,790 second-feet); minimum discharge probably occurred during winter.

1918–1926: Maximum stage, 7.5 feet from high-water mark during night of May 4, 1921 (discharge, 6,000 second-feet); minimum stage recorded, 0.05 foot on August 31, 1918 (discharge, 38 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Water diverted by San Miguel River for irrigation of 8,100 acres, the greater part of which is above station. Also, 15,000 acres irrigated by tributaries above station.

REGULATION.—Diurnal fluctuation during spring from alternate melting and freezing of mountain snow.

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of San Miguel River at Naturita, Colo., for the year ending September 30, 1926

Day	Oct.	Nov.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	205	197	170	89	114	1,450	1,310	904	232	60
2	197	197	180	100	114	1,430	1,370	866	218	60
3	187	205	213	111	114	1,400	1,400	866	218	55
4	187	197	192	147	114	1,480	1,380	851	246	54
5	205	180	158	124	164	1,440	1,380	936	218	53
6	326	180	158	102	252	1,620	1,670	947	232	51
7	381	180	128	94	381	1,440	1,580	830	276	53
8	276	164	114	108	420	1,430	1,560	747	326	51
9	232	168	143	108	351	1,360	1,590	688	246	50
10	224	173	147	125	389	1,150	1,570	641	192	47
11	232	180	94	111	400	1,000	1,590	595	168	66
12	302	164	91	138	462	920	1,500	572	168	99
13	292	164	86	114	506	882	1,430	550	158	69
14	270	151	86	132	595	866	1,390	484	168	59
15	246	138	75	164	604	893	1,370	471	187	55
16	224	168	70	180	788	893	1,310	471	138	59
17	224	164	75	192	830	958	1,310	441	128	56
18	218	164	70	246	882	1,010	1,150	420	125	59
19	218	147	75	187	1,060	1,030	1,000	389	120	50
20	224	147	81	197	766	1,240	947	381	108	51
21	232	147	75	173	947	1,580	947	389	97	53
22	240	147	91	158	1,520	1,480	866	351	91	68
23	246	147	81	180	1,270	1,400	947	292	91	60
24	261	164	63	213	1,370	1,540	974	261	81	53
25	240	132	91	197	1,430	1,510	1,000	252	75	51
26	240	111	78	168	1,400	1,450	947	224	70	66
27	240	102	75	158	1,380	1,430	893	224	75	132
28	232	86	78	132	1,370	1,300	814	362	70	116
29	224	63	------	120	1,370	1,240	798	428	66	80
30	218	63	------	94	1,440	1,180	762	283	70	81
31	205	------	------	132	------	1,070	------	246	66	------

Monthly discharge of San Miguel River at Naturita, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	381	187	240	14,800
November	205	63	153	9,100
December	------	------	80	4,920
January	------	------	75	4,610
February	213	63	108	6,000
March	246	89	145	8,920
April	1,520	114	763	45,400
May	1,620	866	1,260	77,500
June	1,670	762	1,230	73,200
July	947	224	528	32,500
August	326	66	152	9,350
September	132	47	63.9	3,800
The year	1,670	------	400	290,000

NOTE.—Mean discharge for December and January based on temperature record.

GREEN RIVER BASIN

GREEN RIVER NEAR DANIEL, WYO.

LOCATION.—Near line between Tps. 32 and 33 N., R. 110 W., at highway bridge 6 miles southeast of Daniel, Sublette County. No large tributary within several miles.

DRAINAGE AREA.—932 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—April 1, 1915, to September 30, 1926. State engineer maintained station at this point during 1913 and 1914.

GAGE.—Chain gage on downstream side of bridge; read by Ellis Price.

DISCHARGE MEASUREMENTS.—Made from 2-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of coarse gravel and small boulders. Control 100 feet downstream at small rapids; shifting at long intervals. Banks high and not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.9 feet at 4 p. m. June 9 (discharge, 1,930 second-feet); minimum discharge occurred during winter.

1913–1926: Maximum stage recorded, 7.0 feet at 10 a. m. on June 16, 1918 (discharge, 8,750 second-feet); minimum discharge occurred during winter.

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

DIVERSIONS.—Adjudicated diversions for irrigation of 18,000 acres from Green River above Daniel station.

REGULATION.—None, except natural regulation of Green River lakes.

ACCURACY.—Stage-discharge relation slightly shifting. Rating curve used October 1 to December 3 and curve used March 28 to September 30 are both well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean gage height to rating tables. Records good.

The following discharge measurements were made:

May 13, 1926: Gage height, 3.04 feet; discharge, 916 second-feet.

July 18, 1926: Gage height, 2.72 feet; discharge, 661 second-feet.

September 23, 1926: Gage height, 2.05 feet; discharge, 259 second-feet.

Daily discharge, in second-feet, of Green River near Daniel, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	528	322	251		412	1,210	1,100	1,210	474	528
2	482	326	251		417	1,320	1,100	1,210	474	628
3	498	317	251		412	1,320	1,100	1,210	501	528
4	475	322			291	1,430	1,100	1,210	542	514
5	430	300			282	1,550	1,100	1,320	797	528
6	462	289			282	1,430	1,320	1,320	890	528
7	436	297			282	1,320	1,320	1,100	797	501
8	404	304			327	1,100	1,550	1,210	754	463
9	382	308			890	990	1,800	1,320	754	439
10	349	331			1,100	844	1,800	1,320	890	412
11	360	345			890	890	1,670	1,210	940	391
12	393	336			990	940	1,550	1,100	844	370
13	436	317			1,100	890	1,550	844	797	356
14	468	304			1,210	1,550	1,430	754	754	332
15	423	304			1,430	1,670	1,320	710	644	309
16	349	297			1,670	710	1,100	700	620	304
17	331	289			1,550	797	890	680	581	304
18	322	274			1,550	797	754	661	565	287
19	317	267			1,670	890	653	702	565	278
20	308	254			1,550	1,100	596	797	565	274

Daily discharge, in second-feet, of Green River near Daniel, Wyo., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	297	241	-------	-------	1,430	1,100	542	797	557	267
22	304	238	-------	-------	1,210	1,320	514	710	521	249
23	289	238	-------	-------	710	1,210	474	694	474	249
24	278	244	-------	-------	386	1,210	445	644	468	236
25	281	244	-------	-------	890	1,210	417	557	480	256
26	285	244	-------	-------	890	1,210	434	565	480	260
27	293	244	-------	-------	940	1,210	528	542	463	253
28	304	251	-------	549	990	1,210	628	542	445	249
29	281	251	-------	356	1,100	1,100	940	501	494	256
30	336	251	-------	386	1,100	1,210	1,100	480	535	296
31	313	-------	-------	401	-------	1,210	-------	463	573	-------

NOTE.—No gage-height record July 16–17; discharge interpolated.

Monthly discharge of Green River near Daniel, Wyo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	528	278	368	22,600
November	345	238	285	17,000
April	1,670	282	932	55,500
May	1,670	710	1,160	71,300
June	1,800	417	1,030	61,300
July	1,320	463	874	53,700
August	940	445	621	38,200
September	628	236	362	21,500

GREEN RIVER AT GREEN RIVER, WYO.

LOCATION.—In sec. 22, T. 18 N., R. 107 W., at Union Pacific Railroad pumping station 100 feet below railroad bridge at Green River, Sweetwater County. No tributary within several miles.

DRAINAGE AREA.—7,670 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—May 2, 1895, to October 31, 1906; March 1, 1915, to September 30, 1926.

GAGE.—Chain gage on left bank at pumping station; read by E. H. Craver.

DISCHARGE MEASUREMENTS.—Made from 2-span highway bridge.

CHANNEL AND CONTROL.—Bed composed of boulders. Control of well-compacted small boulders 400 feet downstream. During winter of 1924–25 city placed two cribs on control, shortening it considerably.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.39 feet at 8 a. m. July 11 (discharge, 5,550 second-feet); minimum discharge occurred during winter.

1895–1906; 1915–1926: Maximum stage recorded, 12.3 feet at 5 p. m. June 19, 1918 (discharge, 22,200 second-feet); minimum discharge recorded, 160 second-feet November 17, 1898.

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

DIVERSIONS.—Adjudicated diversions for irrigation of 16,000 acres from Green River between station near Daniel and Green River station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice. Rating curve fairly well defined between 400 and 15,000 second-feet. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean gage height to rating tables. Records good except for periods affected by ice, for which they are fair.

The following discharge measurements were made:
May 16, 1926: Gage height, 2.84 feet; discharge, 2,020 second-feet.
September 29, 1926: Gage height, 1.74 feet; discharge, 533 second-feet.
September 29, 1926: Gage height, 1.74 feet; discharge, 592 second-feet.

Daily discharge, in second-feet, of Green River at Green River, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,450	1,240	780	802	2,700	3,990	1,450	1,060	850
2	1,380	1,180	820	755	2,910	3,770	1,450	950	850
3	1,310	1,120	880	802	3,770	3,550	1,760	950	900
4	1,310	1,120	950	1,060	3,770	3,330	1,930	950	850
5	1,240	1,240	1,030	1,310	3,990	3,120	1,930	1,060	850
6	1,310	1,060	1,080	1,310	4,220	3,120	2,110	1,060	950
7	1,310	900	1,060	1,450	4,710	3,120	2,110	1,180	850
8	1,310	802	1,000	2,300	4,460	3,330	2,110	1,930	850
9	1,380	950	930	2,500	3,990	3,550	2,910	1,600	850
10	1,310	1,120	890	2,910	3,770	4,220	4,460	1,600	802
11	1,310	1,120	940	3,120	3,330	4,460	4,980	1,600	802
12	1,310	1,120	920	3,120	3,120	4,460	3,990	1,760	802
13	1,600	1,120	1,060	3,120	2,910	4,220	3,550	1,760	755
14	1,520	950	1,050	3,120	2,700	4,220	2,910	1,600	755
15	1,380	850	1,220	3,120	2,500	4,220	2,700	1,600	755
16	1,380	755	1,110	2,910	1,930	3,990	2,110	1,310	755
17	1,380	755	1,310	2,700	1,930	3,550	1,760	1,310	707
18	1,310	708	1,520	3,120	2,110	3,120	1,600	1,180	707
19	1,240	660	1,760	3,120	2,500	2,700	1,600	1,060	707
20	1,240	615	1,760	2,910	2,700	2,300	1,600	1,060	660
21	1,180	615	1,930	3,120	2,910	1,930	1,450	1,060	660
22	1,120	660	1,450	2,910	3,550	1,760	1,660	1,060	615
23	1,120	708	1,760	2,700	4,460	1,600	1,600	1,000	615
24	1,060	802	1,930	2,700	4,460	1,450	1,450	1,060	615
25	1,060	802	2,110	2,300	4,460	1,310	1,450	1,060	570
26	1,060	850	2,700	2,110	4,980	1,180	1,310	950	570
27	1,060	950	2,110	1,930	4,980	1,060	1,310	900	615
28	1,060	900	1,760	2,110	4,460	1,060	1,180	950	615
29	1,060	850	1,310	2,300	4,220	1,060	1,180	802	615
30	1,120	802	1,310	2,300	3,990	1,180	1,180	850	660
31	1,180		1,060		3,990		1,180	850	

NOTE.—Stage-discharge relation affected by ice Mar. 1-11; discharge based on temperature record and comparison with records of flow of Big Horn River at Thermopolis.

Monthly discharge of Green River at Green River, Wyo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,600	1,060	1,260	77,500
November	1,240	615	911	54,200
March	2,700	780	1,340	82,400
April	3,120	755	2,330	139,000
May	4,980	1,930	3,560	219,000
June	4,460	1,060	2,860	170,000
July	4,980	1,180	2,060	127,000
August	1,930	802	1,200	73,800
September	950	570	739	44,000

GREEN RIVER AT GREEN RIVER, UTAH

LOCATION.—In NW. ¼ SW. ¼ sec. 15, T. 21 S., R. 16 E., at highway bridge 1 mile southeast of Green River, Emery County. San Rafael River enters from right 22 miles downstream.

DRAINAGE AREA.—40,600 square miles (measured on base maps).

RECORDS AVAILABLE.—October 21, 1894, to October 15, 1899; February 16, 1905, to December 31, 1911; June 21, 1924, to September 30, 1926. Records obtained at Little Valley, 7 miles downstream, December 18, 1910, to June 20, 1924, give practically the same flow.

GAGE.—Stevens continuous water-stage recorder on downstream side of bridge pier near right bank, installed September 19, 1924; inspected by H. T. Howland.

DISCHARGE MEASUREMENTS.—Made from cable at old ferry site, 7 miles below gage.

CHANNEL AND CONTROL.—Bed composed of gravel and sand. One channel at all stages. Left bank high and not subject to overflow; right bank lower and may be overflowed at extreme stages. However, water is confined by highway and Denver & Rio Grande Western Railroad bridges. There is a well-defined break in slope three-quarters of a mile downstream.

EXTREMES OF DISCHARGE.—Maximum stage during year, 10.67 feet at 10 p. m. May 26; maximum discharge, 24,500 second-feet May 9; minimum stage, 4.84 feet at 1 p. m. December 20 (discharge, 1,140 second-feet).

1894–1899; 1905–1926: Maximum discharge recorded, 68,800 second-feet May 29, 1897; minimum stage recorded, −0.95 foot on December 1, 1919 (discharge, 510 second-feet).

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

DIVERSIONS.—Below practically all diversions.

REGULATION.—Some regulation due to irrigation.

ACCURACY.—Stage-discharge relation changed several times during the year; affected by ice December 20–31 and January 4 to February 4. Standard rating curve well defined. Operation of water-stage recorder satisfactory during year except from August 12 to September 4, during which time two daily readings were obtained. Daily discharge ascertained by applying to rating table mean daily gage height; shifting-control method used October 1–5 and May 9 to September 30. Gage heights during ice-affected period were only affected for part of each day; discharge for this period ascertained by computing an effective gage height and applying it to rating curve. Records good.

COOPERATION.—Since December 16, 1917, station has been maintained in cooperation with Utah Power & Light Co.

Discharge measurements of Green River at Green River, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 21 [a]	6.14	2,880	Mar. 25	7.63	7,630	June 22	7.93	9,280
Dec. 10	6.13	2,850	Apr. 30	9.30	17,200	Aug. 11 [a]	6.84	5,580
Jan. 6 [a]	5.95	2,560	May 18 [a]	8.28	9,580	Aug. 26	5.54	2,190
Jan. 7 [a]	5.77	1,850	June 16 [a]	9.03	14,100	Sept. 19 [a]	5.13	1,430

[a] Made by engineer of Utah Power & Light Co.

Daily discharge, in second-feet, of Green River at Green River, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,040	3,620	2,880	2,040	1,760	2,500	5,560	17,200	23,700	4,600	2,700	1,760
2	3,820	3,620	2,970	2,060	1,760	2,600	4,980	17,800	21,700	4,250	2,520	1,740
3	3,680	3,620	3,160	2,080	1,830	2,700	4,560	18,500	19,600	3,990	2,440	1,700
4	3,540	3,620	3,110	2,120	1,970	3,040	4,190	19,300	19,000	3,870	2,410	1,700
5	6,280	3,620	3,180	2,120	2,000	3,280	4,020	19,500	19,200	3,870	2,460	1,660
6	9,990	3,760	3,260	2,120	2,040	3,410	3,760	21,300	18,700	3,990	2,480	1,700
7	4,660	3,760	3,040	2,200	2,120	3,960	4,040	22,900	17,600	4,500	2,620	1,680
8	5,320	3,760	2,790	2,120	2,150	4,440	4,280	23,500	17,000	4,690	2,770	1,740
9	5,490	3,620	2,730	1,970	2,200	4,280	4,890	24,000	16,500	5,520	3,180	1,760
10	5,490	3,620	2,810	1,970	2,200	4,130	6,470	23,500	16,400	6,540	3,520	1,730
11	6,020	3,490	2,810	1,970	2,230	4,660	8,420	20,300	16,200	9,250	5,290	1,730
12	6,580	3,360	2,770	1,900	2,280	4,690	11,600	17,700	15,300	16,100	5,120	2,280
13	6,200	3,360	2,540	1,900	2,330	4,310	10,800	15,500	14,800	13,600	6,240	1,820
14	6,200	3,360	2,520	1,900	2,370	4,660	10,300	13,700	14,300	12,400	5,980	1,640
15	5,490	3,360	2,560	1,970	2,390	5,220	10,600	12,300	14,600	10,200	5,420	1,560
16	5,150	3,360	2,520	1,970	2,480	5,460	10,400	11,200	14,000	8,720	4,410	1,540
17	4,980	3,300	2,100	1,830	2,460	5,910	10,100	10,200	13,100	7,580	4,070	1,510
18	4,820	3,240	1,440	1,760	2,480	6,500	9,900	9,710	12,600	6,700	4,130	1,440
19	4,660	3,180	1,250	1,760	2,520	7,660	10,100	9,800	12,100	5,950	3,730	1,410
20	4,500	3,110	1,240	1,700	2,540	7,910	10,600	10,900	8,980	5,320	3,310	1,410
21	4,500	2,930	1,420	1,700	2,540	8,200	12,000	12,500	8,070	4,720	3,040	1,400
22	4,340	2,730	1,580	1,830	2,460	8,940	13,800	14,800	9,160	4,130	2,860	1,400
23	4,190	2,680	1,830	1,830	2,520	8,630	14,900	17,100	8,330	3,760	2,620	1,380
24	4,040	2,620	2,200	1,900	2,420	8,200	15,800	19,800	7,700	3,520	2,420	1,340
25	3,990	2,660	2,200	1,830	2,420	7,860	17,300	22,100	7,010	3,390	2,390	1,310
26	3,900	2,730	2,120	1,760	2,390	7,370	18,300	23,900	6,430	3,260	2,180	1,260
27	3,760	2,620	2,120	1,700	2,410	6,890	17,700	23,700	5,910	2,970	2,090	1,290
28	3,760	2,600	2,200	1,640	2,420	6,890	16,000	23,400	5,560	2,950	2,030	1,260
29	3,620	2,620	2,120	1,700	-------	7,050	16,000	23,300	5,180	2,860	1,860	1,280
30	3,620	2,730	2,040	1,760	-------	6,350	16,700	23,000	4,890	2,770	1,930	1,830
31	3,620	-------	2,040	1,700	-------	5,950	--------	22,900	--------	2,790	1,860	------

Monthly discharge of Green River at Green River, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	9,990	3,540	4,850	298,000
November	3,760	2,600	3,220	192,000
December	3,260	1,240	2,370	146,000
January	2,200	1,640	1,900	117,000
February	2,540	1,760	2,270	126,000
March	8,940	2,500	5,600	344,000
April	18,300	3,760	10,300	613,000
May	24,000	9,710	18,200	1,120,000
June	23,700	4,890	13,100	780,000
July	16,100	2,770	5,770	355,000
August	6,240	1,860	3,230	199,000
September	2,280	1,260	1,580	94,000
The year	24,000	1,240	6,050	4,380,000

NEW FORK NEAR BOULDER, WYO.

LOCATION.—About sec. 8, T. 32 N., R. 108 W., at highway bridge 1 mile west of Boulder, Sublette County. Nearest tributary, Boulder Creek, enters one-eighth of a mile below.

DRAINAGE AREA.—578 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—May 11, 1915, to September 30, 1926.

GAGE.—Vertical staff on downstream side of left abutment; read by Martin T. Brandt.

DISCHARGE MEASUREMENTS.—Made from 2-span bridge or by wading

CHANNEL AND CONTROL.—Bed composed of sand and gravel; shifting at long intervals. No well-defined control. At high-water stages there are two overflow channels, one around right end of bridge and other from New Fork to Boulder Creek.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.5 feet from 8 a. m. June 10 to 8 a. m. June 11 (discharge, 1,450 second-feet); minimum discharge probably occurred during winter.

1915–1926: Maximum stage recorded, 8.7 feet at 6 a. m. June 17, 1918 (discharge, 12,300 second-feet); minimum discharge, 42 second-feet December 15–17, 1915.

ICE.—Stage-discharge relation seriously affected by ice; observations discontinued.

DIVERSIONS.—Adjudicated diversions for irrigation of 13,400 acres from New Fork above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice. Rating curve used October 1 to December 14 and curve used April 1 to September 30 are both well defined. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean gage height to rating table. Records excellent except for ice-affected periods, for which they are fair.

The following discharge measurements were made:

May 13, 1926: Gage height, 3.16 feet; discharge, 570 second-feet.

July 18, 1926: Gage height, 3.08 feet; discharge, 517 second-feet.

September 23, 1926: Gage height, 2.11 feet; discharge, 133 second-feet.

Daily discharge, in second-feet, of New Fork near Boulder, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1	376	272	195	147	406	1,140	585	318	190
2	367	272	180	116	536	1,100	585	298	190
3	358	276	170	107	634	1,080	558	338	204
4	349	284	160	112	707	1,070	585	298	224
5	336	297	171	103	767	1,070	585	279	217
6	326	288	171	107	827	1,080	558	298	204
7	354	280	160	190	815	1,150	558	298	204
8	354	275	150	268	755	1,250	612	298	197
9	349	270	145	500	755	1,350	695	382	197
10	331	270	140	558	707	1,450	755	382	190
11	314	272	148	585	662	1,430	755	382	187
12	340	269	145	525	624	1,370	640	406	187
13	340	265	140	558	574	1,350	640	406	184
14	331	260	140	450	510	1,310	612	406	184
15	326	250	135	378	475	1,200	585	382	180
16	318	240	-------	351	470	1,080	530	360	164
17	309	230	-------	334	520	992	530	360	152
18	297	230	-------	302	568	908	530	360	147
19	288	225	-------	298	646	815	530	360	141
20	288	230	-------	302	725	743	585	338	141
21	280	235	-------	298	888	640	558	338	136
22	280	235	-------	302	1,080	596	530	338	130
23	272	230	-------	310	1,140	541	480	338	130
24	265	220	-------	306	1,200	475	406	298	130
25	250	210	-------	306	1,310	392	406	279	130
26	250	200	-------	310	1,310	435	382	256	130
27	257	198	-------	330	1,250	445	430	238	125
28	269	191	-------	338	1,210	465	406	228	125
29	284	216	-------	347	1,210	500	360	231	158
30	297	231	-------	378	1,210	480	338	228	217
31	284	-------	-------	-------	1,200	-------	338	207	-------

NOTE.—Stage-discharge relation affected by ice Nov. 7–10, 14–20, 23–26, Dec. 2–4, 7–10, 12–13, 15; discharge based on temperature and gage-height records and on comparison with records of discharge of Pine Creek at Pinedale.

Monthly discharge of New Fork near Boulder, Wyo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	376	250	311	19,100
November	297	191	247	14,700
December 1–15	195	135	157	4,670
April	585	103	317	18,900
May	1,310	406	829	51,000
June	1,450	392	930	55,300
July	755	338	537	33,000
August	406	207	320	19,700
September	224	125	170	10,100

PINE CREEK AT PINEDALE, WYO.

LOCATION.—In sec. 4, T. 33 N., R. 109 W., near highway bridge at Pinedale, Sublette County. No large tributary between station and mouth, 3 miles below.

DRAINAGE AREA.—128 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—May 8, 1915, to September 30, 1926.

GAGE.—Gurley water-stage recorder installed May 4, 1926, at left bank 30 feet upstream from highway bridge and referred to staff gage used previously; inspected by J. W. Smith.

DISCHARGE MEASUREMENTS.—Made from 2-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of gravel. Control at rapids just below gage; somewhat shifting at long intervals. Banks subject to overflow at extremely high water.

EXTREMES OF DISCHARGE.—Water-stage recorder not operating during period of maximum stage; maximum daily discharge estimated by comparison with record of New Fork near Boulder, 630 second-feet on June 10; minimum discharge occurred during winter.

1915–1926: Maximum stage recorded, 5.0 feet at 8 a. m. and 5 p. m. June 17, 1918 (discharge, 2,310 second-feet); minimum discharge recorded, 4 second-feet November 14–16, 1921.

ICE.—Stage-discharge relation somewhat affected by ice; observations discontinued during winter.

DIVERSIONS.—Adjudicated diversions for irrigation of 5,100 acres from Pine Creek above Pinedale and 280 acres below.

REGULATION.—Flow naturally regulated by Fremont Lake, which has an area of about 8 square miles and drains 110 square miles.

ACCURACY.—Stage-discharge relation practically permanent; affected by ice during winter. Rating curve well defined. Gage read to hundredths twice daily October 1 to May 3, after which date operation of water-stage recorder was fairly satisfactory, except for periods as explained in footnote to daily-discharge table. Daily discharge ascertained by applying mean gage height to rating table. Records good except for periods of missing gage heights and when affected by ice, for which they are fair.

The following discharge measurements were made:

May 12, 1926: Gage height, 2.25 feet; discharge, 217 second-feet.

July 17, 1926; Gage height, 2.07 feet; discharge, 162 second-feet.

September 22, 1926: Gage height, 1.32 feet; discharge, 35.9 second-feet.

Daily discharge, in second-feet, of Pine Creek at Pinedale, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Apr.	May	June	July	Aug.	Sept.
1	119	71	60	22	66	510	178	123	73
2	114	71	60	18	84	490	184	127	71
3	112	70	60	18	101	480	191	129	74
4	108	70	50	16	116	470	200	133	76
5	106	70	40	18	139	465	197	137	76
6	112	70	42	23	165	485	191	136	74
7	104	70	44	27	184	530	181	135	73
8	103	70	46	39	224	590	184	145	71
9	99	72	49	34	254	620	200	156	71
10	97	74	49	23	245	625	224	165	67
11	97	78	46	22	220	617	220	165	63
12	97	82	46	22	212	609	212	167	60
13	97	87	45	21	208	593	194	162	60
14	97	87	42	18	197	569	181	167	57
15	97	84	40	17	188	538	172	178	53
16	92	82	------	18	188	492	169	167	49
17	90	77	------	19	200	429	160	162	44
18	87	77	------	20	212	383	154	154	42
19	84	71	------	24	208	377	149	147	40
20	82	67	------	30	250	365	143	141	38
21	80	66	------	34	300	318	135	141	35
22	77	65	------	39	359	281	131	143	36
23	77	67	------	44	390	236	125	139	34
24	74	68	------	46	450	208	118	131	32
25	74	66	------	41	492	185	137	131	30
26	73	66	------	33	508	162	135	115	30
27	73	63	------	39	508	165	151	100	28
28	76	63	------	44	522	178	143	85	27
29	77	60	------	49	530	167	137	84	25
30	74	60	------	52	535	162	131	79	29
31	74	------	------	------	530	------	127	76	------

NOTE.—Stage-discharge relation affected by ice Nov. 3–12, 21–23, Dec. 4–8, 11, 14–15; no gage-height record Apr. 1–3, May 20–21, 30–31, June 1–10, 25, Aug. 26–27; discharge based on comparison with records of flow of New Fork near Boulder.

Monthly discharge of Pine Creek at Pinedale, Wyo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	119	73	91.1	5,600
November	87	60	71.5	4,250
December 1–15	60	40	47.9	1,430
April	52	16	29	1,730
May	535	66	283	17,400
June	625	162	410	24,400
July	224	118	166	10,200
August	178	76	136	8,360
September	76	25	51.3	3,050

HAMS FORK AT DIAMONDVILLE, WYO.

LOCATION.—In SW. ¼ sec. 24, T. 21 N., R. 116 W., at highway bridge at Diamondville, Lincoln County. No large tributary within many miles.

DRAINAGE AREA.—386 square miles (measured on base map of Wyoming).

RECORDS AVAILABLE.—October 1, 1918, to September 30, 1926.

GAGE.—Vertical staff attached to downstream side of bridge; read by T. L. Stewart.

DISCHARGE MEASUREMENTS.—Made from 2-span bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of small boulders and well-compacted gravel. Control 200 feet downstream at small rapids, which shifts at long intervals. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.86 feet at 5 p. m. April 21 and May 6 (discharge, 522 second-feet); minimum stage recorded, 1.21 feet at 8 a. m. August 31 (discharge, 2 second-feet).

1918–1926: Maximum stage recorded, 4.55 feet at 8 a. m. May 11, 1923 (discharge, 3,250 second-feet); minimum discharge, river dry August 29–31, 1919.

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

DIVERSIONS.—Adjudicated diversions from Hams Fork and tributaries for irrigation of 7,620 acres above station and 8,090 acres below.

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 excellent except for period of missing gage heights, for which they are fair.

The following discharge measurements were made:

May 15, 1926: Gage height, 2.32 feet; discharge, 203 second-feet.

July 16, 1926: Gage height, 1.63 feet; discharge, 28.5 second-feet.

September 24, 1926: Gage height, 1.34 feet (datum of gage raised 0.49 foot; gage height referred to new datum, 0.85 foot); discharge, 6.4 second-feet.

Daily discharge, in second-feet, of Hams Fork at Diamondville, Wyo., for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	40		113	425	124	10	19	4
2	36	37		60	425	113	8	12	5
3	38	40	50	53	425	103	9	17	11
4	33	40		54	407	113	10	18	10
5	37	16		67	401	109	11	18	11
6	40	5		116	495	131	14	15	10
7	43	25		300	489	101	19	15	11
8	45	26	60	306	438	95	23	23	13
9	47	24		425	407	95	29	19	13
10	42	27		450	364	89	35	19	13
11	42	26		438	358	81	47	25	12
12	47	35		438	306	63	48	24	12
13	50	-------	90	438	272	65	46	19	13
14	50	-------		382	224	55	48	20	12
15	50	-------	146	370	213	54	42	16	12
16	45	-------	142	388	218	50	29	14	11
17	42	-------	146	419	229	47	30	11	12
18	42	-------	131	382	244	45	33	8	12
19	41	-------	131	425	239	41	33	6	10
20	42	-------	120	382	300	31	32	4	8
21	40	-------	124	489	300	35	21	4	7
22	40	-------	135	476	306	27	17	4	8
23	40	-------	165	419	300	26	16	4	8
24	37	-------	198	376	294	20	14	4	6
25	37	-------	234	382	283	16	19	3	6
26	37	-------	188	358	266	10	15	4	6
27	35	-------	151	346	272	11	7	4	9
28	37	-------	109	370	218	11	11	5	8
29	40	-------	106	370	174	10	12	4	7
30	40	-------	67	395	160	8	17	4	11
31	42	-------	81	-------	128	-------	17	2	-------

NOTE.—No gage-height record Mar. 1–14; discharge based on temperature record and comparison with records of flow of Bear River near Evanston. Braced figures give mean discharge for period indicated.

Monthly discharge of Hams Fork at Diamondville, Wyo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	50	33	41.0	2,520
November 1-12	40	5	28.4	676
March	234	----------	106	6,520
April	489	53	333	19,800
May	495	128	309	19,000
June	131	8	59.3	3,530
July	48	7	23.3	1,430
August	25	2	11.7	719
September	13	4	9.7	577

LITTLE SNAKE RIVER NEAR LILY, COLO.

LOCATION.—In sec. 20, T. 7 N., R. 98 W., at highway bridge near mouth of canyon 6 miles above Lily, Moffat County. No tributary between station and mouth of river at Lily.

DRAINAGE AREA.—3,730 square miles (measured on base maps of Colorado and Wyoming).

RECORDS AVAILABLE.—June 9 to August 14, 1904; May 1, 1922, to September 30, 1926.

GAGE.—Stevens water-stage recorder; inspected by Baxter L. Waddell. Datum raised 0.48 foot October 1, 1925.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 10.5 feet at 1 p. m. May 27 (discharge, 14,200 second-feet); minimum stage —0.36 foot August 31 and September 3-4 (discharge, 12 second-feet).

1904; 1922–1926: Maximum stage in 1926; minimum discharge, river dry August 7 to September 11, 1924.

DIVERSIONS.—Adjudicated diversions for irrigation of 28,700 acres from Little Snake River and tributaries above station.

REGULATION.—None.

COOPERATION.—Complete records furnished by State engineer.

Daily discharge, in second-feet, of Little Snake River near Lily, Colo., for the year ending September 30, 1926

Day	Oct.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	-------	820	3,340	4,420	263	33	16
2	25	-------	820	3,470	4,560	216	30	13
3	26	-------	790	3,860	4,420	270	22	12
4	30	-------	730	4,000	4,210	350	18	12
5	91	-------	1,530	4,280	4,000	330	18	18
6	210	-------	1,620	4,490	3,210	310	16	28
7	1,210	-------	1,290	4,560	2,140	370	24	33
8	700	-------	2,610	3,860	2,200	290	16	62
9	450	-------	2,730	4,210	1,980	450	20	69
10	398	-------	1,530	3,340	1,870	520	20	350
11	418	-------	1,450	2,730	1,670	310	44	136
12	450	-------	1,450	2,430	1,530	234	64	160
13	670	-------	1,370	2,200	1,450	191	69	116
14	418	-------	1,370	1,920	1,370	167	71	71
15	378	-------	1,290	1,720	1,250	156	50	74
16	378	-------	1,370	1,620	1,330	136	37	82
17	378	-------	1,530	1,720	1,130	126	30	132
18	378	-------	1,820	1,920	1,050	104	25	160
19	378	-------	2,080	2,370	970	87	28	69
20	378	-------	2,430	2,730	890	71	20	74

Daily discharge, in second-feet, of Little Snake River near Lily, Colo., for the year ending September 30, 1926—Continued

Day	Oct.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	398		2,490	2,850	910	64	18	78
22	418		2,610	3,470	730	52	28	82
23	398	1,130	3,730	3,660	700	49	16	69
24	398	1,100	4,560	3,660	645	44	13	74
25	378	1,060	3,210	3,860	595	41	13	89
26	430	990	2,790	4,070	545	30	15	96
27	450	885	3,090	3,860	520	30	13	126
28	398	820	3,280	8,950	495	29	16	156
29	418	820	3,340	5,330	382	24	15	178
30	430	820	3,380	5,670	278	30	15	270
31	430	790		4,350		30	12	

NOTE.—No gage-height record June 18–21; discharge interpolated.

Monthly discharge of Little Snake River near Lily, Colo., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,210	23	385	23,700
March 23–31	1,130	790	935	16,700
April	4,560	730	2,100	125,000
May	8,950	1,620	3,560	219,000
June	4,560	278	1,720	102,000
July	520	24	173	10,600
August	71	12	26.7	1,640
September	350	12	96.8	5,760

ASHLEY CREEK NEAR VERNAL, UTAH

LOCATION.—In sec.1, T. 3 S., R. 20 E., three-quarters of a mile above heading of power canal of Utah Power & Light Co. and 12 miles northwest of Vernal, Uintah County. Dry Fork enters from right 4 miles downstream.

DRAINAGE AREA.—101 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 6, 1914, to September 30, 1926. From October 8, 1911, to June 5, 1914, fragmentary records obtained at power plant. Records also available for a point below Dry Fork from March 15, 1900, to December 31, 1904.

GAGE.—Stevens continuous water-stage recorder on left bank three-quarters of a mile above heading of power canal; inspected by Lee Hall and Kenneth Richardson.

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

CHANNEL AND CONTROL.—Bed steep and rough, composed of gravel and cobbles, subject to change during high water. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum stage during year, 7.90 feet at 9 p. m. May 20 (discharge, 729 second-feet); minimum stage, 5.85 feet March 23 (discharge, 29 second-feet).

1911–1925: Maximum discharge, 2,050 second-feet at 9 p. m. May 29, 1921; minimum discharge, 26 second-feet February 7, 1920.

ICE.—None.

DIVERSIONS.—None above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation remained permanent following a slight shift on October 6. Rating curves 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 or weekly gage readings. Records for estimated periods fair; others good.

Discharge measurements of Ashley Creek near Vernal, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 6	6.04	55.8	June 10 [a]	6.58	159	Aug. 9	6.19	85.3
May 2	7.00	288	June 27	6.28	103	Aug. 30	6.06	59.6

[a] Made by engineer of Utah Power & Light Co.

Daily discharge, in second-feet, of Ashley Creek near Vernal, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	91	63	44			30	340	270	98	83	61
2	86	95	63	44			30	334	253	95	83	59
3	86	89	61		34	31	31	385	237		93	59
4	88	91	59				30	458	224		96	59
5	128	83	57				30	528	212		96	59
6	247	87	57	43	33	31	30	402	198	110	96	59
7	149	87	57				31	311	187		96	59
8	131	85	57				33	264	182		91	57
9	125	83	55	41			34	237	172		85	57
10	119	81	55		32	30	35	215	160	112	95	55
11	117	81	54				36	198	156		89	55
12	116	81	54		31		36	198	154		83	54
13	110	81	54			30	36	190	156	100	83	54
14	98	81	52			30	38	201	154		81	54
15	91	81	52			30	42	237	139		79	52
16	91	81		38	31	30	66	250	135	93	76	52
17	106	81	51			30	114	296	131	93	76	47
18	108	78				30	165	318	127	93	76	45
19	104	76	50		31	31	195	346	123	91	76	44
20	102	76				31	192	507	125	91	74	44
21	100	74				30	224	564	125	93	74	44
22	106	74		35	31	30	231	543	117	95	72	44
23	108	72	48			29	227	549	104	91	68	44
24	100	70				30	247	487	104	89	64	44
25	100	68				30	292	363	102	87	64	42
26	98	68		35	31	30	334	322	102	87	64	41
27	98	66	47		31	30	346	315	102	87	63	42
28	96	66			31	31	351	284	102	89	63	42
29	96	64				30	385	281	100	89	63	42
30	93	63	45	35		30	380	318	100	85	61	44
31	93			35		30		288		83	61	

NOTE.—Recorder not operating and discharge interpolated or estimated between weekly gage readings Dec. 16 to Mar. 12 and July 1-15. Braced figures give estimated mean discharge for periods indicated.

Monthly discharge of Ashley Creek near Vernal, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	247	82	109	6,700
November	95	63	78.5	4,670
December	63		52.1	3,200
January			38.5	2,370
February			31.8	1,770
March		29	30.3	1,860
April	385	30	142	8,450
May	564	190	340	20,900
June	270	100	152	9,040
July		83	97.1	5,970
August	96	61	78.2	4,810
September	61	41	50.5	3,000
The year	564	29	100	72,700

UTAH POWER & LIGHT CO.'S TAILRACE[1] NEAR VERNAL, UTAH

LOCATION.—In NW. ¼ sec. 18, T. 3 S., R. 21 E., at Vernal power plant of Utah Power & Light Co. (acquired in November, 1925, from Vernal Milling & Light Co.), 10 miles northwest of Vernal, Uintah County.

RECORDS AVAILABLE.—May 3 to September 30, 1917, and March 18, 1920, to September 30, 1926.

GAGE.—Indicating gage in office of power plant, actuated by float in stilling well in tailrace; read by employees of power company.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Channel straight for 50 feet below gage. Banks high; one channel at all stages. Bed of gravel and cobbles.

ICE.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curve fairly well defined. Float gage read to hundredths hourly throughout year. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used October 1 to December 5. Records fair.

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

Discharge measurements of Utah Power & Light Co.'s tailrace near Vernal, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 6	4.48	18.8	June 10 [a]	4.68	27.1	Aug. 30	4.38	17.7
Do	4.48	19.3	June 27	4.28	13.6			
May 2	4.40	18.7	Aug. 9	4.46	16.4			

[a] Made by engineer of Utah Power & Light Co.

Daily discharge, in second-feet, of Utah Power & Light Co.'s tailrace near Vernal, Utah, for the year ending September 30, 1926

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

[1] Published prior to 1926 as Vernal Milling & Light Co.'s tailrace.

Monthly discharge of Utah Power & Light Co.'s tailrace near Vernal, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	28	10	26.2	1,610
November	26	21	24.1	1,430
December	26	17	22.9	1,410
January	23	0	17.0	1,050
February	23	19	21.8	1,210
March	24	19	21.5	1,320
April	22	18	20.6	1,230
May	20	17	19.2	1,180
June	22	0	17.7	1,050
July	18	14	15.5	953
August	17	13	15.7	965
September	17	13	15.0	893
The year	28	0	19.7	14,300

DUCHESNE RIVER NEAR TABIONA, UTAH

LOCATION.—In SW. ¼ sec. 17, T. 2 S., R. 6 W., Uinta special base and meridian, at highway bridge 8 miles southeast of Tabiona, Duchesne County. Rock Creek enters from left 6 miles downstream.

DRAINAGE AREA.—352 square miles.

RECORDS AVAILABLE.—January 16, 1919, to September 30, 1926.

GAGE.—Stevens steel-tape gage on downstream side of bridge; read by Leonard Brown.

DISCHARGE MEASUREMENTS.—Made by wading or from bridge.

CHANNEL AND CONTROL.—Channel composed of gravel and sand. Left bank high and not subject to overflow. Right bank overflowed at extremely high stage allowing water to pass around bridge. Gravel riffle 50 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 12.22 feet at 6.30 p. m. May 23 (discharge, 950 second-feet); minimum discharge, 40 second-feet from August 29–31.

1919–1926: Maximum discharge, about 2,500 second-feet June 13, 1921 (uncertain because gage readings for that time are doubtful and river was over right bank); minimum discharge, 40 second-feet August 29–31, 1926.

ICE.—River freezes over each winter.

DIVERSIONS.—Some small diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed slightly April 14–23. Rating curves well defined. Gage read to hundredths once daily. Daily discharge ascertained by applying daily gage height to rating table, except for period of ice effect. Records good.

Discharge measurements of Duchesne River near Tabiona, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 8	9.63	107	June 29	9.82	133
Apr. 29	11.02	425	Sept. 3	9.45	80.0

Daily discharge, in second-feet, of Duchesne River near Tabiona, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	139	141	112		85	84	93	451	755	93	73	42
2	137	134	109		90	87	89	580	705	96	73	42
3	135	104	107		86	96	107	548	695	110	157	58
4	139	93	100		87	103	109	540	652	104	150	50
5	139	94	109		85	112	117	524	636	117	100	51
6	146	90	110		86	98	118	516	612	135	84	65
7	174	100	109		89	94	117	476	492	118	94	67
8	172	106	103		89	103	114	468	439	128	94	78
9	150	106	101		87	114	117	388	445	120	89	86
10	150	103	100		86	107	123	361	439	112	155	89
11	170	110	100		93	103	128	297	376	109	104	75
12	161	110	109		87	112	127	321	350	107	87	80
13	159	127	109		89	109	144	319	330	104	90	76
14	159	110	101		87	112	150	324	313	103	89	76
15	159	110	101		80	110	159	327	292	100	87	82
16	170	125	98	80	89	115	157	424	257	100	85	80
17	164	112	100		83	125	186	451	257	98	85	77
18	163	109	99		87	123	190	564	213	97	80	76
19	157	110	98		85	127	209	648	204	85	73	77
20	146	112	98		86	118	255	710	190	77	67	80
21	144	114	101		82	117	252	790	182	73	56	85
22	142	110	100		87	107	262	800	178	71	56	76
23	139	112	103		80	110	260	950	146	67	54	81
24	141	109	101		85	103	264	780	159	70	44	80
25	134	110	94		87	109	277	750	134	72	42	77
26	134	112	96		84	101	284	735	115	80	41	77
27	139	109	91		81	100	338	600	97	150	41	78
28	139	115	87		81	96	364	560	75	78	41	82
29	134	107	86		-------	97	421	612	120	69	40	85
30	134	109	85		-------	100	442	710	104	73	40	86
31	139	-------	85		-------	100	-------	745	-------	69	40	-------

NOTE.—Braced figure gives estimated mean discharge for period indicated. Discharge Dec. 18, 19, and July 26 estimated because gage was not read.

Monthly discharge of Duchesne River near Tabiona, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	174	134	149	9,160
November	141	93	110	6,550
December	112	85	100	6,150
January			a 80	4,920
February	93	81	85.8	4,770
March	127	84	106	6,520
April	442	89	199	11,800
May	950	297	557	34,200
June	755	75	332	19,800
July	150	67	96.3	5,920
August	157	40	77.8	4,780
September	89	42	73.8	4,390
The year	950	40	164	119,000

a Estimated.

DUCHESNE RIVER AT DUCHESNE, UTAH

LOCATION.—In NE. ¼ NW. ¼ sec. 1, T. 4 S., R. 5 W., Uinta special base and meridian, at Seventh Street Bridge in Duchesne, Duchesne County. Strawberry River enters from right 1 mile downstream.

DRAINAGE AREA.—660 square miles.

RECORDS AVAILABLE.—December 3, 1917, to September 30, 1926.

GAGE.—Vertical staff gage on downstream side of left bridge abutment; read by E. S. Winslow.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Channel straight for 100 feet above gage and several hundred feet below. Bed composed of gravel and cobbles. The head of a long heavy gravel riffle is a short distance below gage. Banks are low but not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.80 feet May 22 and 24 (discharge, 2,430 second-feet); minimum stage, 0.85 foot September 1 and 2 (discharge, 70 second-feet).

1918–1926: Maximum stage recorded, 8.65 feet (chain gage) at noon June 10, 1922 (discharge, 4,420 second-feet); minimum stage recorded 0.6 foot August 4, 5, 7–14, 27–31, September 1–4, 1924 (discharge, 50 second-feet).

ICE.—Stream freezes every winter.

DIVERSIONS.—Below all diversions above mouth of Strawberry River. Numerous diversions above and below station.

REGULATION.—None except by diversion.

ACCURACY.—Stage-discharge relation shifting. Rating curves fairly well defined. Gage read to half-tenths once daily throughout year. Daily discharge ascertained by applying daily gage height to rating table. Records fair.

Discharge measurements of Duchesne River at Duchesne, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 8	1.06	194	June 25	1.29	276	Sept. 1	0.85	69.9
Apr. 29	1.56	553	June 29	1.21	237			

Daily discharge, in second-feet, of Duchesne River at Duchesne, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	203	189	144	165	189	189	593	1,840	223	84	70
2	165	213	189	165	189	213	189	648	1,760	212	84	70
3	165	241	203	165	189	213	165	704	1,840	212	78	84
4	165	213	189	165	165	213	165	898	1,760	223	121	78
5	269	213	213	189	189	213	165	1,120	1,760	236	102	91
6	495	213	213	165	189	189	189	1,120	1,760	290	102	84
7	302	203	213	165	189	189	213	968	1,520	290	121	84
8	269	203	194	144	189	189	213	829	1,440	369	223	84
9	241	213	189	165	189	165	213	766	1,280	330	195	84
10	241	203	189	165	213	165	213	593	1,200	330	290	91
11	269	213	203	165	213	189	213	544	1,120	306	277	91
12	269	213	203	165	241	189	189	495	1,120	290	236	84
13	269	213	213	165	241	213	189	452	1,040	290	223	84
14	269	203	213	165	241	213	189	409	960	290	223	84
15	269	224	175	165	241	213	189	452	748	256	195	84
16	269	241	189	144	269	213	213	593	623	256	167	91
17	241	269	203	144	269	213	269	766	564	256	167	91
18	241	241	213	144	269	189	302	1,120	512	223	158	91
19	241	213	213	144	269	189	334	1,360	460	195	144	84
20	241	213	213	165	269	189	334	1,920	460	167	130	91
21	215	213	203	144	250	213	334	2,120	369	144	121	91
22	213	213	213	144	241	213	302	2,430	369	121	121	84
23	213	213	213	165	241	213	334	2,260	330	102	114	84
24	213	213	203	165	213	189	334	2,430	330	91	106	84
25	213	203	203	165	213	165	334	2,090	290	91	99	84
26	213	203	213	144	189	189	409	1,760	256	91	91	91
27	213	203	213	165	189	189	452	1,680	256	99	84	99
28	213	189	189	165	189	165	505	1,520	236	91	84	99
29	189	189	165	165	-------	144	544	1,680	223	121	84	99
30	189	189	165	165	-------	165	593	1,680	223	102	84	117
31	203	-------	144	189	-------	189	-------	1,790	-------	84	78	-------

Monthly discharge of Duchesne River at Duchesne, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	495	165	237	14,600
November	269	189	213	12,700
December	213	144	198	12,200
January	189	144	160	9,840
February	269	165	218	12,100
March	213	144	193	11,900
April	593	165	283	16,800
May	2,430	409	1,220	75,000
June	1,840	223	888	52,800
July	369	84	206	12,700
August	290	78	141	8,670
September	117	70	87.6	5,210
The year	2,430	70	338	245,000

DUCHESNE RIVER AT MYTON, UTAH

LOCATION.—In NW. ¼ sec. 25, T. 3 S., R. 2 W., Uinta special base and meridian, at highway bridge at Myton, Duchesne County. Lake Fork enters from left 3 miles upstream.

DRAINAGE AREA.—2,750 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 26, 1899, to November 30, 1910, and July 26, 1911, to September 30, 1926, fragmentary.

GAGE.—Chain gage on upstream rail near left end of steel highway bridge; read by C. J. Preece.

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

CHANNEL AND CONTROL.—Bed of coarse gravel; banks comparatively low but not likely to be overflowed, although subject to erosion during high water. Gravel riffle 200 feet below gage; shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 5.34 feet at 6 p. m. May 21 (discharge, 3,570 second-feet); minimum stage, 1.12 feet at 9 a. m. September 2 (discharge, 12 second-feet).

1899–1926: Maximum stage recorded, 7.94 feet at 8 a. m. June 10, 1922 (discharge from extension of rating curve, 12,800 second-feet); minimum discharge, 6 second-feet September 4–9, 1924.

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

DIVERSIONS.—Much of the low-water flow of river and its tributaries is diverted for irrigation above station. In Strawberry Valley 50,000 to 75,000 acre-feet is diverted annually to the Great Basin.

REGULATION.—Annual run-off is affected by the United States Bureau of Reclamation reservoir on Strawberry River, one of the main tributaries.

ACCURACY.—Stage-discharge relation changed during winter and again on August 10. Normal rating curve well defined. Gage read to hundredths four or five times a week from October 1 to May 5 and daily for the remainder of year. Daily discharge ascertained by applying mean daily gage height to rating table, using two parallel shifts. Discharge estimated or interpolated for days of missing gage heights. Records fair.

Discharge measurements of Duchesne River at Myton, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 19[a]	2.19	348	Apr. 30	2.94	836	Sept. 1	1.13	132
Dec. 5	2.21	358	June 26	1.84	208			
Mar. 17	2.21	388	June 30	1.62	131			

[a] Made by engineer of Utah Power & Light Co.

Daily discharge, in second-feet, of Duchesne River at Myton, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	260	336	343	340			292	954	1,980	124	28	14
2	245	333	353	348			304	958	3,600	110	38	12
3	241	358	348	325			304	962	1,960	104	42	30
4	250	384	343	310	300	375	324	1,100	1,600	110	140	40
5	400	354	363	315			343	1,250	1,680	116	140	38
6	922	323	390	318			396	1,660	1,460	121	140	47
7	730	333	417	326	454		448	1,310	1,530	204	113	46
8	541	325	443	334		314	471	1,100	1,350	426	204	38
9	500	317	300	343		334	494	858	1,220	426	389	44
10	448	309	358	340		353	517	818	1,160	426	1,120	51
11	480	325	333	338		334	488	712	1,020	348	796	44
12	523	341	384	326	450	314	460	650	834	323	290	44
13	500	358	358	314		329	432	611	890	212	228	47
14	482	358	333	320		343	432	579	761	192	204	44
15	448	343	309	326		358	441	541	705	174	185	35
16	448	328	285	333		360	451	579	585	137	163	46
17	448	333	301	333	460	363	460	657	454	110	150	38
18	442	338	317	333		360	460	1,140	443	102	150	38
19	437	343	333			356	460	1,610	389	79	130	38
20	424	343	338	270		353	489	2,500	348	96	118	42
21	410	343	343		460	328	518	3,570	323	72	104	30
22	384	358	338	250		304	547	3,420	318	74	91	38
23	397	373	333			314	563	2,950	290	51	72	32
24	410	384	333			311	579	3,000	254	42	47	38
25	397	394	334		476	307	595	2,590	212	42	33	37
26	384	378	336	250		304	611	2,110	196	38	33	47
27	376	363	337		450	295	668	1,610	174	35	33	70
28	367	353	338			286	725	1,540	167	26	21	72
29	358	343	336		-------	276	782	1,470	156	26	20	68
30	348	333	334		-------	267	874	1,570	150	33	18	107
31	338	-------	333		-------	280	-------	1,810	-------	30	16	------

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

Monthly discharge of Duchesne River at Myton, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	922	241	430	26,400
November	394	309	347	20,600
December	443	285	343	21,100
January	348	----------	298	18,300
February	----------	----------	422	23,400
March	----------	267	334	20,500
April	874	292	498	29,600
May	3,570	541	1,490	91,600
June	3,000	150	854	50,800
July	426	26	142	8,730
August	1,120	16	170	10,500
September	107	12	43.8	2,610
The year	3,570	12	448	324,000

STRAWBERRY RIVER AT DUCHESNE, UTAH

LOCATION.—In SW. ¼ NE. ¼ sec. 2, T. 4 S., R. 5 W., Uinta special base and meridian, at Winslow ranch, three-quarters of a mile west of post office at Duchesne, Duchesne County, three-quarters of a mile above mouth of Indian Canyon Creek, a small tributary entering from south, and 1½ miles above confluence with Duchesne River.

DRAINAGE AREA.—1,040 square miles (measured on topographic maps).

RECORDS AVAILABLE.—June 10, 1908, to November 30, 1910, and March 16, 1914, to September 30, 1926.

GAGE.—Enameled vertical staff on downstream side of right abutment of bridge; read by E. S. Winslow.

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

CHANNEL AND CONTROL.—Channel straight for several hundred feet above and below gage. Bed of sand and fine gravel. Natural channel about 50 feet wide is constricted at bridge to 36 feet. Banks comparatively low; covered with underbrush; left bank subject to overflow at very high stages. Gravel riffle 200 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.0 feet at 7 a. m. August 10 (discharge, 1,270 second-feet); minimum stage, 4.05 feet at 7 p. m. July 26 (discharge, 33 second-feet).

1908–1926: Maximum stage recorded, 7.7 feet (old datum) on May 27, 1922 (discharge, 3,230 second-feet); minimum discharge, 30 second-feet November 20, 1914. Records obtained prior to 1914 incomplete.

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

DIVERSIONS.—50,000 to 75,000 acre-feet of water from Strawberry Valley Reservoir (capacity, 250,000 acre-feet), about 40 miles above station, is diverted annually by tunnel to Spanish Fork drainage basin. Some water is also diverted from upper end of Strawberry Valley to basin of Provo River.

REGULATION.—Since 1912 flow of river has been affected by operation of Strawberry Valley Reservoir.

ACCURACY.—Stage-discharge relation not permanent. Two rating curves are fairly well defined. Gage read to half-tenths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge for ice-affected periods estimated from one discharge measurement, temperature records, observer's notes, and hydrographic comparison with all Duchesne River stations. Records fair.

Discharge measurements of Strawberry River at Duchesne, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 8	[a] 4.40	68.0	June 25	4.26	52.5	Sept. 1	4.10	37.3
Apr. 29	5.33	366	June 29	4.18	45.6			

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Strawberry River at Duchesne, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	66	73				73	362	144	42	42	37
2	52	70	73				87	354	144	46	37	37
3	52	66	73				91	362	131	46	86	42
4	52	66	58				91	375	124	50	63	37
5	95	66	60				91	396	119	63	63	37
						90						
6	388	66	62				107	477	119	74	57	37
7	95	61	65				218	396	119	383	449	37
8	95	58	68				250	354	213	76	534	37
9	77	70					228	346	144	92	362	37
10	66	73					243	282	124	124	855	37
11	107	77				111	260	274	131	101	131	37
12	82	77				101	206	244	108	203	92	37
13	77	73				91	189	237	108	80	80	37
14	73	77				101	162	220	101	68	63	37
15	73	82			70	101	178	203	96	60	60	37
				60								
16	73	87				111	178	203	96	54	60	37
17	66	73				122	189	230	96	54	60	37
18	66	87				122	189	237	86	47	54	37
19	66	82				111	250	237	76	42	54	37
20	66	70	65			101	260	256	76	39	54	37
21	58	73				111	218	274	73	37	54	37
22	58	73				111	250	267	68	37	47	37
23	58	70				111	243	256	60	37	47	37
24	58	73				101	250	237	57	37	47	37
25	58	73				101	243	220	55	37	47	37
26	58	73				101	284	197	47	35	47	42
27	66	73				101	322	188	47	45	42	42
28	66	73				101	362	172	47	80	42	47
29	66	73			-------	101	362	150	46	92	42	47
30	66	73			-------	91	362	144	46	54	42	47
31	66	-------			-------	101	-------	144	-------	45	37	------

NOTE.—Gage heights affected by ice Dec. 5 to Mar. 10; braced figures give estimated mean discharge for periods indicated.

Monthly discharge of Strawberry River at Duchesne, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	388	52	79.1	4,860
November	87	58	72.5	4,310
December	----------	----------	65.4	4,020
January	----------	----------	[a] 60	3,690
February	----------	----------	[a] 70	3,890
March	122	----------	100	6,150
April	362	73	215	12,800
May	477	144	268	16,500
June	213	46	96.7	5,750
July	383	35	73.5	4,520
August	855	37	121	7,440
September	47	37	38.5	2,290
The year	855	35	105	76,200

[a] Estimated.

WEST FORK OF LAKE FORK NEAR MOUNTAIN HOME, UTAH

LOCATION.—In NE. ¼ sec. 19, T. 2 N., R. 5 W., Uinta special base and meridian half a mile below Moon Lake and 13 miles northwest of Mountain Home, Duchesne County.

DRAINAGE AREA.—108 square miles (measured on topographic map).

RECORDS AVAILABLE.—From September 18, 1921, to September 30, 1926; not operated during winter.

GAGE.—Stevens continuous water-stage recorder on right bank; attended by engineers of United States Indian Service and Geological Survey.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Channel steep and rough. Bed composed of boulders and gravel. Right bank high; left bank low. One channel at all stages. Rock riffle control 25 feet below gage; practically permanent. Stage of zero flow at gage height −0.2 foot; determined October 11, 1921.

EXTREMES OF DISCHARGE.—Maximum stage during year, 2.70 feet at 2 a. m. May 21 (discharge, 1,080 second-feet); minimum stage not determined.

1921–1926: Maximum stage, 3.50 feet at 1 p. m. June 13, 1923 (discharge, 1,940 second-feet); minimum stage not determined.

DIVERSIONS.—None above station.

REGULATION.—Flow affected by storage and release of water from Brown Duck Lake Reservoir.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined. Water-stage recorder record broken. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Discharge estimated July 24 to August 25. Records of daily discharge good; estimated periods fair.

The following discharge measurement was made:

May 4, 1926: Gage height, 1.37 feet; discharge, 279 second-feet.

Daily discharge, in second-feet, of West Fork of Lake Fork near Mountain Home, Utah, for the year ending September 30, 1926

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	-------	585	142		44	16	194	260	140		42
2	-------	608	137		41	17	267	234	135		42
3	-------	645	135		48	18	363	218	132		42
4	270	614	166		53	19	519	203	130		42
5	351	608	174		52	20	833	197	128	75	42
6	351	603	171		49	21	1,030	183	128		42
7	311	557	177		49	22	930	174	119		42
8	278	473	185	75	53	23	873	171	114		42
9	231	444	188		45	24	810	171			42
10	206	407	183		41	25	620	169			42
11	185	402	169		40	26	524	163		59	42
12	169	398	158		39	27	483	160	100	58	41
13	153	363	147		41	28	430	158		56	41
14	142	334	150		41	29	493	153		54	40
15	147	299	145		41	30	585	145		52	40
						31	568	-------		52	------

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

Monthly discharge of West Fork of Lake Fork near Mountain Home, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
May 4-31	1,030	142	440	24,400
June	645	145	336	20,000
July	188	----------	137	8,420
August	----------	52	71.2	4,380
September	53	39	43.4	2,580
The period	----------	----------	----------	59,800

LAKE FORK NEAR MYTON, UTAH

LOCATION.—In sec. 21, T. 3 S., R. 2 W., Uinta special base and meridian, 100 yards below highway bridge, half a mile above confluence with Duchesne River, and 3½ miles northwest of Myton, Duchesne County.

DRAINAGE AREA.—468 square miles (measured on topographic maps).

RECORDS AVAILABLE.—July 3, 1900, to December 31, 1903; June 13, 1907, to November 30, 1910; July 26, 1911, to September 30, 1926.

GAGE.—Stevens continuous water-stage recorder on right bank, inspected by Anton Verholc.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Channel fairly straight for several hundred feet above and below gage. Banks high and not subject to overflow. Bed composed of silt and gravel. Gravel riffle about 300 feet below gage; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.56 feet at 10 a. m. May 21 (discharge, 1,180 second-feet); minimum discharge, 3 second-feet July 24–26 and September 1 and 2.

1900–1903; 1907–1926; maximum stage, 9.4 feet June 22 and 23, 1917 (discharge, 4,350 second-feet); minimum discharge July 24, 1916, probably zero.

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

DIVERSIONS.—No diversions below station; several canals of the United States Indian Service and some privately-owned canals divert above for irrigation. Some return water from irrigation enters a short distance above station.

REGULATION.—Flow affected by irrigation diversions.

ACCURACY.—Stage-discharge relation permanent; affected by ice during winter. Rating curve well defined. Water-stage recorder operated satisfactorily except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge for periods of missing gage height and periods of ice effect estimated by comparison with records for Duchesne River stations or interpolated. Daily discharge good; estimated periods fair.

Discharge measurements of Lake Fork near Myton, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 5	[a] 2.36	131	June 26	1.22	16.8
Apr. 30	1.68	57.9	Sept. 1	1.00	3.2

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Lake Fork near Myton, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	104					60	115	221	10	8	3
2	45	162	135				73	122	233	17	7	3
3	42	162				75	73	76	323	20	8	7
4	126	150					81	117	313	26	16	7
5	287	143	131				80	241	287	31	22	8
6	240	136				46	85	287	241	34	28	9
7	210	136				50	87	150	256	38	29	13
8	190	138		100	125	55	98	55	187	46	85	13
9	175	140				72	120	26	115	53	50	19
10	162	138	130			55	90	22	61	41	40	18
11	241	143				85	76	22	39	45	30	18
12	225	145				72	70	19	35	37	40	20
13	210	155				104	80	16	133	20	30	23
14	200	160				89	80	16	48	15	30	21
15	190	152				.74	76	15	35	22	28	19

Daily discharge, in second-feet, of Lake Fork near Myton, Utah, for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	185	174				68	64	21	30	15	24	16
17	180	157				72	56	74	25	10	26	16
18	177	167				68	48	56	25	10	31	16
19	172	160				74	66	143	34	10	24	15
20	160	150				68	70	455	34	7	21	14
21	155					65	49	920	34	10	21	9
22	160				125	61	40	835	34	9	21	10
23	164		125	100		57	30	760	30	6	18	9
24	160					53	39	688	20	3	16	8
25	155					49	30	439	15	3	16	8
		145										
26	152					45		313	14	3	15	10
27	148					41	25	213	9	4	15	15
28	140					37		68	12	4	8	18
29	125				-------	46		53	11	6	7	21
30	115				-------	51	44	150	9	4	5	24
31	105	-------			-------	56	-------	221	-------	6	4	------

NOTE.—No gage-height record and mean discharge estimated Oct. 1, 2, 6, 9, 12–17, 29–31, Mar. 7, 14, 21–26, Apr. 22, 23, 26–29, June 16–18, 23–25, July 13, 14, Aug. 9–13, 29–31. Stage-discharge relation affected by ice and discharge estimated from Nov. 19 to Mar. 5. Braced figures give estimated mean discharge for periods indicated.

Monthly discharge of Lake Fork near Myton, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	287	42	163	10,000
November	174	104	147	8,750
December	----------	----------	128	7,870
January	----------	----------	[a] 100	6,150
February	----------	----------	[a] 125	6,940
March	104	37	64.1	3,940
April	120	----------	62.2	3,700
May	920	15	216	13,300
June	323	9	95.4	5,680
July	53	3	18.2	1,120
August	85	4	23.3	1,430
September	24	3	13.7	815
The year	920	3	96.3	69,700

[a] Estimated.

UINTA RIVER NEAR NEOLA, UTAH

LOCATION.—In SE. ¼ sec. 26, T. 2 N., R. 2 W., Uinta special base and meridian, 800 feet above tailrace of Uinta Power & Light Co.'s plant (Pole Creek unit) and 9 miles north of Neola, Duchesne County. Pole Creek enters from left 1½ miles downstream.

DRAINAGE AREA.—181 square miles.

RECORDS AVAILABLE.—July 30, 1921, to September 30, 1926; fragmentary.

GAGE.—Chain gage installed on left bank September 2, 1926, to same datum and at same location as old staff gage; read by L. V. Crapo.

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

CHANNEL AND CONTROL.—Channel steep and rough. Bed composed of boulders and gravel. Banks fairly high but probably subject to overflow, if channel changes, which may readily occur during high water.

ICE.—River freezes over every winter.

DIVERSIONS.—None above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent during the year. Rating curve fairly well defined. Gage read to hundredths once or twice daily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying daily or mean daily gage height to rating table. Discharge estimated for days of missing gage heights by comparison with records of flow of Duchesne River near Tabiona, Whiterocks River near Whiterocks, Ashley Creek near Vernal, and a study of precipitation records. Records fair.

Discharge measurements of Uinta River near Neola, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 7	0.22	119	June 28	1.03	308
May 1	.88	252	Sept. 2	.26	112

Daily discharge, in second-feet, of Uinta River near Neola, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		151	103	88		62	62	260	705	288	162	110
2		155	103	78		58		285	750	285	160	106
3		160	142	81	70	66		379	795	279		110
4		140	135	71		64		528	682	368		113
5		125	129	73		62		687	750	391	200	106
6		113	99	71	68	66		554	700	315		104
7		129	99	64	66	76		391	660	361	269	103
8	240	121	76	66	66	62		298	602	357	227	106
9		129	76	66	66	62		236	567	398	279	99
10		129	101	64	68	62		224	507	368	308	93
11		113	108	66	68	60		207	486	282	248	93
12		117	86	68	64	62		196	453	292	230	96
13		125	87	71	58	64		180	486	279	213	96
14		121	76	84		62		202	406	257	185	93
15		165	73	81		64		196	383	282	180	90
16	219	133	73	78	58	66		260	361	298	170	90
17	213	115	81	76		68		445	332	332	165	87
18	207	100	87	78		66		554	318	320	158	87
19	202	93	96	78		64		700	298	310	160	87
20	196	90	76	81	58	66		912	290	298	151	86
21	180	93	73		60	66		1,020	280	301	151	86
22	185	99	78		63	68		975	272	285	142	84
23	196	121	88		66	64		1,010	266	242	146	86
24	180	110	87			66		975	292	224	133	87
25	155	110	68	75		64		687	279	188	129	93
26	160	99	81		66	64		615	298	222	125	96
27	160	105	96			64		606	282	230	121	99
28	165	110	96		66	62		486	318	239	121	99
29	151	103	99	73		64		571	279	202	121	96
30	142	103	103	72		66		705	282	180	115	127
31	146		96	72		62		660		170	115	

NOTE.—No gage-height record; discharge estimated or interpolated Oct. 1–15, Nov. 4, 5, 17, 18, 27, Dec. 4, Jan. 21–28, 30, 31, Feb. 1–5, 14–18, 24–27, May 19, June 6, 20, 21, July 18, 19, Aug. 3–6, 16, 17, 30, 31, Sept. 19, 20.

Monthly discharge of Uinta River near Neola, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	142	[a] 210	[a] 12,900
November	165	90	119	7,080
December	142	73	92.6	5,690
January	88	64	74.2	4,560
February	----------	----------	64.2	3,570
March	76	58	64.3	3,950
April	----------	----------	[a] 95	[a] 5,650
May	1,020	180	516	31,700
June	795	266	446	26,500
July	398	170	285	17,500
August	----------	115	177	10,900
September	127	84	96.9	5,770
The year	1,020	----------	188	136,000

[a] Estimated.

WHITEROCKS RIVER NEAR WHITEROCKS, UTAH

LOCATION.—In sec. 18, T. 2 N., R. 1 E., Uinta special base and meridian, 8 miles north of Whiterocks, Uintah County. United States Whiterocks Canal diverts from left side and Farm Creek Canal from right side 2 miles below station.

DRAINAGE AREA.—118 square miles.

RECORDS AVAILABLE.—August 1, 1921, to September 30, 1926, at present site; fragmentary. November 8, 1917, to June 2, 1921, at a point about 2 miles downstream below diversion of United States Whiterocks Canal and above Farm Creek Canal; 1899 to 1904 and 1907 to 1910, somewhere in vicinity of present site. Records are comparable.

GAGE.—Stevens continuous water-stage recorder on left bank.

DISCHARGE MEASUREMENTS.—Made by wading or from cable a quarter of a mile above gage.

CHANNEL AND CONTROL.—Narrow box canyon. Stream bed is steep and rough; composed of boulders and gravel. Channel is subject to change by erosion during high water.

EXTREMES OF DISCHARGE.—Not determined for 1926.

1918–1926: Maximum stage recorded, 5.40 feet at 9 p. m. June 20 and 7 p. m. June 21, 1922 (discharge, 2,750 second-feet); minimum discharge less than 14 second-feet in the winter of 1920-21.

ICE.—Stream freezes over every winter.

DIVERSIONS.—After August 1, 1921, above all diversions.

REGULATION.—None.

ACCURACY.—Stage-discharge relation practically permanent during year. Standard rating curve fairly well defined. Operation of water-stage recorder satisfactory April 7 to May 5 and August 31 to September 30. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

Discharge measurements of Whiterocks River near Whiterocks, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 7	[a] 2.35	62.2	June 28	2.21	117
May 3	2.40	273	Aug. 31	2.04	68.4

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Whiterocks River near Whiterocks, Utah, for the year ending September 30, 1926

Day	Apr.	May	Sept.	Day	Apr.	May	Sept.	Day	Apr.	May	Sept.
1	------	274	72	11	45	------	75	21	72	------	59
2	------	257	72	12	45	------	87	22	81	------	59
3	------	324	78	13	45	------	81	23	81	------	59
4	------	426	87	14	45	------	78	24	87	------	57
5	------	550	81	15	49	------	75	25	106	------	57
6	------	------	78	16	57	------	69	26	123	------	57
7	47	------	78	17	61	------	66	27	143	------	55
8	47		81	18	61	------	66	28	168	------	55
9	47	------	78	19	72	------	64	29	191	------	53
10	45	------	75	20	66	------	61	30	248	------	81
								31	------	------	------

FISH CREEK NEAR SCOFIELD, UTAH

LOCATION.—In sec. 10, T. 12 S., R. 7 E., below Horsley Dam of Price River Irrigation District, 5 miles northeast of Scofield, Carbon County, and 10 miles above point where Fish Creek and White River unite to form Price River.

DRAINAGE AREA.—163 square miles (measured on Forest Service map, 1920).

RECORDS AVAILABLE.—November 17, 1917, to September 30, 1921, and June 15, 1925, to September 30, 1926; fragmentary.

GAGE.—Vertical enameled staff gage on left bank below outlet tunnel at dam; installed April 27, 1926; read by S. W. Robertson and J. W. Boothe.

DISCHARGE MEASUREMENTS.—Made from footbridge 500 feet below gage or by wading.

CHANNEL AND CONTROL.—One channel at all stages. Right bank is high; left bank lower but probably not subject to overflow. Railroad embankment a few feet back from left bank can not be overflowed. Stream bed gravel and sand. Riffle a short distance below gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.30 feet at 4 p. m. May 21 (discharge, 381 second-feet); minimum discharge 2 or 3 second-feet in middle of winter.

ICE.—Stream freezes over every winter.

DIVERSIONS.—Some small diversions for irrigation above station.

REGULATION.—Flow completely regulated after May, 1926, by dam and reservoir of Price River Irrigation District, capacity 66,000 acre-feet.

ACCURACY.—Stage-discharge relation permanent during period. Rating curve well defined. Staff gage read to hundredths once or twice daily except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Daily gage-height record furnished by Price River Irrigation District.

Discharge measurements of Fish Creek near Scofield, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 27	5.55	200	June 21	5.34	150	July 15	4.46	29.3
June 4 [a]	5.16	116	June 30 [a]	5.23	131	Aug. 6 [a]	4.25	23.6
June 14 [a]	4.60	46.6	July 7 [a]	5.09	110	Aug. 23	4.27	23.6
June 19 [a]	5.40	167	July 15 [a]	5.06	108			

[a] Made by water commissioner of Price River Irrigation District.

Daily discharge, in second-feet, of Fish Creek near Scofield, Utah, for the year ending September 30, 1926

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1		267	120	127	87		16		241	47	26	83	
2		272	120	135	66		17		166	47	26	67	
3		282	120	156	24		18		237	47	25	58	
4		284	120	152	24		19		324	91	25	47	
5		282	120	146	24		20		289	162	25	39	
													14
6		274	120	140	24		21		304	156	25	32	
7		267	47	108	24		22		324	154	25	29	
8		230	47	120	24	14	23		299	150	25	25	
9		302	47	117	24		24		246	148	25	24	
10		312	47	113	24		25		241	146	25	24	
11		306	47	108	24		26		246	142	46	21	13
12		309	47	110	24		27	196	241	142	107	20	14
13		196	46	110	24		28	191	241	136	97	19	13
14		77	47	107	24		29	230	136	135	94	18	13
15		174	47	60	24		30	239	118	131	120	17	13
							31		118		117	16	

NOTE.—No gage-height record Aug. 28 to Sept. 25; discharge estimated. Braced figures gives estimated mean discharge for periods indicated.

Monthly discharge of Fish Creek near Scofield, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet		Run-off in acre-feet	Month	Discharge in second-feet		Run-off in acre-feet
	Maximum	Minimum			Maximum	Minimum	
April 27–30	239	191	1,700	August	87	16	1,990
May	324	77	15,100	September			827
June	162	46	5,900				
July	156	25	5,240	The period			30,800

PRICE RIVER NEAR HELPER, UTAH

LOCATION.—In SE. ¼ sec. 36, T. 13 S., R. 9 E., at highway bridge three-quarters of a mile above diversion dam of Price River Irrigation Co., 2 miles south of Helper, Carbon County, and 3 miles below Spring Creek.

DRAINAGE AREA.—530 square miles (measured on topographic maps).

RECORDS AVAILABLE.—February 21, 1904, to September 30, 1926.

GAGE.—Chain gage on highway bridge; inspected by D. S. Rowley.

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

CHANNEL AND CONTROL.—Bed of stream composed of gravel and sand. Control is a riffle of gravel and cobbles.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 9.4 feet at 11 a. m. October 5 (discharge determined from extension of rating curve, 1,400 second-feet); minimum stage recorded, 6.48 feet September 22–28 (discharge, 9 second-feet).

1904-1926: Summer floods occur nearly every year and often greatly exceed any recorded stage. Maximum stage recorded, for which discharge was determined, 8.43 feet at 9 p. m. June 25, 1917 (discharge determined from extension of rating curve, 8,500 second-feet); minimum discharge, 4 second-feet during December, 1905, January, 1906, and August 8, 1925.

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

DIVERSIONS.—Main diversions from Price River are below station.

REGULATION.—Flow regulated after May, 1926, by storage reservoir on Fish Creek, which is main tributary to Price River.

ACCURACY.—Stage-discharge relation changed several times during year. Standard rating curves fairly well defined. Gage read to hundredths once daily with occasional omissions and twice daily during periods of rapidly changing stage. Daily discharge ascertained by applying mean daily gage height to rating table using shifting-control method. Discharge for periods of ice effect estimated from temperature records, observer's notes, and one meter measurement. Discharge interpolated or estimated from observer's notes for days for which no gage heights were obtained and for small flood October 4-6. Records fair.

Discharge measurements of Price River near Helper, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 9	6.77	33.9	Apr. 28	8.00	353	Aug. 25	6.70	22.4
Jan. 7 [a]	[b] 6.62	10.5	June 17 [a]	7.01	49.4			
Mar. 26	7.09	90.5	June 25	7.42	134			

[a] Made by engineer of Utah Power & Light Co.
[b] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Price River near Helper, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	28	26			52	68	430	129	124	79	13
2	24	76	26		20	159	65	430	127	127	84	12
3	20	37	24			104	65	430	127	132	83	12
4	50	30	23	10		66	82	430	127	137	39	12
5	500	24	21		35	66	102	446	117	150	39	12
6	250	20	21		28	52	317	456	112	137	38	11
7	63	20	21	10	35	52	244	430	99	124	38	11
8	46	20	28		31	48	641	298	57	115	35	11
9	37	20	26		28	44	128	350	57	120	33	11
10	37	20	33		31	45	128	405	51	124	38	11
11	37	20	20		35	45	126	395	51	115	33	11
12	46	23	20		35	60	126	376	51	115	33	11
13	39	17	20		26	73	138	358	51	115	31	10
14	37	20	24	15	28	240	151	138	51	115	27	10
15	37	20			35	66	165	244	49	110	27	10
16	37	20			35	301	185	272	49	49	27	10
17	37	26			25	410	210	250	49	45	38	10
18	37	21			30	126	241	244	51	41	48	10
19	36	16			35	86	272	279	51	34	48	10
20	35	16			35	106	210	358	120	34	45	10
21	34	16			34	98	286	448	120	38	36	10
22	33	16	15		33	89	298	537	122	29	28	9
23	33	16			28	93	317	501	115	29	24	9
24	33	17			22	126	337	285	122	27	24	9
25	33	18		20	40	111	350	274	129	27	21	9
26	31	20			31	97	386	266	124	27	19	9
27	33	21			28	93	350	270	124	27	17	9
28	31	21			40	84	368	274	124	106	16	9
29	30	23			-------	79	430	274	127	103	17	16
30	28	24		23	-------	74	430	137	124	90	16	27
31	28	-------		20	-------	68	-------	132	-------	106	15	-------

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

Monthly discharge of Price River near Helper, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	500	20	57.3	3,520
November	76	16	22.9	1,360
December	33	----------	18.8	1,160
January	----------	----------	15.7	965
February	40	----------	30.1	1,670
March	410	44	104	6,400
April	641	65	241	14,300
May	537	132	336	20,700
June	129	49	93.6	5,570
July	150	27	86.2	5,300
August	84	15	35.4	2,180
September	27	9	11.1	660
The year	641	9	88.0	63,800

HUNTINGTON CREEK NEAR HUNTINGTON, UTAH

LOCATION.—In SE. ¼ sec. 6, T. 17 S., R. 8 E., at old Cunha ranch, 7 miles northwest of Huntington, Emery County. Below all main tributaries, except Fish Creek.

DRAINAGE AREA.—188 square miles (measured on Forest Service map, 1920).

RECORDS AVAILABLE.—May 3, 1909, to September 30, 1926; fragmentary.

GAGE.—Stevens continuous water-stage recorder on left bank; inspected by Joseph Cunha.

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

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

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.45 feet at 4 p. m. September 11 (discharge, 755 second-feet); minimum stage, 1.24 feet at 7 p. m. November 5 (no flow, probably caused by ice jam above).

1909–1926: Maximum discharge, 1,340 second-feet at 9.30 p. m. May 25, 1920, and at 11 p. m. May 25, 1922. Discharge may have been greater in 1921. Minimum stage, 1.24 feet at 7 p. m. November 5, 1926 (no flow, probably caused by ice jam above).

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

DIVERSIONS.—Several small ditches from tributaries above station.

REGULATION.—A small storage reservoir on Huntington Creek above the station controls distribution of flow to a slight extent.

ACCURACY.—Stage-discharge relation changed slightly at low-water stages. Rating curves well defined between 30 and 700 second-feet; extended above. Operation of water-stage recorder satisfactory except during winter. Daily discharge ascertained by applying to rating tables mean daily gage height determined from recorder graph. Records good except for winter estimates, which are fair.

Discharge measurements of Huntington Creek near Huntington, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 13	* 2.06	35.6	May 1	3.25	273	Aug. 24	2.01	34.3
Mar. 14	1.92	34.1	June 24	2.53	101			

* Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Huntington Creek near Huntington, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	33		37	332	293	108	63	30
2	32	36		37	349	274	115	64	30
3	32	35		38	396	250	113	70	30
4	32	33		38	446	227	115	67	29
5	50	20		46	450	211	115	67	29
6	55	28		46	336	200	115	73	29
7	43	36	40	46	287	186	110	71	30
8	87	29		47	268	180	106	73	30
9	36	35		48	225	176	102	67	28
10	35	31		50	198	164	101	67	28
11	36	36		48	183	157	102	58	38
12	38	34		48	178	147	102	54	40
13	38	31		50	171	136	99	53	35
14	36	28	37	67	188	147	97	51	33
15	35		43	94	250	113	95	52	32
16	33		47	121	306	104	95	50	32
17	31		44	124	367	95	95	48	32
18	31		45	132	392	89	97	46	31
19	31		42	140	446	101	89	44	31
20	31		42	132	515	117	75	43	31
21	31		40	164	507	113	77	42	31
22	31	30	43	186	474	110	73	41	31
23	32		48	188	450	110	73	38	31
24	31		54	203	400	106	73	35	31
25	31		47	230	322	104	75	33	30
26	32		43	271	287	101	80	31	33
27	33		42	300	265	97	84	30	35
28	33		39	329	271	106	68	30	33
29	33		40	349	287	124	66	32	39
30	31		39	349	296	123	62	31	39
31	31	-------	39	-------	306	-------	60	30	-------

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

Monthly discharge of Huntington Creek near Huntington, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	55	31	34.6	2,130
November	36	20	30.8	1,830
December	-------	-------	[a] 35	2,150
January	-------	-------	[a] 35	2,150
February	-------	-------	[a] 35	1,940
March	54	-------	41.7	2,560
April	349	37	132	7,860
May	515	171	327	20,100
June	293	89	149	8,870
July	115	60	91.5	5,630
August	73	30	50.1	3,080
September	40	29	32.0	1,900
The year	515	20	83.2	60,100

[a] Estimated.

COTTONWOOD CREEK NEAR ORANGEVILLE, UTAH

LOCATION.—In SW. ¼ sec. 10, T. 18 S., R. 7 E., at Sitterud ranch, 5 miles northwest of Orangeville, Emery County.

DRAINAGE AREA.—200 square miles (measured on Forest Service map, 1920).

RECORDS AVAILABLE.—May 1, 1909, to September 30, 1926; fragmentary.

GAGE.—Stevens continuous water-stage recorder on left bank near ranch house; inspected by George Sitterud.

DISCHARGE MEASUREMENTS.—Made from cable 500 feet downstream or by wading.

CHANNEL AND CONTROL.—Bed rough; shifting. Banks fairly high but have been overflowed by sudden floods, to which the stream is subject. Control of gravel and sand.

EXTREMES OF DISCHARGE.—Maximum stage during year, 6.9 feet at 4 p. m. September 11 (discharge, 1,210 second-feet); minimum discharge less than 10 second-feet during winter.

1909–1926: Maximum stage recorded, 9.1 feet about 10 p. m. August 22, 1922 (discharge estimated from extension of rating curve, 2,500 second-feet). Minimum discharge recorded, 5 second-feet September 21, 1910.

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Two or three small ditches divert water above station, but all the main ditches take out below.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed several times during year. Standard rating curve fairly well defined. Water-stage recorder operated successfully, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table. Records fair.

Discharge measurements of Cottonwood Creek near Orangeville, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 13	(a)	19.2	May 2	4.65	266	Aug. 24	3.48	21.3
Mar. 13	3.56	31.7	June 24	4.28	76.9			

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Cottonwood Creek near Orangeville, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	16	15		20	252	354	68	25	14
2	17	21	12		20	282	337	62	24	14
3	17	15	10		23	324	321	62	25	13
4	18	12	-------		28	389	288	72	40	13
5	55	11	-------		36	360	258	73	21	13
6	37	11	-------		40	330	244	81	33	13
7	24	14	-------	25	37	298	235		75	14
8	23	12	-------		34	267	230		50	13
9	20	14	-------		32	244	224		37	13
10	17	14	-------		34	224		50	52	13
11	24	17	-------		36	208				68
12	28	13	-------		37	210	175	44	20	37
13	23	12	19	24	34	205		42		24
14	21	11	-------	29	40	210		40		24
15	22	17	-------	34	55	246		38	18	23
16	21	17	-------	33	77	324	130	37	18	22
17	21	22	-------	30	86	404	120	37	18	21
18	20	20	-------	25	86	464	111	36	18	20
19	20	14	-------	22	116	523	105	36	20	18
20	22	14	-------	22	99	627	103	34	20	17
21	22	13	-------	20	116	627	99	36	21	17
22	24	13	-------	20	137	619	90	32	21	20
23	24	14	-------	23	137	559	82	30	21	21
24	18	20	-------	27	148	495	77	29	21	22
25	18	20	-------	27	167	422	75	30	17	22
26	22	18	-------	24	194	382	73	27	16	25
27	22	17	-------	28	219	347	72	29	16	28
28	21	15	-------	33	238	354	75	28	15	28
29	21	14	-------	25	255	361	73		16	44
30	16	13	-------	23	258	354	70	26	15	30
31	16	-------	-------	22	-------	354	-------		15	-------

NOTE.—No gage-height record Mar. 1–12, May 5–6, June 7, 8, 10–15, July 7–11, July 29 to Aug. 1, Aug. 8, 11–14; discharge interpolated or estimated. Braced figures give estimated mean discharge for periods indicated.

Monthly discharge of Cottonwood Creek near Orangeville, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	55	16	22.3	1,370
November	22	11	15.1	898
December	----------	----------	[a] 15	[a] 922
January	----------	----------	[a] 15	[a] 922
February	----------	----------	[a] 20	[a] 1,110
March	----------	----------	25.5	1,570
April	258	20	94.6	5,630
May	627	205	363	22,300
June	354	70	163	9,700
July	----------	----------	42.9	2,640
August	75	15	24.8	1,520
September	68	13	22.1	1,320
The year	627	----------	69.0	49,900

[a] Estimated.

PARIA RIVER BASIN

PARIA RIVRR AT LEES FERRY, ARIZ.

LOCATION.—On unsurveyed land half a mile above mouth and a mile northwest of Lees Ferry, Coconino County. Paria River enters Colorado River at Lees Ferry.

DRAINAGE AREA.—1,520 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 22, 1923, to September 30, 1926.

GAGE.—Vertical staff gage on left bank installed October 13, 1925; read by Jerry and Elmer Johnson. Prior to October 13, a slope gage 2,000 feet upstream was used.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Channel straight for 100 feet above and several hundred feet below gage. Right bank is earth of former flood plain, now cultivated farm land and not subject to overflow. Left bank is high rock cliff. Bed composed of sand and gravel. Gravel riffle 30 feet downstream from gage forms low-water control. Extreme high water in Colorado River may cause backwater for a short period at a time of year when discharge of Paria River is low and uniform.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 17.5 feet at 5 p. m. October 5 (discharge, 16,100 second-feet); minimum stage, 0.30 foot on June 25 (discharge, 1 second-foot).

1924–1926: Maximum stage recorded, 17.5 feet at 5 p. m. October 5, 1926 (discharge, 16,100 second-feet); minimum discharge, probably zero on several nights of December and January for years ending September 30, 1924 and 1925, when river was frozen solid.

ICE.—Some ice is apt to occur each winter at this station.

DIVERSIONS.—About 1,000 acres irrigated from Paria River. Station is below all diversions.

REGULATION.—None.

ACCURACY.—Gaging station destroyed by flood on October 5. New station 2,000 feet downstream installed October 13. A discharge measurement by surface floats made during the flood on October 5 and later referenced to the gage installed October 13 bridges this gap in the record. Stage-discharge relation at the new station permanent except for slight changes for low stage. Rating curves well defined below 100 second-feet and extended to 16,100 second-feet as measured on October 5. Gage read to hundredths once a day except for some omissions of one or more days October to May as indicated in footnote to table of daily discharge. Additional readings made during periods of floods. Daily discharge ascertained by applying daily gage height to rating table. Discharge interpolated or estimated for days when gage was not read. Discharge for days of floods are poor. Records good.

Discharge measurements of Paria River at Lees Ferry, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	17.5	[a]16,100	Mar. 26	0.54	8.0	June 18	0.34	1.9
Nov. 3	1.09	77.2	Apr. 15	.92	32.9	July 10	.41	3.4
Dec. 15	.65	11.8	Apr. 21	.96	39.0	Sept. 2	.38	2.7
Jan. 10	.73	19.6	May 7	.91	33.0			
Feb. 23	.68	16.0	May 29	.39	3.4			

[a] Measurement made by timing drift over measured distance and later measuring cross sections.

Daily discharge, in second-feet, of Paria River at Lees Ferry, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	17	20	18	31	14	50	10	2	4	16	3
2	12	21	18	30	34	14	40	10	2	3	6	3
3	12	77	17	21	17	16	22	20	2	2	6	2
4	16	46	15	16	34	16	19	31	2	3	5	2
5	5,500	41	13	12	42	16	17	23	2	5	19	2
6	2,650	36	13	9	36	16	100	26	2	25	20	2
7	150	31	14	12	22	16	63	29	2	13	125	3
8	40	26	14	15	22	14	59	25	2	13	155	19
9	35	22	14	18	21	16	275	21	2	5	39	14
10	35	17	15	20	24	14	250	17	2	4	110	4
11	35	17	15	21	22	17	85	13	2	2	45	22
12	35	17	14	22	20	17	74	12	2	3	14	600
13	36	17	13	19	22	16	85	11	2	3	7	63
14	26	17	11	16	34	16	100	10	2	3	6	25
15	24	17	12	17	22	14	34	10	2	3	3	17
16	23	16	17	18	24	16	26	8	2	3	11	14
17	22	16	17	18	26	16	29	6	2	3	8	14
18	22	15	13	19	17	14	30	5	2	2	12	14
19	22	14	14	19	11	16	130	5	2	3	6	14
20	20	14	18	20	26	18	50	5	2	3	5	14
21	19	14	16	20	18	18	44	3	2	3	4	13
22	17	14	14	19	16	28	25	3	2	3	3	13
23	20	15	14	18	16	16	23	3	2	3	3	12
24	17	16	14	18	14	14	20	3	2	2	2	12
25	20	15	24	19	12	9	16	3	1	2	2	12
26	19	14	15	19	17	8	13	3	2	2	2	125
27	18	14	18	18	14	11	12	3	2	2	2	31
28	17	14	10	18	16	16	12	3	2	150	2	45
29	17	20	13	21	------	14	11	3	2	52	3	26
30	17	20	17	24	------	6	10	3	2	45	3	160
31	17	------	20	28	------	6	------	3	------	22	3	------

NOTE.—Discharge Oct. 5-12 estimated from measurement made Oct. 5 and observer's notes. Discharge interpolated Oct. 16, 18, 20-21, 26-27, 29, 31, Nov. 5, 7-9, 12-13, 15-19, 21, 23, 25, 27, 30, Dec. 2, 4, 6-10, 12, 21, 29-30, Jan. 7, 9, 11, 13, 15-17, 19-20, 22, 24, 26-27, 29-31, Feb. 1, 16, 24, Mar. 19, Apr. 24-25, 28, May 1, 3, 6, 8-9, 12, 14, 16, 19, 23, 28. Discharge estimated Apr. 18 and 20.

Monthly discharge of Paria River at Lees Ferry, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	5,500	12	288	17,700
November	77	14	21.7	1,290
December	24	10	15.2	935
January	30	9	18.8	1,160
February	42	11	22.5	1,250
March	28	6	14.8	910
April	275	10	57.5	3,420
May	31	3	10.6	652
June	2	1	2.0	119
July	150	2	12.6	775
August	155	2	20.9	1,290
September	600	2	43.3	2,580
The year	5,500	1	44.3	32,100

LITTLE COLORADO RIVER BASIN

LITTLE COLORADO RIVER AT GRAND FALLS, ARIZ.

LOCATION.—In T. 24 N., R. 11 E., unsurveyed, on Navajo Indian Reservation at Grand Falls, 38 miles northeast of Flagstaff, Coconino County. Clear Creek enters from left about 60 miles upstream. Moenkopi Wash enters from right about 40 miles downstream. Little Colorado River enters Colorado River 70 miles below this station.

DRAINAGE AREA.—22,100 square miles (measured on topographic maps).

RECORDS AVAILABLE.—November 15, 1925, to September 30, 1926.

GAGE.—Water-stage recorder on left bank, 1,000 feet downstream from Grand Falls, installed January 5, 1926. Staff gage used November 15, 1925, to January 4, 1926.

DISCHARGE MEASUREMENTS.—Made from cable 663 feet downstream from gage or by wading near gage.

CHANNEL AND CONTROL.—Bed composed of bedrock and deposits of gravel and silt. Banks not subject to overflow. Rock riffle about 200 feet downstream from gage. High-water control is rock channel extending several miles below station and is not subject to appreciable change.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period November 15, 1925, to September 30, 1926, 22.5 feet at 9 a. m. September 27 (discharge, 21,600 second-feet); minimum discharge, no flow on various days throughout the period.

ICE.—River freezes over at gage for short periods during December and January when weather is coldest and when river is very low. Backwater from ice is for the most part negligible.

DIVERSIONS.—Water diverted for irrigation in upper basin. Acreage irrigated above this station not known. No diversions below this station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent, except for discharge below 50 second-feet, when scouring and filling of sand may affect velocity of approach to control. Rating curve well defined from 50 to 4,000 second-feet; extended above. Operation of water-stage recorder satisfactory except as shown in footnote to daily-discharge table. Staff gage read twice a day to hundredths November 15 to January 4. Daily discharge ascertained by applying daily mean gage height to rating table or from hourly discharge for days of considerable range in stage, except as noted in footnote to daily-discharge table. Records good.

Discharge measurements of Little Colorado River at Grand Falls, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 6	5.45	25.8	Mar. 13	6.70	266	May 19	5.50	35.6
Dec. 8	5.37	24.3	Mar. 28	7.42	594	July 15	4.75	.8
Dec. 9	6.11	113	Apr. 11	9.80	2,440	Aug. 18	6.03	91.4
Jan. 12	5.22	16.1	Apr. 19	7.94	923			

Daily discharge, in second-feet, of Little Colorado River at Grand Falls, Ariz., for the year ending September 30, 1926

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		24	28	18	0	558		0	0	31	0
2		26	30	24	0	398		0	0	17	0
3		22	24	28	0	265		0	0	9	0
4		16	26	24	0	585	300	0	0	7	0
5		24	25	20	0	793		0	0	6	0
6		26	21	17	0	1,940		0	0	4	14
7		19	19	15	0	2,550	355	0	0	3	15
8		20	18	18	0	6,260	1,720	0	0	193	9
9		110	15	17	0	4,550	735	0	0	592	6
10		130	17	16	0	2,730	235	0	0	645	5
11		123	18	10	0	2,390	98	0	0	188	3
12		108	18	8	54	1,760	80	0	0	138	1,670
13		96	16	7	220	1,340	73	0	102	121	1,560
14		85	13	6	284	1,490	73	0	7	92	313
15	106	49	10	5	238	1,140	66	0	3	124	108
16	106	30	13	3	235	1,060	60	0	4	130	37
17	102	26	13	1	300	1,060	54	0	1	141	28
18	86	21	10	0	669	998	46	0	0	117	26
19	82	26	10	0	627	895	35	0	0	112	32
20	72	19	10	0	536	1,410	22	0	0	53	162
21	59	13	8	1	485	2,070	15	0	0	30	102
22	50	15	10	1	541	1,750	9	0	0	20	54
23	44	15	10	0	480	1,380	3	0	0	12	36
24	41	16	10	0	354	830	1	0	0	4	25
25	38	18	11	0	328	530	0	0	0	1	20
26	34	19	11	0	403	385	0	0	0	0	17
27	31	14	12	0	744		0	0	0	0	13,900
28	37	20	12	0	603	300	0	0	0	0	4,430
29	31	28	13	-------	830		0	0	34	0	1,170
30	26	29	13	-------	817		0	0	124	0	421
31	-------	30	13	-------	693	-------	0	-------	72	0	-------

NOTE.—Discharge July 13–21 computed by shifting-control method. Discharge interpolated Jan. 23–30 and Feb. 15–18. Discharge estimated from study of recorder graph and rainfall data March 12, April 24–30, May 1–7, 9–17, Sept. 15–19, 21–26, 30. Gage-height record incomplete as follows: Dec. 10–19, somewhat affected by ice; Jan. 23–30, water in well frozen; Feb. 15–17, sand bar formed in front of well; Apr. 24–30, May 1–7, 9–17, Sept. 15–19, 21–26, 30, float on mud.

Monthly discharge of Little Colorado River at Grand Falls, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
November 15–30	106	26	59.1	1,880
December	130	13	39.3	2,420
January	30	8	15.4	947
February	28	0	8.5	472
March	830	0	305	18,800
April	6,260	265	1,410	83,900
May	1,720	0	177	10,900
June	0	0	0	0
July	124	0	11.2	689
August	645	0	90.0	5,530
September	13,900	0	805	47,900
The period	13,900	0	273	173,000

ZUNI RIVER AT BLACKROCK, N. MEX.

LOCATION.—At reservoir on Zuni Indian Reservation at Blackrock, McKinley County. Rio de las Nutrias, nearest large tributary, enters from north 4 miles above.

DRAINAGE AREA.—About 660 square miles.

RECORDS AVAILABLE.—Yearly discharge July 1, 1903, to June 30, 1905, July 1, 1908, to June 30, 1910. Monthly discharge October 1, 1910, to September 30, 1926. Record since July 1, 1908, shows inflow into reservoir.

METHOD OF COLLECTING DATA.—From July 1, 1903, to June 30, 1905, records were obtained by the ordinary stream-gaging methods. Reservoir completed in 1908. Record beginning July 1, 1908, obtained by means of gagé in reservoir and capacity curve for reservoir, quantity of water released from the reservoir during the periods of inflow being taken into consideration.

EXTREMES OF DISCHARGE.—Channel dry greater part of the year below point where it leaves mountains, but stream is subject to sudden floods of considerable volume and usually of short duration.

DIVERSIONS.—Reservoir at Ramah, about 18 miles above station, capacity of which is given as 4,240 acre-feet, is used to irrigate about 1,150 acres in T. 11 N., R. 16 W. There are other small ponds or reservoirs in drainage area.

COOPERATION.—Record furnished by the United States Indian Service, through H. F. Robinson, supervising engineer, Albuquerque, N. Mex.

Monthly discharge of Zuni River at Blackrock, N. Mex., for the year ending September 30, 1926

Month	Run-off in acre-feet	Month	Run-off in acre-feet	Month	Run-off in acre-feet
October	85	March	721	August	681
November	0	April	664	September	1,380
December	0	May	554		
January	40	June	0	The year	5,000
February	238	July	636		

BRIGHT ANGEL CREEK BASIN

BRIGHT ANGEL CREEK NEAR GRAND CANYON, ARIZ.

LOCATION.—In the Grand Canyon of Arizona, on Kaibab Trail to north rim, a quarter of a mile above point where creek enters Colorado River and 11 miles by trail from Grand Canyon, Coconino County.

DRAINAGE AREA.—102 square miles (measured on topographic maps).

RECORDS AVAILABLE.—October 1, 1923, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by D. H. Barber and K. C. McCarter.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Channel steep and rough. Left bank not subject to overflow. Right bank subject to overflow by occasional short floods. Bed composed of gravel and boulders. Boulder riffle just below gage. Control generally changed by each flood.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.5 feet at 11 p. m. July 27 (discharge estimated by extension of rating curve, 1,000 second-feet); minimum stage, 0.65 foot at 4 p. m. October 26 (discharge, 16 second-feet).

1924–1926; Maximum stage recorded, 6.5 feet at 11 p. m. July 27, 1926 (discharge from extension of rating curve, 1,000 second-feet); minimum discharge, 16 second-feet October 26, 1926.

ICE.—None.

DIVERSIONS.—Water for irrigating a few acres at Phantom ranch is diverted about three-quarters of a mile above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined from 18 to 250 second-feet, extended above. Gage read to hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records good.

Discharge measurements of Bright Angel Creek near Grand Canyon, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 10	0.68	20.3	Feb. 18	0.67	21.2	June 9	1.16	36.2
Oct. 26	.65	15.8	Feb. 22	.68	21.4	June 23	.98	27.3
Oct. 29	.67	20.4	Feb. 26	.65	20.4	June 29	.97	28.0
Nov. 7	.69	22.1	Mar. 10	.70	21.7	July 7	.93	23.8
Nov. 17	.67	21.0	Mar. 17	.76	25.3	July 13	.92	26.1
Nov. 21	.67	20.6	Mar. 24	.85	30.4	July 24	.89	23.8
Nov. 26	.67	20.8	Mar. 29	.97	33.6	July 30	.73	23.1
Dec. 7	.71	21.6	Apr. 7	1.40	86	Aug. 9	.76	22.8
Dec. 15	.69	21.4	Apr. 16	1.75	129	Aug. 16	.76	22.7
Dec. 24	.67	21.3	Apr. 21	1.90	149	Aug. 25	.74	21.6
Dec. 30	.67	20.9	Apr. 30	2.65	250	Aug. 30	.75	23.5
Jan. 9	.64	20.0	May 13	1.95	117	Sept. 10	.70	21.5
Jan. 16	.65	19.6	May 20	2.00	127	Sept. 18	.70	19.9
Jan. 23	.66	20.1	May 24	1.75	108	Sept. 28	.71	22.7
Jan. 30	.66	20.1	May 27	1.50	83			
Feb. 11	.65	20.4	June 3	1.24	45.7			

Daily discharge, in second-feet, of Bright Angel Creek near Grand Canyon, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	20	21	20	22	20	41	236	54	28	24	22
2	20	23	38	21	20	20	40	207	49	28	24	22
3	20	21	26	21	20	20	53	204	46	26	22	22
4	20	24	21	20	20	21	40	201	44	26	23	22
5	21	26	21	21	20	21	61	235	41	26	22	22
6	32	22	21	21	20	22	112	235	40	26	23	22
7	21	22	21	21	20	21	96	229	39	24	23	26
8	20	22	21	21	20	21	180	204	39	25	23	23
9	20	22	20	20	20	24	136	184	37	26	22	22
10	20	22	21	20	20	24	114	157	34	26	22	22
11	21	22	20	20	20	22	104	131	33	25	22	44
12	21	22	22	20	21	21	88	120	33	25	22	24
13	21	21	22	20	24	21	94	117	33	26	22	22
14	20	21	22	20	26	21	94	112	32	25	22	21
15	20	21	22	20	21	22	106	111	31	25	22	21
16	20	21	21	20	24	24	123	107	32	25	22	21
17	19	21	21	20	22	26	152	116	31	25	21	20
18	19	20	21	20	21	26	156	123	30	24	22	20
19	19	20	22	20	21	29	173	127	29	24	21	21
20	18	20	22	20	20	30	156	127	29	24	21	21
21	18	20	22	20	21	29	149	123	29	24	21	21
22	18	19	22	20	21	26	173	122	28	24	21	21
23	19	20	22	20	20	28	195	116	28	24	21	22
24	17	21	21	20	21	30	224	112	27	24	21	22
25	17	21	21	20	21	34	238	102	28	24	20	22
26	16	20	21	19	20	36	248	94	26	24	20	35
27	17	21	21	19	20	35	256	85	27	64	20	22
28	19	20	21	19	20	34	256	77	27	32	22	22
29	20	21	21	20	------	34	258	69	28	26	22	23
30	20	20	21	20	------	34	250	64	29	24	21	22
31	19	------	20	20	------	36	------	60	------	24	22	------

Monthly discharge of Bright Angel Creek near Grand Canyon, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	32	16	19.7	1,210
November	26	19	21.2	1,260
December	38	20	21.9	1,350
January	21	19	20.1	1,240
February	26	20	20.9	1,160
March	36	20	26.2	1,610
April	258	40	146	8,690
May	236	60	139	8,550
June	50	26	33.8	2,010
July	64	24	26.5	1,630
August	24	20	21.8	1,340
September	44	20	23.1	1,370
The year	258	16	43.4	31,400

VIRGIN RIVER BASIN

VIRGIN RIVER AT VIRGIN, UTAH

LOCATION.—In NW.¼ sec. 27 or NE. ¼ sec. 28, T. 41 S., R. 12 W., a few hundred feet above point where river enters a steep, narrow gorge and three-quarters of a mile west of Virgin, Washington County.

DRAINAGE AREA.—1,010 square miles (measured on topographic map).

RECORDS AVAILABLE.—April 18, 1909, to September 30, 1926; fragmentary. Prior to February, 1915, the station was half a mile above Virgin where the flow is practically the same as at present site.

GAGE.—Chain gage on right bank near lower end of sandstone bluff; read by Lawrence Earl.

DISCHARGE MEASUREMENTS.—Made by wading or from highway bridge 7 miles below gage.

CHANNEL AND CONTROL.—Bed consists of sand and gravel. Right bank high; left bank low and is overflowed. One channel at all stages. Principal control is a gravel bar a short distance below gage; shifting.

EXTREMES OF DISCHARGE.—Not determined for this year.

1909–1926: Maximum stage recorded, 11.6 feet at upper station October 27, 1912 (discharge estimated, 12,000 second-feet). Minimum discharge, 24 second-feet, July 1, 2, 4, and 5, 1909.

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

DIVERSIONS.—Above all important diversions.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curve poorly defined. Gage read to hundredths three or four times a week. Daily discharge ascertained by applying gage height to rating table, using shifting-control method and interpolating or estimating discharge for days when gage was not read. Records poor.

Discharge measurements of Virgin River at Virgin, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 14	2.98	137	June 12	2.61	93.4
May 7	3.34	564	Aug. 31	2.45	61.5

Daily discharge, in second-feet, of Virgin River at Virgin, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					130			1,010	194	84	281	
2			184	130		84		715				
3		84	116	165	139		242	684	194	73		64
4						102						64
5				139			1,790		184		84	68
6	156	79	84		123	90	1,370	550				
7		73					937	565	148			
8			84		90		1,010			130		73
9	51			130		84	609		139	139		
10	60	84						508			116	
11	60		116		64	84		446		84		
12		79		130	68		466		92		90	
13					116	84	508			79		
14	64	73	130	123				440	73			68
15						123		419		64		
16			130	139	156		508				55	84
17	64	73				109			73	90		
18			123		55		624	440			51	84
19	55	73		116			639		64	90		
20			123		55	102		299		84	51	90
21	51	73		116					64			
22			123		55	95		193		68	60	84
23		84		130						60		
24	55						494		68		64	
25		79		109	60	90		270	64	60		90
26	55		123				762					
27			123	95	73	84		270				95
28		84					794				68	
29	51	79				90		247	64			
30		79	123	90			609				60	130
31	51		123							130	62	

Monthly discharge of Virgin River at Virgin, Utah, for the year ending September 30, 1926

Month	Run-off in acre-feet	Month	Run-off in acre-feet	Month	Run-off in acre-feet
October	4,270	March	5,780	August	5,360
November	4,930	April	39,000	September	5,340
December	7,260	May	26,600		
January	7,550	June	6,130	The year	123,000
February	5,050	July	5,870		

MUKUNTUWEAP RIVER[2] NEAR SPRINGDALE, UTAH

LOCATION.—Near center of sec. 15, T. 41 S., R. 10 W., 200 feet above highway bridge half a mile north of south entrance to Zion National Park, 3 miles northeast of Springdale, Washington County, and 5 miles above confluence with Virgin River.

DRAINAGE AREA.—Not determined.

RECORDS AVAILABLE.—June 6 to November 6, 1923, and April 24, 1925, to September 30, 1926, fragmentary.

GAGE.—Vertical staff on left bank, read by R. T. Evans and E. H. Husman.

DISCHARGE MEASUREMENTS.—Made by wading or from suspension footbridge 3 miles above gage.

[2] Formerly called Zion Creek.

CHANNEL AND CONTROL.—Bed of stream composed of sand, gravel, and large boulders. Banks high and not subject to overflow; sparse growth of willows; one channel at all stages. Control is boulder riffle at head of rather steep section of channel; shifts occasionally.

ICE.—None.

DIVERSIONS.—Two small canals with combined capacity of about 4 second-feet divert a short distance above gage.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed the first part of April and again during the last part of July. Rating curves fairly well defined. Gage read to hundredths three or four times a week. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated or interpolated for days of missing gage heights. Records fair except for estimated days of sudden floods, which may be poor.

Discharge measurements of Mukuntuweap River near Springdale, Utah, during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 14	4.43	45.6	June 12	4.64	83.8
May 6	6.05	460	Aug. 31	4.24	43.9

Daily discharge, in second-feet, of Mukuntuweap River near Springdale, Utah, for for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	67		60		53	60	113	520		62	56	43
2	66	55	194		54	62	113		125	60	56	43
3	66		100		63	64	122	490		58	57	43
4	75		75		53	66	448		119	58	54	43
5	150	49	73	52	53	70	480			60	52	43
6	250		66		53	75	660	460		56	60	44
7	88				60	80	660	480	106	60	55	62
8	66	53	58		62	100	610	440		53	65	55
9				51	73	150	710	402		52	75	48
10	75				67	80	635	402	93	51	52	48
11		57	51		64		450	332	88	50	51	75
12			52	52	60		242	300	84	49	51	54
13	91		53		65		290	300		48	50	50
14	82	55	45		70		332	300		46	50	49
15	74				74	85	350	290		45	75	48
16	83			53			366	280	74	45	55	48
17	80	53	49		70		366	275		45	52	48
18	53	53					402	216		45	50	48
19	51	53		51	66		366	216		46	50	48
20	60	54	53		66	113	420	216	63	44	50	47
21	60	56			66	60	480	200	62	43	50	48
22	73	57		49	66	53	480	192	62	43	49	48
23	66		53				480	192	60	43	48	48
24	66				64	57	520	192	58	42	48	48
25		55	53				500	180	57	42	47	58
26			53	50	61	61	480	169	56	75		68
27	60		53		61	58	520	158	54	52	47	51
28		53	53		60	54	520	148	53	90		48
29		53	53		-------	52	565	138	56	57		75
30		53	53	52	-------	51	542	135	63	58	47	60
31		-------	53	52	-------	75	-------	132	-------	56	43	------

NOTE.—Sudden floods and discharge estimated Oct. 6, July 26, 28, Aug. 6, 15, Sept. 11, and 29. Braced figures gives estimated mean discharge for periods indicated.

Monthly discharge of Mukuntuweap River near Springdale, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October			77.0	4,730
November			54.2	3,230
December			60.7	3,730
January			51.3	3,150
February		53	63.3	3,520
March			74.8	4,600
April	710	113	441	26,200
May	520	132	298	18,300
June		53	81.7	4,860
July		42	52.7	3,240
August		43	52.8	3,250
September		43	51.3	3,050
The year	710	42	113	81,900

SANTA CLARA CREEK NEAR CENTRAL, UTAH

LOCATION.—In sec. 11, T. 39 S., R. 16 W., just above bridge at R. H. Hunt ranch, 1 mile southeast of Central, Washington County, on road to Pine Valley. Hunts Spring, which has fairly constant discharge of about 3 second-feet, enters 40 feet below gage.

DRAINAGE AREA.—84 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 21, 1909, to September 30, 1926.

GAGE.—Vertical enamel staff nailed to cottonwood tree on left bank about 50 feet above bridge; read by Mrs. R. H. Hunt.

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

CHANNEL AND CONTROL.—Stream bed consists of gravel and sand. Banks fairly high but may be overflowed at extreme stages; one channel at all stages. A riffle formed by small boulders 40 feet below gage is fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.00 feet at 4 p. m. April 19 (discharge, 105 second-feet); minimum stage recorded, 0.96 foot January 7, 9, 11, and 19 (discharge, 4 second-feet).

1909–1926: Maximum stage recorded, 5.00 feet at 11 a. m. October 6, 1916 (discharge, 1,450 second-feet); minimum discharge, 4 second-feet January 8, 1920, and January 6–11 and 19, 1926.

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

DIVERSIONS.—The New Castle Reclamation Co. has a reservoir on Grass Valley Creek. Water is diverted into reservoir from Santa Clara Creek above town of Pine Valley and when available is exchanged for direct flow diverted into a tunnel through rim of the Great Basin for irrigation of lands outside the Colorado River Basin. The Central Canal diverts water about 2 miles above station for irrigation of lands near Central. This canal has been measured when it was carrying 16 second-feet.

REGULATION.—Flow affected by the diversions and storage above.

ACCURACY.—Stage-discharge relation shifted slightly during high water. Rating curves fairly well defined. Gage read to hundredths once daily three or four days a week. Daily discharge ascertained by applying daily gage height to rating table and interpolating discharge for days when gage was not read. Records fair.

The following discharge measurements were made:

December 13, 1925: Gage height, 1.15 feet; discharge, 9.2 second-feet.

May 6, 1926: Gage height, 1.64 feet; discharge, 46.4 second-feet.

June 11, 1926: Gage height, 1.24 feet; discharge, 16.6 second-feet.

Daily discharge, in second-feet, of Santa Clara Creek near Central, Utah, for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	11	10	6	5	7	10	39	15	12	9	8
2	7	17	10	6	5	7	11	41	15	12	9	8
3	7	13	11	6	5	6	12	43	14	12	9	8
4	7	13	11	5	6	11	15	44	15	12	9	8
5	17	13	11	5	6	9	17	45	23	12	9	8
6	23	13	11	4	6	7	93	47	20	13	9	8
7	20	12	10	4	6	5	75	20	18	13	9	8
8	16	11	10	4	6	7	62	31	16	12	9	8
9	13	12	10	4	6	7	43	27	18	12	9	8
10	12	11	10	4	6	7	31	23	17	11	9	8
11	15	12	10	4	6	7	31	23	15	10	9	8
12	15	11	10	5	6	7	31	23	15	9	9	8
13	15	12	10	5	6	7	31	20	14	10	9	8
14	14	11	10	5	6	8	31	15	13	10	8	8
15	14	12	9	5	5	12	32	20	13	9	8	8
16	14	11	9	5	5	10	34	25	13	9	8	8
17	14	11	10	5	6	8	34	29	14	9	8	8
18	13	11	10	5	8	8	50	35	15	9	8	8
19	13	10	10	4	8	7	105	39	15	9	7	8
20	13	10	7	5	7	7	43	52	14	9	7	8
21	13	11	6	5	7	7	43	43	13	9	7	8
22	13	10	5	5	7	7	48	37	12	9	7	8
23	12	10	5	5	7	8	54	36	12	9	7	8
24	11	10	6	5	6	8	54	31	12	9	7	8
25	13	10	6	5	7	8	54	28	12	9	7	8
26	12	10	6	5	7	7	54	23	12	10	6	8
27	11	10	6	5	7	7	43	22	12	12	6	8
28	11	10	6	5	7	7	42	20	12	9	6	8
29	11	11	6	5	------	9	41	18	12	9	6	8
30	11	10	6	5	------	9	41	18	12	9	6	8
31	11	------	6	5	------	10	------	17	------	9	7	------

Monthly discharge of Santa Clara Creek near Central, Utah, for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	23	7	12.8	787
November	17	10	11.3	672
December	11	5	8.5	523
January	6	4	4.9	301
February	8	5	6.2	344
March	12	5	7.7	473
April	105	10	42.2	2,510
May	52	15	30.1	1,850
June	23	12	14.4	857
July	13	9	10.2	627
August	9	6	7.8	480
September	8	8	8.0	476
The year	105	4	13.7	9,900

GILA RIVER BASIN

GILA RIVER NEAR DUNCAN, ARIZ.

LOCATION.—In SE. ¼ sec. 18, T. 19 S., R. 20 W. New Mexico principal meridian, in New Mexico, 1¾ miles below intake of Sunset Canal, 9 miles east of Arizona-New Mexico State line, and 14 miles east of Duncan, Greenlee County, Ariz.

DRAINAGE AREA.—3,280 square miles (measured on topographic map).

RECORDS AVAILABLE.—Discharge measurements only, January 10, 1923, to September 30, 1926. Miscellaneous measurements were made near this point from April 24 to November 21, 1922. Recording gage station 2 miles upstream maintained May 1, 1914, to September 30, 1915.

GAGE.—None.

DISCHARGE MEASUREMENTS.—Made by wading near road crossing from old town of San Antonio.

CHANNEL AND CONTROL.—Bed composed of sand and silt. Banks not well defined; subject to overflow. No well-defined control.

DIVERSIONS.—Station is above diversions for irrigation in Duncan Valley, except Sunset Canal, which diverts water 1¾ miles above station for irrigating 1,800 acres. About 3,500 acres are irrigated from Gila River above Duncan Valley.

REGULATION.—None except by diversions for irrigation.

ACCURACY.—No gage heights obtained. Discharge measurements only. Records show inflow to Duncan Valley, except for water diverted by Sunset Canal.

Discharge measurements of Gila River near Duncan, Ariz., during the year ending September 30, 1926

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Oct. 1	79	Feb. 6	66	Aug. 10	15.1
Nov. 4	81	Mar. 5	62	Aug. 30	1.7
Dec. 1	84	June 26	2.9	Sept. 21	36.4
Jan. 5	94	July 19	45.2		

GILA RIVER AT YORK, ARIZ.

LOCATION.—In SE. ¼ sec. 19, T. 6 S., R. 31 E., below all canal headings in Duncan Valley, at York, Greenlee County.

DRAINAGE AREA.—3,920 square miles (measured on topographic maps).

RECORDS AVAILABLE.—May 15, 1923, to September 30, 1926. Discharge measurements only. Miscellaneous measurements made near this point April 26 and July 19, 1922.

GAGE.—None.

DISCHARGE MEASUREMENTS.—Made by wading near road crossing.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Banks well defined, not subject to overflow. No well-defined control.

DIVERSIONS.—About 11,500 acres are irrigated from Gila River above this station. Water for about 8,000 acres diverted by Duncan Valley canals.

REGULATION.—None except by diversions for irrigation.

ACCURACY.—No gage heights obtained. Discharge measurements only. Records show outflow from Duncan Valley, below all diversions.

Discharge measurements of Gila River at York, Ariz., during the year ending September 30, 1926

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Oct. 4	54	Jan. 6	133	Aug. 12	36.3
Nov. 5	107	Feb. 7	77	Aug. 30	8.8
Dec. 2	72	Mar. 7	82	Sept. 22	25.5

GILA RIVER NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In NE. ¼ sec. 31, T. 6 S., R. 28 E., 1 mile below intake of Brown Canal and 10 miles east of Solomonsville, Graham County. San Francisco River enters from right 10 miles upstream.

DRAINAGE AREA.—7,910 square miles (measured on topographic maps).

RECORDS AVAILABLE.—April 21, 1914, to September 30, 1926.

GAGE.—Water-stage recorder on left bank, directly opposite J. W. Earven ranch; inspected by J. W. Earven.

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

CHANNEL AND CONTROL.—Bed composed of gravel, sand, and silt. Left bank high and not subject to overflow. Right bank low and may be overflowed during large floods. Gravel riffle 500 feet downstream from gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 4.58 feet at 1.30 a. m. April 7 (discharge, 5,660 second-feet); minimum stage, from water-stage recorder, 1.08 feet at 5.30 p. m. September 6 (discharge, 57 second-feet).

1914–1926: Maximum stage, determined from floodmarks on gage, 14.0 feet January 19, 1916 (discharge, about 100,000 second-feet from extension of rating curve); minimum discharge, 26 second-feet July 4, 1923.

DIVERSIONS.—Station is above diversions for irrigation in Safford Valley, except Brown Canal which diverts water 1 mile above station for irrigating 820 acres. Brown Canal wasteway returns some water to river below this station. About 14,000 acres is irrigated from Gila River and tributaries above Safford Valley.

REGULATION.—None except by diversions for irrigation.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined below 10,000 second-feet and extended above. Operation of water-stage recorder satisfactory except for a few short periods. Daily discharge ascertained by applying mean daily gage height to rating table, except as shown in footnote to table of daily discharge; shifting-control method used for the entire year. For days of considerable range in stage daily discharge determined from hourly discharge. Records good.

Discharge measurements of Gila River near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 3	1.21	136	Mar. 24	1.64	318	July 17	1.31	129
Nov. 11	1.54	221	Apr. 16	2.97	1,940	Aug. 8	1.52	175
Dec. 12	1.47	214	Apr. 18	2.90	1,600	Aug. 28	1.14	67
Jan. 12	1.57	223	May 9	2.86	1,460	Sept. 19	1.50	182
Feb. 4	1.42	187	May 29	1.92	389			
Mar. 1	1.19	122	June 23	1.10	91			

Daily discharge, in second-feet, of Gila River near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	278	160	204	175	122	2,060	1,700	321	82	630	64
2	125	266	160	321	186	125	1,800	1,530	289	82	460	64
3	133	255	214	321	190	131	1,610	1,450	261	82	278	60
4	136	249	272	368	186	136	1,530	1,580	228	80	200	60
5	136	238	224	382	186	147	1,450	1,480	219	102	145	60
6	139	226	224	321	179	382	1,640	1,450	204	139	115	58
7	133	215	224	289	179	730	4,380	1,660	190	131	123	58
8	128	204	214	266	179	560	3,030	1,660	183	118	149	60
9	120	209	204	255	175	512	2,840	1,480	168	105	118	63
10	880	219	200	244	172	478	2,470	1,290	147	98	122	752
11	1,400	219	200	233	172	590	2,140	1,260	136	105	373	672
12	478	219	214	224	172	600	1,820	1,230	125	433	543	340
13	600	219	214	214	164	530	1,980	1,090	122	396	278	334
14	650	200	209	209	153	452	2,080	958	115	261	373	228
15	550	200	204	209	153	405	2,050	834	110	190	347	179
16	550	204	200	204	160	368	2,030	756	108	157	659	147
17	550	200	200	200	160	360	1,940	675	105	122	398	169
18	540	190	195	200	157	347	1,660	620	102	108	272	219
19	478	186	195	200	157	334	1,580	560	102	96	186	186
20	428	186	195	200	153	314	1,460	494	96	85	153	147
21	375	179	200	195	147	314	1,430	469	96	133	136	131
22	340	168	195	190	145	354	1,380	412	93	105	118	115
23	334	164	186	186	147	334	1,270	360	91	115	102	112
24	347	164	186	183	139	328	1,260	328	87	485	100	105
25	360	195	183	183	136	321	1,320	328	87	817	87	102
26	375	190	183	179	133	553	1,400	321	87	476	74	118
27	363	179	186	179	131	1,040	1,370	368	89	494	71	482
28	352	168	186	179	125	249	1,400	412	85	412	67	368
29	340	168	183	179	-------	1,580	1,730	390	85	340	65	302
30	319	160	190	179	-------	3,930	1,940	375	85	488	65	266
31	299	-------	219	175	-------	2,710	-------	347	-------	412	65	-------

NOTE.—Recorder clock not running Oct. 13–17, 27–31, Nov. 5–7, and 12. Staff gage read Oct. 29. Discharge for period Oct. 13–17 estimated from recorded range in stage and by comparison with record of Gila River near San Carlos. Discharge interpolated Oct. 27–28, 30–31, Nov. 5–7, and 12.

Monthly discharge of Gila River near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,400	120	390	24,000
November	278	160	204	12,100
December	272	160	201	12,400
January	382	175	228	14,000
February	190	125	161	8,940
March	3,930	122	624	38,400
April	4,380	1,260	1,870	111,000
May	1,700	321	899	55,300
June	321	85	141	8,390
July	817	80	234	14,400
August	659	65	222	13,600
September	752	58	201	12,000
The year	4,380	58	448	325,000

GILA RIVER NEAR ASHURST, ARIZ.

LOCATION.—In sec. 30, T. 5 S., R. 24 E., below all canal headings in Safford Valley and 1½ miles southeast of Ashurst, Graham County.

RECORDS AVAILABLE.—December 24, 1920, to September 30, 1926.

DIVERSIONS.—About 38,000 acres is irrigated from Gila River and tributaries above this station.

Discharge measurements of Gila River near Ashurst, Ariz., during the year ending September 30, 1926

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Oct. 2	27.8	Feb. 26	4.4	Aug. 9	2.4
Nov. 14	49.7	Mar. 23	8.7	Aug. 26	1.0
Dec. 14	52	May 27	3.5	Sept. 18	3.3
Jan. 10	153	June 29	3.5		
Feb. 5	30.5	July 16	4.2		

GILA RIVER NEAR SAN CARLOS, ARIZ.

LOCATION.—In T. 3 S., R. 18 E., unsurveyed, half a mile above San Carlos dam site on San Carlos Indian Reservation and 6½ miles west of San Carlos.

RECORDS AVAILABLE.—April 29, 1914, to September 30, 1925. July 11, 1899, to November 27, 1905, at point half a mile south of San Carlos and below San Carlos River. August 17, 1910, to February 5, 1911, at point just below Arizona Eastern Railroad bridge and half a mile above San Carlos River.

GAGE.—Water-stage recorder installed July 3, 1924, on right bank.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 11.9 feet at 10.30 p. m. April 6 (discharge, 9,960 second-feet): no flow July 8–10, August 31, and September 3–10.

1914–1926: Maximum stage, 25.5 feet January 20, 1916 (discharge estimated, 130,000 second-feet); minimum discharge, no flow June 28 to July 1, 1919, and July 8–10, August 31, September 3–10, 1926.

DIVERSIONS.—About 38,000 acres is irrigated from Gila River and tributaries above this station.

ACCURACY.—Stage-discharge relation not permanent; probably fairly permanent for high stages but changed for low stages by each flood. Daily discharge ascertained by shifting-control method. Records good.

Records of discharge for certain high-water periods in the years ending September 30, 1915 and 1916, revised on basis of a comparison, by means of hydrographs, of discharge at the San Carlos station with the discharge at the stations on Gila River near Solomonsville and at Kelvin, are given in the table on page 90. The revised records for the Kelvin station, published in this report and based on discharge measurements of the flood in 1926, were used in revising the records for the San Carlos station.

Discharge measurements of Gila River near San Carlos, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 10	3.44	187	Mar. 30	8.96	3,750	July 21	1.48	0.5
Dec. 9	3.54	271	Apr. 1	7.89	2,340	Aug. 3	3.08	74
Jan. 10	3.80	303	Apr. 13	7.47	1,920	Aug. 13	2.28	26.5
Jan. 14	3.70	280	Apr. 19	7.07	1,760	Aug. 24	2.31	5.5
Feb. 2	3.33	196	May 6	5.87	1,500	Sept. 1	2.17	.8
Feb. 9	2.86	107	May 14	5.00	570	Sept. 14	2.72	61
Feb. 24	2.53	56	May 25	3.00	92	Sept. 24	1.74	.7
Mar. 2	2.42	47.4	June 29	1.74	.4	Sept. 27	4.98	563
Mar. 20	3.04	113	July 13	1.96	15.3	Sept. 28	4.27	347
Mar. 29	8.12	3,430						

Revised daily discharge, in second-feet, of Gila River near San Carlos, Ariz., for high-water periods in the years ending September 30, 1915 and 1916

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1914		1915		1915		1916	
Dec. 19	12,500	Jan. 12	1,000	Feb. 7	3,700	Jan. 18	25,000
Dec. 20	35,000	Jan. 13	900	Feb. 8	2,500	Jan. 19	46,000
Dec. 21	32,000	Jan. 14	900	Feb. 9	2,200	Jan. 20	100,000
Dec. 22	27,000	Jan. 15	870	Feb. 10	1,800	Jan. 21	57,000
Dec. 23	32,000	Jan. 16	850	Feb. 11	1,500	Jan. 22	25,000
Dec. 24	31,000	Jan. 17	800	Feb. 12	2,200	Jan. 23	10,000
Dec. 25	24,000	Jan. 18	800	Feb. 13	2,800	Jan. 24	7,500
Dec. 26	17,500	Jan. 19	750	Feb. 14	3,500	Jan. 25	6,000
Dec. 27	13,000	Jan. 20	750	Feb. 15	3,000	Jan. 26	7,000
Dec. 28	9,000	Jan. 21	750	Feb. 16	2,500	Jan. 27	12,000
Dec. 29	8,500	Jan. 22	750	Feb. 17	2,000	Jan. 28	15,000
Dec. 30	6,000	Jan. 23	700	Feb. 18	2,000	Jan. 29	23,000
Dec. 31	4,500	Jan. 24	700	Feb. 19	2,800	Jan. 30	18,000
		Jan. 25	700	Feb. 20	7,500	Feb. 25	3,000
1915		Jan. 26	700	Feb. 21	12,000	Feb. 26	2,800
Jan. 1	4,500	Jan. 27	700	Feb. 22	10,000	Feb. 27	2,500
Jan. 2	3,000	Jan. 28	700	Feb. 23	7,000	Feb. 28	2,700
Jan. 3	2,800	Jan. 29	10,000	Feb. 24	5,000	Feb. 29	3,300
Jan. 4	2,500	Jan. 30	25,000	Feb. 25	4,000	Mar. 1	4,000
Jan. 5	2,300	Jan. 31	32,000	Feb. 26	3,500	Mar. 2	4,700
Jan. 6	2,000	Feb. 1	20,000	Feb. 27	3,300	Mar. 3	3,900
Jan. 7	1,800	Feb. 2	10,000	Feb. 28	3,000	Mar. 20	1,600
Jan. 8	1,600	Feb. 3	8,000			Mar. 21	1,500
Jan. 9	1,500	Feb. 4	7,000	1916		Mar. 22	1,500
Jan. 10	1,300	Feb. 5	6,000	Jan. 16	3,500	Mar. 23	2,000
Jan. 11	1,200	Feb. 6	5,000	Jan. 17	15,000	Mar. 24	3,500

NOTE.—Discharge for periods given in the above table supersede the records published in Water-Supply Papers 409 and 439.

Daily discharge, in second-feet, of Gila River near San Carlos, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	232	182	224	165	51	2,470	1,740	58	1	36	1
2	88	241	189	268	176	46	1,930	1,670	53	1	44	1
3	77	226	541	337	151	48	1,670	1,570	47	1	55	0
4	73	209	414	448	151	48	1,540	1,450	48	1	61	0
5	70	195	288	442	147	53	1,480	1,320	42	1	41	0
6	65	189	286	406	139	144	3,200	1,380	36	1	60	0
7	60	178	280	361	123	191	6,250	1,370	34	1	69	0
8	57	168	271	313	110	273	4,470	1,400	30	0	36	0
9	54	168	256	300	99	283	4,340	1,310	28	0	29	0
10	53	174	245	288	96	298	3,040	1,200	27	0	23	0
11	307	158	247	293	93	421	2,460	984	24	488	63	56
12	792	152	243	296	90	346	2,170	818	21	100	185	319
13	466	134	243	288	87	296	1,830	676	20	15	35	94
14	488	127	241	268	84	254	1,890	573	18	8	39	59
15	587	116	239	256	81	224	2,180	530	16	3	103	106
16	448	132	228	247	78	191	2,110	427	14	1	228	50
17	448	135	228	226	75	142	1,880	355	14	1	222	43
18	454	127	226	230	72	118	1,830	273	12	1	167	22
19	427	129	219	239	69	110	1,750	203	12	1	110	15
20	389	108	226	228	66	109	1,530	161	9	2	75	10
21	389	95	222	232	63	121	1,350	131	8	1	45	7
22	329	91	236	224	60	98	1,250	110	6	8	25	4
23	308	88	219	209	57	88	1,120	103	4	1	11	2
24	300	108	211	205	54	88	963	95	2	1	3	1
25	303	155	203	203	53	95	903	88	2	1	2	5
26	303	191	219	213	52	134	887	91	1	236	1	530
27	288	142	230	193	52	139	903	91	1	406	1	727
28	276	152	209	185	51	546	919	77	1	237	1	415
29	264	158	209	172	-------	2,180	959	71	1	98	1	288
30	254	168	222	158	-------	4,000	1,500	82	1	89	1	222
31	241	-------	219	149	-------	3,760	-------	65	-------	37	0	------

NOTE.—Discharge interpolated because of faulty gage-height record Feb. 10–23, Aug. 19–23, and Sept. 19–23.

Monthly discharge of Gila River near San Carlos, Ariz., for the years ending September 30, 1915, 1916, and 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1914–15				
October	6,150	116	1,170	71,900
November	3,220	250	781	46,500
December	35,000	490	8,420	518,000
January	32,000	700	3,380	208,000
February	20,000	1,500	5,140	285,000
March			3,570	220,000
April			3,870	230,000
May			1,130	69,500
June			193	11,500
July			907	55,800
August			500	30,700
September	620	57	267	15,900
The year	35,000		2,440	1,760,000
1915–16				
October	164	26	66.7	4,100
November	134	26	71.5	4,250
December	387	130	222	13,600
January	100,000	387	12,600	777,000
February	9,010	2,140	3,290	189,000
March	5,210	1,500	2,970	176,000
April	2,410	533	1,080	64,300
May	968	127	403	24,800
June	121	17	57.3	3,410
July	190	12	87.6	5,390
August	1,770	144	788	48,500
September	2,670	128	720	42,800
The year	100,000	12	1,860	1,350,000
1925–26				
October	792	53	282	17,300
November	241	88	155	9,220
December	541	182	248	15,200
January	448	149	261	16,000
February	176	51	92.6	5,140
March	4,000	46	480	29,500
April	6,250	887	2,030	121,000
May	1,740	65	659	40,500
June	58	1	19.7	1,170
July	488	0	56.2	3,460
August	228	0	57.2	3,520
September	727	0	99.2	5,900
The year	6,250	0	370	268,000

NOTE.—Monthly discharge for December, 1914, January and February, 1915, January, February, and March, 1916, supersede the figures published in Water-Supply Papers 409 and 439. Monthly discharge for remaining months in years ending September 30, 1915 and 1916, republished in order to complete the record.

GILA RIVER AT KELVIN, ARIZ.

LOCATION.—In sec. 12, T. 4 S., R. 13 E., 1,000 feet below Mineral Creek and 1 mile west of Kelvin, Pinal County.

RECORDS AVAILABLE.—January 26, 1911, to September 30, 1926.

GAGE.—Water-stage recorder on left bank.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 16.2 feet at 10 p. m. September 28 (discharge, 82,000 second-feet); minimum discharge, 2 second-feet July 4–11 and September 6.

1911–1926: Maximum stage recorded, 19.5 feet about noon January 20, 1916, determined from floodmarks (discharge from extension of rating curve, about 132,000 second-feet). No flow on June 29 to July 11, 1913.

DIVERSIONS.—Station is above diversions for Florence-Casa Grande Valley. About 38,000 acres is irrigated from Gila River above this station. Acreage irrigated from San Pedro River not known.

ACCURACY.—Stage-discharge relation not permanent. Daily discharge ascertained by shifting-control method. Records good.

Records of discharge for certain high-water periods in the years ending September 30, 1915, 1916, and 1917, revised on basis of rating curve determined from discharge measurements of the flood in 1926, are given in the table below.

Discharge measurements of Gila River at Kelvin, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 9	2.43	204	Apr. 12	3.83	2,360	Aug. 23	1.77	34.2
Dec. 8	2.40	315	Apr. 20	3.50	1,580	Sept. 1	1.39	3.2
Jan. 9	2.54	343	May 5	3.31	1,120	Sept. 13	2.24	139
Jan. 16	2.48	332	May 15	2.96	622	Sept. 28	13.2	[a]44,000
Feb. 1	2.49	241	May 24	2.22	135	Do	14.2	[a]62,000
Feb. 10	2.20	133	July 1	1.66	2.5	Do	16.2	[b]82,000
Feb. 23	1.97	72	July 12	2.39	173	Sept. 29	6.33	6,870
Mar. 3	2.00	61	July 22	1.55	3.0	Do	5.54	4,040
Mar. 19	2.25	148	Aug. 2	1.84	44.1	Sept. 30	4.38	2,120
Apr. 2	3.68	2,080	Aug. 14	2.14	196			

[a] Measured by timing floating driftwood over a measured distance of 1,350 feet and from cross section taken on Oct. 20, 1926.
[b] Computed by means of Kutter's formula from levels on cross section and slope taken on Oct. 20–22, 1926.

Revised daily discharge, in second-feet, of Gila River at Kelvin, Ariz., for high-water periods in the years ending September 30, 1914–1917

Date	Discharge	Date	Discharge	Date	Discharge
1914		1915		1915	
Aug. 19	7,550	Jan. 1	8,000	July 27	9,750
Dec. 18	6,130	Jan. 29	15,600	July 28	5,980
Dec. 19	17,700	Jan. 30	36,600	July 29	5,160
Dec. 20	49,600	Jan. 31	40,400		
Dec. 21	49,600	Feb. 1	23,000	1916	
Dec. 22	32,400	Feb. 2	9,750	Jan. 18	26,800
Dec. 23	54,100	Feb. 3	9,750	Jan. 19	48,700
Dec. 24	55,000	Feb. 4	9,750	Jan. 20	105,000
Dec. 25	29,200	Feb. 5	8,680	Jan. 29	24,500
Dec. 26	20,500	Feb. 20	11,600	Jan. 30	19,100
Dec. 27	16,900	Feb. 21	15,600	Oct. 15	36,800
Dec. 28	14,000	Feb. 22	11,600		
Dec. 29	12,000	Feb. 23	8,680		
Dec. 30	9,030	Feb. 24	6,420		
Dec. 31	6,720	July 26	9,390		

NOTE.—Discharge for periods given in the above table supersede the records published in Water-Supply Papers 389, 409, 439, and 459.

Daily discharge, in second-feet, of Gila River at Kelvin, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	294	225	276	256	66	2,800	1,430	99	3	68	3
2	87	264	452	276	500	61	2,120	1,380	81	3	48	3
3	78	258	2,510	363	321	61	1,880	1,230	70	3	43	7
4	68	240	771	692	215	64	1,700	1,200	66	2	41	7
5	66	220	379	596	200	61	1,610	1,080	66	2	113	3
6	73	215	349	560	186	113	2,240	1,080	61	2	64	2
7	66	190	356	460	168	181	5,620	1,020	59	2	416	59
8	57	200	342	415	154	215	4,870	1,150	52	3	588	124
9	52	195	300	370	145	342	4,400	1,070	48	2	105	61
10	50	190	321	363	137	458	3,590	1,040	43	2	48	57
11	47	190	288	356	121	480	2,750	936	43	2	59	24
12	374	176	321	356	125	572	2,330	894	41	258	270	121
13	540	168	294	363	125	388	2,020	810	39	87	799	172
14	406	154	288	370	121	356	2,020	732	36	33	163	117
15	540	141	288	370	109	307	2,060	644	29	20	106	178

Daily discharge, in second-feet, of Gila River at Kelvin, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	656	141	328	356	105	276	2,000	480	26	11	203	93
17	560	150	307	335	102	235	1,860	388	24	6	288	163
18	530	158	328	314	96	190	1,740	342	21	4	246	93
19	480	154	307	321	96	150	1,700	307	17	3	186	68
20	442	154	276	321	96	129	1,570	252	15	3	133	39
21	433	137	288	294	90	145	1,360	215	12	3	90	26
22	406	125	300	294	81	137	1,240	181	10	27	57	17
23	321	121	314	288	68	113	1,230	158	8	43	36	9
24	328	121	294	276	73	90	1,100	137	7	19	25	8
25	314	316	294	264	68	93	965	117	6	109	19	14
26	294	276	264	252	73	102	880	113	5	70	14	3,910
27	288	282	288	264	66	129	866	109	4	1,000	10	6,430
28	282	240	282	246	66	158	824	109	3	692	7	36,600
29	270	225	270	240	-------	1,820	894	99	3	186	6	8,710
30	270	225	282	230	-------	4,250	1,070	93	3	121	4	2,020
31	321	-------	294	215	-------	3,900	-------	99	-------	87	3	------

Monthly discharge of Gila River at Kelvin, Ariz., for the years ending September 30, 1914–1917 and 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1913–14				
October	1,440	42	198	12,200
November	1,900	42	508	30,200
December	870	316	425	26,100
January	330	305	328	20,200
February	780	95	361	20,000
March	395	62	156	9,590
April	81	14	37.2	2,210
May	16	2	7.1	437
June	465	1	65.6	3,910
July	4,310	50	1,960	121,000
August	7,550	420	2,300	142,000
September	4,050	120	903	53,700
The year	7,550	1	609	441,000
1914–15				
October	8,800	120	1,300	79,900
November	3,700	370	810	48,200
December	55,000	400	12,400	760,000
January	40,400	1,020	4,880	300,000
February	23,000	1,100	5,910	328,000
March	5,800	2,930	3,800	234,000
April	8,090	2,030	4,030	240,000
May	2,450	505	1,170	71,900
June	480	83	257	15,300
July	9,750	45	1,530	94,100
August	2,800	340	1,090	66,700
September	1,350	60	323	19,200
The year	55,000	45	3,120	2,260,000
1915–16				
October	381	65	132	8,120
November	236	74	138	8,210
December	472	178	354	21,800
January	105,000	506	13,300	817,000
February	8,200	2,230	3,050	175,000
March	5,120	1,780	2,700	166,000
April	1,960	635	1,110	66,000
May	915	180	448	27,500
June	180	53	106	6,310
July	510	29	233	14,300
August	1,940	258	818	50,300
September	3,230	157	891	53,000
The year	105,000	29	1,950	1,410,000

Monthly discharge of Gila River at Kelvin, Ariz., for the years ending September 30, 1914–1917 and 1926—Continued

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1916–17				
October	36,800	86	3,460	212,000
November	1,020	288	519	30,900
December	370	258	293	18,000
January	10,500	300	1,750	108,000
February			885	49,200
March	1,270	513	724	44,500
April	773	282	479	28,500
May	603	98	243	14,900
June	89	24	45.0	2,680
July	2,700	24	543	33,400
August	2,220	30	601	37,000
September	970	37	179	10,700
The year	36,800	24	815	590,000
1925–26				
October	656	47	284	17,500
November	316	121	197	11,700
December	2,510	225	394	24,200
January	692	215	345	21,200
February	500	66	142	7,890
March	4,250	61	505	31,100
April	5,620	824	2,040	121,000
May	1,430	93	610	37,500
June	99	3	33.2	1,980
July	1,000	2	90.6	5,570
August	799	3	137	8,420
September	36,600	2	1,970	117,000
The year	36,600	2	560	405,000

NOTE.—Monthly discharge for August and December, 1914, January, February, and July, 1915, and January and October, 1916, supersede the figures published in previous water-supply papers. Monthly discharge for the remaining months in years ending Sept. 30, 1914–1917, republished in order to complete the record.

GILA RIVER AT ASHURST-HAYDEN DAM, NEAR FLORENCE, ARIZ.

LOCATION.—In sec. 8, T. 4 S., R. 11 E., at Ashurst-Hayden Dam, 10 miles northeast of Florence, Pinal County.

RECORDS AVAILABLE.—July 1, 1923, to September 30, 1926.

GAGE.—Chain gage on upstream wing wall at left end of Ashurst-Hayden Dam. Zero of gage is 10.00 feet below crest of dam.

CHANNEL AND CONTROL.—Bed composed of sand and silt filled in about flush with crest of dam except on left bank, where bed is below crest of dam, owing to sluicing. Dam is 120 feet downstream from gage. There are four sluice gates in the dam with top of opening 6½ feet below crest of dam. One or more of these are open a large part of the time.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 8.0 feet at midnight September 28; minimum stage, crest of dam dry on various days.

1923–1926: Maximum stage recorded, 8.0 feet at midnight September 28, 1926; minimum stage, crest dry on various days each year.

DIVERSIONS.—Water diverted from Gila River below gage by Ashurst-Hayden Dam. First canal gate opening is 22 feet below gage. About 38,000 acres is irrigated from Gila River above thisd am. Acreage irrigated from San Pedro River not known.

ACCURACY.—Stage-discharge relation not determined. No discharge measurements made. Only height of water on crest of dam determined. Gage read to hundredths twice daily. No determination of amount of water by-passed through sluice gates of dam.

COOPERATION.—Gage-height record furnished by United States Indian Service.

Daily height, in feet, of Gila River at Ashurst-Hayden Dam, near Florence, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.
1		0.44					1.40	1.05			
2		.40	[a]0.10		0.54		1.10	1.13			
3		.40	1.57	0.22	.39		1.19	1.00			
4		.40	.84	.62	[a].32		1.16	.96			
5		.39		.55			1.19	.97			
6		.36		.51			1.20	1.05			
7		.33	.56	.53			2.10	.95			[a]3.1
8		.32	.43	.52			1.70	.95		0.55	
9		.32	.41	.49		0.10	1.70	1.00			
10		.31	.40	.49		.31	1.60	.96			
11		.31	.38	.48		.37	1.50	.94			
12	[a]0.64	.32	.38	.48		.46	1.25	.85	[b]0.40	[a].50	
13	.74	[a].32	.37	.48		.29	1.20	.74		.90	
14	.64		.38	.48		.26	1.25	.70			
15	.69		.39	.46		.25	1.20	.60			
16	.76		.38	.46		.08	1.40	.49			
17	.63		.37	.46			1.30	.43			.20
18	.64		.37	[a].46			1.20	.21			
19	.60		.39				1.22	.05			
20	.58		.38				1.25				
21	.53		.37				1.05				
22	.51		[a].36				1.00				
23	.47						.85				
24	.45						.75				
25	.41	[a].40					.65				
26	.41						.69				2.60
27	.38	[a].10					.76		1.62		2.59
28	.40						.71		.77		4.73
29	.40					.84	.75		.20		2.91
30	.40					1.90	.90				1.38
31	.58					1.88					

[a] Flow for half a day. [b] Flow for quarter of a day.

NOTE.—Gage heights in above table show head on crest of dam. No water over crest of dam on days for which no record is given.

GILA RIVER AT GILLESPIE DAM, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 28, T. 2 S., R. 5 W., at Gillespie Dam, Maricopa County. Hassayampa River enters from right 8 miles upstream.

DRAINAGE AREA.—48,100 square miles.

RECORDS AVAILABLE.—August 4, 1921, to September 30, 1926.

GAGE.—Water-stage recorder on left wing wall 10 feet upstream from crest of Gillespie Dam, installed July 28, 1924. Zero of gage at mean elevation of crest of dam and 753.8 feet above mean sea level.

EXTREMES OF DISCHARGE.—Maximum stage during year, from water-stage recorder, 3.95 feet at 6 a. m. September 30 (discharge, 38,300 second-feet); minimum stage, crest of dam dry on various days during year.

1921–1926: Maximum stage recorded, 6.0 feet on December 28, 1923 (discharge, 70,000 second-feet); minimum stage, crest of dam dry for various periods each year.

DIVERSIONS.—Water diverted from Gila River by Gillespie Dam. When water is below crest of dam a gate is kept open which turns a small quantity of water downstream to satisfy prior rights. About 275,000 acres is irrigated from Gila River and tributaries above this dam.

ACCURACY.—Stage-discharge relation permanent. Rating curve well defined from 100 to 10,000 second-feet. From 10,000 to 150,000 second-feet, rating has been extended by using formula for broad-crested weirs, $Q=2.64LH^{\frac{3}{2}}$, and assumed velocities of approach based on observed conditions. Below 100 second-feet rating varies somewhat on account of accumulation of moss or trash on crest of dam. Water discharged through sluice gates, separately computed, and included in daily discharge. Records good.

Discharge measurements of Gila River at Gillespie Dam, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 4	0.10	158	Mar. 13	0.01	25	May 23	-------	[a] 11.8
Jan. 20	.12	188	Apr. 15	1.02	4,450	Sept. 8	0.15	304
Feb. 27	.04	38	Apr. 16	.88	3,570			

[a] Water below crest of dam; discharge measured in river channel half a mile downstream.

Daily discharge, in second-feet, of Gila River at Gillespie Dam, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	195	105	120	155	45	3,880	500	0	0	63	0
2	60	240	120	120	155	45	3,140	560	0	0	41	0
3	35	135	175	135	135	32	2,150	851	0	0	0	0
4	28	155	910	195	120	27	1,700	880	0	0	0	0
5	570	195	1,150	240	120	36	1,470	800	0	0	0	0
6	4,070	175	720	460	120	32	6,690	695	0	0	0	0
7	821	195	430	370	105	62	20,400	660	0	0	156	64
8	861	195	315	370	120	70	25,200	645	0	0	43	381
9	1,360	155	290	340	81	60	19,200	560	0	0	160	2,420
10	840	120	215	315	45	60	14,400	590	0	0	65	2,700
11	600	120	155	315	45	60	14,400	590	0	0	0	2,350
12	460	105	135	290	53	35	8,470	573	0	0	0	1,320
13	370	90	135	290	60	32	7,000	540	0	0	0	170
14	315	90	125	265	90	1	5,640	560	0	0	0	335
15	265	90	105	240	105	0	4,300	470	0	0	0	235
16	524	105	90	215	75	0	3,460	385	0	0	0	170
17	495	105	90	215	75	0	3,000	310	0	240	0	75
18	460	90	90	240	60	0	2,400	102	0	0	0	0
19	430	90	90	215	45	0	1,950	0	0	0	0	0
20	430	75	75	195	35	0	2,200	0	0	0	0	0
21	430	75	90	175	33	0	3,580	0	0	0	0	0
22	370	75	109	175	32	0	3,880	0	0	0	0	0
23	315	90	155	175	15	0	2,500	0	0	0	0	0
24	265	90	155	155	36	0	1,650	0	0	0	0	0
25	265	90	175	175	35	0	1,200	0	0	0	0	0
26	265	105	195	155	20	0	920	0	0	0	0	20
27	240	105	175	135	37	0	730	0	0	1,800	0	4,650
28	240	90	195	120	45	0	530	0	0	1,540	0	7,800
29	215	90	120	120	-------	106	494	0	0	440	0	14,100
30	195	105	90	135	-------	1,000	494	0	0	322	0	21,200
31	175	-------	90	120	-------	2,030	-------	0	-------	125	0	-------

Monthly discharge of Gila River at Gillespie Dam, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	4,070	28	519	31,900
November	240	75	121	7,200
December	1,150	75	228	14,000
January	460	120	219	13,500
February	155	15	73.3	4,070
March	2,030	0	120	7,380
April	25,200	494	5,570	331,000
May	880	0	331	20,400
June	0	0	0	0
July	1,800	0	144	8,850
August	160	0	17.0	1,050
September	21,200	0	1,930	115,000
The year	25,200	0	766	554,000

SUNSET CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In NW. ¼ sec. 17, T. 19 S., R. 20 W. New Mexico principal meridian, in New Mexico 3 miles below intake, 9 miles east of Arizona-New Mexico State line, and 14 miles east of Duncan, Greenlee County, Ariz.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915. July 15, 1922, to September 30, 1926.

GAGE.—Vertical staff on right bank at Brooks ranch, read by M. H. Brooks.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. No well-defined control.

DIVERSIONS.—About 35 acres irrigated above station.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation continually changing. Standard rating curve well defined. Gage read to nearest two-hundredths twice a day with additional readings June to August. Daily discharge ascertained by applying mean daily gage height to rating table, shifting-control method used for entire year. Records good.

COOPERATION.—Supplementary gage readings from June 23 to August 31 and some discharge measurements during that period furnished by J. F. McGrath.

Canal diverts water from right side of Gila River in NW. ¼ sec. 20, T. 19 S., R. 20 W. New Mexico principal meridian, for irrigating 1,800 acres in the vicinity of Virden.

Discharge measurements of Sunset Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	1.54	21.5	Apr. 5	1.52	20.3	July 20	2.34	38.5
Nov. 4	1.70	19.5	Apr. 24	1.50	16.8	July 23	2.30	36.3
Nov. 17	1.79	21.9	Apr. 30	1.78	20.0	Aug. 6	2.34	38.1
Dec. 1	1.92	24.4	May 10	1.83	19.9	Aug. 10	2.07	30.3
Dec. 15	2.02	28.9	May 31	2.05	29.6	Aug. 13	2.30	38.0
Jan. 5	1.52	16.2	June 25	2.17	29.6	Aug. 20	2.32	36.2
Jan. 20	1.37	12.4	June 26	2.20	30.9	Aug. 27	1.65	23.3
Feb. 6	1.68	17.2	July 2	1.92	24.2	Aug. 30	.74	3.8
Feb. 20	2.10	29.9	July 9	2.24	32.8	Aug. 31	.90	8.6
Mar. 6	2.02	25.2	July 18	2.24	35.0	Sept. 21	2.21	36.2
Mar. 17	1.92	25.6	July 19	2.43	37.3			

Daily discharge, in second-feet, of Sunset Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	19	24	11	17	28	16	19	21	22	25	7.0
2	24	19	24	11	15	28	15	18	35	23	24	6.9
3	25	19	23	14	16	28	15	19	35	20	24	6.6
4	25	20	23	14	18	27	17	18	34	29	25	6.9
5	31	20	23	17	18	26	19	18	36	37	27	6.7
6	32	21	23	18	19	25	21	17	35	38	34	7.0
7	30	21	23	18	20	26	22	18	34	36	40	6.9
8	27	20	23	18	21	27	21	20	31	32	37	12
9	27	21	23	18	21	28	22	17	30	30	30	13
10	17	21	24	18	21	27	20	17	33	25	29	30
11	0	21	24	18	22	27	19	18	37	32	31	18
12	0	21	23	17	23	27	18	19	36	25	32	23
13	5	21	23	17	23	27	18	19	36	29	32	28
14	0	21	23	19	23	27	18	19	26	33	33	29
15	0	21	24	19	23	27	18	19	30	33	33	32

Daily discharge, in second-feet, of Sunset Canal near Duncan, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	0	21	24	19	21	27	15	21	28	31	30	31
17	0	21	24	20	20	25	15	23	29	31	28	6.9
18	0	21	24	22	21	18	15	21	31	34	29	11
19	0	21	25	16	24	11	14	10	31	36	33	37
20	0	21	0	14	29	11	15	0	26	38	35	39
21	19	22	0	13	26	11	16	12	26	35	34	39
22	20	22	0	13	27	5.7	15	25	35	38	34	40
23	21	23	0	13	21	0	15	26	30	37	34	41
24	20	24	10	13	22	6.6	16	27	29	37	34	38
25	19	25	22	13	23	22	19	28	30	38	31	36
26	20	24	22	13	26	29	21	9	31	36	27	39
27	20	24	24	13	27	29	20	28	30	40	23	41
28	20	24	25	11	28	28	19	27	27	38	20	39
29	19	24	25	17	------	26	18	27	25	41	17	39
30	19	24	18	23	------	18	18	26	23	39	7.5	38
31	19	------	11	21	------	17	------	13	------	27	7.8	------

Monthly discharge of Sunset Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	32	0	15.5	953
November	25	19	21.6	1,290
December	25	0	19.5	1,200
January	23	11	16.2	996
February	29	15	22.0	1,220
March	29	0	22.2	1,360
April	22	14	17.7	1,050
May	28	0	19.3	1,190
June	37	21	30.7	1,830
July	41	20	32.9	2,020
August	40	7.5	28.4	1,750
September	41	6.6	24.9	1,480
The year	41	0	22.6	16,300

COSPER-WINDHAM CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In NW. ¼ sec. 11, T. 19 S., R. 21 W. New Mexico principal meridian, in New Mexico, three-quarters of a mile below intake, 4 miles east of Arizona-New Mexico State line, and 9 miles east of Duncan, Greenlee County, Ariz.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915. July 18, 1922, to September 30, 1926.

GAGE.—Vertical staff on left bank at Foster ranch; read by W. F. Foster.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. No well-defined control.

DIVERSIONS.—About 60 acres are irrigated above gage.

REGULATION.—By head gates. Stage in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Gage read twice a day to nearest even hundredth. Rating curve fairly well defined. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Discharge interpolated May 24 and 25. Records good.

Canal diverts water from right side of Gila River in SW. ¼ sec. 11, T. 19 S., R. 21 W. New Mexico principal meridian, for irrigating 800 acres in the vicinity of Virden. At certain times water is diverted from Sunset Canal by means of a feeder canal which enters Cosper-Windham Canal just above gage.

Discharge measurements of Cosper-Windham Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 4	1.06	7.5	Feb. 20	1.74	16.4	June 26	0.94	2.4
Nov. 17	.85	4.3	Mar. 6	1.94	20.5	July 19	1.68	10.6
Dec. 1	1.19	8.5	Mar. 18	1.68	20.1	Aug. 10	1.09	5.6
Dec. 15	1.38	10.0	Apr. 21	1.06	11.1	Aug. 20	1.88	20.7
Jan. 5	1.44	12.0	Apr. 30	1.43	19.5	Aug. 30	.66	.2
Jan. 20	1.52	9.9	May 10	1.60	19.3	Sept. 21	1.34	9.4
Feb. 6	1.30	9.0	May 31	1.40	15.0			

Daily discharge, in second-feet, of Cosper-Windham Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
1	22	8.2	8.6	9.0	10	16	1.9	22	22	7.0	7.1	0.3
2	21	7.2	8.2	9.1	11	14	5.8	22	17	8.2	8.1	7.6
3	20	6.8	4.6	9.0	8.8	17	6.6	21	18	7.4	10	3.0
4	20	7.9	1.4	9.1	6.6	20	2.8	21	11	7.7	7.9	0
5	17	7.6	0	9.9	7.7	20	.8	22	18	7.2	3.6	0
6	18	7.2	0	13	9.9	21	8.0	22	28	7.0	.8	0
7	18	7.0	7.0	12	9.0	22	18	23	22	6.6	2.7	0
8	16	5.8	16	11	8.6	0	19	23	15	7.6	1.8	7.9
9	16	4.9	13	11	8.4	0	19	21	12	2.6	0	8.1
10	0	5.6	11	10	8.6	0	18	20	14	6.5	1.4	9.9
11	0	5.1	11	9.9	9.9	0	16	18	12	6.1	8.8	7.5
12	0	4.9	11	9.0	15	0	14	16	11	6.4	4.6	15
13	0	4.6	11	8.4	17	13	16	14	7.6	9.1	7.9	9.1
14	0	4.3	10	8.1	16	23	19	11	8.2	11	6.5	10
15	0	4.3	10	7.2	16	22	19	8.1	6.4	6.8	23	12
16	0	4.6	11	7.0	14	21	17	4.2	4.3	8.6	20	15
17	0	4.3	10	6.6	15	21	17	11	4.1	12	18	17
18	0	4.3	10	7.1	12	22	17	21	4.1	4.8	19	11
19	0	3.4	10	7.2	11	22	18	22	2.0	4.8	22	6.4
20	0	2.7	10	9.5	13	21	14	23	2.1	5.2	18	8.8
21	0	2.7	10	9.0	0	24	11	21	3.2	3.0	8.4	10
22	0	4.9	10	8.6	0	24	9.9	24	2.0	8.4	3.8	10
23	0	4.9	10	7.1	0	23	16	24	1.7	8.1	6.2	11
24	0	11	10	4.2	0	23	26	22	3.0	8.4	6.6	7.4
25	0	9.3	9.3	6.5	0	22	25	21	3.0	9.1	6.4	7.1
26	0	14	9.0	9.7	7.5	21	24	19	2.2	10	7.4	8.4
27	0	10	9.0	10	17	20	24	20	3.1	5.0	6.5	12
28	4.1	9.1	8.8	10	18	19	23	20	1.7	5.8	1.0	19
29	9.3	9.0	8.6	10	-------	16	23	19	.9	9.7	.8	15
30	9.1	8.6	8.6	9.5	-------	4.8	22	18	4.8	8.4	.1	14
31	9.0	-------	8.8	9.5	-------	0	-------	21	-------	7.7	.4	------

Monthly discharge of Cosper-Windham Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	22	0	6.44	396
November	14	2.7	6.47	385
December	16	0	8.90	527
January	13	4.2	8.94	550
February	18	0	9.64	535
March	24	0	15.9	978
April	26	0.8	15.7	934
May	24	4.2	19.2	1,180
June	28	0.9	8.81	524
July	12	2.6	7.30	449
August	23	0	7.70	473
September	19	0	8.75	521
The year	28	0	10.3	7,470

NOTE.—For the period Oct. 1 to May 31 water was diverted from Gila River to Cosper-Windham Canal. For the period June 1 to September 30, water was diverted to Cosper-Windham Canal from Gila River and by a feeder canal from Sunset Canal as follows:

Month	Acre-feet diverted			Month	Acre-feet diverted		
	Gila River	Feeder canal	Total		Gila River	Feeder canal	Total
June	469	55	524	August	360	113	473
July	191	258	449	September	281	240	521

MODDLE CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In NW. ¼ sec. 10, T. 19 S., R. 21 W. New Mexico principal meridian, in New Mexico, half a mile below intake, 4 miles east of Arizona-New Mexico State line, and 9 miles east of Duncan, Greenlee County, Ariz.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; July 17, 1922, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by W. F. and J. L. Foster.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. No well-defined control.

DIVERSIONS.—None.

REGULATION.—By head gate. Stage in canal varies considerably with stage in Gila River.

ACCURACY.—Stage-discharge relation permanent October 21 to March 1, continually changing during other periods. Rating curves well defined. Gage read once a day to nearest even hundredth throughout the year with frequent omissions October 1 to June 16 and September 1–20. During period June 17 to August 31 gage read three times a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for period March 5 to September 30. Discharge interpolated for days when gage was not read, except discharge estimated October 2–15, March 31 to April 4, April 6–17, May 2–9, 23–29. Records good, June to September; fair for remainder of year on account of fragmentary gage-height record.

COOPERATION.—Supplementary gage-height record June 23 to August 31 and some discharge measurements made during that period, furnished by J. F. McGrath.

Canal diverts water from left side of Gila River in NW. ¼ sec. 11, T. 19 S., R. 21 W., New Mexico principal meridian for irrigating 2,200 acres in the vicinity of Franklin.

Discharge measurements of Moddle Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	2.68	36.8	Mar. 18	2.50	47.5	July 18	2.11	35.2
Nov. 1	2.19	16.3	Apr. 5	2.00	36.3	July 20	1.85	26.9
Nov. 17	2.40	21.9	Apr. 20	1.94	27.0	July 23	2.20	38.4
Dec. 1	2.58	27.0	May 1	2.72	55.0	Aug. 6	2.05	31.4
Dec. 15	2.08	14.2	May 10	.54	0	Aug. 11	1.41	14.1
Jan. 5	2.74	32.2	May 31	2.56	52.2	Aug. 13	2.25	36.8
Jan. 17	2.06	13.8	June 25	1.07	7.2	Aug. 27	.95	4.5
Feb. 7	2.00	8.5	June 28	.81	3.6	Aug. 30	.86	3.3
Feb. 21	2.64	28.9	July 2	.70	2.1	Sept. 22	1.70	18.3

Daily discharge, in second-feet, of Moddle Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	15	27	19	7.5	34		58	50	1.9	18	3.7
2		14	28	19	11	37	48		45	1.7	6.8	4.0
3		16	30	26	14	40			46	1.3	5.7	4.6
4		17	32	32	13	44			46	2.5	13	3.6
5		16	34	32	11	47	36		47	2.4	38	5.4
	20							30				
6		16	34	30	9.9	46			47	2.4	30	5.7
7		15	34	27	8.5	45			48	3.7	50	5.7
8		15	33	25	8.5	44			45	4.8	29	3.9
9		15	34	22	8.5	44			40	2.8	24	2.7
10	0	15	34	19	8.5	45		0	42	2.4	19	3.0
11	0	16	34	19	14	45	44	38	40	31	9.4	3.2
12	0	15	15	18	20	44		47	32	68	19	7.8
13	0	14	15	18	25	43		54	30	63	30	12
14	0	3	15	17	31	41		56	32	54	17	16
15	0	0	15	16	31	40		51	29	45	27	21
16	0	0	14	15	31	42		46	29	51	11	21
17	0	22	16	14	32	45		46	23	48	33	17
18	0	23	14	13	32	47	52	52	20	31	48	13
19	0	22	15	12	31	50	53	70	19	27	32	27
20	0	21	15	12	30	54	35	66	18	26	25	41
21	19	20	16	11	29	57	57	66	17	24	26	27
22	27	22	18	11	31	60	40	65	10	39	18	26
23	19	23	19	10	31	60	29		8.0	37	12	27
24	18	24	17	9.4	32	59	4.9		5.7	35	11	28
25	18	24	16	8.8	32	59	18		5.1	26	9.7	39
								60				
26	18	25	17	8.3	33	59	31		4.1	21	6.4	50
27	21	26	18	7.8	33	59	44		3.8	19	4.3	27
28	21	26	19	7.4	34	59	57		3.2	17	3.2	16
29	19	27	19	6.9	------	59	56		2.9	14	2.9	19
30	17	27	19	7.1	------	59	60	54	2.4	27	3.0	22
31	16	------	19	7.2	------	59	------	54	------	54	3.0	------

Monthly discharge of Moddle Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	43	0	13.4	824
November	27	0	17.8	1,060
December	34	14	22.1	1,360
January	32	6.9	16.1	990
February	34	7.5	22.6	1,260
March	60	34	49.2	3,030
April	60	4.9	43.1	2,560
May	70	0	47.8	2,940
June	50	2.4	26.3	1,560
July	68	1.3	25.3	1,560
August	50	2.9	18.9	1,160
September	50	2.7	16.7	994
The year	70	0	26.7	19,300

VALLEY CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In SW. ¼ sec. 32, T. 18 S., R. 21 W. New Mexico principal meridian, in New Mexico, half a mile below intake, a mile east of Arizona-New Mexico State line, and 6 miles east of Duncan, Greenlee County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915. July 17, 1923, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by G. L. Hatch.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—No diversions above gage.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation continually changing. Standard rating curve fairly well defined. Gage read to nearest two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records good.

Canal diverts water from right side of Gila River in NW. ¼ sec. 4, T. 19 S., R. 21 W. New Mexico principal meridian, in New Mexico, for irrigating 1,500 acres in the vicinity of Duncan.

Discharge measurements of Valley Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	1.82	18.1	Feb. 6	1.40	9.6	June 26	1.20	8.1
Oct. 20	1.50	10.1	Feb. 20	2.15	28.9	July 19	1.99	24.5
Nov. 4	1.90	21.2	Mar. 17	2.26	33.1	July 20	1.00	3.6
Nov. 17	1.72	16.6	Apr. 5	2.14	29.5	Aug. 10	1.23	8.0
Dec. 1	1.58	14.3	Apr. 21	1.89	23.7	Aug. 30	1.03	3.5
Dec. 15	1.58	14.8	Apr. 30	2.37	36.2	Sept. 21	1.82	20.4
Jan. 5	1.56	15.1	May 10	2.15	29.9			
Jan. 19	1.52	11.9	May 31	1.92	30.9			

Daily discharge, in second-feet, of Valley Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	15	16	16	12	7.0	8.4	36	31	6.7	26	3.8
2	22	19	16	16	11	3.6	15	36	26	7.0	6.1	3.3
3	16	20	17	17	12	0	30	36	22	7.4	13	3.5
4	13	17	17	17	12	0	32	36	22	8.8	9.8	3.2
5	12	21	17	17	12	0	31	35	26	8.4	11	3.3
6	11	20	17	18	11	0	31	34	31	8.7	8.7	3.1
7	11	17	17	17	12	0	33	34	29	8.5	8.0	3.0
8	11	18	17	15	11	0	33	32	29	9.0	8.4	3.0
9	11	14	15	14	12	0	32	32	41	9.0	8.2	2.8
10	25	12	15	15	11	0	34	30	33	8.4	8.2	23
11	14	13	15	14	11	0	33	28	29	19	21	16
12	12	15	15	14	6.8	0	31	27	31	29	8.2	13
13	13	16	16	14	6.8	19	31	29	32	28	8.7	11
14	12	18	16	13	17	35	31	29	27	28	8.4	12
15	11	22	16	13	31	35	29	27	8.0	17	39	8.0
16	11	20	16	13	30	35	27	25	9.4	20	41	5.2
17	11	19	15	13	31	33	26	24	9.4	25	39	4.4
18	11	17	15	13	31	32	29	25	9.6	25	31	4.7
19	11	18	15	13	32	34	25	27	10	15	29	4.7
20	9.8	18	15	13	33	35	27	40	10	4.6	16	7.0

Daily discharge, in second-feet, of Valley Canal near Duncan, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	9.8	18	15	13	35	34	25	39	9.8	4.8	8.8	17
22	9.2	18	15	13	34	28	22	41	10	5.2	6.1	17
23	9.0	18	15	13	34	28	10	44	10	6.4	5.8	11
24	9.0	18	14	13	35	27	4.7	43	9.8	7.4	5.0	7.0
25	9.0	18	14	12	35	29	18	42	9.4	25	4.4	7.1
26	9.2	17	13	12	32	28	32	37	8.5	34	3.8	8.2
27	9.4	16	14	12	30	29	34	37	8.4	31	3.9	9.4
28	12	17	15	12	18	27	33	37	8.0	30	3.4	17
29	19	18	15	12	------	25	35	37	7.3	30	3.5	5.6
30	25	17	16	12	------	9.8	36	36	7.3	28	3.2	0
31	21	------	16	13	------	7.9	------	33	------	25	3.3	------

Monthly discharge of Valley Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	25	9.0	13.1	806
November	22	12	17.5	1,040
December	17	13	15.5	953
January	18	12	13.9	855
February	35	6.8	21.4	1,190
March	35	0	17.5	1,080
April	36	4.7	27.3	1,620
May	44	24	33.8	2,080
June	41	7.3	18.5	1,100
July	34	4.6	16.8	1,030
August	41	3.2	12.9	793
September	23	0	7.91	471
The year	44	0	18.0	13,000

DUNCAN CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In NE. ¼ sec. 29, T. 8 S., R. 32 E., 1 mile below intake and 2 miles east of Duncan, Greenlee County.

RECORDS AVAILABLE.—July 17, 1923, to September 30, 1926.

GAGE.—Vertical staff on left bank; read by Miss Ernestine Boyd.

DISCHARGE MEASUREMENTS.—Made by wading at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—About 20 acres irrigated above gage.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation continually changing. Rating curve fairly well defined. Gage read to hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Discharge estimated April 12–14, 16–19, and interpolated May 12. Records fair.

Canal diverts water from left side of Gila River in SW. ¼ sec. 28, T. 8 S., R. 32 E., for irrigating 250 acres in the vicinity of Duncan.

Discharge measurements of Duncan Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 22	1.88	0.9	May 31	2.78	6.6	Aug. 30	2.30	3.4
Apr. 20	1.62	1.0	June 22	2.56	2.3	Sept. 22	1.69	.4
Apr. 30	2.08	3.3	July 20	2.67	4.9			
May 10	2.36	6.2	Aug. 10	2.35	2.6			

Daily discharge, in second-feet, of Duncan Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	2.4				1.1	3.4	5.5	4.1	5.3	3.3
2	6.6	.6				1.0	3.7	3.7	3.9	4.6	3.9
3	4.8			3.0		.8	3.8	3.7	4.2	3.2	3.8
4	4.8			2.9		.3	4.0	1.5	4.4	1.7	3.5
5	5.5			2.8		.7	4.3	.7	4.1	.7	3.6
6	5.2					1.2	4.8	3.3	4.3	1.1	3.6
7	6.0			1.4		.9	6.2		4.6	3.0	3.5
8	4.8			1.6		1.1	6.8	2.5	4.6	3.6	3.3
9	4.0					.9	7.2	4.6	4.6	3.6	4.2
10	4.3			2.8		.9	6.3	4.8	4.4	3.2	2.1
11				2.4		1.3	5.0	4.8	5.0	3.6	
12				2.4		.8	4.4	4.7	2.4	2.8	
13						.8	3.9	4.4		3.6	
14				1.4	0.3	.8	3.9	4.3	1.4	3.7	
15				1.6	.2	.8	4.6	4.6	1.5	5.2	.1
16					.2	.8	4.6	4.2	3.0	5.2	.1
17			1.8		.1	.8	4.8	4.2	2.9	5.4	
18			1.8		.7	.8	4.1	3.7	3.6	4.8	
19			1.2		.7	.8	4.0	3.1	4.4	4.4	.2
20					1.5	1.0	6.2	2.8	4.7	3.4	.2
21				4.1	1.6	1.3	5.4	2.9	4.5	2.9	.5
22				1.4	1.0	1.2	5.4	3.6	5.0	2.6	.4
23						.5	5.6	3.7	1.1	2.2	
24		2.1			.8	1.0	6.6	4.0	5.3	2.3	
25		1.0		2.0	1.2	1.6	7.1	2.7	5.7	2.3	
26				3.6	1.2	2.0	7.3	2.9	2.8	2.8	
27				2.8	1.7	2.8	7.3	3.0	5.8	2.7	.3
28				1.4	1.4	2.7	7.3	3.3	5.8	3.0	.4
29					3.2	3.4	7.1	3.9	5.6	3.6	.2
30					2.1	3.7	7.0	3.2	5.3	3.8	
31					1.2		6.5		5.2	3.4	

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Duncan Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	6.6	0	1.59	97.8
November	2.4	0	.20	11.9
December	1.8	0	.15	9.2
January	0	0	0	0
February	4.1	0	1.34	74.4
March	3.2	0	.62	38.1
April	3.7	.3	1.26	75.0
May	7.3	3.4	5.44	334
June	5.5	0	3.48	207
July	5.8	0	4.01	247
August	5.3	.7	3.35	206
September	4.2	0	1.24	73.8
The year	7.3	0	1.90	1,370

BLACK-McCLESKY CANAL AT DUNCAN, ARIZ.

LOCATION.—In SE. ¼ sec. 19, T. 8 S., R. 32 E., a quarter of a mile below intake at Duncan, Greenlee County.

RECORDS AVAILABLE.—July 17, 1923, to September 30, 1926. April 16 to September 30, 1915.

GAGE.—Vertical staff on right bank; read by F. M. Craig.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. No well-defined control.

DIVERSIONS.—No diversions above gage.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation continually changing. Rating curve fairly well defined. Gage read to two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records fair.

Canal diverts water from left side of Gila River in SE. ¼ sec. 19, T. 8 S., R. 32 E., for irrigating 400 acres in the vicinity of Duncan.

Discharge measurements of Black-McClesky Canal at Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 22	1.28	12.8	Apr. 30	2.26	22.0	Aug. 10	1.15	6.5
Mar. 6	1.48	15.5	May 11	1.87	17.4	Aug. 11	1.14	5.8
Mar. 18	2.18	17.3	June 1	3.02	25.8	Aug. 31	1.26	3.6
Apr. 5	1.10	3.7	June 27	2.00	6.9	Sept. 22	1.56	3.9
Apr. 21	.64	2.4	July 19	2.14	11.7			

Daily discharge, in second-feet, of Black-McClesky Canal at Duncan, Ariz., for the year ending September 30, 1926

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		14	17	24	24	1.0	5.5	3.1
2		13	7.8	22	18	.8	1.8	2.5
3		13	6.7	18	14	1.2	15	2.3
4		14	6.0	16	14	7.3	13	2.4
5		15	4.0	16	13	6.5	13	2.1
6		16	3.9	15	12	2.7	12	2.7
7		17	5.7	14	10	.3	10	2.3
8		20	9.6	28	8.5	.6	10	1.9
9		21	8.6	25	6.5	.4	31	19
10		22	6.5	21	5.0	.1	29	35
11		19	4.2	18	3.3		14	5.0
12		21	2.6	15	2.9	26	10	5.9
13		19	2.3	9.2	3.1	2.2	7.7	4.9
14		17	11	8.3	3.1	.2	7.3	1.8
15	6.9	17	16	6.2	2.2	2.0	43	9.5
16	14	16	15	4.6	1.6	16	28	9.7
17	12	18	11	5.5	.5	15	21	12
18	13	18	9.9	36	.6	17	16	8.3
19	12	17	6.3	32	.6	13	7.8	3.6
20	11	13	3.9	31	4.0	15	3.8	2.0
21	12	17	3.1	30	4.4	3.8	3.9	3.0
22	12	18	3.5	27	3.1	1.6	2.0	5.0
23	11	14	10	26	4.3	14	8.5	4.2
24	9.7	12	22	28	3.7	13	15	5.7
25	10	14	23	28	3.3	3.3	8.9	6.5
26	9.2	19	22	34	2.9	7.6	8.5	16
27	9.2	29	23	34	4.0	24	6.0	5.4
28	9.5	12	22	33	2.9	27	4.6	2.7
29		9.2	20	32	1.7	18	3.1	7.1
30		19	23	32	1.6	23	4.7	8.3
31		13		27		26	3.1	

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Black-McClesky Canal at Duncan, Ariz., for the year ending September 30, 1926

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	0	0	0	0
February	14	0	5.41	300
March	29	9.2	16.7	1,030
April	23	2.3	11.0	655
May	36	4.6	2.24	1,380
June	24	0.5	5.96	355
July	27	0	9.31	572
August	43	1.8	11.8	726
September	35	1.8	6.66	396
The year	43	0	7.47	5,410

COLMONERO CANAL NEAR DUNCAN, ARIZ.

LOCATION.—In SE. ¼ sec. 33, T. 7 S., R. 31 E., 3 miles below intake and 6 miles northwest of Duncan, Greenlee County.

RECORDS AVAILABLE.—September 19, 1914, to September 30, 1915. July 20, 1923, to September 30, 1926.

GAGE.—Vertical staff gage on left bank; read by Annie Zumwalt.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—About 12 acres irrigated above gage.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation continually changing. Rating curves fairly well defined. Gage read to hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Discharge estimated May 16–31. Records good.

Canal diverts water from right side of Gila River in SE. ¼ sec. 11, T. 8 S., R. 31 E., for irrigating 460 acres in the vicinity of Sheldon.

Discharge measurements of Colmonero Canal near Duncan, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 2	0.83	3.8	Apr. 5	0.98	6.7	June 27	1.24	2.3
Dec. 20	.76	3.9	Apr. 19	1.12	8.0	July 19	1.42	6.1
Jan. 7	.41	1.4	May 1	1.13	7.4	July 20	1.40	5.9
Jan. 20	.16	.2	May 11	1.00	6.5	Aug. 30	.80	1.3
Feb. 23	1.23	7.9	June 1	1.50	7.6	Sept. 22	1.20	4.1
Mar. 17	.64	6.1	June 26	1.64	5.8			

Daily discharge, in second-feet, of Colmonero Canal near Duncan, Ariz., for the year ending September 30, 1926

Day	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	4.0	3.4	-------	5.9	3.0	7.5	7.5	3.6	3.1	0.9
2	-------	3.9	3.4	-------	4.8	6.7	7.6	7.3	2.6	6.3	1.0
3	-------	3.8	3.3	-------	2.4	6.2	8.0	6.2	2.0	6.1	.8
4	-------	4.2	-------	-------	-------	6.8	7.6	5.8	1.2	5.4	1.1
5	-------	4.2	-------	-------	-------	6.7	7.9	5.2	2.5	4.8	1.1
6	-------	4.3	-------	-------	-------	6.5	8.1	6.1	1.2	5.6	1.0
7	-------	4.4	1.4	-------	-------	6.4	7.9	5.8	.3	4.8	1.1
8	-------	4.4	1.4	-------	-------	6.4	7.8	4.5	.1	3.5	.9
9	-------	4.5	1.4	-------	9.5	6.5	7.1	4.6	-------	5.8	1.2
10	-------	4.4	1.1	-------	7.5	5.8	6.5	6.2	-------	5.7	.5
11	-------	4.4	1.4	2.5	6.9	5.9	7.3	3.8	-------	-------	2.3
12	-------	4.4	1.1	2.9	6.5	6.0	7.3	4.7	3.2	-------	3.2
13	-------	4.5	1.4	2.9	6.8	6.6	7.3	4.0	3.0	-------	1.9
14	-------	4.5	1.7	4.7	6.5	6.9	6.9	5.7	5.1	-------	1.6
15	-------	4.2	-------	5.7	6.3	6.8	6.7	4.8	5.6	-------	3.6
16	-------	4.0	-------	5.6	5.5	6.7		5.5	6.0	-------	4.7
17	-------	4.0	-------	5.8	5.2	5.3		2.9	5.4	1.0	4.6
18	-------	4.4	-------	5.2	5.2	5.2		1.1	5.1	3.9	4.9
19	-------	4.5	-------	5.6	7.7	8.1		.7	5.8	4.6	4.3
20	0.4	4.7	.2	5.9	8.4	7.7		2.8	5.9	3.8	4.0
21	2.4	4.7	-------	6.0	7.9	7.1		3.2	5.5	2.2	2.0
22	2.8	4.8	-------	6.0	6.3	7.0		3.5	2.6	.8	3.0
23	2.6	4.8	-------	5.9	7.2	6.0	7.0	.4	5.5	1.4	3.5
24	3.4	4.9	-------	7.0	6.3	5.7		.4	6.5	4.9	4.1
25	3.3	4.8	-------	7.0	5.9	4.4		2.2	6.7	3.4	3.7
26	3.6	4.9	-------	7.0	6.4	5.3		5.7	5.2	2.2	3.3
27	3.9	4.0	.3	5.6	9.0	5.3		3.9	7.3	3.8	2.5
28	3.9	3.7	.3	6.2	-------	5.3		5.0	5.9	2.6	2.5
29	4.0	3.5	.2	-------	-------	5.2		4.3	7.3	3.6	5.2
30	4.1	3.2	.1	-------	-------	5.5		3.7	7.8	2.3	5.3
31	-------	3.5	-------	-------	-------	-------		-------	5.7	1.7	-------

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Colmonero Canal near Duncan, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0	0	0	0
November	4.1	0	1.15	68.4
December	4.9	3.2	4.27	263
January	3.4	0	.71	43.7
February	7.0	0	3.48	193
March	9.5	0	4.65	286
April	8.1	3.0	6.10	363
May	8.1	6.5	7.21	443
June	7.5	.4	4.25	253
July	7.8	0	4.02	247
August	6.3	0	3.01	185
September	5.3	.5	2.66	158
The year	9.5	0	3.46	2,500

YORK CANAL AT YORK, ARIZ.

LOCATION.—In SE. ¼ sec. 19, T. 6 S., R. 31 E., half a mile below intake, opposite suspension bridge at York, and 16 miles north of Duncan, Greenlee County.

RECORDS AVAILABLE.—May 15, 1923, to September 30, 1926, discharge measurements only. September 19, 1914, to September 30, 1915.

GAGE.—None.

DISCHARGE MEASUREMENTS.—Made by wading near road crossing.
CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. No well-defined control.
DIVERSIONS.—None above measuring station.
REGULATION.—By head gate. Flow in canal varies with flow in Gila River.
ACCURACY.—No gage heights obtained. Discharge measurements only.

Canal diverts water from right side of Gila River in SW. ¼ sec. 29, T. 6 S., R. 31 E., for irrigating 286 acres in the vicinity of York.

The following discharge measurements were made during the year:
August 30, 1926: Discharge, 4.7 second-feet.
September 22, 1926: Discharge, 3.0 second-feet.

BROWN CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In SE. ¼ SE. ¼ sec. 30, T. 6 S., R. 28 E., near Earven ranch, a quarter of a mile below intake and 10 miles east of Solomonsville, Graham County.
RECORDS AVAILABLE.—June 1, 1914, to September 30, 1915; December 20, 1920, to September 30, 1926.
GAGE.—Vertical enamel staff on right bank 10 feet below head gate; read by J. W. Earven.
DISCHARGE MEASUREMENTS.—Made by wading.
CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow.
DIVERSIONS.—No diversions above gage.
REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.
ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to half-tenths twice a day October 1 to December 31, and thereafter to nearest two-hundredths. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records good.

Canal diverts water from right side of Gila River in the SE. ¼ sec. 30, T. 6 S., R. 28 E., for irrigating about 820 acres east of Solomonsville.

Discharge measurements of Brown Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 11	4.30	2.6	Mar. 24	5.51	20.3	July 17	5.18	13.2
Dec. 12	5.04	11.3	Apr. 16	5.24	14.0	Aug. 8	5.30	14.9
Jan. 12	4.91	11.4	May 13	4.80	5.6	Aug. 28	5.01	10.8
Feb. 4	4.87	8.7	May 29	5.34	12.5	Sept. 19	5.03	10.6
Mar. 1	95.08	13.0	June 23	4.57	3.9			

Daily discharge, in second-feet, of Brown Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	2.6	12	26	26	13	26	29	3.4	2.8	17	2.3
2	0	2.6	23	27	26	16	31	31	5.3	2.7	18	2.6
3	0	2.6	23	12	26	15	32	31	5.6	2.7	18	2.8
4	0	2.6	23	24	20	14	31	31	5.8	2.6	25	2.7
5	0	2.6	22	24	26	13	31	31	6.1	5.3	26	2.6
6	0	2.6	22	24	33	8	32	31	16	7.3	25	2.7
7	0	2.6	22	24	22	13	31	31	16	5.3	4.2	2.6
8	0	2.6	22	24	0	15	31	38	6.6	2.4	12	2.8
9	0	2.6	22	25	0	15	31	38	6.7	.8	16	2.6
10	0	2.6	22	13	0	15	31	39	2.1	.8	21	6.9

Daily discharge, in second-feet, of Brown Canal near Solomonsville, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	0	3.2	21	13	0	12	31	33	6.9	0.7	30	20
12	6.2	3.8	19	17	0	14	31	18	7.4	4.7	31	2.9
13	12	14	21	28	0	19	30	5.8	7.6	9.7	31	3.7
14	7.6	14	22	27	0	19	9	4.0	7.4	11	32	2.4
15	3.8	14	22	27	34	19	12	.6	7.8	10	31	7.1
16	3.8	14	22	27	34	19	16	35	2.2	9.5	29	8.2
17	3.8	14	22	27	34	19	11	37	1.5	11	26	8.7
18	12	14	22	27	34	31	18	37	2.6	11	18	5.3
19	12	14	22	28	34	32	18	30	2.6	8.0	5.8	11
20	12	13	22	28	34	32	36	29	2.8	11	8.2	11
21	12	13	22	28	22	31	36	28	2.8	13	9.3	11
22	12	13	22	27	34	32	36	28	2.4	14	8.9	11
23	14	13	23	27	34	31	39	5.6	3.3	14	8.5	15
24	5.2	13	23	26	34	27	36	5.6	3.1	18	4.6	12
25	.4	18	23	27	23	31	20	5.3	4.2	20	.8	9.9
26	.4	24	23	28	15	31	23	5.3	2.9	21	.4	12
27	.4	24	23	29	13	32	16	5.0	2.9	20	.4	12
28	.4	24	23	30	14	34	17	5.0	2.8	20	2.3	12
29	1.2	12	23	32	-------	11	27	12	2.3	20	1.1	8.3
30	2.6	12	23	34	-------	15	28	5.0	3.9	34	2.6	5.3
31	2.6	-------	26	27	-------	23	-------	1.1	-------	30	2.1	------

Monthly discharge of Brown Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	14	0	4.01	247
November	24	2.6	10.3	613
December	26	12	22.0	1,350
January	34	12	25.4	1,560
February	34	0	20.4	1,130
March	34	8	21.0	1,290
April	39	9	26.6	1,580
May	39	.6	21.5	1,320
June	16	1.2	5.07	302
July	34	.7	11.1	682
August	32	.4	15.0	922
September	20	2.3	7.31	435
The year	39	0	15.8	11,400

BROWN CANAL WASTEWAY NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 31, T. 6 S., R. 28 E., near Earven ranch, 10 miles east of Solomonsville, Graham County.

RECORDS AVAILABLE.—December 20, 1920, to September 30, 1926.

GAGE.—Vertical enamel staff on right bank 200 feet below waste gate; read by J. W. Earven.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of silt. Channel straight. Banks not subject to overflow.

DIVERSIONS.—None.

REGULATION.—Complete regulation by waste gate of Brown Canal.

ACCURACY.—Stage-discharge relation not permanent. Rating curves fairly well defined. Gage read twice a day to half-tenths until January 17 and to two-hundredths thereafter. Daily discharge ascertained by applying mean daily gage height to rating tables. Records fair.

Wasteway returns water from Brown Canal to Gila River half a mile below station on Gila River near Solomonsville.

Discharge measurements of Brown Canal wasteway near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 12	5.73	6.2	Mar. 24	5.25	0.9	Aug. 8	5.75	4.6
Jan. 12	5.48	3.1	Apr. 16	5.27	.9	Sept. 19	5.69	3.6
Feb. 4	5.58	4.0	May 29	5.85	9.6			
Mar. 1	5.10	.3	July 17	5.25	.8			

Daily discharge, in second-feet, of Brown Canal wasteway near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			2.1		0.2	4.7	1.4	0.1		0.1	
2		0.1	2.1		.3	1.2		.1			
3		.1	.1		.2	2.4	.1	1.0			
4		.1	.1	1.4	.0	.3	.6	.6			
5		.1	.1	2.6	.6	.4	2.4				
6		.1	.1	2.2	.3	1.2	2.1	.1			
7		.1	.1	.7	.7			.7			
8		.1	.1		.3			2.1		1.9	
9		.6	.1					1.0			
10		2.1	.1		1.6						
11		2.1	.1		2.4					.2	0.1
12	0.1	2.9	1.2		2.3						.4
13	.1	2.1	3.1		2.2			.1			
14	.1	2.1	3.1		2.6		.1	.1		1.7	
15		2.1	3.1	.4	2.2	.6	.6	.1			
16		2.1	3.1	2.2	2.1	1.0					
17		2.1	3.1	2.3		.8			0.3	.4	
18		2.1	3.4	2.3		.6	.1		.8	1.7	
19		2.1	3.5	.7		2.6	2.1			.6	3.6
20		.1	3.6	.5		3.0	.1			.4	3.7
21		.1	1.2	2.4	.6	3.5					
22		.1	.1	2.1	2.2	3.5					3.9
23		.1		2.4	2.4	3.4	.1				1.3
24		.1	3.5	2.3	1.7	5.2			.1	.1	.1
25		.1	.8	1.4	.7	3.2			.5	.2	
26		.1	2.4		2.2	5.0	.1		1.1	.1	
27		.1	2.5		.7	4.7	.1		1.8	.4	5.1
28		.1	2.6		.4	5.0	.7		.7		3.4
29		.1	2.4		.6	4.6	9.0		.2		.9
30		.1	2.5		.7	6.8	.6				2.3
31		.1			.6		1.1				

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Brown Canal wasteway near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0.1	0	0.01	0.6
November	0	0	0	0
December	2.9	0	.78	48.0
January	3.6	0	1.62	99.6
February	2.6	0	.92	51.1
March	2.6	0	.99	60.9
April	6.8	0	2.12	126
May	9.0	0	.69	42.4
June	2.1	0	.20	11.9
July	1.8	0	.18	11.1
August	1.9	0	.25	15.4
September	5.1	0	.83	49.4
The year	9.0	0	.71	516

MICHELANA CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In NE. ¼ SW. ¼ sec. 3, T. 7 S., R. 27 E., at Moody ranch, a quarter of a mile below head gate and 6 miles northeast of Solomonsville, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 21, 1920, to September 30, 1926.

GAGE.—Vertical staff on right bank 30 feet below wagon bridge; read by Edwin Carpenter.

DISCHARGE MEASUREMENTS.—Made from footbridge.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. No well-defined control.

DIVERSIONS.—None above gage.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to half-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records good.

Canal diverts water from right side of Gila River in SW. ¼ sec. 31, T. 7 S., R. 28 E., for irrigating about 450 acres in vicinity of Solomonsville.

Discharge measurements of Michelana Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 3	3.45	0.1	Feb. 27	3.57	0.4	June 24	3.75	1.3
Nov. 11	4.10	4.2	Mar. 23	4.60	11.8	July 21	3.72	1.1
Dec. 12	3.53	.0	Mar. 24	4.49	9.8	Aug. 7	4.53	9.3
Jan. 11	3.58	.4	Apr. 16	4.12	6.1	Aug. 27	4.20	5.8
Feb. 3	3.64	.4	May 13	4.04	4.3	Sept. 20	3.79	1.5

Daily discharge, in second-feet, of Michelana Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	5.2	0	0.5	0.3	0.2	2.8	5.3	5.3	2.4	6.0	6.8
2	0	4.4	0	.5	.3	.2	1.3	3.6	5.1	3.2	7.8	6.8
3	0	3.3	0	.5	.3	4.7	1.0	3.3	5.1	3.2	2.8	7.1
4	0	4.6	0	.5	.3	5.7	1.0	7.4	5.3	4.1	2.5	6.9
5	0	5.1	0	.5	.4	4.7	1.0	6.8	5.3	6.1	2.2	6.9
6	0	5.4	0	.5	.4	5.2	1.0	4.6	4.9	9.1	10	6.7
7	2.0	5.1	0	.5	.4	5.0	15	3.2	4.2	8.4	11	6.7
8	3.9	5.0	0	.5	.3	3.8	14	4.1	3.5	7.7	10	6.5
9	3.9	4.9	0	.5	.4	2.6	13	5.0	1.8	6.2	11	6.7
10	4.7	4.8	0	.4	.6	1.8	11	6.0	1.8	5.5	10	5.8
11	.5	4.4	0	.4	2.2	1.7	7.6	5.4	2.6	5.5	12	7.8
12	.6	4.2	0	.4	2.2	1.7	7.6	5.1	3.0	5.5	13	5.3
13	.4	4.0	0	.4	0	1.7	7.1	4.0	3.0	5.2	14	1.5
14	0	3.7	0	.3	0	1.7	5.4	2.6	3.0	5.0	12	.6
15	0	3.7	0	.3	0	9.1	6.5	1.8	3.0	5.0	7.8	.4
16	0	3.8	0	.3	0	9.1	6.0	8.8	2.9	4.0	7.4	.2
17	0	4.2	0	.4	0	9.4	5.9	8.2	2.9	3.1	7.8	.2
18	0	4.3	0	.4	0	9.4	5.6	7.5	2.9	1.5	8.2	.7
19	0	4.2	0	.4	.4	9.4	4.8	7.2	2.9	7.7	8.5	1.4
20	0	4.0	.5	.4	.8	9.4	3.8	6.7	2.9	4.0	6.1	1.5

Daily discharge, in second-feet, of Michelana Canal near Solomonsville, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	2.8	3.8	0.5	0.4	0.8	9.4	3.3	5.8	2.8	1.7	6.8	2.2
22	5.7	3.6	.8	.4	.8	10	2.9	5.6	2.4	6.6	6.2	2.7
23	5.7	3.3	.8	.4	.6	12	4.6	5.5	1.6	7.1	6.0	3.0
24	5.7	3.1	.9	.4	.4	10	8.4	5.3	1.5	6.6	5.9	2.7
25	5.7	2.6	.9	.6	.3	10	8.4	5.2	1.3	3.7	8.1	3.6
26	5.6	2.1	.9	.5	.2	9.4	8.9	5.3	1.3	4.0	6.9	2.7
27	5.4	1.1	.8	.5	.3	9.5	12	5.6	1.3	8.0	6.3	6.6
28	5.4	.5	.8	.5	.2	9.5	12	5.6	1.6	6.7	6.2	2.0
29	5.4	0	.9	.5	-------	9.4	11	5.6	2.0	6.5	6.1	2.5
30	5.2	0	.9	.5	-------	8.8	7.6	5.5	2.0	5.5	6.2	.8
31	5.2	-------	.9	.5	-------	8.8	-------	5.4	-------	5.9	6.3	------

Monthly discharge of Michelana Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	5.7	0	2.38	146
November	5.4	0	3.61	215
December	.9	0	.31	19.1
January	.6	.3	.45	27.7
February	2.2	0	.46	25.5
March	12	.2	6.56	403
April	15	1.0	6.68	397
May	8.8	1.8	5.39	331
June	5.3	1.3	2.97	177
July	9.1	1.5	5.31	326
August	14	2.2	7.78	478
September	7.8	.2	3.84	228
The year	15	0	3.83	2,770

FOURNESS CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In SE. ¼ SE. ¼ sec. 35, T. 6 S., R. 27 E., three-quarters of a mile below intake and 8 miles east of Solomonsville, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 20, 1920, to September 30, 1926.

GAGE.—Vertical staff on right bank 300 feet below waste gate; read by P. Miranda and J. Abeita.

DISCHARGE MEASUREMENTS.—Made by wading at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Channel small and uniform in cross section. No well-defined control.

DIVERSIONS.—No diversions above gage.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curves well defined. Gage read to two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used March 24 to May 9 and August 9 to September 30. Discharge estimated December 1–11, 13–31, and January 7–10. Records good.

Canal diverts water from left side of Gila River in NE. ¼ sec. 1, T. 7 S., R. 27 E., for irrigating about 260 acres in the vicinity of Solomonsville.

Discharge measurements of Fourness Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Dec. 12	3.95	0.0	Mar. 24	5.50	11.7	July 17	4.83	1.6
Jan. 11	4.27	.1	Apr. 18	4.52	.6	Aug. 8	5.49	8.6
Feb. 3	4.35	.3	May 9	5.04	3.6	Aug. 28	4.79	.9
Feb. 27	4.71	2.9	May 29	5.28	6.3			
Mar. 23	5.50	11.2	June 23	4.59	.2			

Daily discharge, in second-feet, of Fourness Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		10	0.2	2.8	8.6	8.9	4.4	0.3	9.2	1.0
2		10	.2	3.2	9.8	7.5	2.3	.1	7.0	1.6
3		10	.4	3.7	9.8	5.7	1.5	.4	4.4	1.3
4		5.2	.4	3.2	8.9	3.4	.9		7.6	
5		1.2	.4	3.9	9.7	3.9	.4	.5	5.7	1.8
6		1.2	.5	3.9	7.4	3.3		1.5	0	1.5
7			3.7	2.2	8.8	4.9	8.9	2.1	1.6	1.1
8			3.0	5.9	9.0	5.8	8.9	1.0	4.3	1.6
9		.1	4.9	11	5.4	3.2	7.5	.9	5.3	1.6
10			4.5	11	6.4	4.0	4.6	.3	4.2	5.8
11		.1	4.1	12	6.2	4.0	1.8	.4	6.9	3.4
12		8.9	4.1	8.1	6.8	2.9	1.5	7.0	9.3	
13		5.9	3.9	6.8	1.5	3.1	1.2	4.4	9.8	
14		3.2	3.8	6.8	.2	2.1	.7		4.4	
15		5.5	3.9	9.0	2.2	1.1	.6	1.0	8.4	
16		8.1	6.2	12	2.0	.3	.9	1.1	8.5	
17		8.9	6.8	12	1.1	.9	.8	1.0	.7	
18		2.8	6.2	12	1.8	2.3	.4	.7	7.7	
19		.4	6.8	12	5.6	5.5	.4	.4	4.5	
20		.2	5.2	10	5.5	7.4	.3	.1	3.2	
21	1.2	.3	6.8	12	5.4	8.2	.3	6.	1.6	
22	3.7	.2	3.2	11	5.4	8.2	.4	4.6	.6	
23	3.7	1.2	7.5	11	3.1	7.4	.3	7.4	3.9	
24	3.7	.6	7.4	11	3.0	5.5		7.0	8.0	
25	3.7	.2	8.0	11	5.7	4.4	1.4	3.3	.6	
26	3.7	.2	7.6	12	4.0	4.8	2.1		4.1	
27	3.7	.2	5.2	12	4.4	5.5	1.4	.7	1.2	
28	3.7	.2	2.8	9.7	7.2	6.6	.1		1.0	1.2
29	3.7	.2		4.5	7.7	6.3	.4		1.9	
30	3.7	.2		.4	7.1	6.8	.8	4.4	4.5	.4
31		.2		.3		5.5		3.6	1.1	

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Fourness Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0	0	0	0
November	3.7	0	1.15	68.4
December	0	0	0	0
January	10	.1	2.76	170
February	8.0	.2	4.20	233
March	12	.3	7.95	489
April	9.8	.2	5.66	337
May	8.9	.3	4.82	296
June	8.9	0	1.84	109
July	7.4	0	1.95	120
August	9.8	0	4.55	280
September	5.8	0	.74	44.0
The year	12	0	2.97	2,150

SAN JOSE CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In NW. ¼ NE. ¼ sec. 10, T. 7 S., R. 27 E., near Curtis ranch, 2 miles below intake, and 4 miles east of Solomonsville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; December 21, 1920, to September 30, 1926.

GAGE.—Continuous water-stage recorder installed April 13, 1922, 17 feet above concrete drop, 200 feet below waste gate, and 2 miles below heading.

DISCHARGE MEASUREMENTS.—Made from footbridge near gage.

CHANNEL AND CONTROL.—Wide, uniform section. Well-defined banks. Principal control is formed by concrete drop 17 feet below gage.

DIVERSIONS.—One diversion above gage, irrigating 90 acres.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation permanent, except for periods February 2–26, May 1–8, and May 29 to June 7. Standard rating curve well defined. Operation of water-stage recorder satisfactory, except as shown in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table or from hourly discharge for days of considerable range in stage, except as shown in footnote to daily-discharge table; shifting-control method used February 2–27 and May 1 to June 7. Records good.

Canal diverts water from left side of Gila River in the SW. ¼ sec. 36, T. 6 S., R. 27 E., for irrigating 3,000 acres in the vicinity of Solomonsville and Safford.

Discharge measurements of San Jose Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 3	0.45	26.2	Feb. 27	0.50	31.2	June 24	0.45	26.2
Nov. 12	.58	39.0	Mar. 23	.73	57	July 16	.48	28.0
Dec. 13	.53	33.3	Apr. 18	.67	49.2	Aug. 7	.47	26.5
Jan. 11	.45	26.8	May 9	.78	71	Aug. 27	.47	27.3
Feb. 3	.65	48.8	May 28	.88	86	Sept. 20	.47	29.0

Daily discharge, in second-feet, of San Jose Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27		36	8.7	0	29	52	44	71	22	74	25
2	26		48	17	1.2	26	52	46	64	24	69	27
3	26		46	19	31	16	50	46	66	24	69	26
4	29		44	16	49	25	50	43	62	23	72	26
5	30		42	18	48	33	57	42	53	29	48	19
6	29	40	41	25	49	39	59	55	49	32	29	24
7	28		38	32	49	44	54	69	42	28	38	25
8	28		36	31	48	54	54	74	36	27	39	24
9	27		36	28	49	53	59	74	31	19	33	24
10	33		35	25	44	54	64	68	28	26	31	63
11	28	39	34	26	42	62	66	65	27	32	59	77
12	51	39	34	34	43	65	66	61	28	60	63	74
13	71	38	34	40	46	66	49	69	28	66	48	74
14	68	37	34	31	44	69	48	83	27	59	56	62
15	47	37	33	31	43	74	57	88	26	44	62	57
16	44	39	32	26	46	80	53	87	24	33	72	43
17	47	41	31	22	44	69	54	87	25	30	65	35
18	49	41	31	23	37	64	52	85	25	26	69	39
19	47	39	31	25	36	58	52	88	25	33	50	33
20	44	38	31	24	36	54	52	88	25	26	47	29

Daily discharge, in second-feet, of San Jose Canal near Solomonsville, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	55	36	32	24	35	53	50	87	25	29	46	28
22	53	36	33	24	36	54	53	90	25	33	35	26
23	52	37	31	23	37	55	62	87	25	35	30	28
24	42	38	31	22	34	58	69	87	26	42	33	27
25	36	44	32	0	31	59	69	90	25	67	32	27
26	36	43	32	0	31	55	59	87	19	75	29	21
27		40	33	0	30	62	58	77	23	64	27	18
28		39	33	0	30	74	57	85	20	64	30	4.2
29	40	38	32	0	-------	59	48	87	22	68	28	1.6
30		37	33	0	-------	50	36	83	22	69	27	0
31		-------	30	0	-------	53	-------	80	-------	72	25	------

NOTE.—Clock stopped Oct. 1–2, Oct. 27 to Nov. 10, Jan. 9–10; clock stopped intermittently Feb. 19–26, Mar. 8–23, Aug. 5–6. Staff readings used Jan. 9–10, Feb. 19–26, Mar. 8–23, July 27–29, Aug. 5–6. Discharge estimated Oct. 1–2 and Oct. 27 to Nov. 10.

Monthly discharge of San Jose Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	----------	40.4	2,480
November	----------	----------	39.2	2,330
December	48	30	34.8	2,140
January	40	0	19.2	1,180
February	49	0	37.5	2,080
March	80	16	53.7	3,300
April	69	36	55.4	3,300
May	90	42	74.3	4,570
June	71	19	33.1	1,970
July	75	19	41.3	2,540
August	74	25	46.3	2,850
September	77	0	32.9	1,960
The year	90	0	42.4	30,700

MONTEZUMA CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In SE. ¼ NW. ¼ sec. 17, T. 7 S., R. 27 E., 1 mile below intake and 2 miles east of Solomonsville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; December 29, 1920, to September 30, 1926.

GAGE.—Water-stage recorder installed June 26, 1922, on left bank 200 feet below waste gate.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—None above gage.

REGULATION.—By head gates and waste gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Operation of water-stage recorder satisfactory except as noted in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height to rating table or from hourly discharge for days of considerable range in stage; shifting-control method used for entire year. Records good.

Canal diverts water from left side of Gila River in NE. ¼ sec. 17, T. 7 S., R. 27 E., for irrigating 3,750 acres in the vicinity of Solomonsville and Safford.

Discharge measurements of Montezuma Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 3	8.55	36.8	Feb. 27	8.51	32.7	June 24	8.30	26.7
Nov. 12	9.24	63	Mar. 23	9.30	68	July 16	8.63	36.0
Dec. 13	9.01	53	Apr. 17	9.60	74	Aug. 7	8.55	34.5
Jan. 11	7.98	12.8	May 9	9.75	86	Aug. 27	8.36	25.2
Feb. 4	8.84	46.0	May 28	10.07	91	Sept. 17	8.46	29.5

Daily discharge, in second-feet, of Montezuma Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	42	52	48	57	32	77	93	69	24	76	29
2	37	39	52	32	57	32	80	91	64	22	74	36
3	37	38	53	31	52	34	84	89	64	22	85	34
4	45	52	56	29	47	34	81	85	63	22	77	27
5	51	68	53	28	51	36	79	91	58	26	56	26
6	48	66	55	28	52	42	69	95	53	34	44	26
7	47	66	55	27	50	54	63	103	52	32	34	26
8	43	65	54	26	50	65	61	93	48	33	38	26
9	39	63	54	26	47	69	75	87	44	26	37	26
10	44	62	54	26	45	71	70	86	38	27	38	46
11	57	62	54	18	44	77	73	84	28	26	65	83
12	66	62	54	12	43	80	76	94	25	46	78	83
13	67	62	54	11	43	80	76	92	26	68	68	77
14	66	61	53	11	42	76	79	83	23	72	70	76
15	67	60	53	11	42	75	80	73	22	52	66	77
16	67	61	53	29	45	73	77	68	21	41	74	52
17	66	61	53	56	45	72	74	79	20	37	70	39
18	63	61	53	54	43	72	73	82	21	36	65	52
19	60	60	54	55	46	67	68	74	24	35	60	44
20	59	59	53	57	50	64	79	70	22	28	53	38
21	57	58	52	56	50	64	81	64	22	27	50	32
22	52	58	52	55	46	68	77	73	22	24	37	31
23	49	58	52	55	42	67	78	82	30	25	25	31
24	50	58	51	55	39	66	91	81	28	28	31	26
25	50	57	51	58	37	68	86	80	38	68	29	27
26	50	52	50	58	37	87	92	80	26	79	28	34
27	48	52	50	58	35	89	92	88	25	80	25	53
28	47	52	50	57	34	81	90	90	26	80	24	53
29	47	52	50	58	------	76	86	84	26	76	28	51
30	46	52	50	58	------	70	81	81	25	77	29	48
31	44	------	51	56	------	79	------	79	------	80	33	------

NOTE.—Clock stopped Nov. 1–12, 17–30, Dec. 1–6, 16–20; staff readings (gage read twice a day to hundredths) used during these periods.

Monthly discharge of Montezuma Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	67	37	52.2	3,210
November	68	38	57.3	3,410
December	56	50	52.6	3,230
January	58	11	40.0	2,460
February	57	34	45.4	2,520
March	89	32	65.2	4,010
April	92	61	78.3	4,660
May	103	64	83.7	5,150
June	69	20	34.8	2,070
July	80	22	43.6	2,680
August	85	24	50.5	3,110
September	83	26	43.6	2,590
The year	103	11	54.0	39,100

UNION CANAL NEAR SOLOMONSVILLE, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 14, T. 7 S., R. 26 E., 1¾ miles below intake and 1½ miles northwest of Solomonsville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; January 1, 1921, to September 30, 1926.

GAGE.—Continuous water-stage recorder installed June 11, 1922, on left bank.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt and sand. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—None.

REGULATION.—By head gates. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Operation of water-stage recorder satisfactory, except as indicated in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Records good.

Canal diverts water from left side of Gila River in the NW. ¼ sec. 18, T. 7 S., R. 27 E., for irrigating 5,980 acres in the vicinity of Safford and Thatcher.

Discharge measurements of Union Canal near Solomonsville, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 4	2.63	80	Mar. 23	3.04	119	Aug. 7	1.42	45.3
Nov. 12	2.34	71	Mar. 24	2.93	121	Aug. 12	3.32	156
Dec. 13	1.84	51	Apr. 17	2.04	83	Aug. 27	.39	19.6
Jan. 11	1.15	26.3	May 12	2.95	115	Sept. 17	1.21	46.7
Feb. 3	2.52	83	May 28	3.20	144	Sept. 24	.93	38.5
Feb. 6	2.17	65	June 24	.59	22.6			
Feb. 27	2.14	64	July 16	1.75	66			

Daily discharge, in second-feet, of Union Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64		62	63	93	64	127	101	127	18	94	14
2	66		67	74	80	67	127	94	118	18	85	12
3	74		80	54	76	77	114	91	104	16	82	12
4	75		62	40	67	75	116	89	97	16	70	13
5	66		52	40	68	84	113	87	103	17	57	16
6	73	75	49	37	71	93	114	91	92	48	45	16
7	72		49	40	64	103	115	97	93	56	37	16
8	74		46	45	68	105	103	97	87	41	56	18
9	69		49	44	76	107	91	94	84	36	38	20
10	93		52	38	72	108	94	95	83	26	40	67
11	95		52	27	66	106	90	101	77	23	122	114
12	82	71	51	26	70	110	86	112	71	64	135	125
13	84	70	51	40	75	104	93	125	62	114	130	123
14	89	68	50	51	73	108	100	134	57	96	124	79
15	82	66	49	51	73	114	103	128	52	74	122	63
16	90	65	46	51	72	116	94	133	50	63	127	47
17	97	63	45	49	73	115	88	131	48	53	122	52
18	98	61	55	52	78	114	89	130	46	39	105	86
19	98	63	66	32	70	110	82	135	40	26	83	77
20	89	65	64	5	68	108	78	138	38	26	62	66

Daily discharge, in second-feet, of Union Canal near Solomonsville, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	82	66	66	0	70	107	78	130	36	28	40	60
22	91	68	65	0	69	117	76	124	33	49	47	50
23	98	70	63	0	66	124	71	128	23	36	49	43
24	89	74	63	0	74	130	74	128	20	61	32	36
25	84	79	64	0	69	128	78	137	21	126	27	29
26		84	64	0	57	140	85	137	20	132	21	
27		78	65	46	64	142	102	151	20	135	18	
28	75	68	64	78	64	132	112	148	21	134	16	50
29		65	65	76	-------	128	108	134	20	133	13	
30		66	68	76	-------	117	102	134	19	125	13	
31		-------	65	82	-------	128	-------	126	-------	108	13	-------

NOTE.—No gage-height record from recorder graph Oct. 26 to Nov. 24, July 19, Aug. 4, 5, 19, 20, Sept. 15, 26–30. Staff readings used Nov. 12, 13, 23. Discharge estimated Oct. 26 to Nov. 11, July 19, Sept. 26–30. Discharge interpolated Nov. 14–17, 19–22, 24, Aug. 4, 5, 19, 20, Sept. 15.

Monthly discharge of Union Canal near Solomonsville, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	98	64	81.4	5,010
November	84	61	71.2	4,240
December	80	45	58.4	3,590
January	82	0	39.3	2,420
February	93	57	70.9	3,940
March	142	64	109	6,700
April	127	71	96.8	5,760
May	151	87	119	7,320
June	127	19	58.7	3,490
July	135	16	62.5	3,840
August	135	13	65.3	4,020
September	125	12	50.1	2,980
The year	151	0	73.6	53,300

GRAHAM CANAL NEAR SAFFORD, ARIZ.

LOCATION.—In NE. ¼ SW. ¼ sec. 5, T. 7 S., R. 26 E., near Hatfield ranch, 1 mile below intake and 2 miles north of Safford, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 30, 1920, to September 30, 1926.

GAGE.—Vertical staff on left bank 600 feet below waste gate; read by J. M. Hatfield.

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

CHANNEL AND CONTROL.—Bed composed of silt; frequently covered by deposits of sand. No well-defined control. Banks not subject to overflow.

DIVERSIONS.—One diversion just above gage, irrigating 52 acres.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean gage daily height to rating table, using shifting-control method for entire year. Records good.

Canal diverts water from right side of Gila River in the NW. ¼ sec. 9, T. 7 S., R. 26 E., for irrigating 2,580 acres in the vicinity of Safford.

Discharge measurements of Graham Canal near Safford, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 4	4.30	16.0	Feb. 28	4.52	15.3	July 18	4.34	3.7
Nov. 13	5.28	55	Mar. 25	6.04	75	Aug. 8	4.70	10.8
Dec. 14	5.37	59	Apr. 16	5.56	48.5	Aug. 29	4.55	6.6
Jan. 13	5.37	60	May 12	5.68	61	Sept. 20	5.42	38.7
Feb. 4	5.47	49.5	May 30	5.98	76			
Feb. 6	5.16	37.8	June 25	4.50	10.1			

Daily discharge, in second-feet, of Graham Canal near Safford, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	49	60	63	54	14	49	69	60	12	56	4.8
2	17	48	60	65	55	13	48	66	56	10	63	5.3
3	17	47	60	66	52	15	50	65	40	9.7	44	5.3
4	17	42	60	55	49	17	51	63	25	8.5	25	4.8
5	17	38	61	40	42	17	26	71	19	8.5	13	4.8
6	17	36	59	39	38	26	0	78	26	8.8	19	4.8
7	13	36	60	50	48	36	23	81	15	11	33	4.8
8	13	34	59	61	40	54	42	79	11	11	11	4.6
9	13	34	60	61	35	47	43	74	10	9.1	14	24
10	13	31	60	62	34	67	43	72	10	6.8	15	31
11	65	34	62	61	36	63	47	63	11	4.8	38	26
12	47	50	62	63	35	70	44	57	13	4.6	56	0
13	62	56	59	61	25	69	52	16	15	51	55	0
14	68	56	59	60	24	66	53	30	12	30	61	0
15	66	55	59	59	24	60	52	66	11	12	63	0
16	64	56	59	58	24	65	50	78	10	19	32	3.7
17	62	56	58	59	24	71	46	74	6.4	9.4	17	18
18	61	56	55	57	18	72	40	78	12	1.8	50	30
19	60	56	56	57	17	72	37	78	11	3.3	30	48
20	59	55	56	56	20	73	36	81	11	9.1	10	28
21	57	55	55	55	17	74	50	75	11	6.0	12	21
22	56	56	54	55	19	70	61	63	11	11	11	19
23	53	56	53	54	14	68	62	60	10	6.3	9.1	17
24	52	55	54	52	17	74	61	59	9.1	49	7.4	15
25	55	61	54	52	20	76	66	44	9.4	26	6.0	12
26	54	61	53	51	20	74	71	41	9.7	0	5.5	0
27	55	60	55	48	15	72	66	60	9.7	22	6.3	0
28	53	60	55	44	14	69	71	74	8.8	38	6.3	10
29	52	60	52	44	-------	56	76	72	8.8	48	7.1	21
30	52	60	54	44	-------	46	72	74	4.8	45	4.8	21
31	51	-------	59	54	-------	43	-------	61	-------	54	4.8	-------

Monthly discharge of Graham Canal near Safford, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	68	13	43.8	2,690
November	61	31	50.3	2,990
December	62	52	57.5	3,540
January	66	39	55.0	3,380
February	55	14	29.6	1,640
March	76	13	55.1	3,390
April	76	0	49.6	2,950
May	81	16	65.2	4,010
June	60	4.8	15.9	946
July	54	0	17.6	1,080
August	63	4.8	25.3	1,560
September	48	0	12.8	762
The year	81	0	40.0	28,900

SMITHVILLE CANAL NEAR THATCHER, ARIZ.

LOCATION.—In NW. ¼ sec. 35, T. 6 S., R. 25 E., three-quarters of a mile below intake and 1½ miles north of Thatcher, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 23, 1920, to September 30, 1926.

GAGE.—Vertical enamel section on left bank 300 feet below waste gate; read by Patricia Vasquez, Roy Ratliff, and Ernest Munoz.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Uniform section. Banks not subject to overflow. No well-defined control.

DIVERSIONS.—None above gage.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to nearest half-tenth twice a day October 1 to December 31 and to hundredths January 1 to September 30. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used for entire year. Records good.

Canal diverts water from left side of Gila River in NE. ¼ sec. 35, T. 6 S., R. 25 E., for irrigating 1,760 acres in the vicinity of Pima.

Discharge measurements of Smithville Canal near Thatcher, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	6.12	6.8	Mar. 2	6.54	18.2	July 18	6.10	15.4
Nov. 12	6.64	22.7	Mar. 25	6.90	38.4	Aug. 9	6.60	27.0
Dec. 14	6.94	31.0	Apr. 18	6.75	31.1	Aug. 29	5.85	7.6
Jan. 13	6.65	15.8	May 12	6.66	33.2	Sept. 18	6.26	18.5
Feb. 5	7.19	34.9	May 30	6.95	41.6			
Feb. 28	6.69	21.4	June 25	5.94	10.8			

Daily discharge, in second-feet, of Smithville Canal near Thatcher, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.0	2.7	16	30	12	21	29	49	40	6.4	63	7.1
2	4.8	2.0	17	33	19	17	33	36	39	7.9	56	7.1
3	13	2.6	39	17	25	15	33	39	39	6.7	49	7.7
4	15	1.8	35	21	42	17	34	42	32	6.7	26	7.1
5	13	1.2	35	18	34	24	35	37	31	9.3	17	7.3
6	13	2.2	36	17	30	29	35	38	32	11	17	7.5
7	14	2.2	33	17	25	37	44	37	29	9.3	35	8.1
8	13	.5	32	16	26	13	36	39	29	9.1	18	8.5
9	14	1.8	8.5	16	23	.8	31	38	29	8.3	23	10
10	15	8.5	30	10	26	0	30	35	27	9.1	17	41
11	37	28	19	16	22	0	28	34	21	8.9	35	47
12	12	27	19	15	25	0	36	31	17	8.5	46	49
13	18	23	19	15	26	0	42	25	16	53	33	51
14	17	24	25	16	19	0	45	21	16	31	40	45
15	11	24	32	15	24	0	44	21	15	14	49	42
16	12	24	18	15	19	0	43	10	16	0	51	36
17	10	22	18	17	22	0	44	12	15	0	47	21
18	5.6	24	18	19	23	0	31	14	11	7.5	48	19
19	2.3	21	31	18	23	55	26	22	11	13	33	22
20	3.0	19	7.3	21	23	43	28	21	11	7.5	24	18

Daily discharge, in second-feet, of Smithville Canal near Thatcher, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	3.1	18	7.1	19	23	34	23	23	9.5	7.1	17	15
22	6.4	18	25	18	18	35	18	24	9.5	11	14	14
23	4.8	18	27	20	17	34	17	26	8.9	8.9	10	13
24	3.2	17	15	17	17	35	17	23	10	8.5	7.7	12
25	2.7	19	15	19	19	37	19	23	10	63	7.5	37
26	.9	20	24	16	17	50	21	24	7.1	61	6.5	41
27	.1	19	24	13	25	49	31	29	8.5	47	6.5	32
28	0	17	24	10	22	41	47	45	7.3	36	5.3	10
29	.1	17	24	11	-------	27	54	50	6.2	36	6.2	0
30	.1	17	27	10	-------	27	46	51	6.0	47	4.6	4.3
31	.4	-------	27	10	-------	30	-------	51	-------	57	5.1	-------

Monthly discharge of Smithville Canal near Thatcher, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	37	0	8.63	531
November	28	.5	14.7	875
December	39	7.1	23.4	1,440
January	33	10	16.9	1,040
February	42	12	23.1	1,280
March	55	0	21.6	1,330
April	54	17	33.3	1,980
May	51	10	31.3	1,920
June	40	6.0	18.6	1,110
July	63	0	19.7	1,210
August	63	4.6	26.4	1,620
September	51	0	21.3	1,270
The year	63	0	21.6	15,600

DODGE-NEVADA CANAL NEAR PIMA, ARIZ.

LOCATION.—In NW. ¼ SE. ¼ sec. 18, T. 6 S., R. 25 E., 1 mile below intake and 1½ miles north of Pima, Graham County.

RECORDS AVAILABLE.—December 31, 1920, to September 30, 1926.

GAGE.—Vertical staff on right bank half a mile below waste gate and 200 feet upstream from siphon at county highway crossing; read by Millicent Crockett.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. Control affected by siphon 200 feet below gage.

DIVERSIONS.—One diversion above gage, irrigating 14½ acres.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gageread to nearest two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Discharge estimated December 2–23, 29, 30, and January 26 and 27. Records good.

Canal diverts water from left side of Gila River in the NW. ¼ sec. 20, T. 6 S., R. 25 E., for irrigating 1,250 acres in the vicinity of Pima.

Discharge measurements of Dodge-Nevada Canal near Pima, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	1.43	18.9	Feb. 28	1.26	14.8	June 25	1.24	10.2
Nov. 13	1.28	11.0	Mar. 22	1.70	31.3	July 18	1.30	11.9
Dec. 11	.83	1.3	Apr. 19	1.50	26.0	Aug. 9	1.25	10.2
Jan. 13	1.07	9.0	May 8	2.06	36.2	Aug. 26	1.13	6.2
Feb. 5	.78	1.7	May 30	1.61	23.4	Sept. 18	1.25	8.6

Daily discharge, in second-feet, of Dodge-Nevada Canal near Pima, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	19	8.4	20	18	14	5.8	23	22	9.0	20	5.6
2	14	19		20	12	16	9.9	22	24	8.0	20	4.0
3	11	19		21	8.3	17	0	21	22	8.3	14	4.0
4	11	20		19	6.2	18	0	22	18	8.6	2.3	3.1
5	9.3	19		17	5.9	11	39	26	13	8.3	1.8	2.8
6	9.0	18		14	19	30	23	25	13	8.6	2.6	3.1
7	9.0	19		14	17	64	31	28	14	7.7	25	3.1
8	9.3	19		13	15	25	21	35	14	8.3	11	3.1
9	9.0	19		12	16	21	15	37	8.0	3.7	12	3.3
10	8.6	20		11	16	32	14	25	12	5.3	12	5.3
11	20	17		9.6	15	28	13	22	13	6.5	30	27
12	5.0	16		9.0	14	29	9.3	20	12	8.0	38	22
13	4.5	13	1	8.6	9.6	28	7.4	17	11	5.3	42	17
14	12	9.9		7.7	15	26	7.4	14	12	4.3	34	18
15	6.8	8.3		8.0	16	24	8.3	12	16	8.3	45	14
16	2.5	9.9		9.0	17	24	7.4	11	15	2.0	43	11
17	2.2	9.9		8.0	17	28	17	10	14	8.3	39	5.0
18	4.5	11		7.7	16	36	27	12	13	12	35	5.6
19	4.0	12		7.4	16	32	26	21	12	15	24	12
20	4.5	12		7.4	15	24	26	26	9.3	7.7	16	14
21	9.3	12		20	14	24	24	25	9.6	7.7	16	13
22	11	12		32	16	30	23	26	8.6	7.1	16	9.9
23	17	11		21	14	29	22	26	8.6	7.1	12	12
24	20	12	5.0	13	12	26	23	28	8.3	15	7.4	9.9
25	20	17	11	12	12	33	23	29	9.3	61	6.8	35
26	21	18	7.7	1	13	32	21	27	12	43	6.2	17
27	22	17	6.8	1	12	33	21	37	9.0	35	4.8	18
28	22	18	3.4	9.9	13	7	26	53	9.0	25	3.8	8.6
29	21	18	1	12	-------	0	38	28	9.3	20	4.8	4.0
30	20	17	1	14	-------	0	26	23	8.3	16	3.8	2.3
31	19	-------	18	17	-------	0	-------	24	-------	18	4.0	-------

Monthly discharge of Dodge-Nevada Canal near Pima, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	22	2.2	12.2	750
November	20	8.3	15.4	916
December	18	----------	2.72	167
January	32	----------	12.8	787
February	19	5.9	13 9	772
March	64	0	23.9	1,470
April	39	0	18.5	1,100
May	53	10	24.4	1,500
June	24	8.0	12.6	750
July	61	2.0	13.2	812
August	45	1.8	17.8	1,090
September	35	2 3	10.4	619
The year	64	0	14.8	10,700

CURTIS-KEMPTON CANAL NEAR EDEN, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 4, T. 6 S., R. 24 E., on Christensen ranch, 2 miles below intake and 1½ miles southeast of Eden, Graham County.

RECORDS AVAILABLE.—December 26, 1920, to September 30, 1926.

GAGE.—Vertical staff on left bank at ranch house 600 feet below waste gate; read by Rozella Hancock and Mrs. W. Carpenter.

DISCHARGE MEASUREMENTS.—Made from footbridge near gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks not subject to overflow. Control affected by two checks just below gage.

DIVERSIONS.—Three diversions above gage, irrigating 87 acres.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Records good.

Canal diverts water from right side of Gila River in the NW. ¼ sec. 12, T. 6 S., R. 24 E., for irrigating 1,650 acres in the vicinity of Eden.

Discharge measurements of Curtis-Kempton Canal near Eden, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	4.45	5.5	Mar. 22	6.03	32.0	July 18	3.81	3.4
Nov. 13	5.34	20.4	Mar. 25	5.18	31.2	Aug. 9	4.55	12.3
Dec. 11	4.85	7.4	Apr. 15	5.35	30.6	Aug. 26	4.21	7.2
Jan. 13	5.46	19.5	May 8	5.45	41.4	Sept. 18	4.71	16.4
Feb. 26	4.73	16.8	May 30	5.37	38.7			
Feb. 28	4.77	18.1	June 29	4.47	13.7			

Daily discharge, in second-feet, of Curtis-Kempton Canal near Eden, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	22	18	17	36	15	24	32	29	0	29	6.3
2	4.4	22	17	17	0	19	22	36	27	9.7	28	6.9
3	3.3	23	17	17	0	15	22	30	17	9.0	26	6.3
4	3.8	23	17	17	0	19	21	32	13	10	25	7.0
5	3.8	23	16	19	0	16	24	41	10	9.8	16	0
6	5.8	23	16	19	0	24	25	39	12	9.5	9.5	4.9
7	7.3	22	16	20	0	36	16	41	0	11	16	6.3
8	7.0	22	16	20	0	36	29	44	6.4	9.5	12	6.2
9	7.4	22	16	19	0	36	12	44	6.0	8.9	13	6.0
10	7.6	22	16	19	0	36	19	46	11	8.7	7.7	5.7
11	32	22	12	20	0	40	19	44	9.8	8.1	0	35
12	30	22	16	20	0	42	21	35	5.2	7.7	0	31
13	31	22	17	19	14	42	26	25	9.0	8.0	0	15
14	28	22	16	19	12	43	26	22	.7	5.4	10	33
15	26	21	16	19	12	39	29	24	.4	7.0	28	17
16	23	21	16	19	11	30	24	25	.2	3.8	28	20
17	20	21	16	19	12	24	24	31	0	3.1	23	17
18	19	22	16	22	12	31	23	30	0	3.1	31	16
19	19	21	16	26	12	35	22	34	0	3.1	29	6.4
20	21	21	16	28	12	38	20	29	5.7	3.5	16	9.5

Daily discharge, in second-feet, of Curtis-Kempton Canal near Eden, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	22	22	16	28	17	43	21	36	6.0	5.7	13	6.4
22	22	20	16	33	14	31	20	38	6.0	6.6	6.6	6.4
23	22	19	16	33	14	42	22	36	5.7	6.9	8.7	12
24	23	20	16	34	8	40	28	30	9.4	6.0	6.4	0
25	23	19	17	33	18	33	33	20	13	19	7.0	5.9
26	22	19	16	34	15	31	41	22	13	26	7.3	30
27	22	20	16	36	16	36	40	37	9.8	38	6.9	24
28	22	20	16	37	16	30	39	47	9.8	35	6.5	20
29	22	20	16	36	------	13	40	37	12	33	7.1	10
30	22	19	17	35	------	10	43	39	9.5	33	6.8	8.0
31	22	------	16	36	------	25	------	39	------	35	6.4	------

Monthly discharge of Curtis-Kempton Canal near Eden, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	32	3.3	17.6	1,080
November	23	19	21.2	1,260
December	18	12	16.1	990
January	37	17	24.8	1,520
February	36	0	9.0	500
March	43	10	30.6	1,880
April	43	12	25.8	1,540
May	47	20	34.4	2,120
June	29	0	8.55	509
July	38	0	12.4	762
August	31	0	13.9	855
September	35	0	12.6	750
The year	47	0	19.0	13,800

FORT THOMAS CONSOLIDATED CANAL AT ASHURST, ARIZ.

LOCATION.—In NE. ¼ SE. ¼ sec. 30, T. 5 S, R. 24 E., 2 miles below intake, half a mile east of State highway, and 1 mile southeast of Ashurst, Graham County.

RECORDS AVAILABLE.—December 26, 1920, to September 30, 1926.

GAGE.—Vertical staff on right bank half a mile below waste gate; read by T. A. Lamb and V. A. Elkins.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed consists of silt and is frequently covered by moss. No well-defined control.

DIVERSIONS.—None above gage.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined. Gage read to nearest two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Records good.

Canal diverts water from left side of Gila River in the NW. ¼ sec. 4, T. 6 S., R. 24 E., for irrigating 2,240 acres in the vicinity of Fort Thomas.

Discharge measurements of Fort Thomas Consolidated Canal at Ashurst, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	8.34	20.4	Mar. 22	8.55	27.3	Aug. 6	7.98	11.5
Nov. 13	8.71	35.7	Apr. 15	9.46	55	Aug. 13	9.89	62
Dec. 11	7.78	6.5	May 8	8.73	32.0	Aug. 26	7.77	6.7
Jan. 10	9.77	72	May 27	9.47	53	Sept. 18	7.87	7.7
Feb. 5	9.52	63	June 29	7.95	8.2			
Feb. 26	8.03	13.2	July 15	8.07	10.4			

Daily discharge, in second-feet, of Fort Thomas Consolidated Canal at Ashurst, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	56	80	0	39	13	61	75	47	7.6	68	5.5
2	21	55	84	0	39	12	61	68	38	7.6	74	5.5
3	18	54	86	0	56	13	59	66	28	7.2	74	5.4
4	19	53	82	0	58	11	61	44	28	6.2	37	5.4
5	17	53	14	40	60	22	60	36	28	4.7	20	5.2
6	16	49	0	73	40	78	31	37	28	4.0	14	5.4
7	14	52	0	73	31	93	31	37	28	3.2	13	5.0
8	13	54	0	74	38	97	51	31	26	2.8	19	4.6
9	14	49	0	74	25	82	48	34	25	1.8	23	4.4
10	14	46	0	71	25	75	54	17	26	1.7	21	6.2
11	90	44	6.6	72	24	78	49	9.8	26	3.1	37	78
12	42	36	0	74	27	71	49	5.7	26	3.1	28	43
13	40	35	0	71	29	71	56	36	25	68	60	0
14	41	46	0	65	29	70	60	10	24	24	63	1.6
15	54	61	0	61	28	74	54	10	24	9.3	68	3.9
16	54	62	0	60	29	73	57	13	21	9.5	73	7.2
17	53	58	0	62	29	73	51	6.6	19	6.8	74	8.4
18	54	52	0	58	10	67	47	38	19	6.4	62	6.8
19	54	51	0	54	15	52	45	76	19	5.0	33	5.5
20	54	50	0	57	16	35	46	74	19	3.6	18	5.2
21	55	50	0	58	14	37	45	73	19	.8	14	3.9
22	52	48	0	60	14	28	44	71	16	.3	12	3.8
23	51	50	0	58	13	40	38	71	15	0	8.0	4.0
24	53	48	0	54	14	40	39	50	11	0	5.7	4.1
25	53	54	0	54	15	55	38	56	7.2	81	5.4	42
26	54	87	0	55	14	77	39	60	5.4	32	5.7	73
27	54	84	0	56	15	83	41	52	14	42	4.6	74
28	54	83	0	54	11	76	43	77	6.8	46	5.4	49
29	55	82	0	46	-------	85	44	68	8.2	50	4.6	34
30	54	82	0	41	-------	76	46	66	8.4	54	5.5	28
31	55	-------	0	39	-------	70	-------	61	-------	57	5.4	------

Monthly discharge of Fort Thomas Consolidated Canal at Ashurst, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	90	13	42.1	2,590
November	87	35	56.1	3,340
December	86	0	11.4	701
January	74	0	52.1	3,200
February	60	10	27.0	1,500
March	97	11	58.9	3,620
April	61	31	48.0	2,860
May	77	5.7	46.1	2,830
June	47	5.4	21.2	1,260
July	81	0	17.7	1,090
August	74	4.6	30.8	1,890
September	78	0	17.6	1,050
The year	97	0	35.8	25,900

SAN PEDRO RIVER NEAR FAIRBANK, ARIZ.

LOCATION.—In T. 20 S., R. 21 E., unsurveyed, on old Spanish grant at ranch house of Boquillas Land & Cattle Co., 1½ miles south of Fairbank, Cochise County, and 4 miles below Charleston dam site.

DRAINAGE AREA.—1,300 square miles (measured on topographic maps and Greenidge map of Sonora).

RECORDS AVAILABLE.—September 28, 1912, to September 30, 1926; January 27, 1904, to August 31, 1906, and October 8, 1910, to November 15, 1911, for a station at Charleston; November 15, 1911, to September 28, 1912, for station at diversion dam of Boquillas Land & Cattle Co.

GAGE.—Continuous water-stage recorder on right bank, 300 feet downstream from ford leading to ranch house, until night of September 27–28, when recorder station was destroyed by flood.

DISCHARGE MEASUREMENTS.—Made from cable 150 feet upstream from gage, by wading near gage, or from highway bridge 1½ miles downstream from gage.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Banks high and steep but subject to overflow in extreme floods. Channel fairly straight with considerable fall. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum discharge, 98,000 second-feet about 1 a. m. September 28; minimum discharge, 1.3 second-feet at 10 p. m. June 13.

1912–1926: Maximum discharge, 98,000 second-feet about 1 a. m. September 28, 1926; minimum discharge, 0.5 second-foot January 27, 1923, and June 12, 1925.

DIVERSIONS.—Boquillas Land & Cattle Co. diverts water at a dam 1 mile above station for irrigation. No information on other diversions from San Pedro River above this station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve, well defined to 2,000 second-feet and fairly well defined to 28,000 second-feet. Rating curve for period August 29 to September 26, poorly defined; used for stages below 250 second-feet. Operation of water-stage recorder satisfactory, except as shown in footnote to table of daily discharge. Daily discharge ascertained by applying mean daily gage height to rating table or by taking mean of hourly discharge obtained by applying hourly mean gage height to rating table; shifting-control method used October 1 to August 17. Records good.

Discharge measurements of San Pedro River near Fairbank, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 28	2.07	23.3	June 14	1.68	1.5	Sept. 27	16.0	[b] 27,900
Jan. 7	1.98	23.2	July 4	1.76	3.6	Sept. 28	[c] 18.5	[d] 98,000
Feb. 9	1.89	14.7	July 26	3.34	387	Do	[e] 7.74	3,470
Mar. 7	1.86	14.2	July 27	2.61	92	Sept. 30	[e] 3.49	434
Apr. 12	1.87	14.4	Aug. 22	2.06	4.4			
May 2	1.92	16.2	Sept. 26	11.7	[a] 10,100			

[a] Driftwood timed over a distance of 150 feet and some surface velocities obtained with current meter; area determined from cross section taken July 4, 1926.
[b] Driftwood timed over a distance of 150 feet; area from cross section taken July 4, 1926.
[c] Estimated; stage-discharge relation changed from previous rating.
[d] Computed by means of Kutter's formula from levels on cross section and slope taken Oct. 8 and 26, 1926.
[e] New gage at highway bridge 1½ miles downstream; referred to datum established Oct. 17, 1926.

Daily discharge, in second-feet, of San Pedro River near Fairbank, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	32	19	20	17	15	14	17	4	3	37	11
2	2	30	21	21	22	14	14	16	3	3	20	8
3	2	29	19	21	22	15	14	15	3	3	23	8
4	2	26	17	25	18	14	14	11	2	4	44	38
5	2	23	16	26	14	14	15	10	2	3	5	30
6	3	21	18	26	14	13	15	10	2	3	81	13
7	2	19	18	22	14	14	14	8	2	3	49	9
8	2	19	17	22	14	14	15	8	2	2	72	18
9	3	18	15	21	14	14	14	8	2	2	50	38
10	3	18	14	20	16	14	14	8	2	2	64	30
11	3	18	14	19	16	15	14	8	2	3	5	62
12	3	18	13	18	16	14	14	7	2	4	5	184
13	39	19	13	18	16	15	18	6	2	2	10	80
14	16	19	13	19	16	14	14	6	2	2	80	54
15	4	20	13	18	15	12	15	6	2	2	5	154
16	5	20	13	17	15	12	15	5	2	2	38	110
17	5	21	13	18	15	12	15	5	2	2	50	66
18	6	21	14	17	14	13	14	5	2	2	5	28
19	6	22	15	17	12	12	14	4	2	2	5	25
20	5	22	14	18	12	14	14	4	2	3	4	20
21	6	22	14	18	13	17	14	4	2	7	4	17
22	6	21	15	18	14	13	14	4	2	115	4	16
23	6	20	15	18	14	12	14	3	2	51	4	14
24	8	19	15	17	15	15	14	3	2	34	4	50
25	9	21	15	17	15	32	14	3	2	38	4	43
26	9	22	15	17	16	38	14	6	2	270	4	2,970
27	8	24	16	17	18	19	15	6	2	110	4	28,800
28	8	23	17	17	17	15	14	5	2	60	4	22,200
29	16	22	17	17	-------	15	22	5	2	40	52	1,070
30	86	23	18	17	-------	15	19	4	2	20	37	438
31	44	-------	19	17	-------	14	-------	4	-------	9	15	------

NOTE.—Operation of recorder satisfactory except Nov. 4–26, July 29, 30, Aug. 2, 5, 11, 12, 15, 18–21. Staff readings used Nov. 7, 10, 14, 17, 21, and 24. Discharge interpolated Nov. 4–6, 8–9, 11–13, 15–16, 18–20, 22–23, 25–26. Discharge estimated July 29–30, Aug. 2, 5, 11–12, 15, 18–28. Recorder station completely destroyed by flood during night of Sept. 27. Discharge 1 p. m. Sept. 27 to 8 a. m. Sept. 28 estimated by hydrographic comparison with stations at Kelvin, San Carlos, and Gillespie Dam. Discharge 8 a. m. Sept. 28 to Sept. 30 computed from hydrograph.

Monthly discharge of San Pedro River near Fairbank, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	86	2	10.4	640
November	32	18	21.7	1,290
December	21	13	15.6	959
January	26	17	19.1	1,170
February	22	12	15.5	861
March	38	12	15.5	953
April	22	14	14.8	881
May	17	3	6.9	424
June	4	2	2.1	125
July	270	2	26.0	1,600
August	81	4	25.4	1,560
September	28,800	8	1,890	112,000
The year	28,800	2	170	122,000

SANTA CRUZ RIVER AT TUCSON, ARIZ.

LOCATION.—In sec. 14, T. 14 S., R. 13 E., at Congress Street Bridge at Tucson, Pima County. Rillito Creek enters from right 7 miles downstream.

DRAINAGE AREA.—2,260 square miles (measured on topographic maps and Greenidge map of Sonora, Mex.).

RECORDS AVAILABLE.—October 15,1905, to September 30, 1926.

GAGE.—Staff gage on downstream side of east bridge abutment; read by J. P. Kenny.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of sand. Channels wide and shallow. Control shifts at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, 19.5 feet at 2 p. m. September 28 (discharge, 11,400 second-feet). River dry greater part of the time.

1905-1926: Maximum stage recorded, 19.5 feet at 2 p. m. September 28, 1926 (discharge, 11,400 second-feet). River dry greater part of each year at this point.

DIVERSIONS.—Diversions above the station for irrigation, amounts unknown.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curves fairly well defined. Staff gage read to tenths once a day and at frequent intervals during floods. Daily discharge ascertained by applying mean daily gage height to rating table, except for September 27 and 28 for which mean of hourly discharge was used; shifting-control method used September 15 and 30. Discharge estimated January 4-13, February 2, March 8, 9, April 12, 13, July 16, 24, August 7, 10, 11, 20, and September 9, and 10. Record of flood of September 27–30, good; remainder of record fair.

COOPERATION.—Records for the period October 1 to December 31 furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Discharge measurements of Santa Cruz River at Tucson, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 9	11.43	12.3	Sept. 15	14.21	1,630	Sept. 30	11.90	31.7
July 21	11.68	81	Sept. 27	13.94	1,610			
Aug. 6	12.16	247	Sept. 28	17.95	8,070			

Daily discharge, in second-feet, of Santa Cruz River at Tucson, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	July	Aug.	Sept.
1		1	1							
2		2	1		1					
3		1	1							
4		1	1	15					2	
5		1	1	10					104	
6		1	1	3					104	
7			1	2					2	
8			1	1		10				38
9				1		6	12		5	1
10				1					2	2
11				1					1	
12				1			10		44	
13				1			8		1	
14										
15										297
16								1	3	
17									58	
18									30	
19									19	
20									2	
21								95		
22										
23										
24	20							6		
25	25	165								
26	1	5								
27		3						14		2,150
28		3								6,150
29		2								688
30		2								30
31	1									

NOTE.—Stream dry on days for which no record is given.

Monthly discharge of Santa Cruz River at Tucson, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	25	0	1.5	92
November	165	0	6.2	369
December	1	0	.3	16
January	15	0	1.2	71
February	1	0	.04	2
March	10	0	.5	31
April	12	0	1.0	60
May	0	0	0	0
June	0	0	0	0
July	95	0	3.7	228
August	104	0	12.2	750
September	6,150	0	312	18,600
The year	6,150	0	27.9	20,200

RILLITO CREEK NEAR TUCSON, ARIZ.

LOCATION.—In sec. 23, T. 13 S., R. 13 E., at highway bridge on Oracle Road, 4 miles above confluence with Santa Cruz River, and 4 miles north of Tucson, Pima County.

DRAINAGE AREA.—897 square miles (measured on topographic maps).

RECORDS AVAILABLE.—January 12, 1911, to September 30, 1926.

GAGE.—Staff gage bolted to first concrete pier from left bank; read by Morgan Mason.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Bed composed of sand which is constantly shifting. Control not well defined.

EXTREMES OF DISCHARGE.—Maximum stage, 17.7 feet at 1.45 p. m. September 27 (discharge, from extension of rating curve, 1,750 second-feet). Stream dry greater part of year.

1911–1926: Maximum stage occurred December 23, 1914 (discharge, greater than 16,000 second-feet). Stream dry greater part of each year.

DIVERSIONS.—Flood water is diverted for irrigation above station, amount unknown.

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Rating curves fairly well defined. Gage read to tenths once a day, and at frequent intervals during floods. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used September 28. Records fair.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer, for period October 1 to December 31.

Discharge measurements of Rillito Creek near Tucson, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 30	15.10	19.6	Sept. 16	15.45	43.6	Sept. 28	15.28	2.8
Apr. 9	14.90	4.4	Do	15.10	7.8			
Apr. 13	15.25	41.9	Sept. 27	16.69	727			

Daily discharge, in second-feet, of Rillito Creek near Tucson, Ariz., for the year ending September 30, 1926

Day	Nov.	Mar.	Apr.	July	Aug.	Sept.	Day	Nov.	Mar.	Apr.	July	Aug.	Sept.
1			8				16			2			23
2							17						1
3							18						
4							19						
5							20						
6		26					21						
7			33				22						
8					12		23				1		
9			2				24				70		
10			20				25	1					2
11			10		12		26						
12			20		2	6	27						451
13			112				28						2
14			72				29		16				
15			15			6	30		51				
							31		4				

NOTE.—Stream dry on days for which no record is given.

Monthly discharge of Rillito Creek near Tucson, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0	0	0	0
November	1	0	.03	2
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	51	0	3.1	191
April	112	0	9.8	583
May	0	0	0	0
June	0	0	0	0
July	70	0	2.3	141
August	12	0	.8	49
September	451	0	16.4	976
The year	451	0	2.7	1,940

SALT RIVER NEAR CHRYSOTILE, ARIZ.

LOCATION.—In SE. ¼ sec. 5, T. 5 N., R. 18 E., on San Carlos Indian Reservation, at Big Peninsula Bend, near Chrysotile, Gila County. Black River joins White River to form Salt River about 15 miles upstream, and Cibecue Creek enters from right 8 miles downstream.

DRAINAGE AREA.—3,050 square miles (measured on topographic maps).

RECORDS AVAILABLE.—September 18, 1924, to September 30, 1926.

GAGE.—Water-stage recorder on left bank, installed October 2, 1924.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet downstream from gage or by wading half a mile downstream from gage.

CHANNEL AND CONTROL.—Bed composed of bedrock and deposits of gravel and silt, which scour and fill. Banks not subject to overflow. Bedrock riffle and falls 400 feet below gage. Extreme high-water control formed by narrowing of rock side walls a quarter of a mile below gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 8.5 feet at 9 p. m. April 6 (discharge, 10,900 second-feet); minimum stage recorded, 1.60 feet at 1 a. m. September 11 (discharge, 150 second-feet).

1925–1926: Maximum stage recorded, 8.5 feet at 9 p. m. April 6, 1926 (discharge, 10,900 second-feet); minimum stage recorded, 1.48 feet on December 27, 1924 (discharge, 127 second-feet).

ICE.—Practically no ice forms at this station.

DIVERSIONS.—Only minor diversions above this station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent above 1,500 second-feet but not permanent for lower discharge because of filling and scouring of silt in channel between gage and principal control. Rating curve well defined between 150 and 8,000 second-feet and extended above and below. Operation of water-stage recorder satisfactory except May 20–25, when float was on mud. Daily discharge ascertained by applying mean daily gage height to rating table or, for days of considerable range in stage, by averaging the hourly discharge; shifting-control method used October 1 to March 25 and May 27 to September 30. Discharge interpolated May 20–25. Records good.

Discharge measurements of Salt River near Chrysotile, Ariz., during the year ending September 30, 1926

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	1.90	303	Mar. 21	3.10	1,230	July 14	1.82	250
Dec. 10	1.90	306	Mar. 26	3.40	1,460	Do	1.82	230
Jan. 15	1.74	235	Mar. 28	3.57	1,650	July 28 [a]	2.02	396
Feb. 8	1.79	211	Mar. 31	4.33	2,730	Aug. 4	1.89	266
Feb. 23 [a]	1.86	247	Do	4.47	2,900	Aug. 5	1.87	274
Feb. 25	1.86	242	Apr. 14	4.64	3,230	Aug. 25	1.68	198
Do	1.83	223	May 7	5.49	4,510	Sept. 15	1.69	180
Do	1.83	215	May 26	2.95	1,040			
Mar. 15 [a]	3.19	1,420	June 30	1.94	252			

[a] Made by permittee, Federal Power Commission project No. 425.

Daily discharge, in second-feet, of Salt River near Chrysotile, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	319	272	263	223	254	2,060	4,090	774	245	382	160
2	295	334	276	272	227	263	2,310	3,890	782	227	392	160
3	281	345	295	281	219	286	2,360	3,470	750	227	324	175
4	272	370	334	286	202	329	2,230	3,120	735	249	276	178
5	263	365	319	286	198	438	2,030	3,440	838	249	258	171
6	272	370	319	272	198	646	5,610	4,140	854	272	249	164
7	300	376	319	258	198	1,790	8,220	4,500	838	272	290	160
8	281	370	319	258	207	1,170	5,350	3,790	798	254	324	157
9	267	387	309	245	207	1,040	5,720	3,220	728	236	300	157
10	276	387	305	236	207	1,570	4,530	2,970	682	207	267	153
11	345	398	300	232	215	2,030	3,680	2,820	640	1,120	263	160
12	392	398	295	254	215	1,420	3,310	2,640	598	709	607	236
13	387	398	290	254	219	1,300	3,030	2,640	566	249	360	211
14	398	392	290	254	223	1,270	3,030	2,660	528	249	350	178
15	392	382	272	254	249	1,330	2,970	2,670	516	227	442	302
16	420	350	245	245	263	1,410	2,680	2,490	480	219	503	542
17	462	350	227	245	254	1,390	2,660	2,090	444	207	387	286
18	474	340	227	241	249	1,320	2,860	1,790	409	202	365	241
19	474	319	249	219	241	1,260	2,760	1,550	392	194	334	211
20	438	305	281	232	236	1,240	3,680	1,400	365	202	295	198
21	426	290	276	215	241	1,220	3,120	1,300	340	207	281	182
22	404	272	249	202	241	1,220	2,910	1,210	334	232	249	175
23	382	263	249	182	241	1,220	3,230	1,140	324	310	232	160
24	387	263	249	190	245	1,230	3,500	1,100	314	272	215	157
25	382	267	254	194	232	1,320	3,550	1,060	295	290	202	160
26	370	281	245	207	236	1,430	3,410	1,040	286	286	194	1,000
27	350	286	245	202	241	2,230	3,150	1,030	276	480	186	382
28	340	281	249	211	245	1,630	3,280	990	267	387	175	319
29	324	290	258	207	-------	1,830	4,500	926	263	410	171	300
30	324	281	258	207	-------	2,880	4,740	838	249	444	168	281
31	324	-------	263	211	-------	2,420	-------	798	-------	474	164	------

Monthly discharge of Salt River near Chrysotile, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	474	263	355	21,800
November	398	263	334	19,900
December	334	227	275	16,900
January	286	182	236	14,500
February	263	198	228	12,700
March	2,880	264	1,300	79,900
April	8,220	2,030	3,550	211,000
May	4,500	798	2,280	140,000
June	854	249	522	31,100
July	1,120	194	316	19,400
August	607	164	297	18,300
September	1,000	153	244	14,500
The year	8,220	153	830	600,000

SALT RIVER NEAR ROOSEVELT, ARIZ.

LOCATION.—At site of former diversion dam for power canal, 10 miles above upper end of Roosevelt Reservoir and 20 miles east of Roosevelt, Gila County.

DRAINAGE AREA.—4,222 square miles (measured by United States Bureau of Reclamation).

RECORDS AVAILABLE.—October 1, 1913, to September 30, 1926.

GAGE.—Principal gage is vertical staff on left bank, bolted to concrete wall at head of canal. Temporary gages are used from time to time on account of the channel shifting away from the main gage.

DISCHARGE MEASUREMENTS.—Made from cable at dam site or by wading.

CHANNEL AND CONTROL.—Shifting sand and gravel.

EXTREMES OF DISCHARGE.—Maximum stage reported, 11.9 feet April 7 (discharge, 16,200 second-feet); minimum stage, 2.45 feet July 12 (discharge, 135 second-feet).

1913–1926: Maximum mean daily discharge, 79,200 second-feet January 19, 1916; minimum mean daily discharge, 135 second-feet July 12, 1926.

DIVERSIONS.—None of importance.

REGULATION.—None.

COOPERATION.—Daily-discharge record furnished by Salt River Valley Water Users' Association.

Daily discharge, in second-feet, of Salt River near Roosevelt, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	287	307	251	273	234	293	2,340	4,250	710	230	600	168
2	275	304	247	282	258	297	2,020	3,850	687	185	417	168
3	259	300	263	285	277	318	2,460	3,420	660	237	406	168
4	249	307	267	298	268	336	3,420	3,150	667	175	365	180
5	243	323	278	297	253	385	3,250	2,940	675	187	319	197
6	336	325	265	293	237	606	3,750	3,180	787	235	276	193
7	391	329	297	265	232	755	16,200	3,920	830	167	319	177
8	301	328	291	257	228	1,580	12,500	3,940	770	172	294	186
9	282	315	270	247	237	1,280	7,180	3,200	685	160	347	178
10	248	316	275	235	243	1,200	6,900	2,750	640	148	329	175
11	260	359	267	228	249	1,730	5,700	2,400	582	138	290	175
12	343	357	257	222	247	2,040	4,450	2,120	540	135	369	480
13	401	312	248	217	260	1,610	3,820	3,460	535	1,620	692	456
14	383	305	246	230	265	1,460	3,380	1,720	505	367	385	287
15	418	298	241	235	283	1,350	3,100	1,580	467	340	452	227

Daily discharge, in second-feet, of Salt River near Roosevelt, Ariz., for the year ending September 30, 1926—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
16	669	294	238	235	293	1,410	3,080	1,360	417	327	454	612
17	672	278	216	231	297	1,460	2,800	1,290	411	327	560	670
18	721	277	206	242	300	1,480	2,710	1,220	406	240	418	299
19	763	270	196	230	297	1,400	2,810	1,220	364	234	355	241
20	672	269	210	230	294	1,330	3,050	1,120	350	228	321	220
21	568	262	212	234	285	1,320	3,740	1,050	312	225	287	202
22	477	260	233	235	281	1,330	2,960	1,020	267	237	260	197
23	440	256	228	217	277	1,300	2,880	1,000	255	283	237	195
24	397	268	217	197	278	1,300	3,060	985	222	367	226	179
25	384	255	253	188	285	1,340	3,220	960	220	390	223	175
26	384	262	241	212	291	1,520	3,280	925	207	371	198	180
27	373	276	242	216	287	1,520	3,050	915	200	345	193	1,560
28	366	283	245	216	287	2,170	2,960	915	200	591	191	612
29	340	268	246	219	------	1,800	3,020	915	185	413	184	587
30	335	261	259	223	------	2,060	4,280	865	180	653	176	452
31	316	------	263	219	------	2,470	------	775	------	435	171	------

Monthly discharge of Salt River near Roosevelt, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	763	243	405	24,900
November	359	255	294	17,500
December	297	196	247	15,200
January	298	188	239	14,700
February	300	228	269	14,900
March	2,470	293	1,300	79,900
April	16,200	2,020	4,250	253,000
May	4,250	775	2,010	124,000
June	830	180	465	27,700
July	1,620	135	328	20,200
August	692	171	333	20,500
September	1,560	168	327	19,500
The year	16,200	135	872	632,000

TONTO CREEK NEAR ROOSEVELT, ARIZ.

LOCATION.—In sec. 14, T. 6 N., R. 10 E., 6 miles above upper end of Roosevelt Reservoir and 15 miles northwest of Roosevelt, Gila County.

DRAINAGE AREA.—1,004 square miles (measured by United States Bureau of Reclamation).

RECORDS AVAILABLE.—October 1, 1913, to September 30, 1926.

GAGE.—Vertical staff on right bank. Location of gage is changed from time to time owing to shifting control.

DISCHARGE MEASUREMENTS.—Made by wading at low stages and by slope method at high stages.

CHANNEL AND CONTROL.—Bed composed of boulders and gravel. Control shifts at high stages. Banks well defined.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge during year, 13,500 second-feet April 8; minimum mean daily discharge, 1 second-foot on various days June to September.

1913–1926: Maximum mean daily discharge, 20,000 second-feet December 28, 1923; minimum discharge, no flow September 4–10, 1924.

DIVERSIONS.—None of importance. The entire flow is discharged into Roosevelt Reservoir.

REGULATION.—None.

COOPERATION.—Records of daily discharge furnished by Salt River Valley Water Users' Association.

Daily discharge, in second-feet, of Tonto Creek near Roosevelt, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	36	47	42	12	7	313	1,160	50	1	100	1
2	11	36	42	36	15	5	225	584	50	1	100	1
3	11	36	42	42	15	5	363	930	30	1	120	1
4	11	36	36	47	12	5	415	900	30	1	75	7
5	26	36	47	47	15	5	315	885	30	1	75	4
6	175	47	47	17	12	12	900	900	20	1	60	4
7	375	47	47	17	12	15	9,000	950	20	1	55	3
8	265	47	47	17	12	15	13,500	950	15	1	60	3
9	175	47	47	17	12	15	5,000	980	20	1	60	5
10	75	47	36	17	12	15	4,000	920	20	1	62	4
11	60	47	36	12	12	70	2,000	775	16	1	55	2
12	60	47	36	12	12	512	1,200	415	16	2	40	20
13	60	47	36	15	12	575	1,120	362	16	2	200	15
14	60	47	36	15	15	202	995	280	12	1	40	15
15	75	47	36	15	120	170	1,000	280	10	1	25	12
16	90	47	36	12	20	160	745	180	8	1	30	73
17	375	47	47	12	12	186	700	156	5	1	27	25
18	175	47	47	15	7	160	610	136	5	1	50	20
19	150	47	47	15	7	150	900	76	5	1	25	15
20	107	42	47	12	7	85	1,200	75	5	1	20	8
21	90	36	47	12	7	85	1,600	58	5	1	25	5
22	75	36	47	12	7	85	1,600	50	3	1	10	5
23	75	36	47	12	7	85	1,000	22	2	2	8	3
24	60	36	47	12	7	57	900	22	2	2	5	3
25	60	47	47	12	7	52	870	22	2	4	3	5
26	47	47	47	12	7	85	760	22	1	15	2	100
27	36	47	47	12	7	78	760	70	1	30	2	900
28	26	36	47	12	7	97	500	100	1	80	2	500
29	36	47	36	12	-------	117	600	100	1	130	1	160
30	36	42	36	12	-------	186	890	70	1	190	1	125
31	36	-------	42	7	-------	415	-------	50	-------	140	1	-------

Monthly discharge of Tonto Creek near Roosevelt, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	375	11	94.3	5,800
November	47	36	43.0	2,560
December	47	36	43.0	2,640
January	47	7	18.1	1,110
February	120	7	14.6	811
March	575	5	120	7,380
April	13,500	225	1,800	107,000
May	1,160	22	403	24,800
June	50	1	13.4	797
July	190	1	19.9	1,220
August	200	1	43.2	2,660
September	900	1	68.1	4,050
The year	13,500	1	222	161,000

VERDE RIVER NEAR McDOWELL, ARIZ.

LOCATION.—In sec. 17, T. 5 N., R. 7 E., 500 feet upstream from mouth of Camp Creek and 10 miles north of McDowell, Maricopa County. Verde River enters Salt River 17 miles from this station.

DRAINAGE AREA.—5,550 square miles.

RECORDS AVAILABLE.—February 17, 1925, to September 30, 1926, at present site. August 14 to September 30, 1889; April 20, 1897, to November 11, 1899; January 1, 1901, to April 19, 1902; July 23–26, 1902; January 1, 1903, to February 16, 1925; at a point three-quarters of a mile above junction with Salt River.

GAGE.—Water-stage recorder in main channel. Staff gage on right bank.

DISCHARGE MEASUREMENTS.—Made from cable or by wading.

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and rock. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge during year, 27,500 second-feet April 7; minimum mean daily discharge, 96 second-feet July 11–12.

1897–1926: Maximum mean daily discharge, 61,500 second-feet November 27, 1905; minimum mean daily discharge, 32 second-feet July 19 and 20, 1904.

DIVERSIONS.—Only minor diversions upstream from this station.

REGULATION.—None.

COOPERATION.—Daily-discharge record furnished by Salt River Valley Water Users' Association.

Daily discharge, in second-feet, of Verde River near McDowell, Ariz., for the year ending September 30, 1926

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	237	342	260	303	287	277	735	626	134	106	358	115
2	227	341	293	303	292	266	561	972	125	108	297	116
3	213	323	315	303	295	265	478	815	137	107	257	113
4	191	329	285	329	294	268	931	612	125	120	246	114
5	190	330	1,100	317	286	265	3,270	659	121	120	223	319
6	467	312	667	331	293	287	2,780	683	150	116	198	225
7	4,520	350	517	319	283	301	27,500	542	134	132	203	184
8	3,790	357	444	305	287	375	23,900	985	106	132	683	191
9	1,980	356	403	301	274	476	9,530	1,080	102	114	422	197
10	1,160	371	372	301	281	469	11,500	722	119	105	374	200
11	810	389	350	303	280	517	12,700	574	114	96	334	213
12	632	415	328	288	280	1,180	5,760	455	127	96	248	198
13	821	385	325	303	281	1,460	6,450	384	124	98	355	191
14	950	370	340	292	296	1,700	3,480	346	116	106	273	174
15	682	355	333	294	304	1,380	2,440	312	104	109	193	181
16	542	342	323	293	301	1,380	1,800	294	99	114	238	185
17	540	319	319	300	300	1,270	1,350	250	110	106	255	167
18	522	326	317	301	297	967	1,090	266	123	136	238	171
19	427	319	319	292	296	807	1,000	266	116	110	291	161
20	393	307	305	292	325	691	2,250	187	108	115	298	155
21	383	299	305	292	321	626	3,500	175	114	105	195	149
22	348	283	317	292	304	607	2,520	173	119	109	168	156
23	359	294	311	293	290	562	1,650	161	108	105	159	155
24	348	293	311	287	296	601	1,100	140	117	182	171	155
25	335	291	307	286	296	567	1,000	151	124	315	164	157
26	333	296	309	289	296	570	805	131	114	260	163	162
27	319	303	299	290	289	531	705	123	111	385	153	2,660
28	312	300	316	292	283	710	683	147	100	553	151	1,660
29	315	303	300	287	-------	1,260	581	155	112	630	139	1,020
30	307	289	306	284	-------	998	628	127	102	594	128	552
31	305	-------	303	281	-------	692	-------	127	-------	514	121	-------

Monthly discharge of Verde River near McDowell, Ariz., for the year ending September 30, 1926

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	4,520	190	741	45,600
November	415	283	336	19,900
December	1,100	260	364	22,400
January	331	281	298	18,300
February	325	274	293	16,300
March	1,700	265	720	44,300
April	27,500	478	4,420	263,000
May	1,080	123	408	25,100
June	150	99	117	6,960
July	630	96	193	11,900
August	683	121	248	15,200
September	2,660	113	347	20,600
The year	27,500	96	704	509,000

MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Colorado River Basin at points other than regular gaging stations, made during the year ending September 30, 1926, are listed in the following table:

Miscellaneous discharge measurements in Colorado River Basin during the year ending September 30, 1926

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
Sept. 3	North Fork of Duchesne River.	Duchesne River	SE. ¼ sec. 19, T. 1 N., R. 8 W., at confluence with West Fork, 4 miles northwest of Hanna, Utah.		37.8
3	West Fork of Duchesne River.	do	SE. ¼ sec. 19, T. 1 N., R. 8 W., at confluence with North Fork, 4 miles northwest of Hanna, Utah.		23.7
2	Uinta Power & Light Co's tail-race.	Uinta River	SW. ¼ sec. 25, T. 2 N., R. 2 W., at power plant 9 miles north of Neola, Utah. Water is diverted from Pole Creek in SE. ¼ sec. 14, T. 2 N., R. 2 W.		7.4
Dec. 4	Fish Creek	Price River	SW. ¼ sec. 26, T. 11 S., R. 8 E., at confluence with White River, 1 mile southeast of Colton, Utah.		3.9
Mar. 26	do	do	do		68.7
Aug. 23	do	do	do		24.0
June 18	Price River	Green River	SE. ¼ NW. ¼ sec. 12, T. 13 S., R. 9 E., at Utah Junction, 2 miles north of Helper, Utah.	1.39	87.3
18	do	do	do	1.29	69.9
22	do	do	do	1.78	160
14	do	do	do	1.60	121
17	do	do	do	1.04	35.3
26	do	do	do	.98	33.4
28	do	do	do	1.71	148
Aug. 25	do	do	do	.85	21.9
Dec. 12	do	do	SE. ¼ sec. 9, T. 18 S., R. 14 E., at Utah Power & Light Co's. gaging station at highway bridge at Woodside, Utah.		19.7
Mar. 25	do	do	do	1.83	98.9
Apr. 30	do	do	do	2.30	280
28	White River	Price River	SW. ¼ sec. 26, T. 11 S., R. 8 E., at confluence with Fish Creek, 1 mile southeast of Colton, Utah.		96.7
Aug. 25	Price Canal	do	SE. ¼ NE. ¼ sec. 1, T. 14 S., R. 9 E., ½ mile below diversion, 3½ miles northwest of Price, Utah.	.98	20.4
Mar. 17	San Juan River	Colorado River	Shiprock, N. Mex		1,660
Sept. 23	Gila River	do	Below Duncan, Ariz		14,1
Jan. 22	do	do	Griffin Crossing near Yuma, Ariz		45.0
Dec. 12	Brown Canal	Diverts from Gila River.	Below wasteway near Solomonsville, Ariz.		4.2
Oct. 30	San Simon Creek	Gila River	Solomonsville, Ariz		109
Sept. 25	Black River	Salt River	Former gaging station near Fort Apache, Ariz.	.91	39.
25	White River	do	do	1.36	32.4

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