DEPARTMENT OF THE INTERIOR
Ray Lyman Wilbur, Secretary

U. S. GEOLOGICAL SURVEY
George Otis Smith, Director

Water-Supply Paper 609

SURFACE WATER SUPPLY OF THE UNITED STATES
1925

PART IX. COLORADO RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer
ROBERT FOLLANSBEE, A. B. PURTON
and W. E. DICKINSON
District Engineers

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

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1929

For sale by the Superintendent of Documents, Washington, D. C. - - - - - Price 15 cents

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SURFACE WATER SUPPLY OF THE COLORADO RIVER BASIN, 1925

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, 1925.

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

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

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

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

Annual appropriations for the fiscal years ending June 30, 1895–1926

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
1901–1902	100, 000. 00	1921–1923	180, 000. 00
1903–1906	200, 000. 00	1924–1925	170, 000. 00
1907	150, 000. 00	1926	165, 000. 00
1908–1910	100, 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 9.

Measurements of stream flow have been made at about 5,120 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1925, 1,710 gaging stations were being maintained by the 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 depth in inches.

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

The following terms not in common use are here defined:

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

"Control," a term used to designate the section or sections of the stream channel below the gage which determine 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 ending September 30, 1925. At the beginning of January 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 possi-

bly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings of 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 measurements of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.

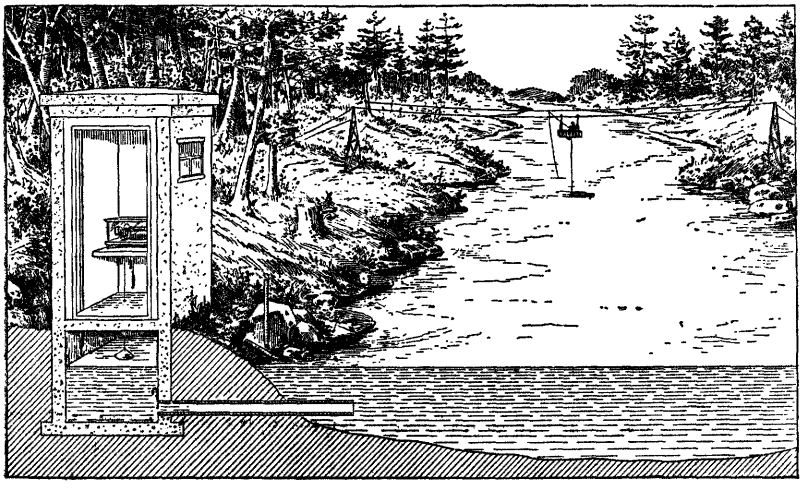

FIGURE 1.—Typical gaging station

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 records 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 height and records of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any conditions that may affect the permanence of the stage-discharge rela-

tion, 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 fluctuations 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 per 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 height 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 mean rating curve.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the fig-

ures 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 the earlier reports, should be used with caution because of possible inherent sources of error not known to the Geological Survey.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the stations must first be satisfied. To give an idea of the amount of prior appropriations, a paragraph on diversions is presented in each station description. The figures given can not be considered exact but represent the best information available.

The tables of monthly discharge give 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, ground 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 monographs, bulletins, professional papers, and annual reports.

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with 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 volumes:
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 list giving prices.

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

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

Boston, Mass., 2500 Customhouse.
Albany, N. Y., 904 Home Savings Bank Building.
Trenton, N. J., Statehouse.
Charlottesville, Va., care of University of Virginia.
Asheville, N. C., 608 City Hall.
Chattanooga, Tenn., 830 Power Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Chicago, Ill., 1510 Consumers Building.
Madison, Wis., care of Railroad Commission of Wisconsin.
Rolla, Mo., Rolla Building, School of Mines and Metallurgy.
Helena, Mont., 45–46 Federal Building.
Denver, Colo., 403 Post Office Building.
Salt Lake City, Utah, 313 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, Federal Building.
Tacoma, Wash., 404 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 303 Customhouse.
Los Angeles, Calif., 600 Federal Building.
Tucson, Ariz., 104 Agricultural Building, University of Arizona.
Austin, Tex., Capitol Building.
Honolulu, Hawaii, Territorial Office Building.

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

Stream-flow records have been obtained at more than 5,120 points in the United States, and the data obtained have been published in the reports tabulated on the following page:

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	1884 to Sept., 1890.
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, rating, 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	1093
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907–8.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919–20.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.

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

The 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 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, 1899–1925

[For basins included see pp. 5 and 6]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
												A	B	C
1889 [a]	35	[b] 35, 36	36	36	36	[c] 36, 37	37	37	[d] 37, 38	38, [e] 39	38, [f] 39	38	38	38
1900 [g]	47, [h] 48	48	48, [i] 49	49	49	49, [i] 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, 84	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, [s] [p] 167	[p] 167, 168	169	170	171	172	[k] 169, 173	174	175, [s] 177	176, [r] 177	177	178	178	[t] 177, 178
1906	[n] 201, [o] 202, [p] 203	[p] 203, 204	205	206	207	208	[k] 205, 209	210	211	212, [r] 213	213	214	214	214
1907–8	241	242	243	244	245	246	247	248	249	250, [r] 251	251	252	252	252
1909	261	262	263	264	265	266	267	268	269	270, [r] 271	271	272	272	272
1910	281	282	283	284	285	286	287	288	289	[s] 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

[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 Kern Rivers and south Pacific slope basins.
[g] Rating tables and index to Water-Supply Papers 47–52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. 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, Vernon Vaughn and F. P. Trott, State water commissioners of Arizona; Lloyd Garrison and G. M. Bacon, State engineers of Utah; and F. C. Emerson, State engineer of Wyoming.

The State engineer of Colorado, M. C. Hinderlider, paid the observers and furnished other assistance at several stations in Colorado.

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

The Office of Indian Affairs assisted in the maintenance of stations in Utah and Arizona.

On Colorado River in Arizona financial assistance 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 the Southern California Edison Co.

Assistance in the collection of data was rendered by the Utah Power & Light 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 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, R. G. Kasel, W. C. Chase, H. D. Empie, G. S. Hayes, J. E. Klohr, and W. E. Code.

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 Mrs. Florence H. Scott.

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 J. H. Morgan, W. S. Frame, and B. J. Peterson.

GAGING-STATION RECORDS

COLORADO RIVER BASIN

COLORADO RIVER AND TRIBUTARIES ABOVE GREEN RIVER

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 half a mile below.

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

RECORDS AVAILABLE.—January 1, 1900, to September 30, 1925; 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; installed May 17, 1910; inspected by C. H. Oberly. Prior to that date, a staff gage referred to same datum was used.

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 is riffle 300 feet downstream; slightly shifting at intervals. Banks not subject to overflow except at extremely high stages.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 8.06 feet at noon May 31 (discharge, 11,200 second-feet); minimum stage, 1.85 feet at 3 p. m. November 16 (discharge, 120 second-feet).

1900–1925: 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, diversions for irrigation of a few hundred acres.

REGULATION.—Shoshone power plant of Colorado Power 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 slightly shifting. Rating curves used October 1 to December 20 and December 21 to September 30 are both 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 October 21 to December 20 and January 29 to April 5. Records good.

Discharge measurements of Colorado River at Glenwood Springs, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 17	3.59	1,030	Feb. 16	3.39	768
Jan. 19	2.31	248	Apr. 21	5.32	3,230
Feb. 16	3.38	766			

Daily discharge, in second-feet, of Colorado River at Glenwood Springs, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,210	1,290	965	796	720	789	2,240	3,080	10,200	4,970	1,660	1,770
2	1,170	1,250	868	901	726	796	2,310	3,500	8,900	5,390	1,610	1,610
3	1,110	1,250	868	690	726	808	2,380	3,950	7,610	5,530	1,560	1,770
4	1,060	1,300	995	874	720	802	2,310	4,320	6,690	5,250	1,560	2,200
5	1,070	1,300	905	564	720	841	2,380	4,320	6,100	5,110	1,560	2,340
6	1,100	1,280	928	815	738	1,010	2,720	4,320	6,100	5,250	1,660	2,270
7	1,010	1,260	950	964	734	1,110	2,800	4,320	6,390	4,700	1,660	2,140
8	958	1,260	852	720	726	1,140	2,010	4,440	6,990	4,190	1,510	2,080
9	1,410	1,100	740	696	720	1,300	1,770	4,840	6,390	3,720	1,510	1,950
10	1,590	1,130	670	696	714	1,420	1,720	4,700	5,960	3,500	1,510	1,830
11	1,490	1,140	663	714	708	1,340	1,890	4,700	6,390	3,390	1,560	1,720
12	1,470	1,210	705	684	690	1,170	2,340	4,840	6,990	3,500	1,890	1,610
13	1,440	1,130	740	738	702	936	2,890	4,700	6,690	3,280	2,080	1,610
14	1,370	1,100	782	744	702	922	2,980	4,840	6,100	3,080	2,270	1,560
15	1,350	1,170	817	782	726	880	3,080	5,250	6,690	2,890	2,080	1,720
16	1,390	1,040	733	702	763	894	3,500	5,390	7,930	2,720	1,830	1,770
17	1,440	1,210	712	696	782	782	3,610	5,110	8,900	2,720	1,610	1,660
18	1,450	1,180	860	636	770	763	3,720	4,970	8,570	2,720	1,510	1,560
19	1,540	1,130	628	770	750	763	3,840	5,810	8,250	2,800	1,360	1,610
20	1,630	1,180	512	684	756	867	3,280	7,300	8,570	2,560	1,410	1,510
21	1,700	1,160	433	750	848	950	2,980	8,570	9,060	2,720	1,610	1,560
22	1,660	1,170	684	690	696	1,190	3,080	9,570	9,570	2,980	1,770	1,460
23	1,640	1,250	672	714	696	1,510	3,280	9,910	9,570	3,080	1,950	1,460
24	1,510	1,090	594	744	708	1,820	3,180	9,570	8,900	2,800	1,830	1,510
25	1,450	988	582	714	726	2,140	2,890	9,570	7,930	2,560	1,830	1,610
26	1,370	852	535	744	750	2,150	2,640	9,230	6,990	2,200	1,890	1,610
27	1,400	831	588	720	763	2,340	2,640	8,900	6,390	2,080	2,080	1,510
28	1,360	1,100	541	690	782	1,960	2,720	9,230	5,960	2,010	2,270	1,410
29	1,320	972	684	720	-------	1,730	2,720	9,570	5,530	1,890	2,200	1,330
30	1,330	831	776	726	-------	1,960	2,800	10,200	5,250	1,770	2,080	1,320
31	1,340	-------	763	702	-------	2,220	-------	11,000	-------	1,720	1,890	----

Monthly discharge of Colorado River at Glenwood Springs, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,700	958	1,370	84,200
November	1,300	831	1,140	67,800
December	955	433	734	45,100
January	964	564	735	45,200
February	848	690	735	40,800
March	2,340	763	1,270	78,100
April	3,840	1,720	2,760	164,000
May	11,000	3,080	6,450	397,000
June	10,200	5,250	7,390	440,000
July	5,530	1,720	3,330	205,000
August	2,270	1,360	1,700	105,000
September	2,340	1,320	1,700	101,000
The year	11,000	433	2,450	1,770,000

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 important tributary, Plateau Creek, enters 6 miles above.

DRAINAGE AREA.—8,790 square miles (measured on base map of Colorado, scale 1:500,000).

RECORDS AVAILABLE.—April 9, 1902, to September 30, 1925.

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, 18.9 feet at 6 p. m. May 31 (discharge, 19,200 second-feet); minimum stage occurred during winter.

1902–1925: 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.

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. Of the amount diverted, power water 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, 1925

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,340	1,920	1,240			4,600	17,600	11,400	2,290	3,160
2	1,440	1,980	1,440			5,480	15,800	9,740	2,220	2,860
3	1,340	1,920	1,700		3,340	6,470	13,800	9,420	2,100	3,880
4	1,290	1,980	1,390			7,590	11,400	9,260	1,980	3,160
5	1,440	2,160	1,540	1,900		8,030	9,900	8,940	1,980	3,980
6	1,340	2,100	1,590			8,030	10,400	8,940	1,860	4,080
7	1,490	2,100	1,640		3,390	7,590	10,400	8,480	1,980	3,780
8	2,430	1,980	1,590		3,580	7,880	10,600	7,300	1,860	3,310
9	1,700	1,980	1,340		4,500	8,330	10,600	6,740	1,640	3,230
10	1,980	1,980	1,340		4,920	8,180	9,740	5,840	1,390	3,000
11	2,220	1,980	1,290		4,600	8,030	10,200	5,840	2,160	2,780
12	2,040	1,920	1,440		5,600	7,880	11,500	6,470	2,710	2,640
13	2,100	1,920	1,390		5,250	8,330	10,400	5,960	3,230	2,780
14	1,980	1,810	1,340		6,080	8,940	10,100	5,140	3,580	2,500
15	1,980	1,860	1,490		6,080	8,790	10,300	4,700	3,390	2,500
16	2,040	1,920	1,540	2,230	6,210	8,790	13,100	4,180	2,860	2,570
17	2,100	1,920	1,590		7,160	8,790	15,000	3,980	2,860	2,570
18	2,100	2,040	1,490		7,300	8,330	15,200	4,280	2,290	2,500
19	2,160	2,040	1,640		7,300	9,740	15,200	3,580	2,220	3,390
20	2,220	2,040	1,590		6,600	12,600	14,700	4,080	1,860	4,500
21	2,220	1,920			5,360	14,800	16,400	4,700	2,160	3,160
22	2,430	1,860			5,840	15,800	18,000	5,480	2,360	2,860
23	2,290	1,860		2,550	5,600	16,000	18,200	6,210	2,430	2,500
24	2,220	1,860			5,250	16,400	16,000	5,030	2,570	2,570
25	2,160	1,760			4,810	16,600	15,000	4,280	2,860	2,640
26	2,100	1,590	1,540		4,280	16,000	12,400	3,780	2,780	2,640
27	2,100	1,490			3,880	15,200	11,900	3,480	2,860	2,500
28	2,040	1,440			4,180	15,600	11,000	3,080	4,390	2,290
29	1,980	1,340		3,220	4,280	17,000	10,200	2,930	4,390	2,160
30	2,100	1,390			4,280	17,600	9,900	2,640	3,580	2,040
31	2,100					18,600		2,570	3,160	

NOTE.—Stage-discharge relation affected by ice Dec. 21 to Apr. 6; discharge estimated by comparison with combined flow of Colorado River and Roaring Fork at Glenwood Springs. Braced figures show mean discharge for periods included.

Monthly discharge of Colorado River near Palisade, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2,430	1,290	1,950	120,000
November	2,160	1,340	1,870	111,000
December	1,700	----------	1,500	92,200
January	----------	----------	1,500	92,200
February	----------	----------	1,500	83,300
March	----------	----------	2,370	146,000
April	7,300	----------	4,880	290,000
May	18,600	4,600	11,000	676,000
June	18,200	9,740	12,800	762,000
July	11,400	2,570	5,760	354,000
August	4,390	1,390	2,580	159,000
September	4,500	2,040	2,950	176,000
The year	18,600	----------	4,230	3,060,000

NOTE.—Mean discharge for January and February based on comparative study of combined flow of Colorado River and Roaring Fork at Glenwood Springs.

Monthly discharge of Government Canal above Palisade, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	----------	----------	345	21,000
November	----------	0	28.7	1,710
December	0	0	0	0
January	0	0	0	0
February	0	0	0	0
March	159	0	29.9	1,840
April	784	159	360	21,400
May	894	708	846	52,000
June	890	704	814	48,400
July	818	523	721	44,300
August	885	591	747	45,900
September	579	467	499	29,000
The year	894	0	368	266,000

NOTE.—Monthly diversions through Government Canal represents the total diversions from river immediately above station for irrigation in Grand Valley.

COLORADO RIVER NEAR CISCO, UTAH

LOCATION.—In NW. ¼ sec. 17, T. 23 S., R. 24 E., 1 mile below mouth of Dolores River, 15 miles by road south of Cisco, Grand County, and 90 miles above confluence with Green River.

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, 1925; October 1, 1913, to November 10, 1914, 25 miles downstream at Moab; flow about same at both places.

GAGE.—Au continuous water-stage recorder on left bank half a mile above suspension highway bridge; installed December 7, 1922; inspected by G. C. Brown. Same datum as in 1917.

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 at a riffle, believed to be ledge rock, a quarter of a mile below gage; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage during year, 9.86 feet at noon June 1 (discharge, 28,200 second-feet); minimum stage not recorded, occurred during ice-affected period (by hydrographic comparison, discharge was 1,500 second-feet or less).

1915–1917; 1923–1925: 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 below to be affected, except in a general way, by regulation in Colorado.

ACCURACY.—Stage-discharge relation practically permanent; slight shifting, believed to be caused by temporary deposits of sediment on control; affected by ice December 20 to March 7. Standard rating curve well defined. Operation of water-stage recorder satisfactory except December 10–13, March 14–16, May 29, 30, June 9, 10, July 28, 29, and September 10–12. Daily discharge determined by applying to rating table mean daily gage height ascertained from recorder graph or staff gage readings; shifting-control method used May 21–31, June 17–22, September 5–7, and 22–24. Discharge during ice-affected periods and periods of missing gage height estimated by hydrographic comparison with Colorado River stations in Colorado and Lees Ferry station in Arizona. Records good except for estimated periods during winter, for which they are fair.

Discharge measurements of Colorado River near Cisco, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 13	[a] 3.23	1,690	Aug. 19	3.10	4,370
June 12	6.52	14,300	Sept. 27	3.55	5,210

[a] Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,070	3,310	2,740		6,640	10,200	27,700	13,300	4,000	7,260
2	2,170	3,280	2,600		6,910	11,200	25,700	12,900	3,960	6,660
3	2,150	3,160	2,810		6,610	12,400	21,400	13,000	3,570	6,480
4	2,150	3,280	2,790		6,300	14,300	18,300	12,600	3,590	10,900
5	2,120	3,370	2,810	3,000	6,300	16,400	15,900	12,700	3,610	7,860
6	2,170	3,510	2,940		7,120	17,100	14,800	13,300	3,750	7,800
7	2,310	3,530	2,850		8,500	16,700	14,800	12,900	3,530	7,260
8	3,300	3,490	2,830	3,590	8,380	15,900	14,800	11,700	3,490	6,610
9	3,570	3,240	2,700	3,830	7,120	15,600	14,200	10,400	3,220	5,960
10	3,180	3,180		4,020	6,040	15,500	13,500	9,420	2,880	5,710
11	3,330	3,280	2,650	3,790	6,120	15,400	12,800	9,200	3,310	5,450
12	3,670	3,260		3,490	7,230	15,100	13,800	9,230	5,400	5,200
13	3,550	3,260		3,180	9,640	14,700	15,700	9,700	5,570	4,950
14	3,590	3,240	2,740	3,000	12,000	14,000	14,900	9,420	5,790	4,900
15	3,530	3,200	3,260	2,850	12,700	14,200	13,900	8,530	6,140	4,900
16	3,510	3,160	2,920	2,700	13,400	14,400	15,700	7,460	5,720	4,670
17	3,550	3,180	2,810	2,560	13,400	14,000	19,000	6,690	4,970	4,580
18	3,650	3,090	2,790	2,740	13,300	13,900	21,200	6,400	4,280	4,520
19	3,590	3,240	2,740	2,720	13,300	14,600	21,400	6,040	4,360	7,510
20	3,590	3,390	2,600	2,650	13,200	17,700	21,600	5,940	4,100	9,610

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

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	3,790	3,370	2,400	2,620	12,500	21,200	22,900	6,320	4,500	9,960
22	3,770	3,330	2,200	2,700	11,200	23,800	24,900	8,350	4,100	7,740
23	3,960	3,240	2,000	2,810	11,700	23,400	27,000	9,260	4,170	6,690
24	3,550	3,260		3,180	11,100	22,700	25,300	9,390	5,040	5,990
25	3,570	3,240		4,000	9,860	23,700	22,400	7,970	7,260	5,620
			1,500							
26	3,450	2,990		4,700	8,800	23,700	19,900	7,120	6,990	5,400
27	3,300	2,690		5,040	8,230	23,000	17,500	6,510	7,210	5,180
28	3,240	2,600		5,540	8,470	22,600	16,100	6,020	7,970	4,830
29	3,200	2,580	1,800	5,820	8,920	23,700	14,600	5,520	7,540	4,450
30	3,240	2,810		5,840	9,570	24,800	13,400	5,020	7,910	4,130
31	3,350			6,090		25,900		4,360	7,120	

NOTE.—No gage-height record and discharge estimated by hydrographic comparison with records for other Colorado River stations Dec. 10–13, Dec. 20 to Mar. 7, Mar. 14–16, May 29, 30, June 9, 10, July 28, 29, and Sept. 10–12. Braced figures show estimated mean discharge for periods indicated.

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	3,960	2,070	3,200	197,000
November	3,530	2,580	3,190	190,000
December	3,260		2,430	149,000
January			[a] 2,200	135,000
February			[a] 2,600	144,000
March	6,090	2,560	3,560	219,000
April	13,400	6,040	9,490	565,000
May	25,900	10,200	17,800	1,090,000
June	27,700	12,800	18,500	1,100,000
July	13,300	4,360	8,920	548,000
August	7,910	2,880	5,000	307,000
September	10,900	4,130	6,290	374,000
The year	27,700		6,940	5,020,000

[a] Estimated.

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, 1925.

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 J. E. Klohr and D. H. Barber, resident hydrographers.

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 composed of sand and silt and is scoured several feet during each flood season. Channel at gage confined between banks not subject to overflow. Control is Paria riffle, composed of gravel and boulders.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 13.6 feet at 9.15 a. m. June 3 (discharge, 54,900 second-feet); minimum stage, 4.2 feet at 5 p. m. December 27 (discharge, 750 second-feet); river frozen over.

1921–1925: Maximum stage recorded, 26.5 feet at 2 p. m. June 18, 1921 (discharge, about 190,000 second-feet); minimum discharge occurred on December 27; 1924.

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 elevation 3,137.1 feet above sea level.

ICE.—Stage-discharge relation affected by ice.

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 remained practically permanent from beginning of record until about September 20, 1925, when a change in control was caused by a series of sharp freshets; affected by ice December 24 to February 6. During the year 62 discharge measurements, well distributed with respect to time and stage of river, were made. Rating curves are well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph, except for period of ice effect for which daily discharge was estimated from ten discharge measurements and a detailed comparison with discharge at the Grand Canyon station where no ice occurred. Records good.

Daily discharge, in second-feet, of Colorado River at Lees Ferry, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,840	6,350	6,250	1,500	6,000	8,080	15,400	19,500	49,000	34,200	13,800	16,400
2	3,820	6,480	5,870	2,400	6,500	7,610	15,900	19,800	50,300	31,900	13,000	17,400
3	3,800	6,580	5,620	2,800	8,500	7,440	15,700	20,600	52,300	30,600	12,000	18,600
4	3,760	6,650	5,590	2,900	7,000	7,440	15,800	20,900	49,400	30,200	11,000	27,500
5	3,740	6,580	5,560	3,100	8,500	7,260	16,300	22,300	46,200	30,300	10,000	29,200
6	3,760	6,650	5,470	3,500	7,200	7,330	16,500	25,000	43,200	30,900	8,930	25,000
7	4,200	6,610	5,870	4,000	7,330	7,440	16,500	29,500	40,700	31,900	8,930	24,300
8	5,410	6,580	5,840	4,300	7,330	7,720	16,600	31,500	40,000	33,300	9,050	19,000
9	6,580	6,580	5,870	4,400	7,190	8,160	18,000	32,300	38,800	32,800	9,250	16,800
10	5,680	6,610	5,930	4,600	7,020	8,380	18,800	32,000	36,700	31,100	9,290	15,500
11	5,560	6,890	5,960	4,400	7,090	8,730	17,700	31,800	34,800	30,100	8,810	14,200
12	6,250	6,680	5,960	4,100	6,990	15,700	16,600	32,700	33,500	28,200	9,010	13,200
13	6,650	6,580	5,650	3,850	6,990	16,200	17,100	33,700	31,600	27,400	9,010	12,200
14	6,150	6,480	5,350	3,950	6,920	15,400	16,900	33,600	32,200	25,800	9,830	12,100
15	5,900	6,610	5,090	4,150	6,890	13,800	18,000	33,700	33,300	24,800	9,830	12,600
16	6,090	6,650	4,810	4,300	6,780	12,000	21,500	32,500	32,300	23,500	11,200	11,100
17	6,320	6,750	4,620	4,400	6,750	10,800	24,100	32,700	30,600	22,000	10,500	11,800
18	6,350	6,650	4,700	4,400	6,750	9,830	25,900	32,900	31,500	19,800	10,400	18,000
19	6,220	6,650	5,030	4,350	6,850	9,130	28,800	32,300	35,000	18,000	10,800	15,300
20	6,220	6,550	5,180	4,400	6,820	8,540	32,400	32,500	37,700	16,500	10,100	23,600
21	6,610	6,320	4,970	4,500	6,850	8,190	33,400	33,800	38,100	15,400	9,580	18,100
22	6,680	6,220	4,270	4,650	7,090	8,270	32,500	37,300	41,000	15,000	9,290	26,900
23	6,720	6,220	4,020	4,750	7,260	7,930	30,400	41,200	43,700	14,700	10,000	24,500
24	6,680	6,380	3,400	4,900	7,360	7,540	29,000	45,100	47,100	15,400	10,000	22,000
25	6,890	6,580	2,800	4,900	7,540	7,330	28,600	44,800	50,400	17,600	12,000	18,500
26	6,780	6,580	1,500	4,900	8,040	7,830	26,900	44,700	46,300	18,200	14,800	16,300
27	6,850	6,480	1,000	4,800	8,040	8,500	24,200	48,500	42,600	17,500	19,300	14,500
28	6,820	6,510	1,200	4,900	8,270	9,750	22,200	49,300	39,900	15,400	20,800	13,700
29	6,280	6,510	1,350	5,100	-------	12,200	20,600	49,200	38,300	14,100	19,000	14,000
30	6,480	6,550	1,350	5,400	-------	14,200	19,800	47,800	36,300	13,500	18,300	13,800
31	6,510	-------	1,350	5,800	-------	14,700	--------	47,700	--------	14,100	19,800	-------

Monthly discharge of Colorado River at Lees Ferry, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	6,890	3,740	5,790	356,000
November	6,890	6,220	6,550	390,000
December	6,250	1,000	4,430	272,000
January	5,800	1,500	4,210	259,000
February	8,500	6,000	7,210	400,000
March	16,200	7,260	9,790	602,000
April	33,400	15,400	21,700	1,290,000
May	49,300	19,500	34,600	2,130,000
June	52,300	30,600	40,100	2,390,000
July	34,200	13,500	23,400	1,440,000
August	20,800	8,810	11,900	732,000
September	29,200	11,100	17,900	1,070,000
The year	52,300	1,000	15,600	11,300,000

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, 1925.

GAGE.—Continuous water-stage recorder in concrete shelter and stilling well on right bank; inspected by B. S. Barnes and R. G. Kasel, 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 is 275 feet wide at low water and 300 feet at high water. 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, 18.75 feet at 10 p. m. June 3 (discharge, 53,700 second-feet); minimum stage, −0.70 foot at 8 p. m. December 28 (discharge, 700 second-feet).

1923–1925: Maximum stage recorded, 28.5 feet at 6 p. m. September 19, 1923 (discharge, 112,000 second-feet); minimum discharge occurred on December 28, 1924.

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 remained practically permanent after the flood of September, 1923, until about August 27, 1925. A series of sudden freshets of short duration in August and September, 1925, caused a slight scouring of control. During the year 51 discharge measurements were made, well distributed with respect to both time and river stage. Rating curves are well defined. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records good.

Daily discharge, in second-feet, of Colorado River at Bright Angel Creek, near Grand Canyon, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,240	6,830	6,730	1,400	6,210	8,460	16,700	19,800	48,300	36,000	15,900	20,100
2	4,190	6,720	6,460	1,860	6,510	8,430	17,200	19,900	49,600	33,500	14,200	17,600
3	4,140	6,770	6,090	2,800	7,160	8,080	16,900	20,600	51,900	32,200	13,300	25,500
4	4,190	6,910	5,970	3,150	9,040	7,950	16,700	21,400	51,200	31,200	12,300	26,300
5	4,120	6,970	5,920	3,220	7,360	7,880	16,700	21,900	47,300	33,000	11,300	35,000
6	4,090	6,860	5,900	3,420	8,840	7,790	17,000	23,800	44,200	31,900	10,300	30,200
7	4,300	6,900	5,860	3,850	7,930	7,760	16,800	27,500	41,700	32,200	9,740	26,700
8	5,760	6,790	6,110	4,290	8,060	7,960	16,800	31,200	39,800	32,900	9,660	23,200
9	6,650	6,760	6,170	4,540	8,220	8,400	17,300	32,200	39,600	33,900	10,000	18,600
10	7,550	6,840	6,180	4,680	7,930	10,400	18,900	32,100	37,200	32,300	9,880	17,000
11	6,480	6,950	6,230	4,850	7,710	12,500	18,900	31,400	35,300	31,100	9,740	15,500
12	6,230	7,130	6,280	4,730	7,640	12,300	17,700	31,500	34,100	29,500	9,500	14,200
13	6,910	7,000	6,270	4,410	7,450	18,100	17,000	33,100	32,200	27,900	9,780	13,300
14	6,950	6,860	6,060	4,150	7,500	17,600	17,200	33,300	31,400	26,800	9,970	12,600
15	6,350	6,740	5,810	4,260	7,520	16,100	17,300	33,600	32,800	25,300	10,200	12,900
16	6,160	6,900	5,530	4,470	7,390	14,800	19,000	32,900	33,200	24,100	11,000	12,600
17	6,370	6,910	5,260	4,730	7,340	13,000	22,900	32,000	31,500	22,800	11,500	13,400
18	6,530	7,000	5,000	4,840	7,320	11,000	25,200	32,700	31,100	20,800	11,000	23,100
19	6,510	6,950	5,060	4,720	7,210	10,100	27,500	31,900	33,300	18,900	11,100	21,300
20	6,420	6,910	5,360	4,650	7,280	9,450	31,400	31,900	37,200	17,500	11,400	21,400
21	6,490	6,810	5,300	4,690	7,260	8,980	33,700	32,600	38,800	16,400	10,700	24,900
22	6,860	6,700	5,150	4,850	7,390	8,800	33,800	35,600	39,400	15,500	10,400	24,800
23	6,980	6,560	4,680	4,990	7,660	8,790	31,600	40,500	42,600	15,400	10,500	27,900
24	7,000	6,580	4,240	5,110	7,840	8,600	29,400	44,400	45,600	15,300	11,000	25,200
25	7,000	6,730	3,720	5,230	7,880	8,380	28,700	45,800	50,200	16,300	12,100	21,800
26	7,140	6,910	3,140	5,230	8,160	8,410	27,600	44,700	48,200	18,400	15,700	18,400
27	7,140	6,860	1,830	5,230	8,600	8,870	25,500	47,000	43,800	18,400	21,700	16,100
28	7,200	6,760	990	5,200	8,460	9,540	23,300	49,800	40,600	17,100	25,900	14,600
29	7,020	6,800	1,200	5,230	-------	11,200	21,400	49,400	39,100	15,300	22,900	14,200
30	6,770	6,830	1,450	5,470	-------	16,600	20,200	48,400	36,900	14,200	20,000	14,400
31	6,870	-------	1,450	5,820	-------	17,200	--------	47,000	--------	13,700	21,900	-------

Monthly discharge of Colorado River at Bright Angel Creek, near Grand Canyon, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7,550	4,090	6,150	378,000
November	7,130	6,560	6,840	407,000
December	6,730	990	4,880	300,000
January	5,820	1,400	4,390	270,000
February	9,040	6,210	7,670	426,000
March	18,100	7,760	10,800	664,000
April	33,800	16,700	22,000	1,310,000
May	49,800	19,800	34,200	2,100,000
June	51,900	31,100	40,300	2,400,000
July	36,000	13,700	24,200	1,490,000
August	25,900	9,500	13,100	806,000
September	35,000	12,600	20,100	1,200,000
The year	51,900	990	16,200	11,800,000

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, 1925.

GAGE.—Continuous water-stage recorder on left bank; inspected by D. A. Dudley, W. C. Chase, J. A. Baumgartner, and J. E. Klohr, resident hydrographers. Zero of gage is 423.2 feet above sea level (new determination of sea level elevation; gage datum unchanged).

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, 14.70 feet at 8 a. m. June 6 (discharge, 51,200 second-feet); minimum discharge, 1,800 second-feet at 8 a. m. January 4.

1917–1925: Maximum stage recorded, 28.2 feet at 6 a. m. June 22, 1921 (discharge, 174,000 second-feet); minimum discharge occurred on 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. Complete discharge measurements made three times a week or oftener, October 1 to April 30, and on alternate days, May 1 to September 30. On intervening days, with few exceptions, short-cut discharge measurements were made. These short-cut measurements consisted of complete soundings throughout the measuring section and complete velocity observations at eight key points in the cross section by means of which the discharge for the measurements was computed using well-defined coefficients. Operation of water-stage recorder satisfactory. Daily discharge ascertained by shifting-control method, using the 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, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,700	7,530	7,530	2,800	5,240	8,180	11,100	22,300	46,700	40,900	15,800	20,100
2	4,570	7,600	7,230	2,430	5,530	8,880	16,500	21,400	45,800	39,900	14,000	18,300
3	4,570	7,060	7,810	2,080	5,730	8,920	17,700	20,500	46,200	37,500	13,700	20,400
4	4,730	7,570	7,600	1,980	6,230	8,740	17,300	20,200	47,200	35,800	15,400	18,100
5	4,600	7,260	7,810	2,240	6,720	8,950	17,100	20,700	49,200	32,900	13,900	20,300
6	4,280	7,530	6,790	2,270	6,990	8,640	16,300	22,000	50,400	30,900	13,400	21,600
7	4,540	7,130	6,850	2,400	8,080	8,280	16,800	21,900	48,800	31,700	12,800	30,800
8	4,190	7,470	7,020	3,760	8,700	8,420	16,600	22,500	45,000	32,800	11,700	30,400
9	4,540	7,530	6,590	3,820	8,360	7,980	17,200	24,900	42,300	31,800	11,200	25,200
10	4,440	7,570	6,720	3,850	8,600	8,010	17,200	29,000	40,300	31,400	10,300	23,600
11	4,830	7,770	6,490	4,160	8,220	7,740	17,200	31,300	39,700	33,600	10,200	19,500
12	6,160	7,530	6,790	4,570	8,280	8,360	16,600	32,300	37,300	32,000	9,860	17,000
13	7,300	7,470	6,750	4,960	8,360	9,370	19,000	31,800	35,000	31,200	9,760	15,500
14	7,400	7,430	6,590	5,120	8,320	12,500	19,000	31,300	34,100	30,800	10,100	14,200
15	6,850	7,090	6,920	5,370	8,180	12,100	18,100	32,400	34,300	28,400	9,620	13,400
16	6,520	7,870	6,560	5,340	8,040	17,300	17,000	34,200	31,800	27,900	9,400	12,700
17	7,740	7,700	6,960	4,890	8,180	16,800	17,700	33,300	32,100	25,700	9,370	11,900
18	8,110	8,150	7,130	4,600	8,080	15,900	17,600	33,400	33,300	25,500	9,720	12,000
19	7,130	7,670	6,920	4,640	7,980	14,000	20,300	31,500	32,300	23,500	10,400	11,700
20	6,750	7,640	6,660	4,800	7,910	12,800	23,800	32,700	30,900	22,300	11,200	18,700
21	6,720	7,870	5,730	5,210	7,840	11,200	26,200	31,600	31,800	19,600	10,700	21,900
22	7,130	7,770	5,630	5,240	7,770	11,100	29,600	31,100	34,700	18,700	10,600	20,000
23	7,060	7,600	5,600	5,310	7,670	9,930	33,000	31,200	36,400	17,300	11,500	24,600
24	7,020	7,360	5,760	5,280	7,740	9,860	34,700	33,000	37,000	16,900	10,500	21,200
25	7,570	7,360	5,860	5,180	7,910	8,810	33,000	36,700	40,000	15,300	9,580	26,300
26	7,640	7,090	5,830	5,340	7,910	9,260	31,200	42,400	42,700	15,600	10,100	24,500
27	7,640	7,360	5,310	5,400	8,080	9,580	29,000	43,600	46,200	15,800	10,600	23,000
28	7,530	7,400	4,800	5,530	8,640	9,090	28,900	42,600	47,700	17,200	12,400	18,700
29	7,400	7,190	4,480	5,310	-------	8,950	27,000	44,900	45,500	17,900	16,200	16,500
30	7,570	7,640	4,350	5,570	-------	8,810	24,300	46,800	43,000	18,200	22,500	15,100
31	7,700	-------	3,510	5,050	-------	9,680	-------	46,800	-------	16,500	22,600	-------

Monthly discharge of Colorado River near Topock, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	8,110	4,190	6,290	387,000
November	8,150	7,060	7,510	447,000
December	7,810	3,510	6,340	390,000
January	5,570	1,980	4,340	267,000
February	8,700	5,240	7,690	427,000
March	17,300	7,740	10,300	633,000
April	34,700	11,100	21,600	1,290,000
May	46,800	20,200	31,600	1,940,000
June	50,400	30,900	40,300	2,400,000
July	40,900	15,300	26,300	1,620,000
August	22,600	9,370	12,200	750,000
September	30,800	11,700	19,600	1,170,000
The year	50,400	1,980	16,200	11,700,000

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 the 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, 1925. 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. 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 stage recorded during year, 23.45 feet at 9 p. m. June 8 (discharge, 53,200 second-feet); minimum stage, 13.71 feet at noon January 8 (discharge, 1,150 second-feet).

1902–1925: Maximum mean daily 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 on 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, with measurements made daily except Sunday during October. No measurements were made during the period January 24 to February 9, because of fire

damage to measuring cable. Operation of water-stage recorder satisfactory except January 25 to February 19, when recorder was removed owing to fire; staff readings used during this period. Daily discharge ascertained by shifting-control method, using the mean daily gage height determined from recorder graph. Discharge for period January 24 to February 9 estimated from hydrographic comparison with Colorado River near Topock, consideration being given to variation in diversion at Laguna Dam.

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

Daily discharge, in second-feet, of Colorado River at Yuma, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,500	5,680	5,490	4,330	5,060	6,830	6,620	26,400	46,400	47,500	17,300	21,700
2	2,430	6,590	5,790	3,450	4,850	6,720	6,660	24,800	46,200	46,100	15,600	21,900
3	2,700	7,150	6,300	2,630	4,330	6,390	8,210	21,100	46,400	44,100	13,600	19,000
4	2,840	6,690	6,260	1,940	4,300	6,490	13,700	19,800	46,800	42,800	12,400	19,400
5	2,870	5,310	6,390	1,760	4,300	7,000	15,800	18,700	47,100	39,400	12,000	20,500
6	2,210	5,170	7,680	1,510	4,360	6,900	14,500	18,000	49,900	36,800	14,000	17,100
7	2,240	5,290	6,860	1,260	4,700	8,040	15,100	18,300	51,700	34,000	12,700	19,700
8	2,320	5,790	5,760	1,210	5,500	7,640	15,100	18,800	52,900	32,500	12,200	22,200
9	2,230	5,900	5,930	1,360	5,450	6,690	14,500	20,500	52,600	33,000	11,600	29,100
10	2,310	5,620	5,340	1,640	7,450	6,590	14,600	20,300	50,500	33,200	10,800	31,800
11	2,330	5,730	5,190	3,320	7,110	6,420	16,200	22,900	46,400	34,000	9,320	27,100
12	2,420	5,700	5,440	3,760	7,150	6,420	16,400	27,200	42,800	33,900	8,950	24,800
13	2,360	7,000	6,620	3,700	7,330	6,490	15,900	29,000	40,300	33,400	8,910	19,800
14	2,660	6,390	5,700	3,940	8,770	6,590	15,700	29,800	39,600	33,800	8,680	16,900
15	4,780	6,200	5,310	4,500	8,340	6,900	16,600	30,500	38,100	32,600	8,950	15,200
16	3,680	6,760	5,730	4,960	6,830	9,660	16,100	30,900	36,600	30,200	9,140	13,600
17	5,170	6,590	5,360	5,120	6,930	10,200	15,400	30,400	33,700	28,200	8,130	12,900
18	5,100	6,390	5,360	5,030	6,790	15,500	15,700	30,900	31,600	26,500	7,720	12,500
19	5,310	6,230	5,700	4,330	6,660	14,300	14,800	31,900	31,800	24,700	7,840	12,900
20	5,570	6,170	6,900	3,430	6,460	14,900	15,500	31,600	33,000	23,400	7,920	14,800
21	5,620	6,460	6,200	3,430	7,490	14,600	18,000	31,500	33,500	22,200	7,920	14,000
22	5,310	6,760	5,360	3,540	7,680	11,900	21,200	31,600	32,600	21,400	10,300	23,400
23	4,590	6,490	5,440	3,630	7,370	10,200	24,300	31,800	33,200	19,200	9,460	29,800
24	4,630	5,490	5,050	3,730	5,960	9,420	26,400	30,100	36,000	17,700	8,950	25,700
25	5,570	5,930	5,440	4,030	6,050	8,730	30,700	30,200	38,200	17,600	9,140	26,800
26	5,590	6,170	6,230	4,050	6,360	7,520	32,300	31,800	39,500	15,200	9,140	26,700
27	4,940	6,200	6,620	4,050	6,200	7,330	31,100	36,000	42,100	14,000	8,290	27,600
28	4,940	6,110	5,570	4,030	6,390	8,380	29,200	39,500	45,500	14,000	8,420	25,500
29	5,220	7,040	4,560	4,030	-------	8,510	27,100	42,700	46,100	14,600	10,000	21,300
30	5,000	6,460	4,520	4,200	-------	7,260	27,400	45,000	48,400	15,800	11,300	19,100
31	5,490	-------	4,670	4,850	-------	7,110	-------	45,400	-------	16,400	16,500	-------

Monthly discharge of Colorado River at Yuma, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	5,620	2,210	3,900	240,000
November	7,150	5,170	6,180	368,000
December	7,680	4,520	5,770	355,000
January	5,120	1,210	3,440	212,000
February	8,770	4,300	6,290	349,000
March	15,500	6,390	8,630	531,000
April	32,300	6,620	18,400	1,090,000
May	45,400	18,000	28,900	1,780,000
June	52,900	31,600	42,000	2,500,000
July	47,500	14,000	28,300	1,740,000
August	17,300	7,720	10,600	652,000
September	31,800	12,500	21,100	1,260,000
The year	52,900	1,210	15,300	11,100,000

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 special map).

RECORDS AVAILABLE.—September 23, 1910, to September 30, 1925.

GAGE.—Gurley water-stage recorder on left bank, 300 feet upstream from old logging road crossing at Vasquez; inspected by forest ranger. Prior to June 3, 1916, vertical staff attached to downstream side of bridge on trail to Arrow and a quarter of a mile above railroad bridge was used. During winter, readings taken from staff gage at railroad bridge 1 mile upstream.

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, 1.66 feet at 1 a. m. June 15 (discharge, 223 second-feet); minimum discharge occurred during first part of March when there was no gage-height record.

1911–1925: Maximum discharge recorded, 820 second-feet at 9 p. m. June 13, 1918 (gage-height, 2.9 feet); minimum discharge, 2 second-feet March 30, 1912 (gage-height, 0.60 foot).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Court decree for diversion of 53 second-feet across divide from headwaters of Fraser River into headwaters of Clear Creek. During 1925, 1,050 second-feet were diverted. Below station, diversions 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.

Discharge measurements of Fraser River near West Portal, Colo., during the year ending September 30, 1925

Date	Gage height in feet		Discharge	Date	Gage height in feet		Discharge
	Winter gage	Regular gage			Winter gage	Regular gage	
June 2	1.95	1.27	121	July 14		0.87	61
July 13	1.55	.86	57	Aug. 23	1.22	.68	35.9

Daily discharge, in second-feet, of Fraser River near West Portal, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	12	10	9		12	45	180	94	30	45
2	13	15	12	10	9		11	45	152	98	31	50
3	14	15	12	10	9		11	45	134	91	28	56
4	14	15	12	10	9		12	45	122	82	32	53
5	15	16	12	10	9		13	44	120	82	30	61
6	16	16	12	10	10		14	46	143	78	33	56
7	16	16	12	10	10		15	46	138	77	31	65
8	21	16	12	10	9		15	45	134	71	28	96
9	19	16	11	10	8		16	44	128	68	28	67
10	18	16	11	10	8		16	45	124	65	29	61

Daily discharge, in second-feet, of Fraser River near West Portal, Colo., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	18	16	11	10	8	-------	16	46	134	64	31	56
12	18	15	10	10	8	-------	18	48	130	61	34	53
13	18	15	10	10	8	-------	24	51	130	60	35	53
14	20	15	10	10	8	-------	29	52	163	57	32	56
15	18	15	10	10	8	-------	40	58	190	58	28	42
16	18	15	10	10	8	-------	51	62	173	61	29	37
17	18	14	10	10	8	-------	52	66	168	64	28	36
18	16	14	10	10	8	-------	41	74	175	65	28	36
19	14	13	10	10	8	-------	42	87	190	72	32	36
20	15	12	10	9	8	-------	45	122	193	65	34	36
21	15	12	10	9	8	-------	48	118	196	60	33	36
22	15	11	10	9	7	-------	44	122	180	57	36	35
23	15	11	10	9	7	-------	40	130	170	53	38	35
24	15	10	10	9	7	-------	37	130	152	42	36	34
25	14	10	10	9	7	-------	49	126	141	38	38	34
26	15	10	10	9	7	-------	46	130	134	40	40	33
27	14	11	10	9	7	-------	46	130	116	38	42	32
28	14	11	10	9	7	-------	48	148	109	37	37	31
29	14	11	10	9	-------	11	48	152	105	34	53	30
30	12	11	10	9	-------	12	46	156	98	36	50	28
31	11	-------	10	9	-------	13	-------	180	-------	31	48	-------

NOTE.—No gage-height record Feb. 22 to Mar. 28 and Sept. 6–11; discharge estimated Feb. 22–28 and based on comparison with flow of Blue River at Dillon Sept. 6–11. Shifting-control method used Nov. 2–30.

Monthly discharge of Fraser River near West Portal, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	21	11	15.6	959
November	16	10	13.5	803
December	12	10	10.6	652
January	10	9	9.6	591
February	10	----------	8.1	450
March	13	----------	8.0	492
April	52	11	31.5	1,870
May	180	44	85.1	5,230
June	196	98	147	8,750
July	98	31	61.3	3,770
August	53	28	34.3	2,110
September	96	28	46.0	2,740
The year	196	----------	39.3	28,400

NOTE.—Mean discharge for March based on temperature records.

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 square miles.

RECORDS AVAILABLE.—October 15, 1910, to September 30, 1925.

GAGE.—Gurley water-stage recorder installed April 21, 1920, and referred to previously used vertical staff on right abutment of bridge; 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; shifts at long intervals. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 2.48 feet at 6 p. m. May 31 (discharge, 391 second-feet); minimum discharge occurred during winter.

1911–1925: 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.

Discharge measurements of Blue River at Dillon, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 9	1.05	43.6	June 4	2.08	236	Aug. 13	1.62	116
May 7	1.70	137	July 8	1.94	211	Sept. 2	1.54	111

Daily discharge, in second-feet, of Blue River at Dillon, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	56	56	40	102	360	219	103	112
2	56	54	36	107	322	219	100	103
3	56	54	36	116	280	225	97	103
4	58	54	40	122	244	222	94	130
5	58	54	44	128	225	210	103	136
6	57	54	42	130	231	216	120	126
7	59	53	46	136	251	210	112	122
8	63	53	46	143	244	196	105	124
9	62	------	50	151	225	182	105	112
10	62	------	50	154	216	170	103	105
11	63	------	60	151	240	172	105	100
12	65	------	59	151	265	182	118	95
13	64	------	65	154	244	177	122	95
14	63	------	70	154	225	175	122	97
15	62	------	77	163	284	165	116	102
16	62	------	88	163	295	156	112	102
17	63	------	98	165	314	156	103	97
18	64	------	111	154	306	163	102	94
19	65	------	102	163	322	163	111	91
20	69	------	92	199	318	151	102	88
21	68	------	98	251	331	165	105	87
22	66	------	105	295	365	165	120	84
23	65	------	102	306	343	154	124	84
24	65	------	95	303	314	154	114	84
25	64	------	95	310	287	138	114	87
26	63	------	94	306	269	132	132	91
27	63	------	95	306	254	124	188	91
28	62	------	97	303	240	116	172	90
29	62	------	100	327	231	111	175	87
30	60	------	98	356	225	107	158	83
31	58	------	------	374	------	103	140	------

NOTE.—No gage-height record Apr. 1–10; discharge based on comparison with flow of Fraser River near West Portal.

Monthly discharge of Blue River at Dillon, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	69	56	62.0	3,810
November	----------	----------	49	2,920
April	111	----------	74.4	4,430
May	374	102	205	12,600
June	365	216	274	16,300
July	225	103	168	10,300
August	188	94	119	7,320
September	136	83	100	5,950

NOTE.—Mean discharge for November based on temperature records.

EAGLE RIVER AT REDCLIFF, COLO.

LOCATION.—In sec. 29, T. 6 S., R. 80 W., at footbridge in Redcliff, Eagle County. Nearest tributary, Turkey Creek, enters 100 yards below station; Homestake Creek enters 1 mile below.

DRAINAGE AREA.—74 square miles (measured on topographic map).

RECORDS AVAILABLE.—January 1, 1911, to September 30, 1925, when station was discontinued.

GAGE.—Chain gage on downstream side of footbridge; read by Miss Hazel Howard. Staff gage in same section and referred to same datum, read during high water.

DISCHARGE MEASUREMENTS.—Made from highway bridge 800 feet above station or by wading.

CHANNEL AND CONTROL.—Bed composed of boulders; very rough. Control short distance below gage; shifts at long intervals. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.6 feet at 8 a. m. June 22 (discharge, 325 second-feet); minimum stage, 0.40 foot at 8.30 a. m. October 5 (discharge, 7 second-feet).

1911–1925: Maximum stage recorded, 4.0 feet on June 5, 1912 (discharge, 1,010 second-feet); minimum stage, 0.01 foot at 7 a. m. October 15, 1917 (discharge, 1 second-foot).

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

DIVERSIONS.—Very little land irrigated above gaging station. During 1925, 1,150 acre-feet diverted from headwaters of Eagle River to Arkansas River Basin.

REGULATION.—Diurnal fluctuation during spring caused by alternate melting and freezing of mountain snow. Filling of Pando ice pond in fall reduces flow for a few days.

ACCURACY.—Stage-discharge relation not permanent; not affected by ice. Rating curve fairly well defined. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method used November 9 to May 4. Records good.

Discharge measurements of Eagle River at Redcliff, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Feb. 15	0.97	11.5	Aug. 12	1.15	31.3
Apr. 20	1.64	67	Sept. 1	[a] 1.02	23.4
July 7	1.47	60			

[a] Chain gage read, 0.98 foot.

Daily discharge, in second-feet, of Eagle River at Redcliff, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	18	20	14	11	11	34	93	252	84	25	23
2	20	19	18	12	12	12	35	104	240	87	24	24
3	25	21	17	15	11	13	29	129	225	79	24	29
4	9	25	16	14	11	14	28	133	208	76	27	26
5	7	26	15	13	12	14	35	147	197	76	26	24
6	7	22	14	12	11	17	40	135	180	72	26	20
7	9	11	16	13	11	14	36	135	171	64	25	20
8	23	12	15	13	11	13	28	153	162	57	25	20
9	27	16	14	14	12	13	29	145	151	56	26	23
10	26	17	14	12	10	12	34	149	141	58	29	22
11	26	16	15	12	11	12	43	151	137	64	36	22
12	25	16	15	14	10	12	49	135	151	64	29	22
13	23	16	14	13	10	13	58	137	143	57	24	25
14	26	15	14	12	10	12	71	158	139	48	22	28
15	26	15	14	12	11	12	73	164	133	42	21	24
16	26	17	16	13	10	11	75	155	139	41	22	24
17	26	17	14	12	10	10	79	147	141	41	21	22
18	29	17	14	12	11	9	76	131	139	36	21	24
19	28	16	12	11	11	9	73	195	143	36	23	24
20	26	18	12	13	11	10	71	255	135	42	22	22
21	26	18	12	13	11	9	71	272	143	49	27	22
22	24	18	13	13	11	13	73	308	137	49	24	22
23	24	18	11	12	11	16	66	294	131	47	25	25
24	25	17	12	12	10	19	66	286	123	42	25	26
25	24	17	11	12	10	22	69	272	112	36	27	24
26	26	17	11	11	11	22	68	266	105	33	26	24
27	27	16	11	12	10	22	73	255	107	32	25	23
28	24	18	11	12	10	19	65	252	105	29	24	22
29	21	16	12	12	-------	26	61	246	97	26	23	22
30	22	17	11	12	-------	36	68	255	89	25	24	21
31	19	-------	14	11	-------	36	-------	258	-------	24	23	-------

Monthly discharge of Eagle River at Redcliff, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	29	7	22.4	1,380
November	26	11	17.4	1,040
December	20	11	13.8	848
January	15	11	12.5	769
February	12	10	10.8	600
March	36	9	15.6	959
April	79	28	55.9	3,330
May	308	93	191	11,700
June	252	89	149	8,870
July	87	24	50.7	3,120
August	36	21	24.9	1,530
September	29	20	23.3	1,390
The year	308	7	49.1	35,500

ROARING FORK AT GLENWOOD SPRINGS, COLO.

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

DRAINAGE AREA.—1,460 square miles (measured on base map of Colorado, scale 1:500,000).

RECORDS AVAILABLE.—April 6, 1906, to September 30, 1909; September 21, 1910, to September 30, 1925.

GAGE.—Gurley water-stage recorder installed October 27, 1917; referred to inclined staff on left bank 800 feet above highway bridge, used since November 20, 1915; inspected by C. H. Oberly. Chain gage on downstream side of highway bridge previously used. Relation between gages not determined.

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. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 5.6 feet at 8 a. m. June 22 (discharge, 8,880 second-feet); minimum stage recorded, 0.65 foot at 7 a. m. December 25 (discharge, 312 second-feet).

1906–1909; 1910–1925: Maximum stage recorded, 8.7 feet on June 14, 1921, from high-water mark (discharge, 17,600 second-feet); 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 for irrigation of 8,700 acres from Roaring Fork and 25,000 acres from tributaries, all above station.

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

ACCURACY.—Stage-discharge relation practically permanent; affected by ice during winter. 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. Records excellent except for period affected by ice, for which they are fair.

Discharge measurements of Roaring Fork at Glenwood Springs, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 18	[a] 1.52	369	Apr. 21	2.05	1,410
Feb. 16	.79	364	Aug. 14	2.21	1,580

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Roaring Fork at Glenwood Springs, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	556	556	450		379	366	626	1,560	4,400	3,740	1,240	1,330
2	568	556	455		379	384	606	1,730	3,540	3,440	1,120	1,330
3	580	550	482		374	402	580	2,040	2,980	3,160	1,060	1,500
4	568	550	465		379	397	612	2,040	2,590	3,070	1,120	1,730
5	568	544	450		384	406	705	2,170	2,900	3,250	1,180	1,730
6	556	580	455	375	374	430	780	1,910	2,740	3,070	1,000	1,560
7	574	526	465		397	465	705	1,790	2,520	2,900	920	1,440
8	720	498	420		362	520	612	1,980	2,300	2,740	881	1,330
9	675	532	445		402	509	600	1,980	2,300	2,590	872	1,300
10	675	574	410		379	455	645	1,910	2,520	2,520	1,010	1,230

Daily discharge, in second-feet, of Roaring Fork at Glenwood Springs, Colo., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	675	556	435		358	425	796	2,040	3,070	2,980	1,440	1,170
12	638	520	455		397	430	1,040	1,980	2,900	2,820	1,620	1,130
13	619	550	460		420	455	1,220	1,910	2,520	2,520	1,790	1,120
14	632	520	440		406	425	1,330	2,170	2,590	2,440	1,620	1,160
15	645	532	430		379	415	1,500	2,170	3,740	2,240	1,440	1,170
				370								
16	668	538	445		370	440	1,730	1,980	4,640	2,100	1,310	1,090
17	668	538	465		350	435	1,850	1,980	5,140	2,040	1,180	1,050
18	705	538	430		370	420	1,910	2,380	4,760	1,910	1,090	1,170
19	737	580	397		370	425	1,620	3,250	5,140	1,790	1,130	2,240
20	698	550	362		384	445	1,390	4,070	5,800	1,980	1,250	1,910
21	660	538			397	465	1,390	5,010	6,640	2,440	1,240	1,560
22	638	526			388	470	1,560	4,400	8,040	2,590	1,150	1,390
23	632	520			370	520	1,390	4,520	6,640	2,380	1,180	1,330
24	606	498			397	593	1,240	5,010	5,800	2,040	1,220	1,320
25	593	450			379	593	1,080	4,880	5,140	1,910	1,330	1,270
				390								
26	586	482	380		384	593	1,050	4,760	4,640	1,790	1,330	1,220
27	574	460			370	606	1,100	4,400	4,400	1,680	1,500	1,180
28	556	482			392	619	1,100	5,140	3,960	1,560	1,680	1,120
29	556	455			-------	612	1,220	5,660	3,850	1,440	1,680	1,070
30	574	450			-------	645	1,330	5,800	3,740	1,440	1,560	1,020
31	538	-------		415	-------	606	-------	6,360	-------	1,330	1,440	------

NOTE.—Stage-discharge relation affected by ice Dec. 21 to Jan. 30; discharge based on one discharge measurement, temperature and gage-height records, and observer's notes. Braced figures show mean discharge for periods indicated.

Monthly discharge of Roaring Fork at Glenwood Springs, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	737	538	621	38,200
November	580	450	525	31,200
December	482	----------	419	25,800
January	----------	----------	380	23,400
February	420	350	382	21,200
March	645	366	483	29,700
April	1,910	580	1,110	66,000
May	6,360	1,560	3,190	196,000
June	8,040	2,300	4,060	242,000
July	3,740	1,330	2,380	146,000
August	1,790	872	1,280	78,700
September	2,240	1,020	1,340	79,700
The year	8,040	----------	1,350	978,000

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, scale 1:500,000).

RECORDS AVAILABLE.—April 7, 1921, to September 30, 1925.

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, 1.7 feet April 5, 17, and 18 (discharge, 92 second-feet); minimum stage recorded, 0.30 foot June 30 and July 14 (discharge, 0.3 second-foot).

1921–1925: Maximum stage recorded, 3.0 feet at 5 p. m. May 9, 1922 (discharge, 790 second-feet); minimum discharge, 0.1 second-foot August 24 and 27–31, 1924.

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

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

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, 1925

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	12		14	44	1.4	1.4	0.5	4	2.4
2	4	12	10	14	33	1.1	1.4	1.4	12	2.4
3	7	12		14	38	1.4	1.4	.7	12	2.4
4	7	12		17	44	2.4	1.2	.8	24	24
5	12	12		17	74	4	1.3	.9	2.4	24
6	12	12		17	58	7	1.3	.6	1.4	7
7	12	12		17	66	13	4	.5	1.4	9.5
8	12	12		28	61	17	17	.5	1.4	12
9	12	12		33	66	17	17	.5	1.4	6.7
10	12	12		24	61	17	14	.5	4	6.4
11	12	12		17	72	17	12	4	4	6.4
12	12	12		14	51	17	12	1.9	1.4	6.7
13	12	12		14	66	17	16	.5	1.4	12
14	12	12		12	61	17	9.5	.3	.8	12
15	12	12		12	71	20	8	.5	.8	11
16	12	12		12	78	18	7	.5	.8	9.5
17	12	12		12	74	18	7	.5	.8	8
18	12	12		12	74	20	7	.5	.8	8
19	12	12		12	69	17	7	7	.8	13
20	12	12		12	58	12	3.8	33	.8	12
21	12	12		12	44	12	3.8	1.4	1.6	14
22	12	12		14	43	12	2.7	.6	.8	12
23	12	12		17	24	7	2.4	.6	.8	12
24	12	12		17	24	5.5	.9	.6	.8	12
25	12	12		23	23	4	.9	.5	.8	12
26	12	12		17	10	3.2	.7	.5	.8	12
27	12	12		17	2.4	2.4	.5	.5	.8	12
28	12	12		28	1.4	2.4	.5	.5	12	11
29	12	12		33	1.4	2.4	.5	.5	12	11
30	12	12		38	1.4	1.8	.3	.5	2.4	11
31	12			38		1.3		.5	2.4	

NOTE.—Gage not read Nov. 13–15; discharge interpolated.

Monthly discharge of Parachute Creek at Grand Valley, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	12	4	11.2	689
November	12		12	714
December			[a] 9	553
March	38	12	18.6	1,140
April	78	1.4	46.5	2,770
May	20	1.1	9.95	612
June	17	.3	5.42	323
July	33	.3	2.01	124
August	24	.8	3.60	221
September	24	2.4	10.5	625

[a] Estimated.

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; scale, 1:500,000).

RECORDS AVAILABLE.—April 8, 1921, to September 30, 1925.

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, 1.95 feet at 6 p. m. July 2 (discharge, 96 second-feet); minimum discharge probably occurred during winter.

1921–1925: 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 by 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, 1925

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	21	------	18	25	17	25	24	20	33
2	24	22	25	25	24	16	24	56	19	26
3	23	22	------	28	24	18	24	56	20	20
4	22	23	------	28	28	23	26	41	22	21
5	23	24	------	30	36	30	27	31	21	25
6	23	25	------	30	34	27	27	25	20	24
7	23	24	------	34	35	25	27	22	20	26
8	27	23	------	43	33	28	28	20	19	27
9	23	23	------	30	33	30	32	19	19	26
10	22	27	------	25	36	31	31	20	19	25
11	22	27	------	25	42	32	30	20	24	25
12	23	24	------	21	43	32	28	19	36	26
13	22	23	------	22	45	30	28	18	41	28
14	22	22	------	20	47	25	28	18	30	27
15	24	23	------	19	45	22	25	17	24	26
16	24	22	------	20	45	23	26	17	23	26
17	24	22	------	20	47	24	25	16	21	26
18	22	22	------	21	47	22	23	18	21	26
19	23	23	------	21	47	24	22	22	22	25
20	23	22	------	22	45	24	23	35	24	24
21	24	21	------	24	47	26	22	32	21	20
22	23	21	------	25	47	25	24	24	21	20
23	22	20	------	25	42	25	24	23	20	20
24	23	21	------	25	35	24	23	20	24	22
25	22	21	------	25	31	24	23	19	19	23
26	20	22	------	25	23	24	22	20	18	24
27	18	21	------	25	22	25	22	19	20	25
28	17	22	------	27	19	25	22	19	28	24
29	18	22	------	25	21	25	20	18	24	22
30	19	21	------	27	20	23	23	18	22	22
31	20	------	------	26	------	24	------	18	21	------

Monthly discharge of Roan Creek near De Beque, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	27	17	22.2	1,360
November	27	20	22.5	1,340
December	----------	----------	ª 21	1,290
January	----------	----------	ª 18	1,110
February	----------	----------	ª 21	1,170
March	43	18	25.2	1,550
April	47	19	35.6	2,120
May	32	16	24.9	1,530
June	32	20	25.1	1,490
July	56	16	24.0	1,480
August	41	18	22.7	1,400
September	33	20	24.5	1,460
The year	56	----------	23.8	17,300

ª Estimated.

TAYLOR RIVER AT ALMONT, COLO.

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

DRAINAGE AREA.—440 square miles (measured on base map of Colorado, scale 1:500,000).

RECORDS AVAILABLE.—July 27, 1910, to September 30, 1925.

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 two-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, 3.4 feet at 6.30 a. m. May 28 and 29 (discharge, 1,290 second-feet); minimum discharge occurred during winter.

1910–1925: 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 for irrigation of 1,800 acres from Taylor River.

REGULATION.—None.

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice during winter. Rating curve well defined. Staff gage read to quarter-tenths twice daily November 16 to August 1. Operation of water-stage recorder satisfactory October 1 to November 15 and August 10 to September 30. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method October 1 to November 23. Records good except for period of no gage-height record and when affected by ice, for which they are fair.

Discharge measurements of Taylor River at Almont, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 21	ª 2.56	107	June 17	2.98	886
Apr. 24	2.14	262	Aug. 10	2.30	359
May 14	2.65	578			

ª Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Taylor River at Almont, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	189	182					144	466	915	618	245	218
2	196	175					135	529	836	595	240	227
3	196	186					155	610	751	550	240	240
4	193	182					193	620	700	515	235	275
5	196	182				120	245	529	708	508	235	250
6	209	186	130	110	110		250	480	700	529	230	227
7	214	168					214	480	676	459	240	222
8	214	168				158	255	565	652	424	280	209
9	218	161				126	295	580	652	550	320	204
10	214	168				130	306	565	692	550	362	204
11	218	158				135	328	588	726	628	452	204
12	227	161				114	398	565	742	684	438	209
13	214	164				119	480	565	802	802	452	227
14	209	161				108	529	595	853	760	368	227
15	260	155	135	100	100	93	588	529	942	602	300	200
16	265	155				110	751	508	1,010	398	265	186
17	240	161				97	760	494	980	398	245	175
18	270	164				95	602	700	1,010	392	245	189
19	232	168				93	431	888	1,000	386	245	255
20	214	164				112	398	1,040	1,010	431	290	209
21	204	171				112	466	1,130	1,140	565	322	186
22	214	161				112	459	915	1,120	494	317	175
23	209	158				112	317	1,030	844	417	255	178
24	214					112	295	1,150	828	392	295	186
25	189		105	112	105	124	295	1,140	742	334	312	171
26	186	140				130	350	1,170	700	295	312	171
27	186					130	398	1,170	684	295	270	171
28	182					130	386	1,230	620	285	265	164
29	182				-------	126	417	1,230	602	275	260	161
30	189				-------	135	466	1,180	565	260	240	158
31	164	-------			-------	121	-------	1,130	-------	245	232	-------

NOTE.—Stage-discharge relation affected by ice Nov. 24 to Mar. 7; discharge based on one discharge measurement, temperature and gage-height records, and comparison with flow of Gunnison River near Gunnison. No gage-height record Aug. 2-9; discharge based on comparison with flow of Gunnison River near Gunnison. Braced figures show mean discharge for period included.

Monthly discharge of Taylor River at Almont, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	270	164	210	12,900
November	186	----------	161	9,580
December	----------	----------	123	7,560
January	----------	----------	107	6,580
February	----------	----------	105	5,830
March	158	----------	119	7,320
April	760	135	377	22,400
May	1,230	466	786	48,300
June	1,140	565	807	48,000
July	802	245	472	29,000
August	452	230	291	17,900
September	275	158	203	12,100
The year	1,230	----------	314	227,000

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 map in Hayden's Atlas).

RECORDS AVAILABLE.—November 27, 1910, to November 30, 1914; April 27, 1916, to September 30, 1925.

GAGE.—Chain gage on downstream side of bridge; datum lowered 1.00 foot October 15, 1919; read by C. W. Chinery. From April 27 to September 30, 1916, vertical staff at right abutment having datum 0.15 foot higher.

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, 3.16 feet at 7 a. m. May 29 (discharge, 2,590 second-feet); minimum discharge probably occurred during winter.

1910–1914; 1916–1925: Maximum stage recorded, 4.05 feet (old datum) at 8 a. m. June 13, 1918 (discharge, 11,400 second-feet); minimum discharge recorded, 126 second-feet January 2, 1919.

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

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

REGULATION.—None.

ACCURACY.—Stage-discharge relation slightly shifting; affected by ice. Rating curves used October 1 to June 30 and July 1 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 tables; shifting-control method used October 1–10 and June 19–30. Records good except for period when affected by ice, for which they are fair.

Discharge measurements of Gunnison River near Gunnison, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 20	* 2.20	210	June 18	2.80	1,970
Feb. 18	* 3.1	157	Aug. 10	1.68	676
Apr. 23	1.98	880			

* Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Gunnison River near Gunnison, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	219	360	235				490	1,260	2,220	1,130	545	459
2	223	372	235				446	1,350	1,860	1,120	510	484
3	219	360	240				498	1,350	1,780	1,030	498	498
4	223	366	253				505	1,340	1,620	1,030	504	465
5	219	372	240	195	215	200	560	1,450	1,580	968	524	459
6	219	360	240				425	1,490	1,450	968	510	459
7	219	262	235				425	1,440	1,030	870	498	459
8	310	315	240				360	1,460	1,200	790	510	453
9	366	336	240				425	1,580	1,150	870	524	423
10	390	348	244				569	1,450	1,080	880	598	405

Daily discharge, in second-feet, of Gunnison River near Gunnison, Colo., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	397	348	240				692	1,410	1,060	850	568	388
12	360	348	248				1,070	1,390	1,020	820	935	383
13	342	348	258				1,110	1,330	1,130	810	830	394
14	348	342	262				1,260	1,320	1,130	820	735	453
15	384	315	253	210	165	230	1,290	1,350	1,370	762	582	411
16	439	315	262				1,350	1,390	1,760	753	568	417
17	418	305	244				1,490	1,380	2,020	717	545	441
18	425	305	258				1,580	1,380	1,920	682	568	478
19	411	305					1,090	1,740	1,940	699	545	545
20	360	315					1,050	2,130	2,100	690	560	639
21	360	310				330	1,190	1,860	2,220	780	560	622
22	348	305				366	1,330	1,880	2,350	990	545	590
23	366	310				384	922	1,910	2,180	924	530	560
24	354	315				366	922	2,280	1,700	780	575	504
25	360	310	200	220	180	366	830	2,160	1,550	708	598	435
26	320	305				378	880	2,350	1,390	699	598	400
27	305	305				330	988	2,180	1,410	664	598	378
28	310	305				432	966	2,300	1,340	699	568	350
29	315	290			-------	439	977	2,370	1,260	639	575	299
30	320	276			-------	468	1,150	2,440	1,260	622	545	286
31	330	-------			-------	482	-------	2,460	-------	582	524	------

NOTE.—Stage-discharge relation affected by ice Dec. 19 to Mar. 21; discharge based on two discharge measurements, temperature and gage-height records. Braced figures show mean discharge for period included.

Monthly discharge of Gunnison River near Gunnison, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	439	219	328	20,200
November	372	262	324	19,300
December	----------	----------	227	14,000
January	----------	----------	209	12,900
February	----------	----------	187	10,400
March	482	----------	279	17,200
April	1,580	360	895	53,300
May	2,460	1,260	1,720	106,000
June	2,350	1,020	1,570	93,400
July	1,130	582	818	50,300
August	935	498	577	35,500
September	639	286	451	26,800
The year	2,460	----------	632	459,000

GUNNISON RIVER NEAR GRAND JUNCTION, COLO.

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

DRAINAGE AREA.—8,020 square miles (measured on base map of Colorado, scale 1: 500,000).

RECORDS AVAILABLE.—April 1, 1917, to September 30, 1925. From October 19, 1894, to December 21, 1895, and May 2, 1897, to September 30, 1899, station maintained nearer mouth. Beginning October 1, 1922, records of combined flow only are published.

GAGE.—Vertical staff 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; 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, 7.1 feet 5 p. m. April 18 (discharge, 9,210 second-feet); minimum discharge, 523 second-feet at 6 a. m. October 2 and 3.

1917–1925: 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 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 that enters Colorado River, less about 25 second-feet, which is used during irrigation season.

ACCURACY.—Stage-discharge relation shifts at intervals; affected by ice. Rating curves for river used October 1 to December 9 and December 10 to September 30 are both well defined; for canal, not well defined. Gages read to half-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table; shifting-control method was used for canal October 1 to December 10. Records for river good; for canal poor.

Discharge measurements of Gunnison River near Grand Junction, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 23	1.89	531	June 19	5.59	5,140
Apr. 16	6.35	6,660	Aug. 25	3.70	2,140

Combined daily discharge, in second-feet, of Gunnison River and Redlands power canal near Grand Junction, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	609	1,330	1,260		1,020		2,670	4,570	8,180	3,010	1,200	2,890
2	533	1,330	1,220		1,020		2,540	5,150	6,500	3,330	1,060	1,980
3	533	1,330	1,180		1,020	1,240	2,540	5,330	5,770	3,330	933	2,200
4	573	1,330	1,100		1,020		2,540	6,640	4,990	2,820	917	2,090
5	573	1,360	1,100				2,680	7,060	4,540	3,540	1,180	2,220
6	573	1,380	1,080	900		1,400	3,230	6,740	4,700	3,990	1,120	2,240
7	707	1,380	1,080		1,000	1,500	3,220	6,250	4,280	3,420	1,090	2,020
8	1,020	1,340	1,030			1,580	2,800	6,050	4,080	2,910	938	1,860
9	1,020	1,330	1,030			1,680	2,020	5,870	3,770	2,300	781	1,800
10	1,200	1,330	1,020			1,680	2,060	5,660	3,180	2,310	718	1,590
11	1,300	1,330				1,480	2,460	5,660	3,330	2,470	921	1,500
12	1,390	1,330				1,480	3,620	5,960	4,410	2,470	1,480	1,420
13	1,490	1,380				1,370	4,860	5,410	4,490	2,940	1,810	1,400
14	1,530	1,340				1,370	5,480	4,900	4,490	2,650	1,870	1,490
15	1,530	1,340				1,480	6,320	4,990	4,330	2,100	1,760	1,530
16	1,530	1,380	1,000	900	980	1,370	6,900	4,570	4,810	1,720	1,630	1,490
17	1,490	1,390				1,370	7,880	4,410	5,620	1,770	1,300	1,440
18	1,440	1,350				1,320	8,660	4,730	6,040	1,430	1,080	1,700
19	1,440	1,440				1,270	7,640	5,770	5,960	1,420	895	2,760
20	1,490	1,440				1,030	5,680	6,910	6,340	1,420	976	3,850

Combined daily discharge, in second-feet, of Gunnison River and Redlands power canal near Grand Junction, Colo., for the year ending September 30, 1925—Con.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	1,440	1,440		940		898	4,810	7,420	6,740	1,420	1,280	3,390
22	1,440	1,440		970		1,220	4,870	7,430	7,520	2,950	1,370	2,480
23	1,440	1,390		1,020		1,060	5,070	6,330	8,010	4,210	1,340	2,340
24	1,440	1,390		1,080		1,380	4,570	6,430	6,850	2,610	2,490	2,210
25	1,440	1,350		1,100	{1,120	1,350	3,550	7,290	5,960	2,180	2,680	2,160
26	1,440	1,260	850	1,100		1,650	2,910	6,840	5,150	1,960	2,410	2,050
27	1,470	1,250		1,020		2,000	3,180	6,640	4,650	1,840	2,570	1,840
28	1,500	1,260		1,020		2,400	3,330	6,580	4,080	1,730	2,600	1,690
29	1,530	1,260		1,020	-------	2,450	3,250	7,170	3,780	1,730	2,860	1,520
30	1,520	1,260		1,020	-------	2,320	4,010	7,450	3,770	1,530	2,460	1,460
31	1,410	-------		1,020	-------	2,800	-------	7,690	-------	1,330	2,490	------

NOTE.—Stage-discharge relation affected by ice December 10 to January 22, January 24–25, February 5 to March 7; discharge based on gage height and temperature records. Braced figures show mean discharge for periods indicated.

Combined monthly discharge of Gunnison River and Redlands power canal near Grand Junction, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	1,530	533	1,230	75,600
November	1,440	1,250	1,350	80,300
December	1,260	-------	982	60,400
January	-------	-------	945	58,100
February	-------	-------	1,030	57,200
March	2,800	-------	1,520	93,500
April	8,660	2,020	4,180	249,000
May	7,690	4,410	6,130	377,000
June	8,180	3,180	5,210	310,000
July	4,210	1,330	2,410	148,000
August	2,860	718	1,550	95,300
September	3,850	1,400	2,020	120,000
The year	8,660	-------	2,380	1,720,000

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 important tributary within several miles.

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

RECORDS AVAILABLE.—May 15, 1917, to September 30, 1925.

GAGE.—Stevens water-stage recorder installed in 1923; 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, 2.55 feet at 6 p. m. May 3 (discharge, 406 second-feet); minimum stage recorded, −0.75 foot on October 3, November 1, 2, and 10–12 (discharge, 1.0 second-feet).

1917–1925: 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, 1925

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	1.0	3.0	7.6	12	206	115	30	12	58
2	1.3	1.0	2.9	7.2	10	244	130	26	10	48
3	1.3	1.1	3.8	6.8	8.5	302	111	28	16	52
4	1.5	1.1	2.9	6.3	12	306	104	27	20	49
5	1.0	1.1	3.6	5.9	12	272	168	29	24	44
6	1.0	1.1	3.5	5.4	9.4	262	141	29	33	36
7	1.7	1.1	3.0	5.0	7.0	268	115	25	24	24
8	3.1	1.0	2.0	4.6	4.1	266	104	22	22	25
9	2.6	1.0	3.3	6.8	5.3	224	111	19	19	24
10	3.0	1.0	3.3	6.5	12	185	130	18	22	20
11	4.4	1.0	3.3	4.8	23	180	127	22	33	18
12	4.0	1.0	3.2	3.6	43	154	120	20	38	16
13	5.0	2.5	3.2	4.1	65	180	97	18	30	24
14	5.7	3.2	2.9	3.0	108	153	84	16	19	33
15	7.7	2.5	2.7	2.4	177	122	76	17	16	30
16	8.3	1.8	2.8	2.3	213	138	72	16	15	29
17	7.2	1.8	2.6	3.5	206	158	63	16	18	30
18	9.5	2.4	3.0	2.5	217	185	58	16	20	180
19	7.7	3.0	3.0	2.8	121	197	50	20	24	233
20	7.0	3.4	2.7	3.5	79	177	50	34	25	130
21	7.0	3.4	2.7	3.0	91	163	50	33	18	87
22	6.5	3.6	2.7	3.5	105	141	48	23	33	76
23	6.0	5.1	2.6	3.2	65	136	44	19	48	77
24	5.5	5.6	2.4	3.6	50	138	39	19	57	72
25	5.0	5.1	1.8	3.8	56	130	42	19	47	52
26	4.5	3.6	1.0	4.0	84	112	46	18	52	37
27	2.7	2.5	1.0	4.1	105	122	42	18	53	35
28	1.1	3.6	1.2	4.3	130	105	35	14	48	32
29	1.0	3.8	1.2	5.6	154	94	33	20	42	25
30	1.0	3.8	1.4	8.5	163	90	30	16	40	22
31	1.0	------	1.4	7.0	------	98	------	14	41	------

Monthly discharge of Leroux Creek near Lazear, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	9.5	1.0	4.13	254
November	5.6	1.0	2.44	145
December	3.8	1.0	2.58	159
January	------	------	[a] 2.4	148
February	------	------	[a] 4.0	222
March	8.5	2.3	4.68	288
April	217	4.1	78.2	4,650
May	306	90	178	10,900
June	168	30	81.2	4,830
July	34	14	21.3	1,310
August	57	10	29.6	1,820
September	233	16	53.9	3,210
The year	306	------	38.6	27,900

[a] Estimated.

SURFACE CREEK AT CEDAREDGE, COLO.

LOCATION.—In 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, 1925.

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 and up flush with crest of old concrete weir which forms control 12 feet downstream from gage. At high stages water flows through overflow channel.

EXTREMES OF DISCHARGE.—Maximum stage during year from recording gage, 1.60 feet at 6 p. m. September 19 (discharge, 282 second-feet); minimum discharge occurred during winter.

1917–1925: Maximum discharge, 715 second-feet at 7 a. m. May 24, 1920; minimum discharge during winter when stream is practically dry.

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 storage and release of this water 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, 1925

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept
1	6	3.3	5.2	2.4	115	72	24	5	23
2	6	2.4	5.8	2.7	127	72	28	5	18
3	6	3.6	3.3	2.7	110	65	24	12	21
4	5.8	3.6	2.4	3.0	115	60	22	12	21
5	5.2	3.6	2.7	3.0	104	73	27	18	20
6	4.7	3.6	2.4	2.1	104	52	26	19	18
7	5.8	.7	2.4	1.0	120	33	21	15	15
8	8.4	1.0	2.4	.8	125	41	23	15	15
9	8 9	-------	2.4	1.1	104	52	24	15	15
10	7.3	-------	2.4	3.9	95	48	23	20	12
11	5.8	-------	2.7	14	97	51	25	28	12
12	5.8	-------	1.8	32	90	55	26	28	8
13	5.8	-------	1.5	58	97	52	26	18	11
14	5.8	-------	1.2	75	104	52	23	15	15
15	8.4	-------	1.5	88	86	52	23	13	12
16	8.4	-------	1.5	90	86	55	16	9	11
17	8.4	-------	1.5	93	99	52	19	8	13
18	12	-------	1.2	82	101	49	13	8	120
19	7.3	-------	1.1	49	97	41	11	11	172
20	5.8	-------	1.0	38	108	36	23	13	60
21	5.8	-------	1.2	45	97	33	24	28	34
22	5.2	-------	1.2	48	81	26	26	28	30
23	5.2	-------	1.2	27	81	28	26	34	25
24	3.9	-------	1.2	19	88	27	21	49	22
25	4.2	-------	1.2	16	82	25	20	28	17
26	3.9	-------	1.5	27	73	16	16	21	15
27	3.9	-------	1.8	45	65	23	15	19	13
28	3.6	-------	1.8	68	60	25	13	20	12
29	3.6	-------	2.1	99	63	19	11	15	12
30	3.9	-------	2.1	97	63	26	9	15	10
31	5.8	-------	2.4	-------	62	-------	8	12	-------

Monthly discharge of Surface Creek at Cedaredge, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	12	3.6	6.02	370
November	3.6	----------	[a] 3.2	190
December	----------	----------	[a] 2.0	123
January	----------	----------	[a] 2.0	123
February	----------	----------	[a] 2.5	139
March	5.8	1.0	2.07	127
April	99	.8	37.8	2,250
May	127	60	93.5	5,750
June	73	16	43.7	2,600
July	28	8	20.5	1,260
August	49	5	17.9	1,100
September	172	8	26.7	1,590
The year	172	----------	21.6	15,600

[a] Estimated.

UNCOMPAGHRE 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, 1925.

GAGE.—Gurley water-stage recorder installed March 28, 1917, referred to vertical staff attached to rock cliff 500 feet above bridge; used since March 22, 1916; inspected by W. S. Doran. Original gage, vertical staff attached to downstream side of right bridge abutment, used prior to March 22, 1916.

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, 4.92 feet at 7 p. m. July 20, due to cloudburst in Canyon Creek (discharge, 1,340 second-feet); minimum stage, 0.70 foot 4 to 9 a. m. January 29 (discharge, 16 second-feet).

1913–1925: Maximum discharge recorded, 2,530 second-feet at 1 a. m. June 14, 1918; 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 fluctuation 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 as explained in footnote to table of daily discharge. Daily discharge ascertained by applying to rating table mean daily gage height obtained by inspection of recorder graph, using shifting-control method March 16 to July 25. Records fair.

Discharge measurements of Uncompahgre River below Ouray, Colo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 9	1.00	26.9	May 18	3.20	478
Mar. 19	1.22	41.6	July 29	2.00	138
Apr. 18	2.40	264			

Daily discharge, in second-feet, of Uncompahgre River below Ouray, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	41	34	32	28	26	91	247	422	416	119	193
2	39	40	34	32	29	27	82	298	315	380	112	187
3	51	40	32	32	32	28	100	391	264	380	117	189
4	46	38	34	31	34	29	133	413	249	432	156	181
5	41	35	34	30	32	30	131	380	313	442	164	162
6	40	34	33	29	28	31	110	337	251	348	135	151
7	48	34	34	28	27	32	93	315	247	315	119	140
8	58	35	33	27	26	35	98	321	236	295	120	135
9	56	36	33	26	26	35	110	326	218	300	119	131
10	48	36	34	34	27	34	149	343	260	276	118	117
11	43	34	34	32	28	34	179	326	345	292	117	110
12	41	34	36	31	27	34	225	290	348	292	116	103
13	46	35	44	30	27	34	251	310	298	300	115	129
14	49	35	40	29	25	34	295	351	422	269	114	114
15	68	44	39	29	25	34	310	326	635	233	114	105
16	52	41	37	28	25	34	348	368	720	222	108	98
17	54	37	35	27	25	34	359	420	695	212	100	115
18	54	37	37	27	25	34	288	476	740	195	100	294
19	48	41	35	26	26	41	249	530	800	200	110	382
20	44	44	35	26	26	45	238	600	890	391	114	255
21	42	51	34	25	26	50	236	670	890	283	116	201
22	41	47	35	26	26	69	229	556	884	236	117	173
23	41	36	34	27	26	78	214	685	848	227	142	160
24	38	33	35	25	25	69	199	755	775	195	181	144
25	40	33	37	24	25	76	205	680	650	187	173	133
26	36	32	34	24	25	86	212	675	595	171	175	122
27	37	32	34	24	25	93	218	680	516	171	171	117
28	35	32	34	25	25	80	242	800	456	162	171	110
29	37	35	33	23	-------	84	267	872	464	149	158	103
30	36	34	33	26	-------	91	251	920	446	144	149	98
31	41	-------	33	28	-------	95	-------	775	-------	133	140	-------

NOTE.—No gage-height record Dec. 28 to Jan. 2, 4–8, 11–18, Feb. 15–20, 22–27, Mar. 1–13, May 17, 19–20, Aug. 9–14, and 21; discharge interpolated.

Monthly discharge of Uncompahgre River below Ouray, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	68	35	44.7	2,750
November	51	32	37.2	2,210
December	44	32	34.9	2,150
January	34	23	27.8	1,710
February	34	25	26.8	1,490
March	95	26	49.5	3,040
April	359	82	204	12,100
May	920	247	498	30,600
June	890	218	506	30,100
July	442	133	266	16,400
August	181	100	132	8,120
September	382	98	155	9,220
The year	920	23	166	120,000

UNCOMPAHGRE RIVER NEAR COLONA, COLO.

LOCATION.—In sec. 5, T. 46 N., R. 8 W., just below highway bridge 4 miles south of Colona, Ouray County. Nearest tributary, Billy Creek, enters 1½ miles downstream.

DRAINAGE AREA.—403 square miles (measured on topographic map).

RECORDS AVAILABLE.—April 6, 1917, to September 30, 1925.

GAGE.—Friez water-stage recorder a short distance below highway bridge installed June, 1921. Original gage was vertical staff half a mile east of Colona; used until station was washed out June 11, 1921.

DISCHARGE MEASUREMENTS.—Made from highway bridge.

CHANNEL AND CONTROL.—Shifts during high water.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 3.11 feet at 1 a. m. June 24 (discharge, 1,540 second-feet); minimum discharge probably occurred during winter.

1917–1925: Maximum discharge recorded, 4,080 second-feet June 13 and 14, 1921; minimum discharge, 16 second-feet September 3, 1918.

ICE.—Station discontinued during winter.

DIVERSIONS.—Only a few small diversions above station.

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

Daily discharge, in second-feet, of Uncompahgre River near Colona, Colo., for the year ending September 30, 1925

Day	Oct.	Apr.	May	June	July	Aug.	Sept.
1	102	343	462	915	802	330	330
2	105	292	520	640	790	302	419
3	108	312	672	527	760	295	436
4	123	380	715	462	850	348	421
5	116	427	658	542	915	395	380
6	108	380	590	455	850	324	351
7	113	353	546	395	810	289	305
8	144	315	546	361	762	273	310
9	135	340	560	355	777	269	302
10	140	397	593	468	680	282	285
11	140	520	570	585	705	365	257
12	125	615	491	527	705	330	247
13	133	698	512	465	715	303	265
14	140	765	580	570	655	266	257
15	160	870	500	760	590	235	232
16	150	910	570	1,050	578	217	218
17	146	993	651	1,050	538	195	225
19	158	882	795	1,050	500	198	376
19	135	640	995	1,180	462	225	722
20	133	552	1,080	1,240	557	217	495
21	123	567	1,060	1,370	625	207	395
22	122	577	870	1,400	618	231	337
23	118	446	920	1,340	525	228	314
24	115	382	1,090	1,300	478	305	290
25	115	375	1,000	1,120	457	315	263
26	111	423	1,060	1,010	432	345	248
27	109	427	1,050	980	432	380	235
28	109	452	1,140	852	373	387	229
29	109	527	1,240	832	394	352	208
30	123	500	1,150	802	387	313	182
31	109	-------	1,250	-------	355	290	-------

NOTE.—Quantities changed slightly to conform to rules of computations used by U. S. Geol. Survey. No record Nov. 1 to Mar. 31.

Monthly discharge of Uncompahgre River near Colona, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	160	102	125	7,690
April	993	292	522	31,100
May	1,250	462	788	48,500
June	1,400	355	820	48,800
July	915	355	615	37,800
August	395	195	291	17,900
September	722	182	318	18,900

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, 1925. 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 high water. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 4.4 feet at 8 a. m. July 5 (discharge, 1,740 second-feet); minimum stage recorded, 0.64 foot April 3 and 4 (discharge, 45 second-feet).

1903–1925: 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 shifts at intervals. Well-defined rating curves used October 1 to August 24, August 25 to September 19, and September 23–30. Operation of water-stage recorder satisfactory except for short periods as shown in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height, using shifting-control method October 1 to November 30. 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, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 21	1.14	130	July 2	2.52	663
May 12	1.44	205	July 23	3.46	1,170
May 21	2.12	469			

Daily discharge, in second-feet, of Uncompahgre River at Delta, Colo., for the year ending September 30, 1925

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	317	237	162	138	384	469	374	752
2	324	290	123	89	196	630	320	806
3	324	244	59	77	254	397	223	848
4	357	261	59	93	336	428	535	752
5	286	279	138	86	442	1,360	309	728
6	276	286	205	82	392	832	283	656
7	265	258	132	91	283	328	214	617
8	392	234	110	115	230	366	190	556
9	478	223	86	174	217	388	208	490
10	433	244	69	214	220	442	301	460
11	456	244	115	313	283	402	261	415
12	388	251	286	202	555	460	478	320
13	268	276	595	150	487	428	478	335
14	237	265	570	174	520	353	464	335
15	294	247	442	167	695	208	515	290
16	294	223	460	147	705	227	555	290
17	268	230	500	214	615	268	451	420
18	254	244	530	320	655	190	341	515
19	265	294	450	464	680	187	460	1,180
20	276	290	200	424	670	227	510	1,000
21	276	290	123	357	755	460	406	820
22	258	301	169	211	826	782	406	650
23	286	279	227	254	550	1,140	904	593
24	320	261	180	428	487	848	1,240	586
25	298	258	140	345	276	777	1,120	562
26	283	254	140	190	185	788	980	508
27	279	250	174	227	193	740	1,000	447
28	223	250	145	268	251	715	1,010	390
29	254	245	159	496	258	595	932	268
30	290	245	196	500	254	525	974	225
31	276			545		456	794	

NOTE.—No record Dec. 1 to Mar. 31. Stage-discharge relation affected by ice Nov. 27–30; discharge estimated. No gage-height record Apr. 19–20 and Sept. 20–22; discharge interpolated.

Monthly discharge of Uncompahgre River at Delta, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	478	223	306	18,800
November	301	223	258	15,400
April	595	59	231	13,700
May	545	77	244	15,000
June	826	185	428	25,500
July	1,360	187	530	32,600
August	1,240	190	556	34,200
September	1,180	225	560	33,300

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, scale 1:500,000).

RECORDS AVAILABLE.—April 26, 1918, to September 30, 1925.

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; rough. Control at rapids 300 feet downstream; practically permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.8 feet at 8.45 a. m. September 19 (discharge, 1,670 second-feet); minimum discharge probably occurred during winter.

1918–1925: Maximum stage from high-water mark 7.5 feet during night of May 4, 1921 (discharge, 6,000 second-feet); minimum stage recorded, 0.05 foot August 31, 1918 (discharge, 38 second-feet).

ICE.—Stage-discharge relation affected by ice.

DIVERSIONS.—Water diverted for irrigation of 8,100 acres from San Miguel River, the greater part of which is above station. Also 15,000 acres irrigated from 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, 1925

Day	Oct.	Nov.	Dec.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	58	89	93	74	292	514	1,020	653	146	400
2	58	86	74	89	218	525	682	613	146	464
3	58	84	84	86	252	694	455	525	160	568
4	58	84	80	93	335	841	442	653	205	489
5	62	76	72	97	372	841	464	821	261	361
6	84	80	76	113	372	757	420	568	192	325
7	89	80	------	119	308	757	400	442	154	252
8	103	66	------	170	240	744	400	442	146	224
9	100	76	------	116	302	744	335	489	136	224
10	89	80	------	100	361	776	380	464	150	218
11	86	74	------	89	464	757	489	489	205	197
12	86	55	------	103	579	636	489	596	197	213
13	86	60	------	97	757	624	442	464	160	197
14	89	72	------	86	928	732	504	455	136	197
15	93	64	------	89	996	624	653	372	132	154
16	89	64	------	97	1,100	694	928	361	119	154
17	86	66	------	93	1,300	744	808	335	108	146
18	86	66	------	80	1,340	956	841	308	141	292
19	86	69	------	86	942	996	888	292	188	1,580
20	86	72	------	97	694	1,010	1,020	400	205	744
21	86	74	------	93	732	996	1,100	474	146	442
22	86	74	------	93	713	888	1,080	474	141	350
23	80	74	------	136	624	942	1,080	315	146	302
24	80	69	------	166	429	976	996	282	420	282
25	76	66	------	174	464	956	888	232	292	218
26	76	64	------	246	514	928	694	213	270	224
27	76	72	------	205	557	1,010	713	197	315	218
28	76	76	------	224	525	841	568	232	361	197
29	80	80	------	246	579	976	636	174	325	181
30	89	80	------	315	568	1,010	670	170	246	166
31	86	------	------	252	------	1,080	------	154	240	------

Monthly discharge of San Miguel River at Naturita, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	103	58	81.4	5,010
November	89	55	73.1	4,350
December	----------	----------	[a] 70	4,300
January	----------	----------	[a] 65	4,000
February	----------	----------	[a] 62	3,440
March	315	74	133	8,180
April	1,340	218	595	35,400
May	1,080	514	825	50,700
June	1,100	335	683	40,600
July	821	154	408	25,100
August	420	108	200	12,300
September	1,580	146	333	19,800
The year	1,580	----------	295	213,000

[a] Estimated.

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, scale 1:500,000).

RECORDS AVAILABLE.—April 1, 1915, to September 30, 1925. 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 two-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, 4.85 feet at 11 a. m. July 3 (discharge, 3,470 second-feet); minimum discharge occurred during winter.

1913–1925: Maximum stage recorded, 7.0 feet at 10 a. m. 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 station.

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

ACCURACY.—Stage-discharge relation slightly shifting. Rating curve well defined. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method October 1 to May 31. Records good.

The following discharge measurements were made:

May 6, 1925: Gage height, 3.02 feet; discharge, 794 second-feet.

June 18, 1925: Gage height, 3.51 feet; discharge, 1,440 second-feet.

September 8, 1925: Gage height, 2.76 feet; discharge, 585 second-feet.

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

Day	Oct.	Nov.	May	June	July	Aug.	Sept.
1	213	230	720	2,510	3,140	910	482
2	213	------	700	2,350	3,330	870	490
3	213	------	710	2,100	3,410	830	462
4	213	------	740	2,030	3,280	830	490
5	213	------	760	1,820	3,040	860	576
6	213	------	792	1,630	2,790	860	505
7	213	------	890	1,480	2,510	830	528
8	230	------	1,180	1,210	2,400	782	592
9	230	------	1,100	1,070	2,200	734	592
10	230	------	920	1,080	2,060	716	505
11	349	------	1,060	1,140	1,890	754	505
12	376	------	1,210	1,130	1,760	801	482
13	221	------	1,100	1,160	1,660	792	475
14	213	------	1,050	1,110	1,500	830	490
15	208	------	1,210	1,160	1,500	860	442
16	203	------	1,200	1,260	1,600	830	423
17	221	------	1,320	1,480	1,760	792	399
18	360	------	1,370	1,380	1,760	744	399
19	388	------	1,560	1,400	1,790	644	404
20	331	------	1,720	1,600	1,860	576	423
21	274	------	1,760	1,820	1,790	535	535
22	260	------	2,420	2,200	1,660	498	542
23	260	------	2,220	2,320	1,560	490	512
24	260	------	1,710	2,680	1,500	449	468
25	260	------	1,860	2,910	1,360	462	436
26	260	------	1,880	2,960	1,210	462	416
27	260	------	1,810	2,790	1,130	462	410
28	260	------	1,990	2,790	1,010	475	465
29	260	------	2,130	2,860	1,010	535	490
30	254	------	2,280	2,860	953	520	505
31	244	------	2,340	------	953	498	------

NOTE.—No gage-height record May 1-5; discharge based on comparison with flow of Green River at Green River.

Monthly discharge of Green River near Daniel, Wyo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	388	203	255	15,700
May	2,420	700	1,410	86,700
June	2,960	1,070	1,880	112,000
July	3,410	953	1,920	118,000
August	910	449	685	42,100
September	592	399	481	28,600

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, scale 1:500,000).

RECORDS AVAILABLE.—May 2, 1895, to October 31, 1906; March 1, 1915, to September 30, 1925.

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

DISCHARGE MEASUREMENTS.—Made from two-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, 5.65 feet, at 8 a. m. July 5 (discharge, 10,500 second-feet); minimum discharge occurred during winter.

1895–1906; 1915–1925: Maximum stage recorded, 12.3 feet at 5 p. m. June 15, 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 this station and station near Daniel.

REGULATION.—None.

ACCURACY.—Stage-discharge relation changed during winter; 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 table. Records good except for period affected by ice, for which they are fair.

The following discharge measurements were made:

May 5, 1925: Gage height, 2.24 feet; discharge, 1,120 second-feet.

June 13, 1925: Gage height, 3.44 feet; discharge, 3,400 second-feet.

Daily discharge, in second-feet, of Green River at Green River, Wyo., for the year ending September 30, 1925

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	615	732		2,500	1,060	8,180	7,770	2,500	1,240
2	610	718		2,110	1,000	8,590	9,000	2,400	1,180
3	615	725	880	1,680	1,000	7,770	9,420	2,400	1,120
4	620	732		2,020	1,060	6,980	9,840	2,300	1,060
5	610	732		2,300	1,120	6,600	10,300	2,200	1,120
6	620	732		2,020	1,240	6,240	10,300	2,110	1,180
7	620	732		2,800	1,310	5,580	9,000	2,110	1,240
8	630	718	1,020	2,400	1,380	4,980	7,770	2,020	1,310
9	620	704		1,930	1,760	4,460	6,600	1,930	1,240
10	636	654		1,680	2,300	3,990	5,900	1,930	1,240
11	630	648		1,760	2,200	3,550	5,270	1,930	1,240
12	630	636		1,840	2,110	3,330	4,710	2,020	1,240
13	630	548	850	2,110	2,500	3,330	4,460	2,020	1,240
14	636	482		2,300	2,700	3,550	3,990	2,300	1,180
15	654	576		2,300	2,500	3,330	3,770	2,200	1,180
16	654	572	800	2,400	2,500	3,990	3,550	2,300	1,120
17	654	572	802	2,300	2,800	4,220	3,550	2,300	1,120
18	666	572	850	2,200	2,910	4,460	3,550	2,200	1,060
19	690	610	850	2,400	3,330	4,460	3,550	2,110	1,060
20	769	654	802	2,200	3,550	4,220	3,550	1,930	1,120
21	883	769	1,000	1,840	4,220	4,710	3,550	1,840	1,180
22	872	711	850	1,680	4,710	5,270	3,990	1,840	1,310
23	814	684	1,000	1,600	5,900	6,600	3,990	1,600	1,450
24	787	636	1,760	1,600	6,240	6,980	3,990	1,450	1,520
25	753	620	2,800	1,520	5,900	7,770	3,770	1,380	1,450
26	746	610	2,110	1,380	5,900	8,180	3,330	1,310	1,380
27	732	576	1,680	1,240	5,900	8,180	3,120	1,380	1,310
28	732	564	1,930	1,120	5,900	8,180	2,910	1,450	1,310
29	725	625	1,600	1,120	6,240	8,180	2,700	1,310	1,310
30	718	636	1,600	1,060	6,600	7,770	2,910	1,240	1,240
31	718	-------	2,600	-------	7,370	-------	2,700	1,310	-------

NOTE.—Stage-discharge relation affected by ice Mar. 1–16; discharge based on temperature and gage height record.

Monthly discharge of Green River at Green River, Wyo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	883	610	687	42,200
November	769	482	649	38,600
March	2,800	800	1,190	73,200
April	2,800	1,060	1,910	114,000
May	7,370	1,000	3,390	208,000
June	8,590	3,330	5,790	345,000
July	10,300	2,700	5,250	323,000
August	2,500	1,240	1,910	117,000
September	1,520	1,060	1,230	73,200

GREEN RIVER AT GREEN RIVER,[1] UTAH

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

DRAINAGE AREA.—40,600 square miles.

RECORDS AVAILABLE.—October 21, 1894, to October 15, 1899; February 16, 1905, to December 31, 1911; June 21, 1924, to September 30, 1925. 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 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, not subject to overflow; right bank lower, 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 1,000 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year, 10.04 feet at 11 p. m. May 26 (discharge from extension of rating curve, 20,600 second-feet); minimum stage not recorded.

1894–1899; 1905–1925: Maximum discharge recorded, 68,800 second-feet May 29, 1897; minimum stage, −0.95 foot December 1, 1919 (discharge, 510 second-feet).

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

DIVERSIONS.—Below practically all diversions.

REGULATION.—Slight regulation by diversion from tributaries.

ACCURACY.—Stage-discharge relation changed several times during year; affected by ice December 22 to March 5. Normal rating curve well defined. Operation of water-stage recorder satisfactory during year except March 7 and 8. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph, making parallel shifts to all measurements. Discharge estimated for periods of no gage heights and during ice-affected period from temperature records, two meter measurements, and observer's notes or by comparing combined flow of Green River and Colorado River near Cisco with Colorado River at Lees Ferry. Daily discharge good, estimated periods fair.

COOPERATION.—Since December 16, 1917, station has been maintained in cooperation with Utah Power & Light Co., which has made about half of the discharge measurements.

[1] Described in earlier reports as near "Blake" or "Elgin."

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

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 6	6.12	2,130	Apr. 21	8.68	11,800	Aug. 11	6.16	3,150
Jan. 16	[a] 6.62	1,430	May 21	8.91	12,700	Aug. 18	6.40	4,140
Feb. 27	[a] 6.48	2,700	June 13	8.87	13,900	Sept. 15	6.13	3,060
Apr. 12	7.64	6,890	July 14	7.98	8,520	Sept. 26	7.01	5,950

[a] Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,290	2,220	1,790				5,780	6,080	18,600	12,600	4,360	3,900
2	1,290	2,220	1,630				6,040	6,620	19,000	12,500	4,190	5,140
3	1,290	2,190	1,550	{1,100		{3,200	6,940	7,180	19,600	13,200	4,060	4,980
4	1,280	2,190	1,500				6,570	7,610	20,100	13,700	4,130	5,740
5	1,250	2,210	1,470				6,300	8,650	19,800	14,000	4,300	4,060
6	1,260	2,170	1,670			3,350	5,780	9,800	19,300	15,300	3,900	3,960
7	1,630	2,130	1,850			4,300	5,530	11,000	17,300	15,400	3,870	3,870
8	2,160	2,100	1,990			5,250	5,290	11,200	16,000	15,400	3,570	3,810
9	1,540	2,160	1,930			6,210	6,390	11,600	15,500	15,100	3,320	3,430
10	1,470	2,270	1,790			9,500	8,150	12,500	14,500	14,500	3,320	3,410
11	1,480	2,220	1,380			9,700	7,710	13,200	13,500	13,000	3,810	3,220
12	1,490	2,170	1,120			8,350	6,900	13,900	13,200	11,500	4,800	3,490
13	1,540	2,190	922			6,080	6,390	14,200	13,100	9,950	3,750	3,280
14	1,520	2,160	901		{2,300	4,760	6,340	13,800	12,000	8,800	3,870	3,030
15	1,540	2,060	901			3,960	6,710	13,600	11,400	7,860	4,100	2,960
16	1,640	1,900	1,010	{1,500		3,490	8,000	13,400	10,800	7,040	4,470	3,030
17	1,790	1,820	1,280			3,180	9,550	13,600	9,850	6,340	4,330	3,030
18	1,820	1,810	1,480			2,920	10,000	14,200	9,450	5,740	4,160	2,980
19	1,820	1,810	1,550			2,740	10,800	14,300	9,800	5,290	4,580	9,800
20	1,820	1,890	1,190			2,550	11,700	14,300	10,100	4,720	4,830	4,910
21	1,790	1,950	1,040			2,430	12,000	13,400	11,000	4,260	5,490	6,710
22	1,810	1,920	900			2,360	12,200	14,200	13,000	7,270	4,260	6,240
23	1,830	1,950	800			2,430	10,600	15,700	12,900	6,940	4,300	5,370
24	1,880	1,980	700			2,720	9,700	16,400	12,700	6,850	3,870	4,760
25	1,900	2,060				3,250	9,000	18,600	12,300	6,300	3,350	4,830
26	1,960	2,170				4,030	8,500	20,100	13,700	5,910	3,490	5,820
27	2,040	2,160	600		2,700	5,060	8,100	20,100	14,500	6,040	4,870	5,780
28	2,160	1,920			2,800	5,370	7,080	19,600	13,800	6,040	7,810	5,450
29	2,220	1,810		{1,600		5,910	6,480	18,600	13,300	5,740	5,060	4,720
30	2,270	1,760				6,660	6,080	18,600	12,900	5,290	6,440	4,160
31	2,170					6,170		18,300		4,720	4,870	

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

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2,270	1,250	1,710	105,000
November	2,270	1,760	2,050	122,000
December	1,990		1,180	72,600
January			[a] 1,450	89,200
February	2,800		[a] 2,330	129,000
March	9,700	2,360	4,480	275,000
April	12,200	5,290	7,890	469,000
May	20,100	6,080	13,700	842,000
June	20,100	9,450	14,100	839,000
July	15,400	4,260	9,270	570,000
August	7,810	3,320	4,370	269,000
September	9,800	2,960	4,530	270,000
The year	20,100		5,600	4,050,000

[a] Estimated.

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 an eighth of a mile below.

DRAINAGE AREA.—578 square miles (measured on base map of Wyoming, scale 1:500,000).

RECORDS AVAILABLE.—May 11, 1915, to September 30, 1925.

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

DISCHARGE MEASUREMENTS.—Made from two-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 there are two overflow channels, one around right end of bridge and the other from New Fork to Boulder Creek.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.1 feet at 7 a. m. and 6 p. m. July 2 (discharge, 3,200 second-feet); minimum discharge probably occurred during winter.

1915–1925: Maximum stage recorded, 8.7 feet at 6 a. m. June 17, 1918 (discharge, 12,300 second-feet); minimum discharge of 42 second-feet occurred December 15–17, 1915.

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

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

REGULATION.—None.

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

Discharge measurements of New Fork near Boulder, Wyo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
May 7	2.50	247	July 11	4.78	1,690
June 17	3.81	918	Sept. 9	2.62	292

Daily discharge, in second-feet, of New Fork near Boulder, Wyo., for the year ending September 30, 1925

Day	Oct.	May	June	July	Aug.	Sept.	Day	Oct.	May	June	July	Aug.	Sept.
1	85	305	2,100	3,000	720	280	16	85	460	885	1,290	545	272
2	82	300	1,950	3,200	672	276	17	89	502	920	1,290	536	272
3	78	300	1,710	3,000	660	276	18	94	526	1,000	1,230	512	265
4	75	305	1,710	2,740	632	293	19	202	595	1,000	1,150	493	257
5	80	310	1,580	2,680	632	305	20	178	720	1,210	1,130	479	293
6	85	315	1,410	2,580	600	288	21	165	906	1,490	1,190	465	336
7	78	322	1,270	2,440	590	293	22	154	1,170	1,850	1,150	455	362
8	82	336	1,120	2,120	575	305	23	140	1,310	2,050	1,120	432	354
9	82	362	990	1,980	560	305	24	122	1,210	2,260	1,120	413	326
10	82	367	955	1,780	550	305	25	113	1,170	2,460	1,000	413	309
11	92	399	850	1,660	555	305	26	115	1,210	2,620	906	413	332
12	91	432	818	1,550	541	288	27	106	1,250	2,620	850	413	346
13	87	455	785	1,470	545	276	28	109	1,310	2,740	798	399	629
14	89	460	785	1,430	550	269	29	115	1,410	2,700	785	358	367
15	85	451	772	1,330	570	269	30	115	1,660	2,830	785	336	358
							31	113	1,980	-------	752	297	------

NOTE.—No gage-height record May 1–6; discharge based on comparison with flow of Green River near Daniel.

Monthly discharge of New Fork near Boulder, Wyo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	202	75	105	6,460
May	1,980	300	736	45,300
June	2,830	772	1,580	94,000
July	3,200	752	1,600	98,400
August	720	297	513	31,500
September	367	257	305	18,100

PINE CREEK AT PINEDALE, WYO.

LOCATION.—In sec. 4, T. 33 N., R. 109 W., at 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, scale 1: 500,000).

RECORDS AVAILABLE.—May 8, 1915, to September 30, 1925.

GAGE.—Vertical staff on downstream side of bridge pier; read by Thurston Doyle. Prior to August 17, 1917, vertical staff a quarter of a mile downstream at left bank; relation between gages not determined.

DISCHARGE MEASUREMENTS.—Made from two-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.—Maximum stage recorded during year, 4.4 feet on June 27 (discharge, 1,900 second-feet); minimum discharge occurred during winter.

1915–1925: Maximum stage recorded, 5.0 feet at 8 a. m. and 5 p. m. June 17, 1918 (discharge, 2,310 second-feet); minimum discharge, 4 second-feet November 14–17, 1921.

ICE.—Stage-discharge relation somewhat affected by ice. No estimates.

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 approximately 8 square miles and drains 110 square miles.

ACCURACY.—Stage-discharge relation practically permanent. Rating curve well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table except as explained in footnote to table of daily discharge. Records good except for periods of missing gage heights, for which they are poor.

Discharge measurements of Pine Creek at Pinedale, Wyo., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
May 7	1.39	50	July 11	3.15	840
June 17	2.39	284	Sept. 9	1.90	127

Daily discharge, in second-feet, of Pine Creek at Pinedale, Wyo., for the year ending September 30, 1925

Day	Oct.	May	June	July	Sept.	Day	Oct.	May	June	July	Sept.
1	20	50	702	1,400		16	20	83	278		111
2	19	50	742	1,350		17	25	100	315		100
3	19	50	702	1,320	125	18	30	100	340	510	107
4	19	50	678	1,260		19	35	122	381		109
5	19	50	662	1,210		20	30	152	440		111
6	19	50	598	1,160	125	21	25	206	520		124
7	19	50	535	1,130	128	22	22	256	590		126
8	19	59	461	1,060	130	23	19	305	1,040	480	126
9	19	61	419	980	132	24	19	363	1,520		126
10	19	60	381	902	132	25	19	387	1,700		128
11	19	61	351	830	137	26	18	412	1,860		130
12	19	82	330	760	140	27	18	447	1,900		128
13	19	87	300	700	141	28	18	490	1,830	320	132
14	19	102	282	670	142	29	18	542	1,520		128
15	19	90	278	640	140	30	18	598	1,450		124
						31	18	670	-------		-------

NOTE.—No gage-height record Oct. 4, 16–22, 25, 28–31, May 1–6, June 18, 20–21, 23, 25–26, 28, 30, July 1–5, 7–8, 12–31, Aug. 1–31, Sept. 1–8, 10–13; discharge based on comparison with flow of New Fork near Boulder. Braced figures show mean discharge for period indicated.

Monthly discharge of Pine Creek at Pinedale, Wyo , for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	35	18	20.6	1,270
May	670	50	200	12,300
June	1,900	278	770	45,800
July	1,400	----------	717	44,100
August	----------	----------	215	13,200
September	142	100	126	7,500

NOTE.—Mean discharge for August based on flow of New Fork near Boulder by taking mean percentage of flow for August determined from previous years.

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 important tributary within many miles.

DRAINAGE AREA.—386 square miles (measured on base map of Wyoming, scale 1: 500,000).

RECORDS AVAILABLE.—May 1, 1918, to September 30, 1925.

GAGE.—Vertical staff attached to downstream side of bridge; read by T. L. Stewart. From May 1 to September 30, 1918, gage at Kemmerer, 2 miles upstream; records at two points comparable.

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

CHANNEL AND CONTROL.—Bed composed of small boulders and well-compacted gravel. Control 100 feet downstream at small rapids, which shifts slightly at intervals. Banks not subject to overflow.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 3.04 feet at 8.30 a. m. and 6 p. m. May 17 (discharge, 600 second-feet); minimum stage, 1.38 feet at 5.30 p. m. August 25 and 26 (discharge, 13 second-feet).

1918–1925: Maximum stage recorded, 4.55 feet at 8 a. m. May 11, 1923 (discharge, 3,250 second-feet); no flow August 29–31, 1919.

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

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 slightly shifting. Rating curve fairly well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table October 1–31 and by indirect method for shifting-control May 14 to September 30. Records good.

The following discharge measurements were made:
June 14, 1925: Gage height, 2.46 feet; discharge, 229 second-feet.
September 7, 1925: Gage height, 1.49 feet; discharge, 16.6 second-feet.

Daily discharge, in second-feet, of Hams Fork at Diamondville, Wyo., for the year ending September 30, 1925

Day	Oct.	May	June	July	Aug.	Sept.	Day	Oct.	May	June	July	Aug.	Sept.
1	24	------	432	95	22	16	16	37	552	194	28	28	24
2	25	------	432	95	25	16	17	36	600	190	29	23	23
3	25	------	419	98	27	16	18	38	560	177	37	20	22
4	30	------	386	185	25	19	19	38	536	166	36	19	33
5	32	------	368	102	27	20	20	41	576	154	35	19	30
6	38	------	332	90	23	20	21	44	568	150	32	18	39
7	35	------	298	78	21	20	22	42	544	150	34	18	37
8	36	------	276	62	20	19	23	38	568	147	41	16	38
9	36	------	251	59	24	20	24	38	560	139	38	15	35
10	36	------	202	53	20	21	25	38	544	125	32	15	32
11	36	------	194	50	20	22	26	37	512	108	33	15	31
12	38	------	190	49	67	20	27	36	490	95	26	15	31
13	38	------	185	45	39	25	28	34	468	90	23	16	28
14	38	536	224	37	29	24	29	40	452	122	23	16	29
15	37	560	215	30	27	24	30	39	438	98	24	18	29
							31	42	445	------	27	16	------

NOTE.—No record Nov. 1 to May 13.

Monthly discharge of Hams Fork at Diamondville, Wyo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	44	24	36.2	2,230
May 14–31	600	438	528	18,900
June	432	90	217	12,900
July	185	23	52.5	3,230
August	67	15	22.7	1,400
September	39	16	25.4	1,510

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.—3,780 square miles (measured on base maps of Colorado and Wyoming).

RECORDS AVAILABLE.—June 9 to August 14, 1904; May 1, 1922, to September 30 1925.

GAGE.—Stevens water-stage recorder; inspected by L. J. Osborn.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded, 4.80 feet from 11 a. m. to 1 p. m. May 17 (discharge, 3,060 second-feet); minimum stage, 0.2 foot October 1–10 and 13–16 (discharge, 24 second-feet).

1904; 1922–1925: Maximum stage recorded, 6.5 feet May 28, 1922 (dis charge, 5,670 second-feet); 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, 1925

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	24	122	1,560	1,390	2,260	636	316	184
2	24	118	1,650	1,350	1,750	636	350	143
3	24	93	1,850	1,520	1,650	636	316	131
4	24	79	2,150	1,690	1,390	608	268	170
5	24	103	2,260	1,860	1,700	692	284	184
6	24	103	2,150	2,030	1,390	664	300	184
7	24	-------	2,260	2,200	1,560	636	284	198
8	24	-------	2,150	2,370	1,850	580	284	213
9	24	-------	2,130	2,260	1,750	580	284	228
10	24	-------	2,110	2,760	1,750	501	268	192
11	46	-------	2,090	2,480	1,310	430	252	181
12	35	-------	2,080	2,540	1,150	388	222	151
13	24	-------	2,060	2,320	1,120	388	207	141
14	24	-------	2,050	2,150	1,090	350	164	138
15	24	-------	2,030	2,150	1,060	333	192	138
16	24	-------	2,020	2,480	1,030	343	207	154
17	68	-------	2,000	2,880	996	252	222	198
18	68	-------	2,050	2,260	965	222	192	138
19	72	-------	2,320	2,050	934	207	316	136
20	79	-------	1,950	2,000	1,000	207	1,070	350
21	86	-------	1,520	1,950	1,070	252	870	369
22	98	-------	1,390	2,150	934	252	388	636
23	103	-------	1,430	1,950	1,000	252	138	721
24	103	-------	1,560	1,850	1,150	268	114	476
25	103	-------	1,390	1,850	1,070	369	92	284
26	103	-------	1,150	1,750	808	388	81	119
27	103	-------	1,040	1,950	692	350	92	64
28	108	-------	968	1,950	750	388	103	54
29	111	-------	1,040	1,850	692	350	114	37
30	130	-------	1,270	1,850	636	369	198	23
31	124	-------	-------	2,370	-------	350	170	-------

Monthly discharge of Little Snake River near Lily, Colo., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	130	24	60.5	3,720
April	2,320	968	1,790	107,000
May	2,880	1,350	2,070	127,000
June	2,260	636	1,220	72,600
July	692	207	415	25,500
August	1,070	81	270	16,600
September	721	23	211	12,600

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 Vernal Milling & Light Co., 4 miles above mouth of Dry Fork, and 12 miles northwest of Vernal, Uintah County.

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

RECORDS AVAILABLE.—June 6, 1914, to September 30, 1925. From October 8, 1911, to June 5, 1914, fragmentary records were obtained at power plant, total flow of creek being determined by including discharge from tailrace. Records are also available for a point below mouth of 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 installed June 14, 1919; inspected by C. A. Johnston.

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, 7.4 feet at 9 p. m. June 9 (discharge, 507 second-feet); minimum discharge not determined. 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 probably changed during rising stage in April. Rating curves fairly well defined. Water-stage recorder operated satisfactorily except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph or weekly gage readings, except as noted in footnote to daily-discharge table. Records for estimated periods fair; others good.

Discharge measurements of Ashley Creek near Vernal, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 26	5.81	31.1	May 25	6.63	207
Apr. 25	6.03	60.4	Aug. 14	6.13	77.0

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	36					30			157	110	79
2	39						30			146	110	80
3	39						29		180	135	123	82
4	40						28			125	110	93
5	40				31		30			122	100	84
6	40						32	240	188	120	90	80
7	40						32		180	108	85	76
8	40	36					31		230	106	82	76
9	40		35			30	32		324	106	84	78
10	40						32		354	106	80	78
11	40						36		297	106	80	74
12	40			30			37	239	215		80	74
13	39						39	236	188		84	74
14	39						44	268	177		80	74
15	39				30		65	236	180	106	78	74
16	39						74	209	165		76	72
17	39						113	239	157		76	70
18	39						118	268	151		74	69
19	39					30	97	277	157	106	74	160
20	39					30	86	284	162	110	72	108
21	38				30	29	82	290	180	108	72	165
22	38					29	74	236	212	101	67	120
23	38	35				29	60	212	212	99	69	108
24	38		30			29	60	200	212	94	70	99
25	38				30	30	60	209	203	90	71	104
26	38			31		30	60	203	197	92	72	99
27	37					30	62	203	188	94	73	94
28	37				30	29	64	188	180	104	74	92
29	36			31		30	80	177	171	113	76	92
30	36	35				31	92	168	160	110	77	84
31	36					31		170		113	78	

NOTE.—No gage-height record; discharge interpolated or estimated Nov. 2–7, 9–22, 24–29, Dec. 1–31, Jan. 1–25, 27–31, Feb. 1–6, 8–13, 15–20, 22–24, 26, 27, Mar. 1–13, 15–18, Apr. 30, May 1–11, 31, June 1–5, July 12–18, Aug. 3–7, 23–28, 30, 31, Sept. 1–4, and 6. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Ashley Creek near Vernal, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	40	36	38.7	2,380
November			[a] 35.5	2,110
December			[a] 32.7	2,010
January			[a] 30.2	1,860
February			[a] 30.4	1,690
March			[a] 29.9	1,840
April	118	28	57.0	3,390
May	290		231	14,200
June	354	151	198	11,800
July	157	90	110	6,760
August	[a] 123	67	82.2	5,050
September	165	69	90.4	5,380
The year	354		80.7	58,500

[a] Estimated.

VERNAL MILLING & LIGHT CO.'S TAILRACE NEAR VERNAL, UTAH

LOCATION.—In NW. ¼ sec. 18, T. 3 S., R. 21 E., at power plant of 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, 1925.

GAGE.—Indicating gage installed March 17, 1920, in office of power plant actuated by float in stilling well in tailrace beneath plant; 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 changed about April 7. Rating curves well defined. Float gage read to hundredths hourly throughout year. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

COOPERATION.—Gage-height record furnished by Vernal Milling & Light Co.

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

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 26	4.53	24.0	May 25	4.71	33.6
Apr. 25	4.69	32.2	Aug. 14	4.62	30.4
May 25	4.52	25.3			

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

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

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	27	22	25.2	1,550
November	28	23	26.2	1,560
December	28	0	24.5	1,510
January	27	21	24.4	1,500
February	26	22	24.4	1,360
March	26	16	23.9	1,470
April	26	20	24.4	1,450
May	27	21	24.4	1,500
June	27	19	25.2	1,500
July	27	16	24.3	1,490
August	27	19	25.3	1,560
September	28	23	25.8	1,540
The year	28	0	24.8	18,000

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 5½ miles above Rock Creek, and 8 miles southeast of Tabiona, Duchesne County.

DRAINAGE AREA.—352 square miles.

RECORDS AVAILABLE.—January 16, 1919, to September 30, 1925.

GAGE.—Stevens steel-tape gage on downstream side of bridge; installed March 8, 1920; 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, 12.14 feet 9.30 a. m. to 11 a. m. May 21 (discharge, 930 second-feet); minimum discharge during later part of December when stage-discharge relation was affected by ice.

1919–1925: 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 stage, 9.14 feet August 28, 1924 (discharge, 49 second-feet).

ICE.—River freezes over each winter.

DIVERSIONS.—Some small diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent throughout year. Rating curve well defined. Gage read to hundredths once daily throughout year. Daily discharge ascertained by applying daily gage height to rating table, except for periods of ice effect when discharge was estimated from observer's notes, temperature records, and by comparison with flow at other stations on Duchesne River. Records good.

Discharge measurements of Duchesne River near Tabiona, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 21	* 11.37	89.6	May 21	12.14	945
Apr. 29	9.94	165	Aug. 8	9.42	61.2

* Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	115	109		98	95	108	177	524	268	118	147
2	99	109	105		96	98	109	194	444	266	129	138
3	99	112	108		95	99	112	227	440	262	110	168
4	98	109	106		99	96	114	271	444	255	105	161
5	98	106	105		98	95	115	332	426	257	98	137
6	98	105	108		96	105	114	371	395	250	96	135
7	99	95	110		96	103	112	423	353	246	94	152
8	99	106	112		98	101	115	508	362	218	92	143
9	96	109	109		101	95	112	548	359	214	94	138
10	98	115	109		102	81	114	540	350	208	89	137
11	98	118	110	90	101	94	110	532	359	204	121	137
12	102	110	114		101	77	115	472	377	186	122	138
13	101	114	114		101	81	124	426	374	188	106	145
14	103	106	109		98	85	145	458	383	184	105	143
15	108	108	106		99	82	159	420	377	179	101	138
16	108	108	108		95	84	170	416	371	173	94	127
17	106	106	105		84	81	194	362	359	170	91	122
18	110	109	106		89	85	173	458	359	140	94	118
19	105	110	105		80	84	171	568	341	142	92	120
20	106	108	106		73	85	194	644	377	170	103	138
21	106	109	106	90	95	101	188	930	365	171	106	143
22	105	108	105		95	102	170	905	359	177	98	171
23	103	106			88	108	164	890	347	194	101	155
24	106	106		90	87	110	157	426	350	190	103	150
25	103	108			94	116	157	412	338	186	98	148
26	101	105	85	95	98	115	159	500	332	168	94	154
27	102	108		103	95	114	157	760	305	143	108	155
28	105	109		101	89	110	164	710	278	135	87	140
29	106	109		101		109	159	695	273	116	164	147
30	105	108		99		110	157	675	275	112	138	150
31	106			95		108		680		114	171	

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

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	110	96	102	6,270
November	118	95	108	6,430
December	114		101	6,210
January	103		91.7	5,640
February	102	73	94.3	5,240
March	116	77	97.1	5,970
April	194	108	144	8,570
May	930	177	514	31,600
June	524	273	367	21,800
July	268	112	190	11,700
August	171	87	107	6,580
September	171	118	143	8,510
The year	930		172	124,000

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, and a quarter of a mile above mouth of Strawberry River.

DRAINAGE AREA.—660 square miles.

RECORDS AVAILABLE.—December 3, 1917, to September 30, 1925.

GAGE.—Vertical staff gage installed to new datum on left bank bridge abutment May 10, 1924; read by E. S. Winslow.

DISCHARGE MEASUREMENTS.—Made from bridge or by wading.

CHANNEL AND CONTROL.—Channel straight for 100 feet above and several hundred feet below gage. 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, 2.45 feet May 25 and 29 (discharge, 1,840 second-feet); minimum stage recorded, 0.8 foot August 9 and 10 (discharge, 92 second-feet).

1918–1925: Maximum stage recorded, 8.65 feet (chain gage) at noon June 10, 1922 (discharge, 4,420 second-feet); minimum stage recorded, 0.6 foot Aug. 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. Rock Creek enters between this station and the station near Tabiona.

REGULATION.—None except by diversion.

ACCURACY.—Stage-discharge relation permanent for year; affected by ice December 10–18 and December 20 to March 5. Rating curves well defined. Gage read to half-tenths once daily throughout year. Daily discharge ascertained by applying daily gage height to rating table. Mean discharge estimated for ice-affected period from one meter measurement, temperature records, and by comparison with records for all other stations on Duchesne River. Records good except for estimated periods, for which they are fair.

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

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 22	[a] 2.56	131	May 27	2.38	1,750
Apr. 26	1.00	197	Aug. 8	.84	107
May 20	2.19	1,430			

[a] Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	124	124				145	145	1,290	650	145	219
2	145	145	124				145	166	1,140	710	124	219
3	124	145	166			140	124	219	1,010	596	145	251
4	124	145	166				124	283	950	541	124	283
5	124	145	145				166	320	1,010	541	124	251
6	124	145	166			145	166	596	890	541	124	219
7	145	145	166			124	166	710	770	444	108	219
8	166	145	145			124	166	890	710	401	98	219
9	145	145	166			124	145	1,010	830	358	92	219
10	145	166	166			124	124	950	1,080	320	92	219
11	145	166		130		124	145	1,010	1,220	320	108	192
12	145	166				124	145	830	1,080	283	145	192
13	145	166				124	145	770	950	283	192	192
14	145	166				124	166	770	830	283	166	192
15	145	166	155		140	124	145	710	830	251	124	192
16	145	192				124	192	770	890	283	124	192
17	145	166				124	219	710	890	251	124	166
18	145	192				124	251	830	890	192	118	166
19	145	166	145			124	219	1,220	1,010	192	118	166
20	124	166				124	192	1,440	1,080	192	124	166
21	124	166				124	219	1,760	1,140	251	124	251
22	124	192		131		124	219	1,760	1,360	251	124	251
23	124	166				124	192	1,760	1,140	358	108	219
24	124	145				124	166	1,600	1,010	251	108	219
25	124	145	140			124	166	1,840	830	251	124	219
26	124	145				124	145	1,760	770	192	251	219
27	124	166		135		124	145	1,760	710	192	358	192
28	124	145				145	145	1,760	650	166	401	192
29	124	145			-------	145	145	1,840	596	145	358	192
30	124	145			-------	145	145	1,680	541	192	219	166
31	124	-------			-------	145	-------	1,760	-------	145	192	------

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

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	166	124	135	8,300
November	192	124	157	9,340
December	----------	----------	148	9,100
January	----------	----------	[a] 131	8,060
February	----------	----------	[a] 140	7,780
March	145	124	130	7,990
April	251	124	166	9,880
May	1,840	145	1,080	66,400
June	1,360	541	937	55,800
July	710	145	323	19,900
August	401	92	158	9,720
September	283	166	208	12,400
The year	1,840	92	311	225,000

[a] Estimated.

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, 3 miles below mouth of Lake Fork, and 15 miles above mouth of Uinta River.

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

RECORDS AVAILABLE.—October 26, 1899, to November 30, 1910, and July 26, 1911, to September 30, 1925, fragmentary.

GAGE.—Chain gage on upstream rail near left end of steel highway bridge; installed August 6, 1910; 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 they are subject to erosion during high water. Current comparatively swift and makes an angle with bridge at low stages. Gravel riffle at ford 100 or 200 feet below gage; shifts occasionally.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.35 feet at 6 p. m. May 21 (discharge, 2,350 second-feet); minimum stage not recorded.

1899–1925: 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 seriously affected by ice every winter.

DIVERSIONS.—Much of the low-water flow of the river and its tributaries is diverted for irrigation above station.

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

ACCURACY.—Stage-discharge relation permanent; affected by ice from December 12 to March 9. Rating curve well defined. Gage read to hundredths four or five times a week. Daily discharge ascertained by applying mean daily gage height to rating table. Discharge estimated for period of ice effect and periods of missing gage height from observer's notes, recorded gage heights, weather records and by hydrographic comparison with records for other Duchesne River stations. Record fragmentary for June, July, and August. Records fair.

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

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 24	[a] 3.79	267	May 21	4.34	2,480	July 13	2.01	289
Apr. 26	1.88	218	May 24	3.89	1,890	Aug. 11	1.56	83.6

[a] Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	161	213	284				258	165			59	328
2	144	218	304				264	170	1,170	870		330
3	134	222	323				169	189	1,000		54	385
4	124	222	337				269	285				546
5	132	227	351			300	269	380			213	494
6	139	232	334				269	513	974			425
7	171	222	312				269	671				400
8	203	222	290				269	776	762			374
9	189	222	279				269	918	706	409		328
10	189	222	279			312	269	945				290
11	189	222	269			301	263	974		469	85	250
12	186	222		260		290	266	904	1,430		64	222
13	184	227				279	269	865	1,190	227		240
14	184	232				290	266	830				269
15	193	232			280	300	268	790	790		179	306
16	184	268				312	268	770				237
17	189	304				290	274	745	727		131	222
18	184	340				269	273	720				274
19	184	312				256	272	1,060	974			420
20	184	312				243	270	1,460	1,210	88	189	432
21	184	298	260			243	269	2,210		124	166	444
22	184	284				243	260	2,250	1,940		157	463
23	184	279				243	250	1,850				430
24	184	274				243	240	1,830	1,190	380	213	403
25	179	312		267		250	230	2,060		213		385
26	182	351				258	217	2,030	934		175	362
27	184	356				264	193	1,820	671			300
28	179	362		270		269	193	1,830		131		269
29	193	334				274	157	1,880	488	94		269
30	200	310				279	160	1,990	513	124	713	274
31	208					222		2,000				

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

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	208	124	178	10,900
November	362	213	268	15,900
December	351		276	17,000
January			[a] 262	16,100
February			[a] 280	15,600
March	312	222	278	17,100
April	274	157	251	14,900
May	2,250	[a] 165	1,160	71,300
June			[a] 1,050	62,500
July			[a] 387	23,800
August			[a] 233	14,300
September	546	222	346	20,600
The year	2,250		414	300,000

[a] Estimated.

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 of Strawberry and Duchesne Rivers.

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

RECORDS AVAILABLE.—June 10, 1908, to November 30, 1910, and March 16, 1914, to September 30, 1925.

GAGE.—Enameled vertical staff installed June 13, 1922, 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; fairly permanent.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 7.7 feet at 7 p. m. July 2 (discharge, 1,200 second-feet); minimum stage, 4.05 feet July 19, 20, August 1, 2, and 6–9 (discharge, 37 second-feet).

1908–1925: Maximum stage recorded, 7.7 feet (old datum) 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.—Water stored in Strawberry Valley Reservoir (capacity, 250,000 acre-feet) about 40 miles above station, is diverted by tunnel to Spanish Fork 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 changed slightly during winter and returned to normal July 1; affected by ice December 12 to March 8. Rating curve well defined. Gage read to half-tenths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table using parallel shifts to measurements March 9 to June 30. Discharge for ice-affected periods estimated from one discharge measurement, temperature records, observer's notes and by hydrographic comparison with all Duchesne River stations. Records good.

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

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 20	[a] 5.48	58.6	May 20	4.60	132
Apr. 26	4.50	120	Aug. 8	4.08	42.9

[a] Stage-discharge relation affected by ice.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	66	64				111	120	106	642	37	64
2	48	66	64				111	123	114	710	37	69
3	48	66	72				103	139	114	113	56	64
4	48	66	69				103	160	114	106	44	90
5	48	66	60			90	135	171	171	147	42	66
6	48	66	64				143	196	176	93	37	60
7	54	66	66				160	183	149	79	37	54
8	54	66	60				160	188	133	79	39	54
9	52	72	56			103	143	196	133	79	37	54
10	54	72	64	60		103	160	181	133	72	40	54
11	60	82	56			103	188	176	118	127	44	54
12	60	69				95	179	154	114	76	60	48
13	60	66				85	179	149	114	60	66	48
14	60	82				87	171	143	106	52	54	48
15	64	76			65	90	179	133	106	60	44	52
16	66	76				87	156	133	106	64	42	48
17	66	79				87	135	143	98	64	42	48
18	66	54				87	120	143	98	52	42	48
19	66	66				87	120	133	90	37	42	56
20	66	76		59		87	120	133	90	37	44	60
21	66	72	50			87	120	133	101	96	44	69
22	66	82				87	120	133	158	393	42	60
23	66	76				103	129	133	129	147	42	60
24	66	64				95	129	123	114	76	113	60
25	66	69				95	129	114	95	56	56	54
26	66	69		60		95	120	114	90	54	76	48
27	66	72				95	120	114	90	54	409	48
28	66	76				95	120	111	83	52	565	48
29	66	72			-------	103	111	106	83	48	158	48
30	66	66			-------	103	116	106	143	42	79	48
31	69	-------			-------	111	-------	106	-------	42	66	------

NOTE.—Gage heights affected by ice Dec. 12 to Mar. 8; braced figures show estimated mean discharge for periods indicated.

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	69	48	60.2	3,700
November	82	54	70.5	4,200
December	72	----------	54.7	3,360
January	----------	----------	60.0	3,690
February	----------	----------	*65.0	3,610
March	111	----------	93.2	5,730
April	188	103	136	8,090
May	196	106	142	8,730
June	176	83	116	6,900
July	710	37	123	7,560
August	565	37	81.8	5,030
September	90	48	56.1	3,340
The year	710	37	88.3	63,900

* Estimated.

WEST FORK OF LAKE FORK NEAR MOUNTAIN HOME, UTAH

LOCATION.—In SE. ¼ sec. 18, T. 2 N., R. 5 W., Uinta special base and meridian, a quarter of 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, 1925 (fragmentary); not operated during winter.

GAGE.—Stevens continuous water-stage recorder on right bank; attended by engineers of United States Office of Indian Affairs 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, 2.44 feet at 6 a. m. May 21 (discharge, 804 second-feet); minimum stage not recorded.

1921–1925: Maximum stage, 3.50 feet at 1 p. m. June 13, 1923 (discharge, *1,940 second-feet); minimum 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. Records good.

Discharge measurements of West Fork of Lake Fork near Mountain Home, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 2	0.15	29.7	May 22	2.23	702
Apr. 27	.37	51.0	Aug. 15	.75	104

Daily discharge, in second-feet, of West Fork of Lake Fork near Mountain Home, Utah, for the year ending September 30, 1925

Day	Oct.	Apr.	May	June	Aug.	Sept.	Day	Oct.	Apr.	May	June	Aug.	Sept.
1	41	------	68	402	------	116	16	42	------	267	320	93	104
2	42	30	82	326	------	121	17	42	------	260	326	87	95
3	41	------	118	306	------	121	18	42	------	295	338	84	104
4	41	------	154	267	------	149	19	42	------	470	420	87	168
5	41	------	198	259	73	146	20	41	------	600	475	95	165
6	41	------	246	225	78	134	21	40	------	768	485	95	------
7	48	------	320	207	82	124	22	39	------	720	535	87	------
8	49	------	420	204	82	128	23	39	------	702	495	84	------
9	47	------	433	253	82	124	24	39	------	678	456	78	------
10	44	------	438	392	84	109	25	39	------	672	392	71	------
11	46	------	424	510	87	102	26	39	------	655	358	72	------
12	42	------	346	410	104	95	27	39	52	600	330	87	------
13	42	------	316	334	121	107	28	39	53	625	312	160	------
14	42	------	302	302	121	124	29	39	56	610	------	157	------
15	42	------	281	309	107	116	30	39	60	580	------	128	------
							31	39	------	510	------	109	------

Monthly discharge of West Fork of Lake Fork near Mountain Home, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	49	39	39.6	2,430
May	768	68	424	26,100
June 1–28	535	204	355	19,700
August 5–31	160	71	96.1	5,150
September 1–20	168	95	123	4,880

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 map).

RECORDS AVAILABLE.—July 3, 1900, to December 31, 1903; June 13, 1907, to November 30, 1910; July 26, 1911, to September 30, 1925.

GAGE.—Stevens continuous water-stage recorder installed October 4, 1921; inspected by C. J. Preece and 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, 3.82 feet at 11 a. m. May 21 (discharge, 775 second-feet); minimum discharge, 4 second-feet March 28 and 29.

1900–1903; 1907–1925: 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 Office of Indian Affairs and some privately owned canals divert water above for irrigation. Some return water from irrigation enters a short distance above station.

REGULATION.—Flow affected by irrigation diversions above.

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 all Duchesne River stations or interpolated. Records fair except estimates for summer floods, which are poor.

Discharge measurements of Lake Fork near Myton, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 23	*3.26	76.8	May 24	3.10	454
Apr. 25	.90	9.5	Aug. 11	1.40	30.6

* Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Lake Fork near Myton, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	14					6	9	137	135	21	
2	10	25					6	8	110	167	18	75
3	9	25					7	10	94	139	24	
4	9	22					8	17	122	122	101	
5	9	25					7	17	190	146	50	67
6	10	21				60	6	25	110	124	30	64
7	12	25					7	35	101	108	30	60
8	23	29					6	18	94	50	27	53
9	16	25					6	37	89	20	28	53
10	13	29					6	26	110	14	31	54
11	13	29					7	35	306	14	32	56
12	12	33		70		47	7	17	306	17	40	57
13	12	29				57	7	13	268	15	56	76
14	13	27				48	7	13	162	12	70	78
15	12	46			75	51	6	27		19	53	67
16	11	37	65			45	7	26	150	20	31	74
17	9	63				38	5	25		19		70
18	9	60				23	9	17		23		70
19	10	70				16	9	110				99
20	9	69				15	5	281	213	25	25	155
21	9	64				14	5	531	316			190
22	10	64				12	8	518	562			174
23	12	54		77		12	5	431	343	50	23	139
24	11	52				9	6	393	306		27	118
25	14	61				6	8	386	268	22	27	85
26	15	70				5	7	408	162	20	31	79
27	13	70		75		5	7	320	31	16	200	68
28	10	76				4	8	265	25	15	250	78
29	12	64			-------	4	8	274	18	22	99	78
30	18	65			-------	5	8	247	23	20	80	74
31	14	-------			-------	5	-------	177	-------	20	70	------

NOTE.—No gage-height record and mean discharge estimated Nov. 30, Mar. 10, 11, 25–27, 29–31, Apr. 1–3, June 15–19, July 8, 9, 19–24, 30, 31, Aug. 5–7, 17–22, 27, 28, 30, 31, Sept. 1–4, 10, 11, 17, 18. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Lake Fork near Myton, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	23	9	11.9	732
November	76	14	44.8	2,670
December	----------	----------	[a] 65.0	4,000
January	----------	----------	[a] 71.5	4,400
February	----------	----------	[a] 75.0	4,170
March	----------	4	34.9	2,150
April	9	5	6.8	405
May	531	8	152	9,350
June	562	18	174	10,400
July	167	12	49.2	3,030
August	250	18	51.6	3,170
September	190	53	84.5	5,030
The year	562	4	68.3	49,500

[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), 1½ miles above mouth of Pole Creek, and 9 miles north of Neola, Duchesne County.

DRAINAGE AREA.—181 square miles.

RECORDS AVAILABLE.—July 30, 1921, to September 30, 1925; fragmentary.

GAGE.—Vertical staff on left bank installed July 8, 1923; washed away during high water in 1924. New staff gage to new datum installed July 1, 1924, at same location; read by L. V. Crapo.

DISCHARGE MEASUREMENT.—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 and probably not subject to overflow, unless 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 changed about May 21. Rating curves fairly well defined to 700 second-feet and extended above. Gage read to hundredths once or twice daily, except as stated in footnote to daily-discharge table. Daily discharge ascertained by applying daily gage height or mean daily gage height to rating table. Records fair.

Discharge measurements of Uinta River near Neola, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 4	−0.02	[a] 72.3	May 26	1.95	[a] 685
Apr. 28	.12	[b] 85.7	Aug. 13	.85	[a] 266

[a] Includes flow of Uinta Power & Light Co.'s tailrace.
[b] Measured above Uinta Power & Light Co.'s tailrace.

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

Day	Mar.	Apr.	May	June	July	Aug.	Sept.
1		68	108	409	583	238	215
2		68	116	372	513	223	242
3		65	170	390	466	246	268
4		69	227	317	466	223	283
5		65	346	335	486	210	271
6		70	468	321	428	218	264
7		68	549	255	390	197	268
8		67	726	261	375	183	290
9		70	705	390	350	173	277
10		70	693	635	324	173	258
11		68	644	726	304	185	252
12		76	421	548	283	324	223
13		80	440	489	277	277	223
14		77	525	424	283	258	215
15		75	448	420	274	205	207
16		80	383	417	264	185	187
17		82	448	494	264	165	183
18		85	452	571	271	160	173
19		88	713	648	277	160	575
20		92	873	726	331	162	310
21		88	1,000	684	375	156	390
22		88	705	810	451	156	390
23		85	644	751	413	155	300
24		81	672	693	380	154	271
25		77	701	661	346	160	258
26		74	689	629	310	158	252
27		77	571	598	283	166	252
28		88	575	567	271	173	229
29	65	85	635	556	252	271	246
30	65	99	676	521	252	210	235
31	70		524		246	210	

NOTE.—Discharge includes flow of Uinta Power & Light Co.'s tailrace. No gage height June 15, 17–19, 25–27, July 9, 11, 15, 24, Aug. 16, 23, 27, Sept. 2, and 14; discharge interpolated.

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
March 29-31	70	65	66.7	397
April	99	65	77.5	4,610
May	1,000	108	543	33,400
June	810	255	521	31,000
July	583	246	343	21,400
August	324	154	198	12,200
September	575	173	267	15,900
The period				119,000

WHITEROCKS CREEK 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, 1925, 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 near present site.

GAGE.—Stevens continuous water-stage recorder on left bank; installed August 4, 1921; inspected by C. J. Preece.

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

CHANNEL AND CONTROL.—Narrow 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.—Maximum stage during year, 3.19 feet at 1 a. m. May 21 (discharge, 920 second-feet); minimum stage occurred during winter.

1918–1925: 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 winter of 1920–21.

ICE.—Stream freezes over every winter.

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

REGULATION.—None.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve fairly well defined. Operation of water-stage recorder satisfactory October 9 to November 23, March 31 to July 7, and July 29 to August 12. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph; shifting-control method used October 1 to November 30 and March 31 to April 30. Discharge for periods of missing gage height estimated or interpolated. Records fair.

Discharge measurements of Whiterocks Creek near Whiterocks, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Mar. 31	1.84	27.1	May 23	2.46	310
Apr. 28	1.96	44.8	Aug. 12	2.18	115

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

Day	Oct.	Nov.	Apr.	May	June	July	Aug.
1	41	41	31	78	228	191	87
2		41	29	98	200	191	84
3		39	32	143	209	183	94
4		39	31	209	200	168	87
5	43	41	30	351	200	175	87
6		38	28	405	168	161	84
7		38	26	440	161	143	81
8		38	28	469	191		81
9	45	44	27	433	351		81
10	45	41	28	405	520		87
11	45	41	30	365	513		90
12	45	41	32	228	351		110
13	45	41	33	274	282		-------
14	44	41	36	310	274		-------
15	42	41	42	248	317		-------
16	42	41	49	191	274		-------
17	44	41	55	257	257		-------
18	44	41	59	331	238	125	-------
19	42	41	55	455	248		-------
20	42	39	49	491	257		-------
21	42	35	51	550	296		-------
22	42	34	51	392	351		-------
23	41	34	47	324	303		-------
24	41		45	317	266		-------
25	41		44	303	238		-------
26	41	36	44	317	218		-------
27	41		44	296	200		-------
28	39		45	282	191		-------
29	41		49	257	175	106	-------
30	41		57	257	183	94	-------
31	41	-------	-------	248	-------	87	-------

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	45	39	42.5	2,610
November	44	34	38.5	2,290
April	59	26	40.2	2,390
May	550	78	314	19,300
June	520	161	262	15,600
July	191	87	133	8,180
August 1–12	110	81	87.8	2,090

FISH CREEK NEAR SCOFIELD, UTAH

LOCATION.—In sec. 10, T. 12 S., R. 7 E., three-quarters of a mile above railroad siding at Hale, 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 United States Forest Service map, 1920).

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

GAGE.—Vertical enameled staff gage on left bank 85 feet below railroad bridge; installed November 17, 1917; read by J. H. McNichols.

DISCHARGE MEASUREMENTS.—Made by wading, from railroad bridge near gage, or from highway bridge 1 mile upstream.

CHANNEL AND CONTROL.—One channel at all stages. Right bank is high rock cliff; 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. Point of zero flow 4.3 feet ± 0.1 foot, determined June 15, 1925.

EXTREMES OF DISCHARGE.—Maximum stage recorded during period, 5.60 feet at 7.30 a. m. June 22 (discharge, 80 second-feet); minimum stage, 4.80 feet August 17, 22–26, September 16 and 17 (discharge, 13 second-feet).

ICE.—Stream freezes over every winter.

DIVERSIONS.—Probably some small diversions for irrigation above station.

REGULATION.—None.

ACCURACY.—Stage-discharge relation permanent during period. Rating curve well defined. Staff gage read to hundredths twice daily. 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.

The following discharge measurements were made:

June 15, 1925: Gage height, 5.50 feet; discharge, 67.6 second-feet.

August 22, 1925: Gage height, 4.80 feet; discharge, 13.8 second-feet.

September 28, 1925: Gage height, 4.82 feet; discharge, 12.6 second-feet.

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

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1		32	16	19	16	57	18	16	13
2		36	16	26	17	52	16	13	13
3		42	16	47	18	52	16	17	18
4		36	17	42	19	47	17	18	18
5		32	18	32	20	47	22	18	18
6		30	18	22	21	47	22	17	18
7		24	16	18	22	68	20	13	18
8		23	18	18	23	40	20	13	17
9		23	19	18	24	32	20	13	16
10		23	22	17	25	30	18	13	16
11		24	22	16	26	30	18	14	16
12		23	26	16	27	26	18	20	16
13		22	26	16	28	24	17	19	16
14		20	20	16	29	29	17	18	16
15	68	19	17	16	30	30	17	20	16
					31		16	18	

Monthly discharge of Fish Creek near Scofield, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
June 15-30	68	24	42.4	1,350
July	42	16	22.6	1,390
August	26	13	17.6	1,080
September	47	13	19.5	1,160
The period				4,980

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 map).

RECORDS AVAILABLE.—February 21, 1904, to September 30, 1925.

GAGE.—Chain gage on highway bridge, installed May 29, 1922; 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. One channel at all stages. Control is a riffle of gravel and cobbles.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 12.02 feet at 4 p. m. August 27 (discharge, from extension of rating curve, 4,400 second-feet); minimum stage recorded, 6.20 feet at 8 a. m. August 8 (discharge, 4 second-feet).

1904–1925: 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, determined by leveling from hub set at high-water mark (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.—Practically none.

ACCURACY.—Stage-discharge relation changed about June 21; affected by ice as noted in footnote to daily-discharge table. Rating curves well defined below 200 second-feet and extended above. 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 tables. Discharge for periods of ice effect estimated from temperature records, observer's notes, and one current-meter measurement. Discharge interpolated or estimated from observer's notes for days when no gage heights were obtained and for small floods June 21, July 1, August 4, 10, 11, 25–27, and September 18. Records good.

Discharge measurements of Price River near Helper, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Jan. 12	[a] 7.05	24.8	June 5	7.50	160	Aug. 17	6.54	14.6
Apr. 18	7.56	[b] 210	June 14	7.15	78	Sept. 28	6.68	24.1
Apr. 23	7.35	121	July 15	6.58	17.0			

[a] Stage-discharge relation affected by ice. [b] Measured from bridge; conditions poor.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	25				41	160	132	99	150	24	28
2	8	30				37	115	144	117	60	12	24
3	7	30			35	41	110	155	127	66	12	60
4	7	30				41	124	182	127	70	700	44
5	8	28				54	115	234	160	65	31	60
6	10	28	20	20		70	110	214	160	60	17	95
7	31	26				60	110	248	139	52	12	49
8	41	25				70	88	266	129	31	4	35
9	30	21				46	106	265	115	26	17	33
10	12	34			30	46	115	281	101	31	100	30
11	16	21				41	115	296	88	33	300	30
12	20	20	30	25		39	122	259	81	33	42	31
13	18	21	30	30	41	37	129	252	88	26	26	28
14	18	26	30		54	41	134	244	81	24	18	31
15	21	30	34		41	30	147	238	70	18	16	28
16	21	30	34		48	41	150	230	70	18	16	26
17	23	30	37		39	44	147	224	64	42	15	24
18	23	30	30		30	48	182	217	54	39	18	1,000
19	24	32			36	51	177	220	49	40	24	57
20	25	34			42	67	160	214	41	42	30	30
21	25	39			49	79	147	207	600	95	44	37
22	25	30		30	41	84	139	188	95	70	26	30
23	26	20			41	88	129	139	76	44	21	26
24	26	18			41	84	129	150	60	39	18	24
25	26	14	20		39	109	112	160	53	35	900	24
26	25	14			41	134	97	150	40	26	100	24
27	22	13			41	144	103	137	40	24	1,300	24
28	23	14			41	120	108	117	37	20	60	24
29	28	9			-------	134	117	103	30	18	30	24
30	23	10			-------	177	127	86	30	50	24	24
31	23	-------			-------	166	-------	83	-------	35	22	-------

NOTE.—Stage-discharge relation affected by ice; discharge estimated Dec. 1–11, 18–31, Jan. 1–12, 14–31, and Feb. 1–12. Braced figures show estimated mean discharge for periods indicated.

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	41	7	20.6	1,270
November	39	9	24.4	1,450
December	37	----------	22.7	1,400
January	----------	----------	26.3	1,620
February	54	----------	37.5	2,080
March	177	30	73.0	4,490
April	182	88	127	7,560
May	296	83	195	12,000
June	600	30	101	6,010
July	150	18	44.6	2,740
August	1,300	4	128	7,870
September	1,000	24	66.8	3,970
The year	1,300	4	72.5	52,500

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 United States Forest Service map, 1920).

RECORDS AVAILABLE.—May 3, 1909, to September 30, 1925; fragmentary.

GAGE.—Stevens continuous water-stage recorder on right bank installed September 11, 1917; reinstalled to same datum on left bank 25 feet upstream September 25, 1925; 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. Point of zero flow at gage height 1.1 or 1.2 feet; determined September 17, 1924.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 4.7 feet at 3 p. m. August 25 (discharge, 870 second-feet); minimum discharge about 20 second-feet during period of ice effect in December.

1909–1925: 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 discharge recorded, 12 second-feet March 20–23, 1912.

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 permanent during year; affected by ice during December and January. Rating curve well defined between 30 and 700 second-feet; extended above. Operation of water-stage recorder fairly satisfactory, except as noted in footnote to daily-discharge table. Daily discharge ascertained by applying to rating table mean daily gage height determined from recorder graph. Records fair.

Discharge measurements of Huntington Creek near Huntington, Utah, during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 19	2.69	138	Aug. 21	2.22	60.7
June 5	2.67	130	Sept. 25	1.94	31.2

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	34					48	173	138	126	90	44
2	29	32					50	184	138	107	90	36
3	29	30			30		53	196	138	105	93	46
4	31	36				26	56	208	138	109	90	34
5	32						51	208	138	100	86	34
6	31				30		46	219	126	93	82	34
7	33					29	41	230	124	88	80	34
8		36		25			51	241	122	85	80	33
9			30				62	252	132	86	74	33
10	32				30		73	264	136	88	71	33
11						30	84	252	132	95	93	33
12		37					95	240	116	82	86	35
13	31						111	228	114	88	79	37
14	34				30	30	122	216	120	102	72	34
15							132	205	126	104	66	33
16	32	34					151	194	118	102	60	32
17						36	174	183	116	98	60	31
18	30						165	210	114	102	60	41
19							138	240	118	100	59	40
20		30				42	118	270	116	98	59	38
21	32				27	42		270	161	113	59	36
22				30		40		248	118	109	54	34
23						41	120	226	115	95	48	34
24		30	20			42		204	112	82	45	34
25						43		183	110	88	64	34
26	34					43	118	175	108	90	79	34
27	35					44	129	167	106	90	45	33
28	36	30			24	45	140	159	104	90	44	34
29	36	30		30	-------	45	151	152	102	92	43	35
30	37	30		30	-------	45	162	145	100	92	42	33
31	36	-------		30	-------	46	-------	138	-------	92	37	-------

NOTE.—No gage-height record; discharge estimated or interpolated Oct. 8–12, 15–17, 19–25; Nov. 1, 2, 5–11, 13–19, 21–27, 29, 30; Dec. 1–4, 6–11, 13–16, 18–22, 24–29, 31; Jan. 1–6, 8–15, 17–24, 26–28, 30, 31; Feb. 1–5, 7–13, 15–27; Mar. 1–6, 8–13, 15–19, 27; Apr. 1–3, 5–11, 21–25, 27–30; May 1–3, 5–9, 11–16, 18–24, 26–30; June 1–4, 22–29; Aug. 12–15, 17–20, 28, 29; Sept. 5–10, 12, 20, 21, and 23. Braced figures show estimated mean discharge for periods indicated.

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	37	29	32.4	1,990
November	----------	----------	33.0	1,960
December	----------	----------	25.5	1,570
January	----------	----------	27.6	1,700
February	----------	----------	28.4	1,580
March	*46	----------	35.3	2,170
April	174	*41	104	6,190
May	*270	138	209	12,900
June	161	100	122	7,260
July	126	82	96.5	5,930
August	93	37	67.4	4,140
September	46	31	35.2	2,090
The year	*270	----------	68.3	49,500

*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 United States Forest Service map, 1920).

RECORDS AVAILABLE.—May 1, 1909, to September 30, 1925; fragmentary.

GAGE.—Stevens continuous water-stage recorder installed August 11, 1921, 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, 6.8 feet at 6.30 p. m. June 21 (discharge, 1,360 second-feet); minimum discharge not determined.

1909–1925: Maximum stage recorded, 9.1 feet about 10 p. m. August 22, 1922 (discharge estimated by prolongation of rating curve, 2,500 second-feet); minimum discharge recorded, 5 second-feet September 21, 1910.

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

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 slightly about May 9, a large amount June 21, again on August 4 and September 4; affected by ice December 6 to March. Rating curves fairly well defined below 600 second-feet and extended above. Water-stage recorder operated fairly 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, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Apr. 19	3.34	130	Aug. 21	3.38	30.8
June 6	3.62	166	Sept. 25	3.50	24.4

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	15					31	150	244	113	42	55
2	17	15					29	160	224	92	40	39
3	17	14					36	202	212	99	38	96
4	17	12					43	252	191	144	48	80
5	19	11					38	262	184	96	47	28
6	19						32	294	176	96	37	30
7	26						26	322	152	92	35	29
8	20						32	350	170	86	33	26
9	19		16				38	379	207	78	34	24
10	18						45	408	231	82	32	22
						20						
11	18						52	397	221	94	43	21
12	16						62	386	195	79	42	20
13	16						73	375	191	67	39	21
14	18						91	347	198	66	39	21
15	17				15		104	362	193	66	39	19
				10								
16	17						122	320	191	75	36	17
17	18						138	335	187	65	33	16
18	17	10					137	394	178	66	34	31
19	19						136	444	187	61	49	36
20	19						129	486	182	61	42	24
21	19					24	122	497	253	96	37	24
22	18					23	116	431	180	80	34	24
23	17					26	110	408	160	61	32	24
24	16					24	104	418	154	50	34	24
25	15		8			29	98	431	138	49	55	24
26	14					29	92	394	116	49	96	23
27	14					28	86	381	106	50	37	22
28	14					28	94	353	104	67	38	22
29	14				-------	30	130	332	104	49	31	22
30	14				-------	29	140	314	102	49	32	22
31	15	-------			-------	26	-------	277	-------	44	32	-------

NOTE.—No gage-height record; discharge interpolated or estimated Oct. 22–26, Mar. 26, 27, Apr. 5, 6, 8–10, 18, 20–26, 30, May 1, 7–9, 11, 12, and June 22. Braced figures show estimated mean discharge for periods indicated.

Monthly discharge of Cottonwood Creek near Orangeville, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	26	14	17.3	1,060
November	15	----------	10.6	631
December	----------	----------	9.1	560
January	----------	----------	*10	615
February	----------	----------	*15	833
March	30	----------	22.5	1,380
April	*140	26	82.9	4,930
May	497	*150	350	21,500
June	253	102	178	10,600
July	144	44	74.9	4,610
August	96	31	40.0	2,460
September	96	16	29.5	1,760
The year	497	----------	70.3	50,900

* Estimated.

PARIA RIVER BASIN

PARIA RIVER AT LEES FERRY, ARIZ.

LOCATION.—On unsurveyed land, 1 mile above mouth and 1 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 21, 1923, to September 30, 1925.

GAGE.—Slope gage on right bank; read by J. E. Klohr and D. H. Barber.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Channel straight for 100 feet above and below gage. Right bank of rock, high and not subject to overflow. Left bank of sand and gravel, low and subject to overflow during floods. Bed composed of sand and gravel. Gravel riffle 200 feet downstream from gage.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 6.5 feet about midnight September 18 (discharge, 4,800 second-feet); minimum discharge probably zero on several nights in December and January when river was frozen solid.

1923–1925: Maximum stage recorded, that of 1925. Minimum discharge probably zero on several nights of December and January of each year 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.—Stage-discharge relation not permanent. Standard rating curves well defined from 0 to 200 second-feet, fairly well defined up to 3,500 second-feet, and extended above. Forty-seven discharge measurements made during the year. Gage read to hundredths three to four times a week and oftener during floods. Daily discharge ascertained by applying daily gage height to rating table, except as indicated in footnote to table of daily discharge. Shifting-control method used for entire year. Discharge interpolated for days when gage was not read. Records good.

Discharge measurements of Paria River at Lees Ferry, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 8	1.45	176	Feb. 7	1.05	33.3	June 3	0.66	2.6
Oct. 15	1.03	23.4	Feb. 12	1.00	31.2	June 11	.62	1.8
Oct. 22	1.01	16.5	Feb. 22	1.05	24.1	June 19	.63	2.2
Oct. 29	.99	15.6	Feb. 28	.92	22.2	June 25	.79	5.3
Nov. 7	1.02	22.7	Mar. 6	1.08	33.6	July 7	.71	17.8
Nov. 17	1.02	25.8	Mar. 17	.90	16.0	July 15	.53	7.6
Nov. 24	.99	20.5	Mar. 24	.87	11.4	July 23	.78	21.6
Nov. 30	.94	12.1	Mar. 28	.95	16.1	July 28	.50	5.4
Dec. 7	.80	7.3	Apr. 6	.83	9.2	Aug. 8	1.01	57
Dec. 17	1.20	55	Apr. 11	.85	10.7	Aug. 14	.73	15.2
Dec. 28	1.30	[a] 5.0	Apr. 17	.70	4.0	Aug. 22	.85	21.1
Jan. 10	1.40	[a] 7.6	Apr. 25	1.02	25.0	Sept. 8	1.08	21.4
Jan. 15	1.40	[a] 7.4	May 2	.70	5.0	Sept. 15	.94	11.7
Jan. 20	1.40	[a] 7.9	May 12	.69	4.5	Sept. 23	1.00	19.3
Jan. 24	1.48	[a] 9.4	May 16	.66	3.3	Sept. 29	.93	14.5
Jan. 31	1.55	[a] 76	May 25	.63	1.9			

[a] Stage-discharge relation affected by ice.

Daily discharge, in second-feet, of Paria River at Lees Ferry, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	18	14			24	13	6	2			10
2	6	18	17			26	12	5	2			15
3	6	19	19			28	12	5	3	25		50
4	5	19	21		35	30	11	5	3		50	23
5	6	19	24			32	10	4	3	475		20
6	6	21	26			34	10	3	3	50	23	18
7	6	23	7		34	38	12	3	3	17	40	20
8	193	22	6	6	53	41	14	3	3	15	58	21
9	15	22	5		72	36	14	4	4	13	440	16
10	15	24	7		50	31	14	5	3	26	21	11
11	15	25	6		28	27	10	5	2	39	16	10
12	15	23	6		31	23	7	4	2	30	11	10
13	15	21	28		26	26	4	4	2	20	13	15
14	19	23	28		22	28	4	3	2	14	15	20
15	23	25	38		22	18	4	3	3	8	12	12
16	20	26	30		23	17	4	3	2	7	8	12
17	17	26	55		17	16	4	3	2	6	7	12
18	14	26	20		11	16	4	2	2	6	6	2,250
19	11	27	10		9	15	4	2	2	5	7	2,650
20	8	26	7		8	14	4	3	2	145	8	470
21	12	25	4		16	12	5	2	2	105	8	55
22	17	23	3		25	14	6	2	2	37	21	35
23	16	21	3	8	24	15	32	2	12	21	14	19
24	14	20	2		23	12	28	2	5	12	7	18
25	14	20			22	11	25	2	5	9	7	18
26	15	21			22	10	20	2	6	6	250	17
27	14	19			22	13	16	2	6	6	1,450	16
28	12	17	5		22	16	12	2	6	6	850	16
29	16	14				15	10	2	6	8	200	15
30	17	12				14	7	2	6	10	100	14
31	18			76		13		2		24	12	

NOTE.—Discharge estimated from observer's notes and discharge on adjacent days Oct. 7, 9, Dec. 16, 18, Feb. 1–6, June 22, 24, 30, July 1–4, 6, Aug. 1–5, 21, 25, Sept. 1–3, 17. Discharge estimated on account of ice Dec. 25 to Jan. 30.

Monthly discharge of Paria River at Lees Ferry, Ariz, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	193	5	19.0	1,170
November	27	12	21.5	1,280
December	55		13.3	818
January	76		9.2	566
February	72	8	28.3	1,570
March	41	10	21.5	1,320
April	32	4	11.1	660
May	6	2	3.1	191
June	12	2	3.5	208
July	475	5	39.4	2,420
August	1,450	6	124	7,620
September	2,650	10	196	11,700
The year	2,650		40.8	29,500

LITTLE COLORADO RIVER BASIN

ZUNI RIVER AT BLACKROCK, N. MEX.

LOCATION.—At reservoir on Zuni Indian Reservation at Blackrock, McKinley County. Rio de Los 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, 1925. 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 gage 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 Office of Indian Affairs, through H. F. Robinson, supervising engineer, Albuquerque, N. Mex.

Monthly discharge of Zuni River at Blackrock, N. Mex., for the year ending September 30, 1925

Month	Run-off in acre-feet	Month	Run-off in acre-feet	Month	Run-off in acre-feet
October	19	March	320	August	1,820
November	0	April	10	September	1,060
December	37	May	185		
January	0	June	60	The year	5,140
February	70	July	1,560		

BRIGHT ANGEL CREEK BASIN

BRIGHT ANGEL CREEK NEAR GRAND CANYON, ARIZ.

LOCATION.—In 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, 1925.

GAGE.—Vertical staff on left bank; read by B. S. Barnes and R. G. Kasel.

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, 1.85 feet at 5.30 p. m. September 17 (discharge estimated by extension of rating curve, 122 second-feet); minimum stage, 0.56 foot on August 3 and 5 (discharge, 20 second-feet).

1923–1925: Maximum stage recorded, 4.7 feet at 11 a. m. September 10, 1924 (discharge from extension of rating curve, 530 second-feet); minimum discharge, August 3 and 5, 1925, 20 second-feet.

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 75 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, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 8	0.68	24.1	Mar. 7	0.68	23.4	June 16	0.67	24.8
Oct. 23	.60	21.6	Mar. 12	.68	24.1	June 22	.65	24.2
Oct. 30	.66	23.2	Mar. 16	.66	26.0	June 30	.70	25.1
Nov. 11	.68	24.7	Mar. 17	.66	25.2	July 8	.66	23.2
Nov. 14	.65	23.2	Apr. 10	1.05	47.1	July 11	.65	22.2
Nov. 26	.68	23.4	Apr. 13	1.24	60	July 16	.60	21.7
Nov. 30	.68	22.6	Apr. 24	1.01	42.8	July 27	.58	20.6
Dec. 23	.74	27.9	Apr. 30	1.18	69	Aug. 8	.63	22.3
Dec. 31	.72	23.8	May 6	1.15	52	Aug. 13	.60	23.7
Jan. 19	.68	22.8	May 18	.89	32.8	Aug. 15	.62	21.7
Jan. 22	.67	25.6	May 26	.74	26.4	Aug. 21	.63	22.2
Jan. 27	.68	23.1	May 30	.69	23.5	Sept. 5	.68	22.2
Feb. 27	.67	25.0	June 3	.73	27.5	Sept. 21	.65	20.9

Daily discharge, in second-feet, of Bright Angel Creek near Grand Canyon, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	22	22	23	23	24	37	68	25	25	22	23
2	23	22	23	23	23	24	37	62	26	32	21	27
3	21	22	23	22	23	24	37	60	28	25	20	23
4	22	22	23	23	23	24	40	59	28	23	21	20
5	22	22	24	23	24	23	42	56	28	23	21	21
6	22	23	28	23	25	23	42	52	28	22	21	21
7	34	23	25	23	24	24	41	53	27	23	21	22
8	23	23	28	23	24	24	38	52	25	22	21	22
9	22	23	26	23	24	25	37	50	24	25	23	20
10	22	24	26	23	24	24	46	47	24	24	24	21
11	22	24	25	23	24	24	49	44	24	21	24	21
12	21	24	24	24	24	24	52	43	24	21	25	21
13	21	23	25	23	24	24	58	40	24	22	25	21
14	21	23	24	23	24	25	59	39	24	22	24	21
15	21	23	25	23	24	25	60	37	24	22	22	21
16	22	22	26	23	24	26	60	37	24	22	22	21
17	22	22	27	23	24	25	59	34	24	22	22	56
18	22	22	26	23	24	26	63	33	24	22	22	29
19	22	22	26	23	25	26	63	33	23	22	23	23
20	22	22	26	24	25	26	57	31	23	23	23	22
21	22	22	26	24	32	26	58	30	23	23	22	22
22	22	22	26	26	26	26	54	31	23	22	23	21
23	22	22	27	25	26	26	51	29	24	23	23	21
24	22	22	27	25	25	27	45	30	23	24	23	22
25	22	23	26	24	25	27	47	28	23	23	23	21
26	21	23	24	24	25	28	45	27	23	22	23	21
27	21	23	24	23	25	31	56	26	22	21	23	21
28	21	23	24	23	25	32	59	26	22	21	22	21
29	22	22	24	23	-------	35	65	24	24	23	22	21
30	23	22	24	23	-------	37	71	24	23	22	21	21
31	22	-------	24	23	-------	36	-------	24	-------	22	23	-------

Monthly discharge of Bright Angel Creek near Grand Canyon, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	34	21	22.2	1,360
November	24	22	22.6	1,340
December	28	22	25.1	1,540
January	26	22	23.4	1,440
February	32	23	24.6	1,370
March	37	23	26.5	1,630
April	71	37	50.9	3,030
May	68	24	39.6	2,430
June	28	22	24.4	1,450
July	32	21	22.9	1,410
August	25	20	22.4	1,380
September	56	20	23.2	1,380
The year	71	20	27.3	19,800

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. Station replaces one maintained prior to February, 1915, half a mile above Virgin and gives practically the same record of flow.

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

RECORDS AVAILABLE.—April 18, 1909, to May 31, 1925; fragmentary.

GAGE.—Chain gage on right bank near lower end of sandstone bluff; installed February 1, 1915; 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 gravel bar a short distance below gage; shifting.

EXTREMES OF DISCHARGE.—Maximum and minimum stages not determined for year ending September 30, 1925.

1909–1924: Maximum stage recorded, 11.6 feet at upper station October 27, 1912 (discharge estimated, 12,000 second-feet). The flood of August 31, 1909, probably equalled or exceeded this flow. 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 variable; affected by ice about December 21–28. Rating curve poorly defined. Gage read to hundredths four or five times a week. Daily discharge ascertained by applying gage height to rating table and interpolating or estimating discharge for days when gage was not read. Records poor.

The following discharge measurements were made:

April 24, 1925: Gage height, 2.90 feet; discharge, 206 second-feet.

August 22, 1925: Gage height, 2.83 feet; discharge, 75.4 second-feet.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
1	64	109	154	174	165	139	145	248
2	62	95	148	171	171	136	150	236
3	60	98	144	167	178	133	156	248
4	64	102	139	163	184	130	179	259
5	68	106	177	159	191	123	202	255
6	172	109	215	156	198	131	225	251
7	275	121	201	169	205	139	215	247
8	116	133	188	181	195	148	204	242
9	116	145	174	194	184	157	194	236
10	116	156	174	165	174	165	184	229
11	116	184	174	156	205	148	236	222
12	116	170	184	148	165	142	242	215
13	112	156	179	166	190	136	247	200
14	109	150	175	184	215	130	282	184
15	102	143	170	179	200	130	318	154
16	95	136	165	174	186	130	322	123
17	92	129	170	184	171	130	326	140
18	90	123	174	195	156	130	330	156
19	87	120	129	205	148	139	307	145
20	84	116	84	195	139	137	283	134
21	90	132	83	184	247	135	259	123
22	95	148	82	174	214	133	236	109
23	102	144	81	165	181	132	259	95
24	109	139	81	184	148	130	205	92
25	102	144	80	205	152	143	215	90
26	96	150	80	198	156	156	237	87
27	90	156	80	190	152	185	259	84
28	93	160	100	182	148	215	264	84
29	96	165	270	174	-------	186	270	84
30	99	159	230	170	-------	156	259	84
31	102	-------	194	165	-------	139	-------	90

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

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	275	60	103	6,330
November	184	95	137	8,150
December	270	80	151	9,280
January	205	148	177	10,900
February	247	139	179	9,940
March	215	123	144	8,850
April	330	145	240	14,300
May	259	84	166	10,200
The period	-------	-------	-------	78,000

MUKUNTUWEAP RIVER 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 to September, 1925; fragmentary.

GAGE.—Vertical staff on left bank; read by R. T. Evans.

DISCHARGE MEASUREMENTS.—Made by wading.

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 permanent during period. Rating curve well defined to 150 second-feet and extended above. Gage read to hundredths on days when daily discharge is shown. Daily discharge ascertained by applying mean daily gage height to rating table. No attempt was made to interpolate or estimate discharge for days of missing gage heights because of storms to which this stream is subjected. Discharge August 26–28 and September 2 and 3 estimated from rough hydrographs. Records fair.

Discharge measurements of Mukuntuweap River in Zion National Park near Springdale, Utah, for the years 1923–1925

Date	Gage height	Discharge	Date	Gage height	Discharge
1923	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*
Dec. 10	3.88	37.7	Apr. 24	4.88	110
			Aug. 22	4.38	38.2
1924					
June 5	4.11	65.5			

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

Day	Apr.	May	June	Aug.	Sept.	Day	Apr.	May	June	Aug.	Sept.
1			66		58	16			81	47	
2					63	17					49
3					63	18		114			
4			159		60	19					
5					58	20					84
6		206			62	21					81
7				187	53	22				39	81
8		204			53	23				51	78
9		202	114			24	111		74		76
10				53		25				47	
11						26	206			90	74
12					63	27				350	74
13						28				170	74
14				47		29		74	81		66
15					47	30				53	70
						31				57	

SANTA CLARA CREEK NEAR CENTRAL, UTAH

LOCATION.—In sec. 11, T. 39 S., R. 16 W., just above bridge at R. H. Hunt's 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 map).

RECORDS AVAILABLE.—April 21, 1909, to September 30, 1925.

GAGE.—Vertical enamel staff nailed to cottonwood tree on left bank about 50 feet above bridge; read by Mrs. R. H. Hunt. Datum of gage was raised 0.45 foot January 20, 1910; 2.00 feet February 22, 1916, and lowered 1.00 foot August 12, 1918.

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 stage; one channel at all stages. A riffle formed by small boulders 40 feet below gage is fairly permanent. Point of zero flow at gage height 0.7 foot ± 0.1 foot, determined June 9, 1923.

EXTREMES OF DISCHARGE.—Maximum stage recorded during year, 2.2 feet at 4 p. m. September 18 (discharge, 157 second-feet); minimum stage, 0.98 foot September 12, 14, 16, and 17 (discharge, 5 second-feet).

1909–1925: Maximum stage recorded, 5.00 feet at 11 a. m. October 6, 1916 (discharge, 1,450 second-feet); minimum stage, 0.82 foot January 8, 1920 (discharge, 4 second-feet).

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

DIVERSIONS.—The New Castle Reclamation Co. has a reservoir on Grass Valley Creek, with a capacity of 23,000 acre-feet. Water is diverted into reservoir from Santa Clara Creek above town of Pine Valley and exchanged for direct flow taken by tunnel through rim of the Great Basin for irrigation of lands outside the Colorado River Basin. 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 permanent during year. Rating curve well defined. Gage read to hundredths once daily three or four times a week. Daily discharge ascertained by applying daily gage height to rating table and interpolating discharge for days when gage was not read, except September 18 and 19, when heavy rains occurred and discharge was estimated from a study of precipitation data. Records fair.

The following discharge measurements were made:

April 25, 1925: Gage height, 1.16 feet; discharge, 10.4 second-feet.

August 21, 1925: Gage height, 1.08 feet; discharge, 7.6 second-feet.

Daily discharge, in second-feet, of Santa Clara Creek near Central, Utah, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	7	7	7	7	7	11	15	10	13	6	8
2	7	7	7	7	7	7	10	13	10	16	6	7
3	7	7	7	7	7	7	11	16	10	17	6	7
4	7	7	7	7	7	7	12	26	36	14	7	7
5	7	7	8	7	7	7	15	34	13	14	6	6
6	7	7	9	7	7	7	18	24	15	14	6	6
7	7	7	8	7	7	9	11	30	17	12	6	6
8	7	7	7	7	7	9	11	26	16	11	7	5
9	7	10	7	7	7	7	11	22	14	9	7	5
10	7	13	7	7	7	8	11	18	12	8	12	5
11	7	13	7	7	7	11	12	16	11	8	18	5
12	7	13	7	7	7	7	13	13	11	7	10	5
13	7	13	7	7	7	7	14	13	17	6	7	5
14	7	13	7	7	7	7	16	16	17	7	9	5
15	7	13	7	7	7	7	16	16	16	7	9	5
16	7	13	7	7	7	7	17	16	16	6	7	5
17	7	12	6	7	7	8	18	17	18	6	7	5
18	7	11	6	7	7	8	18	18	20	5	6	50
19	7	11		7	6	9	12	20	10	25	6	20
20	7	11		7	6	9	11	21	9	9	8	5
21	7	11		7	6	10	10	20	17	7	7	6
22	7	11		7	6	10	10	17	14	7	7	8
23	7	10		7	6	10	10	16	12	7	7	7
24	7	10	6	7	6	16	16	14	11	7	7	7
25	7	9		7	7	11	10	13	9	6	7	7
26	7	9		7	7	12	12	12	7	6	7	7
27	7	9		7	7	16	12	11	7	6	9	7
28	7	7		7	7	16	13	11	7	6	7	7
29	7	7	6	7	-------	14	15	11	7	6	7	7
30	7	7	6	7	-------	13	17	10	10	6	7	7
31	7	-------	7	7	-------	13	-------	10	-------	6	7	-------

NOTE.—Heavy rain Sept. 18 and 19; discharge estimated. Braced figure shows estimated mean discharge for period indicated.

Monthly discharge of Santa Clara Creek near Central, Utah, for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7	7	7.0	430
November	13	7	9.7	577
December	9		6.7	412
January	7	7	7.0	430
February	7	6	6.8	378
March	16	7	9.4	578
April	18	10	12.9	768
May	34	10	17.3	1,060
June	36	7	13.3	791
July	25	5	9.2	566
August	18	6	7.6	467
September	50	5	8.1	482
The year	50	5	9.6	6,940

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, 1925. 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, 1925

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Nov. 8	32.6	Mar. 7	59	July 2	4.7
Dec. 6	35.2	Jan. 28	27.4	Aug. 7	92
Jan. 2	53	May9	32.3		
Jan. 31	42.4	June 2	6.7		

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, 1925. 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, 1925

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Oct. 6	12.2	Feb. 8	22.6	June 3	6.2
Nov. 9	34.5	Mar. 8	11.9	July 2	12.0
Dec. 7	57	Mar. 29	16.0	Aug. 8	84
Jan. 3	93	May 10	12.1		

GILA RIVER NEAR SOLOMONVILLE, 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 Solomonville, 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, 1925.

GAGE.—Continuous water-stage recorder on left bank, directly opposite J. W. Earven's ranch; inspected by J. W. Earven.

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

CHANNEL AND CONTROL.—Bed composed of gravel, sand, and silt. Banks well defined. Gravel riffle 500 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 8.1 feet at 1.30 p. m. September 3 (discharge, 24,500 second-feet); minimum stage from water-stage recorder, 0.88 foot June 11 (discharge, 43 second-feet).

1914–1925: 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, July 4, 1923, 26 second-feet.

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 are irrigated from Gila River and tributaries above Safford Valley

REGULATION.—None except by diversions for irrigation.

ACCURACY.—Stage-discharge relation continually changing. Standard rating curve well defined to 10,000 second-feet, poorly defined above. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table or by taking mean of hourly discharges obtained by applying hourly mean gage height to rating table; shifting-control method used October 1 to July 23, August 25–30, and September 15–30. Records good.

Discharge measurements of Gila River near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	1.27	79	Feb. 14	1.41	121	May 15	1.09	74
Oct. 15	1.32	84	Mar. 1	1.39	122	May 25	1.00	52
Nov. 1	1.30	80	Mar. 15	1.42	152	June 1	1.12	84
Nov. 15	1.43	136	Mar. 20	1.40	130	June 10	.92	51
Dec. 2	1.52	142	Apr. 1	1.32	116	June 16	.95	49
Dec. 15	1.60	178	Apr. 7	1.28	106	July 1	1.14	93
Jan. 1	1.57	182	Apr. 15	1.19	83	July 15	1.44	183
Jan. 15	1.52	163	Apr. 24	1.18	90	Aug. 26	2.74	1,280
Feb. 1	1.52	151	May 1	1.14	81			

Daily discharge, in second-feet, of Gila River near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	80	139	179	153	123	115	82	74	96	1,120	6,670
2	78	80	133	186	153	123	108	82	60	93	308	13,200
3	78	87	131	190	150	123	108	78	56	89	249	15,400
4	78	91	131	190	142	123	105	74	56	533	236	6,200
5	78	91	133	190	136	123	102	73	56	390	219	3,050
6	80	93	145	195	133	120	100	85	54	190	261	1,770
7	80	98	150	190	139	118	100	165	56	139	570	1,140
8	82	100	150	190	139	118	100	120	54	131	664	821
9	85	108	160	183	133	204	96	91	51	265	460	590
10	87	115	160	175	128	200	91	100	50	219	249	460
11	87	115	160	168	131	183	89	91	48	314	183	375
12	87	120	164	164	128	164	82	85	48	219	147	757
13	89	123	172	164	123	150	85	85	50	168	131	874
14	89	131	172	160	120	142	85	80	50	377	118	460
15	82	136	175	160	120	133	80	74	50	195	105	420
16	80	139	175	168	118	131	80	76	51	131	89	347
17	78	139	172	168	112	131	82	73	50	87	80	289
18	78	142	179	172	110	128	80	73	50	74	138	261
19	78	136	186	175	110	128	82	71	51	100	102	608
20	78	136	190	175	110	128	82	69	54	327	98	1,300
21	76	136	190	172	115	128	85	69	69	224	85	540
22	78	139	183	172	118	125	87	69	76	186	131	420
23	80	139	179	164	120	120	87	65	93	157	340	354
24	80	139	186	157	123	123	89	57	920	284	1,000	289
25	80	139	183	157	123	118	87	54	1,100	155	874	238
26	80	142	160	160	118	110	82	56	334	198	756	200
27	80	139	150	160	118	110	80	58	233	449	289	179
28	80	139	139	168	115	115	82	69	168	284	150	164
29	82	142	150	160	-------	115	82	82	118	432	153	150
30	82	142	168	153	-------	112	82	74	102	721	274	142
31	80	-------	175	150	-------	110	-------	115	-------	3,420	2,700	-------

Monthly discharge of Gila River near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	89	76	80.9	4,970
November	142	80	122	7,260
December	190	131	163	10,000
January	195	150	171	10,500
February	153	110	126	7,000
March	204	110	132	8,120
April	115	80	89.8	5,340
May	165	54	80.5	4,950
June	1,100	48	143	8,510
July	3,420	74	343	21,100
August	2,700	80	396	24,300
September	15,400	142	1,920	114,000
The year	15,400	48	313	226,000

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.

DRAINAGE AREA.—10,900 square miles (measured on topographic maps).

RECORDS AVAILABLE.—December 24, 1920, to September 30, 1925. Discharge measurements only.

GAGE.—Vertical staff installed March 17, 1923. Physical conditions at this point have made the use of gage-height records impractical.

DISCHARGE MEASUREMENTS.—Made by wading near road crossing.

CHANNEL AND CONTROL.—Bed composed of sand and silt. Banks not well defined; subject to overflow. No well-defined control.

DIVERSIONS.—About 38,000 acres are irrigated from Gila River and tributaries above this station. Water for about 24,000 acres diverted by Safford Valley canals.

REGULATION.—Flow varies considerably with amount of water diverted by canals of Safford Valley.

ACCURACY.—Stage-discharge relation continually changing. No rating determined. No gage heights obtained. Discharge measurements only. Records show outflow from Safford Valley below all diversions.

Discharge measurements of Gila River near Ashurst, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	10.03	1.6	Feb. 4	10.20	5.2	June 2	10.17	1.8
Nov. 3	10.18	4.4	Mar. 3	10.20	4.8	July 2	10.13	3.1
Dec. 3	10.12	3.1	Apr. 3	10.24	8.2	Aug. 28		91.2
Jan. 9	10.55	35.5	May 2	10.20	3.5			

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, Gila County. San Carlos River enters on right 8 miles upstream.

DRAINAGE AREA.—12,900 square miles (measured on topographic maps).

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, 500 feet downstream from previous recording gage.

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

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and boulders. Banks not subject to overflow. Low-water channel well defined, always open to gage well. Riffle 800 feet below station. High-water control formed by narrowing of walls and sharp bend at dam site.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 14.1 feet at noon September 4 (discharge, 14,400 second-feet); minimum stage, 0.91 foot at 9 p. m. October 2 (discharge, 0.3 second-foot).

1914–1925: Maximum discharge about 130,000 second-feet [2] January 20, 1916 (stage about 28.0 feet, present gage); river dry June 28 to July 1, 1919.

[2] Previously published as 92,000 second-feet. Revised figure is based on rating for Kelvin station determined from measurements of flood in 1926.

DIVERSIONS.—About 38,000 acres are irrigated from Gila River and tributaries above this station.

REGULATION.—None except by diversions for irrigation.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined to 2,000 second-feet, fairly well defined to 20,000 second-feet. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying mean daily gage height to rating table, or by averaging hourly discharge; shifting-control method used November 14 to July 27, August 1–26, and September 23–30. Records good.

Discharge measurements of Gila River near San Carlos, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 16	1.30	4.2	Apr. 7	2.30	22.1	Aug. 25	2.91	78
Nov. 13	1.51	9.5	Apr. 22	2.10	13.6	Aug. 28	6.12	972
Dec. 7	1.65	19.9	Apr. 28	2.08	13.2	Aug. 28	4.42	410
Dec. 14	1.90	31.2	June 23	1.58	.3	Aug. 30	3.16	125
Jan. 3	2.87	88	July 23	1.43	.4	Sept. 6	8.45	2,660
Feb. 6	2.70	52	July 29	3.38	162	Sept. 7	7.50	1,820
Feb. 25	2.64	43.4	Aug. 1	7.36	2,010	Sept. 8	6.87	1,330
Mar. 13	2.78	58	Aug. 3	4.17	314	Sept. 30	3.42	114
Mar. 14	2.52	41.2	Aug. 4	3.96	252			

Daily discharge, in second-feet, of Gila River near San Carlos, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	6	14	93	56	44	26	12	1	3	2,960	2,310
2	1	6	14	87	56	46	27	11	1	80	853	6,500
3	1	7	15	88	55	46	26	11	1	27	369	10,700
4	1	7	15	86	56	45	26	10	1	22	411	11,500
5	1	7	16	100	55	44	23	10	1	30	350	4,400
6	1	7	17	101	53	45	22	9	1	10	184	2,760
7	1	7	20	95	51	45	22	9	1	2	271	1,880
8	1	7	23	91	49	68	22	26	1	1	186	1,320
9	1	8	25	89	49	125	22	52	1	6	150	1,050
10	2	9	26	87	48	112	22	22	1	9	136	843
11	2	9	27	88	46	84	20	15	1	8	123	702
12	3	9	28	84	44	67	18	12	1	5	111	601
13	3	9	28	84	47	58	18	9	1	4	101	487
14	4	9	30	80	46	54	19	7	1	3	91	766
15	4	10	31	80	48	51	17	5	1	2	83	554
16	5	10	36	79	51	49	16	5	1	2	75	446
17	4	10	50	72	51	46	13	5	1	1	67	807
18	4	10	51	67	51	44	12	4	1	1	58	938
19	4	10	51	66	50	41	12	3	1	1	47	2,000
20	5	10	56	69	52	41	12	3	3	30	39	934
21	5	10	66	72	57	41	11	2	1	10	38	945
22	5	11	74	67	57	39	13	2	1	1	206	639
23	5	11	98	64	56	39	14	2	1	1	495	431
24	5	11	102	64	52	39	15	2	1	1	179	344
25	6	11	109	63	48	36	15	2	104	1	81	286
26	6	12	117	62	45	35	15	2	214	14	194	216
27	6	12	119	59	46	41	14	2	43	4	137	176
28	7	13	114	57	46	45	14	2	12	202	334	144
29	7	13	111	57	-------	39	12	1	19	223	217	126
30	6	14	111	56	-------	33	12	1	8	332	140	111
31	6	-------	101	55	-------	30	-------	1	-------	270	186	-------

Monthly discharge of Gila River near San Carlos, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7	1	3.6	221
November	14	6	9.5	565
December	119	14	54.7	3,360
January	101	55	76.2	4,690
February	57	44	50.8	2,820
March	125	30	50.7	3,120
April	27	11	17.7	1,050
May	52	1	8.4	516
June	214	1	14.2	845
July	332	1	42.1	2,590
August	2,960	38	307	18,900
September	11,500	111	1,830	109,000
The year	11,500	1	204	148,000

GILA RIVER AT KELVIN, ARIZ.

LOCATION.—In sec. 12, T. 4 S., R. 13 E., 1,000 feet below mouth of Mineral Creek, a quarter of a mile below concrete highway bridge, a mile west of Kelvin, Pinal County, 15 miles below mouth of San Pedro River, and 15 miles above Ashurst-Hayden Dam.

DRAINAGE AREA.—18,100 square miles (measured on topographic maps and Greenidge map of Sonora, Mexico).

RECORDS AVAILABLE.—January 26, 1911, to September 30, 1925.

GAGE.—Water-stage recorder on left bank; installed June 15, 1914; new stilling well and shelter installed June 17, 1924. No change in datum of gage.

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

CHANNEL AND CONTROL.—Bed composed of sand, gravel, and silt; continually shifting. Banks not subject to overflow. Gravel riffle 300 feet below gage.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 6.9 feet at 2.30 a. m. September 4 (discharge, 11,200 second-feet); minimum stage from water-stage recorder, 1.25 feet occurred on June 3, 9, 10, 13, 14, and 18 (discharge, 0.7 second-foot).

1911–1925: 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 [3]); no flow June 29 to July 11, 1913.

DIVERSIONS.—Station is above diversions for Florence-Casa Grande Valley. About 38,000 acres are irrigated from Gila River above this station. Acreage irrigated from San Pedro River not known.

REGULATION.—None except by diversions for irrigation.

ACCURACY.—Stage-discharge relation not permanent. Standard rating curve well defined to 20,000 second-feet and fairly well defined above. Operation of water-stage recorder satisfactory. Daily discharge ascertained by applying daily mean gage height to rating table or by averaging the hourly discharge; shifting-control method used for entire year. Records good.

[3] Previously published as 93,000 second-feet. Revised figure is based on rating determined from measurements of flood in 1926.

Discharge measurements of Gila River at Kelvin, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 15	1.44	3.0	Apr. 6	1.82	27.2	Aug. 3	2.71	454
Nov. 7	1.54	5.1	Apr. 20	1.68	9.7	Aug. 4	2.50	341
Nov. 14	1.75	21.2	June 3	1.25	.7	Aug. 24	2.67	352
Dec. 8	1.80	31.1	June 22	1.41	.8	Aug. 30	2.28	155
Dec. 15	1.84	39.2	July 3	2.42	312	Sept. 2	5.15	5,580
Jan. 2	2.19	104	July 21	1.54	15.7	Sept. 3	6.27	8,660
Jan. 12	2.17	103	July 28	3.29	1,080	Sept. 4	6.48	9,980
Feb. 5	2.05	59	July 30	2.49	335	Sept. 5	5.16	5,300
Feb. 24	2.04	47.4	Aug. 2	3.44	1,510	Sept. 9	3.16	1,110
Mar. 12	2.27	107	Aug. 2	3.20	1,010	Sept. 29	2.23	170
Mar. 23	2.01	45.9						

Daily discharge, in second-feet, of Gila River at Kelvin, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3	4	20	109	59	47	47	7	1	321	1,880	1,690
2	3	4	21	109	61	43	41	7	1	413	1,370	5,530
3	3	5	22	99	57	39	34	7	1	812	500	8,650
4	4	4	22	99	59	39	31	6	1	262	349	9,640
5	4	4	22	99	59	39	30	6	1	150	665	5,570
6	4	5	80	102	59	43	28	5	1	145	1,460	2,800
7	6	5	122	109	59	39	28	7	1	121	2,610	2,000
8	5	6	33	105	54	47	24	14	1	105	1,160	1,330
9	4	6	31	99	54	70	22	10	1	96	273	1,060
10	4	6	36	102	52	99	22	11	1	81	534	852
11	4	6	38	99	45	117	25	29	1	73	264	620
12	4	9	39	99	41	102	24	24	1	66	129	510
13	4	10	39	105	36	87	24	19	1	54	90	388
14	4	18	39	105	39	75	22	15	1	45	81	615
15	4	17	39	105	39	68	20	10	1	41	78	550
16	3	14	45	102	43	64	21	8	1	38	75	397
17	3	14	63	93	43	59	19	4	1	36	75	832
18	3	16	141	87	47	52	17	3	1	33	73	2,300
19	3	16	87	84	45	47	10	2	1	31	162	3,570
20	4	17	73	90	43	43	10	2	1	29	133	2,130
21	4	18	64	93	48	41	9	2	1	40	117	1,040
22	4	19	73	87	54	41	21	1	1	48	154	852
23	4	15	90	81	47	45	20	1	1	17	422	520
24	4	15	154	73	47	43	18	1	1	10	449	342
25	4	17	121	73	45	43	15	1	422	12	274	307
26	4	18	133	73	45	38	13	1	1,450	13	150	282
27	4	21	133	70	43	39	12	1	436	127	154	235
28	5	19	137	64	45	38	10	1	176	960	210	200
29	4	16	141	64	------	50	9	1	150	815	219	168
30	4	20	129	64	------	50	9	1	314	307	536	129
31	4	------	125	64	------	50	------	1	------	875	1,260	------

Monthly discharge of Gila River at Kelvin, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	6	3	3.9	240
November	21	4	12.1	720
December	154	20	74.6	4,590
January	109	64	90.5	5,560
February	61	36	48.9	2,720
March	117	38	54.7	3,360
April	47	9	21.2	1,260
May	29	1	6.7	412
June	1,450	1	99.1	5,900
July	960	10	199	12,200
August	2,610	73	513	31,500
September	9,640	129	1,840	109,000
The year	9,640	1	246	177,000

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. San Pedro River enters on left 30 miles upstream.

DRAINAGE AREA.—18,400 square miles (measured on topographic maps and Greenidge map of Sonora, Mexico).

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

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. Records given show height of water on crest of dam.

DISCHARGE MEASUREMENTS.—Made by wading.

CHANNEL AND CONTROL.—Bed composed of sand and silt filled in about flush with crest of dam except near left bank, where bed is below crest of dam due 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 STAGE.—Maximum stage recorded, 2.90 feet on July 2 and September 4; no flow over dam on various days.

1923–1925: Maximum stage recorded, that of 1925; no flow over dam 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 are irrigated from Gila River above this dam. Acreage irrigated from San Pedro River not known.

REGULATION.—None except by irrigation diversions and by sluice gates of dam.

ACCURACY.—Stage-discharge relation not determined. No discharge measurements made. Only height of water on crest of dam determined. Gage read twice a day to hundredths. No determination of amount of water by-passed through sluice gates of dam.

COOPERATION.—Gage-height record furnished by United States Office of Indian Affairs.

Daily height, in feet, of Gila River at Ashurst-Hayden Dam, near Florence, Ariz., for the year ending September 30, 1925

Day	Dec.	June	July	Aug.	Sept.	Day	Dec.	June	July	Aug.	Sept.
1	------	------	0.43	1.18	1.00	16	------	------	------	------	0.39
2	------	------	.64	1.07	2.05	17	------	------	------	------	------
3	------	------	.91	.37	2.50	18	------	------	------	------	[a] 1.90
4	------	------	.07	.15	2.70	19	------	------	------	------	2.13
5	------	------	------	.40	2.00	20	------	------	------	------	1.33
6	------	------	------	.75	1.45	21	------	------	------	------	.92
7	[a] 0.20	------	------	1.50	1.30	22	------	------	------	------	.85
8	------	------	------	1.00	1.17	23	------	------	------	0.05	.68
9	------	------	------	.30	.92	24	------	------	------	.30	.58
10	------	------	------	.40	.72	25	------	------	------	.05	------
11	------	------	------	.20	.60	26	------	1.54	------	.10	------
12	------	------	------	------	.53	27	------	.59	------	.16	------
13	------	------	------	------	.50	28	------	------	1.02	[a] .05	------
14	------	------	------	------	.40	29	------	------	.78	.50	------
15	------	------	------	------	.48	30	------	------	.24	.10	------
						31	------	------	.87	1.32	------

[a] Flow for half a day.

NOTE.—Gage heights in above table show head on crest of dam. No water over crest of dam during months and 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 on right 8 miles upstream. Gila River enters Colorado River 150 miles downstream. There are no large tributaries between Gillespie Dam and mouth of Gila River.

DRAINAGE AREA.—48,100 square miles (measured on topographic maps and Greenidge map of Sonora, Mexico).

RECORDS AVAILABLE.—August 4, 1921, to September 30, 1925.

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 at elevation 753.8 feet above mean sea level. Prior to installation of recorder, records were obtained by Gila Water Co. by measuring height of water on crest at left end of dam.

DISCHARGE MEASUREMENTS.—Made by wading on apron below dam or in river channel half a mile downstream.

CHANNEL AND CONTROL.—Bed composed of silt filled in above dam about level with crest, except along face of dam and near left bank where bed is kept below crest by sluicing. Bed above dam probably scours during floods. There are two sluice gates at left end of dam behind the long wing wall, on the river side of which the gage is attached. The gates of the Gila Water Co.'s canal are also situated against the left bank behind this wing wall. Gage height is affected by sluicing for a short period each day at various times during the year.

EXTREMES OF DISCHARGE.—Maximum stage during year from water-stage recorder, 2.30 feet at 12.30 a. m. September 20 (discharge, 15,200 second-feet); no flow over dam on various days during year.

1921–1925: Maximum stage recorded, 6.0 feet December 28, 1923 (discharge, 70,000 second-feet); no flow over dam during 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 are irrigated from Gila River and tributaries above this dam.

REGULATION.—None except by irrigation diversions and by gates of dam.

ACCURACY.—Stage-discharge relation permanent. Principal rating curve is based on fifteen discharge measurements made during 1925 and 1926 and is well defined from 100 to 10,000 second-feet. From 10,000 to 150,000 second-feet the rating has been extended by using the formula for broad-crested weirs, $Q = 2.64\,LH^{\frac{3}{2}}$, and assumed velocities of approach based on observed conditions. Below 100 second-feet the rating varies somewhat on account of accumulation of moss or trash on crest. For this principal rating, gage heights at recorder station are used. Principal rating curve is used for the period November 11 to September 30. Rating for the period October 1 to November 10 is based on one discharge measurement made April 25, 1924, and on extension of principal rating above discussed. It is not well defined. Gage height for this measurement was obtained by direct measurement of depth of water on crest at left end of dam and was affected by draw down at crest.

Operation of water-stage recorder satisfactory except for period October 1 to November 10, when clock was stopped. Depth of water on crest at left end of dam read once each day to nearest quarter-inch during this period. Readings of depth of water on crest are affected by draw down at crest.

For the period October 1 to November 10, daily discharge ascertained by applying to rating table for that period the daily readings of depth of water

on crest of dam. For the period November 11 to September 30, daily discharge ascertained by applying to rating table for that period the mean daily gage height or by averaging the hourly discharge. Records good.

COOPERATION.—Gage-height record October 1 to November 10 furnished by Gila Water Co.

Discharge measurements of Gila River at Gillespie Dam, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Nov. 11	0.10	151	Aug. 11	0.07	105	Aug. 8	0.74	2,740
Dec. 17	.15	262	Sept. 4	1.04	4,520	Aug. 8	.55	1,940
Feb. 13	.12	205	Sept. 5	1.40	6,910	Aug. 9	.38	1,090
Apr. 18	.01	26						

Daily discharge, in second-feet, of Gila River at Gillespie Dam, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	140	460	400	105	105	35	25	45	0	0	210
2	0	140	370	340	120	105	25	25	60	0	0	1,360
3	0	95	265	315	120	90	25	60	60	0	0	1,110
4	0	95	215	315	120	90	25	120	35	0	13	3,810
5	0	95	215	370	120	60	35	45	0	0	155	6,720
6	0	95	240	370	120	25	120	12	0	0	0	8,180
7	0	95	315	340	135	25	60	0	0	0	60	3,520
8	0	95	315	315	155	45	35	8	0	0	60	1,880
9	0	95	340	290	195	155	25	35	0	0	327	1,060
10	0	290	340	265	175	90	25	35	0	0	495	635
11	50	155	340	240	195	75	25	35	0	0	120	400
12	95	155	315	340	195	45	25	35	0	0	4	340
13	95	155	315	400	195	45	35	35	0	0	0	290
14	95	155	315	400	195	45	35	35	0	0	0	155
15	0	175	315	400	175	45	25	45	0	0	0	14
16	0	195	315	400	175	90	25	45	0	0	0	0
17	0	215	315	400	155	60	25	35	0	0	0	96
18	0	240	290	340	155	45	25	35	0	0	0	7,620
19	50	215	495	340	155	45	25	35	0	0	0	10,500
20	30	215	530	400	120	45	75	35	0	0	0	12,500
21	30	195	460	400	105	35	45	25	0	0	0	9,100
22	30	215	460	400	120	45	60	25	0	0	0	2,980
23	30	215	430	370	120	75	60	25	0	0	0	1,920
24	30	265	460	370	135	45	35	25	0	0	0	1,420
25	30	290	460	315	120	35	60	25	0	0	0	1,060
26	30	290	495	215	105	25	60	25	0	0	0	840
27	30	315	495	155	105	35	60	25	0	0	98	670
28	140	370	495	120	120	35	25	25	0	0	155	600
29	140	400	495	90	-------	35	25	25	0	0	55	340
30	140	430	460	105	-------	60	35	35	0	0	195	215
31	140	-------	430	105	-------	45	-------	45	-------	0	315	-------

Monthly discharge of Gila River at Gillespie Dam, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	140	0	38.2	2,350
November	430	95	203	12,100
December	530	215	379	23,300
January	400	90	310	19,100
February	195	105	143	7,940
March	155	25	58.1	3,570
April	120	25	39.8	2,370
May	120	0	33.5	2,060
June	60	0	6.7	399
July	0	0	0	0
August	495	0	66.2	4,070
September	12,500	0	2,650	158,000
The year	12,500	0	325	235,000

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, 1925.

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 permanent May 22 to September 16, continually changing October 1 to May 21 and September 17–30. 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; shifting-control method used October 1 to May 21 and September 17–30. Records good.

Canal diverts water from right side of Gila River in NW. ¼ sec. 20, T. 19 S., R. 20 W. of New Mexico principal meridian, for irrigating 1,800 acres near Virden.

Discharge measurements of Sunset Canal near Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	1.78	29.2	Jan. 31	1.86	27.6	June 2	1.68	27.0
Oct. 19	1.86	34.2	Feb. 23	2.26	26.2	June 16	.86	9.0
Nov. 8	2.08	31.5	Mar. 14	1.62	25.7	July 2	1.26	17.0
Nov. 15	2.10	31.1	Mar. 28	1.70	28.1	July 17	1.57	24.6
Dec. 6	1.83	29.1	Apr. 17	1.64	23.7	Aug. 16	1.60	24.7
Dec. 19	1.58	19.1	Apr. 27	1.40	20.5	Sept. 18	1.39	19.1
Jan. 2	1.67	23.0	May 9	1.70	25.8			
Jan. 17	2.04	24.9	Apr. 22	1.01	11.9			

Daily discharge, in second-feet, of Sunset Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	31	29	22	31	33	25	16	27	14	0	0
2	32	31	28	22	31	29	25	16	26	17	0	0
3	33	30	28	22	31	23	27	15	26	16	0	0
4	32	30	27	23	32	22	28	15	25	21	0	0
5	31	31	27	23	33	6.4	28	15	23	26	0	0
6	32	32	27	23	33	2.6	27	14	24	25	0	0
7	35	32	28	23	35	0	25	18	24	25	0	0
8	35	31	27	22	38	9.8	25	19	25	26	0	0
9	33	30	27	22	36	24	26	26	25	26	0	0
10	33	31	26	22	32	28	28	22	24	25	0	0
11	35	31	25	22	29	28	30	18	23	27	7.9	0
12	35	31	25	22	27	27	30	25	17	26	19	0
13	32	30	27	23	27	26	30	24	11	25	19	0
14	29	30	26	23	33	26	28	23	11	24	21	0
15	26	28	24	24	32	27	25	24	8.2	22	21	0
16	27	26	23	24	32	28	25	21	9.1	21	22	0
17	28	27	23	26	32	29	24	16	8.0	19	26	19
18	29	27	22	27	32	29	19	10	8.0	24	30	22
19	30	26	19	27	32	29	18	13	16	16	29	0
20	29	27	19	27	31	29	19	13	12	30	27	0
21	0	27	19	25	31	29	21	12	11	30	34	0
22	0	28	19	25	28	29	19	12	10	27	33	0
23	26	28	17	24	27	28	18	12	27	29	32	0
24	24	29	18	21	26	28	16	13	21	25	32	0
25	28	28	19	22	25	28	17	13	5.5	22	33	20
26	28	28	19	23	27	27	19	12	6.0	20	33	21
27	30	28	20	25	33	27	19	13	26	17	31	22
28	31	29	20	27	33	27	19	14	24	25	28	23
29	30	28	21	28	------	29	18	20	23	0	29	23
30	31	28	20	29	------	29	17	9	22	11	33	23
31	30	------	21	30	------	25	------	23	------	0	0	------

Monthly discharge of Sunset Canal near Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	35	0	28.6	1,760
November	32	26	29.1	1,730
December	29	17	23.2	1,430
January	30	21	24.1	1,480
February	38	25	31.0	1,720
March	33	0	24.6	1,510
April	30	16	23.2	1,380
May	26	9.0	16.6	1,020
June	27	5.5	18.3	1,090
July	30	0	21.3	1,310
August	34	0	17.4	1,070
September	23	0	5.8	345
The year	38	0	21.9	15,800

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, 1925.

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. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation not permanent. Rating curves fairly well defined. Gage read twice a day to nearest two-hundredths. Daily discharge ascertained by applying to rating table mean daily gage height, using shifting-control method. Discharge estimated April 11–25, May 1–2, 5–16, 21–22, and 29–30. Records good.

Canal diverts water from right side of Gila River in SW. ¼ sec. 11, T. 19 S., R. 21 W. of New Mexico principal meridian, for irrigating 800 acres near 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, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	1.48	7.2	Feb. 23	2.11	17.1	June 16	0.95	7.4
Oct. 19	1.84	12.6	Mar. 7	1.88	22.7	July 17	1.08	6.6
Nov. 15	1.76	12.2	Mar. 14	1.68	16.1	Aug. 16	1.89	27.5
Dec. 19	1.80	12.6	Mar. 28	1.56	12.1	Aug. 18	1.38	15.4
Jan. 2	1.78	13.4	May 22		10.5	Sept. 30	1.50	16.7
Jan. 17	1.50	7.1	June 2	[a].93	7.2			
Jan. 31	1.80	13.2	June 5	1.13	10.9			

[a] New gage installed.

Daily discharge, in second-feet, of Cosper-Windham Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	10	9.3	13	7.0	22	14	12	0	0	0	0
2	5.9	9.1	9.4	13	0	24	12	12	3.6	0	0	0
3	4.2	10	9.4	13	7.8	25	12	0	20	0	0	0
4	2.2	11	9.3	12	18	26	12	0	14	0	0	0
5	3.8	5.9	4.6	12	17	25	14		11	10	0	0
6	7.4	0	0	12	17	23	10		9.7	5.4	0	0
7	11	0	0	12	20	25	12		10	6.1	0	0
8	12	0	0	10	12	20	10		11	8.8	4.0	0
9	13	0	0	9.4	16	13	5.8		11	11	9.7	0
10	14	6.8	0	9.3	14	24	5.7	10	0	16	14	0
11	14	16	0	9.0	12	24	0		0	13	17	0
12	14	17	0	8.8	10	22			0	13	24	0
13	13	18	6.5	7.0	9.8	20			0	2.9	25	0
14	13	15	14	7.9	8.5	21			0	0	20	0
15	13	12	14	7.6	9.9	21			6.5	3.6	15	0
16	12	12	13	7.4	12	20			7.0	6.8	11	0
17	13	12	13	7.0	14	18		0	3.2	5.8	17	5.4
18	13	12	13	6.7	15	18	12	0	0	6.5	25	15
19	12	12	13	6.6	15	19		0	3.2	7.7	26	10
20	12	12	13	7.8	16	18		0	4.7	9.5	25	0
21	13	11	13	10	18	17		10	4.2	7.1	21	0
22	13	11	13	9.9	18	16		10	3.8	2.4	21	0
23	12	11	12	10	9.4	15		0	14	2.3	12	15
24	12	11	12	11	0	14		0	19	6.6	10	16
25	12	11	12	11	0	16		0	10	7.2	7.2	15
26	12	11	12	9.9	0	12	0	0	8.2	4.8	4.1	14
27	12	11	11	9.9	10	12	0	0	5.5	10	2.9	14
28	11	11	12	10	20	12	0	0	4.1	3.6	4.2	13
29	9.9	9.9	12	9.6	------	13	0	10	3.5	0	9.0	13
30	11	9.4	12	9.4	------	13	0	10	.7	0	10	17
31	12	------	12	12	------	18	------	0	------	0	6.8	------

Monthly discharge of Cosper-Windham Canal near Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	14	2.2	10.9	670
November	18	0	9.94	591
December	14	0	8.86	545
January	13	6.6	9.81	603
February	20	0	11.7	650
March	26	12	18.9	1,160
April	----------	0	9.18	546
May	----------	0	5.94	365
June	20	0	6.26	372
July	16	0	5.49	338
August	26	0	11.0	676
September	17	0	4.91	292
The year	26	0	9.40	6,810

NOTE.—For the periods Oct. 1 to Mar. 31 and Aug. 1 to Sept. 30, water was diverted from Gila River to Cosper-Windham Canal. For the period Apr. 1 to July 31, 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	Sunset canal feeder	Total		Gila River	Sunset canal feeder	Total
April	213	333	546	June	43	329	372
May	20	345	365	July	80	258	338

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, 1925.

GAGE.—Vertical staff on left bank; read by 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. Flow in canal varies considerably with flow in Gila River.

ACCURACY.—Stage-discharge relation permanent January 3 to August 1; continually changing during other periods. 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 October 1 to January 2 and August 2 to September 30. Records good.

Canal diverts water from left side of Gila River in NW. ¼ sec. 11, T. 19 S., R. 21 W. of New Mexico principal meridian for irrigating 2,200 acres near Franklin.

Discharge measurements of Moddle Canal near Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	1.30	4.9	Jan. 31	2.20	28.4	May 22	0.92	1.2
Oct. 19	1.76	13.3	Feb. 23	1.74	14.9	June 3	1.40	6.6
Nov. 8	1.93	17.2	Mar. 7	1.95	20.1	June 5	.80	.5
Nov. 15	2.18	22.6	Mar. 14	1.84	17.2	July 2	1.22	4.6
Dec. 6	2.14	23.0	Mar. 29	1.97	20.4	July 18	.74	.6
Dec. 19	2.31	25.1	Apr. 17	1.24	4.5	Aug. 7	2.15	21.8
Jan. 3	1.58	10.8	Apr. 26	1.14	3.4	Aug. 16	3.06	48.2
Jan. 17	2.01	21.6	May 9	2.10	23.8	Sept. 18	2.19	17.0

Daily discharge, in second-feet, of Moddle Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	18	21	6.9	29	14	11	24	13	16	4.3	14
2	3.9	20	21	7.1	31	13	9.0	23	8.6	14	13	0
3	3.1	18	20	8.4	31	12	11	22	7.5	15	14	0
4	2.3	16	23	10	33	12	9.0	20	2.9	14	15	0
5	4.3	15	23	10	33	12	6.1	20	2.5	13	19	0
6	6.1	16	20	11	30	12	2.0	22	2.4	13	23	0
7	7.5	14	24	11	30	13	1.5	22	2.7	11	19	11
8	7.9	15	24	11	29	12	7.9	24	2.0	9.0	29	11
9	7.1	17	26	11	27	13	6.9	25	2.5	9.7	41	15
10	6.6	21	28	11	28	12	12	17	2.0	9.2	38	23
11	8.8	19	28	18	27	13	15	14	1.0	9.4	48	23
12	8.2	20	26	18	24	14	15	18	.8	12	0	23
13	11	21	26	18	22	14	12	10	.8	11	0	12
14	9.9	17	25	18	19	14	10	5.7	1.0	11	0	15
15	11	21	26	18	18	14	6.9	3.9	.8	10	0	23
16	11	17	25	19	19	13	5.4	3.9	1.1	10	35	20
17	10	19	24	24	12	11	4.3	5.4	2.0	8.8	12	22
18	10	19	24	17	11	11	4.3	3.9	1.0	8.0	11	23
19	9.7	17	23	17	12	14	3.4	4.0	1.0	7.1	9.7	23
20	10	16	27	25	11	27	5.1	3.8	1.2	6.9	27	25
21	11	17	26	25	12	34	3.9	2.9	1.8	6.6	26	23
22	11	22	24	22	12	23	3.8	2.9	2.4	7.1	14	21
23	13	21	24	21	12	23	3.8	1.7	53	7.3	13	22
24	12	21	26	19	23	23	3.2	1.7	59	6.6	13	23
25	14	18	24	22	38	22	4.1	1.5	47	5.6	13	26
26	13	18	26	25	38	22	3.9	1.5	46	5.0	11	26
27	15	18	24	29	38	22	3.9	1.5	53	4.7	10	28
28	17	21	25	33	38	22	4.1	1.5	31	4.4	15	28
29	17	18	27	33	------	24	4.5	1.5	28	4.1	19	21
30	18	21	29	33	------	24	22	1.6	22	4.0	14	28
31	17	------	29	29	------	24	------	13	------	4.1	15	------

Monthly discharge of Moddle Canal near Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	18	2.3	10.0	615
November	22	14	18.4	1,090
December	29	20	24.8	1,520
January	33	6.9	18.7	1,150
February	38	11	24.5	1,360
March	34	11	17.2	1,060
April	22	1.5	7.16	426
May	25	1.5	10.4	640
June	59	.8	13.3	791
July	16	4.0	8.95	550
August	41	0	16.8	1,030
September	28	0	17.6	1,050
The year	59	0	15.6	11,300

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, 1 mile east of Arizona-New Mexico State line, and 6 miles east of Duncan, Greenlee County, Ariz.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; July 17, 1923, to September 30, 1925.

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 to rating table mean daily gage height using shifting-control method. Discharge interpolated August 23–29. 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 near Duncan.

Discharge measurements of Valley Canal near Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 19	1.08	4.6	Feb. 23	1.34	17.1	May 22	0.90	3.2
Nov. 8	1.64	22.0	Mar. 7	1.60	26.2	June 2	.95	3.2
Nov. 15	1.68	24.2	Mar. 14	1.80	28.8	June 16	.88	2.4
Dec. 6	1.94	26.5	Mar. 28	1.06	6.2	July 2	.74	1.1
Dec. 19	1.64	27.0	Apr. 17	.97	4.9	July 17	.96	2.8
Jan. 1	1.66	19.8	Apr. 27	1.06	5.4	Aug. 16	1.95	24.3
Jan. 17	1.77	29.9	May 9	1.15	6.9	Sept. 18	1.44	10.6
Jan. 31	1.40	17.8						

Daily discharge, in second-feet, of Valley Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	9.8	19	25	22	17	6.4	5.4	4.0	2.9	0	4.4
2	2.0	12	20	19	27	19	5.5	4.9	3.5	1.2	0	0
3	2.6	14	22	25	25	23	6.6	5.2	3.7	1.7	0	0
4	2.1	14	23	29	18	26	6.0	5.4	3.1	2.6	0	0
5	1.0	16	25	29	13	31	6.0	5.4	4.1	8.8	0	0
6	0	16	28	30	11	25	5.6	5.5	3.4	9.6	0	0
7	2.0	21	29	31	12	22	5.9	5.4	4.2	3.6	0	0
8	3.9	21	29	31	17	28	6.4	6.0	4.6	3.8	1.9	0
9	4.0	13	30	32	14	28	6.1	6.7	4.5	8.8	7.1	0
10	5.0	11	29	32	13	25	6.3	5.4	4.2	17	17	0
11	7.9	11	29	32	12	22	6.1	5.9	3.1	8.4	29	0
12	9.2	15	24	33	10	26	5.3	5.5	3.1	14	18	0
13	9.6	15	22	29	8.7	30	5.3	7.3	3.4	12	7.9	0
14	4.6	20	25	27	8.8	24	5.3	6.3	3.7	6.1	3.7	0
15	4.4	25	27	27	10	21	5.4	6.0	3.4	4.8	3.7	5.1
16	4.0	25	25	27	10	14	5.8	5.9	3.9	3.8	4.7	12
17	4.0	24	26	27	9.6	14	5.5	5.9	3.6	3.2	13	13
18	4.1	23	28	27	10	14	5.4	4.9	2.8	3.2	37	9.2
19	4.0	23	28	27	10	13	4.7	4.7	6.3	2.9	29	27
20	4.4	24	27	27	11	13	4.7	4.6	6.7	6.1	34	11

Daily discharge, in second-feet, of Valley Canal near Duncan, Ariz., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
21	7.4	24	27	27	10	12	6.3	4.6	4.0	3.8	34	11
22	8.2	23	26	26	16	11	8.2	3.9	3.7	1.7	32	10
23	8.7	22	26	27	12	11	5.4	4.0	27	1.4	32	8.8
24	7.7	22	26	25	8.7	10	5.9	3.3	38	4.7	31	8.4
25	6.7	21	27	26	10	8.8	5.9	3.5	13	5.4	30	9.0
26	7.0	20	25	26	11	7.1	6.3	3.3	16	4.0	29	17
27	8.8	19	25	26	17	7.6	5.6	3.5	7.4	6.4	28	28
28	8.0	19	24	23	13	7.1	5.4	3.5	5.9	22	27	25
29	8.0	19	23	21	------	7.9	5.6	3.8	4.0	18	26	19
30	7.9	19	22	22	------	7.6	5.4	3.5	3.5	29	25	16
31	9.6	------	20	22	------	6.8	------	4.1	------	3.4	38	------

Monthly discharge of Valley Canal near Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	9.6	0	5.42	333
November	25	9.8	18.7	1,110
December	30	19	25.4	1,560
January	33	19	27.0	1,660
February	27	8.7	13.2	733
March	31	6.8	17.2	1,060
April	8.2	4.7	5.81	346
May	7.3	3.3	4.95	304
June	38	2.8	6.73	400
July	29	1.2	7.24	445
August	38	0	17.4	1,070
September	28	0	7.80	464
The year	38	0	13.1	9,480

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, 1925.

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 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 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 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 near Duncan.

Discharge measurements of Duncan Canal near Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	1.76	4.1	Jan. 31	2.36	4.0	June 3	1.68	2.0
Oct. 19	1.84	4.3	Feb. 23	2.49	3.6	June 16	2.02	1.5
Nov. 8	2.36	3.7	Mar. 7	2.30	3.6	July 2	1.66	1.8
Nov. 15	1.64	1.7	Mar. 14	2.34	5.6	July 25	1.80	4.5
Dec. 6	1.74	3.3	Mar. 29	2.16	3.5	Aug. 7	1.04	.2
Dec. 19	2.06	1.5	Apr. 17	2.42	3.6	Aug. 16	2.01	5.7
Jan. 3	2.36	3.2	May 12	1.74	2.2			
Jan. 17	2.40	5.1	May 22	2.16	1.4			

Daily discharge, in second-feet, of Duncan Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	2.7	2.2	1.5	4.0	3.2	4.2	1.8	1.5	1.7	0	0
2	2.8	2.6	2.6	3.0	4.1	3.2	4.2	1.9	2.1	1.9	0	8.2
3	3.0	2.7	2.9	3.2	3.8	3.4	4.1	1.9	2.0	1.9	0	5.7
4	3.1	2.8	3.1	3.2	4.0	3.6	2.0	1.8	2.0	2.0	0	0
5	3.4	2.7	3.4	3.5	3.7	4.2	2.5	1.7	1.5	0	0	0
6	3.4	3.4	3.4	3.4	3.5	3.8	3.3	1.1	1.9	3.7	0	0
7	3.4	3.4	3.2	3.6	3.4	3.7	3.4	.5	1.5	3.2	.2	0
8	3.5	3.8	3.4	3.7	4.0	4.0	3.3	.7	1.3	3.0	0	0
9	3.8	4.0	3.2	3.8	4.1	4.2	3.2	.8	1.1	0	.2	0
10	3.9	2.3	2.7	3.9	4.0	4.5	3.2	1.6	1.1	2.8	.3	0
11	4.2	2.2	2.4	4.1	3.9	4.7	3.2	1.8	1.0	1.7	.4	0
12	4.6	1.8	2.1	4.2	3.8	5.0	3.0	2.3	1.0	0	.5	0
13	4.6	1.8	1.9	4.3	3.6	5.2	3.2	1.8	1.1	2.4	.6	0
14	4.2	1.8	1.2	5.0	3.4	5.4	3.4	1.7	1.2	2.1	.3	0
15	4.4	1.9	1.5	5.2	3.3	6.0	3.4	1.7	1.1	3.1	.4	0
16	4.3	2.0	2.7	5.4	3.3	5.7	3.5	1.7	1.2	3.4	2.2	0
17	4.4	2.0	2.4	5.5	3.1	5.7	3.5	1.4	2.2	3.0	3.0	0
18	4.6	2.0	1.8	5.2	3.2	5.4	3.8	1.5	1.2	4.4	5.5	.5
19	4.6	2.1	1.5	5.3	3.3	5.3	3.8	1.4	1.4	1.7	6.6	.5
20	4.4	2.1	1.5	5.2	3.2	5.5	1.9	1.2	2.9	4.0	5.9	0
21	4.2	2.2	1.4	5.1	3.3	2.6	0	.9	2.0	4.3	4.6	0
22	4.2	1.4	1.4	4.8	3.4	4.6	0	1.0	.9	3.9	4.0	.1
23	4.0	1.5	1.4	5.0	3.6	4.1	0	1.4	2.7	3.8	1.5	0
24	4.1	1.6	1.2	4.7	3.5	4.6	0	1.7	0	3.9	2.0	2.8
25	4.1	2.5	1.2	4.8	3.4	4.1	0	2.0	0	5.5	2.6	6.4
26	4.0	2.7	1.1	4.7	3.7	4.0	.9	2.3	.8	5.9	6.0	6.0
27	3.7	2.4	.8	4.3	3.4	3.5	1.7	2.8	.7	5.7	7.7	4.3
28	3.5	2.6	1.4	4.6	3.5	3.0	1.8	2.5	.8	4.1	7.9	.5
29	3.2	2.6	1.8	4.4	------	3.6	1.8	2.6	1.7	0	2.3	.3
30	3.0	1.8	1.9	4.3	------	4.5	1.8	1.5	1.8	2.5	4.5	.1
31	2.9	------	1.7	4.1	------	4.2	------	2.0	------	3.6	8.4	------

Monthly discharge of Duncan Canal near Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	4.6	2.8	3.82	235
November	4.0	1.4	2.38	142
December	3.4	.8	2.08	128
January	5.5	1.5	4.29	264
February	4.1	3.1	3.59	199
March	6.0	2.6	4.34	267
April	4.2	0	2.47	147
May	2.8	.5	1.65	101
June	2.9	0	1.39	82.7
July	5.9	0	2.86	176
August	8.4	0	2.50	154
September	8.2	0	1.18	70.2
The year	8.4	0	2.72	1,970

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.—April 16 to September 30, 1915; July 17, 1923, to September 30, 1925.

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 curves fairly well defined. Gage read to nearest two-hundredths twice a day. Daily discharge ascertained by applying mean daily gage height to rating tables using shifting-control method 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 near Duncan.

Discharge measurements of Black-McClesky Canal at Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	1.58	4.7	Jan. 31	2.10	10.4	May 22	0.76	2.6
Oct. 19	1.82	7.6	Feb. 23	2.00	8.2	June 3	.64	1.7
Nov 8	2.26	12.9	Mar. 7	1.76	6.9	June 16	.49	.9
Nov. 15	2.34	13.8	Mar. 14	1.97	8.9	July 1	1.14	1.0
Dec. 7	2.41	12.1	Mar. 29	1.80	7.7	July 25	1.09	2.1
Dec. 19	2.36	10.3	Apr. 17	1.34	6.3	Aug. 16	.92	.4
Jan. 3	2.22	11.8	Apr. 26	1.35	9.0			
Jan. 17	2.16	11.0	May 9	.92	4.3			

Daily discharge, in second-feet, of Black-McClesky Canal at Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	11	10	12	9.4	7.5	7.2	4.5	2.1	1.0	0	23
2	3.3	11	10	12	10	7.5	7.5	4.8	3.7	.9	0	39
3	3.3	10	9	12	9.8	7.2	7.5	4.8	2.3	1.4	0	39
4	3.6	10	10	12	9.6	7.0	7.1	9.5	1.5	1.6	0	7
5	6.9	10	11	12	8.7	7.4	6.5	3.8	1.9	6.8	0	0
6	7.0	11	11	11	8.2	9.0	6.8	4.3	1.7	.6	0	0
7	5.5	11	12	11	8.2	6.9	6.3	14	1.7	0	0	0
8	6.2	13	12	11	9.2	6.9	7.2	5.5	1.8	1.0	0	0
9	5.4	14	12	12	9.5	6.8	7.7	4.3	1.6	1.1	0	0
10	5.8	14	12	11	8.1	7.4	7.2	7.8	1.7	0	0	0
11	6.1	14	12	10	7.5	7.7	7.7	5.3	1.4	3.2	0	0
12	8.3	14	12	14	7.6	7.4	7.1	5.1	1.3	8.6	0	0
13	8.6	13	11	11	8.2	7.5	8.7	3.8	1.2	3.8	0	0
14	7.0	13	12	10	9.2	8.2	8.6	3.5	1.1	1.9	.7	0
15	7.7	14	11	10	10	7.8	4.0	3.5	1.4	0	1.9	0
16	7.8	14	11	11	9.0	7.4	0	3.6	1.1	.5	1.1	0
17	7.2	13	11	11	8.6	8.4	6.6	3.0	.9	1.0	.8	0
18	7.2	13	10	11	8.0	8.0	6.5	2.6	1.2	3.3	2.6	0
19	7.8	14	11	12	7.8	7.4	7.4	2.7	1.1	8.3	5.2	0
20	8.2	14	11	11	7.5	8.3	9.0	2.8	27	4.0	9.2	0
21	8.3	13	11	11	7.4	7.7	10.3	2.5	4.0	5.3	3.5	0
22	7.6	12	11	11	5.8	7.6	7.1	3.1	2.9	1.4	.7	0
23	6.2	11	11	9	7.7	7.6	5.9	3.1	18	5.3	0	0
24	6.5	11	11	10	7.8	7.8	6.0	2.6	2.2	1.4	10	0
25	8.7	12	11	10	7.4	8.2	9.0	2.1	0	3.1	14	0
26	6.8	12	11	11	6.9	8.8	8.7	2.0	0	5.1	7.7	0
27	8.0	12	10	11	7.4	8.3	5.7	2.2	1.1	5.2	5.1	0
28	8.8	12	11	11	7.6	7.8	5.3	2.4	2.4	14	16	0
29	7.7	11	12	11	------	7.8	4.7	2.7	1.2	14	24	0
30	8.6	10	12	11	------	7.8	4.7	2.7	1.2	28	4.2	0
31	10.4	------	12	11	------	6.8	------	4.3	------	15	29	------

Monthly discharge of Black-McClesky Canal at Duncan, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	10.4	2.6	6.87	422
November	14	10	12.2	726
December	12	9	11.1	682
January	14	9	11.1	682
February	10	5.8	8.29	460
March	9.0	6.8	7.67	472
April	10.3	0	6.80	405
May	14	2.0	4.16	256
June	27	0	3.02	180
July	28	0	4.74	291
August	29	0	4.38	269
September	39	0	3.60	214
The year	39	0	6.99	5,060

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, 1925.

GAGE.—Vertical staff gage on left bank; read by Mrs. J. B. Fullerton and Mrs. P. McConnas.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. 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 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 using shifting-control method for entire year. Discharge interpolated April 18 and June 8. Records fair.

Canal diverts water from right side of Gila River in SE. ¼ sec. 11, T. 8 S., R. 31 E., for irrigating 460 acres near Sheldon.

Discharge measurements of Colmonero Canal near Duncan, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 5	0.48	1.4	Mar. 15	1.38	11.7	June 3	0.68	0.9
Oct. 19	1.06	6.0	Mar. 29	1.30	9.5	July 2	.72	2.6
Nov. 9	.80	4.4	Apr. 19	1.10	8.9	July 17	.66	4.5
Nov. 15	1.07	6.0	Apr. 27	1.02	4.6	Aug. 9	1.06	6.9
Feb. 23	1.29	9.7	May 12	.89	3.4			
Mar. 8	1.14	12.6	May 24	.90	1.2			

Daily discharge, in second-feet, of Colmonero Canal near Duncan, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	1.3	5.0		1.5	13	9.9	3.5	2.1	2.5	
2	2.1	5.0		7.1	13	9.5	3.7	1.4	1.3	
3	1.3	5.9		7.1	14	10	3.4	1.4	.1	
4	.9	6.0		7.0	14	9.6	2.9	1.1	9.1	
5	1.2	6.0		5.9	14	8.8	2.8	.8	9.4	
6	1.6	5.5		6.7	15	8.9	3.0	1.2	9.4	4.0
7	4.1	5.5		7.0	15	8.5	6.4	.6	7.3	7.5
8	5.0	4.4		7.3	15	7.2	5.1	.5	5.2	6.3
9	4.9	4.7		6.1		7.2	3.8	.4	7.3	5.5
10	4.6	5.0		6.4	7.1	8.0	4.9	.1	6.2	6.0
11	2.5	5.1		7.5	14	11	4.4	.1	5.6	6.2
12	2.7	5.1		6.8	13	11	3.5	.1	7.3	6.2
13	3.9	4.9		9.0	13	11	3.7	.1	8.6	3.2
14	4.4	5.5		9.2	12	11	3.3	.1	7.4	.2
15	4.6	6.3		9.5	12	10	4.4	0	5.8	2.3
16	5.1	6.2	2.0	9.3	11	11	2.8	.1	5.2	5.2
17	6.1	6.1	4.4	8.9	9.7	10	2.9		3.8	5.4
18	5.5	6.2	2.4	8.5	9.4	.9	2.4		4.2	6.2
19	5.6	5.5	8.8	9.2	4.8	9.8	.8		8.7	6.3
20	4.8	4.4	7.6	8.4		10	.9	6.0	8.1	
21	4.4	4.2	7.2	7.0	4.6	11	.7	3.1		
22	4.2	4.3	4.9	8.7	8.5	11	1.0	.3	.6	
23	5.5	4.5	1.8	9.7	8.6	9.4	1.3	2.3	4.1	
24	5.4	4.7	1.5	10	8.6	8.7	1.1		2.8	
25	5.6	5.0	1.7	11	9.4	6.0	1.7	.5	2.5	
26	5.9	2.0	4.8	11	9.9	6.8	.8	.3	3.1	
27	5.1		1.8	12	9.8	3.3	.4	3.2	4.6	
28	4.2		1.7	12	9.6	3.1	1.6	6.6	3.3	
29	4.0		1.8		9.8	3.4	1.9	5.6	4.3	
30	4.0		1.6		9.9	4.4	2.1	3.7	3.2	
31	4.7		1.4		9.7		1.7		.2	

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, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	6.1	0.9	4.04	248
November	6.3	0	4.43	264
December	0	0	0	0
January	8.8	0	1.79	110
February	12	1.5	8.21	456
March	15	0	10.2	627
April	11	.9	8.35	497
May	6.4	.4	2.67	164
June	6.6	0	1.39	82.7
July	9.4	0	4.88	300
August	7.5	0	2.27	140
September	0	0	0	0
The year	15	0	3.99	2,890

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.—September 19, 1914, to September 30, 1915. May 15, 1923, to September 30, 1925, discharge measurements only.

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.

Canal diverts water from right side of Gila River in SW. ¼ sec. 29, T. 6 S., R. 31 E., for irrigating 286 acres near York.

Discharge measurements of York Canal at York, Ariz., during the year ending September 30, 1925

Date	Discharge	Date	Discharge	Date	Discharge
	Sec.-ft.		*Sec.-ft.*		*Sec.-ft.*
Oct. 6	6.0	Mar. 29	4.1	June 3	3.5
Feb. 8	1.4	May 10	1.8	July 2	4.3
Mar. 8	13.4				

BROWN CANAL NEAR SOLOMONVILLE, 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 Solomonville, Graham County.
RECORDS AVAILABLE.—June 1, 1914, to September 30, 1915; December 20, 1920, to September 30, 1925.
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. 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 SE. ¼ sec. 30, T. 6 S., R. 28 E., for irrigating about 820 acres east of Solomonville.

Discharge measurements of Brown Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	4.15	1.2	Feb. 14	4.75	8.4	June 1	4.23	1.9
Nov. 1	4.30	2.6	Mar. 1	4.50	4.5	July 1	4.86	10.4
Dec. 2	4.46	4.2	Apr. 1	4.55	5.3	Aug. 26	4.30	2.5
Jan. 1	4.85	9.9	Apr. 24	4.34	2.6			
Feb. 1	5.02	12.0	May 1	4.30	2.6			

Daily discharge, in second-feet, of Brown Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	2.3	4.3	7.1	5.3	4.6	4.6	2.7	2.3	2.4	0	7.2
2	1.7	2.1	5.5	3.4	1.3	4.6	3.9	2.2	2.5	1.9	0	0
3	1.7	2.1	5.5	3.4	5.5	4.6	3.9	2.2	2.5	1.1	0	0
4	1.7	2.1	6.3	4.0	10	4.6	3.9	2.2	2.5	1.7	0	0
5	1.7	2.1	6.3	4.0	8.3	4.6	3.9	2.2	2.5	1.9	4.6	0
6	1.7	2.1	4.7	4.0	8.0	4.6	3.9	2.2	2.5	2.1	10	0
7	1.7	2.1	4.6	4.0	7.6	6.9	3.9	2.7	2.5	2.1	12	0
8	1.7	2.1	6.1	3.3	7.8	9.7	3.9	3.3	2.5	1.9	14	0
9	1.7	2.1	3.9	3.3	8.0	12	3.9	3.3	2.5	2.4	14	0
10	1.7	2.1	4.9	3.7	8.0	14	3.9	2.9	2.1	1.9	14	0
11	1.7	2.0	6.1	3.9	8.2	14	3.9	2.2	1.7	1.5	11	0
12	1.7	2.0	6.1	3.9	8.3	14	3.9	2.2	1.7	2.1	11	0
13	1.7	2.0	3.4	3.9	8.5	9.7	3.9	2.5	1.7	1.9	10	0
14	1.7	2.0	4.7	3.9	6.3	6.1	3.9	2.5	1.7	5.6	11	0
15	2.2	3.1	4.0	2.0	4.5	7.4	3.9	2.2	1.7	10	12	0
16	2.7	4.3	3.8	0	4.5	8.7	2.2	2.2	1.5	9.1	12	0
17	2.7	4.3	3.4	0	4.5	8.7	2.2	2.2	1.3	9.1	12	0
18	2.7	3.9	3.4	0	4.5	8.7	2.2	2.2	1.3	7.3	12	0
19	2.7	4.3	3.7	0	4.5	8.7	2.2	2.2	1.3	5.9	12	0
20	2.7	4.3	3.7	0	4.5	6.9	2.2	2.2	1.3	11	12	0
21	2.7	3.8	3.7	0	4.5	5.3	2.2	2.2	1.3	5.6	12	0
22	2.7	4.2	3.7	0	4.5	5.3	2.2	2.2	1.3	7.3	12	0
23	2.7	4.2	3.7	2.7	4.5	5.3	2.2	2.2	1.3	7.3	12	0
24	2.7	3.8	3.7	2.7	4.5	5.3	2.2	2.2	2.6	7.3	12	0
25	2.7	4.2	3.5	2.7	4.5	5.3	2.2	1.9	0	7.3	14	0
26	2.7	4.2	2.9	2.7	4.5	5.3	2.3	1.7	0	8.7	1.5	0
27	2.7	3.8	3.2	2.7	4.5	5.3	2.4	1.7	0	12	3.7	0
28	2.7	4.2	3.5	2.7	4.5	5.3	2.5	1.7	5.6	11	12	0
29	2.7	4.2	3.2	6.4	-------	5.3	2.6	1.7	11	8.2	26	0
30	2.7	4.2	3.8	12	-------	5.3	2.7	1.9	11	9.1	32	0
31	2.7	-------	4.9	12	-------	5.3	-------	2.2	-------	6.4	32	-------

Monthly discharge of Brown Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2.7	1.7	2.23	137
November	4.3	2.0	3.14	187
December	6.3	2.9	4.33	266
January	12	0	3.37	207
February	10	1.3	5.81	325
March	14	4.6	7.14	439
April	4.6	2.2	3.12	186
May	3.3	1.7	2.26	139
June	11	0	2.46	146
July	12	1.1	5.58	343
August	32	0	11.4	701
September	7.2	0	.24	14.2
The year	32	0	4.27	3,090

BROWN CANAL WASTEWAY NEAR SOLOMONVILLE, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 31, T. 6 S., R. 28 E., near Earven ranch, 10 miles east of Solomonville, Graham County.

RECORDS AVAILABLE.—December 20, 1920, to September 30, 1925.

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 permanent. Standard rating curve fairly well defined. Gage read to half-tenths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table. Records good.

Wasteway returns water from Brown Canal to Gila River half a mile below station on Gila River near Solomonville.

No discharge measurements were made during 1925.

Daily discharge, in second-feet, of Brown Canal wasteway near Solomonville, Ariz., for the year ending September 30, 1925

Day	Jan.	Feb.	June	July	Aug.	Sept.	Day	Jan.	Feb.	June	July	Aug.	Sept.
1		0.8		0.4		0.8	16					7.8	
2							17					7.8	
3							18					7.8	
4							19					7.8	
5							20					7.8	
6							21					7.8	
7							22					6.6	
8							23	1.0				5.5	
9							24	1.0				3.2	
10							25	.1				1.2	
11							26	.1				.1	
12							27	.1				.1	
13					0.1		28	.1		0.1		.2	
14					.1		29	.2		.1		1.5	
15					7.8		30	1.5				5.5	
							31					1.5	

NOTE.—No flow on days for which no discharge is given.

Monthly discharge of Brown Canal wasteway near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
January	1.5	0	0.13	8.0
February	.8	0	.03	1.6
June	.1	0	.01	.4
July	.4	0	.01	.8
August	7.8	0	2.59	159
September	.8	0	.03	1.6
The year	7.8	0	.24	171

NOTE.—No flow during months for which no discharge is given.

MICHELANA CANAL NEAR SOLOMONVILLE, ARIZ.

LOCATION.—In NE¼ 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 Solomonville, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 21, 1920, to September 30, 1925.

GAGE.—Vertical staff on right bank 30 feet below wagon bridge; read by Ed. 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 a day. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Discharge estimated August 31 and September 1. 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 near Solomonville.

Discharge measurements of Michelana Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	3.83	2.0	Feb. 15	4.05	3.2	May 1	4.04	4.3
Nov. 1	3.90	2.1	Mar. 1	4.00	2.7	May 23	3.93	2.8
Dec. 1	4.20	4.6	Mar. 14	3.98	3.5	June 1	4.03	3.6
Jan. 1	4.27	5.5	Apr. 1	4.21	6.2	June 23	3.94	2.8
Feb. 1	4.18	4.4	Apr. 24	4.04	4.1	July 1	4.05	3.6

Daily discharge, in second-feet, of Michelana Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	1.7	4.7	5.5	4.7	3.0	5.4	3.7	3.5	4.1	0	25
2	2.6	1.7	4.7	5.3	4.4	3.0	5.1	3.5	3.7	3.6	2.0	12
3	2.6	1.7	4.7	5.5	4.2	3.2	4.7	3.5	3.7	3.7	4.5	13
4	2.6	2.1	4.9	5.7	4.2	2.7	4.9	3.7	3.7	4.1	4.1	1.1
5	2.6	2.2	5.4	5.5	3.7	2.2	4.9	3.5	3.5	4.3	3.6	.5
6	2.6	2.5	5.7	5.2	3.6	2.3	4.9	3.4	2.9	1.6	6.1	.5
7	2.2	2.6	5.7	5.1	3.4	1.2	4.9	3.6	2.9	2.0	3.9	.2
8	2.2	3.3	5.7	4.9	3.3	0	4.4	3.3	2.1	1.8	3.2	.1
9	2.2	2.9	5.7	5.2	3.3	0	3.8	5.7	2.1	1.6	4.1	0
10	2.2	2.9	5.7	5.1	3.6	0	3.7	3.4	2.3	2.2	6.0	0
11	2.2	3.3	5.7	4.9	3.6	0	3.5	3.2	2.5	4.5	5.1	0
12	2.2	3.7	5.7	4.7	3.6	0	3.9	3.5	3.3	4.6	4.1	0
13	2.2	3.7	5.7	4.6	3.3	1.8	5.5	3.6	4.2	6.7	3.9	0
14	2.2	3.9	5.7	4.5	3.2	3.5	5.4	3.6	4.0	7.5	4.1	0
15	2.2	4.2	5.7	4.2	3.2	3.3	4.4	3.6	3.7	4.6	3.8	0
16	2.2	4.2	5.7	4.4	3.1	3.2	4.4	4.0	2.9	6.3	4.0	0
17	2.2	4.7	6.2	4.4	3.3	3.6	5.1	3.5	3.1	6.3	7.3	0
18	2.2	4.7	6.5	4.2	3.2	3.5	4.9	3.6	3.2	5.1	5.6	0
19	2.2	4.9	6.8	4.2	3.1	3.3	4.9	3.6	3.2	5.1	4.1	0
20	1.8	5.2	6.5	4.5	3.0	3.4	5.1	3.4	2.5	7.1	3.6	0
21	1.8	5.2	6.2	4.5	2.9	4.3	4.7	3.2	2.5	6.1	5.0	0
22	1.8	5.2	5.7	4.2	2.8	5.2	4.6	3.0	2.9	3.2	4.9	0
23	1.8	5.2	5.7	4.4	2.8	5.5	3.9	3.0	2.9	5.9	8.4	0
24	2.3	5.2	5.2	4.5	2.4	5.5	4.2	2.7	6.9	13.0	4.6	0
25	2.2	5.2	5.2	4.7	2.4	4.9	4.3	2.6	2.0	9.6	0	0
26	2.1	5.2	5.2	5.2	2.4	4.9	3.5	2.2	2.1	8.3	0	0
27	2.1	5.2	4.7	5.2	2.8	4.8	5.0	2.4	1.8	7.1	.8	0
28	2.1	5.2	4.7	4.6	3.0	5.0	3.6	2.8	4.7	8.0	.6	0
29	2.1	5.7	4.7	4.3	-------	5.3	3.6	3.2	4.4	8.0	.5	0
30	1.8	5.2	4.7	4.6	-------	4.0	4.1	3.2	7.6	8.2	0	0
31	2.1	-------	5.2	4.7	-------	3.9	-------	4.1	-------	3.4	12	------

Monthly discharge of Michelana Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	2.6	1.8	2.20	135
November	5.7	1.7	3.95	235
December	6.8	4.7	5.49	338
January	5.7	4.2	4.79	295
February	4.7	2.4	3.30	183
March	5.5	0	3.11	191
April	5.5	3.5	4.51	268
May	5.7	2.2	3.40	209
June	7.6	1.8	3.36	200
July	13	1.6	5.41	333
August	12	0	3.87	238
September	25	0	1.75	104
The year	25	0	3.77	2,730

FOURNESS CANAL NEAR SOLOMONVILLE, 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 Solomonville, Graham County.

RECORDS AVAILABLE.—October 1, 1914, to September 30, 1915; December 20, 1920, to September 30, 1925.

GAGE.—Vertical staff on right bank 300 feet below waste gate; read by David Jurado and P. Miranda.

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 curve fairly well defined. Gage read to half-tenths twice a day. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Records fair.

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 near Solomonville.

Discharge measurements of Fourness Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	4.70	0.4	Jan. 15	4.77	0.4	May 1	4.50	0.6
Nov. 1	4.87	.7	Feb. 1	4.95	1.0	June 1	5.15	3.5
Dec. 2	4.92	1.0	Mar. 1	4.89	2.7	July 1	4.65	1.3
Dec. 15	4.95	1.3	Apr. 1	4.55	.6	July 15	4.84	2.2
Jan. 1	4.90	1.0	Apr. 24	4.50	.6	Aug. 26	5.08	4.0

Daily discharge, in second-feet, of Fourness Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.2	1.0	1.0	0.9	1.7	0.7	0.6	2.4	1.3	0.8	1.2
2	.2	.1	1.0	1.0	1.7	1.0	.6	.6	.3	1.4	.8	.8
3	.3	.1	.6	1.0	1.7	1.0	.6	.6	.3	1.6	1.0	4.4
4	.2	.1	.6	1.0	1.7	1.0	.7	.6	.3	2.2	1.0	.6
5	.2	.2	.8	1.1	1.7	1.0	.7	.6	.3	3.0	1.0	0
6	.2	.1	1.0	1.1	.8	1.0	.7	.6	.3	1.0	.8	0
7	.3	.1	1.0	1.0	.8	1.0	.6	1.0	.3	.9	.8	0
8	.3	.1	1.0	1.0	1.4	1.0	.6	3.1	.3	2.9	.8	0
9	.3	.1	.6	1.0	1.2	1.0	.6	3.8	.3	5.8	.8	0
10	.2	.2	.6	1.0	1.2	1.0	.6	.6	.4	5.4	2.2	0
11	.2	.2	.6	1.0	1.2	1.0	.6	1.0	.3	4.6	1.2	0
12	.2	.2	1.0	1.0	1.2	1.0	.4	1.0	.3	3.9	4.1	0
13	.3	.1	1.0	.3	1.2	1.0	.7	1.0	.3	3.9	4.1	0
14	.3	0	1.0	.3	1.2	1.0	.7	1.0	.3	2.4	2.2	0
15	.4	0	1.2	.5	.8	1.0	.6	.8	.3	1.0	1.9	0
16	.3	1.0	1.0	.4	.8	1.0	.6	.6	.3	2.0	1.2	0
17	.3	1.0	1.0	.4	.8	1.0	.6	.7	.3	1.2	1.2	0
18	.3	1.1	1.0	.4	.8	1.0	.6	.6	.2	1.0	5.5	0
19	.2	1.2	.8	.4	.8	1.0	.6	1.0	.2	2.2	.8	0
20	.2	1.0	.8	.4	.8	1.0	.6	1.0	.3	3.8	2.4	0
21	.2	1.0	.8	.3	.8	1.0	.6	.6	.3	3.4	4.1	0
22	.3	1.0	1.0	.3	.8	1.0	.7	.6	0	2.8	4.1	0
23	.3	1.0	1.0	.3	.8	1.0	1.0	.6	.5	.1	1.2	0
24	.3	.8	1.0	.3	.8	1.0	1.0	.6	.8	.1	1.2	0
25	.3	.9	1.0	.6	.8	1.0	.6	.6	0	1.4	1.2	0
6	.3	1.0	1.0	.6	.8	1.0	.6	.6	0	3.1	4.7	0
27	.3	.9	1.0	2.0	0	1.0	.6	.6	0	5.6	4.8	0
28	.3	.9	1.0	2.0	0	1.0	.6	2.2	.7	4.1	4.1	0
29	.3	1.0	1.0	2.0	-------	1.0	.6	3.1	1.4	4.1	3.4	0
30	.4	1.0	1.0	2.0	-------	1.0	.6	3.1	1.5	1.6	3.0	0
31	.4	-------	1.0	2.0	-------	1.0	-------	3.1	-------	1.2	3.7	-------

Monthly discharge of Fourness Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0.4	0.2	0.27	16.6
November	1.2	0	.55	32.7
December	1.2	.6	.92	56.6
January	2.0	.3	.89	54.7
February	1.7	0	.98	54.4
March	1.7	1.0	1.02	62.7
April	1.0	.4	.64	38.1
May	3.8	.6	1.18	72.6
June	2.4	0	.44	26.2
July	5.8	.1	2.55	157
August	5.5	.8	2.26	139
September	4.4	0	.23	13.7
The year	5.8	0	1.00	724

SAN JOSE CANAL NEAR SOLOMONVILLE, 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 Solomonville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; December 21, 1920, to September 30, 1925.

GAGE.—Continuous water-stage recorder installed April 13, 1922, 17 feet above concrete drop, 200 feet below waste gate, and 2 miles below heading; inspected by H. D. Empie.

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. 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, except as shown in footnote to daily-discharge table. Records good.

Canal diverts water from left side of Gila River in SW. ¼ sec. 36, T. 6 S., R. 27 E., for irrigating 3,000 acres near Solomonville and Safford.

Discharge measurements of San Jose Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	0.46	27.4	Feb. 1	0.64	44.6	May 1	0.45	26.9
Nov. 1	.45	27.5	Mar. 1	.48	30.0	June 1	.36	18.6
Dec. 1	.49	30.4	Apr. 1	.45	26.8	July 1	.48	30.4
Jan. 1	.50	32.5	Apr. 24	.45	27.7	Aug. 26	.81	66

Daily discharge, in second-feet, of San Jose Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	29	30	32	42	30	29	25	25	30	60	36
2	22	23	30	32	40	30	27	19	22	27	52	40
3	24	25	30	33	38	29	28	24	24	25	52	39
4	25	26	30	34	37	29	26	25	21	52	52	41
5	25	27	30	39	35	30	21	26	22	84	63	42
6	26	29	32	42	30	20	27	29	21	67	75	23
7	28	30	33	42	30	15	26	34	20	30	78	10
8	30	29	33	41	32	15	28	34	18	21	81	6
9	30	30	34	42	32	33	29	33	16	42	88	28
10	30	32	34	42	30	48	29	30	10	43	80	47
11	29	29	35	41	29	55	28	28	16	45	71	61
12	27	30	36	39	29	51	27	25	13	44	63	52
13	28	30	36	41	28	52	27	25	15	38	54	52
14	25	32	36	39	29	42	28	18	15	46	46	52
15	25	32	36	39	29	32	26	25	16	48	37	53
16	26	32	36	39	29	30	25	24	16	34	29	64
17	25	32	37	41	30	32	26	22	15	30	30	64
18	26	32	32	41	29	32	25	22	16	28	34	55
19	27	30	28	42	29	32	20	22	15	37	35	67
20	27	30	29	45	30	30	26	21	16	47	29	63
21	27	32	28	42	30	29	25	21	16	56	30	60
22	28	33	27	43	30	30	29	22	17	45	32	57
23	29	33	27	46	30	25	29	20	24	28	41	54
24	29	32	29	45	30	30	29	16	40	39	45	51
25	30	32	30	45	32	29	27	16	73	30	66	47
26	28	32	29	42	30	28	26	16	75	34	70	43
27	27	32	30	44	29	29	27	16	68	59	64	39
28	27	32	32	39	30	30	28	15	48	58	57	35
29	28	32	30	34	------	29	27	14	33	56	34	31
30	27	32	30	32	------	28	27	19	30	81	45	27
31	27	------	30	33	------	29	------	33	------	84	45	------

NOTE.—Discharge interpolated Feb. 2–4, when float wire was broken, and Aug. 3, 10–15, Sept. 21–30, when float was on mud.

Monthly discharge of San Jose Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	30	22	27.0	1,660
November	33	23	30.4	1,810
December	37	27	31.6	1,940
January	46	32	39.7	2,440
February	42	28	31.4	1,740
March	55	15	31.7	1,950
April	29	20	26.7	1,590
May	34	14	23.2	1,430
June	75	10	25.9	1,540
July	84	21	44.6	2,740
August	88	29	52.8	3,250
September	67	6	44.6	2,650
The year	88	6	34.2	24,700

MONTEZUMA CANAL NEAR SOLOMONVILLE, ARIZ.

LOCATION.—In SE. ¼ NW. ¼ sec. 17, T. 7 S., R. 27 E., 1 mile below intake and 2 miles east of Solomonville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; December 29, 1920, to September 30, 1925.

GAGE.—Continuous water-stage recorder installed June 26, 1922, on left bank 200 feet below waste gate; inspected by H. D. Empie.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. 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. 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 NE. ¼ sec. 17, T. 7 S., R. 27 E., for irrigating 3,750 acres near Solomonville and Safford.

Discharge measurements of Montezuma Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	8.60	28.8	Feb. 6	8.85	42.5	Apr. 8	8.40	24.5
Oct. 3	8.53	24.1	Feb. 9	8.65	27.2	Apr. 23	8.46	27.3
Oct. 22	8.56	24.2	Feb. 12	8.61	34.0	May 1	8.44	27.0
Nov. 1	8.57	24.7	Feb. 19	8.55	30.9	May 16	8.47	28.7
Nov. 10	8.72	29.6	Mar. 2	8.47	27.2	May 26	8.40	25.6
Dec. 1	8.77	32.1	Mar. 7	8.42	25.3	June 1	8.42	26.1
Dec. 10	8.88	35.8	Mar. 16	8.93	44.1	June 13	8.23	20.5
Jan. 1	8.76	31.6	Mar. 18	8.62	32.0	July 1	8.39	23.2
Jan. 15	9.53	59	Mar. 26	8.49	27.5	July 13	8.68	36.5
Feb. 1	9.33	63	Apr. 1	8.50	28.2	Aug. 26	9.08	34.5

Daily discharge, in second-feet, of Montezuma Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	25	32	32	56	28	28	27	26	28	1.8	46
2	21	25	33	32	56	28	26	25	25	30	1.8	56
3	23	26	33	31	54	27	27	25	25	31	4.8	58
4	23	28	32	30	55	26	26	25	25	62	40	31
5	22	28	33	48	47	27	26	25	24	77	63	11
6	22	28	34	48	36	27	26	26	25	58	65	8.8
7	23	29	35	16	36	28	26	26	26	39	89	8.8
8	25	30	36	24	40	28	26	25	25	34	89	9.6
9	27	30	36	16	36	48	26	30	24	54	84	20
10	26	27	37	45	33	66	26	35	23	45	84	38
11	25	24	38	8	33	68	26	32	21	52	77	55
12	23	25	38	36	32	54	30	28	20	38	53	66
13	24	26	38	57	30	51	31	26	20	35	38	54
14	23	27	38	58	30	47	31	26	22	48	35	40
15	24	26	38	57	30	44	31	26	22	53	35	49
6	25	24	38	50	30	38	32	26	22	40	28	75
17	24	24	38	48	30	33	32	26	21	32	26	66
18	25	25	38	48	31	31	30	26	20	28	34	64
19	25	28	38	41	29	30	29	26	22	28	26	67
20	25	32	38	28	28	31	29	26	24	59	34	53
21	24	32	38	0	28	30	28	25	26	59	28	45
22	25	32	38	0	29	27	29	24	31	62	29	44
23	25	32	38	0	29	28	28	25	26	46	56	44
24	25	31	38	0	28	29	27	25	55	44	51	54
25	25	32	34	0	28	28	26	26	78	48	67	69
26	24	33	33	0	28	28	24	25	62	52	56	63
27	25	33	33	12	28	27	23	25	55	98	35	54
28	25	33	32	56	28	28	26	26	55	79	37	46
29	25	33	32	56	------	28	28	26	40	97	45	45
30	25	33	32	48	------	28	27	26	28	109	44	46
31	25	------	31	48	------	27	------	28	------	107	54	------

Monthly discharge of Montezuma Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	27	21	24.3	1,490
November	33	24	28.7	1,710
December	38	31	35.5	2,180
January	58	0	31.4	1,930
February	56	28	34.9	1,940
March	68	26	34.5	2,120
April	32	23	27.7	1,650
May	35	24	26.4	1,620
June	78	20	30.6	1,820
July	109	28	53.9	3,310
August	89	1.8	45.5	2,800
September	75	8.8	46.2	2,750
The year	109	0	35.0	25,300

UNION CANAL NEAR SOLOMONVILLE, ARIZ.

LOCATION.—In SE. ¼ NE. ¼ sec. 14, T. 7 S., R. 26 E., 1¾ miles below intake and 1½ miles northwest of Solomonville, Graham County.

RECORDS AVAILABLE.—April 1, 1914, to September 30, 1915; January 1, 1921, to September 30, 1925.

GAGE.—Continuous water-stage recorder installed June 11, 1922, on left bank; inspected by H. D. Empie.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Bed composed of silt and sand. Banks vertical. 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 August 11–15, clock stopped, and August 31 to September 5, pencil not marking. Daily discharge ascertained by applying mean daily gage height to rating table, using shifting-control method for entire year. Discharge interpolated August 11–15 and August 31 to September 5. Records good.

Canal diverts water from left side of Gila River in NW. ¼ sec. 18, T. 7 S., R. 27 E., for irrigating 5,975 acres near Safford and Thatcher.

Discharge measurements of Union Canal near Solomonville, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 1	0.88	14.0	Feb. 2	1.44	32.5	Apr. 23	1.34	24.5
Oct. 7	1.22	24.6	Feb. 5	1.93	48.3	May 1	1.10	17.2
Oct. 18	1.31	28.6	Feb. 13	2.04	60	May 13	1.24	21.5
Nov. 1	1.56	32.1	Feb. 25	2.29	65	May 20	.66	3.0
Nov. 9	1.95	45.8	Mar. 2	2.40	71	June 1	1.54	30.5
Nov. 16	2.20	58	Mar. 17	2.28	61	June 12	.70	3.3
Dec. 1	2.08	56	Mar. 23	2.12	54	July 2	1.32	22.9
Dec. 19	2.58	84	Apr. 2	2.01	56	July 19	1.42	26.0
Jan. 2	1.69	40.0	Apr. 12	1.49	30.7	Aug. 27	3.62	120
Jan. 16	2.34	70	Apr. 21	1.11	17.4			

Daily discharge, in second-feet, of Union Canal near Solomonville, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	32	56	34	45	65	50	19	21	23	26	93
2	22	35	49	37	31	68	50	19	21	24	4	90
3	21	35	59	36	26	68	49	18	7.2	19	35	86
4	20	34	48	33	10	66	46	14	6.2	77	71	82
5	21	34	55	33	31	64	41	10	5.3	89	81	78
6	24	34	63	37	50	61	39	16	4.2	63	95	74
7	23	22	65	50	58	57	41	35	3.6	47	115	55
8	25	43	64	54	61	54	41	53	3.7	53	114	54
9	26	46	65	70	61	70	40	32	3.3	67	88	55
10	29	51	60	45	61	81	37	23	2.9	60	84	65
11	31	57	70	69	63	81	33	23	2.7	73	78	86
12	32	57	73	53	61	66	27	24	2.9	37	72	106
13	35	39	76	38	61	54	22	21	2.4	56	65	96
14	34	59	75	54	60	58	22	18	1.8	72	59	91
15	31	59	75	54	61	69	21	15	1.7	63	52	97
16	31	56	78	67	60	65	20	16	1.7	43	46	93
17	30	18	77	71	59	63	19	14	2.6	27	36	86
18	30	6	81	71	59	63	19	5.8	2.0	23	48	91
19	31	39	83	82	61	61	19	4.2	1.6	29	40	97
20	34	52	88	94	63	65	19	3.0	2.2	63	54	93
21	30	52	84	99	65	61	17	3.6	2.8	84	33	97
22	30	53	81	90	69	58	18	3.6	31	66	49	100
23	30	52	82	73	73	53	22	2.6	8	47	108	95
24	30	47	85	76	69	54	23	2.9	82	85	103	95
25	30	50	68	83	65	50	22	2.6	80	61	114	89
26	31	52	35	85	64	50	22	2.6	37	49	132	102
27	31	51	32	71	60	50	20	3.2	73	106	119	93
28	31	51	30	53	59	54	17	7.6	48	58	90	87
29	33	54	29	62	-------	58	14	17	40	96	86	83
30	34	56	31	68	-------	57	16	18	37	91	101	72
31	32	-------	32	65	-------	54	-------	26	-------	83	97	-------

Monthly discharge of Union Canal near Solomonville, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	35	15	23.6	1,760
November	59	6	44.2	2,630
December	88	29	62.9	3,870
January	99	33	61.5	3,780
February	73	10	55.9	3,100
March	81	50	61.2	3,760
April	50	14	28.2	1,680
May	53	2.6	15.2	935
June	82	1.6	18.0	1,070
July	106	19	59.2	3,640
August	132	4	74.0	4,550
September	106	54	86.0	5,120
The year	132	1.6	49.6	35,900

SAN SIMON CREEK NEAR RODEO, N. MEX.

LOCATION.—In SE. ¼ sec. 6, T. 27 S., R. 21 W. of New Mexico principal meridian, 10 miles north of Rodeo, Hidalgo County, N. Mex.

DRAINAGE AREA.—454 square miles (measured on topographic maps).

RECORDS AVAILABLE.—March 25, 1920, to September 30, 1925, when station was discontinued.

GAGE.—Vertical staff in mid-channel; read by A. J. Love.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Uniform channel 300 feet wide, covered with saccaton grass and small mesquite.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge for year, 56 second-feet July 31; stream dry greater part of year.

1920–1925: Maximum mean daily discharge, 1,340 second-feet July 25, 1921; stream dry during greater part of each year.

DIVERSIONS.—None.

REGULATION.—None.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of San Simon Creek near Rodeo, N. Mex., for the year ending September 30, 1925

Date	Discharge	Date	Discharge	Date	Discharge
July 20	7	Aug. 2	1	Sept. 3	1
July 30	16	Aug. 3	1	Sept. 6	2
July 31	56	Aug. 31	2	Sept. 18	11
Aug. 1	8	Sept. 2	1		

NOTE.—No flow during year except on days given in table.

Monthly discharge of San Simon Creek near Rodeo, N. Mex., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
July	56	0	2.5	154
August	8	0	.4	25
September	11	0	.5	30
The year	56	0	.3	209

NOTE.—No flow during months for which no record is given.

SAN SIMON CREEK NEAR SAN SIMON, ARIZ.

LOCATION.—In SW. ¼ sec. 29, T. 13 S., R. 31 E., 1 mile east of San Simon, Cochise County.

DRAINAGE AREA.—938 square miles (measured on topographic maps).

RECORDS AVAILABLE.—August 1, 1919, to September 30, 1925, when station was discontinued.

GAGE.—Vertical enamel staff fastened to bridge, low-water section on right pier, high-water section on left pier; read by Ed Gentner.

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

CHANNEL AND CONTROL.—Bed composed of gravel, scouring to heavy clay at high water. Low-water control is a gravel bar 50 feet below gage. High water control formed by right angle turn to right 400 feet below station.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge during year occurred on July 20 (discharge, 75 second-feet); no flow greater part of year.

1919–1925: Maximum stage, 14.0 feet at 10.30 p. m. July 21, 1923 (discharge, 5,350 second-feet); no flow greater part of each year.

DIVERSIONS.—None.

REGULATION.—None.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of San Simon Creek near San Simon, Ariz., for the year ending September 30, 1925

Date	Discharge	Date	Discharge	Date	Discharge
June 28	1	July 29	11	Sept. 1	28
July 1	1	July 30	27	Sept. 2	1
July 20	75	July 31	45	Sept. 3	4
July 21	8	Aug. 17	3	Sept. 19	5
July 25	4	Aug. 21	22	Sept. 20	4
July 28	27	Aug. 31	38	Sept. 21	1

NOTE.—No flow during year except on days given in the table.

Monthly discharge of San Simon Creek near San Simon, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
June	1	0	0.03	2
July	75	0	6.2	381
August	38	0	2.0	123
September	28	0	1.4	83
The year	75	0	.8	589

NOTE.—No flow during months for which no record is given.

CAVE CREEK NEAR PARADISE, ARIZ.

LOCATION.—In SW. ¼ SE. ¼ sec. 34, T. 17 S., R. 31 E., at Portal ranger station, 8 miles by road southeast of Paradise, Cochise County.

DRAINAGE AREA.—39 square miles (measured on topographic map).

RECORDS AVAILABLE.—August 5, 1919, to September 30, 1925, when station was discontinued.

GAGE.—Vertical enamel staff on right bank 100 feet from ranger station; read by Mrs Alice H. Scholefield.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Channel composed of gravel and boulders. Channel fairly straight and fairly uniform in cross section.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge, 60 second-feet, July 31; creek dry greater part of year.

1919–1925: Maximum stage recorded, 5.30 feet August 7, 1921 (discharge, 3,360 second-feet); creek dry during a part of each year.

DIVERSIONS.—Cave Creek Canal diverts water from left side 700 feet above station. Records of this canal are published in this report. One other canal diverts water above this station to irrigate about 7½ acres.

REGULATION.—None.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of Cave Creek near Paradise, Ariz., for the year ending September 30, 1925

Day	Jan.	Feb.	Mar.	July	Aug.	Sept.	Day	Jan.	Feb.	Mar.	July	Aug.	Sept.
1	------	0.5	0.5	------	31	6	16	------	0.5	0.5	------	2	------
2	------	.5	.5	------	31	7	17	------	.5	.5	------	2	0.5
3	------	.5	.5	------	13	7	18	------	.5	.5	------	2	2
4	------	.5	.5	------	7	7	19	------	.5	.5	------	1	.5
5	------	.5	.5	------	2	7	20	------	.5	.5	------	1	.5
6	------	.5	.5	------	2	5	21	0.5	.5	.5	------	1	.5
7	------	.5	.5	------	2	2	22	.5	.5	.5	------	.5	.5
8	------	.5	.5	------	2	2	23	.5	.5	.5	------	.5	.5
9	------	.5	.5	------	2	1	24	.5	.5	.5	------	.5	.5
10	------	.5	.5	------	2	1	25	.5	.5	.5	------	.5	.5
11	------	.5	.5	------	2	------	26	.5	.5	.5	------	.5	.5
12	------	.5	.5	------	2	------	27	.5	.5	.5	------	1	.5
13	------	.5	.5	------	2	------	28	.5	.5	.5	------	2	------
14	------	.5	.5	------	2	------	29	.5	------	.5	------	3	------
15	------	.5	.5	------	2	------	30	.5	------	.5	0.5	4	------
							31	.5	------	.5	60	5	------

NOTE.—Stream dry on days for which no record is given, except Jan. 8–20 when there was only a trace of water.

Monthly discharge of Cave Creek near Paradise, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
January	0.5	0	0.18	11
February	.5	.5	.50	28
March	.5	.5	.50	31
July	60	0	1.95	120
August	31	.5	4.21	259
September	7	0	1.73	103
The year	60	0	.76	552

NOTE.—No flow during months for which no record is given.

CAVE CREEK CANAL NEAR PARADISE, ARIZ.

LOCATION.—In SW. ¼ SE. ¼ sec. 34, T. 17 S., R. 31 E., at Portal ranger station of United States Forest Service, 750 feet below head of canal and 8 miles by road southeast of Paradise, Cochise County.

RECORDS AVAILABLE.—October 14, 1919, to September 30, 1925, when station was discontinued.

GAGE.—Vertical staff on left bank; read by Mrs. Alice Scholefield.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Earth section. Bed composed of small gravel.

DIVERSIONS.—Above all diversions from canal.

REGULATION.—By head gate. Flow in canal varies considerably with flow in Cave Creek.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Canal diverts water from left bank of Cave Creek in SE. ¼ SW. ¼ sec. 34, T. 17 S., R. 31 E., for irrigating 113 acres near Portal ranger station. When sufficient water is available, 176 additional acres are irrigated. A part of the water for this additional acreage is diverted from Cave Creek, below the gaging station on Cave Creek, to Cave Creek Canal through a secondary carrier known as Portal Reay ditch. Water carried by Portal Reay ditch does not pass the gaging station on Cave Creek Canal.

Daily discharge, in second-feet, of Cave Creek Canal near Paradise, Ariz., for the year ending September 30, 1925

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1		1.5		11		1	0.5	21			
2		1		12		1	.5	22			
3		1.5		13		.5	.5	33			
4		1.5	2	14		.5		24			
5		1.5	2	15		.5		25			
6		1.5	.5	16				26			
7		1.5	.5	17		.5	.5	27			
8		12	.5	18		.5	.5	28			
9		2.5	.5	19				29			
10		1	.5	20				30		0.5	
								31			

NOTE.—Canal dry on days for which no record is given except July 31, Aug. 19–30, Sept. 14–16, and 19–30, when there was only a trace of water.

Monthly discharge of Cave Creek Canal near Paradise, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
July	0.5	0	0.02	1
August	12	0	.97	60
September	2	0	.30	18
The year	12	0	.11	79

NOTE.—No flow during months for which no record is given.

EAST TURKEY CREEK AT PARADISE, ARIZ.

LOCATION.—In SW. ¼ sec. 19, T. 17 S., R. 31 E., at Paradise, Cochise County.

DRAINAGE AREA.—8 square miles (measured on topographic map).

RECORDS AVAILABLE.—August 4, 1919, to September 30, 1925, when station was discontinued.

GAGE.—Vertical enamel staff on right bank 300 feet downstream from post office; read by John Hancock.

DISCHARGE MEASUREMENTS.—Made by wading near gage.

CHANNEL AND CONTROL.—Bed composed of boulders and gravel. Principal control formed by concrete wall extending at an angle across the channel with 2-foot drop. Channel fairly uniform in cross section.

EXTREMES OF DISCHARGE.—Maximum mean daily discharge for year, 3 second-feet, July 31; creek dry during greater part of year.

1919–1925: Maximum mean daily discharge, 170 second-feet, August 18, 1921; minimum discharge, zero for periods of each year.

DIVERSIONS.—Several small diversions above station, most of the water returning to the creek above station.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of East Turkey Creek at Paradise, Ariz., for the year ending September 30, 1925

Date	Discharge	Date	Discharge
July 31	3	Aug. 31	2
Aug. 1	.5	Sept. 1	.5
Aug. 2	.5		

NOTE.—Stream dry on days for which no record is given, except August 3 and September 2–6 when there was only a trace of water.

Monthly discharge of East Turkey Creek at Paradise, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
July	3	0	0.1	6
August	2	0	.10	6
September	.5	0	.02	1
The year	3	0	.02	13

NOTE.—No flow during months for which no record is given.

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, 1925.

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.

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 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 NW. ¼ sec. 9, T. 7 S., R. 26 E., for irrigating 2,577 acres near Safford.

Discharge measurements of Graham Canal near Safford, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	3.70	4.9	Jan. 24	4.68	42.7	May 2	3.89	7.7
Oct. 8	3.75	7.0	Feb. 2	4.52	34.9	May 18	3.83	6.7
Nov. 2	3.73	6.1	Mar. 2	4.06	16.0	June 3	3.66	2.8
Nov. 14	3.96	8.7	Apr. 2	4.05	11.7	July 3	3.95	9.2
Dec. 5	4.41	29.2	Apr. 14	3.95	10.1	July 16	4.28	17.4
Jan. 4	5.16	60	Apr. 25	3.92	9.1	Aug. 27	4.30	16.2

Daily discharge, in second-feet, of Graham Canal near Safford, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	6.3	23	62	28	14	5.4	10	3.6	5.3	40	0
2	4.8	5.8	26	62	35	15	12	9.1	3.0	11	26	0
3	5.5	5.8	26	62	30	19	10	9.4	2.1	9.4	27	0
4	6.0	5.3	30	61	42	14	11	8.5	2.5	63	44	0
5	5.8	5.5	28	63	34	12	10	8.8	2.1	32	47	0
6	6.0	5.3	25	60	24	12	10	8.0	.8	14	31	0
7	6.8	17	28	62	24	13	10	7.7	3.6	7.7	43	32
8	7.1	16	28	62	24	14	19	26	3.6	28	46	24
9	4.8	7.4	34	57	21	14	13	32	3.4	56	47	19
10	23	6.6	36	54	0	28	12	6.6	3.4	23	48	22
11	42	6.6	32	50	19	25	11	12	2.3	23	44	0
12	7.7	6.8	36	36	18	22	10	11	1.5	10	27	20
13	8.5	23	38	36	18	16	9.7	9.4	.8	8.5	19	59
14	7.7	8.2	38	32	17	17	10	12	1.5	39	18	60
15	6.3	12	38	32	17	15	10	11	1.4	34	19	55
16	6.0	16	40	32	17	18	10	8.0	1.4	16	17	52
17	5.5	36	39	32	16	19	9.7	7.1	1.0	12	16	50
18	5.5	35	39	34	15	17	9.7	5.0	1.0	7.4	40	49
19	6.0	27	51	38	15	8.3	9.1	2.8	1.9	7.4	42	55
20	6.0	18	50	35	15	14	9.1	5.0	1.7	32	19	32
21	6.0	13	50	29	15	14	8.2	4.6	1.5	34	21	19
22	6.0	14	50	32	14	14	9.4	6.6	5.4	21	19	37
23	6.0	15	49	40	15	13	9.1	2.1	3.1	10	44	45
24	6.0	17	50	41	18	13	9.1	2.1	8.5	21	52	38
25	6.0	19	57	40	20	13	8.5	2.1	51	13	72	35
26	5.8	16	63	34	19	12	8.8	1.7	15	8.2	78	24
27	5.5	19	62	38	18	12	8.5	1.0	14	0	53	20
28	5.8	18	62	46	16	11	4.5	3.2	15	0	30	18
29	5.8	17	63	27	-------	11	8.5	2.5	11	26	14	19
30	5.8	23	62	22	-------	10	9.4	2.5	12	57	20	18
31	6.3	-------	61	21	-------	10	-------	2.5	-------	74	35	------

Monthly discharge of Graham Canal near Safford, Ariz., for the year ending September 30, 1925

Month	Discharge n second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	42	4.8	7.77	478
November	36	5.3	14.7	875
December	63	23	42.4	2,610
January	63	21	43.0	2,640
February	42	0	20.1	1,120
March	28	8.3	14.8	910
April	19	4.5	9.82	584
May	32	1.0	7.75	477
June	51	.8	5.97	355
July	74	0	22.7	1,400
August	78	14	35.4	2,180
September	60	0	26.7	1,590
The year	78	0	21.0	15,200

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, 1925.

GAGE.—Vertical enamel staff on left bank 300 feet below waste gate; read by Patricia Vasquez.

DISCHARGE MEASUREMENTS.—Made from footbridge at gage.

CHANNEL AND CONTROL.—Uniform section. 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 nearest half-tenth 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 NE. ¼ sec. 35, T. 6 S., R. 25 E., for irrigating 1,760 acres near Pima.

Discharge measurements of Smithville Canal near Thatcher, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	5.78	7.5	Feb. 3	6.95	29.8	Apr. 29	5.85	8.5
Oct. 14	6.23	16.1	Feb. 13	6.30	15.8	May 2	5.80	8.0
Nov. 2	6.06	11.8	Mar. 2	6.64	22.1	May 18	5.79	6.5
Nov. 29	6.50	18.4	Mar. 18	6.43	17.8	June 2	5.77	6.1
Dec. 5	6.40	16.3	Mar. 31	6.03	13.1	June 15	5.67	4.4
Dec. 27	7.17	36.5	Apr. 2	6.12	18.1	July 2	5.80	6.4
Jan. 7	7.19	38.2	Apr. 11	5.92	13.2	July 25	6.24	17.1
Jan. 23	6.86	26.5	Apr. 25	5.90	10.0	Aug. 27	7.12	44.1

Daily discharge, in second-feet, of Smithville Canal near Thatcher, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	10	14	34	26	23	15	8.3	5.3	6.9	20	32
2	6.4	8	18	35	31	21	20	7.7	5.3	5.6	12	47
3	6.4	12	15	35	29	16	20	8.1	4.9	8.1	22	25
4	5.1	13	16	35	26	16	20	7.9	4.1	47	34	0
5	5.3	18	17	36	29	25	17	6.9	4.6	22	18	0
6	6.2	16	19	37	26	20	19	6.7	3.7	20	30	0
7	6.0	18	24	38	16	23	16	7.7	4.1	14	51	13
8	6.0	15	27	39	17	18	18	19	3.7	18	57	24
9	6.0	16	27	35	17	18	15	8.5	3.4	46	48	18
10	5.8	14	19	33	20	19	17	7.3	2.7	12	43	14
11	10	14	22	33	20	16	15	6.4	2.7	19	27	15
12	4.8	15	25	33	18	17	14	6.2	2.3	13	20	12
13	9.1	17	27	32	16	17	13	6.7	2.3	6.2	17	20
14	11	18	31	28	22	17	13	6.0	3.7	10	16	10
15	9.1	13	30	26	18	19	11	6.0	4.0	16	15	5.1
16	8.1	13	28	27	18	15	11	6.0	4.1	9.3	14	8.1
17	5.6	20	28	27	18	17	11	5.8	3.7	6.5	13	4.8
18	5.6	26	32	24	18	17	11	5.6	2.7	7.5	30	31
19	11	21	32	30	19	13	10	6.7	3.4	5.3	21	8.7
20	6.9	15	34	31	17	13	11	5.8	3.1	29	16	33
21	8.3	14	37	30	15	12	10	4.1	3.4	17	15	5.1
22	8.3	15	36	25	16	12	10	4.9	29	14	14	0
23	7.3	15	37	24	19	16	10	6.4	9.7	12	26	0
24	7.1	16	39	21	21	14	9.1	5.8	24	26	42	0
25	10	14	38	16	20	14	8.7	6.4	43	12	51	0
26	7.7	15	38	16	21	15	8.1	6.4	39	11	75	0
27	8.7	15	36	17	19	14	8.1	7.7	26	44	45	0
28	8.1	16	37	23	19	14	7.5	5.8	14	33	32	0
29	7.9	17	35	18	-------	14	7.7	5.8	16	50	27	0
30	6.9	14	35	22	-------	14	8.1	5.3	10	48	47	1
31	6.0	-------	34	25	-------	14	-------	5.3	-------	42	63	-------

Monthly discharge of Smithville Canal near Thatcher, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	11	4.8	7.37	453
November	26	8	15.4	916
December	39	14	28.6	1,760
January	39	16	28.5	1,750
February	31	15	20.4	1,130
March	25	12	16.5	1,010
April	20	7.5	12.8	762
May	19	4.1	6.88	423
June	43	2.3	9.60	571
July	50	5.3	20.3	1,250
August	75	12	31.0	1,910
September	47	0	10.9	649
The year	75	0	17.4	12,600

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, 1925.

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. 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 NW. ¼ sec. 20, T. 6 S., R. 25 E., for irrigating 1,250 acres near Pima.

Discharge measurements of Dodge-Nevada Canal near Pima, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	1.05	4.1	Feb. 3	1.66	19.6	May 14	0.85	3.2
Oct. 21	1.10	4.0	Feb. 10	.52	.8	June 2	.94	3.3
Nov. 3	1.16	4.0	Feb. 17	.98	10.9	June 26	1.84	32.8
Nov. 14	1.28	7.3	Feb. 23	1.25	20.5	July 2	.97	6.3
Dec. 3	1.39	10.7	Mar. 3	1.02	12.7	July 28	1.24	11.8
Dec. 13	1.50	14.0	Apr. 2	1.06	11.9	Aug. 27	2.06	32.5
Jan. 8	1.90	27.6	Apr. 25	.98	7.4			
Jan. 21	1.71	21.3	May 2	.94	5.7			

Daily discharge, in second-feet, of Dodge-Nevada Canal near Pima, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	4.3	11	14	17	15	15	5.6	2.1	4.3	18	37
2	3.8	4.8	11	16	24	11	11	5.6	2.1	4.5	1.5	17
3	5.0	4.3	11	19	18	12	9.9	4.5	1.5	4.0	0	7.4
4	3.3	5.6	12	19	19	12	9.9	4.3	1.5	26	0	0
5	3.3	5.6	14	19	11	13	9.3	5.9	1.2	0	1.3	0
6	3.1	5.6	14	20	3.1	12	9.9	3.8	1.2	2.3	4.5	0
7	3.6	5.9	7.1	25	0	5.9	9.6	3.3	1.6	4.0	18	0
8	3.8	6.2	7.7	26	0	12	9.6	5.3	1.2	9.9	12	0
9	3.8	8.3	15	19	0	11	9.6	5.6	1.3	20	18	0
10	4.0	6.8	14	19	2.5	17	9.3	4.3	1.2	4.0	10	0
11	3.8	7.4	13	17	5.8	12	9.3	4.0	1.2	6.5	12	0
12	3.3	7.1	14	19	0	9.6	8.3	3.1	.9	7.7	9.0	0
13	1.8	8.6	14	17	11	9.0	11	3.3	.8	6.8	6.2	0
14	3.8	9.3	14	16	12	9.3	12	3.8	1.0	3.8	3.6	0
15	3.6	10	12	15	11	11	9.3	3.1	1.0	16	2.8	0
16	3.6	8.3	0	19	11	9.6	8.3	2.6	1.0	8.3	2.4	0
17	4.0	12	0	16	11	8.8	8.6	2.6	1.0	3.3	1.2	14
18	4.3	17	0	15	11	9.9	9.0	2.4	.7	2.8	1.0	16
19	4.5	15	7.0	25	12	11	10	2.6	.8	2.8	12	26
20	5.3	9.9	14	23	16	10	8.6	3.3	.5	3.1	2.1	18
21	4.0	12	15	21	17	11	8.6	2.6	.9	13	2.1	15
22	3.6	12	20	15	18	12	8.3	2.4	0	7.4	4.5	16
23	4.8	13	20	19	21	12	7.7	2.4	1.1	5.3	2.3	17
24	4.5	12	18	18	15	11	7.4	2.1	2.3	6.2	5.0	22
25	4.3	9.9	18	17	15	10	7.1	2.1	24	6.8	22	20
26	4.8	11	18	16	15	10	8.3	2.3	31	4.3	27	17
27	4.5	12	17	16	13	14	7.4	2.6	19	0	28	17
28	4.8	11	16	20	13	8.0	7.1	2.3	12	5.9	9.0	14
29	4.5	13	14	21	-------	12	7.1	2.4	7.1	29	2.1	11
30	4.0	13	15	20	-------	12	6.5	2.0	5.0	18	5.3	11
31	5.0	-------	14	23	-------	12	-------	2.0	-------	26	38	-------

Monthly discharge of Dodge-Nevada Canal near Pima, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	5.3	1.8	3.99	245
November	17	4.3	9.36	557
December	20	0	12.6	775
January	26	14	18.8	1,160
February	24	0	11.5	639
March	17	5.9	11.1	682
April	15	6.5	9.10	541
May	5.9	2.0	3.36	207
June	31	0	4.21	251
July	29	0	8.45	520
August	38	0	9.06	557
September	37	0	9.85	586
The year	38	0	9.28	6,720

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, 1925.

GAGE.—Vertical staff on left bank at ranch house 600 feet below waste gate; read by Rozella Hancock.

DISCHARGE MEASUREMENTS.—Made from footbridge near gage.

CHANNEL AND CONTROL.—Bed composed of silt. Banks vertical. 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 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 right side of Gila River in NW. ¼ sec. 12, T. 6 S., R. 24 E., for irrigating 1,650 acres near Eden.

Discharge measurements of Curtis-Kempton Canal near Eden, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	4.29	6.6	Jan. 21	5.13	21.4	May 2	4.30	7.8
Oct. 23	4.25	7.2	Feb. 4	5.20	20.0	May 21	4.05	5.2
Nov. 3	4.15	5.6	Feb. 23	4.80	12.3	June 2	3.96	4.1
Nov. 20	4.35	7.6	Mar. 3	4.78	12.5	June 18	3.86	2.4
Dec. 3	5.08	21.7	Apr. 3	4.75	14.4	July 2	4.13	5.5
Dec. 27	5.05	14.7	Apr. 18	4.50	9.1	Aug. 27	5.85	38.9
Jan. 9	5.56	27.6	Apr. 23	4.50	10.0			

Daily discharge, in second-feet, of Curtis-Kempton Canal near Eden, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	5.6	17	29	16	12	11	3.7	2.7	5.1	37	17
2	6.2	5.6	16	30	20	12	0	7.7	3.4	5.5	0	16
3	5.7	5.6	21	25	18	12	14	7.1	3.3	5.1	0	17
4	5.2	5.6	27	25	20	11	11	7.1	3.2	7.6	0	28
5	4.7	8.9	27	27	15	6.6	11	7.3	3.2	0	0	27
6	5.4	7.0	29	28	18	0	11	7.7	3.4	3.8	0	25
7	5.4	6.6	31	28	22	12	11	7.7	3.1	5.5	8.9	18
8	6.9	6.9	33	27	17	12	11	8.3	3.2	5.9	33	13
9	6.0	6.9	36	28	15	13	11	7.7	2.9	0	30	12
10	5.5	7.1	29	21	19	18	11	7.6	1.4	2.0	35	9.5
11	5.6	7.1	30	23	17	16	10	7.8	2.5	5.6	28	6.0
12	6.2	7.1	28	22	17	16	10	7.8	2.8	13	6.4	4.2
13	5.5	3.6	29	21	16	16	9.5	7.3	2.2	8.7	5.4	25
14	5.5	7.3	35	19	16	16	9.5	6.9	2.6	8.7	5.4	16
15	5.6	7.7	23	24	15	18	8.9	6.9	2.6	15	4.8	9.8
16	5.8	12	28	24	13	14	0	3.4	2.6	0	5.1	2.6
17	6.3	9.8	33	22	12	16	8.6	6.9	2.5	4.8	5.1	4.5
18	3.2	8.3	33	24	11	16	8.4	6.4	2.3	4.8	0	3.5
19	9.8	9.4	32	24	12	0	8.4	5.6	2.0	4.3	4.6	5.5
20	5.8	7.6	25	25	11	16	8.3	4.8	2.4	11	8.4	37
21	5.8	8.9	16	23	11	13	8.4	4.7	2.6	11	6.4	25
22	5.6	9.0	13	25	11	13	9.5	4.5	15	7.3	4.7	14
23	6.3	8.3	12	29	12	14	9.0	13	8.1	6.5	4.9	6.0
24	5.6	12	14	29	13	13	9.4	4.6	2.9	6.9	38	0
25	5.9	9.0	13	30	11	14	9.5	4.5	0	7.8	40	0
26	5.8	6.3	12	24	12	13	9.0	4.3	0	9.0	38	4.5
27	7.0	4.8	13	18	14	15	9.2	4.3	0	15	33	4.4
28	6.0	3.7	14	17	12	20	9.0	4.4	0	16	20	4.2
29	7.8	17	16	18	-------	17	9.0	3.7	0	38	16	4.3
30	7.6	9.2	11	16	-------	15	0	2.0	4.3	36	14	4.2
31	5.7	-------	24	16	-------	11	-------	3.0	-------	34	14	------

Monthly discharge of Curtis-Kempton Canal near Eden, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	9.8	3.2	5.96	366
November	17	3.6	7.80	464
December	36	11	23.2	1,430
January	30	16	23.9	1,470
February	22	11	14.9	828
March	20	0	13.2	812
April	14	0	8.85	527
May	13	2.0	6.09	374
June	15	0	2.91	173
July	38	0	9.80	603
August	40	0	14.4	885
September	37	0	12.1	720
The year	40	0	11.9	8,650

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, 1925.

GAGE.—Vertical staff on right bank half a mile below waste gate; read by Mrs. L. Zufelt and T. A. Lamb.

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 NW. ¼ sec. 4, T. 6 S., R. 24 E., for irrigating 2,236 acres near Fort Thomas.

Discharge measurements of Fort Thomas Consolidated Canal at Ashurst, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 2	7.63	2.3	Feb. 4	8.18	18.9	May 2	7.66	5.2
Oct. 12	7.82	2.7	Feb. 17	7.96	14.5	May 12	7.64	3.8
Nov. 1	7.89	10.2	Mar. 3	7.92	13.4	June 2	8.16	4.3
Nov. 9	7.58	2.7	Mar. 6	8.10	17.4	June 22	9.43	46.8
Dec. 3	8.05	16.0	Mar. 19	7.80	9.6	July 2	7.46	4.4
Dec. 18	8.90	44.3	Apr. 3	8.03	13.1	July 13	7.47	3.7
Jan. 9	8.80	42.7	Apr. 12	7.68	6.2	Aug. 28	10.00	85
Jan. 18	8.66	33.3	Apr. 23	7.76	7.7			

Daily discharge, in second-feet, of Fort Thomas Consolidated Canal at Ashurst, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	5.2	18	42	17	17	8.4	4.3	2.6	4.1	51	34
2	1.3	4.3	16	41	20	12	8.9	4.6	3.5	3.1	35	35
3	1.9	0	18	43	18	13	11	4.6	3.5	3.4	34	34
4	2.4	0	18	46	18	14	8.4	4.1	4.0	61	33	16
5	2.0	0	16	47	15	14	8.0	4.0	4.0	28	28	0
6	1.9	0	23	43	18	15	8.0	4.0	3.8	12	16	0
7	2.6	0	32	44	21	15	7.6	5.0	1.0	3.1	14	0
8	2.7	0	39	43	16	17	8.2	6.0	0	2.6	26	0
9	2.6	1.2	35	39	15	12	7.6	4.2	0	26	22	0
10	2.6	0	26	36	14	16	9.3	3.9	0	41	24	0
11	1.6	0	38	37	14	18	7.6	3.4	0	22	16	2.2
12	2.0	0	44	37	15	12	6.0	3.4	0	5.7	11	0
13	2.7	1.8	65	37	14	7.4	7.6	4.4	0	3.8	7.6	0
14	1.9	4.1	46	37	16	6.6	7.6	5.8	0	2.6	6.8	0
15	2.8	4.4	50	26	15	8.4	8.0	7.2	0	2.7	5.2	7.0
16	3.0	4.0	43	27	14	7.2	8.0	8.0	0	2.7	5.0	41
17	3.1	4.4	42	34	14	7.2	7.4	8.0	0	2.1	4.3	74
18	3.1	11	44	34	10	9.8	6.0	8.2	0	1.4	4.1	77
19	4.3	12	51	36	12	10	5.7	7.6	0	1.2	5.7	78
20	5.0	12	53	28	14	7.8	5.5	8.9	0	1.1	3.8	78
21	5.5	11	56	11	11	8.7	4.7	8.4	0	7.6	2.6	71
22	2.2	12	56	7	12	7.6	8.0	9.1	18	2.9	2.6	71
23	0	11	53	14	15	7.2	6.4	8.9	4.4	1.9	2.6	69
24	0	14	54	16	10	5.4	6.0	8.4	3.1	1.9	16	67
25	0	7.2	53	12	9.3	5.7	6.4	9.3	74	2.6	69	60
26	7.6	9.1	53	11	9.3	8.0	6.0	10	46	1.9	81	52
27	3.6	14	59	13	10	11	5.0	5.7	22	59	80	49
28	0	15	48	12	12	10	4.4	3.8	15	22	44	47
29	0	14	47	17	-------	8.7	4.4	5.2	11	40	30	27
30	0	14	45	18	-------	8.9	4.4	4.4	8.9	61	28	37
31	0	-------	44	12	-------	9.8	-------	4.3	-------	73	48	------

Monthly discharge of Fort Thomas Consolidated Canal at Ashurst, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	7.6	0	2.26	139
November	15	0	6.19	368
December	65	16	41.5	2,550
January	47	7	29.0	1,780
February	21	9.3	14.2	789
March	18	5.4	10.7	658
April	11	4.4	7.02	418
May	10	3.4	6.04	371
June	74	0	7.49	446
July	73	1.1	16.2	996
August	81	2.6	24.4	1,500
September	78	0	34.2	2,040
The year	81	0	16.7	12,100

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, Mexico).

RECORDS AVAILABLE.—September 28, 1912, to September 30, 1925.

GAGE.—Continuous water-stage recorder on right bank, installed October 29, 1924, 300 feet downstream from ford leading to ranch house; previous staff gage in operation prior to that date; observers, Frank Boyland and Ben Johnson.

DISCHARGE MEASUREMENTS.—Made from cable 150 feet upstream from gage or by wading near gage.

CHANNEL AND CONTROL.—Bed composed of sand and gravel. Banks high and steep. Channel fairly straight with considerable fall. No well-defined control.

EXTREMES OF DISCHARGE.—Maximum stage from water-stage recorder, 12.41 feet at 12.30 a. m. August 6 (discharge, 11,900 second-feet); minimum discharge, 0.5 second-foot at 6 p. m. June 12.

1912–1925: Maximum stage recorded, about 21 feet, present datum, at 5 p. m. December 22, 1915 (discharge not determined); minimum discharge, 0.5 second-foot, January 27, 1923, and June 12, 1925.

DIVERSIONS.—Boquillas Land & Cattle Co. diverts water at a dam a 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 below 2,000 second-feet and fairly well defined between 2,000 and 5,000 second-feet. Gage read to hundredths once a day to October 28; operation of water-stage recorder satisfactory, October 29 to September 30, except as shown in footnote to daily-discharge table. Daily discharge ascertained by applying mean daily gage height to rating table or by averaging the hourly discharge, except as shown in footnote to daily-discharge table; shifting-control method used for entire year. Records good.

Discharge measurements of San Pedro River near Fairbank, Ariz., during the year ending September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
	Feet	*Sec.-ft.*		*Feet*	*Sec.-ft.*		*Feet*	*Sec.-ft.*
Oct. 13	9.25	3.8	Jan. 4	2.36	11.0	July 26	3.16	100
Oct. 25	9.13	2.4	Feb. 15	2.21	7.4	July 28	3.10	216
Oct. 29	2.24	3.0	June 1	2.20	1.0	Aug. 2	2.65	45.3
Nov. 20	2.31	8.6	July 2	3.55	520	Aug. 7	3.21	266
Dec. 6	2.29	3.6	July 8	2.51	15.5	Sept. 26	1.92	2.1
Dec. 7	2.29	3.6	July 25	5.70	1,880			

Daily discharge, in second-feet, of San Pedro River near Fairbank, Ariz., for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1	3	8	10	8	10	10	8	1	351	80	57
2	1	4	8	9	7	10	12	8	1	486	44	283
3	1	4	8	10	8	10	11	8	1	349	34	435
4	1	5	8	12	9	8	10	8	1	215	28	64
5	44	6	4	12	10	8	11	8	1	37	184	10
6	1	6	4	11	10	7	12	8	1	28	2,400	7
7	1	6	4	8	10	8	12	8	1	18	253	3
8	2	7	4	10	10	10	11	8	1	15	74	3
9	3	7	6	10	11	11	10	8	1	13	1,150	2
10	4	8	6	12	11	10	10	8	1	12	194	2

Daily discharge, in second-feet, of San Pedro River near Fairbank, Ariz., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	4	8	7	11	10	8	10	8	1	17	55	2
12	4	8	8	10	10	8	10	10	1	14	22	2
13	6	8	8	11	10	8	11	9	1	13	17	2
14	4	8	6	11	8	10	11	7	1	8	14	2
15	6	8	4	12	7	12	8	8	2	39	49	2
16	2	8	4	12	7	10	8	7	2	33	50	21
17	3	9	4	13	8	10	10	7	1	16	84	24
18	2	9	5	14	8	10	13	7	1	11	79	22
19	2	9	6	11	8	10	10	7	1	10	32	15
20	2	8	6	8	12	10	7	8	18	16	22	8
21	3	8	6	8	11	10	7	8	3	47	19	3
22	2	8	6	7	10	11	7	7	2	19	17	2
23	2	8	6	6	10	10	7	4	780	15	13	2
24	4	8	6	6	10	10	7	4	1,150	13	13	2
25	3	8	5	7	9	10	6	4	1,480	716	21	2
26	5	8	5	7	10	10	6	2	72	112	12	2
27	4	8	5	6	10	10	6	1	37	1,750	9	2
28	4	8	5	7	10	8	7	1	33	254	10	2
29	3	8	6	8	9	9	8	1	601	618	21	2
30	3	8	8	7	-------	9	11	1	806	223	17	2
31	3	-------	9	8	-------	10	-------	1	-------	184	38	------

NOTE.—Readings of staff gage used Nov. 27, Dec. 4, 5, 20, 23–26, 28, 29, 31, Jan. 1–3, and Sept. 8, when clock stopped. Discharge interpolated October 9, when gage was not read, and Nov. 25, 26, 28–30, Dec. 1–3, 21, 22, 27, 30, when clock stopped.

Monthly discharge of San Pedro River near Fairbank, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	44	1	4.2	258
November	9	3	7.3	434
December	9	4	6.0	369
January	14	6	9.5	584
February	12	7	9.4	522
March	12	7	9.5	584
April	13	6	9.3	553
May	10	1	6.2	381
June	1,480	1	167	9,940
July	1,750	8	182	11,200
August	2,400	9	163	10,000
September	435	2	32.9	1,960
The year	2,400	1	50.8	36,800

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 on right 7 miles downstream.

DRAINAGE AREA.—2,260 square miles (measured on topographic maps and Greenidge map of Sonora, Mexico).

RECORDS AVAILABLE.—October 15, 1905, to September 30, 1925.

GAGE.—Staff gages painted on downstream side of each 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 badly at all stages.

EXTREMES OF DISCHARGE.—Maximum stage during year, 7.5 feet September 18 (discharge, 3,400 second-feet); river dry greater part of the time.

1905–1925: Maximum stage recorded, 9.8 feet December 24, 1914 (discharge, about 9,000 second-feet); river dry greater part of each year at this point.

DIVERSIONS.—Diversions above the station for irrigation, amounts unknown.

REGULATION.—None.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of Santa Cruz River at Tucson, Ariz., for the year ending September 30, 1925

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1		33	5	5	16				210
2					17			235	435
3		36			18			170	450
4			25		19				150
5					20		18		
6			460		21		100		
7			17		22		1	108	
8			25		23				
9			60		24			8	
10			145		25				
11			2		26		125	90	
12			1		27		110		
13					28		8		
14					29				
15					30	16			
					31		440	10	

NOTE.—River dry during the year except for days given above.

Monthly discharge of Santa Cruz River at Tucson, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
June	16	0	0.5	30
July	440	0	28.1	1,730
August	460	0	43.9	2,700
September	450	0	41.7	2,480
The year	460	0	9.58	6,940

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, 1925.

GAGE.—Staff gages painted on downstream side of several bridge piers, set to same datum; 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 mean daily discharge during the year, 437 second-feet on August 28; stream dry greater part of year.

1911–1925: 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.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of Rillito Creek near Tucson, Ariz., for the year ending September 30, 1925

Day	July	Aug.	Sept.	Day	July	Aug.	Sept.	Day	July	Aug.	Sept.
1			146	11				21	5		
2			289	12				22	34		
3			1	13				23			
4	44			14				24		176	
5	2	18		15				25		56	
6				16			95	26	3		
7				17			435	27	174		
8		1		18			287	28	26	437	
9				19		2	8	29	38	71	
10				20				30			
								31	31		

NOTE.—Creek dry throughout year except for days given above.

Monthly discharge of Rillito Creek near Tucson, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
July	174	0	11.5	707
August	437	0	24.6	1,510
September	435	0	42.0	2,500
The year	437	0	6.52	4,720

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 15 miles upstream, and Cibecue Creek enters on right 8 miles downstream.

DRAINAGE AREA.—3,050 square miles (measured on topographic maps).

RECORDS AVAILABLE.—September 18, 1924, to September 30, 1925.

GAGE.—Water-stage recorder on left bank, installed October 2, 1924. Staff gage used September 18 to October 1, 1924.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet downstream from gage or by wading.

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 period of records, 6.5 feet at 11.30 p. m. March 8 (discharge, 6,550 second-feet); minimum stage recorded, 1.48 feet on December 27 (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 for lower discharge, not permanent 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. Staff gage read twice a day to hundredths September 18 to October 1, 1924. 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 September 18 to October 6, December 1 to April 20, May 9–13, and July 22 to September 30. Records good.

COOPERATION.—Permittee of Federal Power Commission project No. 425 furnished results of 20 discharge measurements.

Discharge measurements of Salt River near Chrysotile, Ariz., for the period August 1, 1924, to September 30, 1925

Date	Gage height	Discharge	Date	Gage height	Discharge	Date	Gage height	Discharge
1924	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*	1925	*Feet*	*Sec.-ft.*
Aug. 8	-------	276	Jan. 6	1.66	192	June 16	1.54	159
Sept. 18	1.56	179	Feb. 26	1.80	224	June 23	1.69	226
Sept. 26	1.56	169	Mar. 7	1.88	320	June 30	1.64	198
Oct. 2	1.55	176	Mar. 14	2.30	639	July 14	1.81	274
Oct. 7	1.58	174	Mar. 15	2.27	574	July 22	1.90	305
Oct. 25	1.63	195	Mar. 25	2.40	592	July 28	2.03	336
Oct. 29	1.66	201	Apr. 8	2.40	521	Aug. 11	1.96	313
Nov. 8	1.66	210	Apr. 21	2.13	440	Aug. 24	2.30	508
Nov. 15	1.75	256	Apr. 30	1.95	336	Aug. 25	3.30	1,340
Nov. 30	1.64	193	May 10	2.00	389	Aug. 29	2.22	529
Dec. 13	1.69	200	May 17	1.87	302	Sept. 2	4.80	3,450
			May 26	1.77	252	Sept. 8	2.82	927

Daily discharge, in second-feet, of Salt River near Chrysotile, Ariz., for the period September 18, 1924, to September 30, 1925

Day	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	178	207	194	223	211	254	934	340	236	186	553	750
2	-------	178	207	194	211	211	258	838	345	227	202	444	2,940
3	-------	175	207	190	207	211	267	742	334	223	190	334	3,200
4	-------	175	207	190	186	211	272	705	319	215	198	300	3,000
5	-------	171	207	190	186	211	276	675	314	211	267	305	2,490
6	-------	171	207	194	202	215	290	640	309	207	272	498	1,870
7	-------	182	207	254	202	215	314	586	314	207	258	498	1,360
8	-------	281	207	241	202	219	1,900	534	324	211	232	350	974
9	-------	227	202	227	202	219	3,660	510	404	207	263	345	774
10	-------	207	198	219	186	219	1,870	498	392	202	272	314	640
11	-------	198	198	202	190	219	1,230	492	398	186	276	314	566
12	-------	190	202	198	182	211	958	498	382	171	286	324	522
13	-------	186	202	198	194	211	774	498	355	160	272	295	492
14	-------	186	245	198	198	211	640	492	314	168	272	263	468
15	-------	186	245	202	227	211	579	492	300	164	263	232	426
16	-------	186	215	215	232	215	546	480	290	160	232	202	392
17	-------	186	211	267	215	211	528	480	295	157	215	190	704
18	178	186	207	309	190	207	516	480	300	153	190	182	498
19	178	186	207	281	175	202	510	480	300	143	186	215	976
20	178	190	198	236	194	202	516	462	305	143	254	215	1,090
21	175	194	198	202	211	215	528	438	300	295	276	186	838
22	171	194	198	198	211	219	534	426	276	223	305	489	668
23	171	194	202	211	207	241	566	420	272	219	276	638	553
24	168	194	202	245	211	241	586	414	263	241	223	433	480
25	168	194	202	232	215	227	605	404	258	350	194	911	450
26	168	194	198	164	223	223	647	398	258	281	241	642	414
27	171	198	198	127	232	227	712	365	249	254	215	566	387
28	168	202	198	150	232	241	1,050	340	249	227	290	572	345
29	175	207	198	194	219	-------	1,140	340	249	211	281	516	324
30	175	207	198	223	219	-------	1,020	340	245	202	329	553	314
31	-------	207	-------	223	211	-------	999	-------	245	-------	475	592	-------

Monthly discharge of Salt River near Chrysotile, Ariz., for the period September 18, 1924, to September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
1924				
September 18–30	178	168	173	4,460
1924–25				
October	281	171	194	11,900
November	245	198	206	12,300
December	309	127	212	13,000
January	232	175	206	12,700
February	241	202	217	12,100
March	3,660	254	792	48,700
April	934	340	513	30,500
May	404	245	306	18,800
June	350	143	208	12,400
July	475	186	255	15,700
August	911	182	402	24,700
September	3,200	314	964	57,400
The year	3,660	127	373	270,000

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, 1925.

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, 5.90 feet, March 9 (discharge, 5,140 second-feet); minimum stage, 2.50 feet June 20 (discharge, 140 second-feet).

1913–1925: Maximum mean daily discharge, 79,200 second-feet, January 15, 1916; minimum discharge, 140 second-feet June 20, 1925.

DIVERSIONS.—None of importance.

REGULATION.—None.

COOPERATION.—Daily-discharge records 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, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	180	195	210	220	250	1,280	340	198	213	950	808
2	152	180	195	205	205	250	1,180	337	198	188	800	1,250
3	152	180	190	207	200	250	1,080	331	195	188	683	1,740
4	152	180	190	205	200	245	956	325	192	183	599	1,950
5	152	180	190	200	216	245	904	317	189	188	655	1,950
6	152	180	195	200	227	250	865	314	190	219	406	1,290
7	152	180	200	198	225	269	837	300	188	234	599	1,030
8	175	190	232	195	235	460	790	295	177	240	850	860
9	215	185	255	195	230	5,140	720	280	176	212	496	760
10	205	190	210	195	235	4,450	670	274	176	196	400	665

Daily discharge, in second-feet, of Salt River near Roosevelt, Ariz., for the year ending September 30, 1925—Continued

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
11	200	190	205	200	235	2,140	639	282	163	227	321	600
12	180	190	205	195	235	1,320	660	267	160	241	312	600
13	200	190	205	190	225	970	592	250	157	234	308	494
14	180	205	205	190	220	820	592	250	155	227	299	423
15	170	220	205	190	225	672	594	269	151	228	254	384
16	180	242	205	208	220	515	530	269	150	229	231	353
17	170	207	225	208	220	455	527	260	149	206	218	352
18	170	200	367	208	220	430	522	252	149	188	218	722
19	183	200	376	200	225	430	492	245	149	175	211	696
20	178	216	300	200	220	430	480	241	140	335	208	3,220
21	178	205	242	197	225	440	475	237	190	202	254	1,950
22	178	205	235	217	235	447	458	233	250	262	248	1,140
23	185	205	210	202	240	487	480	228	282	241	802	831
24	185	205	210	202	250	573	475	218	232	274	1,220	612
25	185	200	210	217	250	597	462	217	235	234	915	486
26	187	200	235	202	245	615	435	217	291	211	1,140	414
27	177	200	210	202	240	690	420	211	278	319	1,010	372
28	177	200	200	205	245	962	387	206	244	241	801	342
29	177	195	192	220	------	1,760	360	205	212	471	902	329
30	177	195	192	212	------	1,750	347	203	241	530	808	306
31	178	------	210	205	------	1,650	------	199	------	682	804	------

Monthly discharge of Salt River near Roosevelt, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	215	152	176	10,800
November	242	180	196	11,700
December	376	190	222	13,600
January	220	190	203	12,500
February	250	200	227	12,600
March	5,140	245	967	59,500
April	1,280	347	640	38,100
May	340	199	260	16,000
June	291	140	195	11,600
July	682	175	259	15,900
August	1,220	208	572	35,200
September	3,220	306	898	53,400
The year	5,140	140	402	291,000

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, 1925.

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, 925 second-feet September 19; minimum mean daily discharge, 1 second-foot June 6–11 and 18–21.

1913–1925: Maximum mean daily discharge, 20,000 second-feet December 28, 1923; 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, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	5	4	75	28	18	120	37	5	37	47	47
2	5	5	4	75	25	18	110	37	5	7	27	60
3	5	5	4	68	25	20	90	28	5	54	21	115
4	5	4	4	68	25	20	83	28	3	98	16	60
5	5	4	4	60	28	20	83	28	2	60	221	60
6	5	4	4	60	38	20	75	20	1	16	175	47
7	5	4	4	60	24	20	60	20	1	16	107	47
8	8	4	25	58	24	154	60	20	1	7	75	35
9	11	4	27	45	24	290	55	13	1	7	107	35
10	13	4	34	45	24	485	55	5	1	7	86	30
11	11	4	34	45	24	380	47	5	1	7	55	30
12	7	4	34	45	24	340	47	5	2	7	55	21
13	6	4	30	37	24	290	47	3	2	12	47	21
14	6	4	30	37	24	270	42	3	2	7	36	16
15	5	4	30	37	24	210	21	7	2	7	36	16
16	5	4	30	37	24	170	18	7	2	7	28	16
17	5	4	93	37	24	128	18	7	2	7	21	75
18	5	4	545	37	20	80	18	7	1	7	16	775
19	14	4	360	32	20	75	18	7	1	12	16	925
20	14	4	175	32	18	75	12	5	1	12	16	630
21	14	4	120	30	18	75	12	5	1	7	16	375
22	14	4	95	30	18	75	12	5	168	12	16	175
23	5	4	78	30	18	75	20	5	3	12	16	120
24	5	4	95	30	18	70	37	5	3	12	220	127
25	5	4	75	30	18	47	37	5	3	12	75	90
26	5	4	150	30	18	47	37	5	3	3	107	75
27	5	4	150	30	18	47	55	5	3	3	60	67
28	5	4	120	30	18	380	55	5	3	60	60	47
29	5	4	95	30	------	300	45	5	3	16	47	47
30	5	4	95	30	------	285	37	5	76	16	47	36
31	5	------	95	28	------	167	------	5	------	225	47	------

Monthly discharge of Tonto Creek near Roosevelt, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	14	5	7.0	430
November	5	4	4.1	244
December	545	4	85.3	5,240
January	75	28	42.5	2,610
February	38	18	22.7	1,260
March	485	18	150	9,220
April	120	12	47.5	2,830
May	37	3	11.2	689
June	168	1	10.2	607
July	225	3	24.9	1,530
August	221	16	61.9	3,810
September	925	16	141	8,390
The year	925	1	50.9	36,900

Monthly discharge of West Turkey Creek near Light, Ariz., for the year ending ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
March	0.5	0	0.39	24
April	.5	0	.25	15
July	48	0	3.48	214
August	24	.5	2.27	140
September	24	.5	10.0	596
The period	48	0	1.37	995

NOTE.—See footnote to daily-discharge table.

WHITEWATER DRAW BASIN

WHITEWATER DRAW NEAR RUCKER, ARIZ.

LOCATION.—In sec. 29, T. 19 S., R. 29 E., at Heyne ranch, 6 miles east of Rucker, Cochise County.

DRAINAGE AREA.—40 square miles (measured on topographic map).

RECORDS AVAILABLE.—August 7, 1919, to September 30, 1925, when station was discontinued.

GAGE.—Vertical enamel staff fastened to tree on left bank; read by F. W. Heyne.

DISCHARGE MEASUREMENTS.—Made from cable 100 feet below gage or by wading.

CHANNEL AND CONTROL.—Channel composed of boulders, gravel, and bedrock, with pronounced drop 300 feet below gage. Channel fairly straight and fairly uniform in cross section.

EXTREMES OF DISCHARGE.—Maximum stage during year, 4.3 feet at 1.30 p. m. July 23 (discharge, 910 second-feet); no flow during greater part of year. 1919–1925: Maximum mean daily discharge, 1,240 second-feet November 23, 1919; no flow during periods in 1920 and 1922–1925.

DIVERSIONS.—Minor diversions above and below station.

REGULATION.—None.

COOPERATION.—Records furnished by University of Arizona, Prof. G. E. P. Smith, irrigation engineer.

Daily discharge, in second-feet, of Whitewater Draw near Rucker, Ariz., for the year ending September 30, 1925

Day	Oct.	Feb.	Mar.	June	July	Aug.	Sept.
1	0.5		0.5			69	48
2	.5		.5			44	49
3	.5		.5			27	47
4	.5		.5		50	19	73
5	.5		.5		3	17	47
6			.5			15	33
7			.5			16	27
8			.5			17	23
9			.5			18	19
10			.5			15	16
11			.5			13	14
12			.5			11	12
13			.5			7	11
14			.5			5	10
15			.5			4	8

Daily discharge, in second-feet, of Whitewater Draw near Rucker, Ariz., for the year ending September 30, 1925—Continued

Day	Oct.	Feb	Mar.	June	July	Aug.	Sept.
16			0.5			4	7
17			.5			15	5
18		0.5	.5			10	4
19		.5	.5			6	4
20		.5	.5		11	4	4
21		.5	.5			3	4
22		.5	.5		47	2	4
23		.5	.5	20	145	2	3
24		.5	.5		9	2	3
25		.5	.5		13	2	3
26		.5	.5		0.5	2	2
27		.5			8	2	2
28		.5			0.5	12	2
29					18	18	2
30					175	9	2
31					175	19	

NOTE.—Stream dry on days for which no record is given except Oct. 6–15, Feb. 15–17, Mar. 27–31, and Apr. 1–11, when there was only a trace of water.

Monthly discharge of Whitewater Draw near Rucker, Ariz., for the year ending September 30, 1925

Month	Discharge in second-feet			Run-off in acre-feet
	Maximum	Minimum	Mean	
October	0.5	0	0.08	5
November	0	0	0	0
December	0	0	0	0
January	0	0	0	0
February	.5	0	.20	11
March	.5		.42	26
April		0	0	0
May	0	0	0	0
June	20	0	.7	42
July	175	0	21.1	1,300
August	69	2	13.2	812
September	73	2	16.3	970
The year	175	0	4.36	3,170

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, 1925, are listed in the following table:

Miscellaneous discharge measurements in Colorado River Basin during the year ending September 30, 1925

Date	Stream	Tributary to—	Locality	Gage height	Discharge
				Feet	*Sec.-ft.*
Apr. 30	Currant Creek	Strawberry River	SE. ¼ sec. 21, T. 3 S., R. 9 W., just below Deep Creek, 5 miles southwest of Fruitland, Utah.	3.20	66.7
Aug. 7	do	do	do	2.46	17.0
Apr. 3	East Fork of Lake Fork.	Lake Fork	Sec. 16, T. 1 N., R. 4 W. half a mile above Payne Canal and 7 miles northwest of Altonah, Utah.		57.0
18	Fish Creek	Price River	SW. ¼ sec. 26, T. 11 S., R. 8 E., 1 mile south of Colton, Utah.		153
20	Price River	Green River	SE. ¼ sec. 9, T. 18 S., R. 14 E., at Utah Power & Light Co.'s gaging station at Woodside, Utah.	2.59	61.4
June 13	do	do	do	2.35	24.5
Aug. 17	do	do	do	1.85	4.1
Apr. 18	White River	Price River	NW. ¼ sec. 26, T. 11 S., R. 8 E., a quarter of a mile below Colton, Utah.		38.7
Mar. 22	Williams River	Colorado River	Head of box canyon at middle dam site, near Alamo, Ariz.	1.48	13.6
27	do	do	do	1.59	22.8
28	do	do	do	1.51	15.2
Apr. 1	do	do	do	1.50	10.7
4	do	do	do	1.50	11.0
6	Burro Creek	Williams River	Yavapai County line, Ariz.		5.3
5	Trout Creek	do	J. A. Farrell ranch, Ariz.		7.5
Oct. 5	Shriver Canal	Gila River	Duncan, Ariz.		2.9
25	San Pedro River	do	Charleston, Ariz.		11.2
29	do	do	do		8.9
Nov. 20	do	do	do		9.8
Dec. 7	do	do	do		16.6
Jan. 4	do	do	do		15.6
Feb. 15	do	do	do		22.3
15	do	do	Below Curtis Dam, Ariz.		15.5
Oct. 25	Boquillas East ditch	San Pedro River	At head near Fairbank, Ariz.		4.8
29	do	do	do		2.0
Nov. 20	do	do	do		1.8
Dec. 7	do	do	do		3.6
Oct. 25	Boquillas West ditch	do	do		1.7
29	do	do	do		3.0
Nov. 20	do	do	do		1.5
Dec. 7	do	do	do		9.8

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